11-17-2023 LETTING ITEM 024

PROJECT LOCATED IN THE **VILLAGES OF COUNTRY CLUB** HILLS AND HAZEL CREST

0

0

0

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

2021-059-RS&BJR ILLINOIS CONTRACT NO. 62N96

* 185 + 3 = 188 TOTAL SHEETS

D-91-150-21



FOR INDEX OF SHEETS, SEE SHEET NO. 2

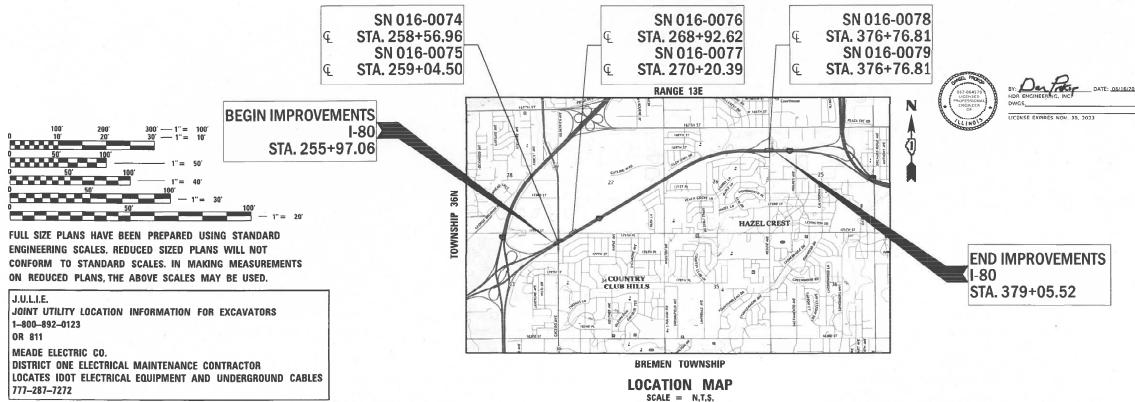
DESIGN DESIGNATION:			
I-80	=	INTERSTATE	
CICERO AVENUE	=	PRINCIPAL ARTERIAL	
175th STREET	=	MAJOR COLLECTOR	
KEDZIE AVENUE	-	MINOR ARTERIAL	
ADT:			
I-80	=	80,700	
CICERO AVENUE	=	15,300	
175th STREET	=	11,200	
KEDZIE AVENUE	=	21,500	
POSTED SPEED:			
1-80	=	55 MPH	
CICERO AVENUE	=	50 MPH	
175th STREET	=	40 MPH	
KEDZIE AVENUE	=	40 MPH	

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255

PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 80: I-80 I-57 TO KEDZIE AVE. SECTION 2021-059-RS&BJR PROJECT NHPP-6FMW(516) **BRIDGE DECK OVERLAY BRIDGE REPAIR AND JOINT REPAIRS COOK COUNTY**

C-91-185-21



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SUBMITTED JUNE 24 20 23 October 13, October 13, 2023

> PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GROSS LENGTH = 12,308 FT. = 2.33 MILE NET LENGTH = 1,852 FT. = 0.35 MILE

9450 W. Bryn Mawr Ave., Suite 400 Rosemont, IL 60018 773-380-7900

DESIGN FIRM REGISTRATION NUMBER 184.001070

PROJECT MANAGER: FAWAD AQUEEL

CONTRACT NO. 62N96

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2			INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES	(
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181			TC 17 TRAFFIC CONTROL FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	7
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184			TC 22 ARTERIAL ROAD INFORMATION SIGN	
185			TC-33 SMART TRAFFIC MONITORING SYSTEM	

HIGHWAY STANDARDS

	0171112711120
STANDARD NO.	TITLE
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND A FOOT
442201-03	CLASS C AND D PATCHES
515001-04	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC / HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-02	DELINEATORS
642001-03	SHOULDER RUMBLE STRIPS, 16 IN
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15'(4.5M) AWAY
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS \geq 45 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-08	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

GENERAL NOTES

- 1. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF COUNTRY CLUB
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN
 PERMISSION FROM THE DEPARTMENT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR
 TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 4. THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ ILLINOIS.GOV, THE EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT CARLOS.MUNOZ@ILLINOIS.GOV, AND THE EXPRESSWAY FIELD ENGINEER AT (847) 705-4155 A MINIMUM OF 72 HOURS PRIOR TO START.
- THE CONTRACTOR SHALL CONTACT REGINA COOPER, SOUTH AREA TRAFFIC FIELD ENGINEER, AT REGINA.COOPER2@ILLINOIS.GOV AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 6. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS THAT WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
- ALL DAMAGE TO SIGNAGE, PAVEMENT MARKINGS, AND REFLECTORS, OUTSIDE OF THE REMOVAL CALLOUTS IN THE PLANS, SHALL BE REPLACED OR REPAIRED AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE THROUGHOUT THE DURATION OF THE CONTRACT AND MAINTAIN ALL
 PUBLIC AND PRIVATE DRAINS.
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 10. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 11. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC.
- 12. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
- 13. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- 14. BEFORE BEGINNING ANY WORK, THE RESIDENT ENGINEER SHALL RETAIN AND RECORD FOR FUTURE REFERENCE ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- ALL EXTRA EXCAVATED MATERIAL SHALL BE PLACED WITHIN IDOT RIGHT OF WAY, WITHIN THE PROJECT LIMITS, AT THE DIRECTION OF THE ENGINEER.
- MISCELLANEOUS PAY ITEMS HAVE BEEN INCLUDED FOR THE RESIDENT ENGINEER TO USE AT THEIR DISCRETION. ITEMS
 INCLUDING SEEDING, FERTILIZER, EROSION CONTROL BLANKET, PAVEMENT PATCHING, EPOXY CRACK FILLING, AND DECK SLAB
 (FULL DEPTH).
- INSTALL INLET FILTERS IN DRAINAGE STRUCTURES WITHIN REMOVAL LIMITS OF PROJECT, PRIOR TO REMOVALS AND SCARIFICATION. REMOVE INLET FILTERS AFTER WORK IS COMPLETED.
- 18. MONODIRECTIONAL REFLECTORS, TYPE C, SHALL BE INSTALLED ON TEMPORARY BARRIER WALLS AND BRIDGE PARAPET WALLS AT EACH BRIDGE IN EACH STAGE. REFLECTORS SHALL BE INSTALLED PER STANDARDS 704001 AND 782006. REFLECTORS SHALL BE YELLOW ON THE LEFT SIDE OF TRAFFIC FLOW AND WHITE ON THE RIGHT, EASTBOUND AND WESTBOUND.
- 19. EXISTING HMA STABILIZATION AT GUARDRAIL TO BE SAWCUT AT THE EDGE OF PAVED SHOULDER AND FULLY REMOVED WITHIN LIMITS OF GUARDRAIL REPLACEMENT. THIS WORK WILL BE PAID FOR AS PAVED SHOULDER REMOVAL.

COMMITMENTS

NONE

FDS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AV ROSEMONT, IL 60018

	USER NAME = RAZEVEDO	DESIGNED	-	NSA	REVISED	-
.		DRAWN	-	NSA	REVISED	-
•	PLOT SCALE = 100.0000 / in.	CHECKED	-	DJP	REVISED	-
	PLOT DATE = 6/13/2023	DATE	-	06/16/2023	REVISED	-

INDE	X OF S	HEE	TS, S	TAI	NDARDS	, & GE	ENERAL NOTES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	I–80							80	2021-059-RS&BJR	СООК	185	2
	I-0U									CONTRAC	F NO. 6	2N96
	SHEET	1	OF	1	SHEETS	STA	TO STA		TURNOUS FED	AID DROIFET		

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
20200100	EARTH EXCAVATION	CU YD	12	12							
25000210	SEEDING, CLASS 2A	ACRE	0.5	0.5							
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45							
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45							
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45							
25100630	EROSION CONTROL BLANKET	SQ YD	2,380	2,380							
28000510	INLET FILTERS	EACH	6	6							
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	244				244				
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	6,653	6,653							
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	8.7	8.7							
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	3,111	3,111							
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	490	490							
40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80	TON	864	864							
44004250	PAVED SHOULDER REMOVAL	SQ YD	1,239	1,239							
44200549	CLASS A PATCHES, TYPE I, 10 INCH	SQ YD	213	213							
44200553	CLASS A PATCHES, TYPE II, 10 INCH	SQ YD	213	213							
44201717	CLASS D PATCHES, TYPE II, 6 INCH	SQ YD	122	122							
44201721	CLASS D PATCHES, TYPE III, 6 INCH	SQ YD	122	122							

<u>LEGEND</u>

* - DENOTES
SPECIALTY ITEM

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

	USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
_		DRAWN - NSA	REVISED -
E.	PLOT SCALE = 100.0000 ' / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

		SUI	им/	ARY	OF QUA	ANTITIES		F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
	I–80								2021-059-RS&BJR		соок	185	3
											CONTRACT	NO. 6	2N96
	SHEET	1	OF	7	SHEETS	STA.	TO STA.		ILLINOIS FE	ED. AID	PROJECT		

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
50102400	CONCRETE REMOVAL	CU YD	154.6		21.5	22.5	38.3	35.7	18.3	18.3	
50104650	SLOPE WALL REMOVAL	SQ YD	382				382				
50157300	PROTECTIVE SHIELD	SQ YD	4,636		792	792	846	846	680	680	
50300225	CONCRETE STRUCTURES	CU YD	138.0		32.1	36.4			36.2	33.3	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	175.4		24.2	25.5	43.2	40.7	21.0	21.1	
50300300	PROTECTIVE COAT	SQ YD	13,837		2,211	2,210	2,791	2,808	1,907	1,910	
50500105			24.450								
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	31,460		11,940	18,300			610	610	
E090030E	REINFORCEMENT BARS, EPOXY COATED	POUND	41,120		7,840	8,130	4,850	4,840	7,810	7,650	
30800203	REINFORCEMENT BARS, EPOXT COATED	POUND	41,120		7,640	8,130	4,630	4,040	7,010	7,630	
50800515	BAR SPLICERS	EACH	144		24	24	24	24	24	24	
30000313	DAN 3. LICENS	EACH	14-1		2-7	2-7	2-7		2-1	27	
51100100	SLOPE WALL 4 INCH	SQ YD	382				382				
		,									
52000110	PREFORMED JOINT STRIP SEAL	FOOT	750.0		139.0	139.0	116.0	116.0	120.0	120.0	
52000340	NEOPRENE EXPANSION JOINT 4"	FOOT	232.0				116.0	116.0			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	1					1			
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	2				2				
52100520	ANCHOR BOLTS, 1"	EACH	6				4	2			-
59000200	EPOXY CRACK INJECTION	FOOT	300		50	50	50	50	50	50	-
			_	_							
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	66	66							
00000											
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	700	700							

<u>LEGEND</u>

* - DENOTES
SPECIALTY ITEM

COUNTY SHEETS NO.
COOK 185 4
CONTRACT NO. 62N96

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - DJP	REVISED -
PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

									F.A.I. SECTION			COUNTY
									2021-059	-RS&BJR		COOK
					1-00			Ţ				CONTRA
	SHEET	2	OF	7	SHEETS	STA.	TO STA.		1	ILLINOIS Í	FED. A	D PROJECT

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
* 6300000	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	1,662.5	1662.5							
* 6300001	7 STEEL PLATE BEAM GUARDRAIL, TYPE D, 6 FOOT POSTS	FOOT	287.5	287.5							
* 6310004	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4	4							
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	11	11							
* 6310008	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	12	12							
* 6310016	7 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	5	5							
6320031	GUARDRAIL REMOVAL	FOOT	3,475	3,475							
6420011	5 SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	13,317	13,317							
* 6690020	NON-SPECIAL WASTE DISPOSAL	CU YD	12	12							
* 6690053) SOIL DISPOSAL ANALYSIS	EACH	1	1							
* 6690100	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	1							
* 6690100	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	1							
* 66901000	REGULATED SUBSTANCES MONITORING	CAL DA	3	3							
6710010) MOBILIZATION	L SUM	1	1							
7010680	CHANGEABLE MESSAGE SIGN	CAL MO	12	12							
7030015	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	34,229	34,229							
7040010) TEMPORARY CONCRETE BARRIER	FOOT	5,262.5	5262.5							
7040012	PINNING TEMPORARY CONCRETE BARRIER	EACH	858	858							LEGE *- DENO

* - DENOTES SPECIALTY ITEM

USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - DJP	REVISED -
PLOT DATE = 6/30/2023	DATE - 06/16/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	SUN	има	\RY	OF QUA	MTITIE	s	F.A.I. RTE.	SECTION			TOTAL	
				I-80		Ĭ	80	2021-059-RS&BJR		соок	185	5
				1-00						CONTRACT	NO. 62	2N96
SHEET	3	OF	7	SHEETS[STA.	TO STA.		(ILLINOIS (F	ED. All	D PROJECT		

	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	4,862.5	4862.5							
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	6	6							
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4							
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	30,193	30,193							
*	78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	8,533	8,533							
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	10,027	10,027							
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,642	1,642							
*	78004640	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 8"	FOOT	697	697							
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	2,785	2,785							
*	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	117	117							
*	78011045	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	697	697							
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	196	196							
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	70	70							
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	196	196							
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	22,585	22,585							
	X0323491	SLOPE WALL CRACK SEALING	FOOT	1,023		164	209	650				
	X0325201	SHOULDER RUMBLE STRIP REMOVAL	SQ YD	3,201	3,201							

*- DENOTES
SPECIALTY ITEM

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	SUN	лма	RY	OF QUA	NTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
				I-80			80	2021-059-RS&BJR	COOK	185	6
				1-00					CONTRAC	T NO. 62	2N96
SHEET	4	OF	7	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

CODE NO.	DESCRIPTION	UNIT	total quantity URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	1,308	1,308							
X0549200	CLEANING PAVED DITCH	FOOT	1,232								1,232
X1300003	CLEAN APPROACH SLAB DRAIN	EACH	6								6
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	5,572		859	859	1,190	1,190	737	737	
X6030205	FRAMES AND GRATES TO BE ADJUSTED (SPECIAL)	EACH	6		1	1	1	1	1	1	
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12							
X70 1 0216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1							
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1							
X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	90	90							
X7035104	TEMPORARY EPOXY PAVEMENT MARKING - LINE 4"	FOOT	53,6 55	53,6 55							
X7035105	TEMPORARY EPOXY PAVEMENT MARKING - LINE 5"	FOOT	4,017	4,017							
X7035106	TEMPORARY EPOXY PAVEMENT MARKING - LINE 6"	FOOT	9,701	9,701							
X7035108	TEMPORARY EPOXY PAVEMENT MARKING - LINE 8"	FOOT	11,936	11,936							
X7035112	TEMPORARY EPOXY PAVEMENT MARKING - LINE 12"	FOOT	1,862	1,862							
X7830050	RAISED REFLECTIVE PAVEMENT MARKING, REFLECTOR REMOVAL	EACH	381	381							
X8570000	SMART TRAFFIC MONITORING SYSTEM	L SUM	1	1							
Z0001700	APPROACH SLAB REPAIR (FULL DEPTH)	SQ YD	30		8	7	6	5		4	
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	3				2	1			
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	25,240		9,480	14,580			590	590	LE

* - DENOTES SPECIALTY ITEM

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

	USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED _
_		DRAWN - NSA	REVISED -
Ξ.	PLOT SCALE = 100.0000 ' / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 6/30/2023	DATE - 06/16/2023	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	SUN	лма	RY	OF QUA	NTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				I-80			80	2021-059-RS&BJR	соок	185	7
				1-00					CONTRACT	NO. 62	2N96
SHEET	5	OF	7	SHEETS	STA.	TO STA.		(ILLINOIS (FEE	D. AID PROJECT		

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY URBAN	0006 ROADWAY 90% FED/ 10% STATE	0047 016-0074 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0075 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0076 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0077 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0078 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 016-0079 BRIDGE REHABILITATION 90% FED/ 10% STATE	0047 BRIDGE REHABILITATION 100% STATE
Z0001905	STRUCTURAL STEEL REPAIR	POUND	490			330				160	
Z0003600	BEAM STRAIGHTENING	L SUM	1						1		
Z0005216	HOT-MIX ASPHALT STABILIZATION 6" AT STEEL PLATE BEAM GUARD RAIL	SQ YD	1,220	1,220							
Z0006018	BRIDGE DECK LATEX CONCRETE OVERLAY, 3 INCHES	SQ YD	8,634		1,336	1,336	1,835	1,835	1,146	1,146	
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1		1						
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1			1					
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1				1				
Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1					1			
Z0007105	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1						1		
Z0007106	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 6	L SUM	1							1	
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1						
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1			1					
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1				1				
Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1					1			
Z0010505	CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1						1		
Z0010506	CLEANING AND PAINTING STEEL BRIDGE NO. 6	L SUM	1							1	
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	8,634		1,336	1,336	1,835	1,835	1,146	1,146	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	470		129	71	85	74	79	32	LEGE

* - DENOTES SPECIALTY ITEM

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

*- DENOTES

SPECIALTY ITEM

TOTAL SHEET
SHEETS NO.

		USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
トソン	HDR ENGINEERING, INC.		DRAWN - NSA	REVISED -
「ノ く	9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018	PLOT SCALE = 100.0000 ' / in.	CHECKED - DJP	REVISED -
		PLOT DATE = 6/30/2023	DATE - 06/16/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

44004250		PAVED	SHOULDER R	EMOVAL	
STA	STA	LT / RT	AREA (SF)	UNIT CONV.	SQ YD
254+52.10	258+06.09	RT	1063.95	0.11	118,22
256+46.47	258+40.46	LT	586.67	0.11	65.19
256+29.84	258+52.31	LT	667.40	0.11	74.16
260+41.36	261+07.26	RT	197.71	0.11	21,97
260+75.72	261+41.63	LT	197.72	0.11	21.97
260+87.57	261+53.73	LT	198.47	0.11	22,05
261+21.94	261+88.10	LT	198.47	0.11	22.05
265+28.04	265+90.73	LT	188.08	0.11	20.90
266+25.61	266+88.31	LT	218.41	0.11	24.27
266+56.96	267+21.95	LT	295.14	0.11	32.79
267+54.55	268+19.52	RT	194.93	0.11	21.66
269+15.11	272+12.60	LT	892.47	0.11	99.16
270+12,68	272+10.18	LT	592.38	0.11	65.82
270+46.33	271+56.33	LT	329.70	0.11	36.63
271+43.90	274+16.39	RT	817.46	0.11	90.83
373+09.96	376+41.77	RT	995.49	0.11	110.61
375+22.78	376+41.77	LT	361.70	0.11	40.19
374+07.00	376+44.51	LT	715.29	0.11	79.48
375+31.43	376+41.43	LT	330.03	0.11	36.67
378+43.63	380+56.13	RT	642.29	0.11	71.37
378+43.63	379+10.38	LT	199.51	0.11	22.17
378+44.28	379+10.03	LT	197.26	0.11	21.92
378+43.29	381+90.96	LT	1063.68	0.11	118.19
		TOTAL			1,239

63000001	STEEL PLAT	STEEL PLATE BEAM GUARDRAIL, POSTS							
STA	STA	OFFSET	LENGTH	FOOT					
256+92.30	258+42.30	LT	150.00	150.00					
257+17.96	258+05.46	LT	87.50	87.50					
260+85.72	261+35.72	LT	50.00	50.00					
261+22.57	261+47.57	LT	25.00	25.00					
266+28.31	266+78.31	LT	50.00	50.00					
266+61.95	266+86.95	LT	25.00	25.00					
270+47.69	271+47.69	LT	100.00	100.00					
270+56.33	271+43.83	LT	87.50	87.50					
375+57.00	376+32.00	LT	75.00	75.00					
375+94.27	376+06.77	LT	12.50	12.50					
378+56.79	378+81.79	LT	25.00	25.00					
378+81.78	378+94.28	LT	12.50	12.50					
	TO	TAL		700					

63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS			
STA	STA	OFFSET	LENGTH	FOOT
255+23.83	257+73.83	RT	250.00	250.00
260+51.36	261+01.36	RT	50.00	50,00
261+56.94	261+81.94	LT	25.00	25.00
265+30.73	265+80.73	LT	50.00	50.00
267+59.52	267+84.52	RT	25.00	25.00
269+50.11	272+12.61	LT	262.50	262.50
271+53.89	274+03.89	RT	250.00	250.00
373+81.75	376+06.75	RT	225.00	225.00
375+43.93	376+31.43	LT	87.50	87.50
378+56.13	380+56.13	RT	200.00	200.00
378+81.68	381+19.18	LT	237.50	237.50
378+81.78	378+94.28	LT	12.50	12.50
	1662.50			

63000017	STEEL PLATE BEAM GUARDRAIL, TYPE D, 6 FOOT POSTS					
STA STA OFFSET LENGTH FOOT						
256+29.80	256+92.30	LT	62.50	62.50		
271+47.69	272+10.19	LT	62.50	62.50		
374+07.00	375+57.00	LT	150.00	150.00		
378+94.28	379+06.78	LT	12,50	12.50		
TOTAL				287.50		

63100045	TRAFFIC BARRIER TERMINAL, TYPE 2					
STA	OFFSET	LT / RT	EACH			
271+43.83	12.00	LT	1.00			
274+10.14	46.00	RT	1.00			
375+31.43	90.00	LT	1.00			
378+81.79	1.00					
	4					

63100070	TRAFFIC BARRIER TERMINAL, TYPE 5				
STA OFFSET LT / RT EACH					
258+42,30	32.00	LT	1.00		
260+38.86	46.00	RT	1.00		
260+73.22	12.00	LT	1.00		
265+80.73	90.00	LT	1.00		
266+78.31	32.00	LT	1.00		
270+43.83	12.00	LT	1.00		
271+41.39	46.00	RT	1.00		
376+32.00	32.00	LT	1.00		
376+32.00	90.00	LT	1.00		
378+44.29	12.00	LT	1.00		
378+43.63	46.00	RT	1.00		
 I	11				

63100085	TRAFFIC BARRIER TERMINAL, TYPE 6						
CTA .							
STA	OFFSET	LT / RT	EACH				
257+73.83	46.00	RT	1.00				
258+05.46	12.00	LT	1.00				
260+85.07	32.00	LT	1.00				
261+19.44	90.00	LT	1.00				
266+86.95	12.00	LT	1.00				
267+84.52	46.00	RT	1.00				
269+12.61	90.00	LT	1.00				
270+10.19	32.00	LT	1.00				
376+06.75	12.00	LT	1.00				
376+06.75	46.00	RT	1.00				
378+44.18	32.00	LT	1.00				
378+44.18	90.00	LT	1.00				
	TOTAL						

63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT					
STA	OFFSET	OFFSET LT / RT EACH				
254+86.36	47.88	RT	1.00			
256+80.47	12.81 LT		1.00			
373+44.26	46.81	1.00				
375+56.78	13.05	LT	1.00			
381+56.68	381+56.68 90.4 LT					
	TOTAL					

63200310	GUARDRAIL REMOVAL				
STA	STA	OFFSET	LENGTH	FOOT	
254+86.36	258+08.59	RT	325.0000	325.00	
256+80.47	258+50.79	LT	162.5000	162.50	
256+29.83	258+54.81	LT	225.0000	225.00	
260+38,86	260+01.36	RT	62,5000	62,50	
260+73.22	261+35.72	LT	62.5000	62.50	
260+85.07	261+47.57	LT	62,5000	62,50	
261+19.44	261+81.94	LT	62.5000	62.50	
265+30.73	265+93.23	LT	62,5000	62.50	
266+28.31	266+90.81	LT	62.5000	62.50	
266+61.95	267+24.45	LT	62.5000	62.50	
267+59.52	268+22.02	RT	62.5000	62.50	
269+12.61	272+12.61	LT	300.0000	300.00	
270+10.19	272+10.19	LT	200,0000	200.00	
270+43.83	271+56.33	LT	112.5000	112.50	
271+41.39	274+16.39	RT	275.0000	275.00	
373+44.26	376+44.25	RT	300.0000	300.00	
374+07.00	376+44.50	LT	87.5000	87.50	
375+31.43	376+43.93	LT	237.5000	237.50	
375+56.78	376+44.27	LT	112,5000	112.50	
378+43.63	380+56.13	RT	212.5000	212.50	
378+43.63	378+94.29	LT	50.0000	50.00	
378+43.63	379+06.78	LT	62.5000	62.50	
378+43.63	381+56.68	LT	312.5000	312.50	
	TO	ΓAL		3,475.00	

USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -

SCHEDULE OF QUANTITIES I—80		SECTION	COUNTY	TOTAL SHEETS	
		2021-059-RS&BJR	COOK	185	10
I-00			CONTRACT	Г NO. 62	2N96
SHEET 1 OF 2 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT				

64200116	SHOULDER	RUMBLE STR	IPS, 16 INCH			
STA	STA	LT / RT	FOOT			
254+21.4	257+92.4	RT	370.9			
246+45.1	258+15.5	LT	1,170.4			
250+46.5	258+37.9	LT	791.6			
257+64.5	258+61.1	LT	96.6			
260+66.9	267+86.3	RT	719.3			
260+90.1	267+20.7	LT	630,6			
261+12.6	266+58.7	LT	546.1			
261+35.7	265+93.1	LT	457.4			
269+46.5	278+18.1	LT	871.7			
270+12.1	277+68.7	LT	756.6			
270+77.9	278+82.7	LT	804.8			
271+43.6	279+45.7	RT	802.2			
369+33.4	376+22.3	RT	688.9			
368+88.6	376+22.3	LT	733.7			
369+32.7	376+21.9	LT	689.3			
368+92.9	376+21.9	LT	729.0			
378+66.5	385+20.6	RT	654.1			
378+66.5	384+54.7	LT	588.2			
378+66.2	384+01.6	LT	535.4			
378+66.2	385+46.4	LT	680.3			
TOTAL			13,317			

70400100	TEMPORARY CONCRETE BARRIER				
STA	STA OFFSET FOOT				
	I-80 ST	ΓAGE 1			
255+87.90	273+13.09	LT	1725.5		
254+93.54	273+80.58	RT	1887.5		
373+98.25	380+10.40	LT	612.5		
373+40.87	379+65.53 RT		625		
CICERO	AVE UNDER WI	B I-80 BRIDGE	STAGE 1		
NB CICERO RAISED MEDIAN			200.0		
SB CICERO RA	200.0				
TOTAL 5,262.5					

70400125	5 PINNING TEMPORARY CONCRETE BARRIER*									
STA	OFFSET LT / RT		SET LT / RT SECTION PINS/ LENGTH SECTION LENG		LENGTH	ADDITIONAL PINS AT END	EACH			
			I-80 STA	GE 1						
254+93.64	255+06.06	RT	12.5	3	12.5	3	6			
255+93.09	261+18.08	RT	12.5	3	525	0	126			
256+37.96	261+62.96	RT	12.5	3	525	3	129			
265+88.43	272+13.43	LT	12.5	3	625	0	150			
267+10.50	273+35.50	LT	12.5	3	625	3	153			
273+00.63	273+13.09	LT	12.5	3	12.5	3	6			
373+40.87	373+53.33	RT	12.5	3	12.5	3	6			
374+43.03	379+05.53	RT	12.5	3	462.5	3	114			
374+43.25	379+05.75	LT	12.5	3	462.5	3	114			
379+97.95	380+10.40	LT	12.5	3	12.5	3	6			
			I-80 STA	GE 2						
254+87.40	254+99.86	RT	12,5	3	12.5	3	6			
255+90.63	256+03.12	LT	12.5	3	12.5	3	6			
273+02.75	273+15.21	LT	12.5	3	12.5	3	6			
273+63.06	273+74.56	RT	12.5	3	12.5	3	6			
373+40.86	373+53.32	RT	12.5	3	12.5	3	6			
373+98.25	374+10.75	LT	12.5	3	12.5	3	6			
379+53.00	379+65.50	RT	12.5	3	12.5	3	6			
379+97.92	380+10.38	LT	12.5	3	12.5	3	6			
			TOTAL				858.00			

70400200	RELOCATE TEMPORARY CONCRETE BARRIER							
STA	OFFSET	FOOT						
I-80 STAGE 2								
254+87.40	273+74.56	RT	1887.5					
255+90.63	273+15.27	LT	1725.5					
373+40.86	379+65.50	RT	625					
373+98.25	380+10.38	LT	612.5					
TOTAL 486								

70600260	TEMPORA REDIRECTIVE,	TENUATORS, .RY (FULLY NARROW), TEST 'EL 3			
STA	OFFSET	EACH			
I-80 STAGE 1					
354+65.40	RT	1			
273+37.21	LT	1			
373+18.86	RT	1			
380+32.38	LT	1			
CICERO AVE UNDER WB I-80 BRIDGE STAGE 1					
NB CICERO RA	1				
SB CICERO RA	SB CICERO RAISED MEDIAN				
I TO	6				

70600332	RELOCAT REDIRECTIVE	ENUATORS, E (FULLY E, NARROW), EVEL 3					
STA	OFFSET EACH						
I-80 STAGE 2							
254+71.64	RT	1					
273+35.09	LT	1					
373+18.87	RT	1					
380+32.40	LT	1					
TO-	1						
TOTAL 4							

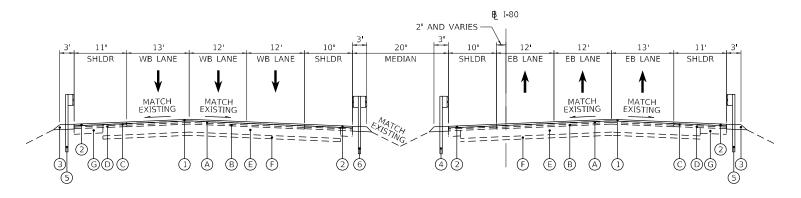
X0325201	SHOULDER RUMBLE STRIP REMOVAL										
STA	STA	LT / RT	AREA (SF)	UNIT CONV.	SQ YD						
246+45.3	258+46.3	LT	2800,60	1/9	311.18						
250+46.9	258+68.6	LT	1916.01	1/9	212.89						
254+21.4	255+97.1	RT	409.78	1/9	45.53						
261+06.4	267+50.4	RT	1499.87	1/9	166.65						
260+59.5	267+52.3	LT	1610.47	1/9	178.94						
260+81.8	266+89.0	LT	1410.55	1/9	156.73						
261+73.9	265+54.7	LT	882.48	1/9	98.05						
269+82.3	277+68.7	LT	1840.55	1/9	204.51						
270+45.7	278+82.7	LT	1948.43	1/9	216.49						
272+08.0	278+18.1	LT	1423.76	1/9	158.20						
273+35.5	279+45.7	RT	1423.80	1/9	158.20						
368+92.9	374+43.2	LT	1274.45	1/9	141.61						
369+32.5	376+52.3	LT	1696.15	1/9	188.46						
368+88.6	376+51.4	LT	1779.75	1/9	197.75						
369+33.4	374+43.2	RT	1185.56	1/9	131.73						
378+36.5	384+01.6	LT	1333.63	1/9	148.18						
378+36.5	384+57.7	LT	1442.52	1/9	160.28						
379+05.5	385+46.5	LT	1495.49	1/9	166.17						
379+05.5	385+20.6	RT	1435.16	1/9	159.46						
		TOTAL			3,201						
		TOTAL			3,201						

*QUANTITY FOR PINNING OF TEMPORARY CONCRETE BARRIER HAS BEEN INCLUDED IN THE CONTRACT. PINNING AT BRIDGE DECKS SHALL BE INSTALLED AS REQUIRED PER DETAIL R-27 OR AS DIRECTED BY THE ENGINEER.

USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -

EXISTING I-80 TYPICAL SECTION

LOOKING EASTBOUND STA 222+32.30 TO STA 409+63.65



PROPOSED I-80 TYPICAL SECTION

LOOKING EASTBOUND

*PAVEMENT RESURFACING TO BE PERFORMED
AT THE FOLLOWING STATION RANGES:
(BRIDGE OMISSIONS INCLUDED)
EB STA 255+97.06 TO STA 261+34.22
WB STA 256+38.49 TO STA 261+80.44
EB STA 266+67.45 TO STA 273+35.50
WB STA 265+36.23 TO STA 272+07.92
EB & WB STA 374+43.24 TO STA 379+05.52

HOT-MIX ASPHALT MIXTURE REQUIREMENTS						
MIXTURE TYPE	AIR VOIDS @ NDES	QMP				
PAVEMENT OVERLAY - I-80	'					
POLYMERIZED HMA SURFACE COURSE, SMA, 9.5, MIX "F", N80, 2" 3.5% @ 80 GYR. QC						
SHOULDER RUMBLE STRIP REMOVAL - I-80						
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 2"	4% @ 70 GYR.	QC/QA				
SHOULDER OVERLAY - I-80						
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 2"	4% @ 70 GYR.	QC/QA				
CLASS D PATCHES - I-80		,				
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 2"	4% @ 70 GYR.	QC/QA				
HOT-MIX ASPHALT STABILIZATION 6" AT STEEL PLATE BEAM GUARD RAIL	-					
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 6"						

NOTES FOR HMA MIXTURE REQUIREMENTS:

- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.
- 3. FOR THE EXISTING HMA SURFACE, THE CONTRACTOR SHALL DO PAVEMENT PATCHING FIRST, THEN PAVEMENT MILLING PER BD-22 DETAIL.

FJ3	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE.
1) \	ROSEMONT, IL 60018

USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -	
	DRAWN - NSA	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - DJP	REVISED -	
PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS							F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
I–80						80	2021-059-RS&BJR	СООК	185	12		
								CONTRAC	T NO. 62	2N96		
SCALE: N.T.S.	SHEET	1	OF	1	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

EXISTING LEGEND

- A EXISTING HMA SURFACE COURSE, 2"
- (B) EXISTING HMA BINDER COURSE, 2"
- © EXISTING HMA SURFACE COURSE, 1.5"
- D EXISTING HMA BINDER COURSE, 2.25"
- (E) EXISTING C.R.C. PAVEMENT, 10"
- (F) EXISTING SUB-BASE, 4"
- G EXISTING STAB. SHOULDER, 14"
- H EXISTING GUARDRAIL

PROPOSED LEGEND

- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 2"
- 2 HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 2"
- (3) HOT-MIX ASPHALT STABILIZATION 6" AT STEEL PLATE BEAM GUARDRAIL
- 4 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- (5) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- 6 STEEL PLATE BEAM GUARDRAIL, TYPE D, 6 FOOT POSTS

NOTES

1. EXISTING HMA STABILIZATION AT GUARDRAIL TO BE SAWCUT AT THE EDGE OF PAVED SHOULDER AND FULLY REMOVED WITHIN LIMITS OF GUARDRAIL REPLACEMENT.

DETOUR PLAN GENERAL NOTES

- 1. SIGN LOCATIONS SHOWN ARE APPROXIMATE. FINAL LOCATION TO BE DETERMINED BY THE ENGINEER AND TO BE BASED ON FIELD CONDITIONS.
- 2. SEE STANDARDS 701901 AND TC-21 FOR ADDITIONAL INFORMATION.
- 3. THE CONTRACTOR SHALL CONTACT JULIE PRIOR TO INSTALLING
- 4. THE TEMPORARY INFORMATION SIGNS (#18) SHALL BE PROVIDED 10 DAYS IN ADVANCE AND THROUGHOUT THE DURATION OF CONSTRUCTION. SIGNS SHALL REMOVED ONCE ROAD IS CLOSED.

DETOUR ROUTE INFORMATION

IL-50/CICERO AVENUE JURISDICTION: IDOT ADT: 15,300 4-LANE 2-WAY MAXIMUM TRAVEL DISTANCE: 2 MILES POSTED SPEED: 50 MPH

KEDZIE AVENUE JURISDICTION: COOK COUNTY ADT: 21.500 2-LANE 2-WAY MAXIMUM TRAVEL DISTANCE: 1 MILE

POSTED SPEED: 40 MPH 183RD STREET

JURISDICTION: COUNTRY CLUB HILLS AND HAZEL CREST

4-LANE 2-WAY MAXIMUM TRAVEL DISTANCE: 2 MILES

POSTED SPEED: 30 MPH, 20 MPH (SCHOOL ZONE) 175TH STREET

JURISDICTION: COOK COUNTY ADT: 11,200

MAXIMUM TRAVEL DISTANCE: 2 MILES

POSTED SPEED: 40 MPH, 20 MPH (SCHOOL ZONE)

DETOUR DESCRIPTION - NB & SB IL-50/CICERO AVE

- 1. NORTHBOUND CICERO AVENUE TRAFFIC TO BE REROUTED ALONG EASTBOUND 183RD ST, NORTHBOUND KEDZIE AVENUE, WESTBOUND 175TH ST TO CICERO AVENUE.
- 2. SOUTHBOUND CICERO AVENUE TRAFFIC TO BE REROUTED ALONG EASTBOUND 175TH ST, SOUTHBOUND KEDZIE AVENUE, WESTBOUND 183RD ST TO CICERO AVENUE.











M6-3-21X15

DETOUR

SOUTH

ILLINOIS

50

1

M4-8-24X12

M3-3-24X12

M6-3-21X15

2-

9)-

9

9-

12-

(9)

(5)

6

4

(12)

(1) (10)

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-(5)

-4

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8 7

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M5-1L-21X15







M4-8-24X12 M3-1-24X12 M3-1-24X12 M3-1-24X12 M1-I100-24X24 M1-I100-24X24 M1-I100-24X24 M1-I100-24X24 M1-I100-24X24 M6-1-21X15 M5-1R-21X15









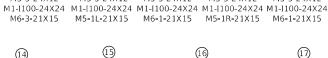




ILLINOIS 50

M4-8-24X12 M3-3-24X12 M3-3-24X12









TO STA.

M4-8-24X12





SOUTH

ILLINOIS

50

ROAD WILL BE CLOSED FROM MMM XX THRU MMM

R11-2-48X30 M4-10L-48X18

R11-3-60X30 M4-10R-48X18

DETOUR PLAN LEGEND



WORK ZONE

22

TEMPORARY SIGN TYPE III BARRICADE



DIRECTION OF REROUTED TRAFFIC

DETOUR SIGN TYPE

DETOUR ROUTE

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

USER NAME = RAZEVEDO	DESIGNED	-	NSA	REVISED	-
	DRAWN	-	NSA	REVISED	-
PLOT SCALE = 400.0000 / in	CHECKED	-	DJP	REVISED	-
PLOT DATE = 6/13/2023	DATE	-	06/16/2023	REVISED	-

		D	ET0	UR PLA	AN .		
		NB	& 9	3B (CICERO	AVENUE	
SCALE: N.T.S.	SHEET	1	OF	27	SHEETS	STA.	

②**--**

18--

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2 (4)

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14

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(8)

FLOSSMOOR RD

167TH ST

175TH ST

183RD ST

10-

(4)

(9)

(8)

4

-7

-+(11)

9

DETOUR PLAN GENERAL NOTES

- 1. SIGN LOCATIONS SHOWN ARE APPROXIMATE. FINAL LOCATION TO BE DETERMINED BY THE ENGINEER AND TO BE BASED ON FIELD CONDITIONS.
- 2. SEE STANDARDS 701901 AND TC-21 FOR ADDITIONAL INFORMATION.
- 3. THE CONTRACTOR SHALL CONTACT JULIE PRIOR TO INSTALLING
- 4. THE TEMPORARY INFORMATION SIGNS (#18) SHALL BE PROVIDED 10 DAYS IN ADVANCE AND THROUGHOUT THE DURATION OF CONSTRUCTION. SIGNS SHALL REMOVED ONCE ROAD IS CLOSED.

DETOUR ROUTE INFORMATION

IL-50/CICERO AVENUE JURISDICTION: IDOT ADT: 15,300 4-LANE 2-WAY MAXIMUM TRAVEL DISTANCE: 2 MILES POSTED SPEED: 50 MPH

KEDZIE AVENUE JURISDICTION: COOK COUNTY ADT: 21.500 2-LANE 2-WAY

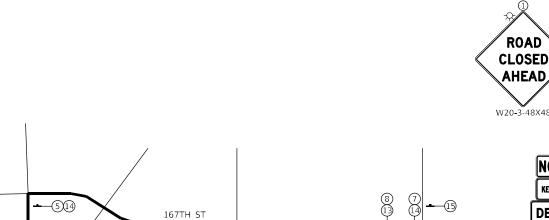
MAXIMUM TRAVEL DISTANCE: 1 MILE POSTED SPEED: 40 MPH

175TH STREET JURISDICTION: COOK COUNTY ADT: 11,200 2-LANE 2-WAY MAXIMUM TRAVEL DISTANCE: 2 MILES POSTED SPEED: 40 MPH, 20 MPH (SCHOOL ZONE) 167TH STREET

JURISDICTION: IDOT ADT: 147 600 MAXIMUM TRAVEL DISTANCE: 0.8 MILES POSTED SPEED: 55 MPH, 20 MPH (SCHOOL ZONE)

DETOUR DESCRIPTION - NB KEDZIE AVE

1. NORTHBOUND KEDZIE AVENUE TRAFFIC TO BE REROUTED ALONG WESTBOUND 175TH ST, NORTHBOUND CICERO AVENUE, EASTBOUND 167TH ST TO KEDZIE AVENUE.



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SCALE: N.T.S.

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712

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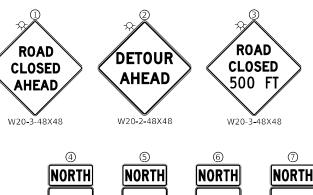
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-49

175TH ST

183RD ST

FLOSSMOOR RD





M4-9-30X24

9

M3-1-24X12 M16-8-24X18 M4-9-30X24

KEDZIE AVE **DETOUR** M3-1-24X12

M16-8-24X18 M4-9-30X24

(11)

DETOUR

WEST

INTERSTATE

M 1-1-36



M3-1-24X12 M16-8-24X18 M4-9-30X24

DETOUR

WEST



DETOUR

WEST



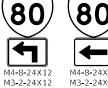
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10 DETOUR DETOUR WEST INTERSTATE 80









INTERSTATE INTERSTATE 80 80



M1-1-36

(17)





14)

DETOUR

WEST

INTERSTATE

80



(18)



M4-8-24X12

M3-2-24X12

M1-1-36

M6-3-21X15









KEDZIE AVE

SPECIAL 24"X18" VARIABLE 6" BLACK LETTERS ON ORANGE REFLECTIVE BACKGROUND

R11-3-60X30 M4-10R-48X18

M16-8-24X18

DETOUR PLAN LEGEND

WORK ZONE

22

TEMPORARY SIGN TYPE III BARRICADE

DIRECTION OF REROUTED TRAFFIC

(1)

DETOUR SIGN TYPE

DETOUR ROUTE

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

SER NAME = RAZEVEDO	DESIGNED	-	NSA	REVISED -
	DRAWN	-	NSA	REVISED -
LOT SCALE = 400.0000 / in.	CHECKED	-	DJP	REVISED -
LOT DATE = 6/16/2023	DATE	-	06/16/2023	REVISED -

SHEET	2	OF	26	SHEETS	STA.	TO STA.

MOT GENERAL NOTES

- 1. TRAFFIC CONDITIONS, CRASHES, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY, OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE OF TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- 2. THE MAINTENANCE OF TRAFFIC PLANS SHALL SERVE AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THE CONTRACT.
 THE CONTRACTOR MAY MODIFY THE MAINTENANCE OF TRAFFIC PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- 3. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY OR EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE STAGING. REMOVAL OF TEMPORARY PAVEMENT MARKING AND EXISTING PAVEMENT MARKINGS WILL BE PAID AS PAVEMENT MARKING REMOVAL WATER BLASTING.
- 4. ALL TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO DRUMS, VERTICAL PANELS, AND BARRICADES IMMEDIATELY ADJACENT TO THE EDGE OF TRAVELLED WAY SHALL BE EQUIPPED WITH MONO-DIRECTIONAL STEADY BURNING LIGHTS.
- 5. THE CONTRACTOR SHALL REMOVE OR COVER ALL EXISTING SIGNS THAT CONFLICT WITH OR DO NOT APPLY TO THE REVISED TRAFFIC PATTERNS AND SHALL RESTORE THE SIGNS AT THE END OF CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE OF TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- 6. AT THE END OF EACH WORK DAY THE CONTRACTOR SHALL BACKFILL OR COVER ALL EXPOSED TRENCHES AND OPEN EXCAVATION HOLES NOT PROTECTED BY THE TEMPORARY CONCRETE BARRIER IN ORDER TO PROVIDE SAFE CONDITIONS FOR THE TRAVELING PUBLIC.
- 7. DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID ANY CONSTRUCTION DEBRIS FROM ENCROACHING INTO TRAVEL LANES.
- 8. THE CONTRACTOR SHALL REQUEST AND GAIN THE APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES. SEE KEEPING THE EXPRESSWAY OPEN TO TRAFFIC SPECIAL PROVISION FOR MORE INFORMATION.
- 9. ALL STAGE CHANGES REQUIRING THE STOPPING AND/OR THE PACING OF TRAFFIC SHALL TAKE PLACE DURING THE ALLOWABLE HOURS FOR FULL EXPRESSWAY CLOSURES AND SHALL BE APPROVED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT LEAST 3 WORKING DAYS IN ADVANCE OF ANY PROPOSED STAGE CHANGE.
- 10. A MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBMITTED TO THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR 14 DAYS IN ADVANCE OF ANY STAGE CHANGES OR FULL EXPRESSWAY CLOSURES. THE MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO LANE AND RAMP CLOSURES, EXISTING GEOMETRICS, AND EQUIPMENT AND MATERIAL LOCATIONS.
- 11. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 12. OFFSETS TO TEMPORARY CONCRETE BARRIER WALL ARE GIVEN AT CENTER OF BARRIER.

SUGGESTED I-80 TRAFFIC CONTROL NOTES

PRE-STAGE

CONSTRUCTION:

1. REMOVE EXISTING INSIDE SHOULDER RUMBLE STRIPS AND FILL IN WITH HMA.

TRAFFIC:

1. UTILIZE OFF-PEAK HOURS LANE AND SHOULDER CLOSURES TO REMOVE AND PAVE RUMBLE STRIPS.

STAGE 1

CONSTRUCTION:

- 1. PERFORM PARTIAL BEAM REPLACEMENT ON EB AND WB I-80 BRIDGES OVER CICERO AVE.
- 2. PERFORM MEDIAN PIER CAP REPAIRS ON WB 1-80 BRIDGE OVER CICERO AVE.
- 3. PERFORM BEAM REPAIRS ON EB AND WB I-80 BRIDGES OVER NB KEDZIE AVE.
- 4. PERFORM BRIDGE PIER REPAIRS AT CICERO AVE, 175TH ST AND KEDZIE AVE.
- 5. OVERLAY OUTSIDE PORTION OF EXISTING STRUCTURES AND OVERLAY ADJACENT ROADWAY.
- 6. REMOVE AND REPLACE EXISTING GUARDRAIL AND GUARDRAIL TERMINALS AND PLACE HMA STABILIZATION AT GUARDRAIL.
- 7. REMOVE EXISTING OUTSIDE SHOULDER RUMBLE STRIPS AND FILL IN WITH HMA.

TRAFFIC:

- 1. REDUCE EB AND WB I-80 TO TWO LANES IN EACH DIRECTION AT CICERO AVE, 175TH ST AND KEDZIE AVE.
- 2. SHIFT EB AND WB I-80 LANES TO INSIDE SHOULDER AT CICERO AVE, 175TH ST AND KEDZIE AVE, REDUCE ALL LANES TO 11'.
- 3. USE WEEKEND-LONG DETOURS OF NB AND SB CICERO AVE TO PERFORM I-80 PARTIAL BRIDGE BEAM REPLACEMENTS.
- 4. USE WEEKEND-LONG DETOUR OF NB KEDZIE AVE TO PERFORM I-80 BEAM REPAIRS.
- 5. USE SHOULDER CLOSURES AND OFF-PEAK HOURS LANE CLOSURES FOR I-80 BRIDGE PIER REPAIRS AT CICERO AVE, 175TH ST AND KEDZIE AVE.

STAGE 2

CONSTRUCTION:

- 1. PERFORM PARTIAL BEAM REPLACEMENT ON EB AND WB I-80 BRIDGES OVER CICERO AVE.
- 2. PERFORM BEAM REPAIRS ON EB AND WB I-80 BRIDGES OVER NB KEDZIE AVE.
- 3. OVERLAY INSIDE PORTION OF EXISTING STRUCTURES AND OVERLAY ADJACENT ROADWAY.
- 4. REMOVE AND REPLACE EXISTING GUARDRAIL AND GUARDRAIL TERMINALS AND PLACE HMA STABILIZATION AT GUARDRAIL.

TRAFFIC:

- 1. EB AND WB I-80 TO REMAIN REDUCED TO TWO LANES IN EACH DIRECTION AT CICERO AVE, 175TH ST AND KEDZIE AVE.
- 2. SHIFT EB & WB I-80 LANES AT CICERO AVE, 175TH ST AND KEDZIE AVE TO OUTSIDE SHOULDER. REDUCE ALL LANES TO 11'.
- 3. USE WEEKEND-LONG DETOURS OF NB AND SB CICERO AVE TO PERFORM I-80 PARTIAL BRIDGE BEAM REPLACEMENTS.
- 4. USE WEEKEND-LONG DETOUR OF NB KEDZIE AVE TO PERFORM I-80 BEAM REPAIRS.

POST STAGE

CONSTRUCTION:

SCALE: N.T.S.

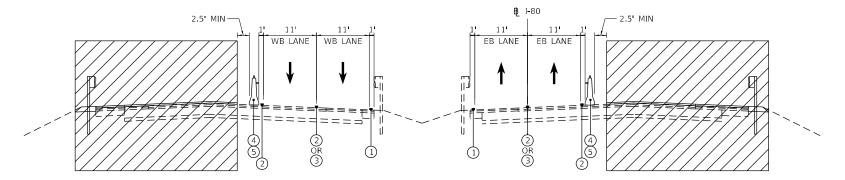
1. PLACE PROPOSED PAVEMENT MARKINGS AND RESTORE RUMBLE STRIPS ON EB AND WB I-80.

TRAFFIC:

1. UTILIZE OFF-PEAK HOURS LANE AND SHOULDER CLOSURES TO PLACE PAVEMENT MARKINGS AND RUMBLE STRIPS.

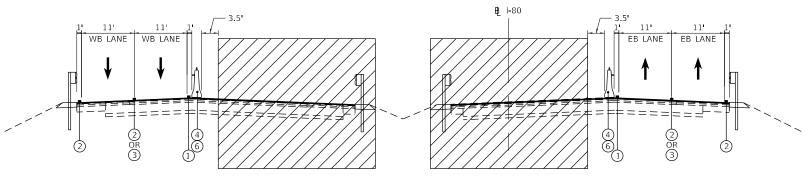
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		DRAWN - NSA	REVISED -
•	PLOT SCALE = 2 0000 / in	CHECKED - DJP	REVISED -
	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

I-80 TRAFFIC CONTROL PLAN	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SUGGESTED GENERAL & SEQUENCING NOTES	80	2021-059-RS&BJR	СООК	185	15
SOUGESTED GENERAL & SECOLIOSING NOTES			CONTRACT	NO. 62	2N96
SHEET 3 OF 26 SHEETS STA TO STA		TILINOIS EED A	ID DROJECT		



MOT TYPICAL SECTION STAGE 1

I-80 - LOOKING EASTBOUND AT IL-50 (CICERO AVENUE) AT 175TH STREET AT KEDZIE AVENUE



MOT TYPICAL SECTION STAGE 2

I-80 - LOOKING EASTBOUND AT IL-50 (CICERO AVENUE) AT 175TH STREET AT KEDZIE AVENUE

MOT PROPOSED LEGEND

① TEMPORARY EPOXY PAVEMENT MARKING - LINE 4" (SOLID YELLOW)

MOT SYMBOL LEGEND

WORK AREA

DIRECTION OF TRAFFIC

TEMPORARY CONCRETE BARRIER

- TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE)
- 5 TEMPORARY CONCRETE BARRIER*
- 6 RELOCATE TEMPORARY CONCRETE BARRIER

NOTES

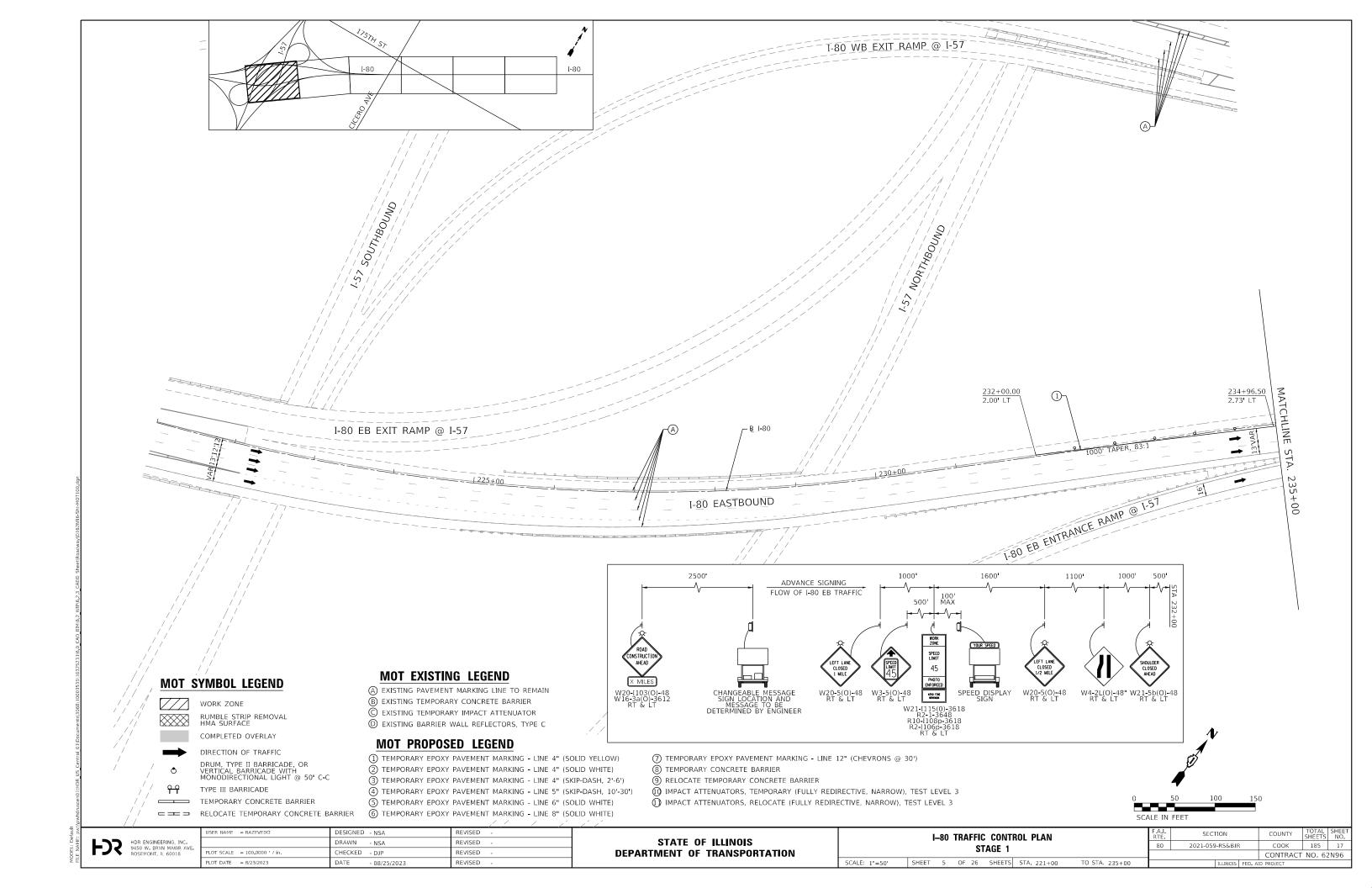
1. MONO-DIRECTIONAL TYPE C REFLECTORS TO BE INSTALLED PER STD. 704001 AND 782006. THE COST OF THE TYPE C REFLECTORS SHALL BE INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

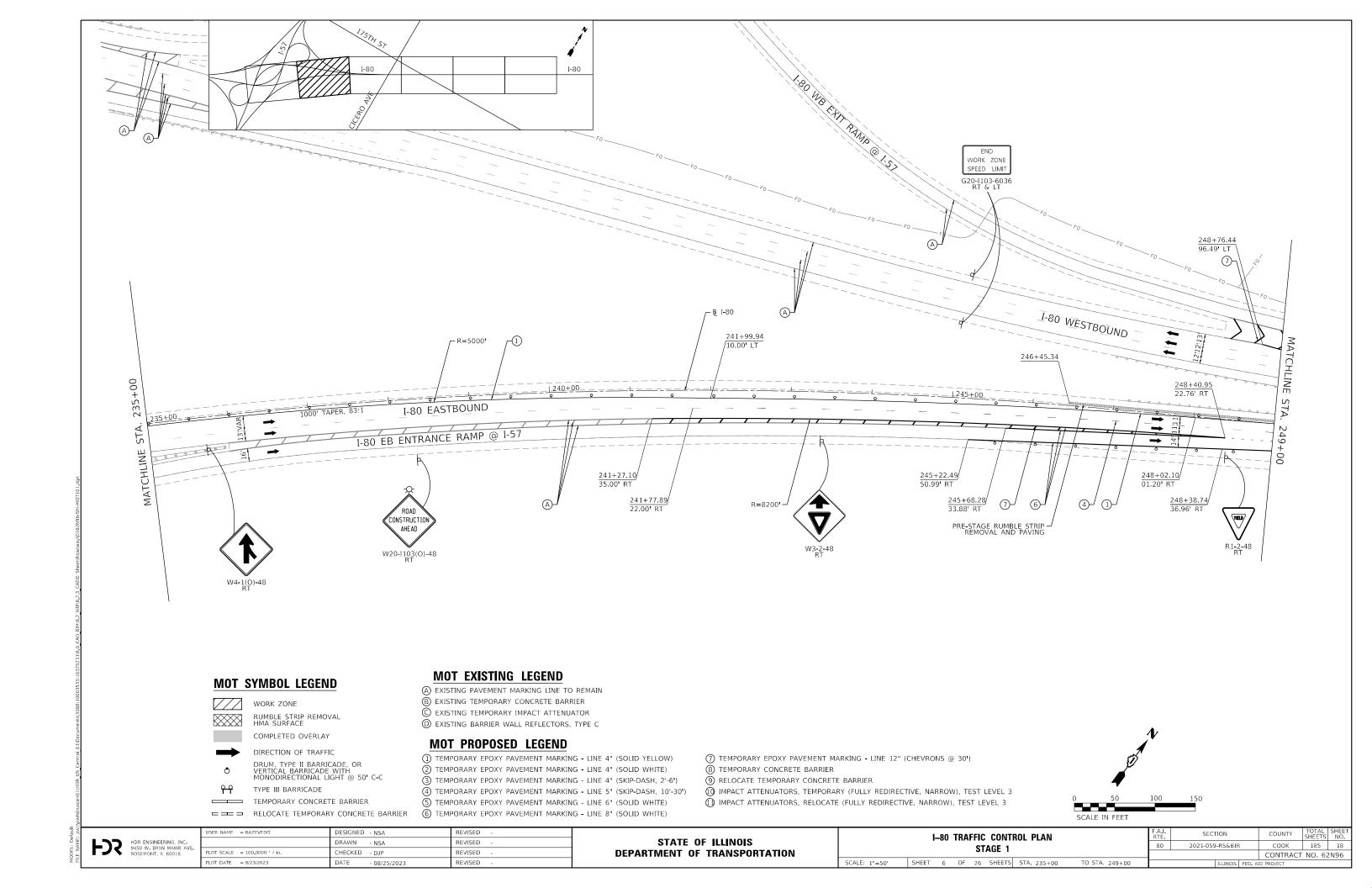
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	DRAWN - NSA	REVISED -	
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PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -	

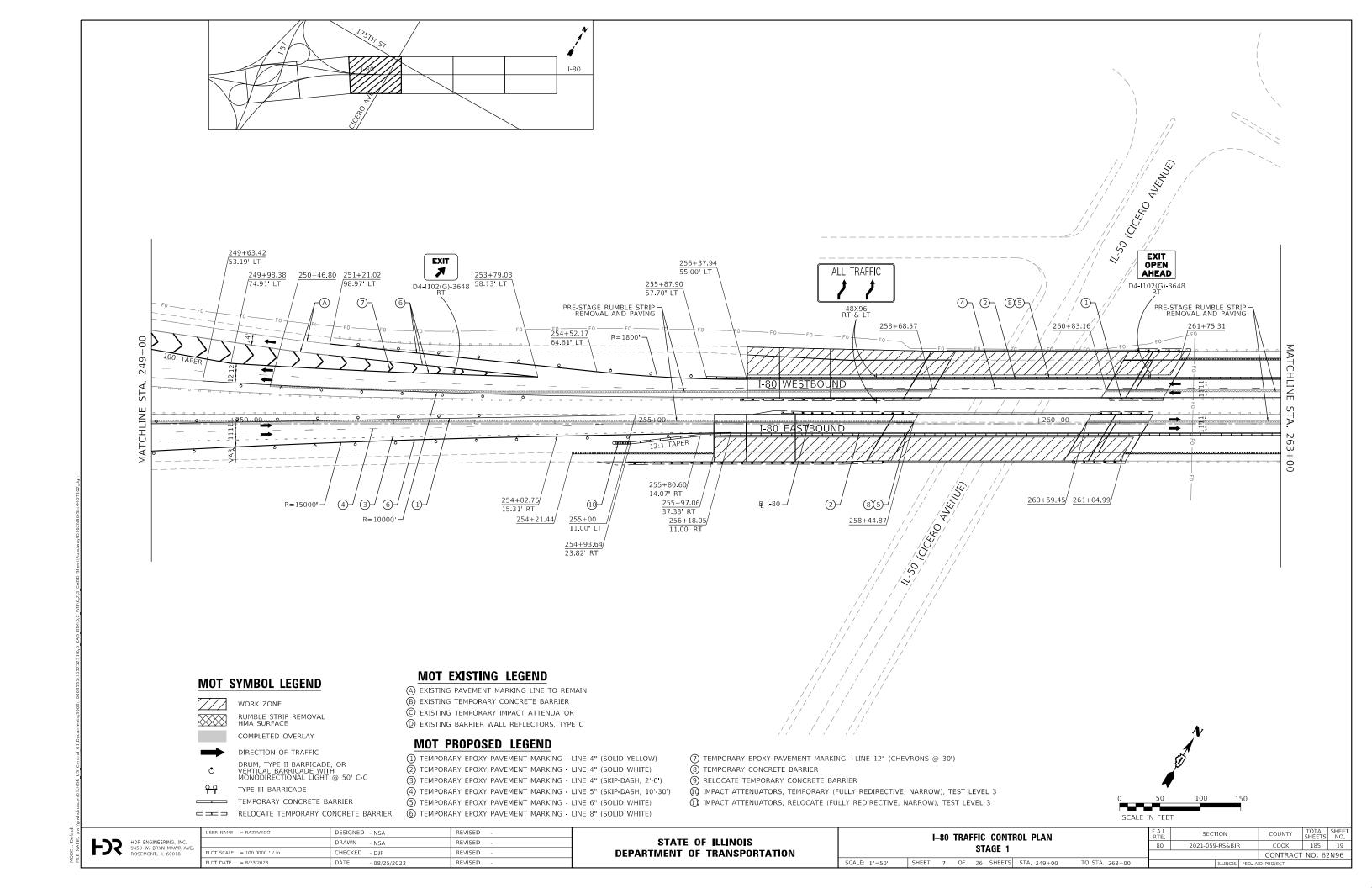
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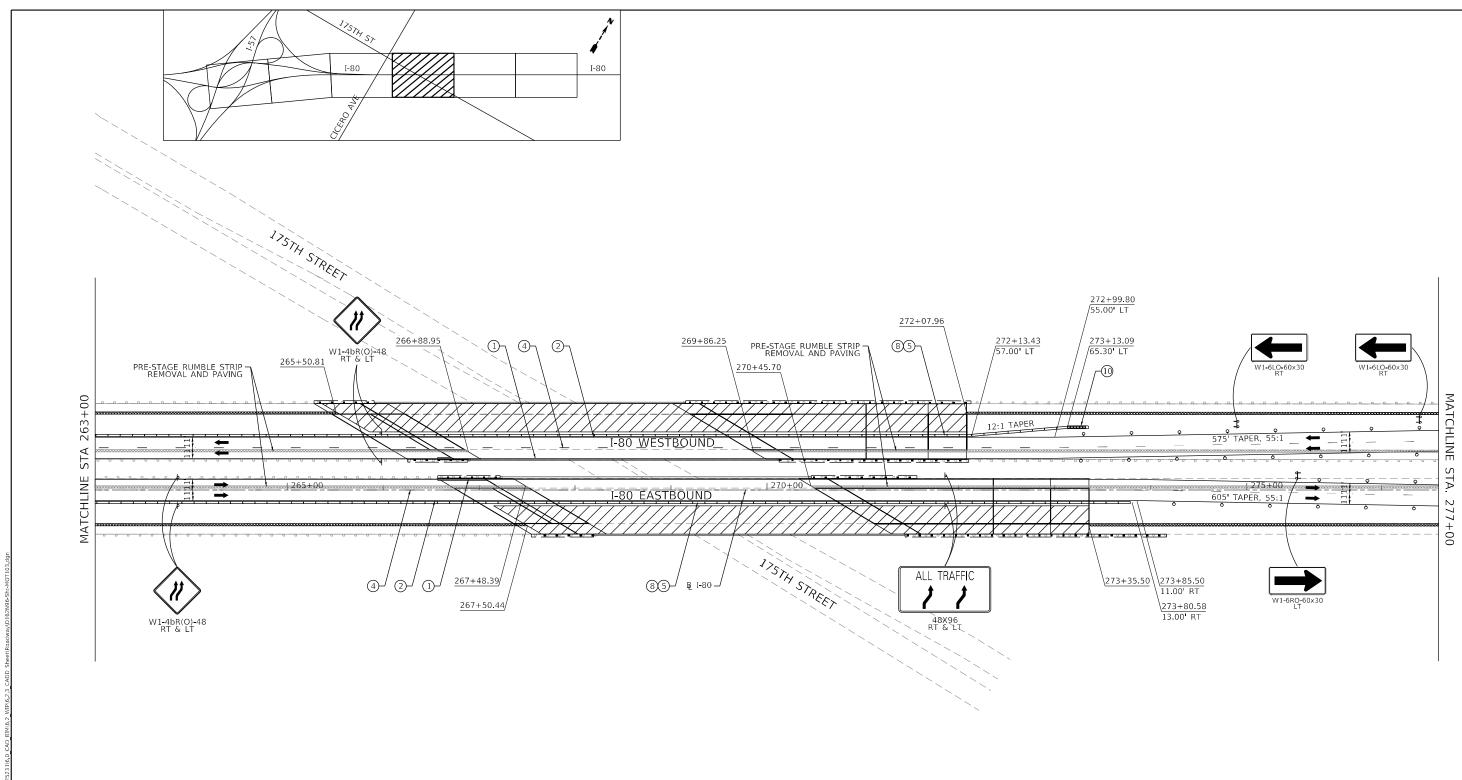
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80	2021-059	СООК	185	16		
		CONTRACT	NO. 62	2N96		
ILLINOIS FED. A				ID PROJECT		

MODEL: Detault FILE NAME: pw:\\pwl









WORK ZONE

RUMBLE STRIP REMOVAL HMA SURFACE



COMPLETED OVERLAY

DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

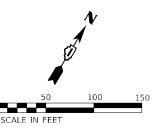
TEMPORARY CONCRETE BARRIER □ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

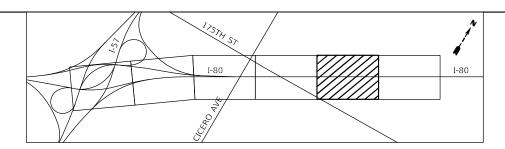
- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (3) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- (4) TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30') (5) TEMPORARY EPOXY PAVEMENT MARKING - LINE 6" (SOLID WHITE)
- 6 TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

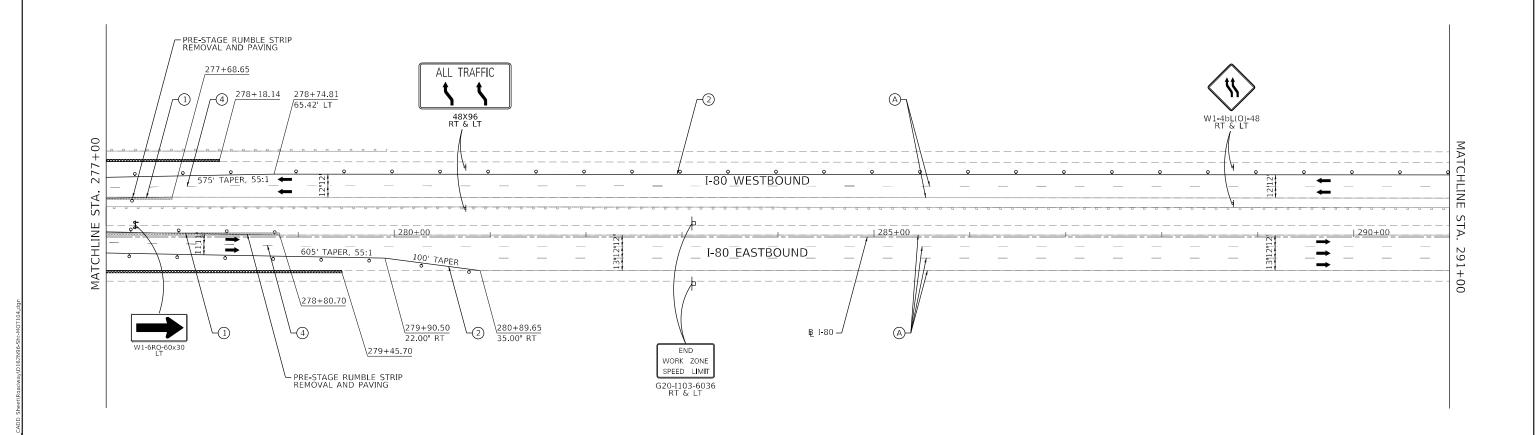


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		DRAWN - NSA	REVISED -
•	PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORT	ATION

	I–80 TRAFFIC CONTROL PLAN									SECTIO	COUNTY TOTA				
١	STAGE 1								80	80 2021-059-RS&BJR			COOK	185	20
l	STAUE I												CONTRACT	NO. 62	2N96
l	SCALE: 1"=50'	SHEET	8	OF	26	SHEETS	STA. 263+00	TO STA. 277+00	ILLINOIS FED. AID PROJECT						







WORK ZONE



RUMBLE STRIP REMOVAL HMA SURFACE



DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

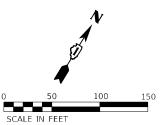
TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- (4) TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE) === RELOCATE TEMPORARY CONCRETE BARRIER 6 TEMPORARY EPOXY PAVEMENT MARKING - LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (I) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

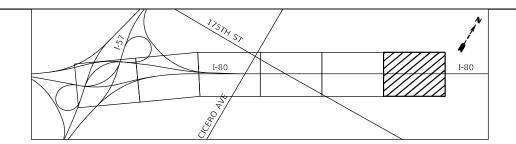


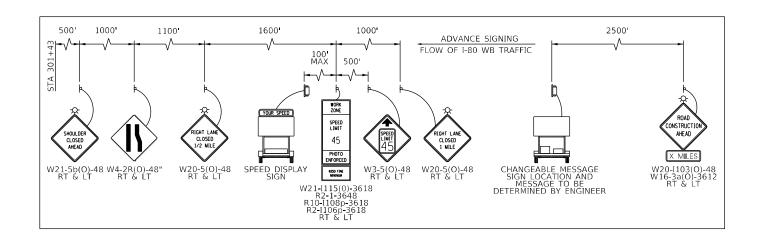
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

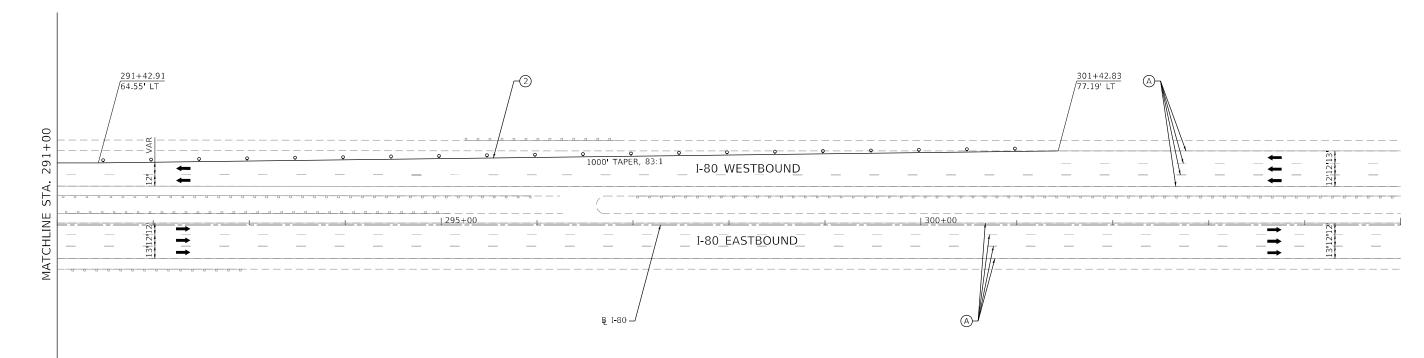
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	I-80 TRAFFIC CONTROL PLAN								F.A.I. RTE. SECTION				COUNTY	TOTAL SHEETS	
ı		STAGE 1							80 2021-059-RS&BJR			₹	соок	185	21
ı	STAGE 1											CONTRACT	NO. 62	2N96	
ı	SCALE: 1"=50'	SHEET	9	OF	26	SHEETS	STA. 277+00	TO STA. 291+00	ILLINOIS FED. AID F			ID PROJECT			









WORK ZONE



RUMBLE STRIP REMOVAL HMA SURFACE



COMPLETED OVERLAY DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

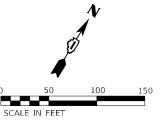
TEMPORARY CONCRETE BARRIER □ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE) 3 TEMPORARY EPOXY PAVEMENT MARKING - LINE 4" (SKIP-DASH, 2'-6')
- (4) TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE)
- 6 TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3



HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

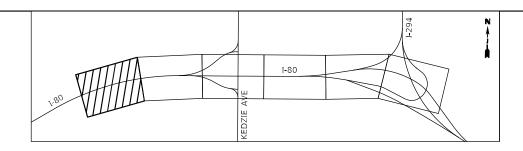
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	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

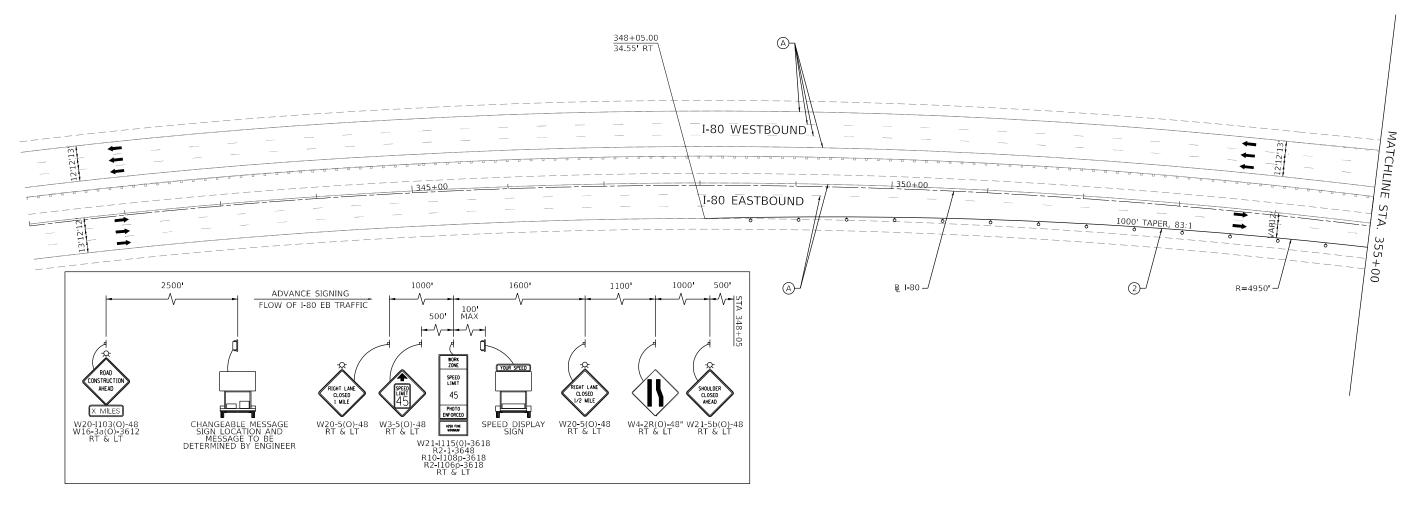
STATE OF	ILLINOIS
DEPARTMENT OF	TRANSPORTATION

I-80 TRAFFIC CONTROL PLAN	F R
STAGE 1	
	1

F.A.I. RTE.	SECT	ПОИ		COUNTY	TOTAL SHEETS	SHEE NO.
80	2021-059	-RS&BJF	₹	COOK	185	22
			CONTRACT	NO. 62	2N96	
		ILLINOIS	FED. A	D PROJECT		

SCALE: 1"=50' SHEET 10 OF 26 SHEETS STA. 291+00 TO STA. 305+00







WORK ZONE



RUMBLE STRIP REMOVAL HMA SURFACE



DIRECTION OF TRAFFIC



DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE



TEMPORARY CONCRETE BARRIER

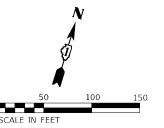
□ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE) 6 TEMPORARY EPOXY PAVEMENT MARKING - LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- 9 RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- ① IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

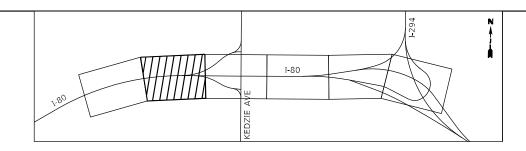


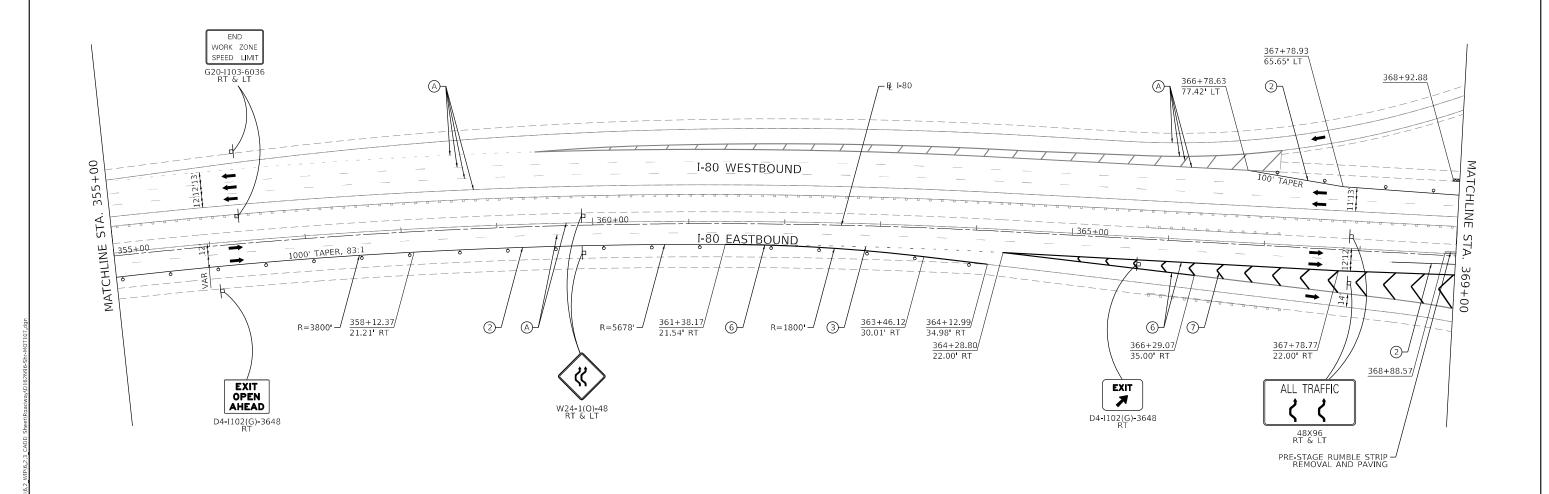
FJS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AV ROSEMONT, IL 60018

	USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
		DRAWN - NSA	REVISED -
•	PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

I-80 TRAFFIC CONTROL PLAN									F.A.I. RTE. SECTION			COUNTY	TOTAL SHEETS	S
	STAGE 1									2021-059-RS&BJR			185	Τ
JIAUL I												CONTRACT	NO. 62	ī٨
SCALE: 1"=50'	SHEET	11	OF	26	SHEETS	STA. 341+00	TO STA. 355+00	ILLINOIS FED. AI			ID PROJECT		Т	







WORK ZONE

RUMBLE STRIP REMOVAL HMA SURFACE

COMPLETED OVERLAY



DIRECTION OF TRAFFIC

DRUM, OVERTICA MONOD

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER

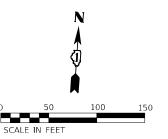
RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- A EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- ① TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- (2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (3) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE)
 (6) TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- impact attenuators, relocate (fully redirective, narrow), test level 3



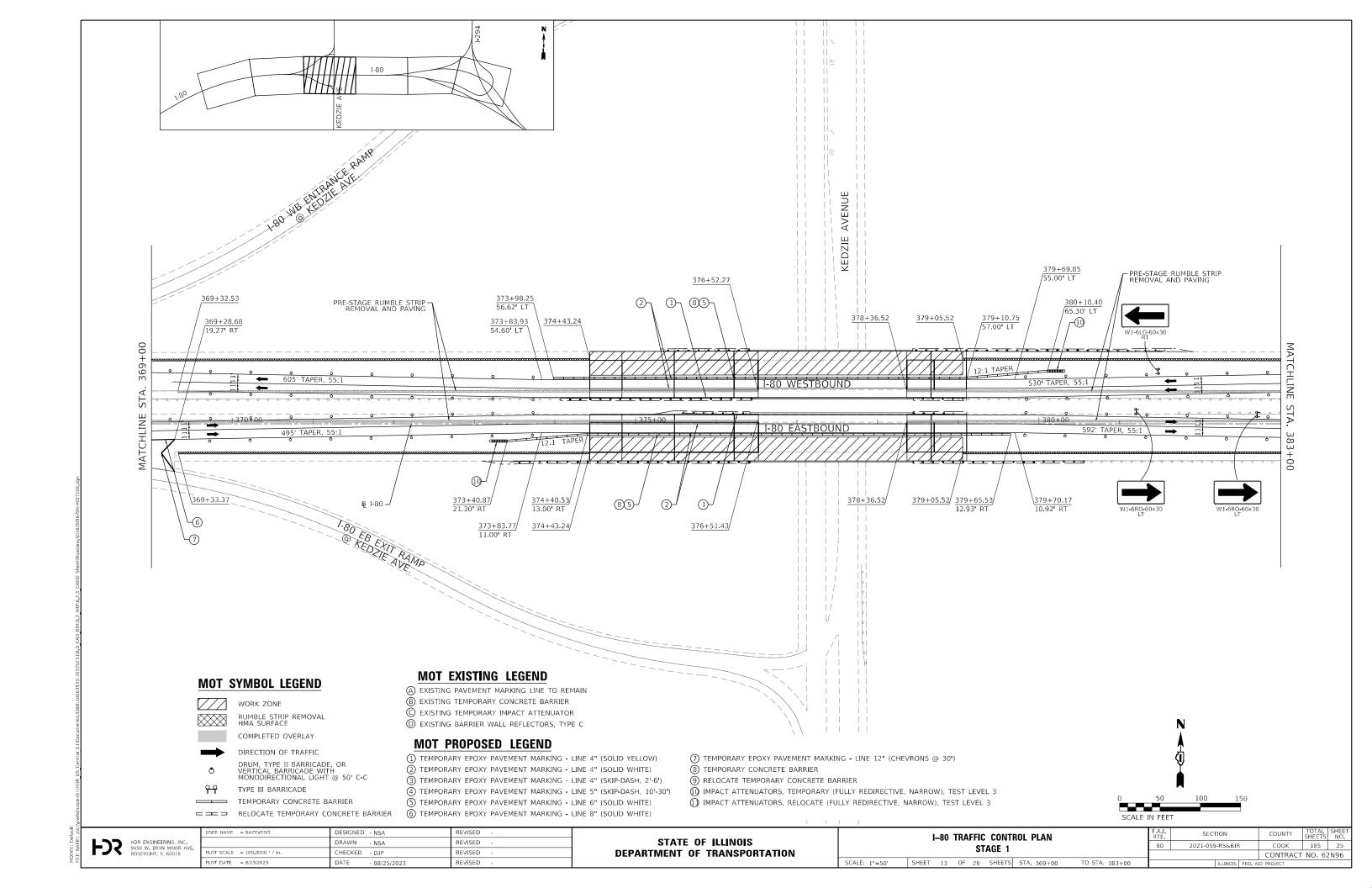
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

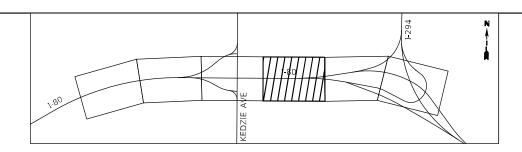
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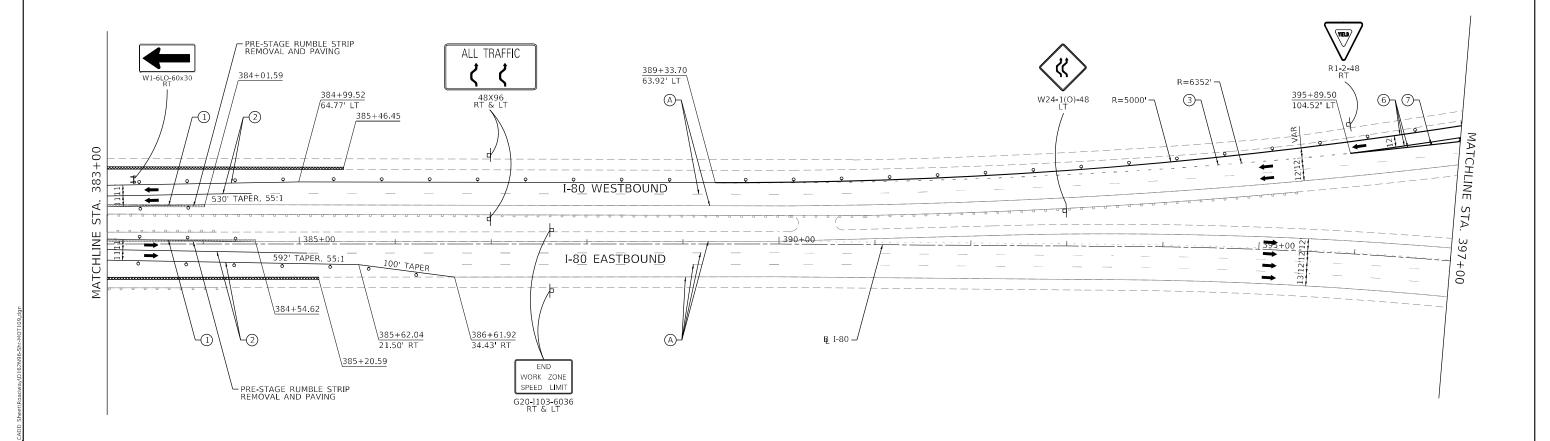
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I–80 TRAFFIC CONTROL PLAN										
	STAGE 1									
STAGET										
SCALE: 1"=50'	SHEET	12	OF	26	SHEETS	STA. 355+00	TO STA. 369+00			

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
80	2021-059-RS&BJF	₹	СООК	185	24
			CONTRACT	NO. 62	2N96
	ILLINOIS	FED. A	ID PROJECT		









WORK ZONE

RUMBLE STRIP REMOVAL HMA SURFACE
COMPLETED OVERLAY



DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER

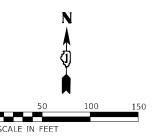
□ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- ① TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- (2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- ③ TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE)
 (6) TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- 8 TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3



HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

	USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
		DRAWN - NSA	REVISED -
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

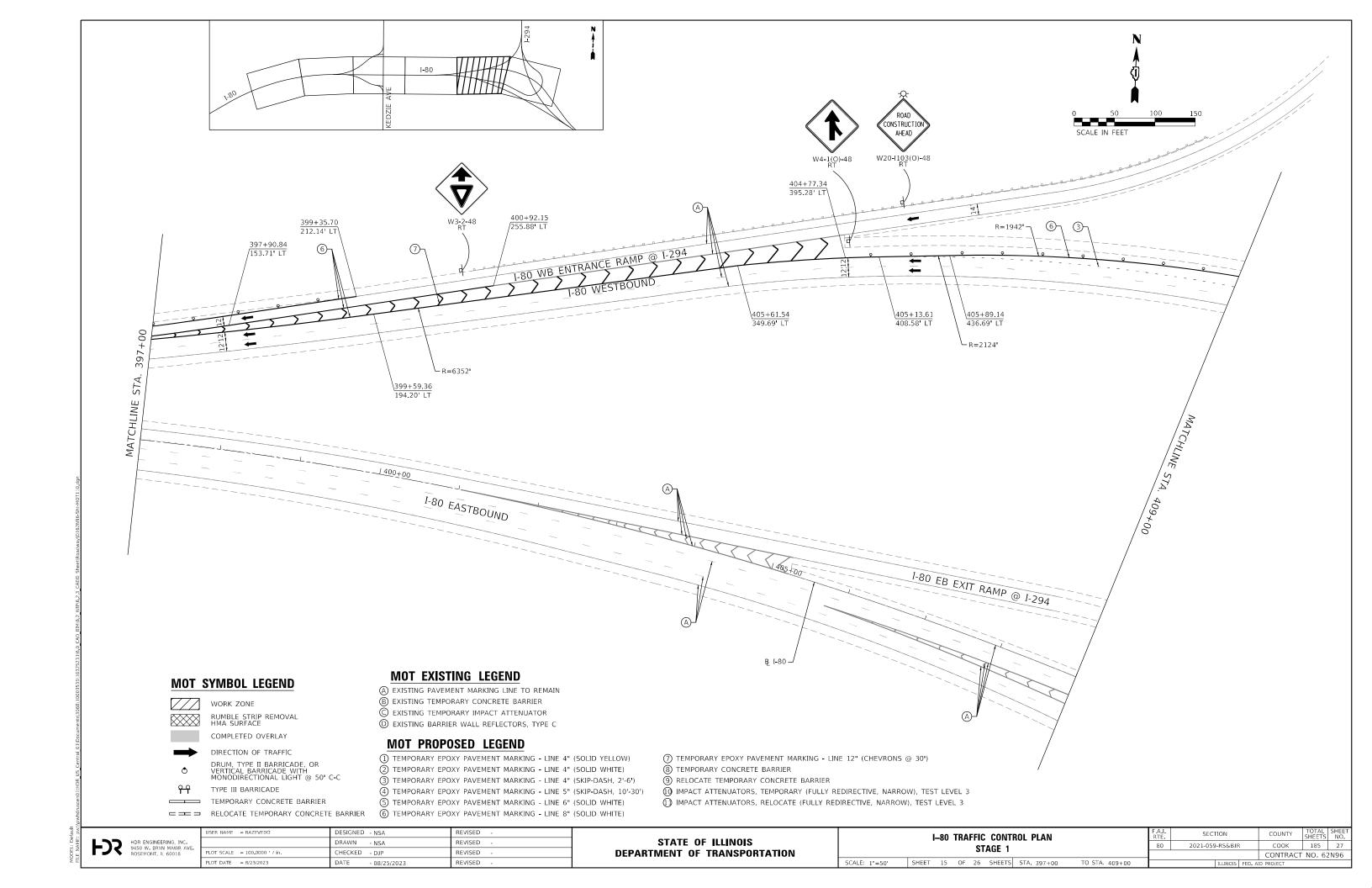
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

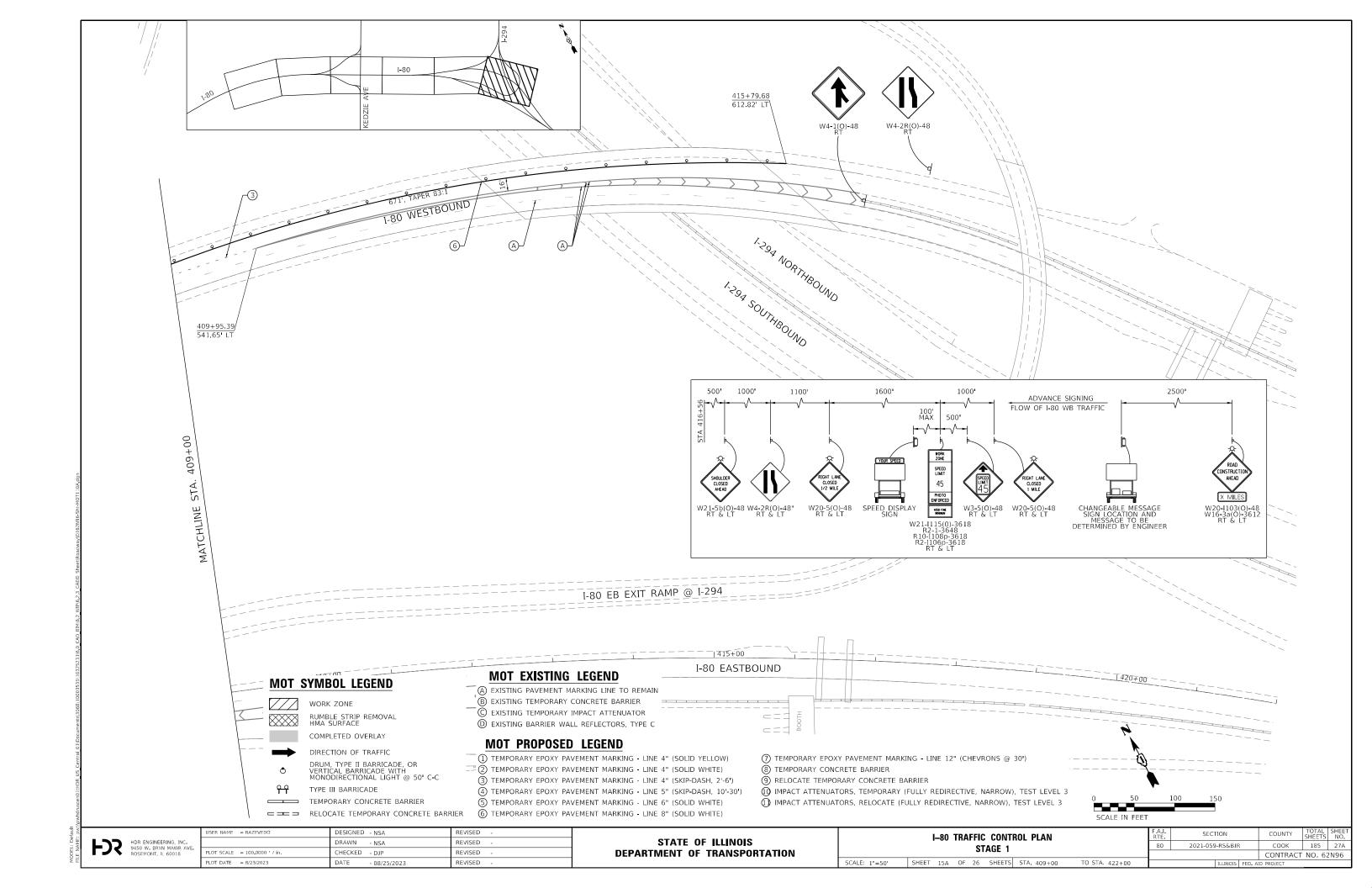
	I-80 TRAFFIC CONTROL PLAN								
	STAGE 1								
SCALE: 1"=50'	SHEET	14	OF	26	SHEETS STA. 383+00	TO STA. 397+00		ILLINOIS	

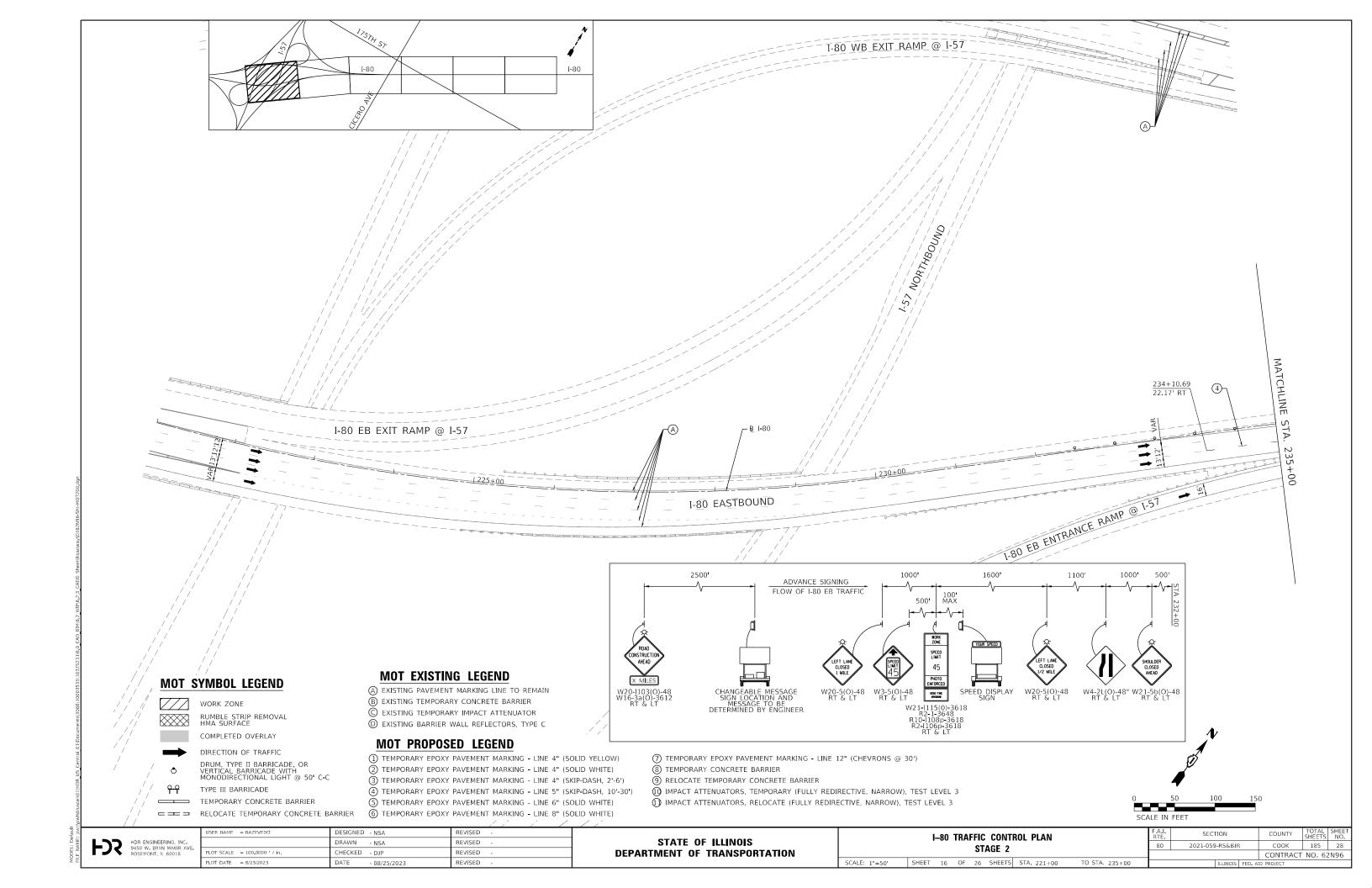
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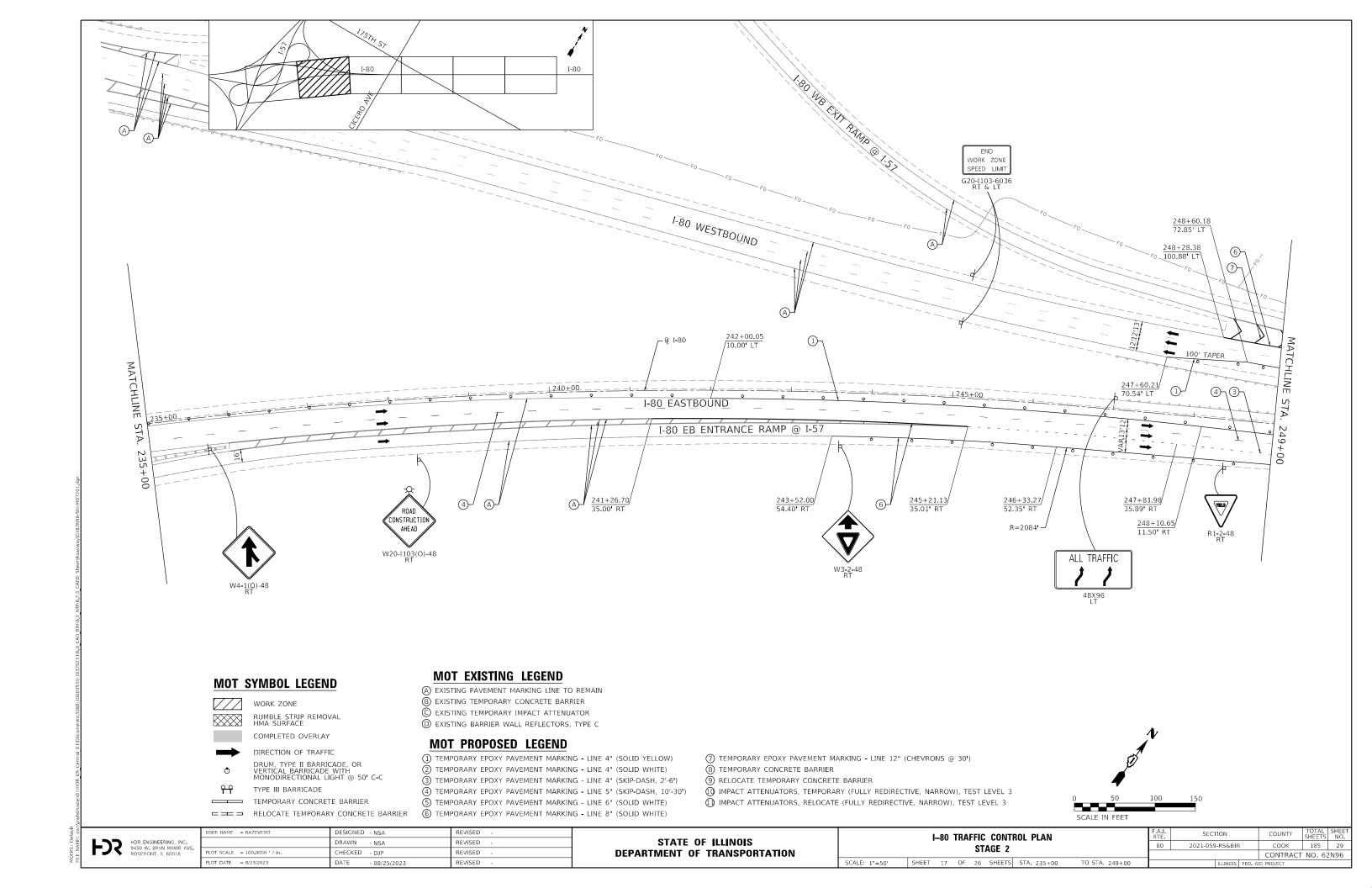
2021-059-RS&BJR COOK 185 26

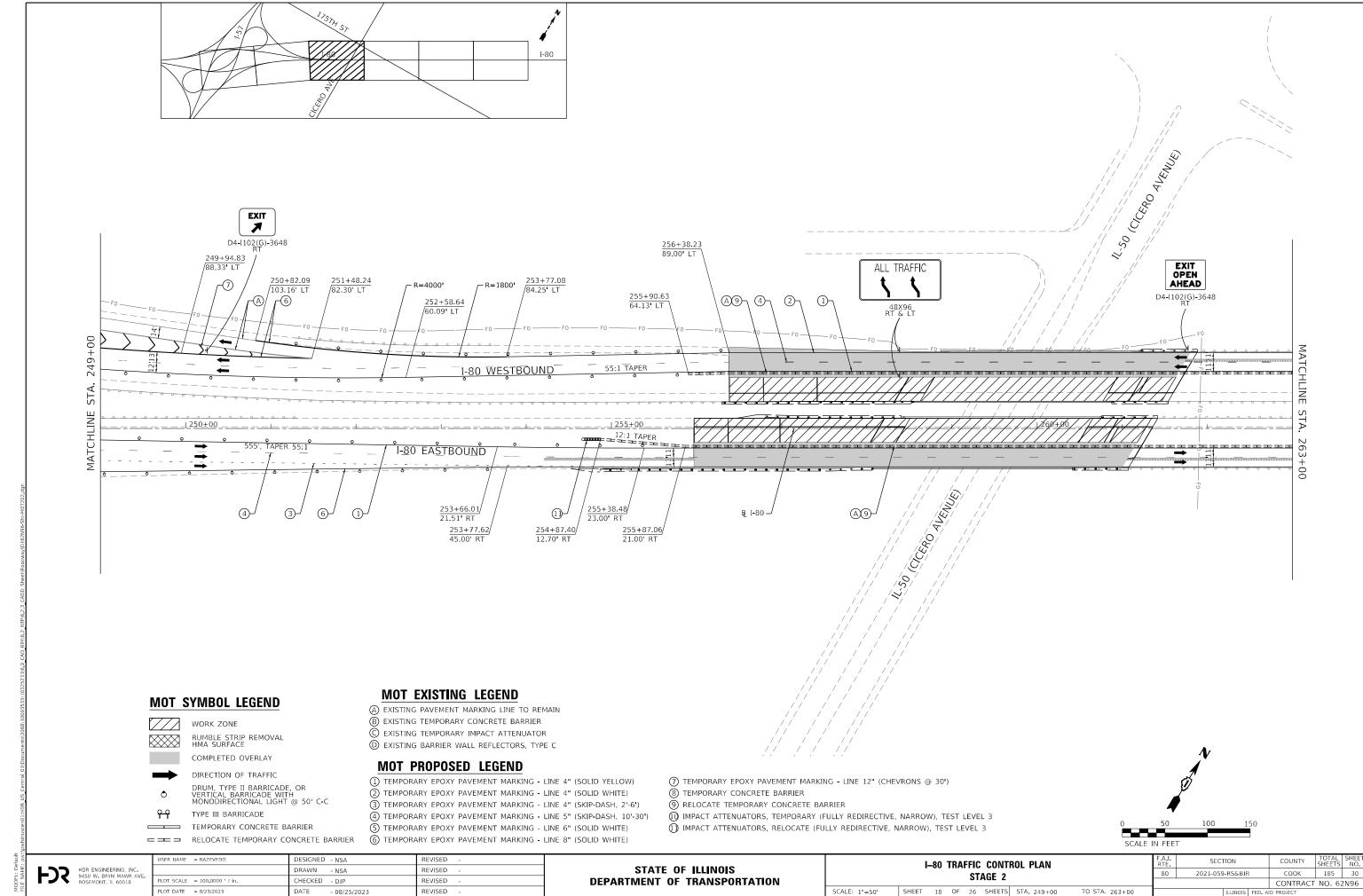
CONTRACT NO. 62 N96

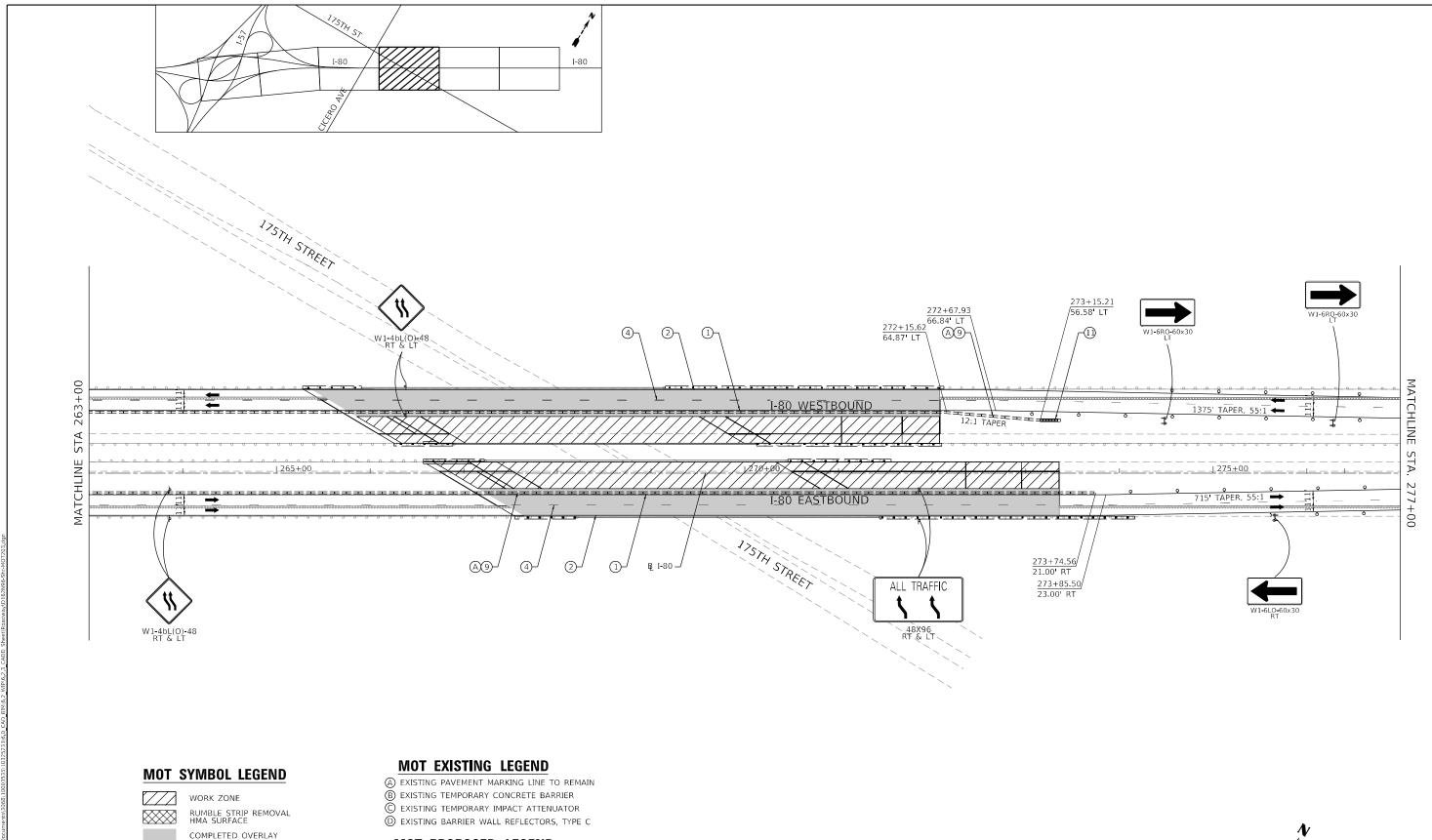














DIRECTION OF TRAFFIC

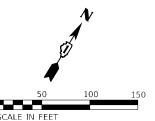
DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C TYPE III BARRICADE



TEMPORARY CONCRETE BARRIER

MOT PROPOSED LEGEND

- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (3) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30') (5) TEMPORARY EPOXY PAVEMENT MARKING - LINE 6" (SOLID WHITE)
- === RELOCATE TEMPORARY CONCRETE BARRIER (6) TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

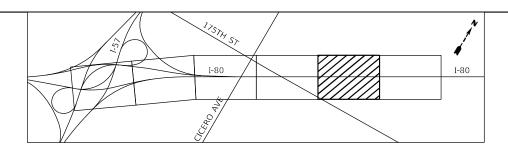


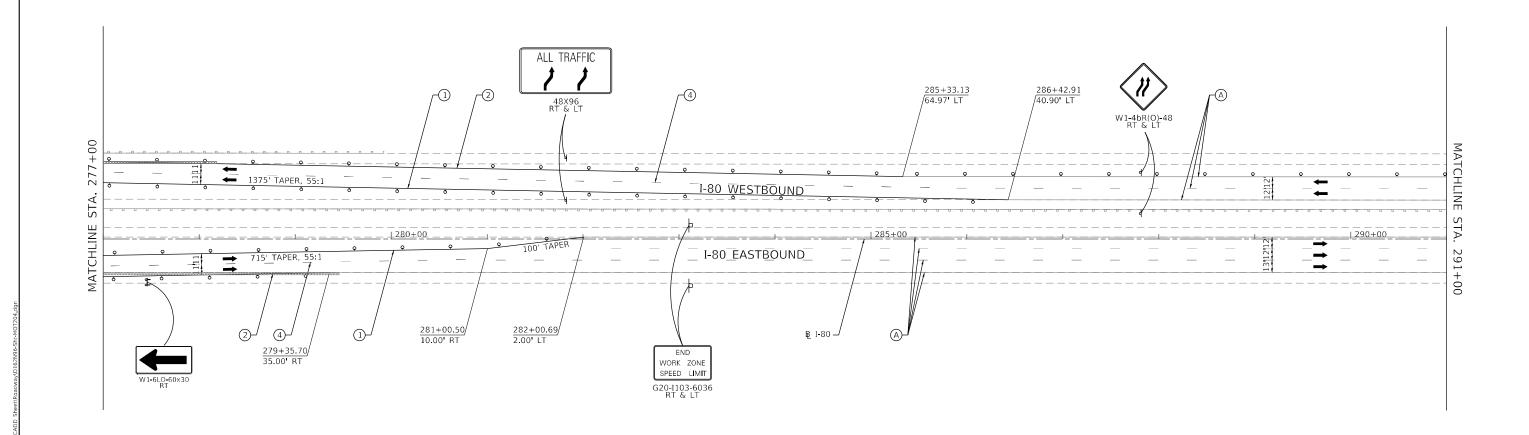
FJS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AV ROSEMONT, IL 60018

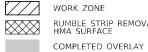
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	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I–80 TRAFFIC CONTROL PLAN									F.A.I. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
STAGE 2								80	2021-059-RS&BJR			COOK	185	31
				01	AUL 2							CONTRACT	NO. 62	2N96
SCALE: 1"=50"	SHEET	19	OF	26	SHEETS	STA. 263+00	TO STA. 277+00			ILLINOIS	FED. A	D PROJECT		







WORK ZONE





RUMBLE STRIP REMOVAL HMA SURFACE



DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C

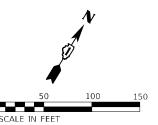


TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- B EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR D EXISTING BARRIER WALL REFLECTORS, TYPE C
- MOT PROPOSED LEGEND
- ① TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30') (5) TEMPORARY EPOXY PAVEMENT MARKING - LINE 6" (SOLID WHITE)
- RELOCATE TEMPORARY CONCRETE BARRIER 6 TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- \bigcirc TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- \bigcirc IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (I) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3



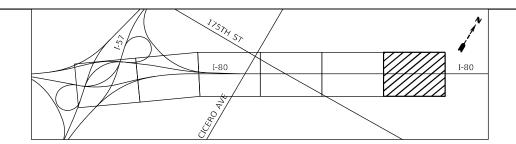
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

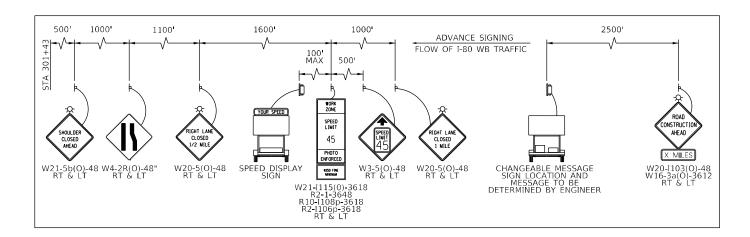
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

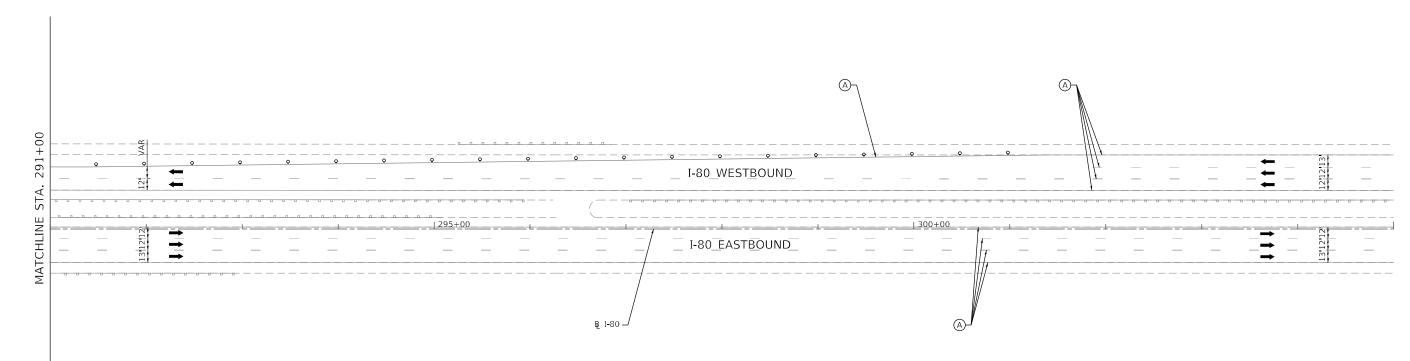
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

I–80 TRAFFIC CONTROL PLAN STAGE 2										
SCALE: 1"=50'	SHEET	20	OF	26	SHEETS	STA. 277+00	TO STA. 291+00			

λ.I. ΓΕ	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
30	2021-059-RS&BJF	₹	COOK	185	32
			CONTRACT	NO. 62	2N96
	THINOIC	EED A	D DROJECT		









WORK ZONE

COMPLETED OVERLAY

RUMBLE STRIP REMOVAL HMA SURFACE



DIRECTION OF TRAFFIC

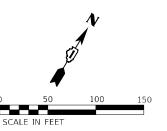
DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR D EXISTING BARRIER WALL REFLECTORS, TYPE C
- **MOT PROPOSED LEGEND**
- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (3) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30') (5) TEMPORARY EPOXY PAVEMENT MARKING - LINE 6" (SOLID WHITE)
- === RELOCATE TEMPORARY CONCRETE BARRIER (6) TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

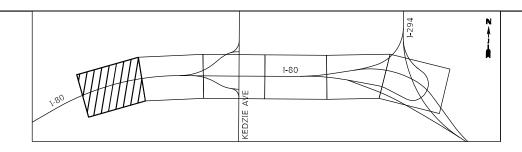


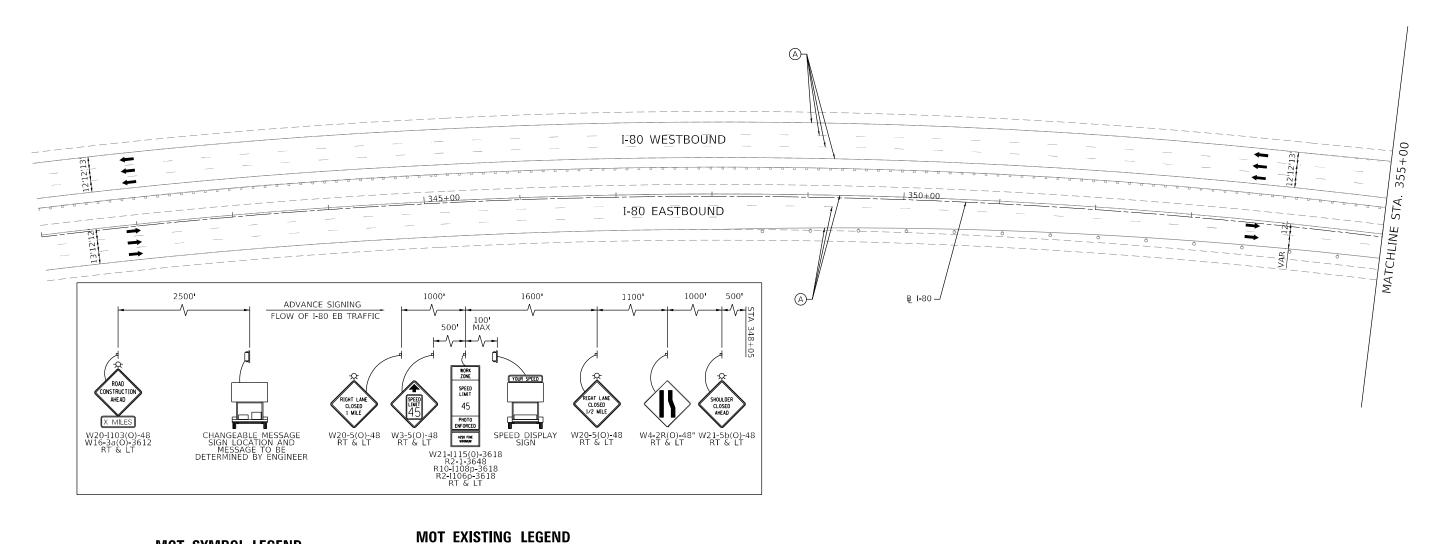
USER NAME = RAZEVEDO	DESIGNED - NSA	REVISED -
	DRAWN - NSA	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF	ILLINOIS
DEPARTMENT OF	TRANSPORTATION

I–80 TRAFFIC CONTROL PLAN								F.A.I. RTE	
STAGE 2							80		
SCALE: 1"=50'	SHEET	21	OF	26	SHEETS	STA. 291+00	TO STA. 305+00		

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
80	2021-059-RS&BJF	₹	COOK	185	33
			CONTRACT	NO. 62	2N96
	ILLINOIS	FED. A	D PROJECT		







WORK ZONE



RUMBLE STRIP REMOVAL HMA SURFACE





DIRECTION OF TRAFFIC



DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER □ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

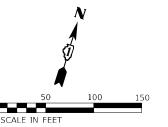
MOT PROPOSED LEGEND

© EXISTING TEMPORARY IMPACT ATTENUATOR

(A) EXISTING PAVEMENT MARKING LINE TO REMAIN (B) EXISTING TEMPORARY CONCRETE BARRIER

D EXISTING BARRIER WALL REFLECTORS, TYPE C

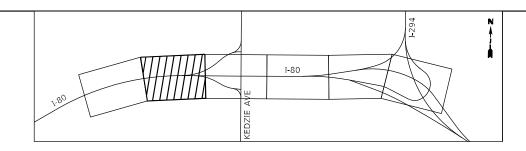
- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE) 3 TEMPORARY EPOXY PAVEMENT MARKING - LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30') (5) TEMPORARY EPOXY PAVEMENT MARKING - LINE 6" (SOLID WHITE)
- 6 TEMPORARY EPOXY PAVEMENT MARKING LINE 8" (SOLID WHITE)
- 7) TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- 9 RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

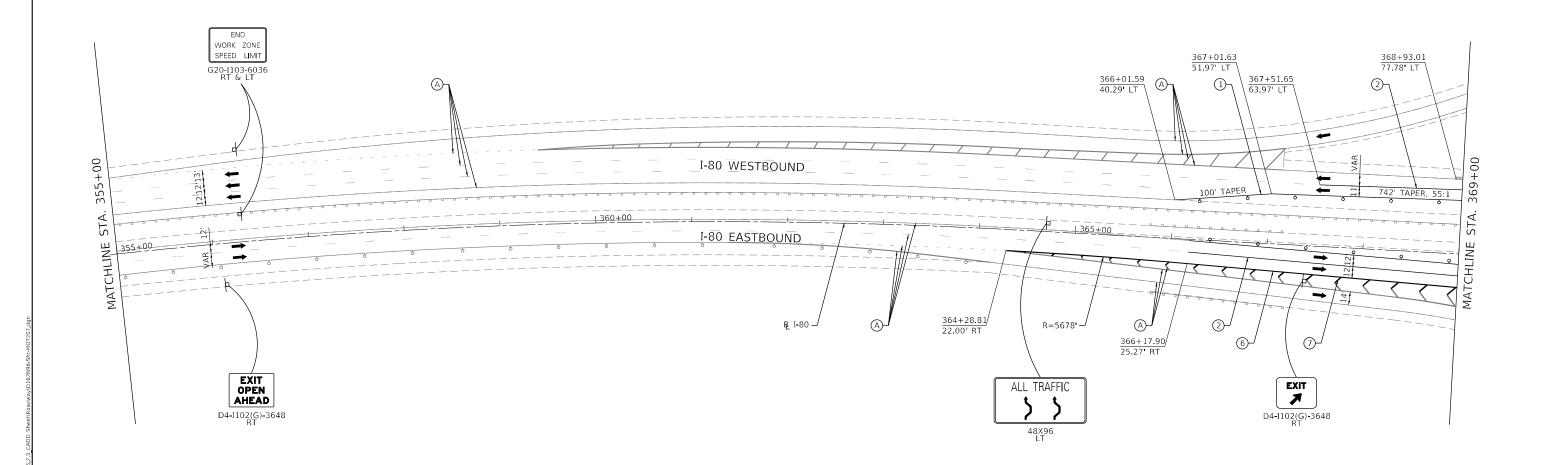


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		DRAWN - NSA	REVISED -
•	PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE	E 01	F ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

								F.A.I. SECTION			COUNTY	TOTAL SHEETS	SHE	
STAGE 2							80	0 2021-059-RS&BJR		COOK	185	34		
				317	AUL Z							CONTRAC	T NO. 62	N96
SCALE: 1"=50'	SHEET	22	OF	26	SHEETS	STA. 341+00	TO STA. 355+00			ILLINOIS	FED. AI	D PROJECT		







WORK ZONE

RUMBLE STRIP REMOVAL HMA SURFACE

COMPLETED OVERLAY



DIRECTION OF TRAFFIC



DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

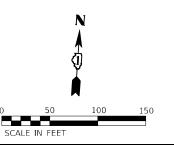
TEMPORARY CONCRETE BARRIER □ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- A EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- ① EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- ① TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE) 6 TEMPORARY EPOXY PAVEMENT MARKING - LINE 8" (SOLID WHITE)
- 7 TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- (1) IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3



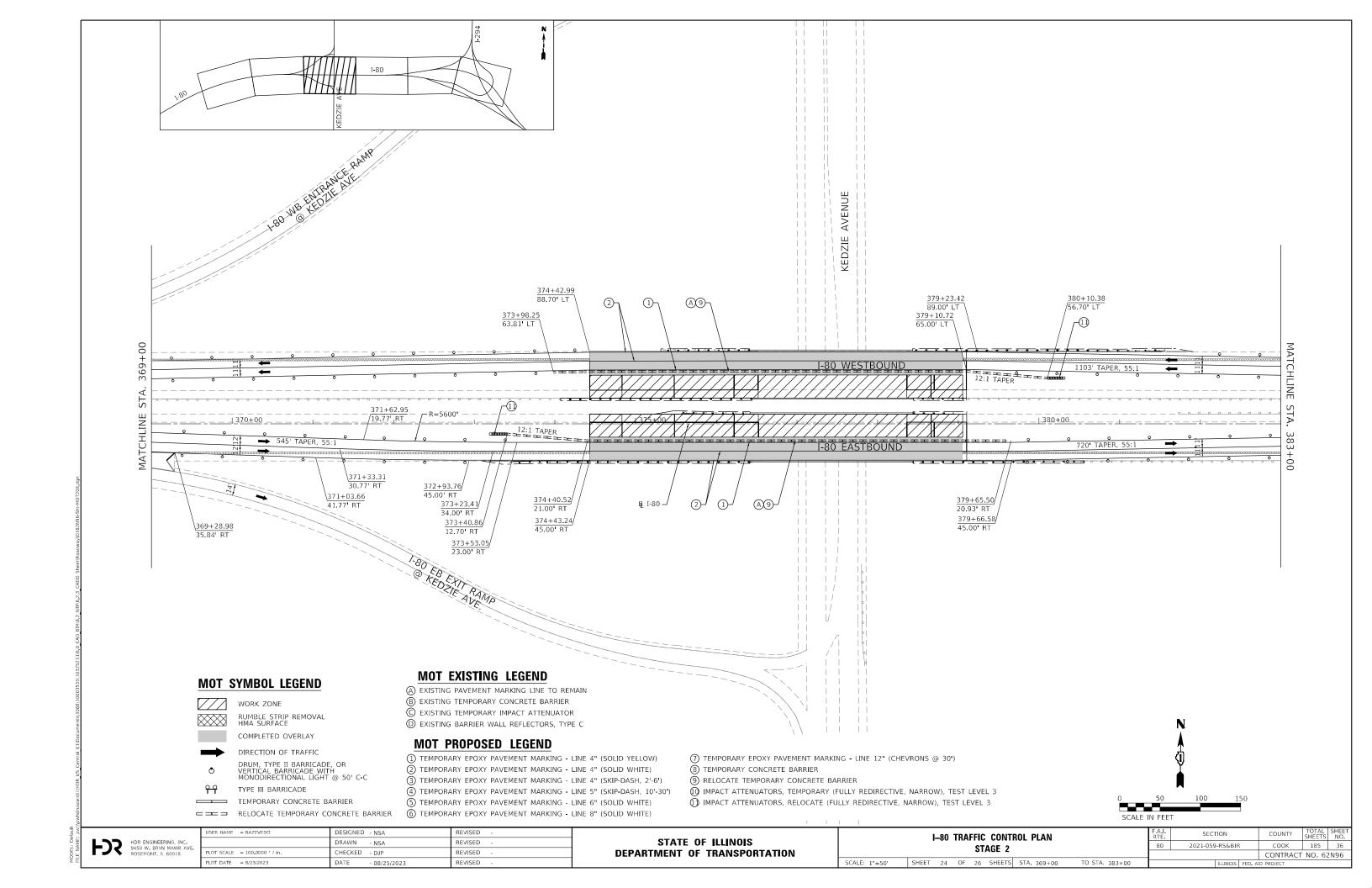
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

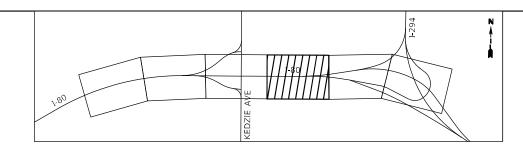
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		DRAWN - NSA	REVISED -
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

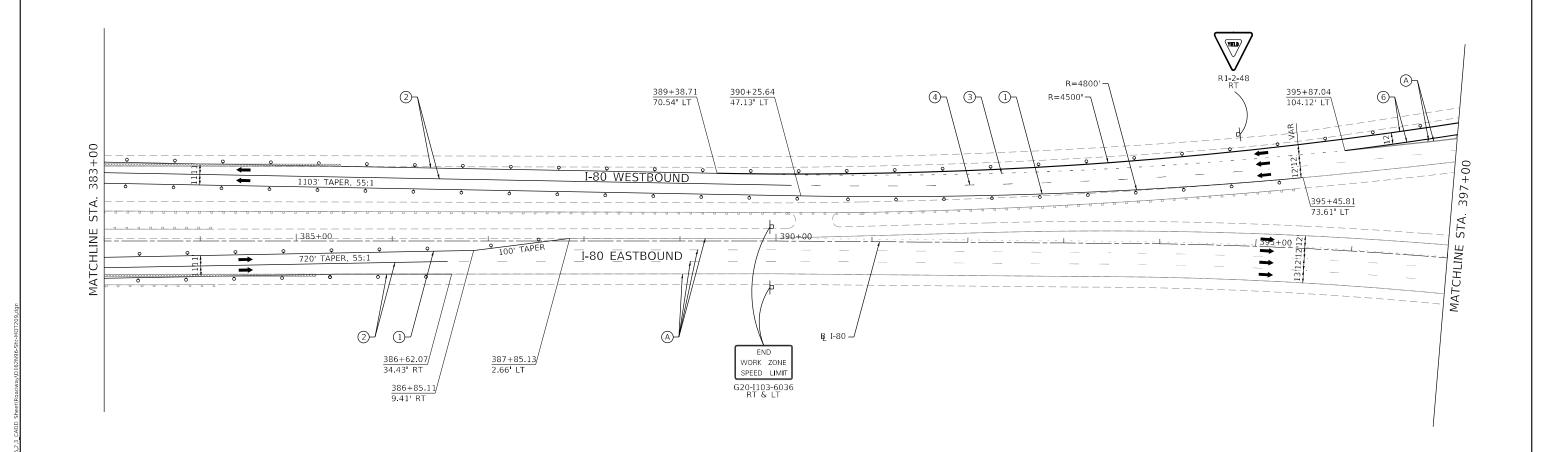
STATE OF	: ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	ŀ	-80	TRA		CONTI	ROL PLAN	
SCALE: 1"=50'	SHEET	23	OF	26	SHEETS	STA. 355+00	TO STA. 369+00

RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE
80	2021-059-RS&BJF		COOK	185	35
		CONTRACT NO. 62N96			
	ILLINOIS	FED. A	D PROJECT		







MOT SYMBOL LEGEND



WORK ZONE

RUMBLE STRIP REMOVAL HMA SURFACE COMPLETED OVERLAY



DIRECTION OF TRAFFIC

DRUM, TYPE II BARRICADE, OR VERTICAL BARRICADE WITH MONODIRECTIONAL LIGHT @ 50' C-C



TYPE III BARRICADE

TEMPORARY CONCRETE BARRIER

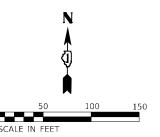
□ □ □ □ RELOCATE TEMPORARY CONCRETE BARRIER

MOT EXISTING LEGEND

- (A) EXISTING PAVEMENT MARKING LINE TO REMAIN
- (B) EXISTING TEMPORARY CONCRETE BARRIER
- © EXISTING TEMPORARY IMPACT ATTENUATOR
- D EXISTING BARRIER WALL REFLECTORS, TYPE C

MOT PROPOSED LEGEND

- 1 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- 2) TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 3 TEMPORARY EPOXY PAVEMENT MARKING LINE 4" (SKIP-DASH, 2'-6')
- 4 TEMPORARY EPOXY PAVEMENT MARKING LINE 5" (SKIP-DASH, 10'-30')
- (5) TEMPORARY EPOXY PAVEMENT MARKING LINE 6" (SOLID WHITE) 6 TEMPORARY EPOXY PAVEMENT MARKING - LINE 8" (SOLID WHITE)
- 7 TEMPORARY EPOXY PAVEMENT MARKING LINE 12" (CHEVRONS @ 30')
- (8) TEMPORARY CONCRETE BARRIER
- RELOCATE TEMPORARY CONCRETE BARRIER
- (1) IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- ① IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3



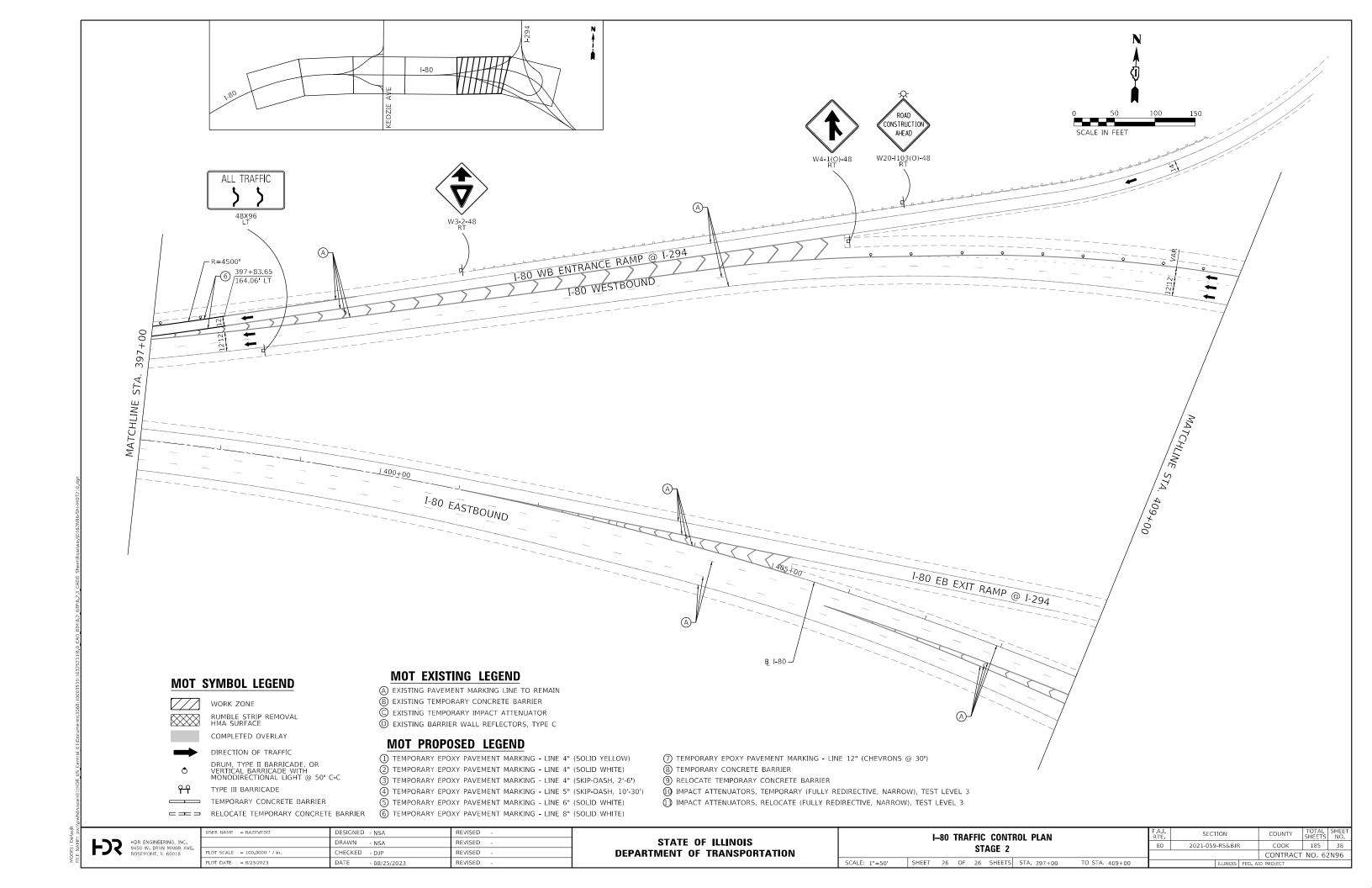
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

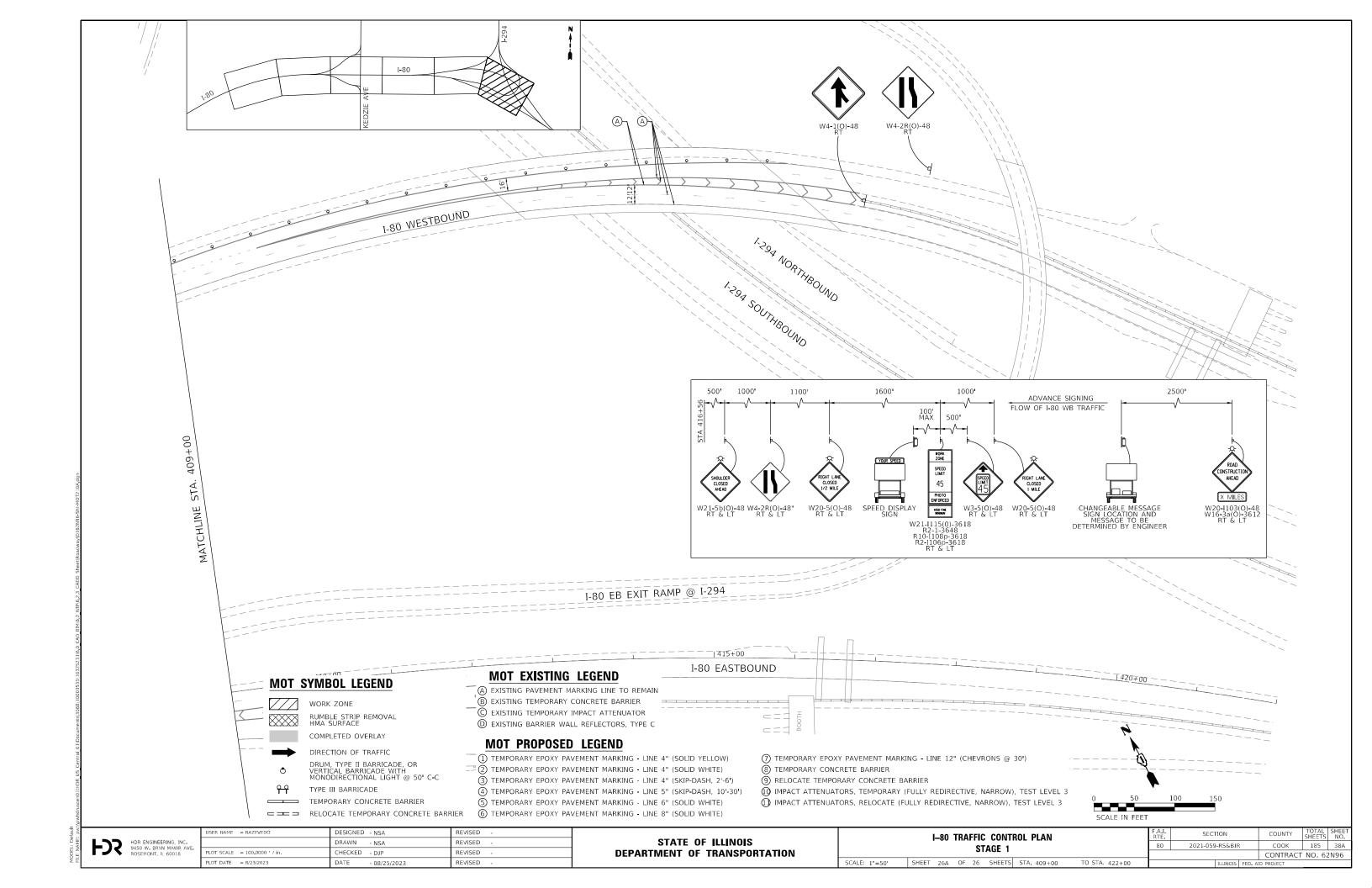
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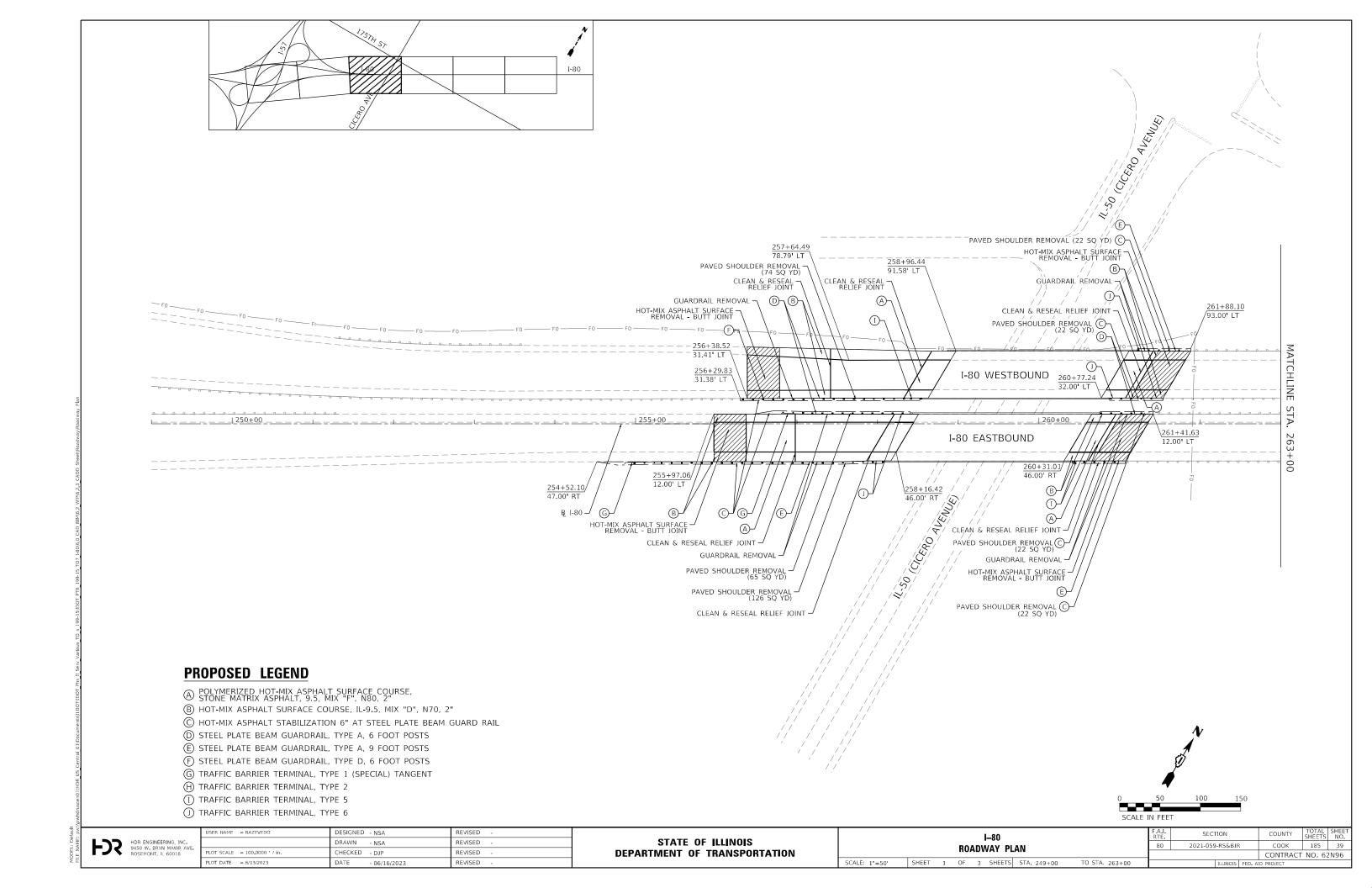
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

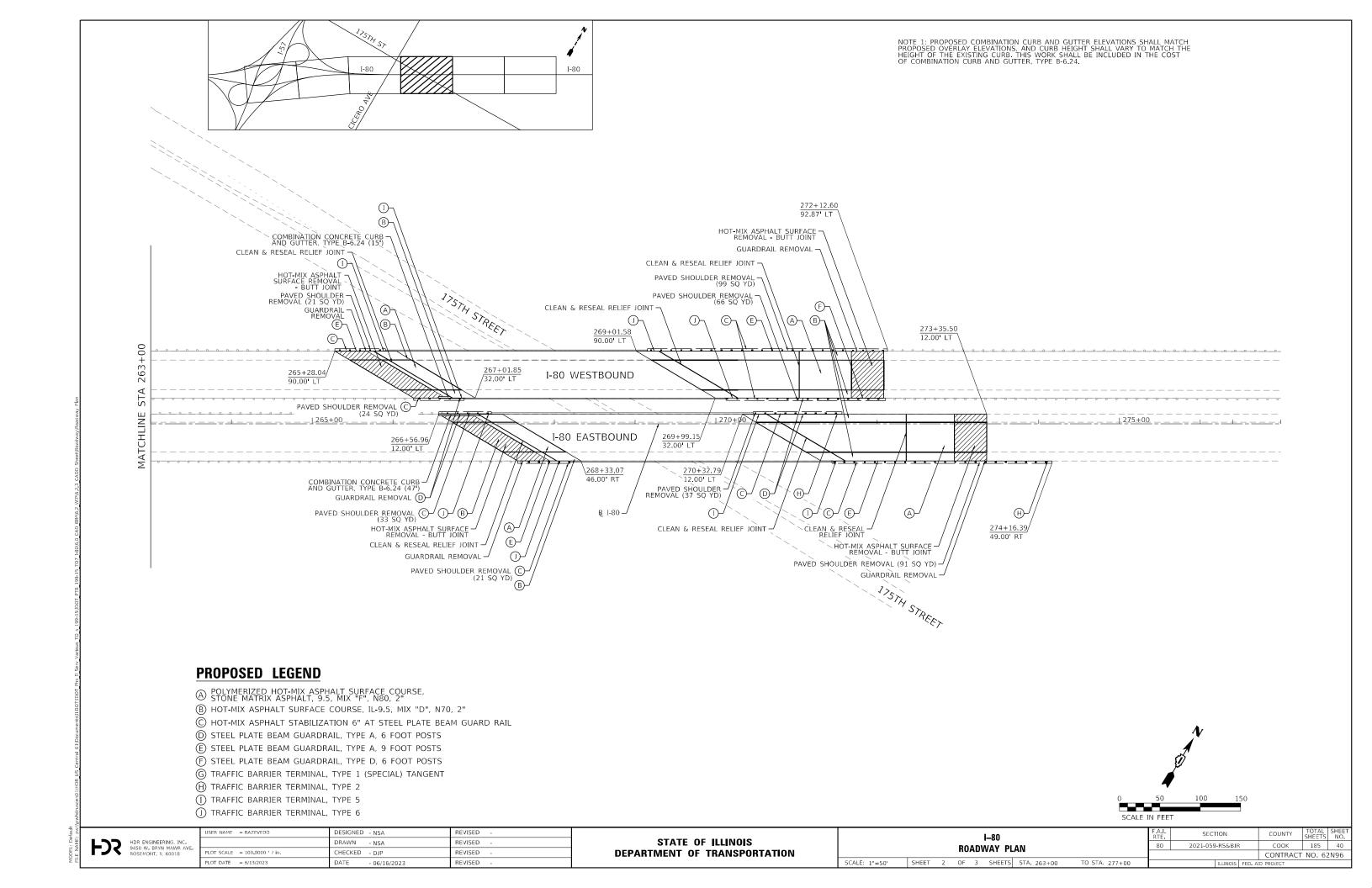
							F.A.I. RTE.	SEC	
STAGE 2						80	2021-05		
VINUE 2									
SCALE: 1"=50'	SHEET	25	OF	26	SHEETS	STA. 383+00	TO STA. 397+00		

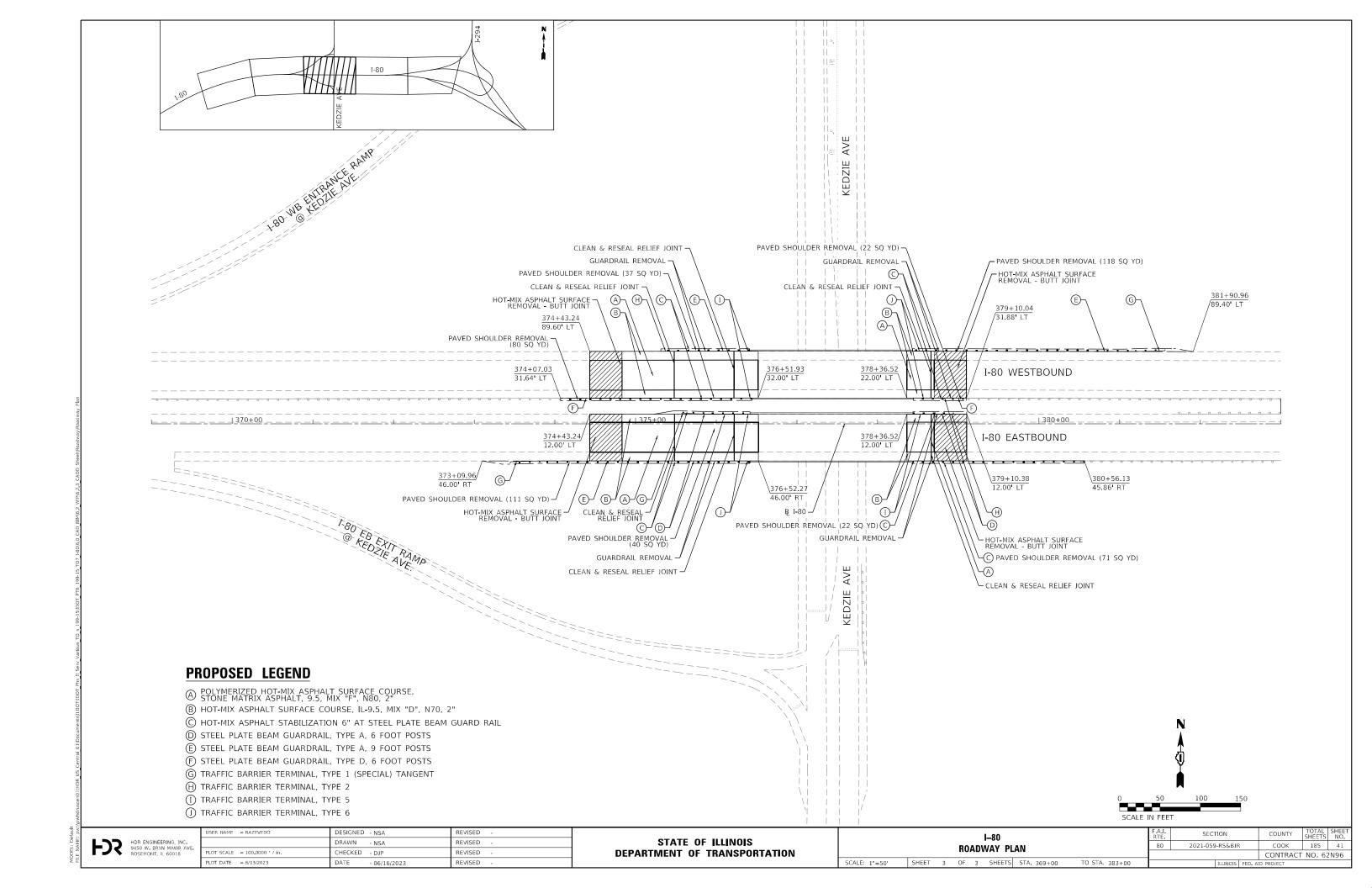
SECTION 059-RS&BJR COOK 185 37 CONTRACT NO. 62N96

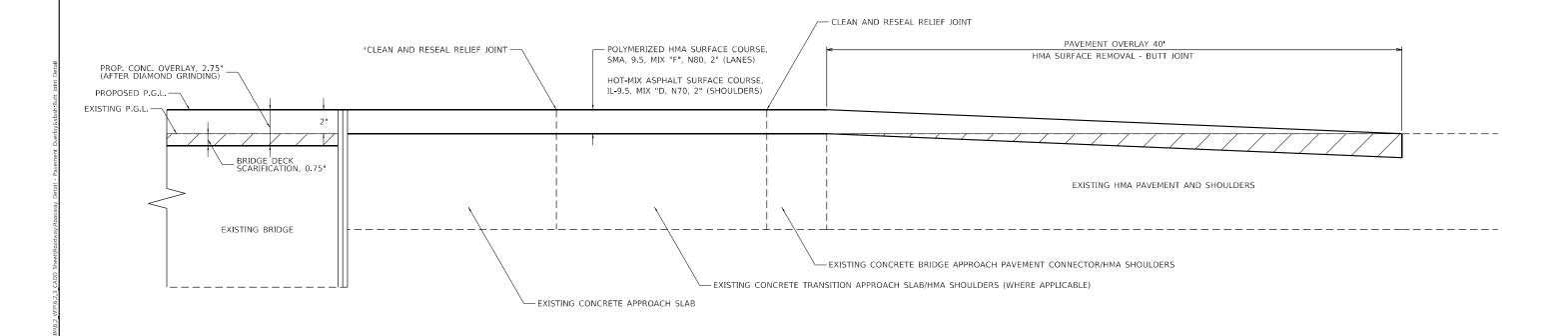












PAVEMENT OVERLAY DETAIL

(BRIDGE OMISSIONS INCLUDED)

EB OVER CICERO AVE - STA. 255+97.06 TO STA. 261+34.22

WB OVER CICERO AVE - STA. 256+38.49 TO STA. 261+80.44

EB OVER 175 ST - STA. 266+67.45 TO STA. 273+35.50

WB OVER 175 ST - STA. 265+36.23 TO STA. 272+07.92

EB OVER KEDZIE AVE - STA 374+43.24 TO STA 379+05.52

WB OVER KEDZIE AVE - STA 374+43.24 TO STA 379+05.52

*APPLICABLE AT BRIDGE APPROACHES THAT HAVE A TRANSITION APPROACH SLAB

TOTAL SHEET NO.

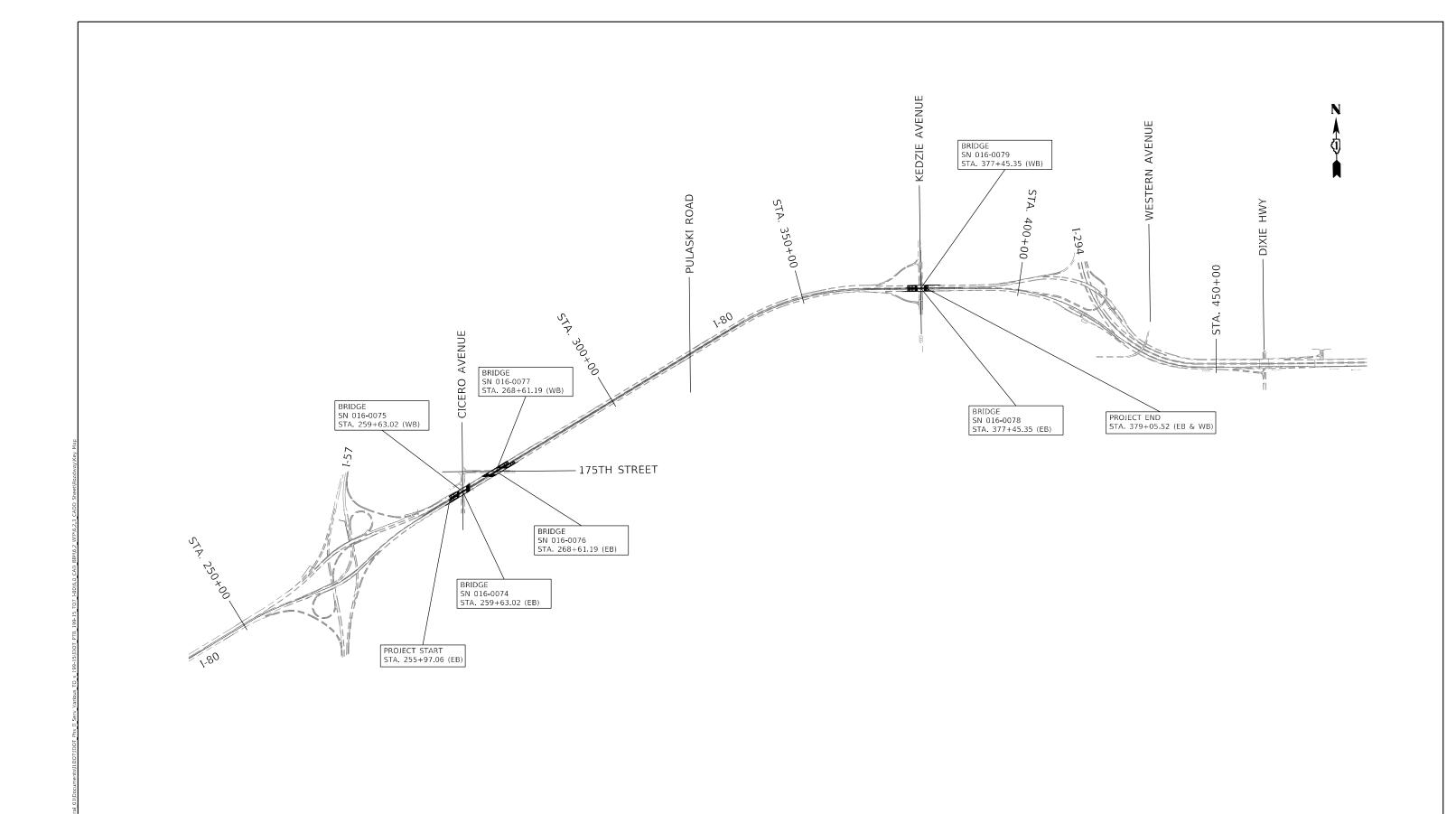
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

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		DRAWN	-	NSA	REVISED -
•	PLOT SCALE = 5.0000 / in	CHECKED	-	DJP	REVISED -
	PLOT DATE = 6/13/2023	DATE	-	06/16/2023	REVISED -

STAT	OF.	ILLINOIS
DEPARTMENT	OF T	RANSPORTATION

SCALE: N.T.S.

PAVEMENT OVERLAY DETAIL							F.A.I. RTE	SEC	SECTION		
I–80							80	2021-059	9-RS&BJF	₹	СООК
				1 00							CONTRAC
SHEET	1	OF	1	SHEETS	STA	TO STA.			TELIMOIS	EED A	ID DROIFCT

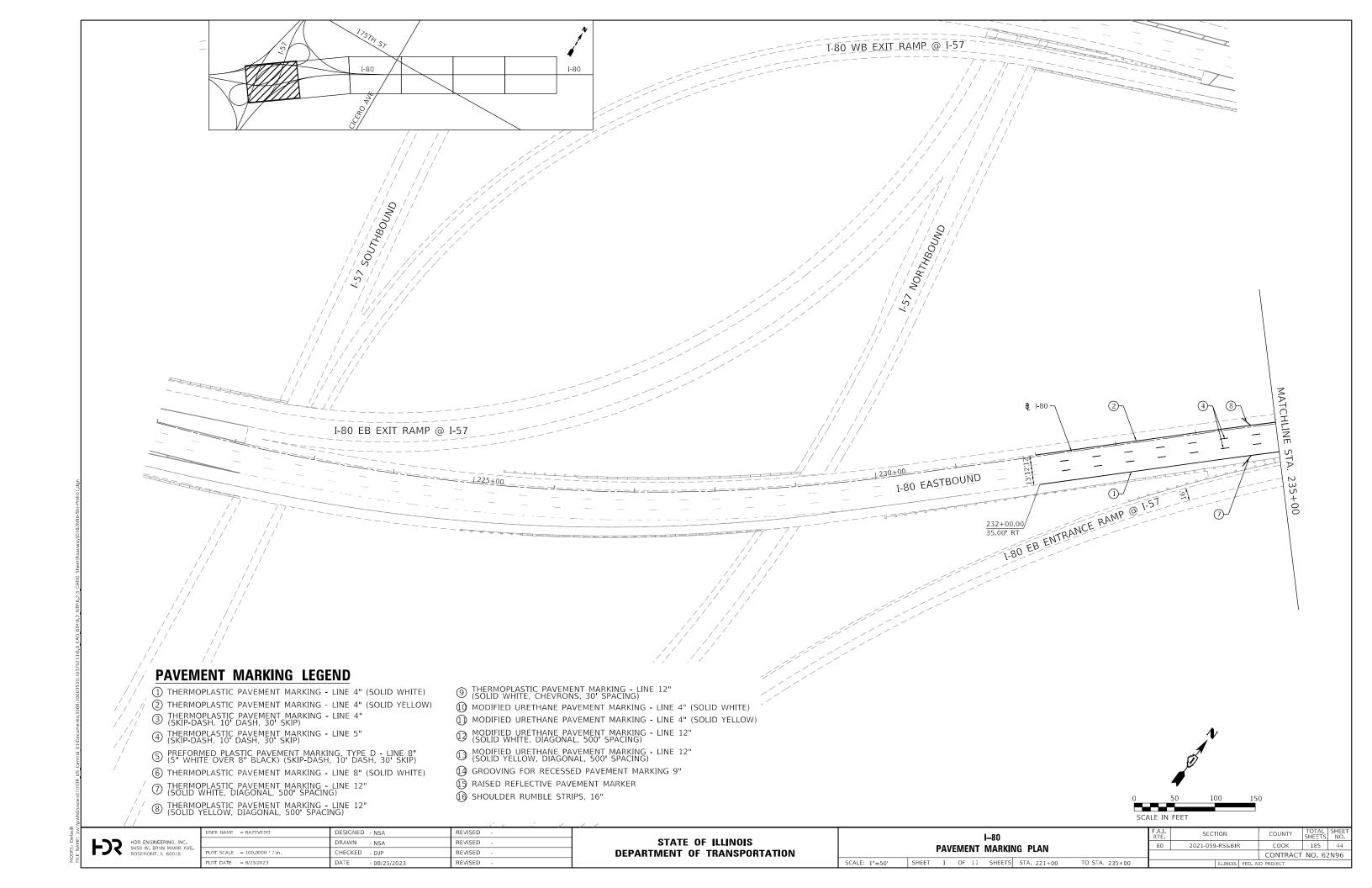


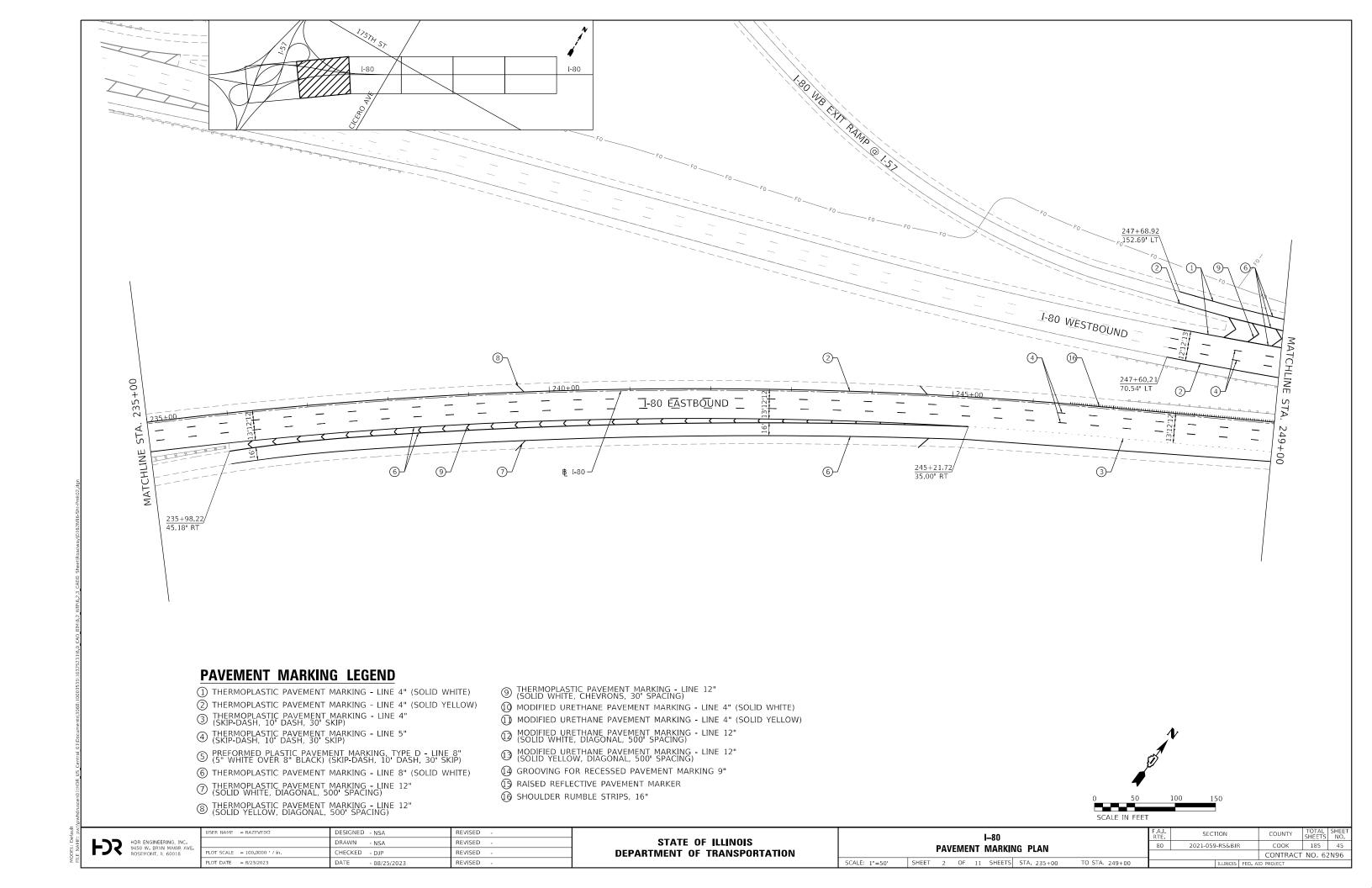
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

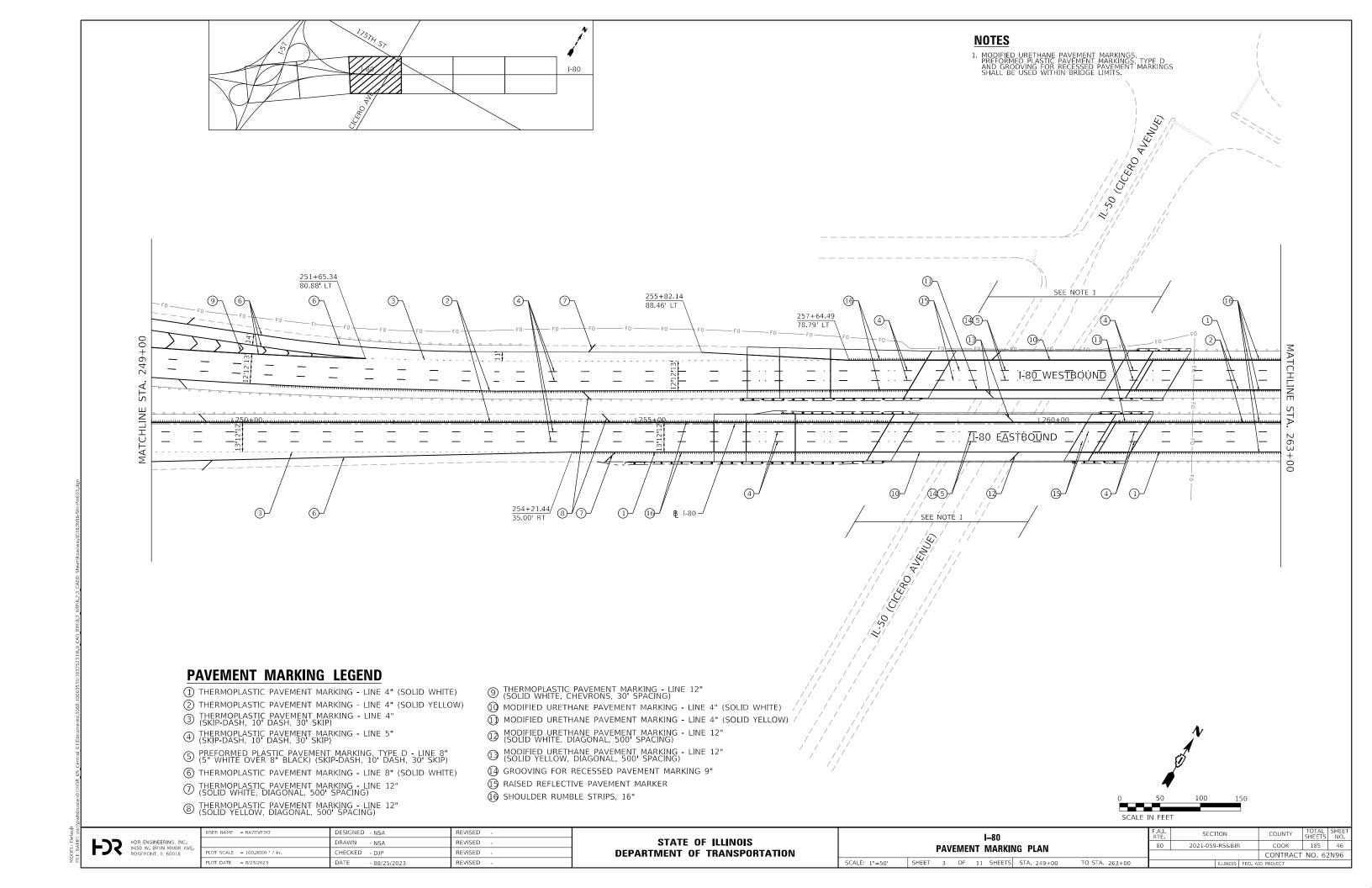
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_		DRAWN - NSA	REVISED -
E.	PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
	PLOT DATE = 6/13/2023	DATE - 06/16/2023	REVISED -

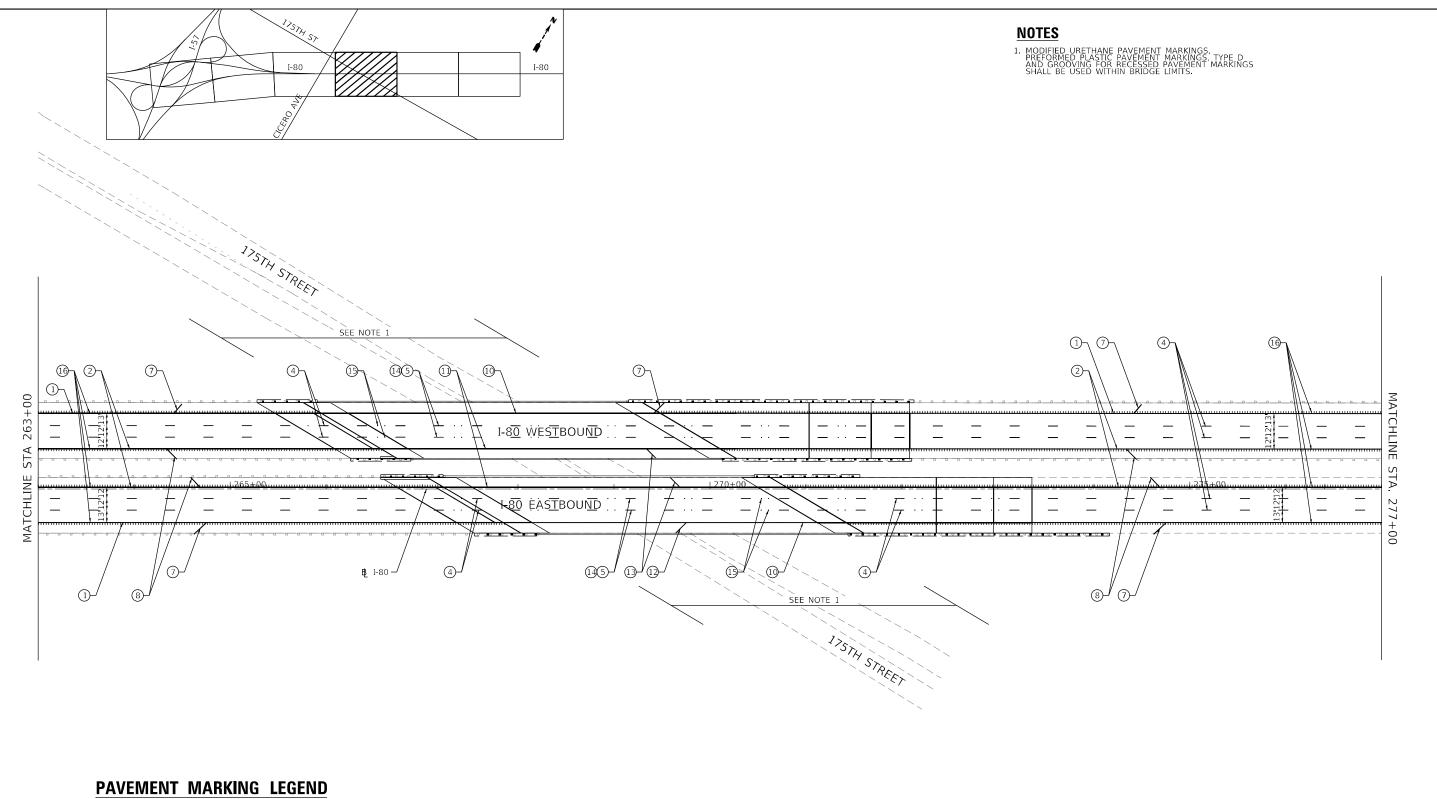
STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

KEY MAP	F.A.I. RTE	SECTION	(COUNTY	TOTAL SHEETS	SHEET NO.
I–80	80	2021-059-RS&BJR		COOK	185	43
I-00			C	ONTRACT	NO. 62	N96
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS	FED. AID PR	OJECT		





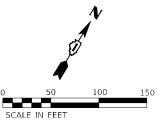




- (1) THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
 THERMOPLASTIC PAVEMENT MARKING LINE 4" (SKIP-DASH, 10' DASH, 30' SKIP)

- ⑤ PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- 6 THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- 8 THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)

- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- ① MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)
- GROOVING FOR RECESSED PAVEMENT MARKING 9"
- 13 RAISED REFLECTIVE PAVEMENT MARKER
- (6) SHOULDER RUMBLE STRIPS, 16"



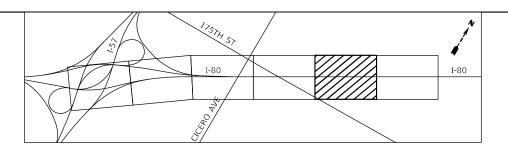
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PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

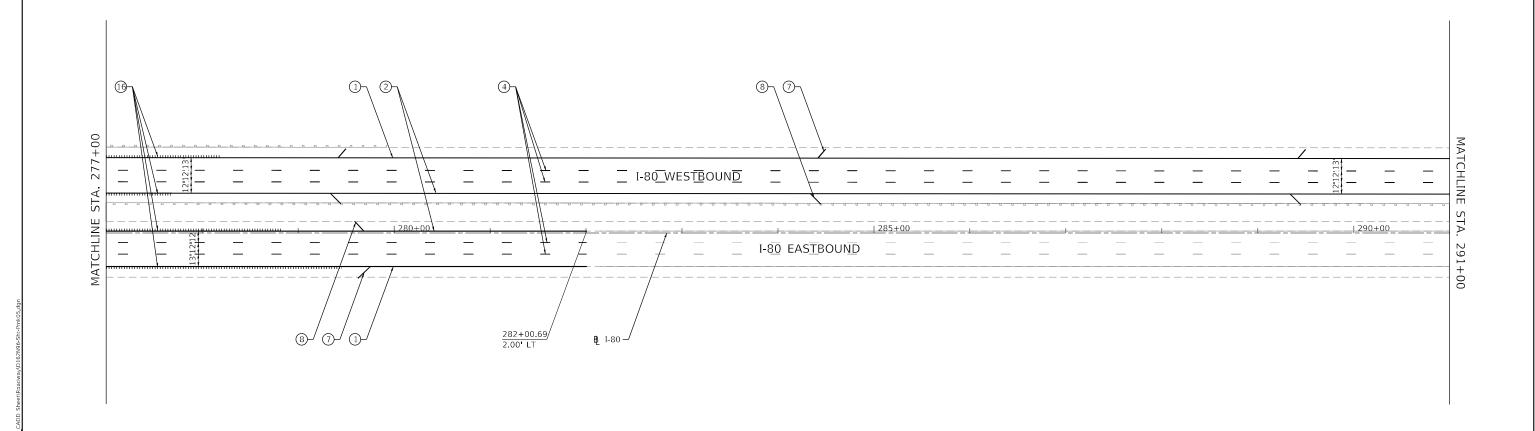
STATE 0	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

SCALE: 1"=50'

				I-80	I–80			
PAVEMENT		MARKIN	IG PLAN		80			
							1	
SHEET	4	OF	11	SHEETS	STA. 263+00	TO STA. 277+00		٠

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE'	
80	2021-059-RS&BJR		COOK	185	47
		CONTRACT	NO. 62	2N96	
	ILLINOIS	FED. AI	D PROJECT		





- 1 THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (2) THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (SKIP-DASH, 10' DASH, 30' SKIP)
- ⑤ PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- 6 THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- (SOLID YELLOW, DIAGONAL, 500' SPACING)

- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 1) MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)
- 1 GROOVING FOR RECESSED PAVEMENT MARKING 9"
- 13 RAISED REFLECTIVE PAVEMENT MARKER
- (16) SHOULDER RUMBLE STRIPS, 16"

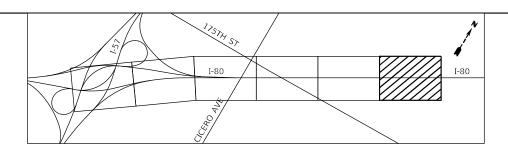
0	50	100	150
SCALE	IN FEET		

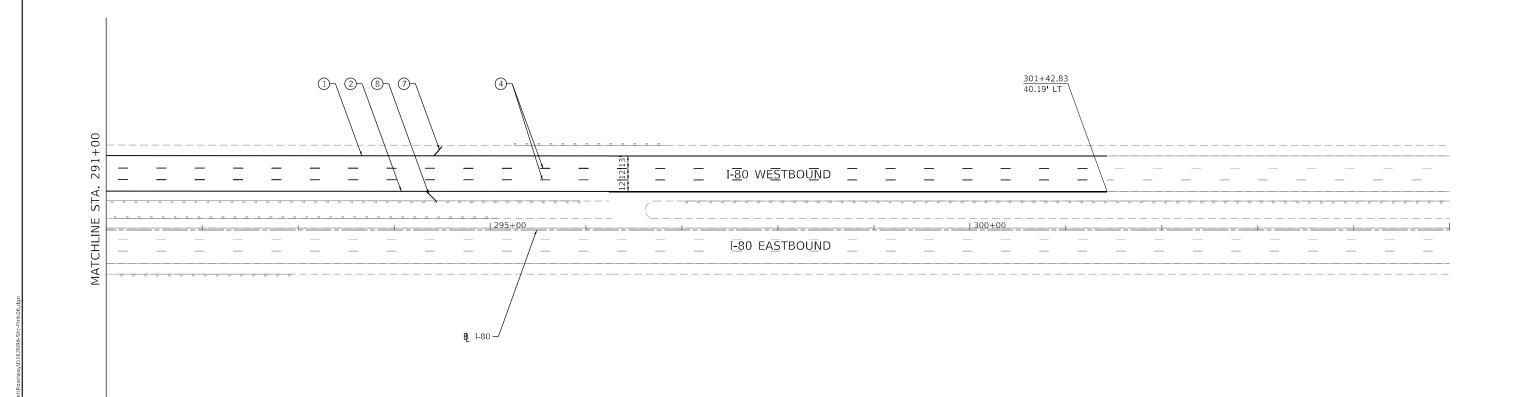
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PLOT SCALE = 100.0000 / in.	CHECKED - DJP	REVISED -
PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

	I–80								SECT
	PAVEMENT MARKING PLAN						80	2021-059	
1			WALLE	TO I LAIT					
	SHEET	5	OF	11	SHEETS	STA. 277+00	TO STA. 291+00		

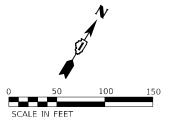
F.A.I. RTE	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
80	2021-059-RS	₹	COOK	185	48	
		CONTRACT	NO. 62	2N96		
ILLINOIS FED. A				D PROJECT		





- (1) THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- 2 THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (SKIP-DASH, 10' DASH, 30' SKIP)
- ① THERMOPLASTIC PAVEMENT MARKING LINE 5" (SKIP-DASH, 10' DASH, 30' SKIP)
- ⑤ PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- (6) THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- ® THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)

- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (1) MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)
- 4 GROOVING FOR RECESSED PAVEMENT MARKING 9"
- (15) RAISED REFLECTIVE PAVEMENT MARKER
- (16) SHOULDER RUMBLE STRIPS, 16"



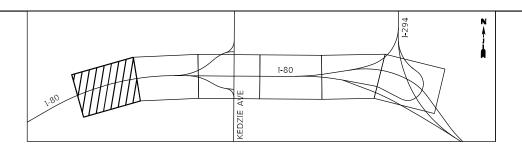
FJS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE ROSEMONT, IL 60018

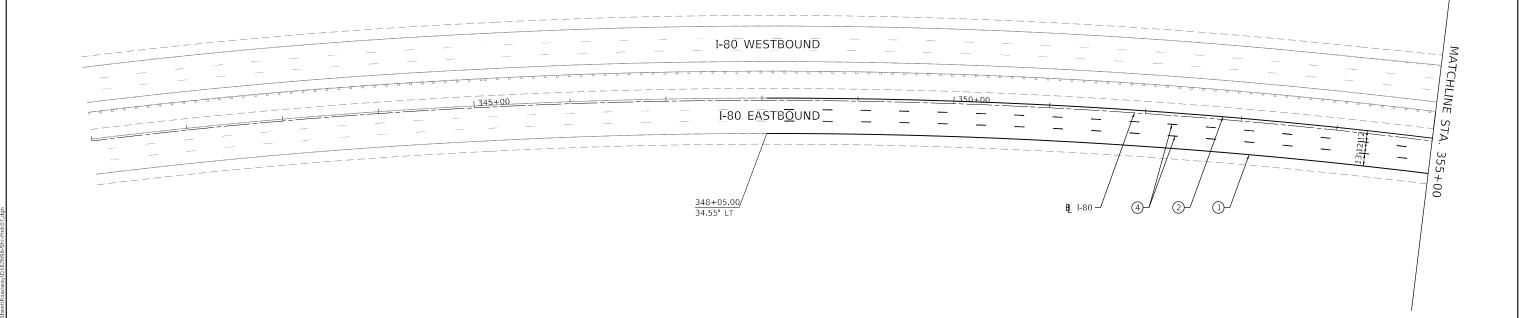
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PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE 0	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

I-80 PAVEMENT MARKING PLAN									
SCALE: 1"=50'	SHEET	6	OF	11	SHEETS	STA. 291+00	TO STA. 305+00		

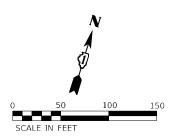
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
80	2021-059-RS&BJF	COOK	185	49	
		CONTRACT	NO. 62	2N96	
	ILLINOIS	FED. A	D PROJECT		





- 1 THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- ② THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
 ③ THERMOPLASTIC PAVEMENT MARKING LINE 4" (SKIP-DASH, 10' DASH, 30' SKIP)
- (Skip-dash, 10' dash, 30' skip)
- (5) PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- 6 THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- ® THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)

- (SOLID WHITE, CHEVRONS, 30' SPACING)
- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (1) MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)
- GROOVING FOR RECESSED PAVEMENT MARKING 9"
- (15) RAISED REFLECTIVE PAVEMENT MARKER
- (1) SHOULDER RUMBLE STRIPS, 16"

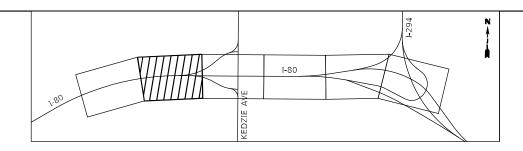


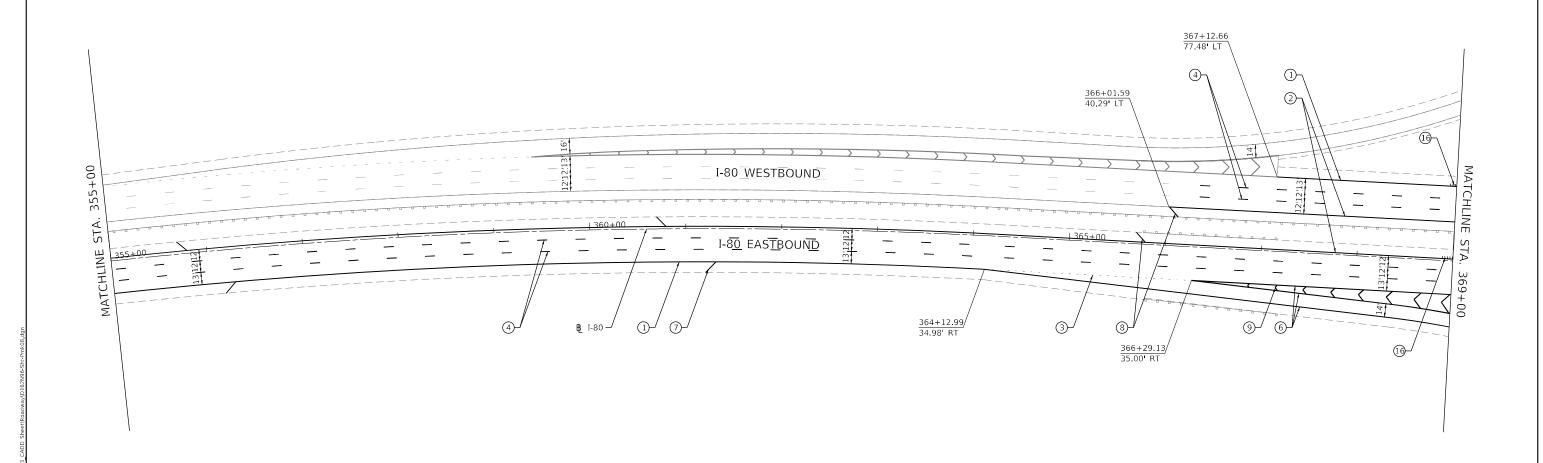
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

				-80			F.A.I. RTE	
PAVEMENT MARKING PLAN							80	202
	. , , , ,		•••	****				
SHEET	7	OF	11	SHEETS	STA, 341+00	TO STA. 355+00		

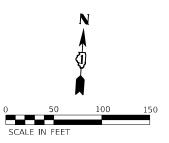
F.A.I. RTE.	SECT	ΠΟN		COUNTY	SHEETS	SHEET NO.
80	2021-059	-RS&BJF	₹	СООК	185	50
			CONTRACT	NO. 62	2N96	
ILLINOIS FED. A				ID PROJECT		





- 1 THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- ② THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
 ③ (SKIP-DASH, 10' DASH, 30' SKIP)
- 4 THERMOPLASTIC PAVEMENT MARKING LINE 5" (SKIP-DASH, 10' DASH, 30' SKIP)
- © PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- (6) THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- ® THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)

- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, CHEVRONS, 30' SPACING)
- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- ① MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12" (SOLID YELLOW, DIAGONAL, 500' SPACING)
- (1) GROOVING FOR RECESSED PAVEMENT MARKING 9"
- 15 RAISED REFLECTIVE PAVEMENT MARKER
- (16) SHOULDER RUMBLE STRIPS, 16"



FJS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE ROSEMONT, IL 60018

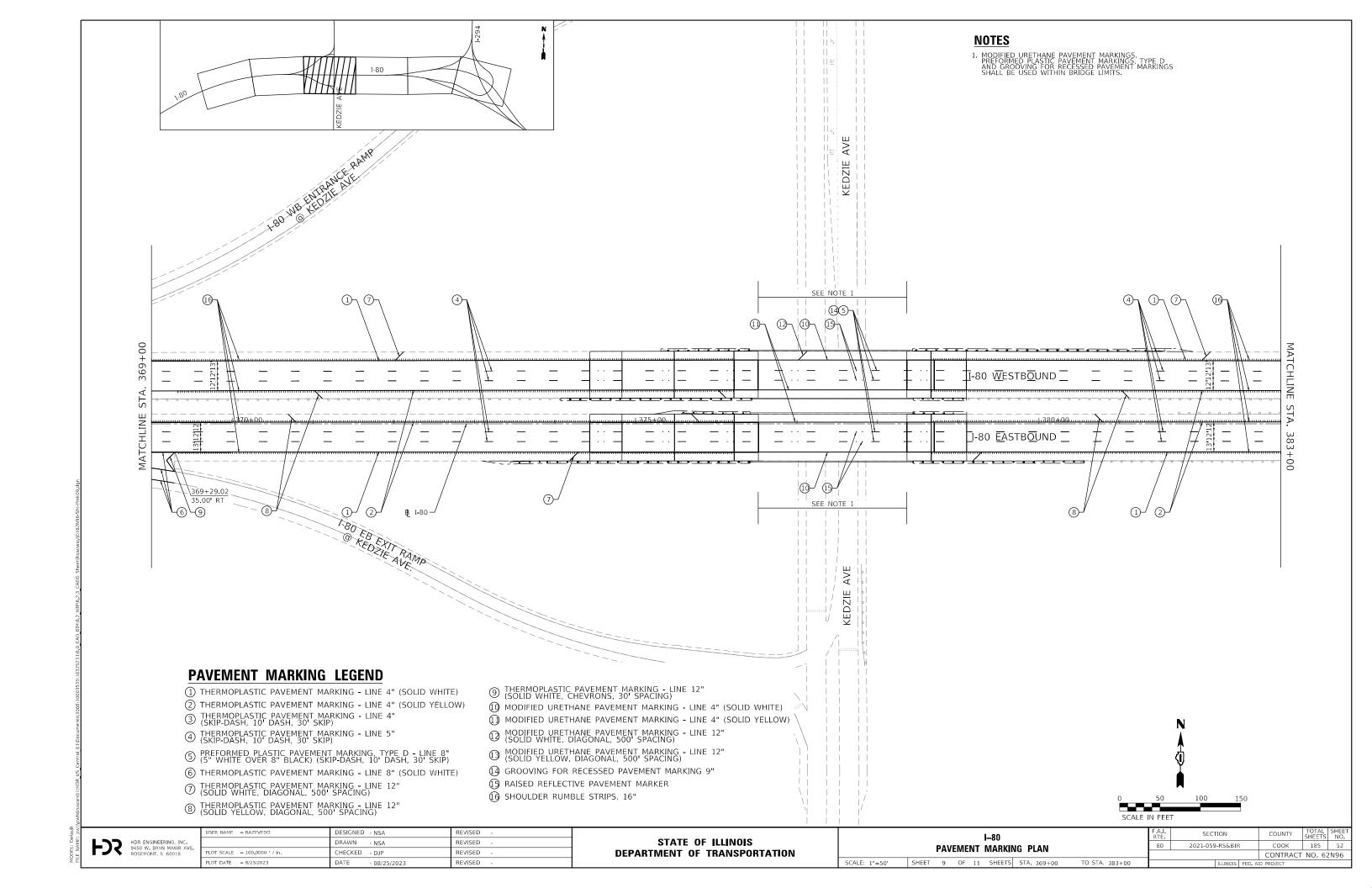
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		DRAWN - NSA	REVISED -
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	PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

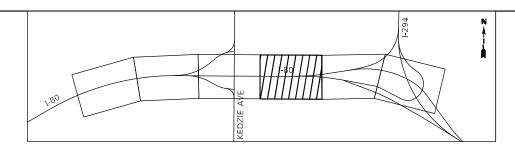
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

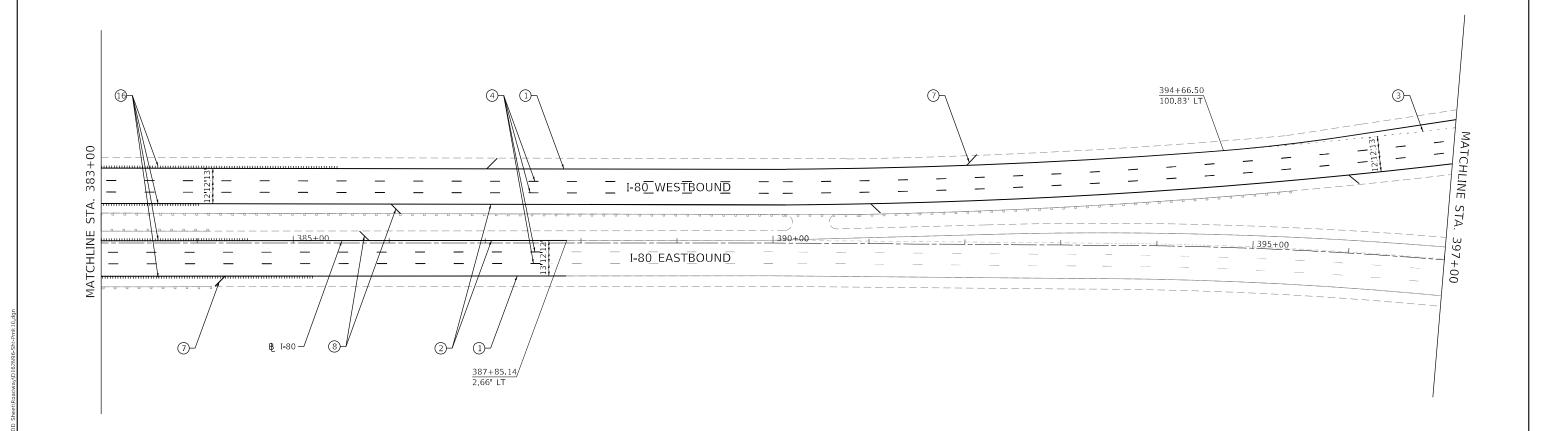
	D 4 1 /			I–80	UO DI 411	
	PAV	FIME	NI	MAKKII	NG PLAN	
SHEET	8	OF	11	SHEETS	STA. 355+00	TO STA. 369+00

SCALE: 1"=50"

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
80	2021-059-RS&BJR			COOK	185	51
		П	CONTRACT	NO. 62	2N96	
	ILLING	IS FED.	ΑI	D PROJECT		

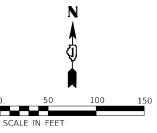






- ① THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (2) THERMOPLASTIC PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (SKIP-DASH, 10' DASH, 30' SKIP)
- THERMOPLASTIC PAVEMENT MARKING LINE 5" (SKIP-DASH, 10' DASH, 30' SKIP)
- © PREFORMED PLASTIC PAVEMENT MARKING, TYPE D LINE 8" (5" WHITE OVER 8" BLACK) (SKIP-DASH, 10' DASH, 30' SKIP)
- 6 THERMOPLASTIC PAVEMENT MARKING LINE 8" (SOLID WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 12" (SOLID WHITE, DIAGONAL, 500' SPACING)
- THERMOPLASTIC PAVEMENT MARKING LINE 12"
 (SOLID YELLOW, DIAGONAL, 500' SPACING)

- THERMOPLASTIC PAVEMENT MARKING LINE 12
- MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID WHITE)
- (1) MODIFIED URETHANE PAVEMENT MARKING LINE 4" (SOLID YELLOW)
- MODIFIED URETHANE PAVEMENT MARKING LINE 12
- (SOLID YELLOW, DIAGONAL, 500' SPACING) LINE 12"
- (4) GROOVING FOR RECESSED PAVEMENT MARKING 9"
- (1) RAISED REFLECTIVE PAVEMENT MARKER
- (6) SHOULDER RUMBLE STRIPS, 16"



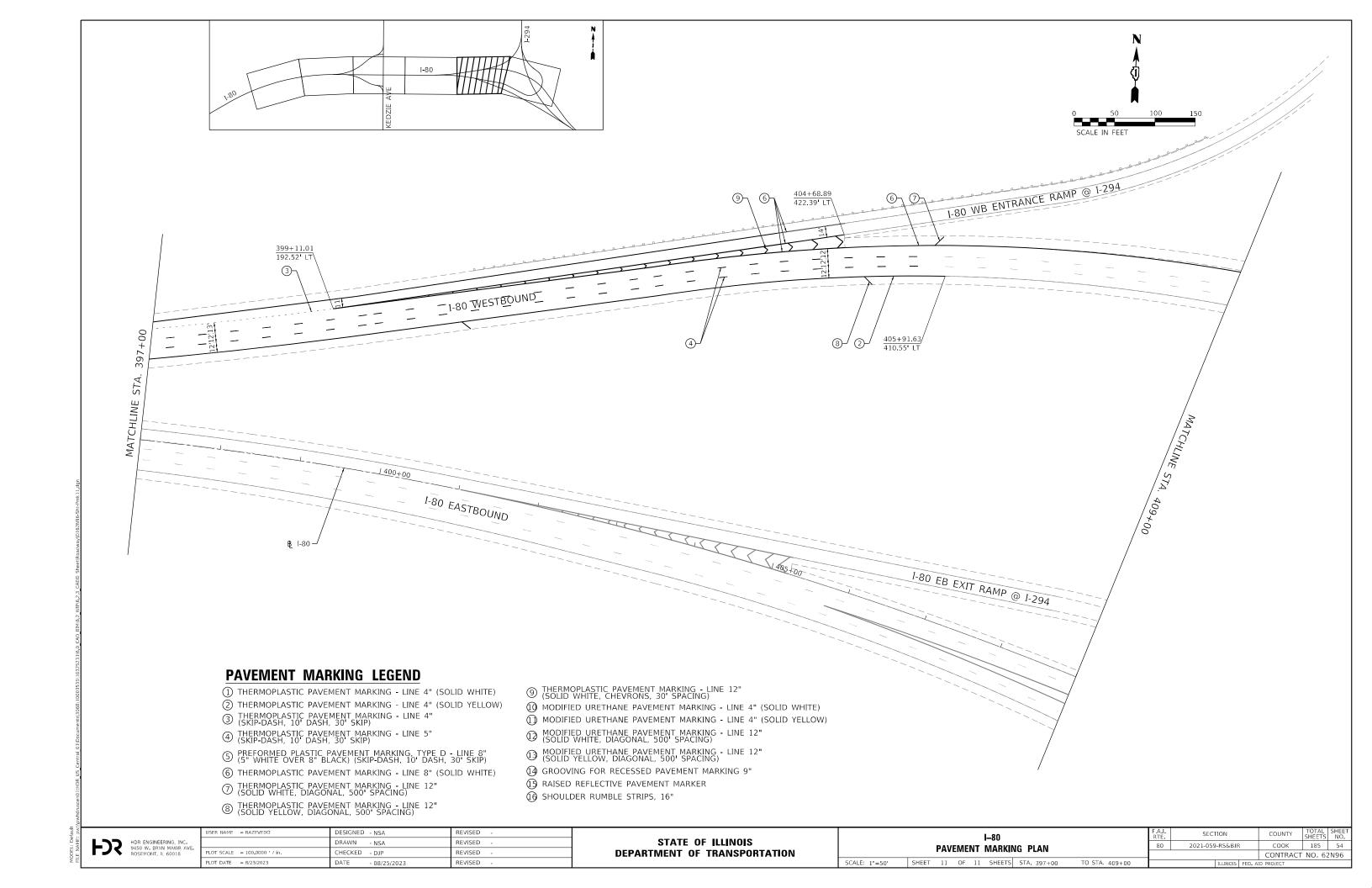
FDS	HDR ENGINEERING, INC. 9450 W. BRYN MAWR AV ROSEMONT, IL 60018

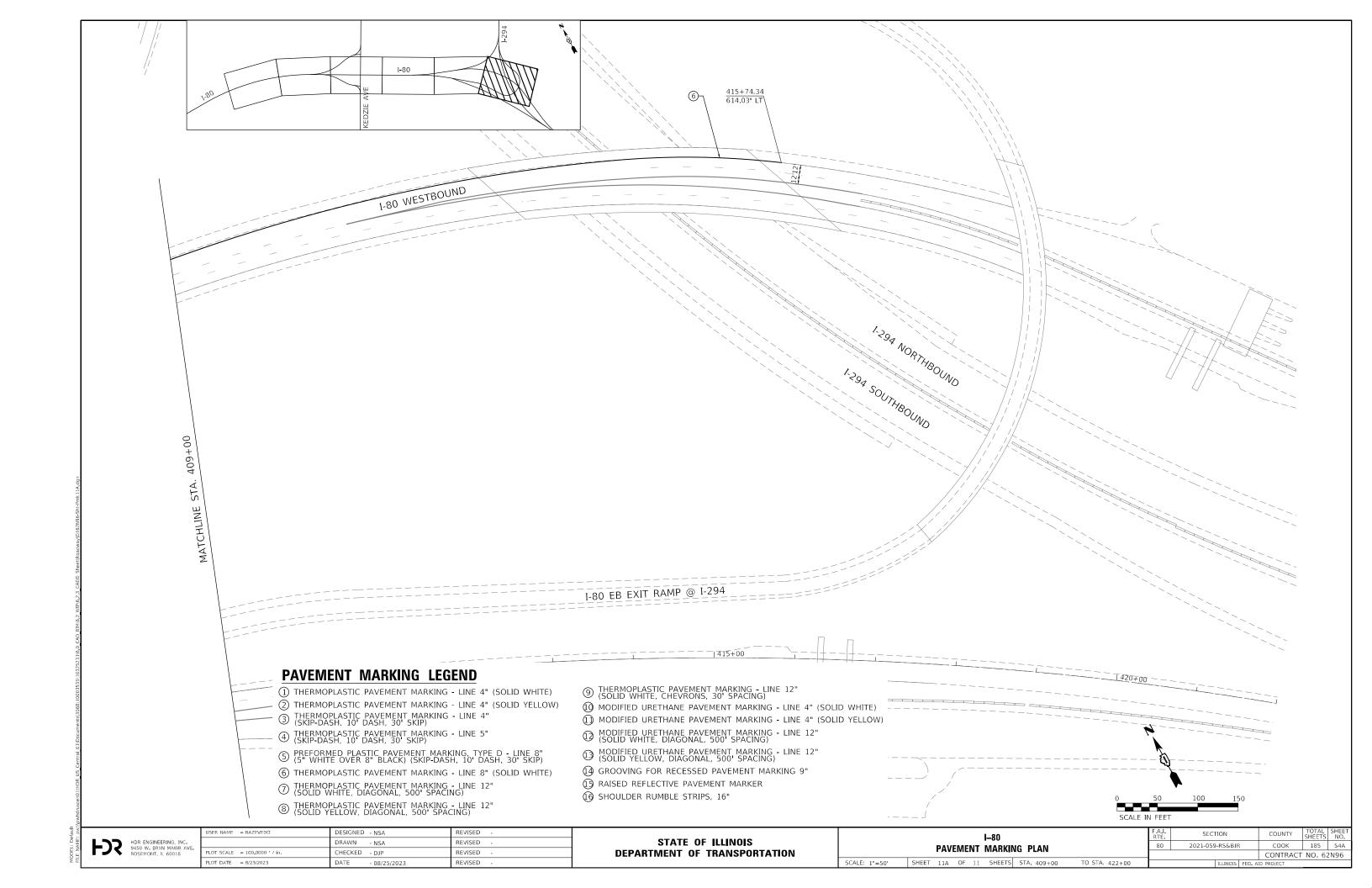
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PLOT DATE = 8/23/2023	DATE - 08/25/2023	REVISED -

STATE OF ILLIN	IOIS
DEPARTMENT OF TRAN	SPORTATION

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	SHEET	10	OF	11	SHEETS	STA. 383+00	TO STA. 397+00

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2021-059-RS&B	СООК	185	53
		CONTRACT	NO. 62	2N96
	ILLINOIS	ID PROJECT		





PROPOSED DESIGN STRESSES Existing Structure: S.N. 016-0074 Built under Section 1516-804HB & 1516-804 in 1964. DESIGN SPECIFICATIONS EXISTING DESIGN STRESSES Redecked and widened in 1995 under Section (1516-804HB)R. In 1996, rehabilitation 2002 AASHTO Standard Specifications 1966 CONSTRUCTION FIELD UNITS: consisted of substructure and superstructure widening and deck replacement. Structure consists of a reinforced concrete deck supported by continuous rolled steel beams on pile for Highway Bridges f'c = 4,000 psi (Superstructure)bent abutments and multiple column piers. 215'-9" back-to-back of abutments, 61'-2" out-to-out. fc = 1.400 psify = 60,000 psi (Reinforcement)fs = 20,000 psi (Reinforcement)LOADING HS20-44 fy = 36,000 psi (Structural Steel) Traffic to be maintained utilizing stage construction. fs = 20,000 psi (Structural Steel)No allowance for SCOPE OF WORK No salvage. 1996 CONSTRUCTION future wearing surface $f'c = 3,500 \ psi$ Partial steel removal and replacement 116'-51/2" Limits of Protective Shield fy = 60,000 psi (Reinforcement)for Beam 20 and 22. © Pier 1 - ⊊ Pier 3 Fier 2 fs = 20,000 psi (Structural Steel)Reconstruct 2. Install Protective Shield. expansion ioint Light Pole (South parapet only) └─ Ç Brg. Reconstruct └─ @ Bra. Exist. Traffic Barrier Remove and replace existing expansion - Exist. Traffic Barrier expansion joint W. Abut. E. Abut ioints at both abutments with Terminal Type 6 Terminal Type 5 Preformed Joint Strip Seals. รับคือสับดีอสิเคียงสิบคิบคิบคิบคิบคิทคิดคลิค Perform repairs on bridge deck and approach slabs. Perform Bridge Deck Scarification 3/4", ** 14'-5" Min. adjust scuppers and approach slab drain Exist. W33 steel Vert. CI. install Bridge Deck Latex Concrete beam (composite) Overlay 3" (prior to ½" diamond - Partial removal and replacment of beam Clean Paved Ditch, typ. Install crashwall grinding), and perform Bridge Deck height extensions. Grooving (Longitudinal). typ. all piers ** Point of Minimum Vertical Clearance is 6. Clean and reseal approach slab relief located beneath I-80 WB over Cicero Avenue. Refer to SN 016-0075 Plan for joints. Refer to Roadway Plans for **ELEVATION** quantities and details. Install 2" Polymerized Hot-Mix Asphalt & Brg. € Cicero Ave. € Brg. Exist. Traffic Barrier Surface Course (SMA) on the approach 30°39'0" Remove and reconstruct expansion Ē. Abut. Terminal Type 6, Sta. 259+63.02 slabs and transition pavements. Refer joints (typ. both abutment joints) tvp. each side to Roadway Plans for quantities and 10'-0" 10'-0" details. € F.A.I. 80 -Clean approach slab drain. Perform Epoxy Crack Injection 258+00 260+00 ²⁶¹⁺⁰⁰ Exist. Drainage on parapets. Scupper to be ₿ F.A.I. 80 adjusted, typ. \rightarrow 10. Perform Structural Repair of Concrete Pier 3 Brg. W. Abut. at substructure units. /* 30'-0" * 100'-0" Sta. 259+96.53 Appr. Slab, typ. Sta. 258+32.94 & Brg. E. Abut Transition Pavement Sta. 260+42.94 11. Install crashwall height extensions at all piers. – Stage Constr. G Pier 1 Bk. W. Abut. P.G.L. E.B. I-80 -Line Sta. 258+30.07 Sta. 258+77.36 12. Apply Protective Coat on the top surface of the deck overlay, Pier 2 -Bk. E. Abut reconstructed deck expansion joints, Sta. 259+36.94 Sta. 260+45.82 the top and inside faces of the existing parapets, and the piers. THE PROPERTY OF THE PARTY OF TH Adjust frame and grates and 13. Clean and paint abutment bearings and Exist. Traffic Barrier clean approach slab drain beam ends. 10'-0" 10'-0'' Terminal Type 5, tvp. each side Light Pole *See Roadway Plans for Overlay Details 14. Seal cracks on slope wall. 15. Clean paved ditch at base of slope walls Perform ¾" bridge deck scarification and Range 13E 3rd PM apply 3" bridge deck latex concrete overlay (prior to $\frac{1}{4}$ " diamond grinding) to all GENERAL PLAN AND ELEVATION portions of deck except the reconstructed I-80 EASTBOUND OVER CICERO AVENUE expansion joint areas. F.A.I. RTE. 80 2'-101/5" 2'-101/5" 44'-5" 59'-7' 59'-7" 46'-5" Stı Span 1 Span 2 Span 3 Span 4 SEC. 2021-059-RS&BJR 215'-9" COOK COUNTY Bk. to Bk. Abutments STATION 259+63.02 LOCATION SKETCH STRUCTURE NO. 016-0074 <u>PLAN</u> SER NAME = DESIGNED - AMN REVISED -SECTION **GENERAL PLAN & ELEVATION** STATE OF ILLINOIS HECKED - BHS REVISED 2021-059-RS&BJR COOK 185 55 **STRUCTURE NO. 016-0074** RAWN REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62N96 SHEET 1 OF 20 SHEETS LOT DATE = 8/23/2023 CHECKED - BHS REVISED

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

3. Reinforcement bars designated (E) shall be epoxy coated.

- 4. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½," deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 5. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 6. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 7. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 8. 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.
- 9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 11. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 13. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 14. All exposed concrete edges shall have a $\frac{3}{4}$ " chamfer, except where shown otherwise.
- 15. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 16. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

SER NAME =

LOT DATE = 10/2/2023

17. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.

DESIGNED - AMN

HECKED - BHS

CHECKED - BHS

DRAWN

REVISED -

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INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- Joint Reconstruction Details
- 8 Joint Reconstruction Details
- 9 Modified Preformed Joint Strip Seal
- 10 Drainage Scupper Details
- 11 Approach Shoulder Inlet Details
- 12 Bar Splicer Assembly Details
- 13 Structural Steel Repairs
- 14 Structural Steel Repairs15 Structural Steel Repairs
- 16 Abutment Repairs
- 17 Pier 1 Repairs
- 18 Pier 2 Repairs
- 19 Pier 3 Repairs
- 20 Pier Repair Details

TOTAL BILL OF MATERIAL

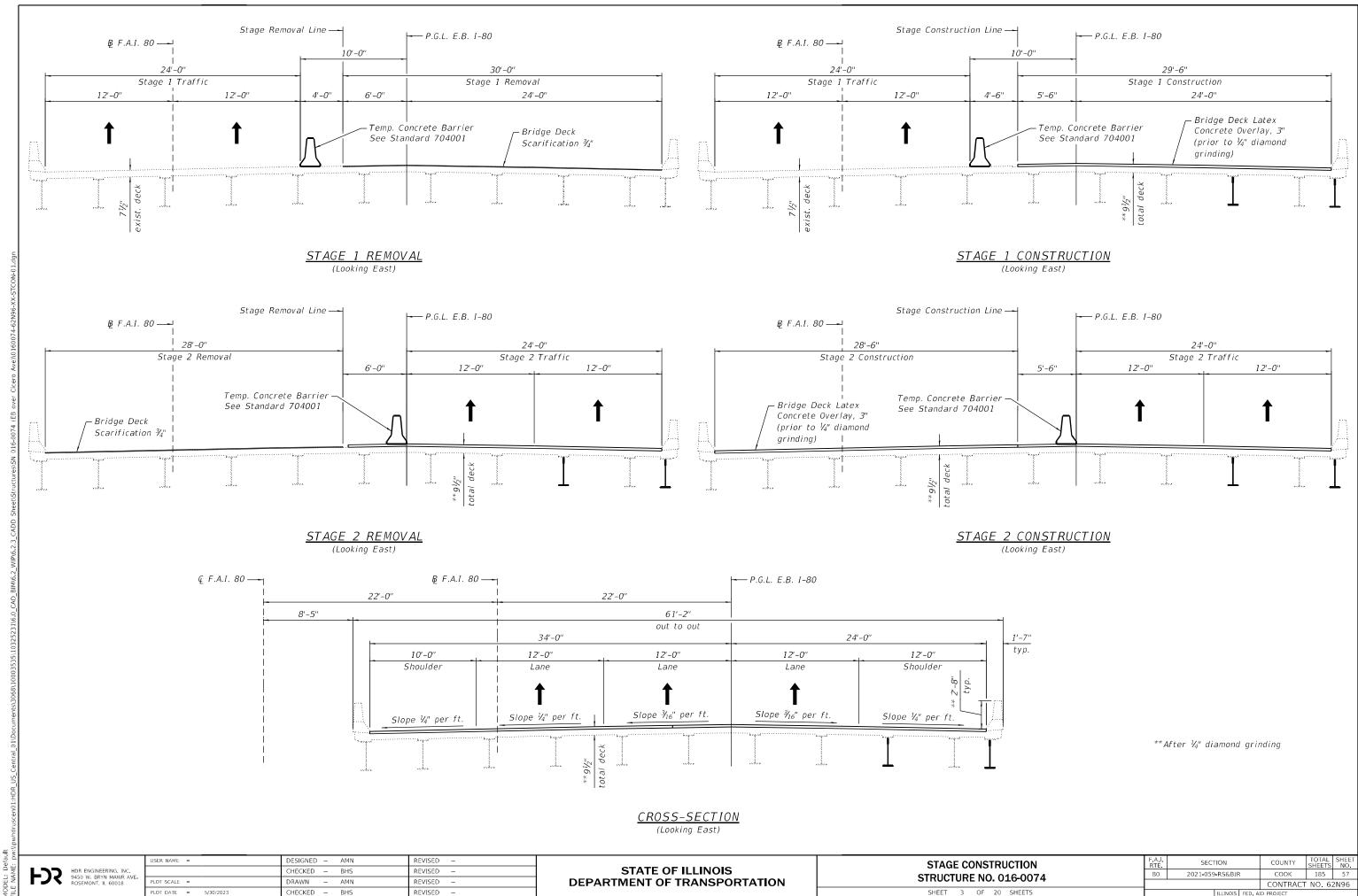
ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	21.5
Protective Shield	Sq Yd	792
Concrete Structures	Cu Yd	32.1
Concrete Superstructure	Cu Yd	24.2
Protective Coat	Sq Yd	2,211
Furnishing And Erecting Structural Steel	Pound	11,940
Reinforcement Bars, Epoxy Coated	Pound	7,840
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	139.0
Epoxy Crack Injection	Foot	50
Slope Wall Crack Sealing	Foot	164
Cleaning Paved Ditch	Foot	174
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	859
Frames And Grates To Be Adjusted (Special)	Each	1
Approach Slab Repair (Full Depth)	Sq Yd	8
Structural Steel Removal	Pound	9,480
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,336
Containment And Disposal Of Lead Paint Cleaning Residues No. 1	L Sum	1
Cleaning And Painting Steel Bridge No. 1	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,336
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	129
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	6
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,288
Temporary Shoring And Cribbing	Each	2
Temporary Slab Support System	Each	2

- 18. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.
- 19. Slope Wall Crack Sealing to be performed at the direction of the Engineer.

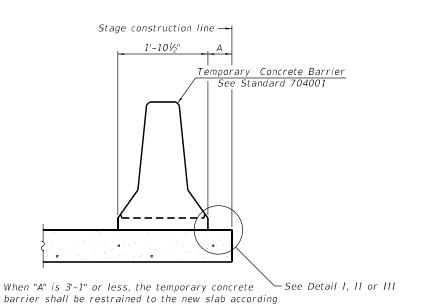
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

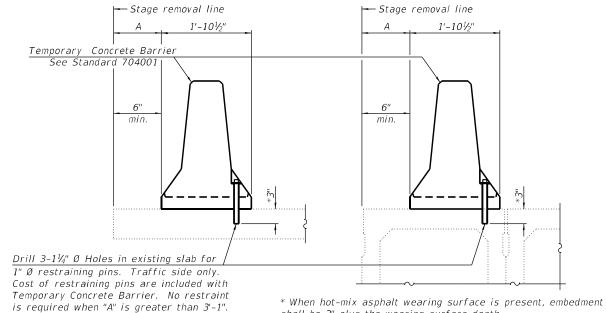
GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIALS	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	
STRUCTURE NO. 016-0074	80	2021 - 059-RS&BJR	COOK	185	56
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SHEET 2 OF 20 SHEETS		ILLINOIS FED. A	ID PROJECT		

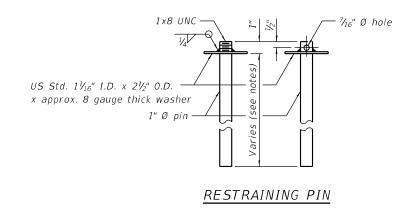
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NEW SLAB OR NEW DECK BEAM

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

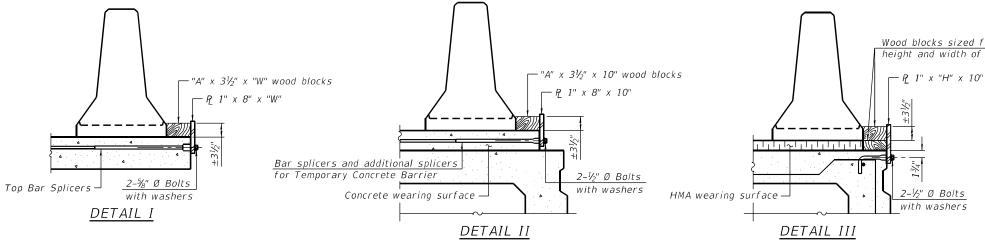
when "A" is greater than 3'-1".

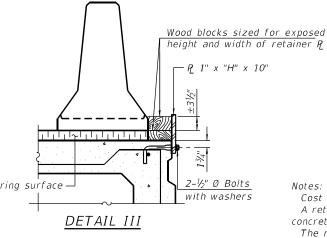
EXISTING SLAB

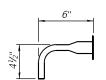
EXISTING DECK BEAM

shall be 3" plus the wearing surface depth.

SECTIONS THRU SLAB OR DECK BEAM







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.

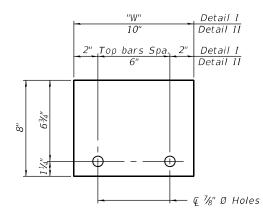
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

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

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

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

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



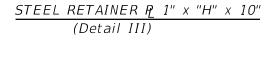
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021

STEEL	RETAINER	PL	1"	Χ	8"	Χ	"W"	

(Detail I and II)

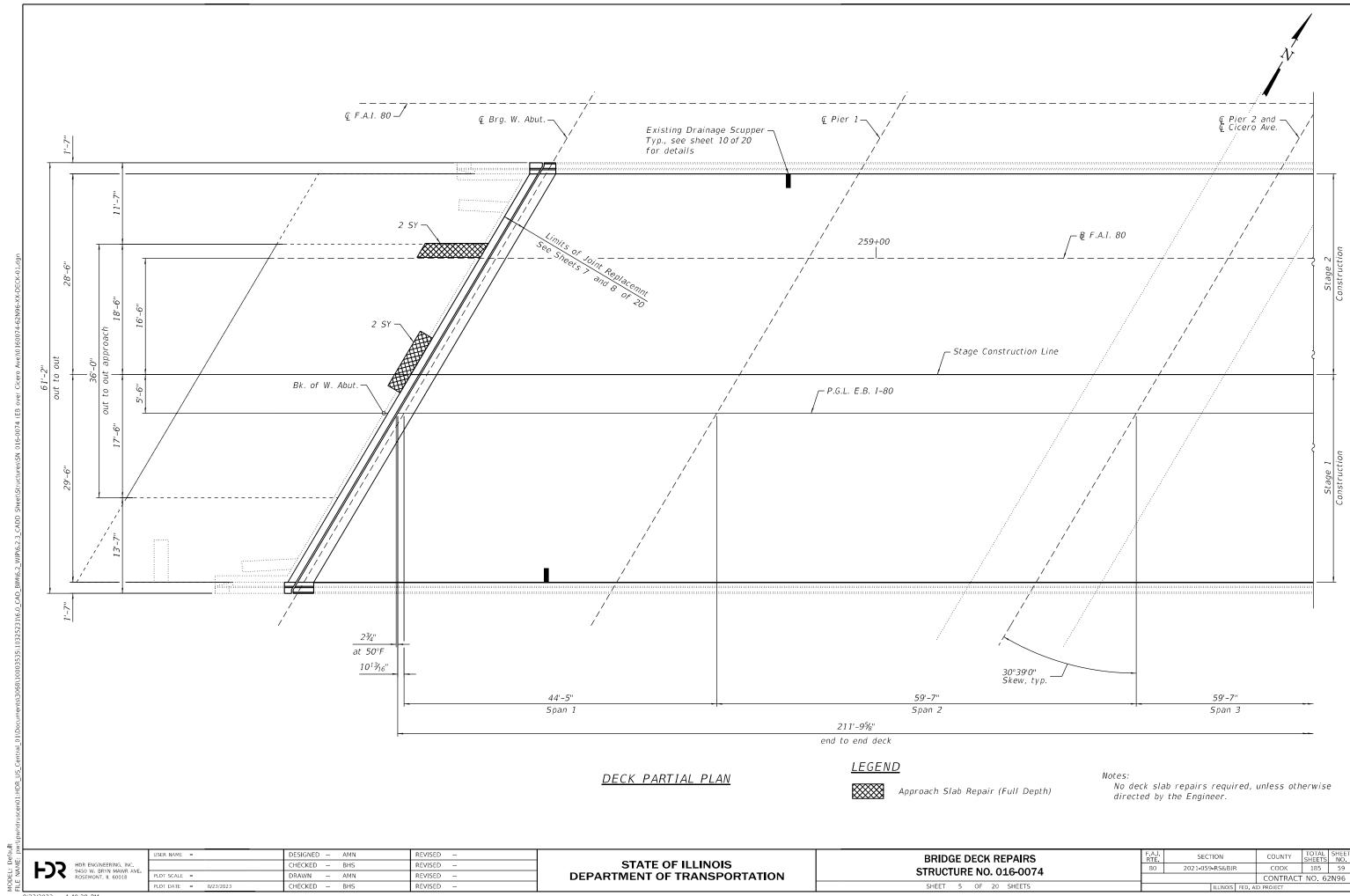


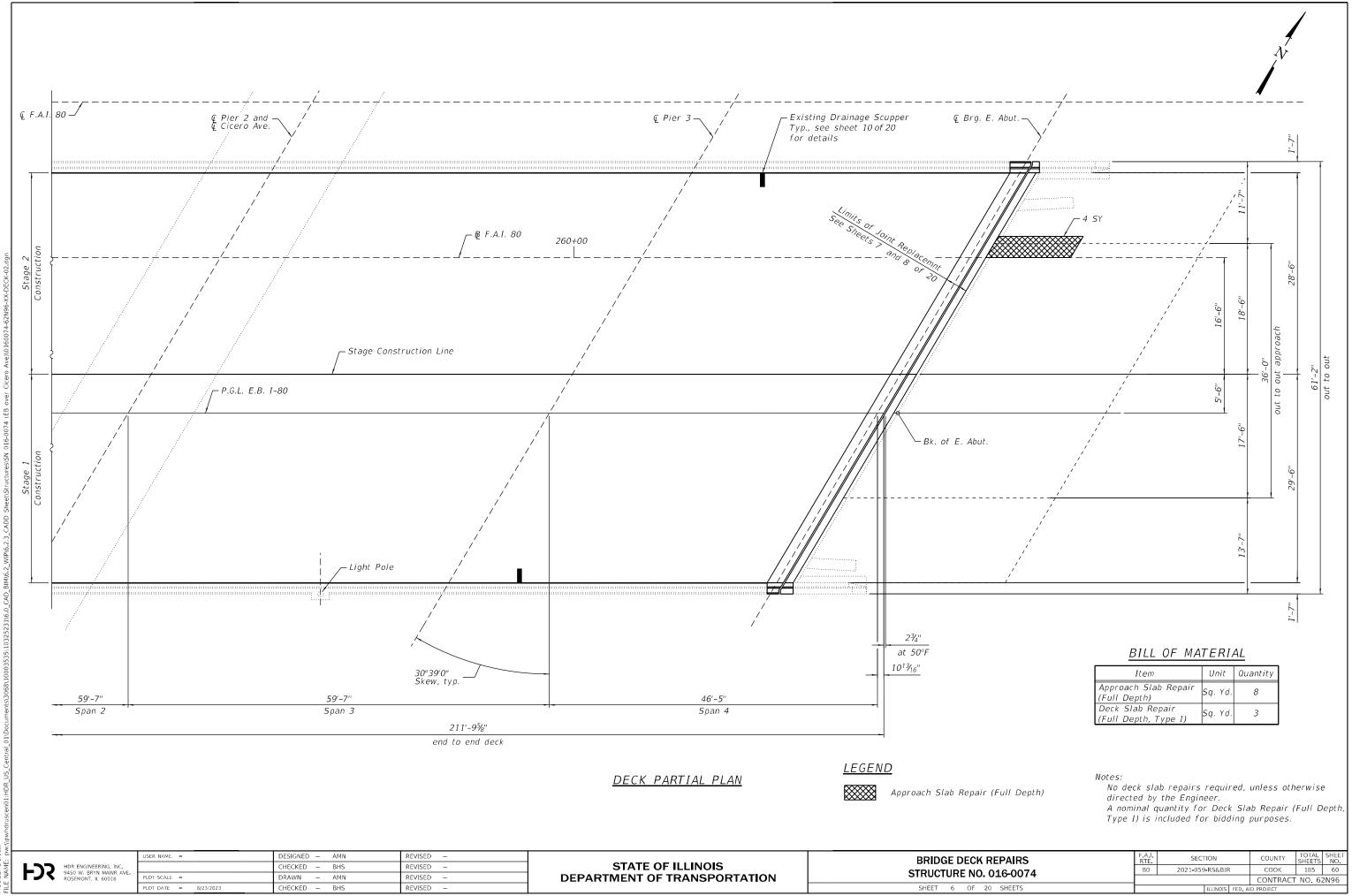
← Ç ¾" Ø Holes



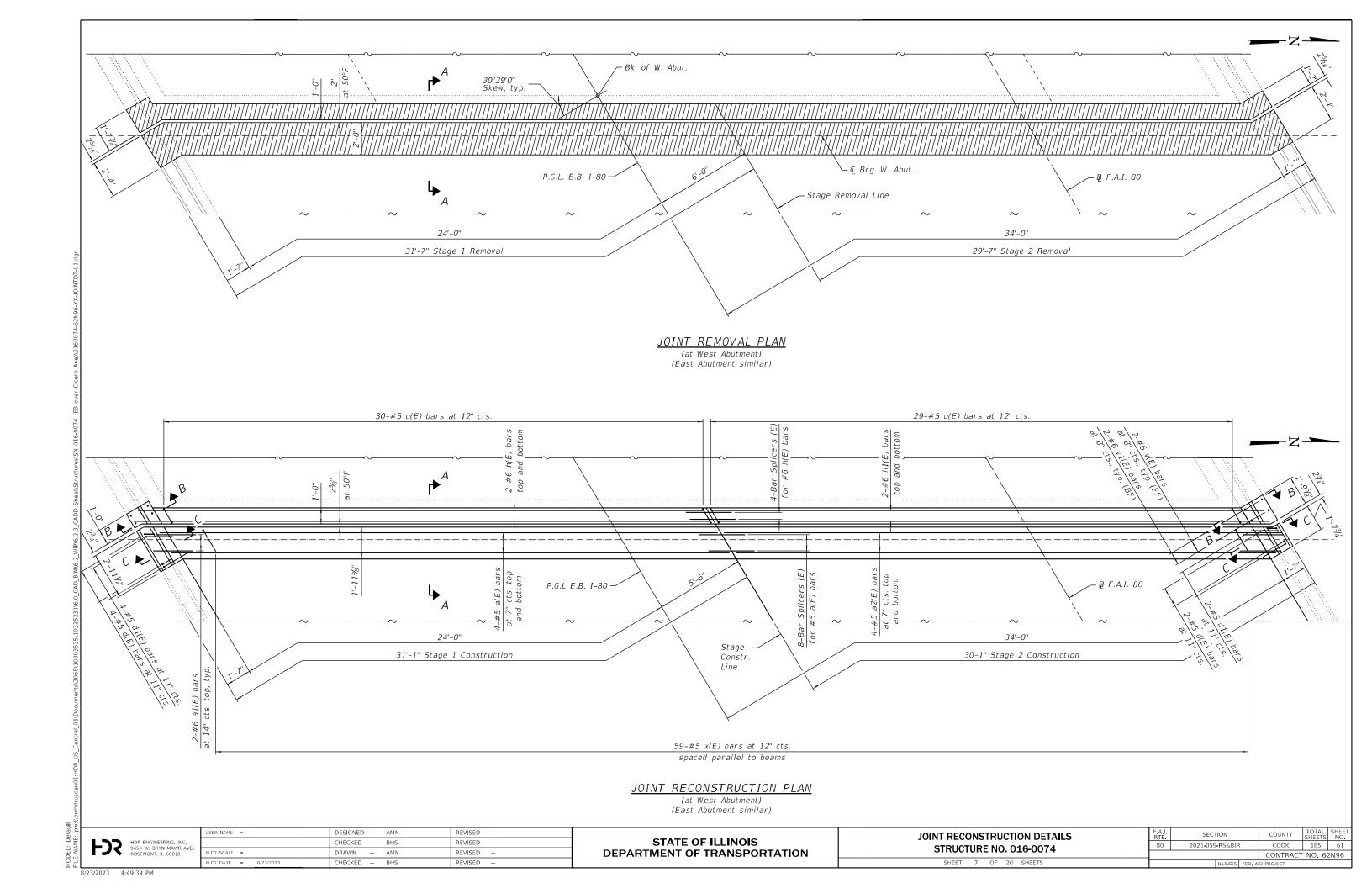
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

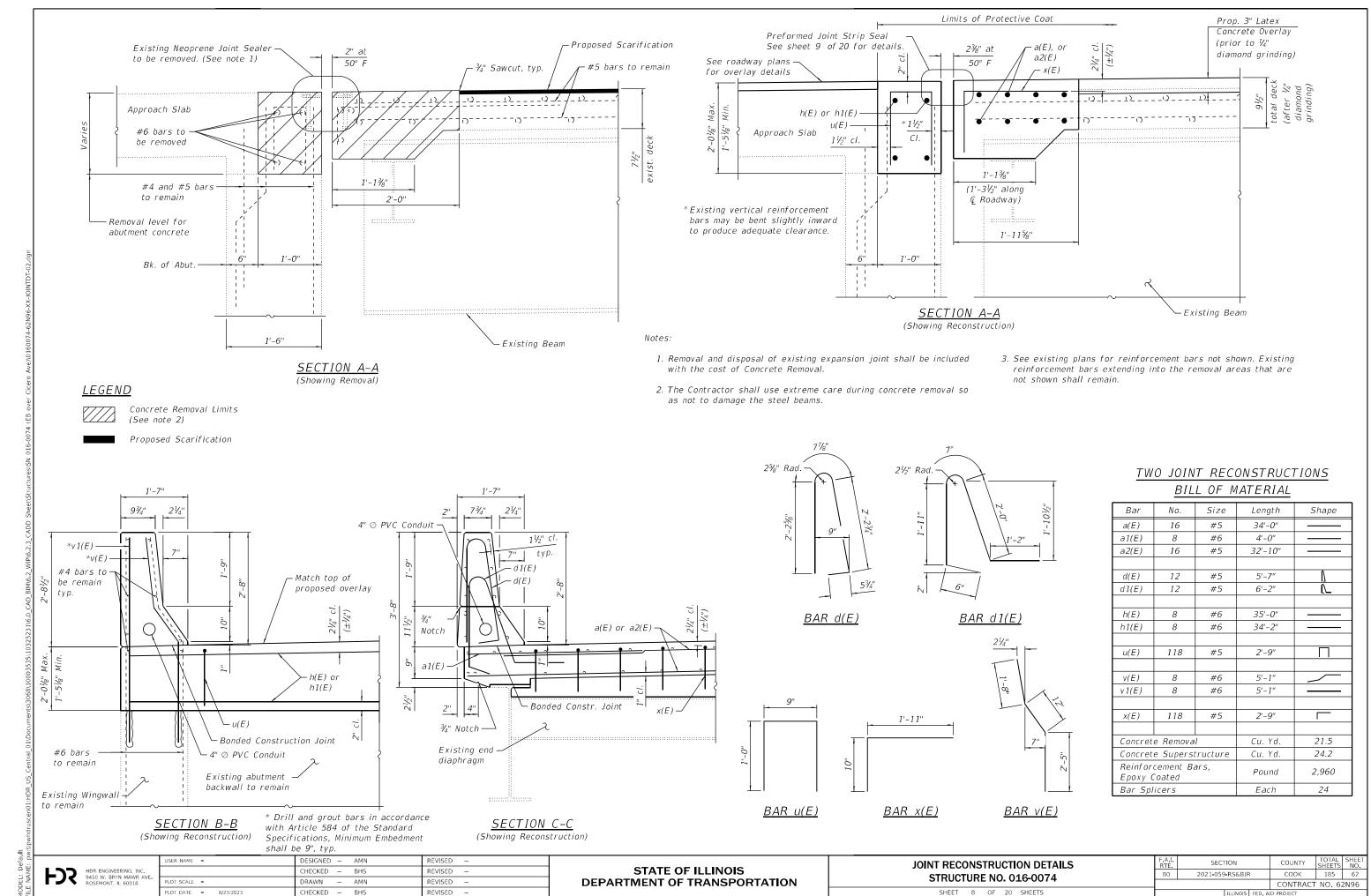
SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR COOK 185 58 **STRUCTURE NO. 016-0074** CONTRACT NO. 62N96 SHEET 4 OF 20 SHEETS

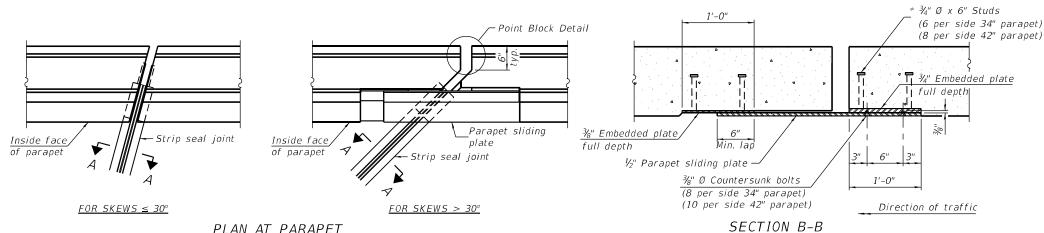




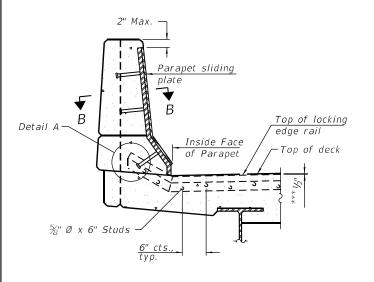
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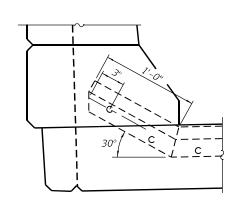


PLAN AT PARAPET

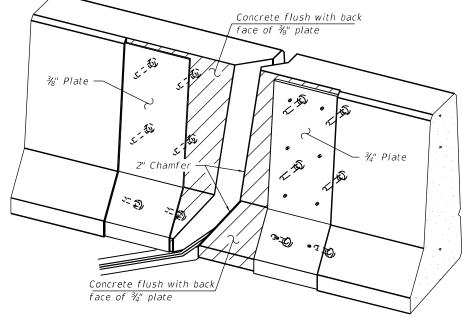


ELEVATION AT PARAPET

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



DETAIL A



TRIMETRIC VIEW (Showing embedded plates only)

Locking edge railat 50° F Top of concrete Strip seal

at 50° i

SHOWING ROLLED RAIL JOINT

Locking edge rail-11/2" at 50° F Top of concrete -Strip seal * $\frac{1}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° I

 $\frac{3}{6}$ " ϕ threaded rods in $\frac{1}{6}$ " ϕ holes at ± 4 '-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed

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

SHOWING WELDED RAIL JOINT off flush with the plates after concrete is set.

LOCKING EDGE RAILS

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

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

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

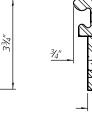
The manufacturer's recommended installation methods shall be followed.

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

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

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.



ROLLED WELDED RAIL (EXTRUDED) RAIL

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	139.0

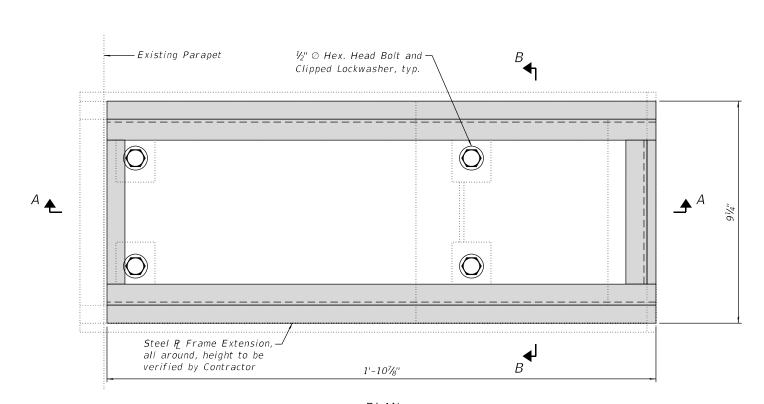
*** Prior to 1/4" diamond grinding

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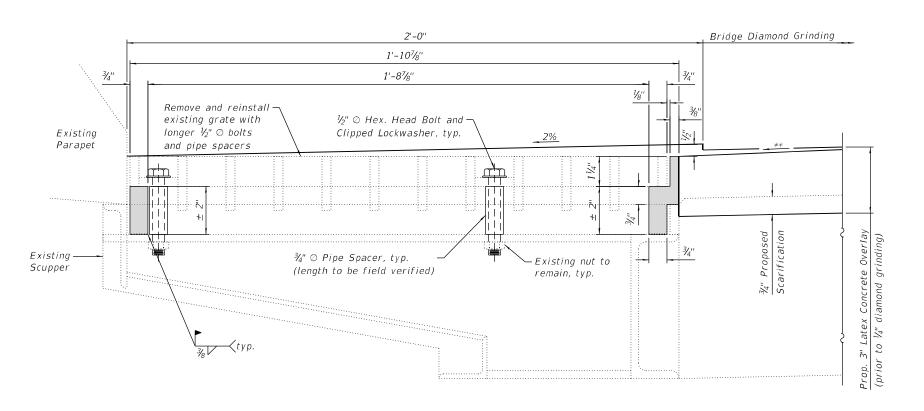
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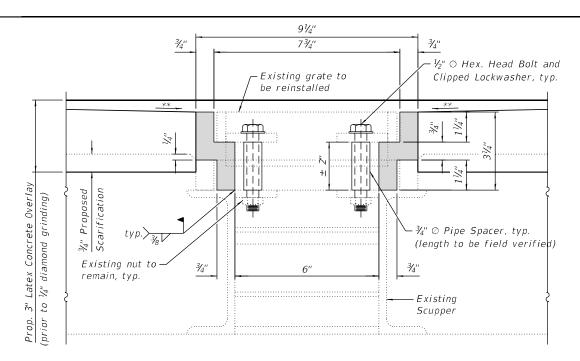
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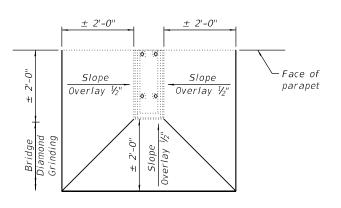
<u>PLAN</u>
(Existing grate not shown for clarity)



SECTION A-A



<u>SECTION B-B</u>



<u>SLOPING PLAN</u> (Prior to diamond grinding)

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scuppers To Be Adjusted	Each	4

<u>LEGEND</u>



Steel & Frame Extension

Notes

- 1.) All structural steel shall be AASHTO M270 Grade 36. The adjusting scupper ring and $\frac{3}{4}$ " \oslash pipe sleeve spacers shall be galvanized.
 - 2.) Bolts shall be $\frac{1}{2}$ " \oslash AASHTO M164 Type 1, mechanically galvanized.
- 3.) Shop drawings for proposed Steel R Frame Extension shall be submitted for approval prior to fabrication.
- 4.) Contractor shall ensure that no damage is done to existing grates to be reused.
- 5.) Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install Steel P. Frame Extensions and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 016-0074

SHEET 10 OF 20 SHEETS

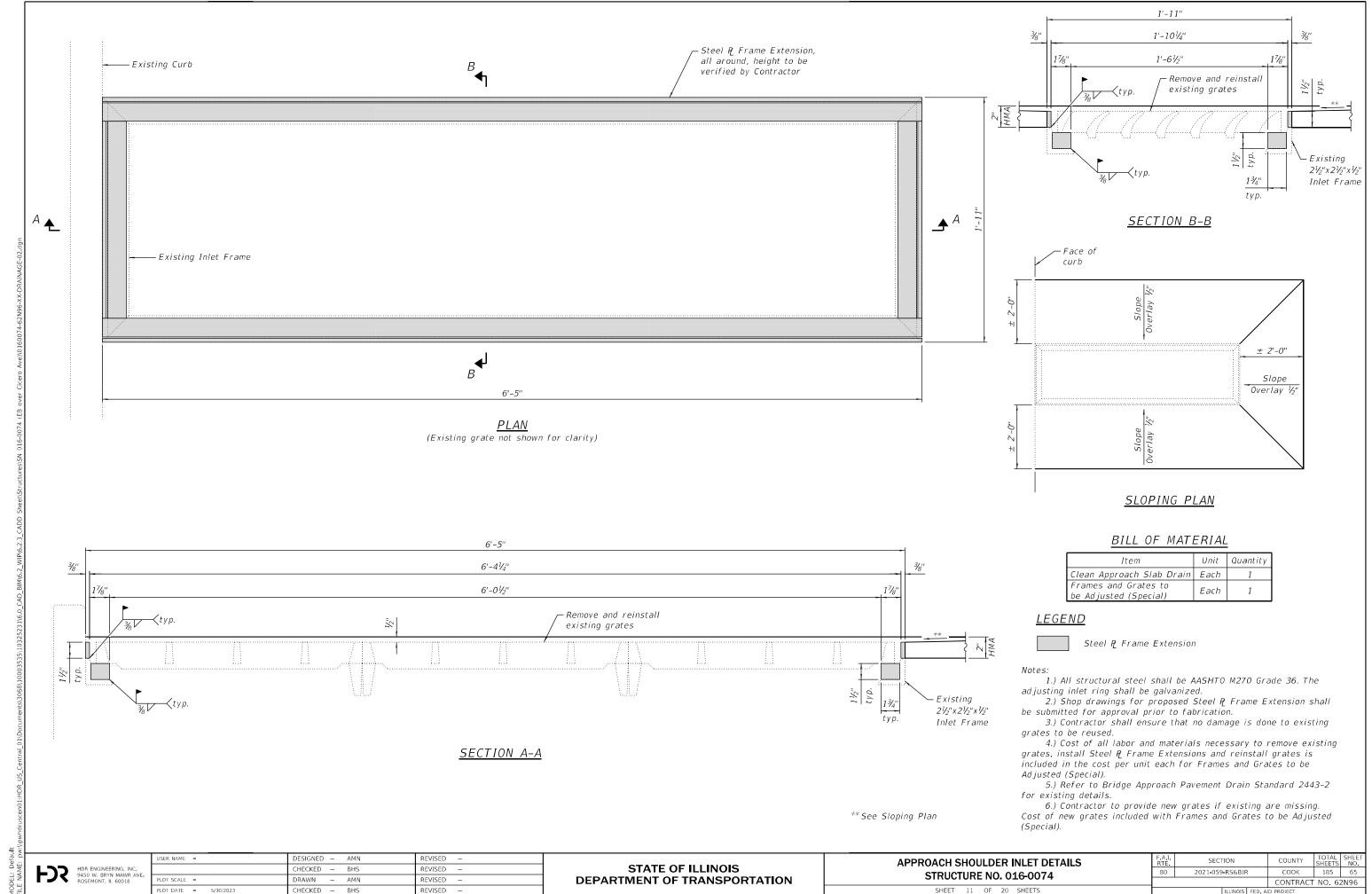
 F.A.I. RTE.
 SECTION
 COUNTY SHEETS
 TOTAL SHEETS NO.

 80
 2021-059-RS&BJR
 COOK
 185
 64

 CONTRACT NO. 62 № 96

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^{**} See Sloping Plan



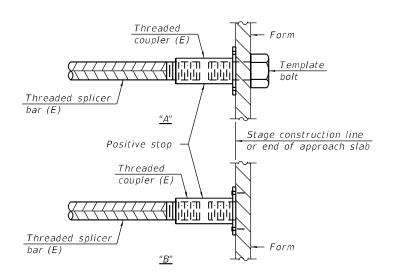
STANDARD BAR SPLICER ASSEMBLY PLAN

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.

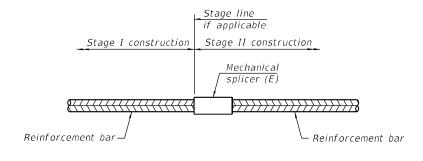
Location	Bar size	No. assemblies required	Minimum lap length	
Deck	#5	16	3'-6"	
Backwall	#6	8	4'-0"	



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

2-1-2023

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	PLOT SCALE =	DRAWN - AMN	REVISED -
	PLOT DATE = 5/30/2023	CHECKED - BHS	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **BAR SPLICER ASSEMBLY DETAILS STRUCTURE NO. 016-0074** SHEET 12 OF 20 SHEETS

SECTION COUNTY 2021-059-RS&BJR COOK 185 66 CONTRACT NO. 62N96

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ℚ Brg. € Pier 1— ⊈ Pier 2 — Pier 3 — € Brg. E. Abut. — W. Abut. holes shall be $^{15}\!\!\!/_{16}$ "O for $^{7}\!\!\!/_{8}$ "O bolts. Web splice $\frac{3}{4}$ "O bolts. Two hardened washers shall be required at diaphragm connections. detailed on the plans and as specified in the 47...1...1 Temporary shoring may be required to Provisions "Temporary Shoring and Cribbing" and facilitate alignment of existing splice. "Temporary Slab Support System." Use 12" x 12" Timbers or HP's to be **ELEVATION** paid for as Temporary Shoring and (Looking North) Cribbing. The shoring shall be removed for Notch Toughness, Zone 2. as soon as possible after the splice is completed to minimize Traffic Control. 44'-5" Span 1 59'-7" Span 2 59'-7" Span 3 46'-5" Span 4 € F.A.I. 80 -@ Brg. W. Abut. @ Pier 1 @ Pier 2 - В F.A.I 80 259+00 / 260+00 P.G.L. E.B. I-80 -12'-0" 14'-0" 14'-0" © Existing Field Splice 2 © Existing Field Splice 1 € New Field Splice (Typ.)(Typ.) FRAMING PLAN

BILL OF MATERIAL

STRUCTURAL STEEL NOTES

Fasteners shall be ASTM A325 Type 1 mechanically galvanized bolts. Flange splice

Special Provisions shall be included with Furnishing and Erecting Structural Steel. The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special

holes shall be $^{13}\!\!/_{16}$ " \oslash for $^{3}\!\!/_{4}$ " \oslash bolts.

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

Diaphragm connection holes shall be ¹⁵⁄16"♡ for

Cost of field drilling and reinstallation of all members necessary to complete the work as

Load carrying components designated "NTR"

shall conform to the Supplemental Requirements

Refer to General Notes on Sheet 2 of 20 for

steel painting notes.

ITEM	UNIT	QUANTITY
Structural Steel Removal	Pound	9,480
Furnishing and Erecting Structural Steel	Pound	11,940
Temporary Slab Support System	Each	2
Temporary Shoring and Cribbing	Each	2

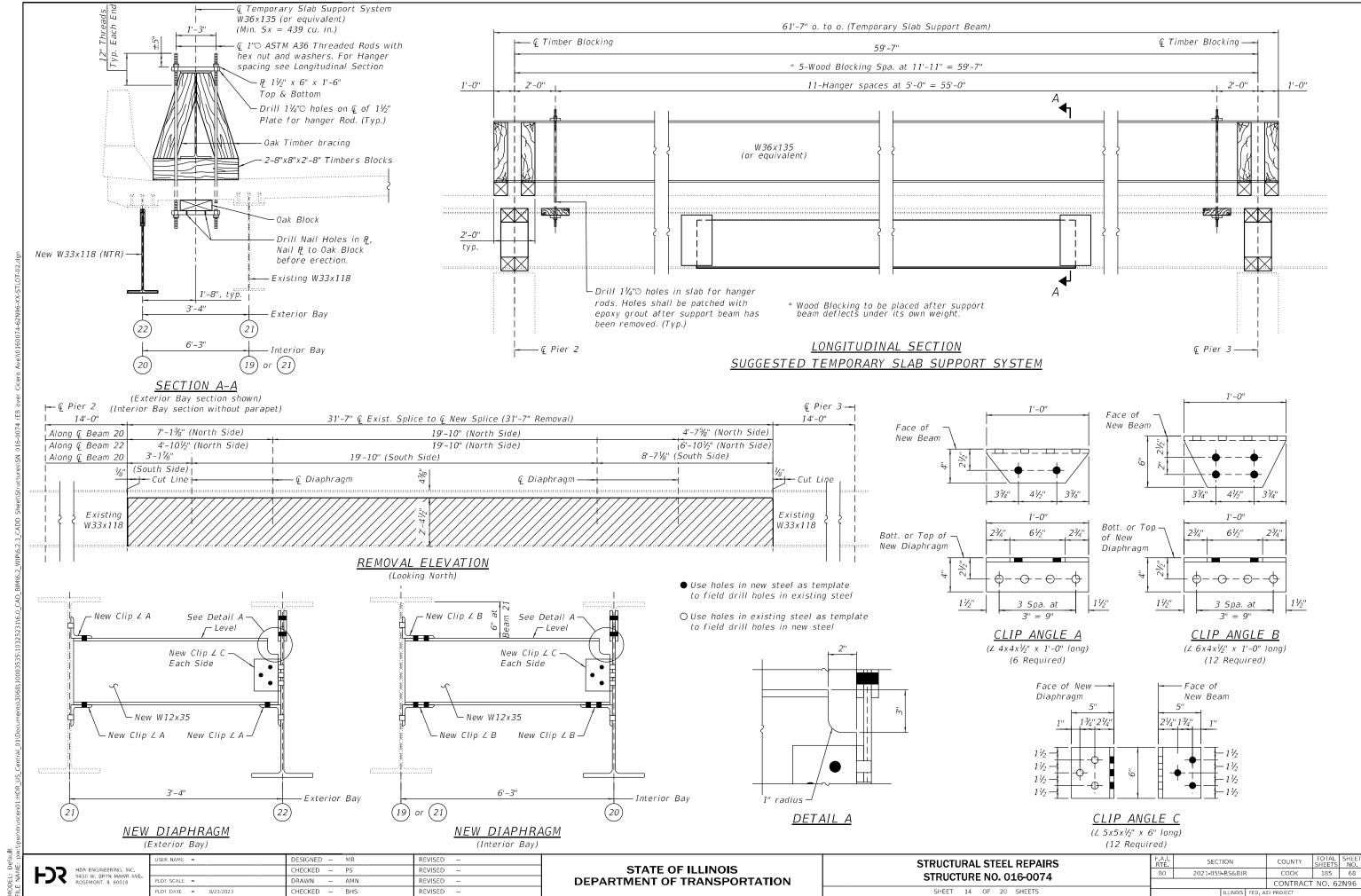
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVI ROSEMONT, IL 60018

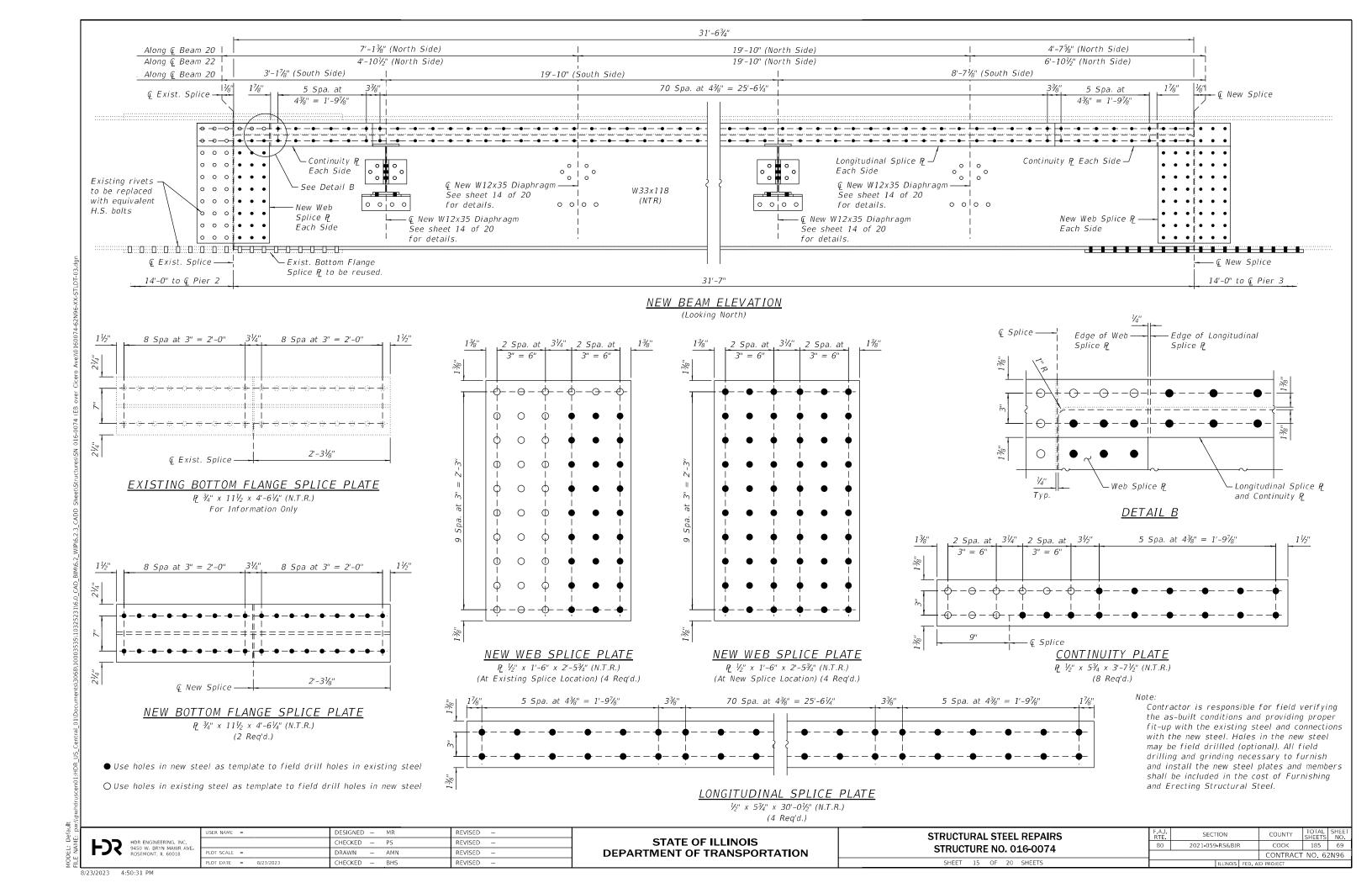
 $\langle A \rangle$ - Remove and replace beam section. $\langle B \rangle$ - Remove and replace diaphragm.

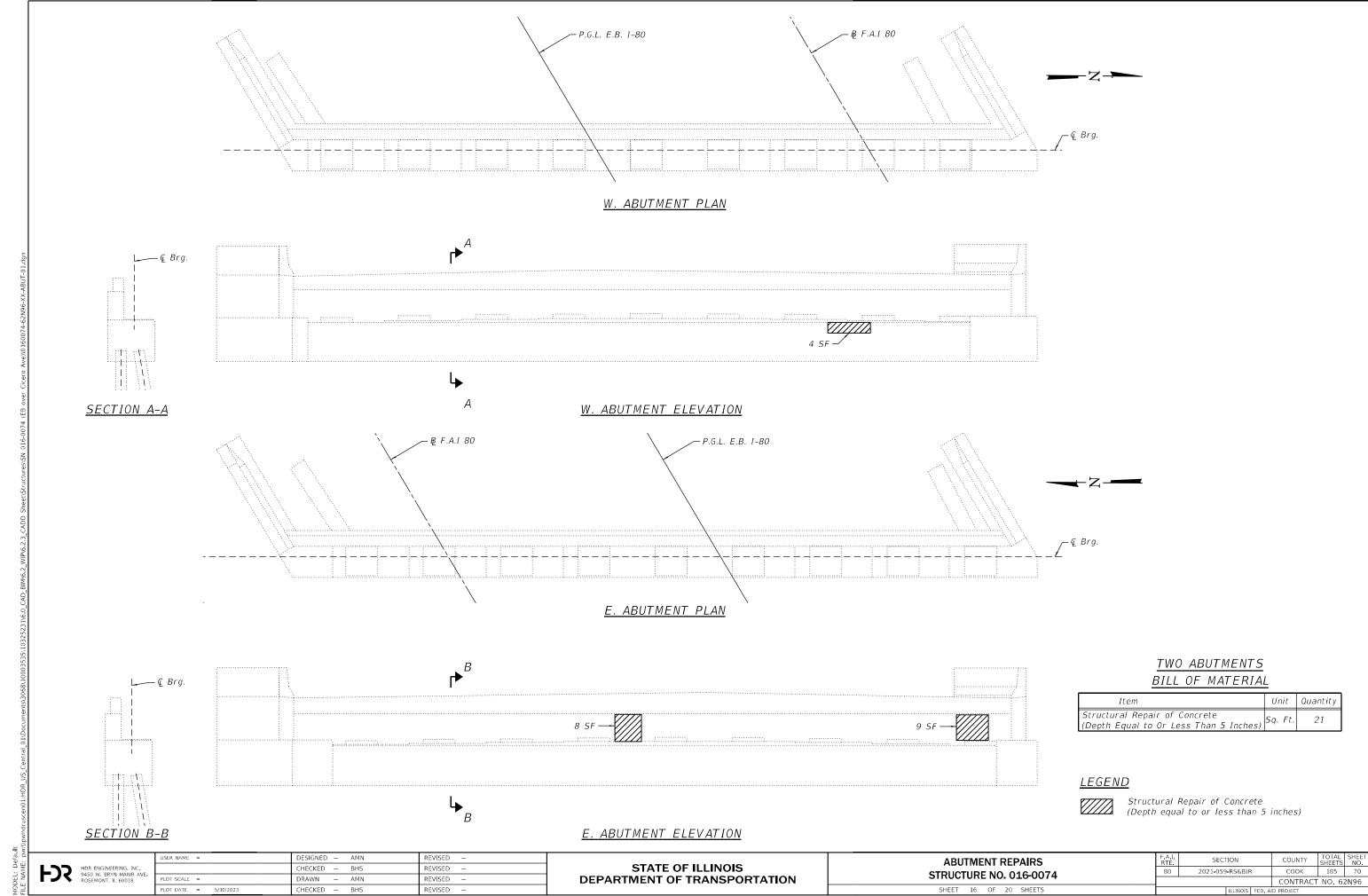
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION STRUCTURAL STEEL REPAIRS **STRUCTURE NO. 016-0074** SHEET 13 OF 20 SHEETS

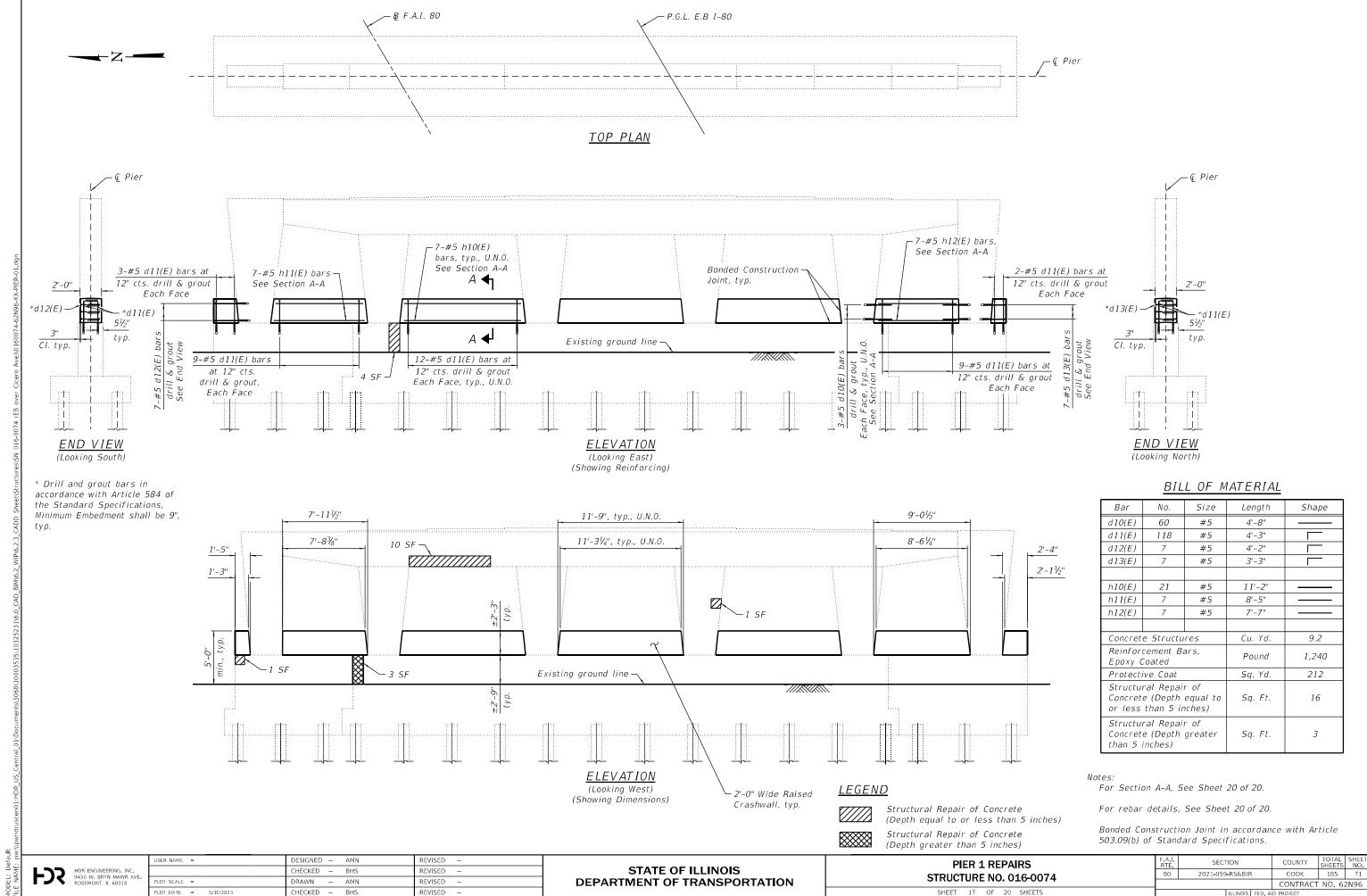
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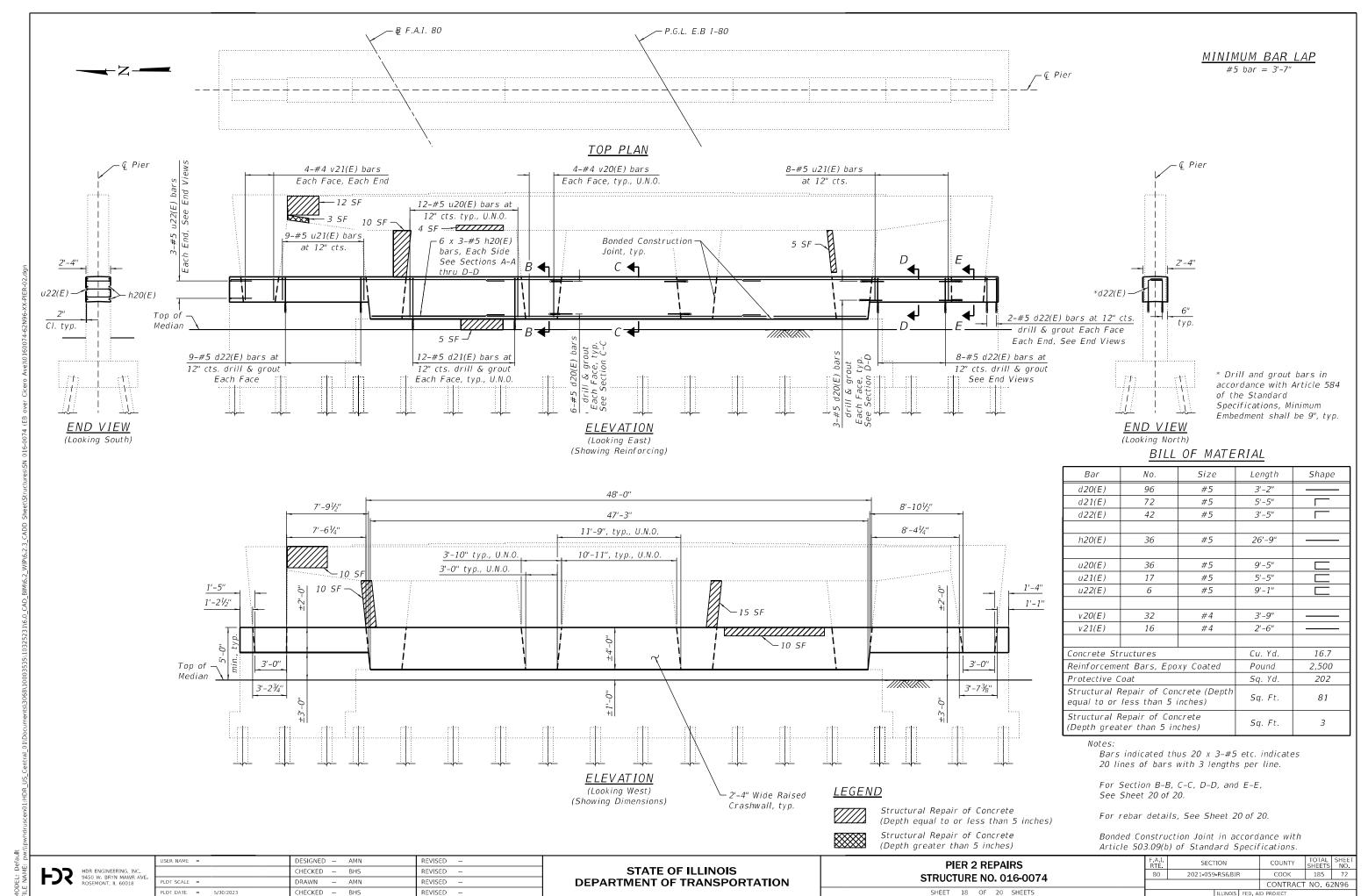




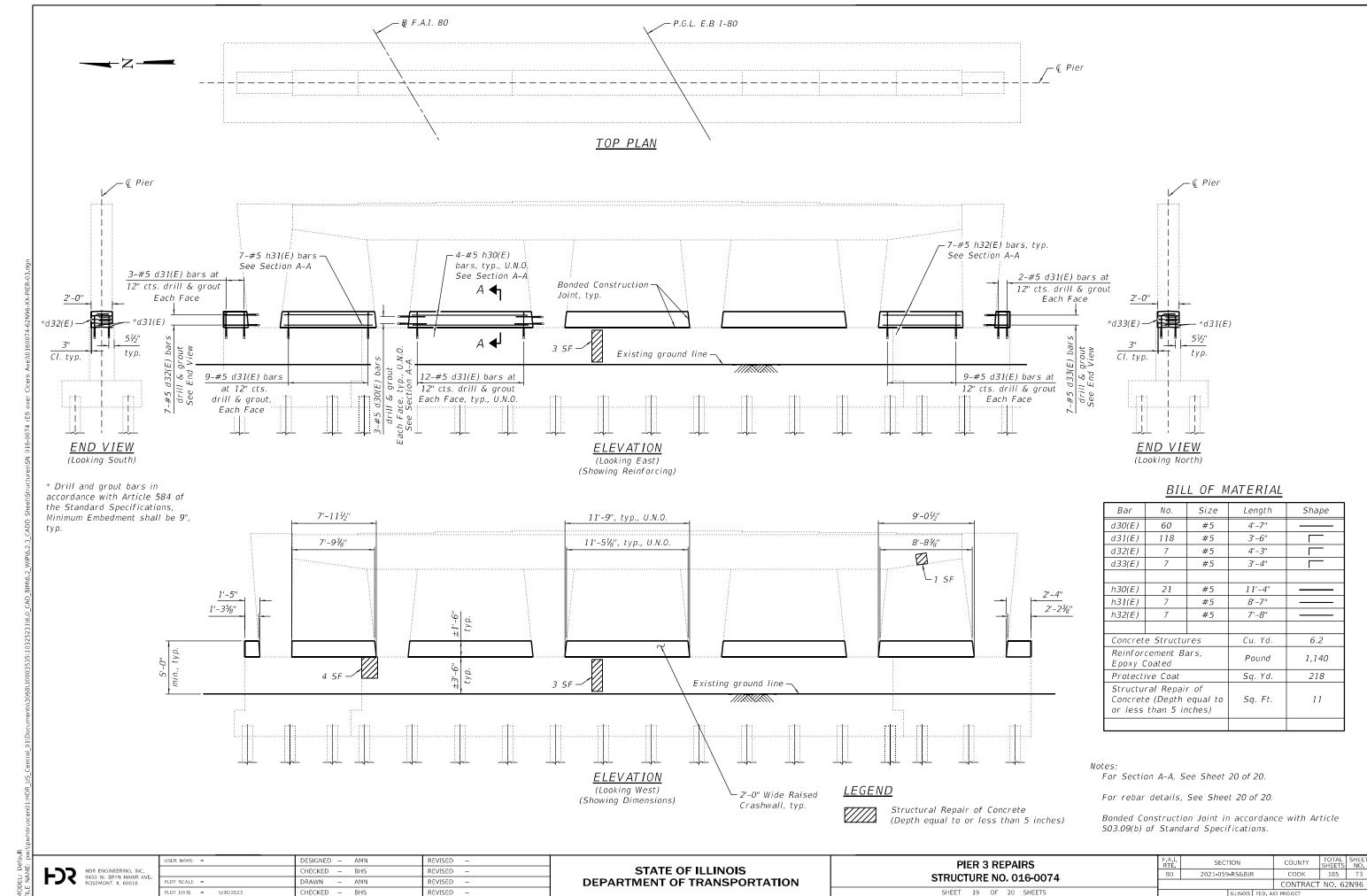
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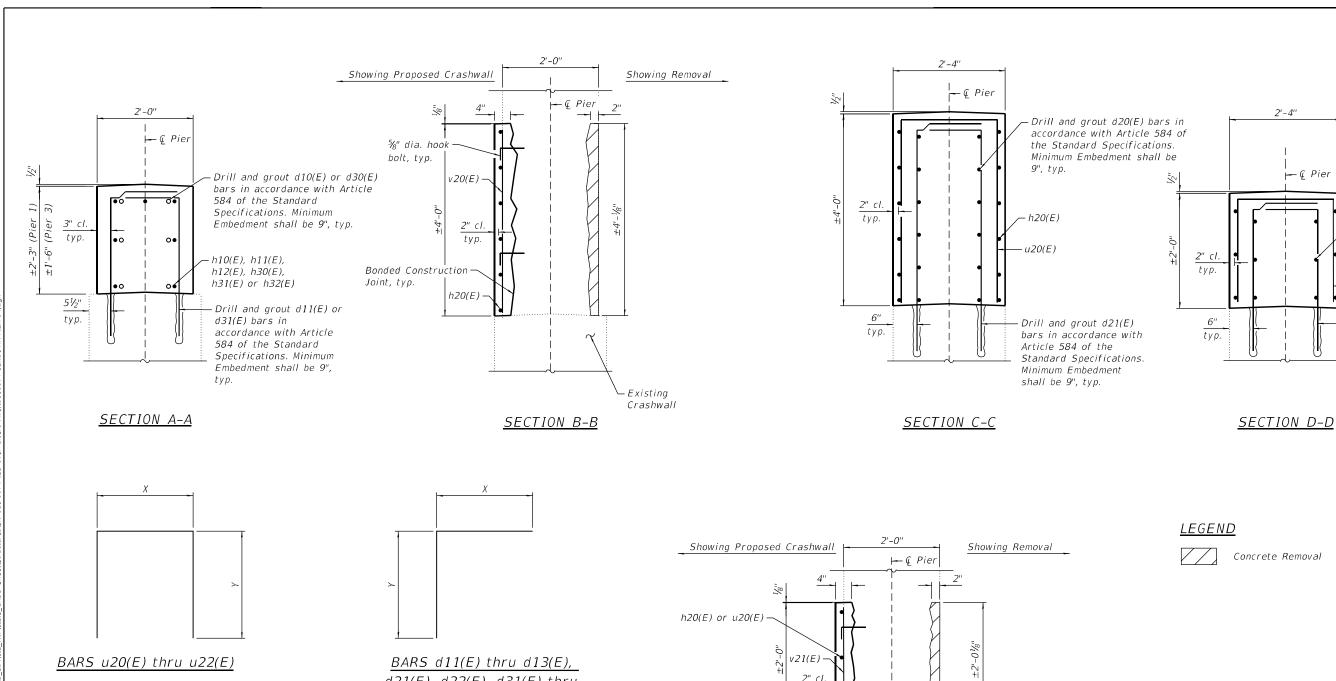
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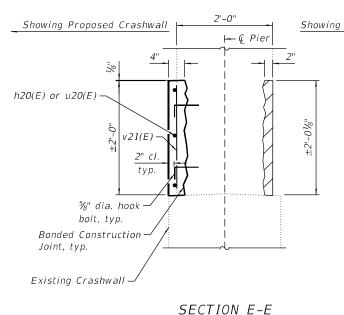
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Bar	Χ	Υ
u20(E)	1'-11"	3'-9"
u21(E)	1'-11"	1'-9"
u22(E)	1'-11"	3'-7"

d21(E), d22(E), d31(E) thru d33(E)

Bar	Χ	Υ
d11(E)	1'-6"	2'-9"
d12(E)	1'-6"	2'-8"
d13(E)	1'-6"	1'-9"
d21(E)	10"	4'-7"
d22(E)	10"	2'-7"
d31(E)	1'-6"	2'-0"
d32(E)	1'-6"	2'-9"
d33(E)	1'-6"	1'-10"



Notes:

For Location of Section A-A, See Sheet 17 of 20 and Sheet 19 of 20.

For Location of Sections B-B, C-C, D-D and Section E-E, See Sheet 18 of 20.

The areas to have concrete removed shall have all loose, unsound concrete removed completely by the use of chipping hammers, or other methods approved by the Engineer. The chipping hammer for removing concrete shall be a light-duty pneumatic or electric tool with a 15 lb. (7 kg) maximum class or less. Existing reinforcement bar with 50 percent or more of the bar perimeter exposed shall be undercut to a depth of 3/4 in. or the diameter of the reinforcement bar, whichever is greater. The Engineer shall be notified of concrete removal that exceeds 6 in. in depth, or if more than half the vertical column reinforcement is exposed in a cross section. Excessive deterioration or removal may require further evaluation of the structure or installation of temporary shoring and cribbing support system. Concrete removal and disposal included in the cost of Concrete Structures.

The hook bolts shall be spaced at 15 in. maximum centers both vertically and horizontally, and shall be a minimum of 6 in. away from the corners of the existing column. The hook bolts provided per Section 1006.09 shall be installed according to Section 584. Cost included with Concrete Structures.

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS	F.A.I. RTE.
STRUCTURE NO. 016-0074	80
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SUFER DO DE DO SUFERE	_

SECTION 2021-059-RS&BJR COOK 185 74 CONTRACT NO. 62N96

← h20(E)

u21(E)

Drill and grout d20(E) bars

in accordance with Article

Embedment shall be 9", typ.

584 of the Standard

Drill and grout d22(E)

Article 584 of the

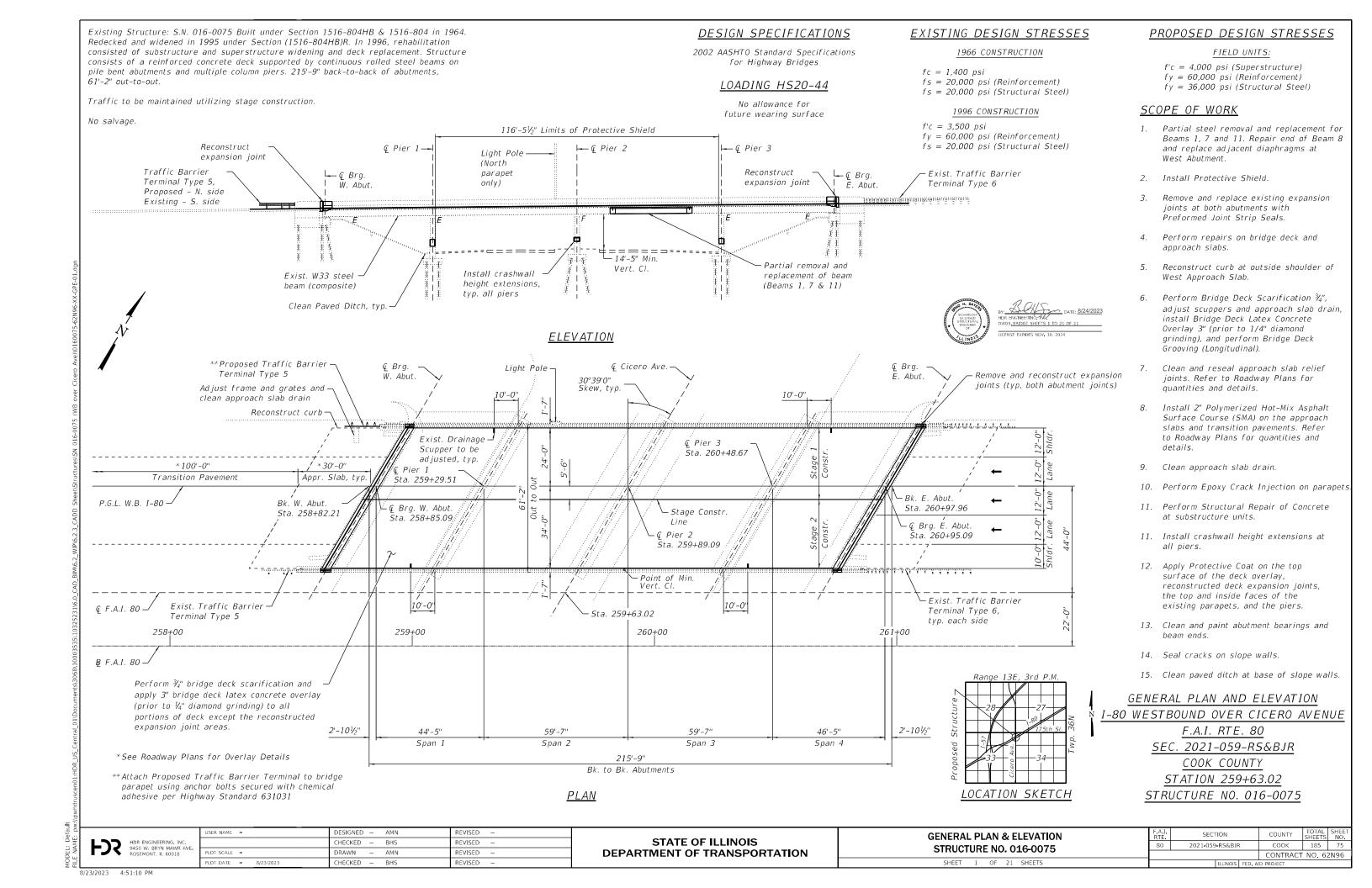
Minimum Embedment

shall be 9", typ.

bars in accordance with

Standard Specifications.

Specifications. Minimum



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

- 3. Reinforcement bars designated (E) shall be epoxy coated.
- 4. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½ deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 5. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 6. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 7. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 3. 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.
- 9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 11. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 13. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 14. All exposed concrete edges shall have a $\frac{3}{4}$ " chamfer, except where shown otherwise.
- 15. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 16. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- 17. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.

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INDEX OF SHEETS

- ! General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- 7 Joint Reconstruction Details
- 8 Joint Reconstruction Details
- 9 Modified Preformed Joint Strip Seal
- 10 Drainage Scupper Details
- 11 Approach Shoulder Inlet Details
- 12 Bar Splicer Assembly Details 13 Structural Steel Repairs
- 14 Structural Steel Repairs
- 15 Structural Steel Repairs
- 16 Structural Steel Repairs
- 17 Abutment Repairs
- 18 Pier 1 Repairs
- 19 Pier 2 Repairs
- 20 Pier 3 Repairs
- 21 Pier Repair Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	22.5
Protective Shield	Sq Yd	792
Concrete Structures	Cu Yd	36.4
Concrete Superstructure	Cu Yd	25.2
Protective Coat	Sq Yd	2,210
Furnishing And Erecting Structural Steel	Pound	18,300
Reinforcement Bars, Epoxy Coated	Pound	8,130
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	139.0
Epoxy Crack Injection	Foot	50
Slope Wall Crack Sealing	Foot	209
Cleaning Paved Ditch	Foot	174
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	859
Frames And Grates To Be Adjusted (Special)	Each	1
Approach Slab Repair (Full Depth)	Sq Yd	7
Structural Steel Removal	Pound	14,580
Structural Steel Repair	Pound	330
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,336
Containment And Disposal Of Lead Paint Cleaning Residues No. 2	L Sum	1
Cleaning And Painting Steel Bridge No. 2	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,336
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	71
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	13
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,288
Temporary Shoring And Cribbing	Each	4
Temporary Slab Support System	Each	3

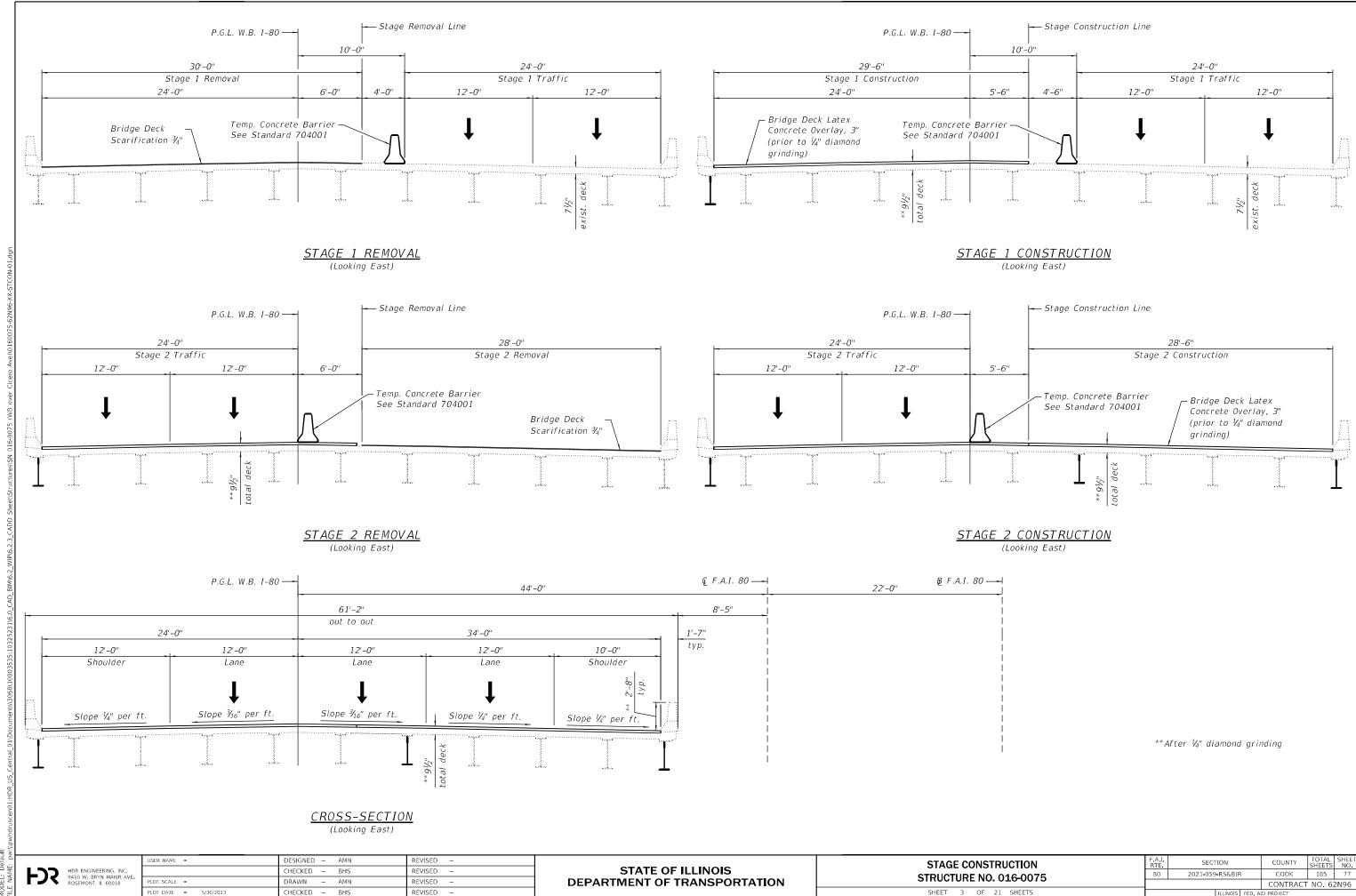
- 18. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.
- 19. Slope Wall Crack Sealing to be performed at the direction of the Engineer.

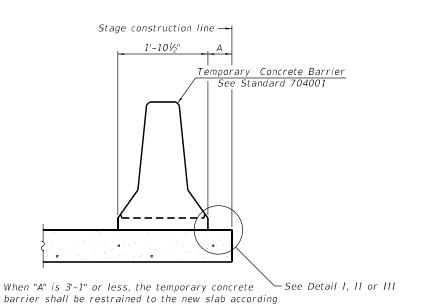
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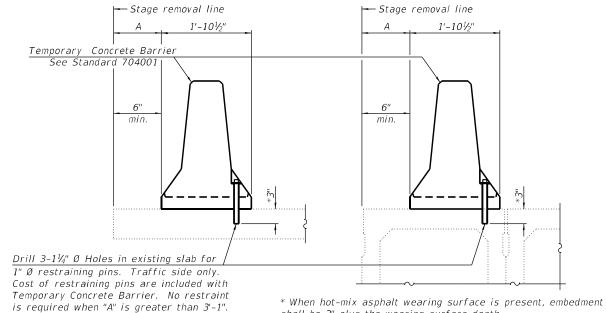
GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIALS	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 016-0075		2021-059-RS&BJR	COOK	185	76
			CONTRACT	NO. 67	2N96
SHEET 2 OF 21 SHEETS		ILLINOIS FED. A	ID PROJECT		

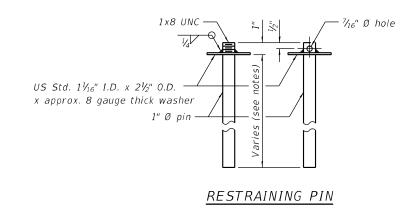
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NEW SLAB OR NEW DECK BEAM

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

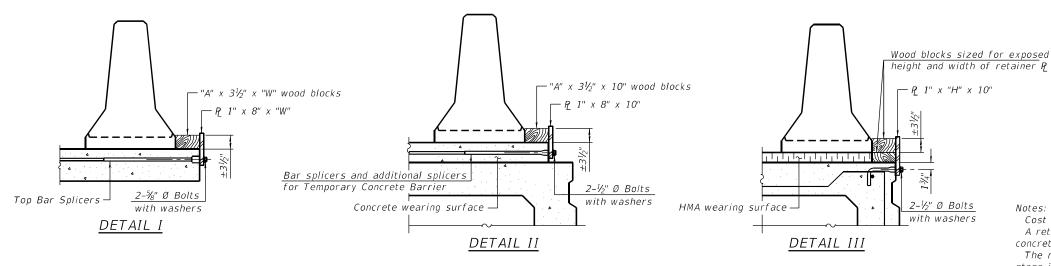
when "A" is greater than 3'-1".

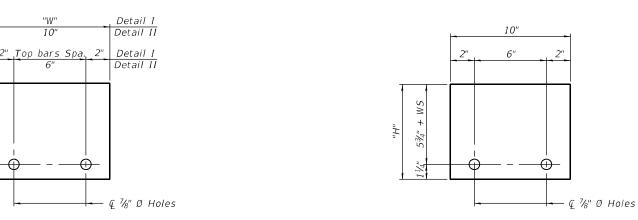
EXISTING SLAB

EXISTING DECK BEAM

shall be 3" plus the wearing surface depth.

SECTIONS THRU SLAB OR DECK BEAM





NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021 STEEL RETAINER P 1" x 8" x "W" (Detail I and II)

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



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.

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.

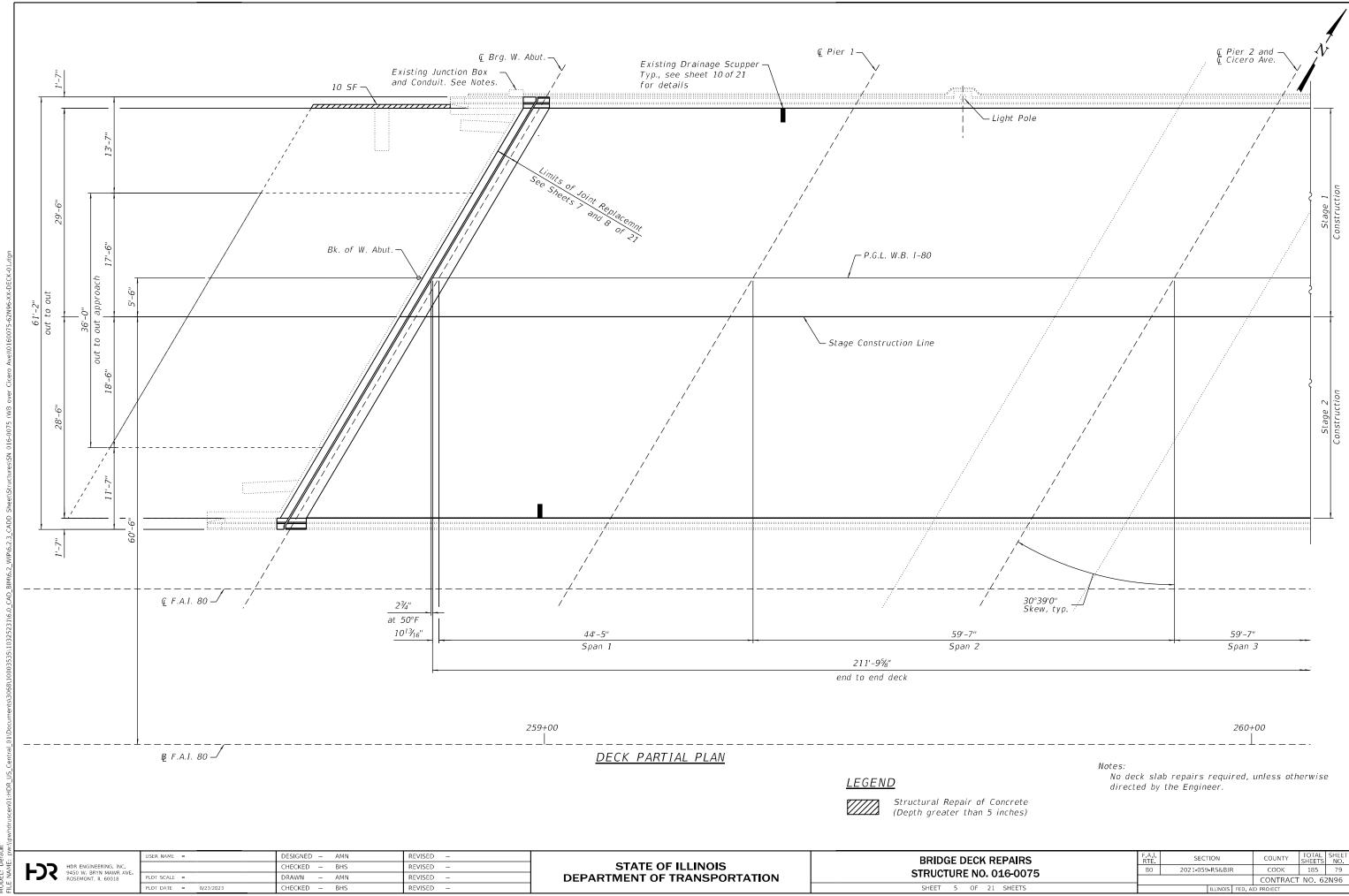
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

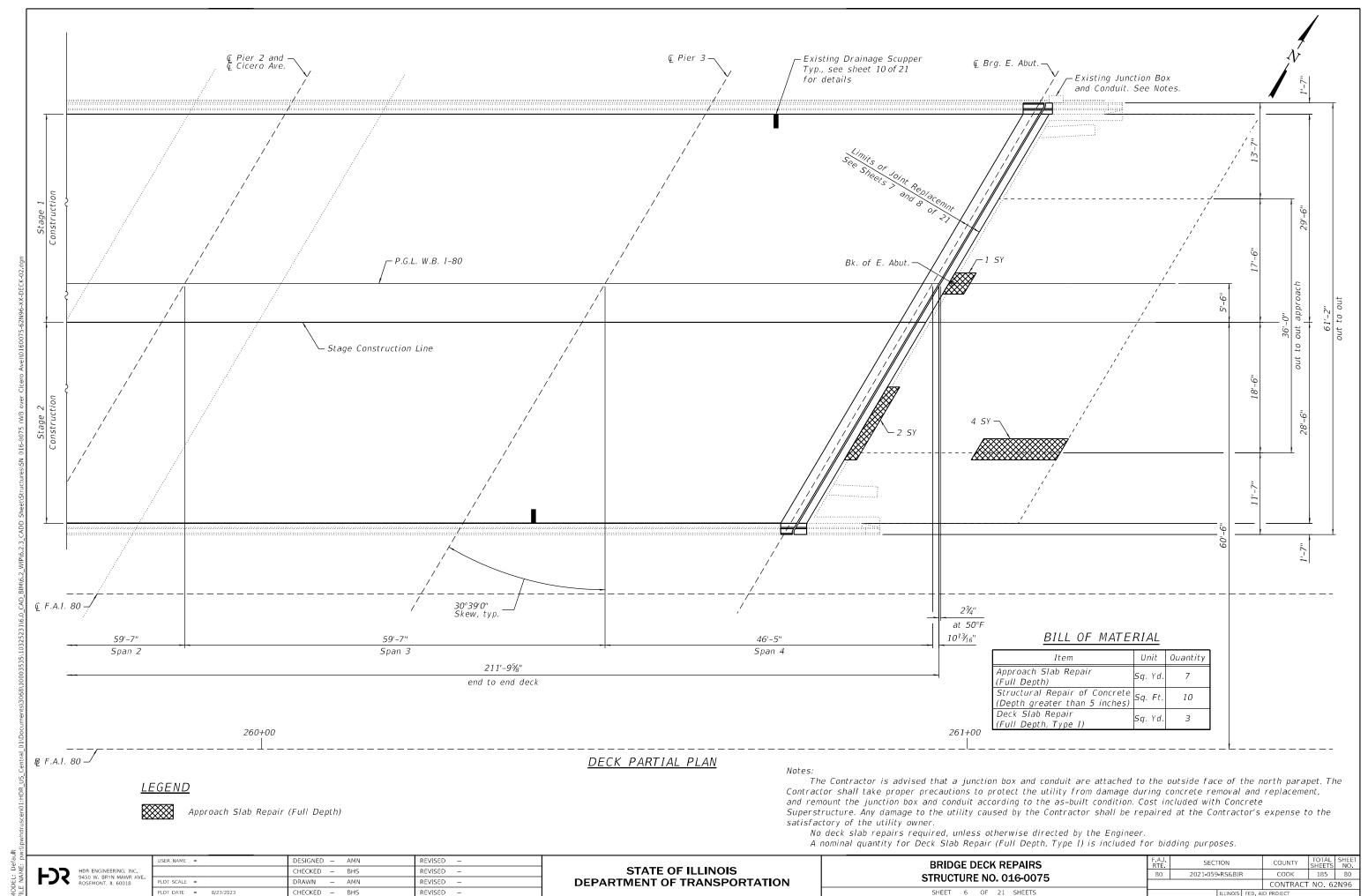
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate 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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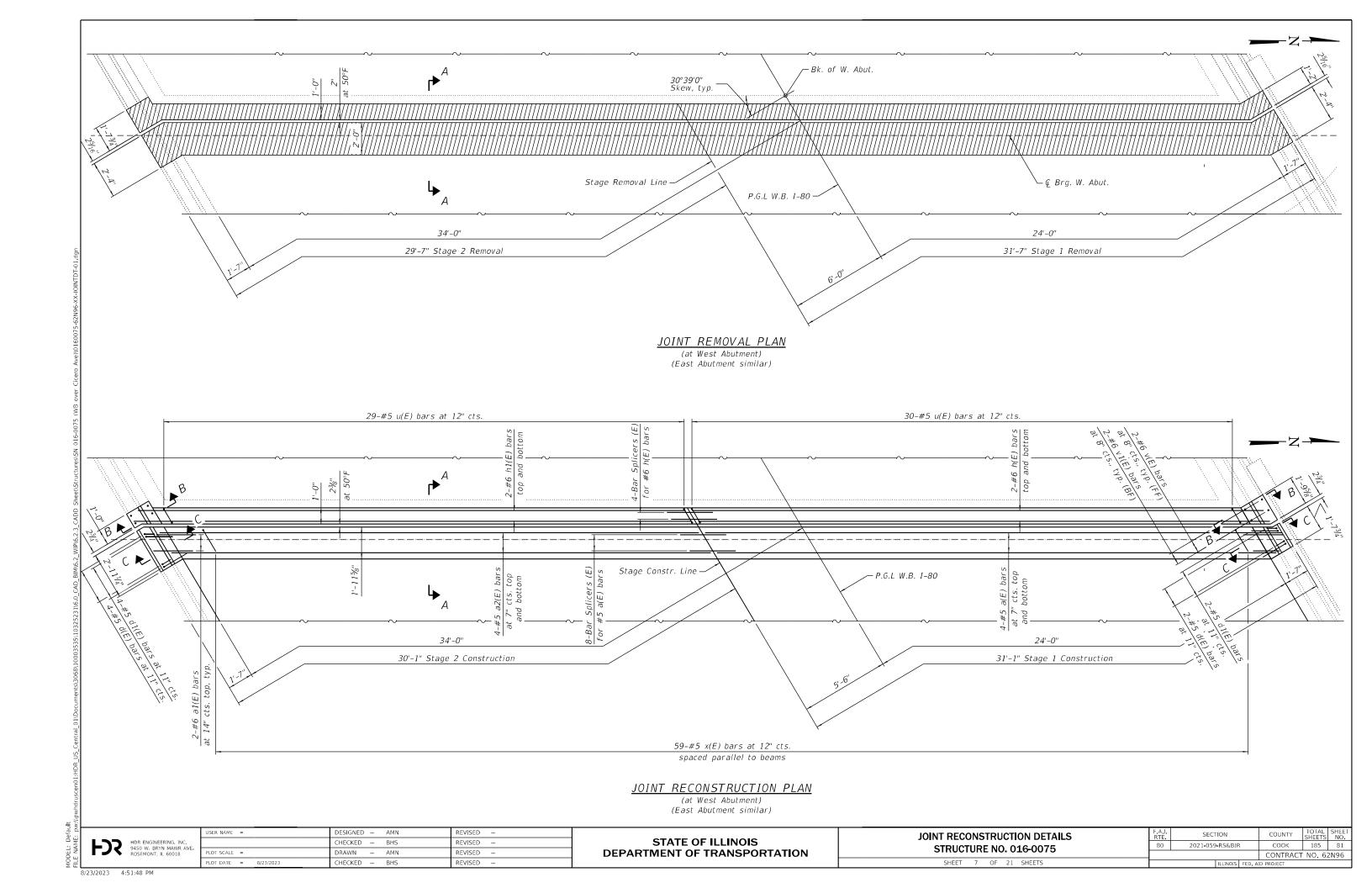
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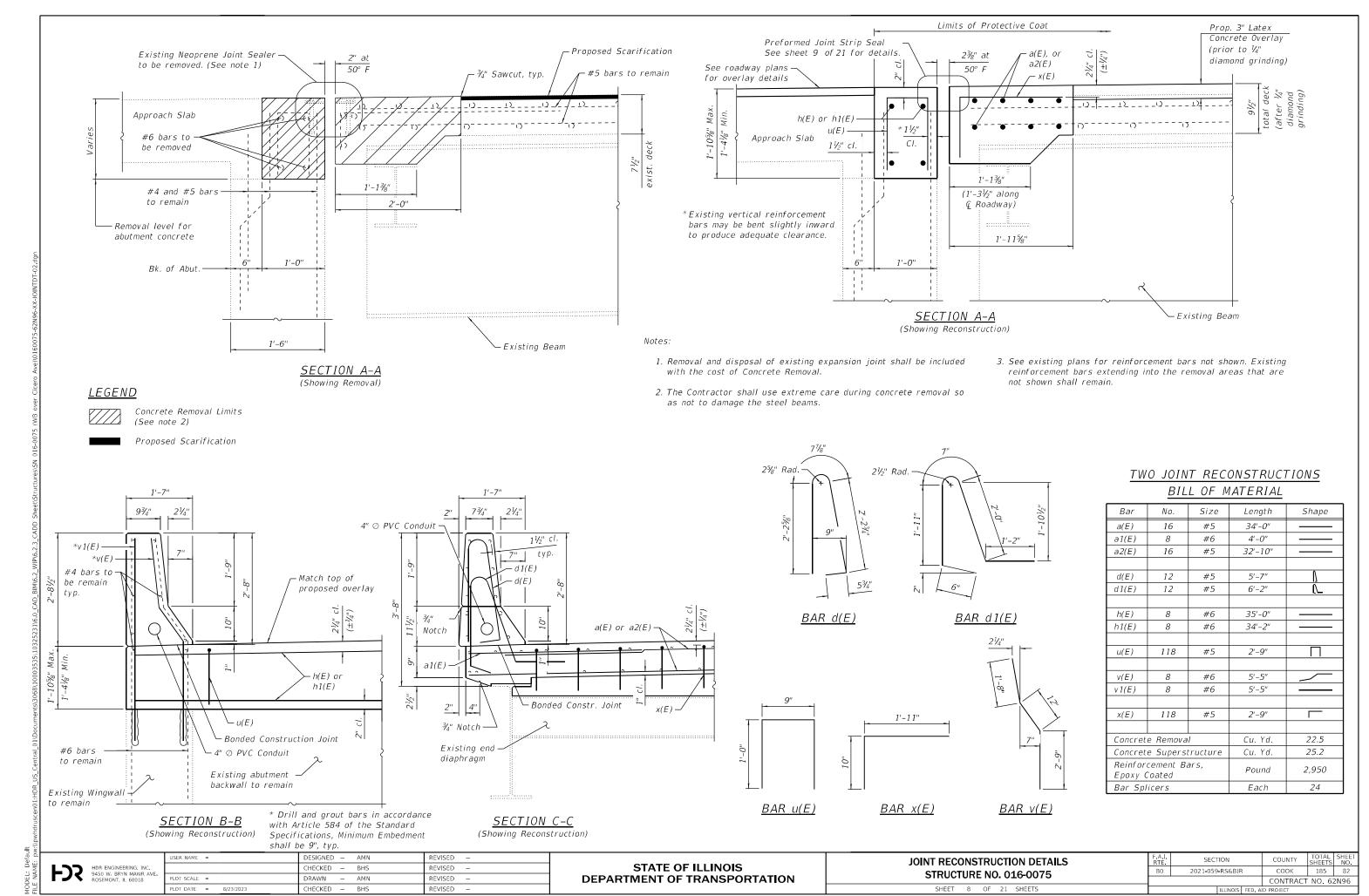
SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR COOK 185 78 **STRUCTURE NO. 016-0075** CONTRACT NO. 62N96 SHEET 4 OF 21 SHEETS

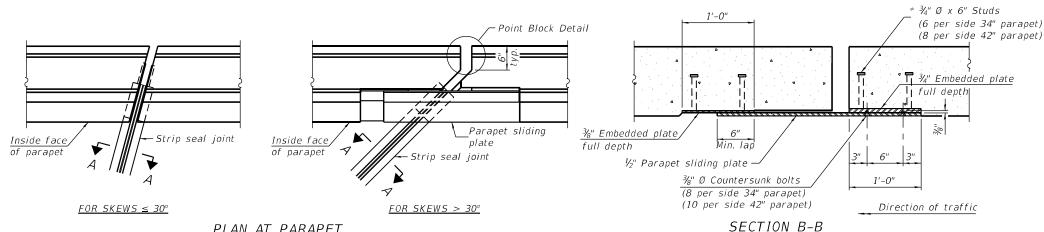




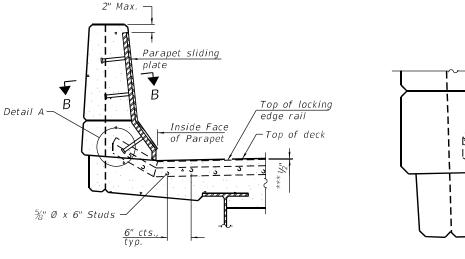
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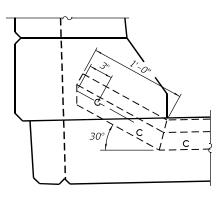


PLAN AT PARAPET

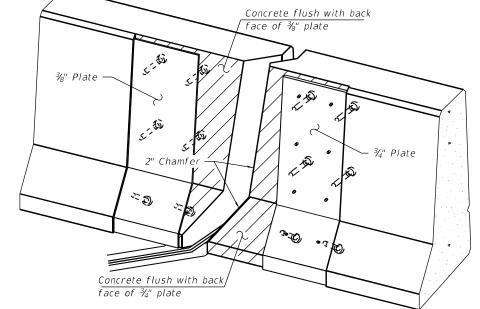


ELEVATION AT PARAPET

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



DETAIL A



TRIMETRIC VIEW (Showing embedded plates only)

Locking edge railat 50° F Top of concrete Strip seal at 50°

SHOWING ROLLED RAIL JOINT

Locking edge rail-11/2" at 50° F Top of concrete -Strip seal * $\frac{5}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° I

 $\frac{3}{6}$ " ϕ threaded rods in $\frac{1}{6}$ " ϕ holes at ± 4 '-0" cts. for holding the proper joint opening based on

the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

*** Prior to 1/4" diamond grinding

ROLLED WELDED RAIL (EXTRUDED) RAIL

LOCKING EDGE RAILS

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

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

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

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

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

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	139.0

9450 W. BRYN MAWR AVE ROSEMONT, IL 60018

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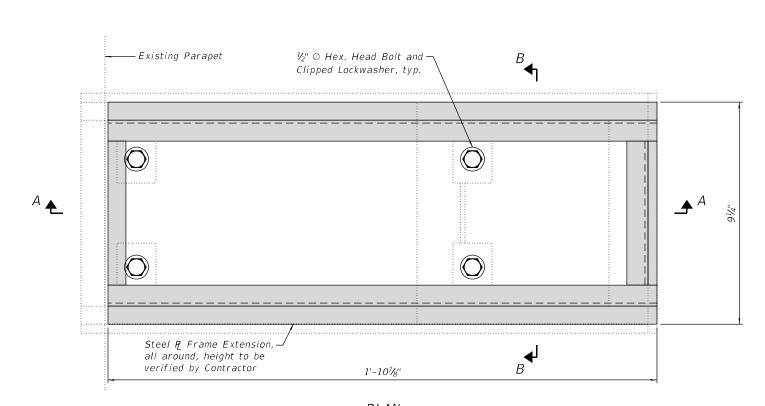
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SHOWING WELDED RAIL JOINT

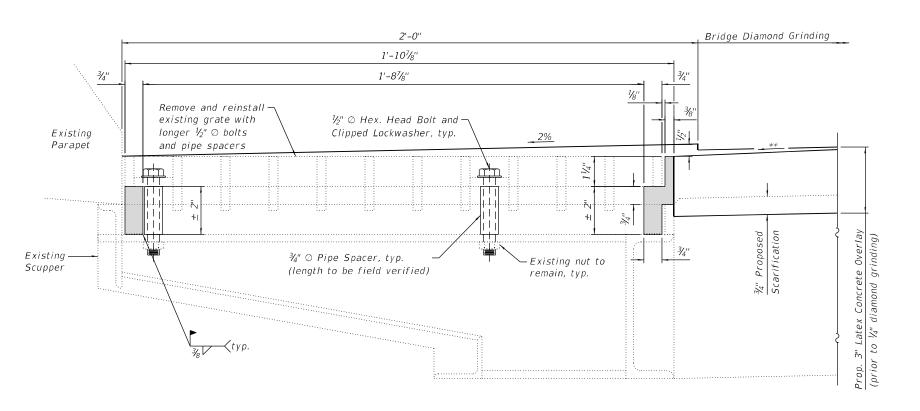
MODIFIED PREFORMED JOINT STRIP SEAL **STRUCTURE NO. 016-0075** SHEET 9 OF 21 SHEETS

F.A.I. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEE
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				CONTRACT	NO. 62	2N96
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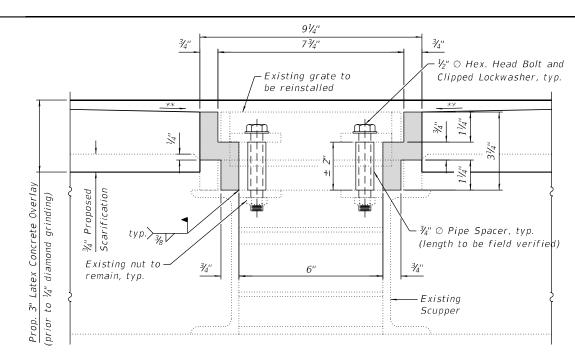
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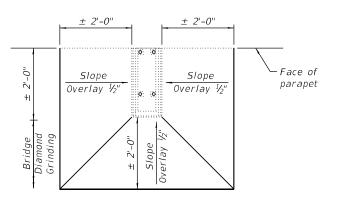
<u>PLAN</u>
(Existing grate not shown for clarity)



SECTION A-A



<u>SECTION B-B</u>



<u>SLOPING PLAN</u> (Prior to diamond grinding)

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scuppers To Be Adjusted	Each	4

<u>LEGEND</u>



Steel P Frame Extension

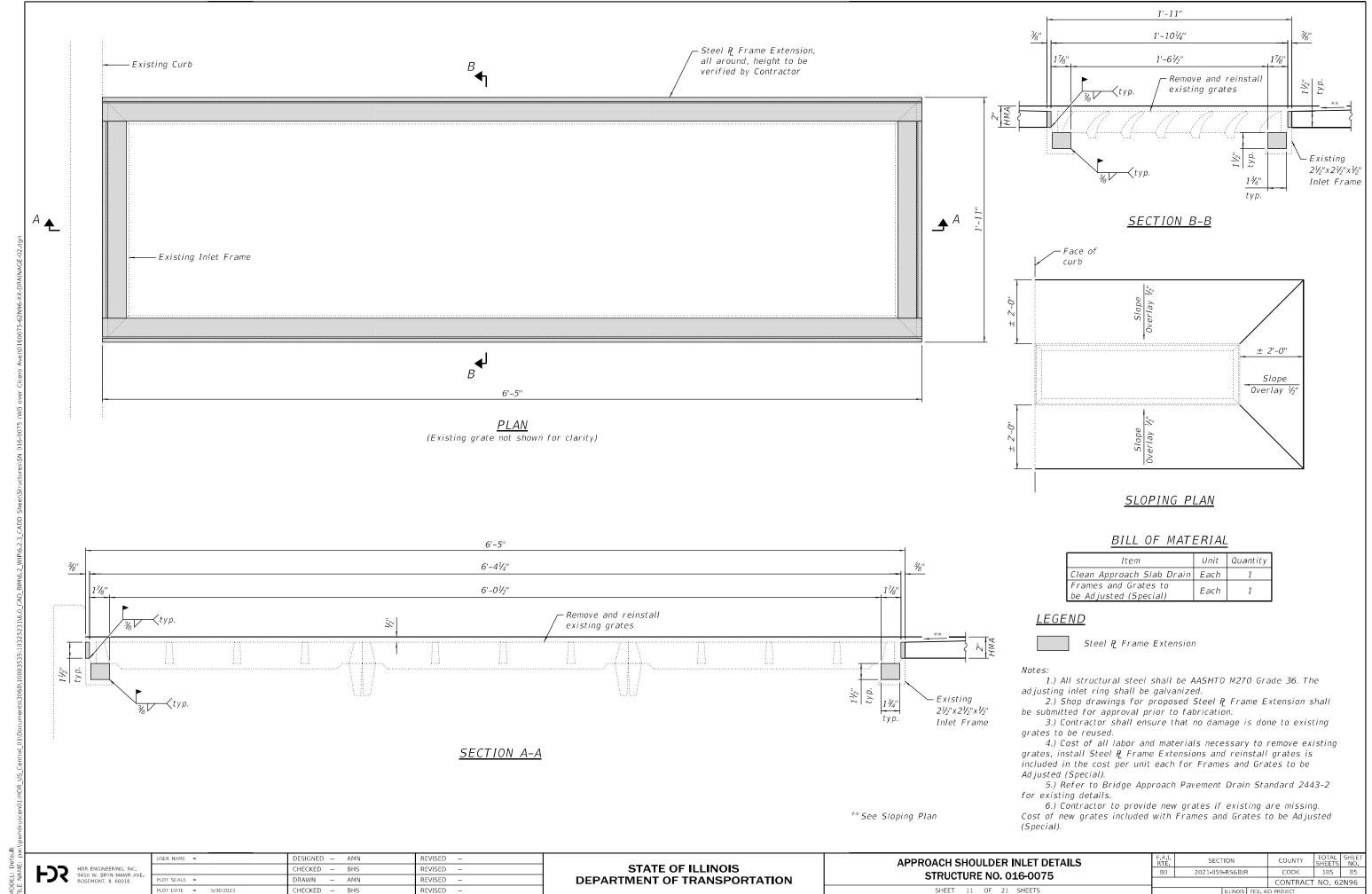
Notes

- 1.) All structural steel shall be AASHTO M270 Grade 36. The adjusting scupper ring and $\frac{3}{4}$ " \oslash pipe sleeve spacers shall be galvanized.
 - 2.) Bolts shall be $\frac{1}{2}$ " \oslash AASHTO M164 Type 1, mechanically galvanized.
- 3.) Shop drawings for proposed Steel R Frame Extension shall be submitted for approval prior to fabrication.
- 4.) Contractor shall ensure that no damage is done to existing grates to be reused.
- 5.) Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install Steel P. Frame Extensions and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 016-0075

^{**} See Sloping Plan



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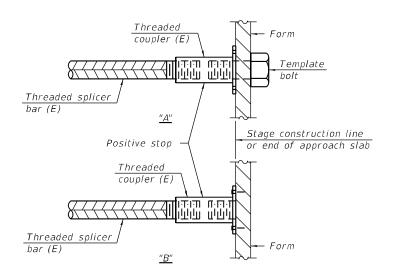
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

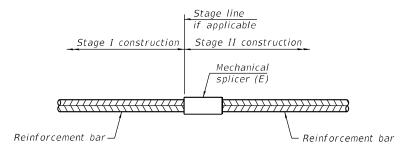
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4'-0"



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

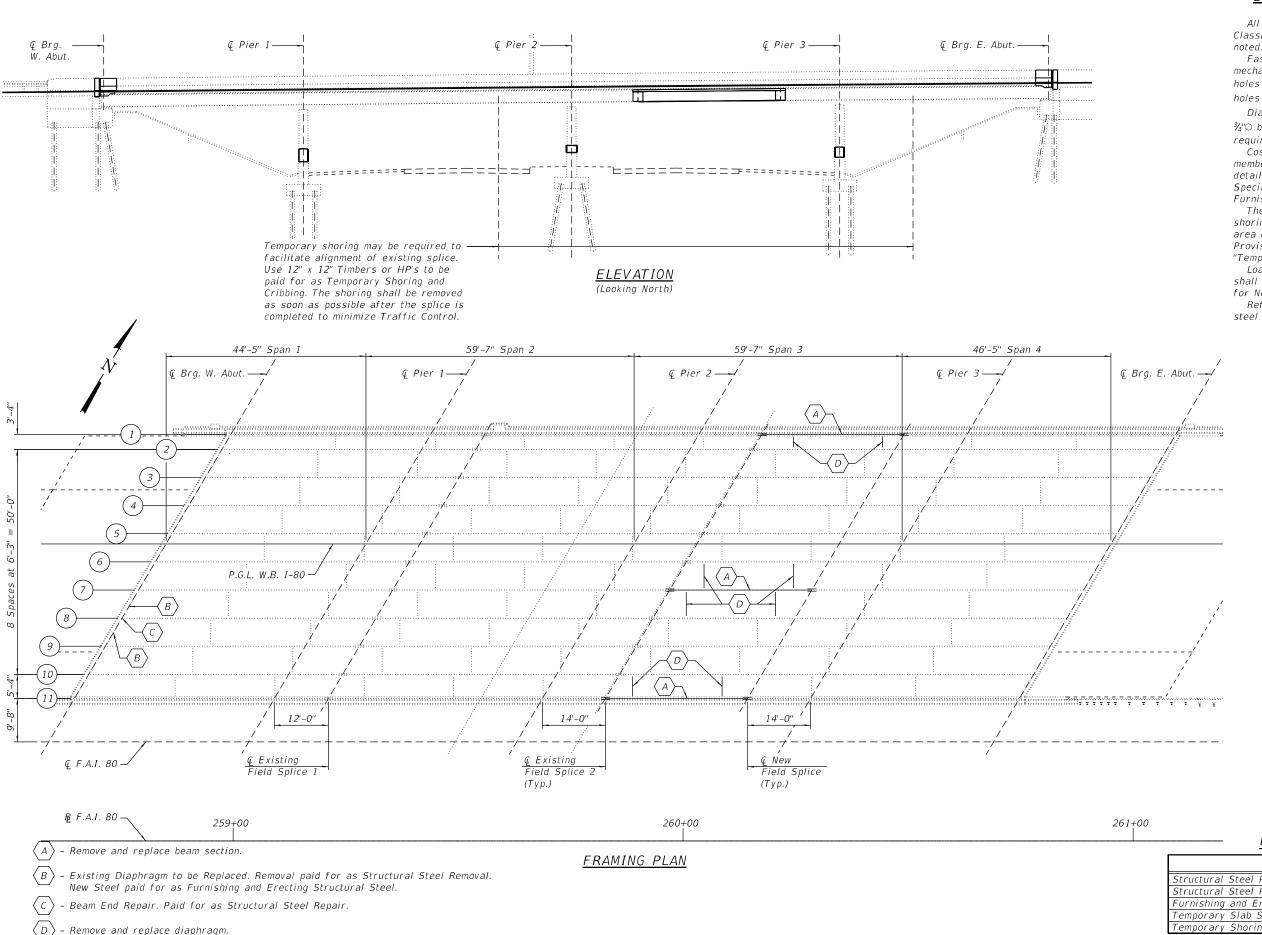
for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-1-2023

HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL 60018

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STRUCTURAL STEEL NOTES

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

Fasteners shall be ASTM A325 Type 1 mechanically galvanized bolts. Flange splice holes shall be $^{15}\!\!/_6$ "O for $^{7}\!\!/_6$ "O bolts. Web splice holes shall be $^{13}\!\!/_6$ "O for $^{3}\!\!/_6$ "O bolts.

Diaphragm connection holes shall be $^{15}\!\!/_6$ "O for $^3\!\!4$ "O bolts. Two hardened washers shall be required at diaphragm connections.

Cost of field drilling and reinstallation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Refer to General Notes on Sheet 2 of $\,$ 21 for steel painting notes.

BILL OF MATERIAL

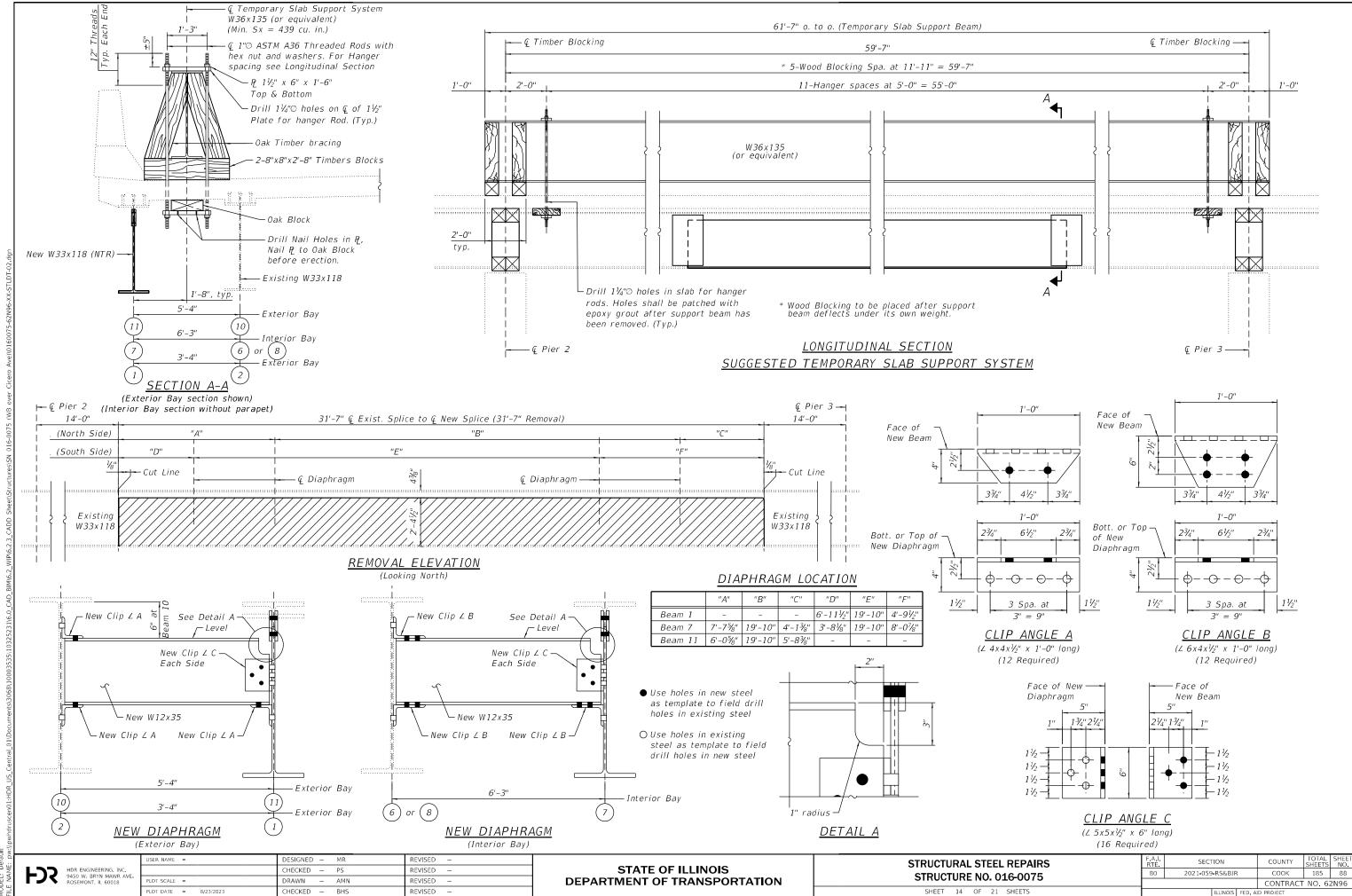
ITEM	UNIT	QUANTITY
Structural Steel Removal	Pound	14,580
Structural Steel Repair	Pound	330
Furnishing and Erecting Structural Steel	Pound	18,300
Temporary Slab Support System	Each	3
Temporary Shoring and Cribbing	Each	3
·		

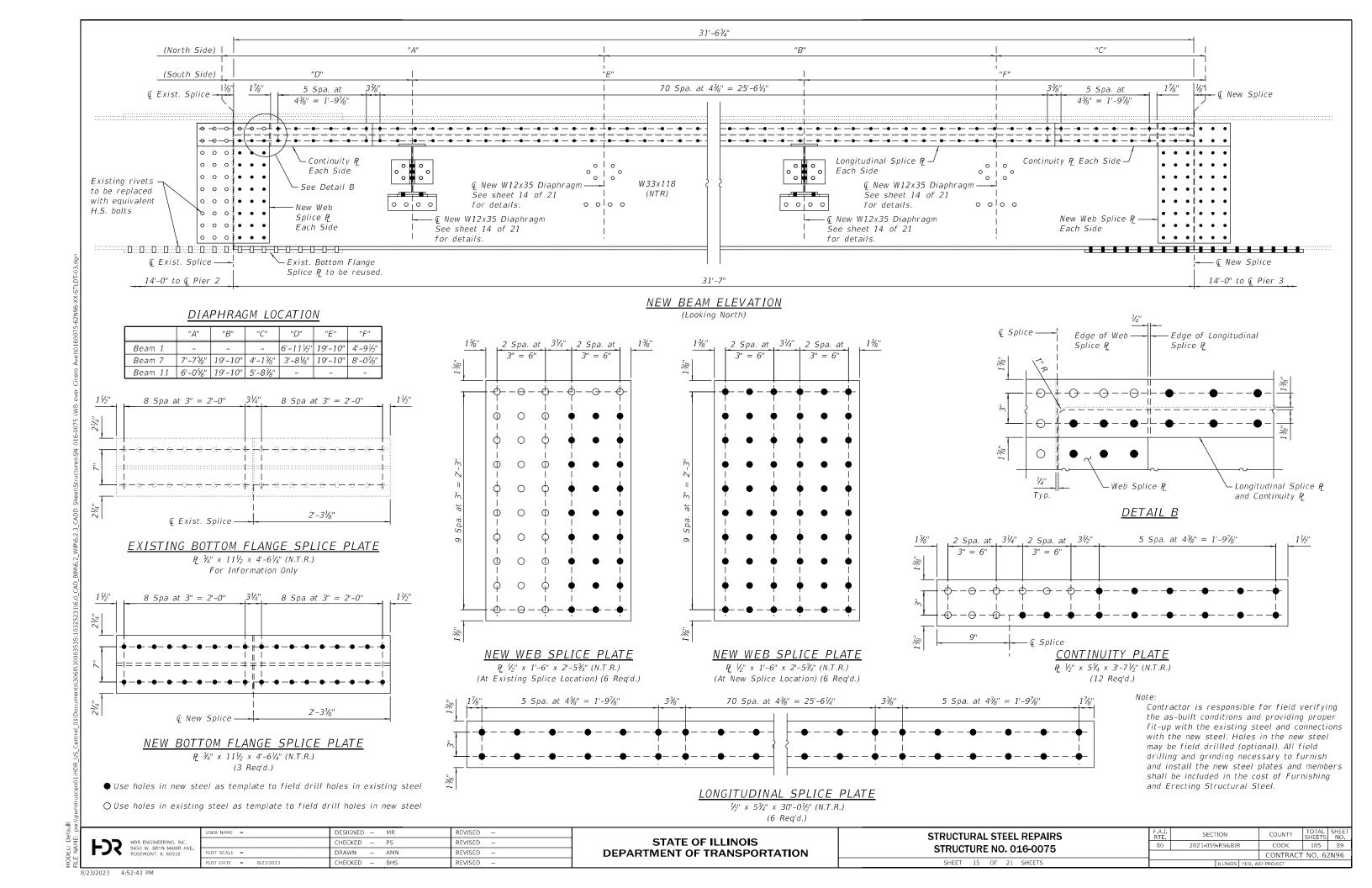
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

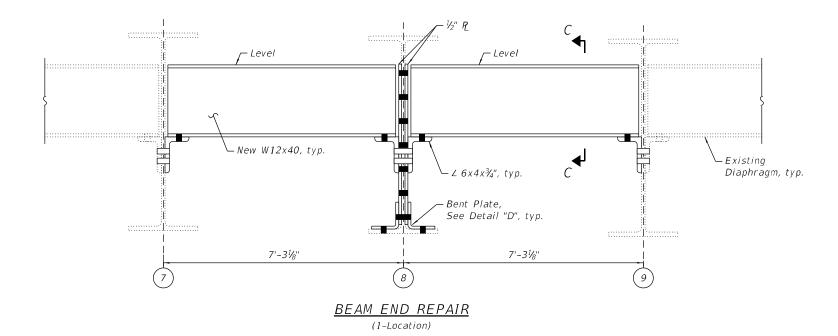
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

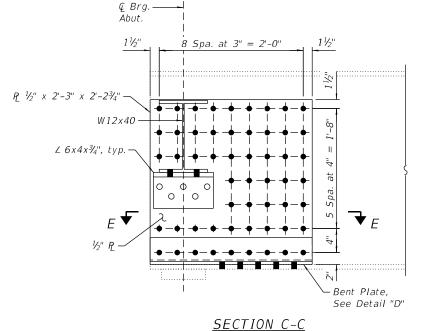
STRUCTURAL STEEL REPAIRS
STRUCTURE NO. 016-0075

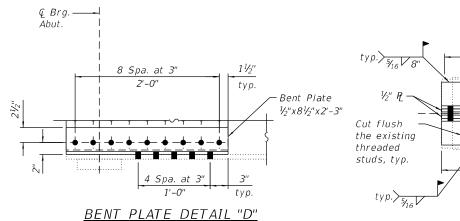
SHEET 13 OF 21 SHEETS

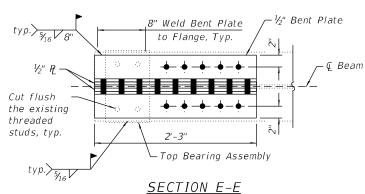












• Use holes in new steel as template to field drill holes in existing steel

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

	US
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018	PL
i	PL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS STRUCTURE NO. 016-0075					
SHEET	16	OF	21	SHEETS	

NOTES:

in Structural Steel Repair.

Furnishing and Erecting Steel.

1. For the beam repair, the holes in the new steel members may be shop or field drilled. Use the holes in the new steel members as the template

to field drill holes in the existing girder. Cost of field drilling included

2. For the diaphragm seat replacement, the cost to remove the existing welded steel angle from the existing beam web is included in Structural Steel Removal. Holes through the existing beam web and the diaphragm seat on the opposite side of web to be field drilled using the holes in the steel angle as the template. Cost of field drilling included in

F.A.I. SECTION COUNTY TOTAL SHEET NO.

80 2021-059-RS&BJR COOK 185 90

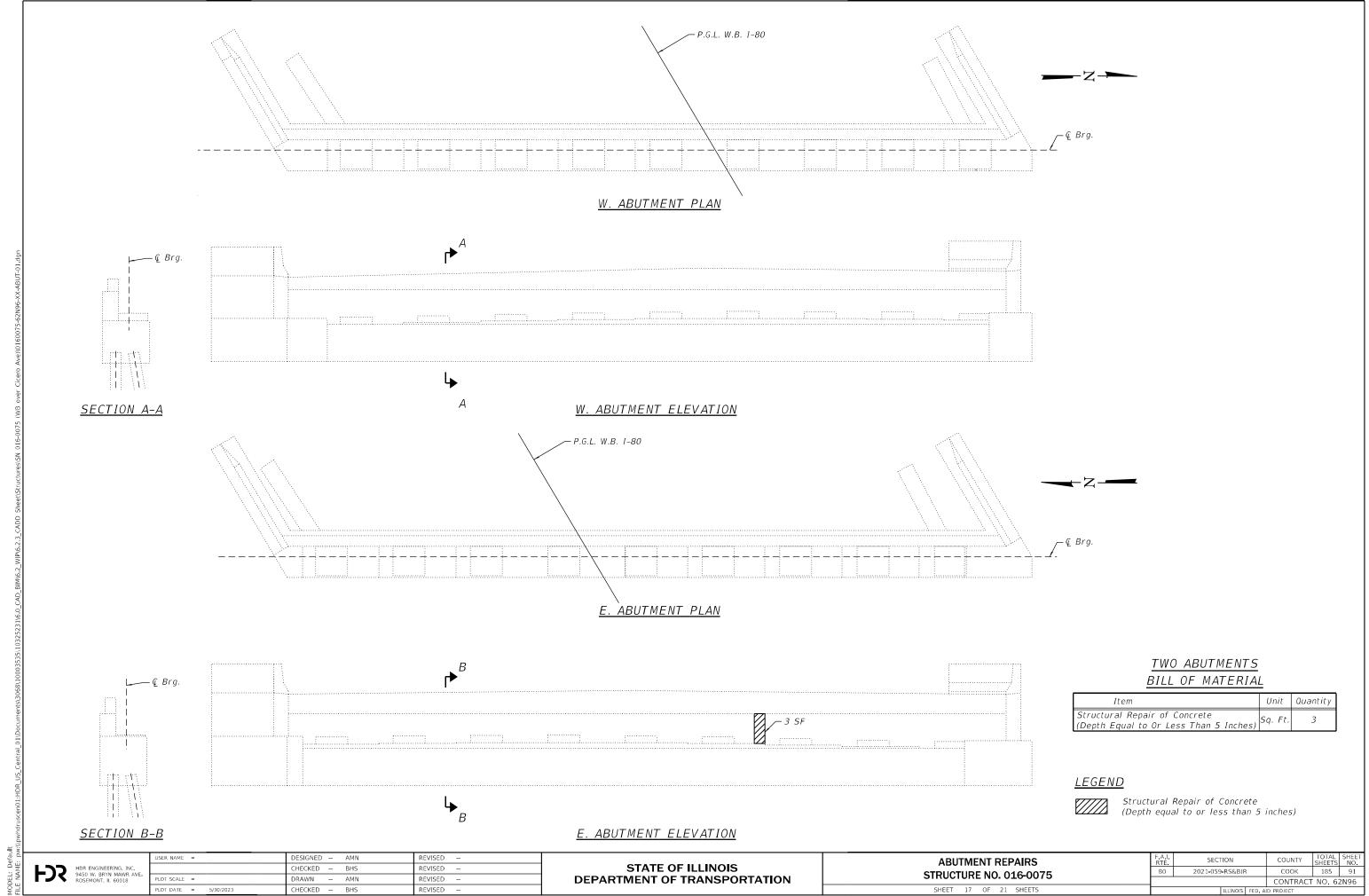
CONTRACT NO. 62N96

ULINOIS FED AID PROJECT

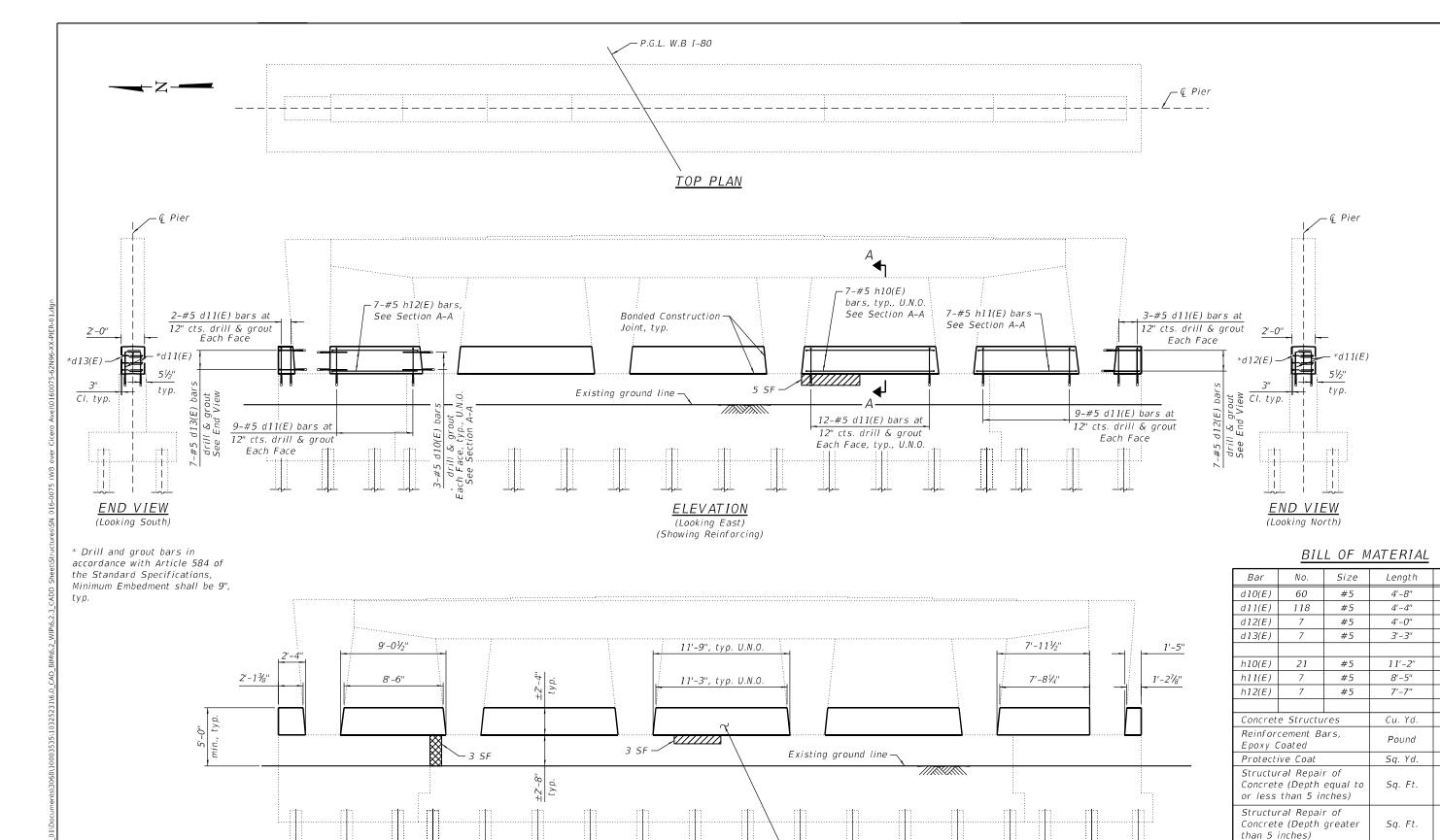
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Notes: For Section A-A, See Sheet 21 of 21.

For rebar details, See Sheet 21 of 21.

Bonded Construction Joint in accordance with Article 503.09(b) of Standard Specifications.

HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, II. 60018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

2'-0" Wide Raised

Crashwall, typ.

ELEVATION

(Looking West)

(Showing Dimensions)

PIER 1 REPAIRS
STRUCTURE NO. 016-0075

SHEET 18 OF 21 SHEETS

Structural Repair of Concrete (Depth equal to or less than 5 inches)

Structural Repair of Concrete (Depth greater than 5 inches)

LEGEND

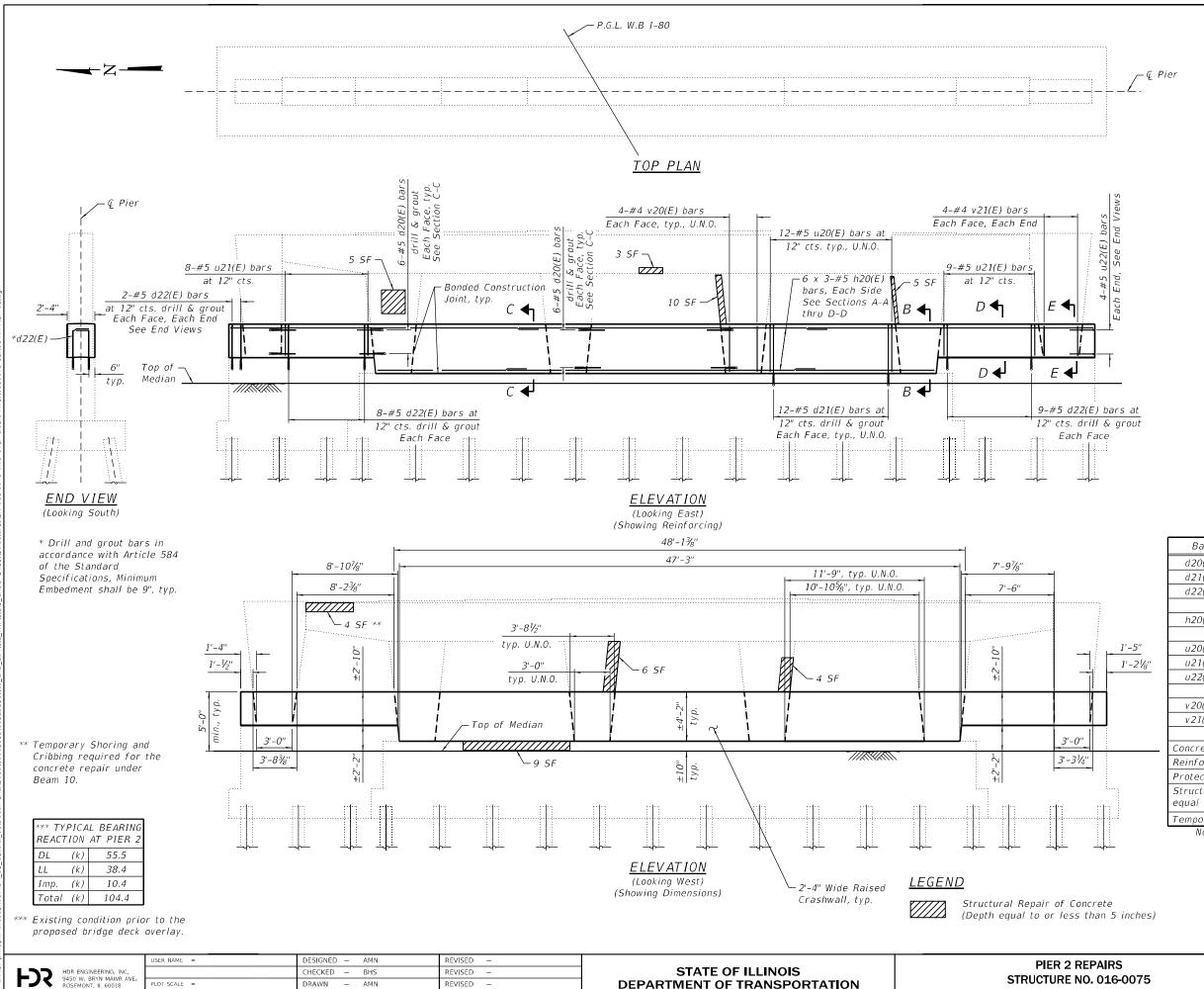
Shape

9.5

1,240

215

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MINIMUM BAR LAP $#5 \ bar = 3'-7"$

u22(E) -- h20(E) CI. typ.

> END VIEW (Looking North)

Bar	No.	Size	Length	Shape
d20(E)	96	#5	4'-4"	
d21(E)	72	#5	5'-7"	
d22(E)	42	#5	4'-3"	
h20(E)	36	#5	26'-9"	
u20(E)	36	#5	9'-9"	
u21(E)	17	#5	7'-1"	
u22(E)	8	#5	9'-1"	
v 20(E)	32	#4	3'-11"	
v21(E)	16	#4	2'-7"	
Concrete St	ructures	Cu. Yd.	18.7	
Reinforcement Bars, Epoxy Coated			Pound	2,730
Protective Coat			Sq. Yd.	201
Structural Repair of Concrete (Depth equal to or less than 5 inches)			Sq. Ft.	46
Temporary :	Shoring and (Cribbing	Each	1

BILL OF MATERIAL

Notes:

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

For Sections B-B, C-C, D-D and E-E, See Sheet 21 of 21.

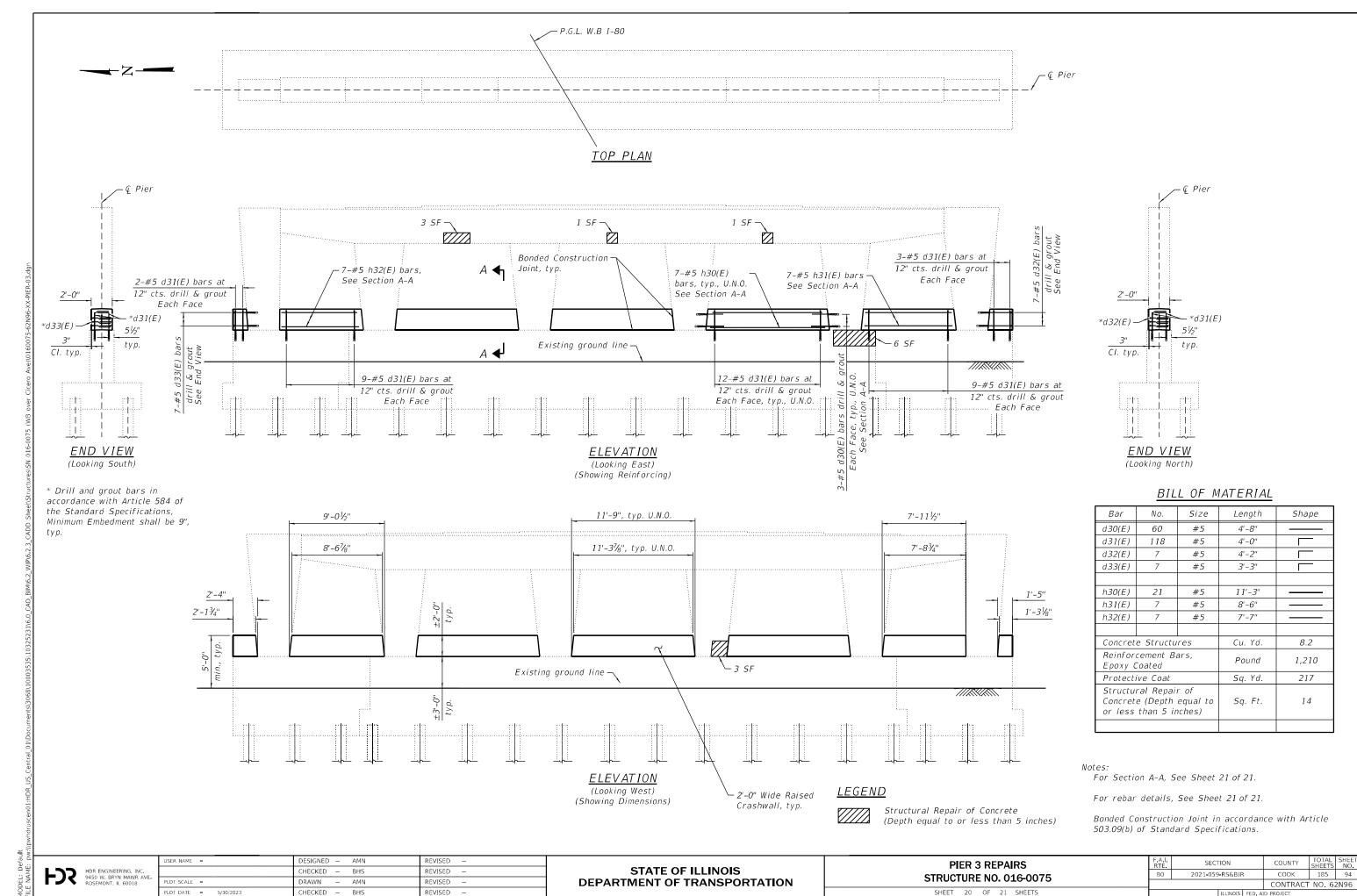
For rebar details, See Sheet 21 of 21.

Bonded Construction Joint in accordance with Article 503.09(b) of Standard Specifications.

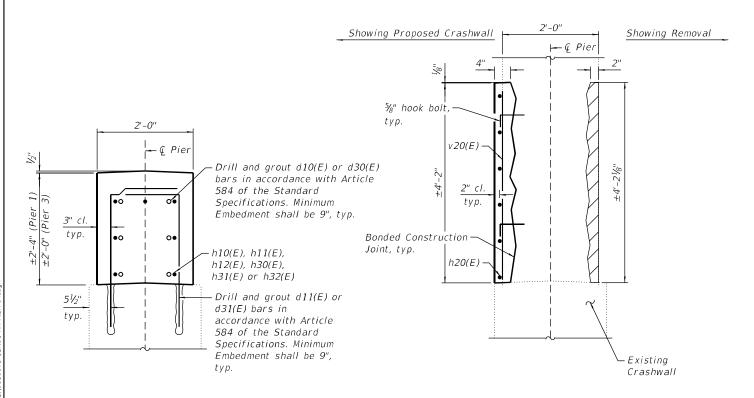
CHECKED - BHS REVISED LOT DATE = 5/30/2023 CHECKED - BHS

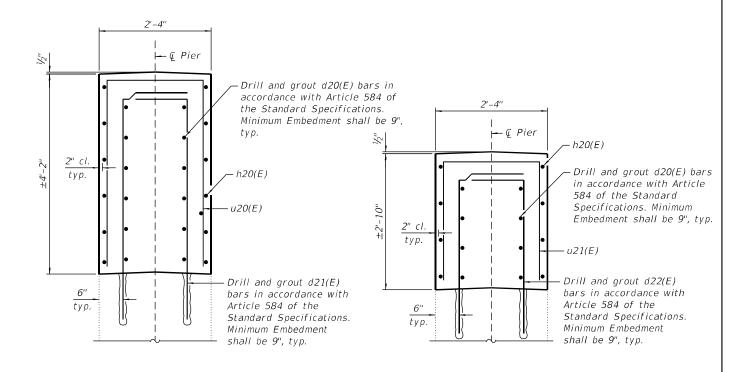
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION **STRUCTURE NO. 016-0075** SHEET 19 OF 21 SHEETS

SECTION 2021-059-RS&BJR COOK 185 93 CONTRACT NO. 62N96

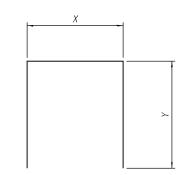


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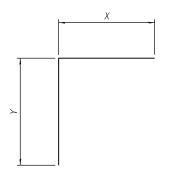


<u>SECTION A-A</u> <u>SECTION B-B</u> <u>SECTION C-C</u> <u>SECTION D-D</u>



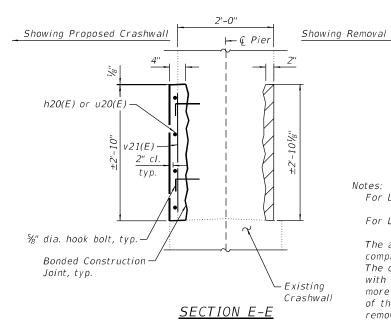
BARS u20(E) thru u22(E)

Bar	Χ	Υ
u20(E)	1'-11"	3'-11"
u21(E)	1'-11"	2'-7"
u22(E)	1'-11"	3'-7"



BARS d11(E) thru d13(E), d21(E), d22(E), d31(E) thru d33(E)

Bar	Χ	Υ
d11(E)	1'-6"	2'-10"
d12(E)	1'-6"	2'-6"
d13(E)	1'-6"	1'-9"
d21(E)	10"	4'-9"
d22(E)	10"	3'-5"
d31(E)	1'-6"	2'-6"
d32(E)	1'-6"	2'-8"
d33(E)	1'-6"	1'-9"



<u>LEGEND</u>

Concrete Removal

otes:
For Location of Section A-A, See Sheet 18 of 21 and Sheet 20 of 21.

For Location of Sections B-B, C-C, D-D and E-E, See Sheet 19 of 21.

The areas to have concrete removed shall have all loose, unsound concrete removed completely by the use of chipping hammers, or other methods approved by the Engineer. The chipping hammer for removing concrete shall be a light-duty pneumatic or electric tool with a 15 lb. (7 kg) maximum class or less. Existing reinforcement bar with 50 percent or more of the bar perimeter exposed shall be undercut to a depth of 3/4 in. or the diameter of the reinforcement bar, whichever is greater. The Engineer shall be notified of concrete removal that exceeds 6 in. in depth, or if more than half the vertical column reinforcement is exposed in a cross section. Excessive deterioration or removal may require further evaluation of the structure or installation of temporary shoring and cribbing support system. Concrete removal and disposal included in the cost of Concrete Structures.

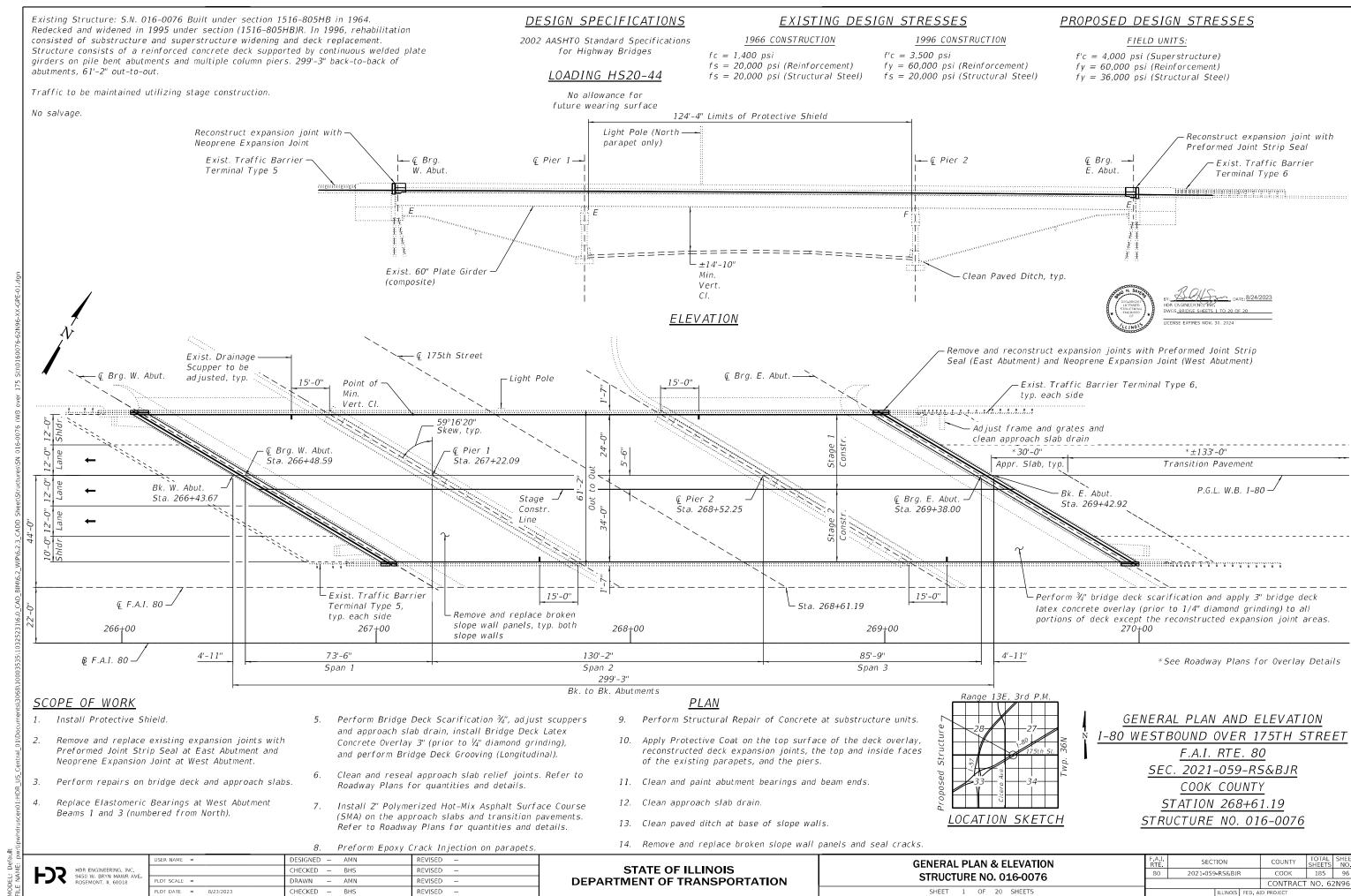
The hook bolts shall be spaced at 15 in. maximum centers both vertically and horizontally, and shall be a minimum of 6 in. away from the corners of the existing column. The hook bolts provided per Section 1006.09 shall be installed according to Section 584. Cost included with Concrete Structures.

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STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

PIER REPAIR DETAILS	F.A.I. RTE	SECTION		COUNTY	TOTAL SHEETS	
STRUCTURE NO. 016-0075	80	2021-059-RS&B	IR	COOK	185	95
311.001011E NO. 010-0013				CONTRACT	NO. 67	2N96
SHEET 21 OF 21 SHEETS		ILLINOI	FED. A	ID PROJECT		



GENERAL NOTES

- 1. Reinforcement bars designated (E) shall be epoxy coated.
- 2. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½, deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 3. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 4. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 5. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 6. 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.
- 7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 8. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 9. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 10. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 11. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. All exposed concrete edges shall have a 3/4" chamfer, except where shown otherwise.
- 13. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 14. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- 15. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.
- 16. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.

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17. Slope Wall Crack Sealing to be performed at the direction of the Engineer.

SER NAME =

LOT DATE = 10/2/2023

INDEX OF SHEETS

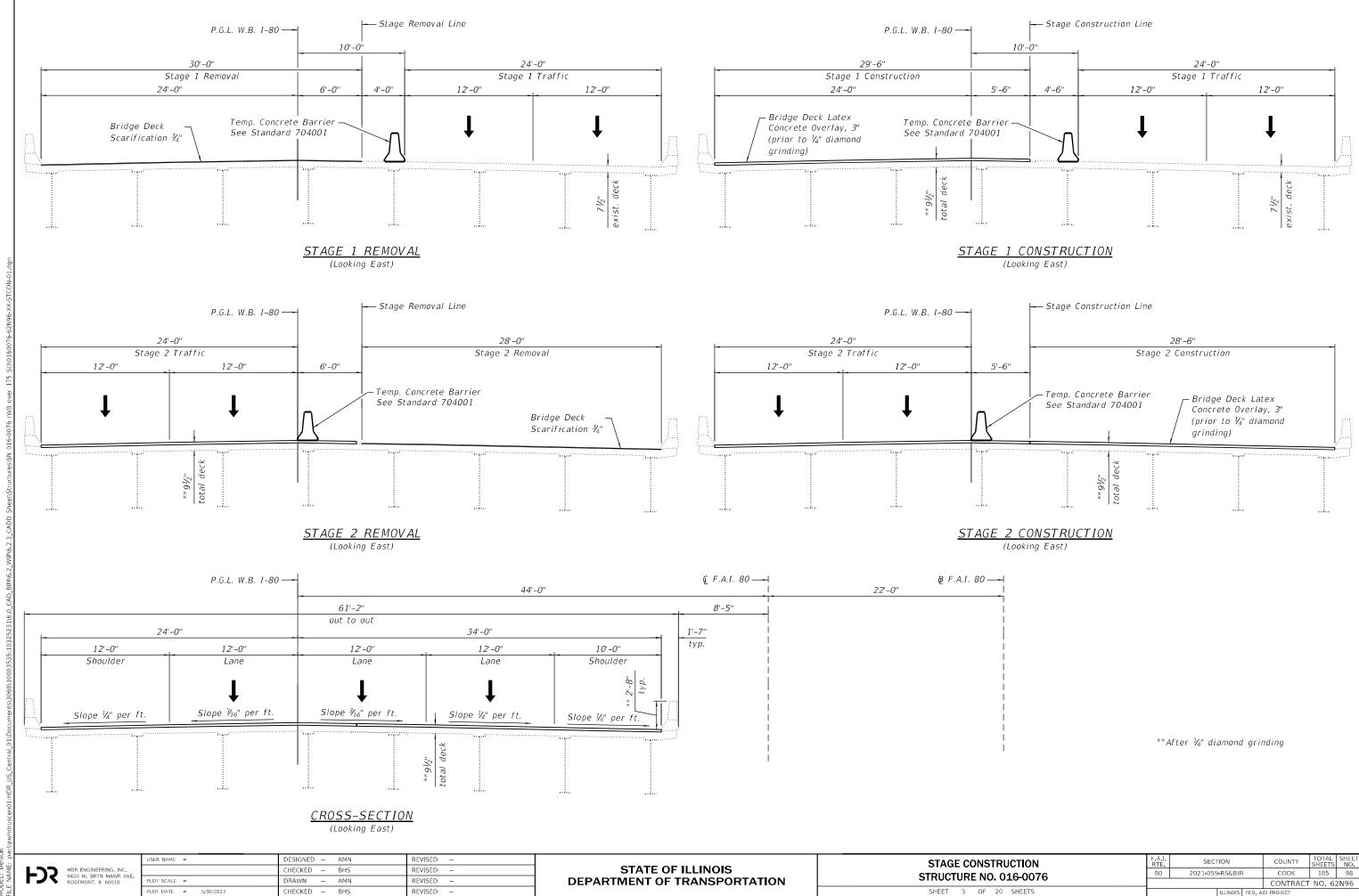
- 1 General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- 7 Joint Reconstruction Details
- 8 Joint Reconstruction Details
- 9 Joint Reconstruction Details
- 10 Joint Reconstruction Details11 Modified Preformed Joint Strip Seal
- 12 Neoprene Expansion Joint
- 13 Drainage Scupper Details
- 14 Approach Shoulder Inlet Details
- 15 Bar Splicer Assembly Details
- 16 Bearing Repairs
- 17 Abutment Repairs
- 18 Pier 1 Repairs
- 19 Pier 2 Repairs
- 20 Slopewall Repair Plan

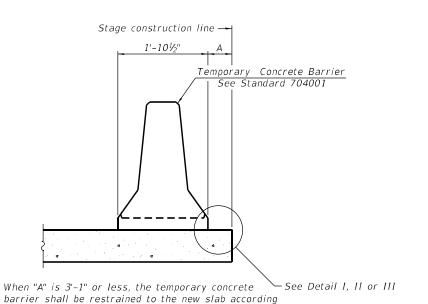
TOTAL BILL OF MATERIAL

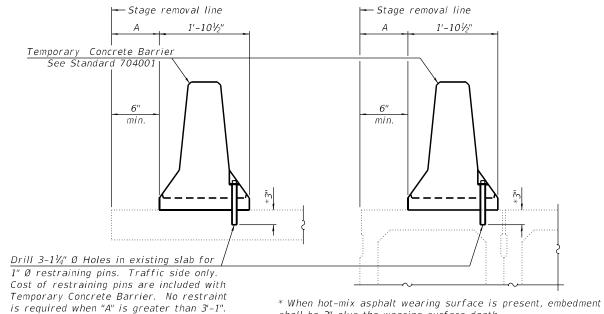
ITEM	UNIT	TOTAL
Subbase Granular Material, Type B	Ton	244
Concrete Removal	Cu Yd	38.3
Protective Shield	Sq Yd	846
Slope Wall Removal	Sq Yd	382
Concrete Superstructure	Cu Yd	43.2
Protective Coat	Sq Yd	2,791
Reinforcement Bars, Epoxy Coated	Pound	4,850
Bar Splicers	Each	24
Slope Wall 4 Inch	Sq Yd	382
Preformed Joint Strip Seal	Foot	116.0
Neoprene Expansion Joint 4"	Foot	116.0
Elastomeric Bearing Assembly, Type II	Each	2
Anchor Bolts, 1"	Each	4
Epoxy Crack Injection	Foot	50
Slope Wall Crack Sealing	Foot	650
Cleaning Paved Ditch	Foot	292
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,190
Frames And Grates To Be Adjusted (Special)	Each	1
Approach Slab Repair (Full Depth)	Sq Yd	6
Jack and Remove Existing Bearings	Each	2
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,835
Containment And Disposal Of Lead Paint Cleaning Residues No. 3	L Sum	1
Cleaning And Painting Steel Bridge No. 3	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,835
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	85
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	19
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,784
Slope Wall Repair	Sq Yd	20
Slope Wall Slurry Pumping	Cu Yd	160

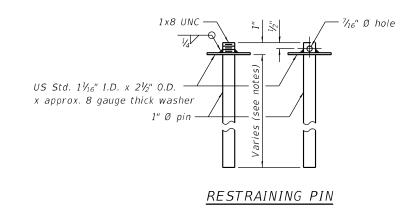
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

9450 W. BRYN MAWR AVE ROSEMONT, IL 60018









NEW SLAB OR NEW DECK BEAM

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

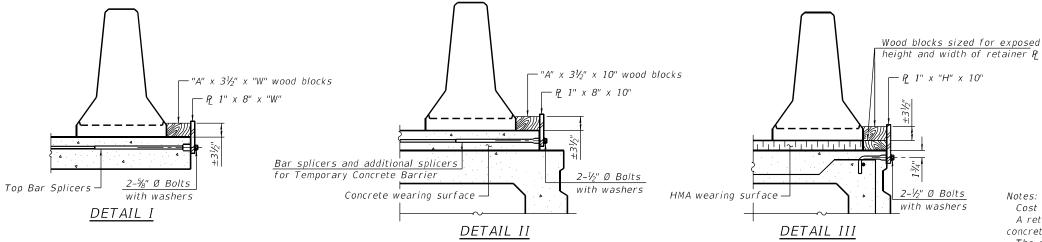
when "A" is greater than 3'-1".

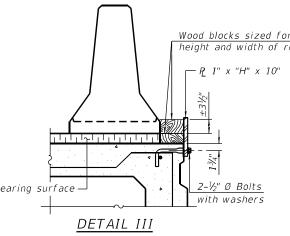
EXISTING SLAB

EXISTING DECK BEAM

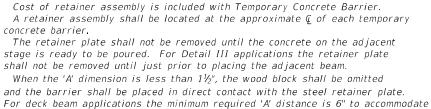
shall be 3" plus the wearing surface depth.

SECTIONS THRU SLAB OR DECK BEAM





← Ç ¾" Ø Holes



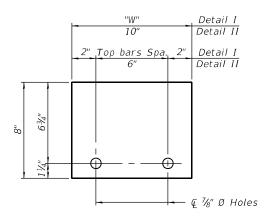
BAR SPLICER FOR #4 BAR - DETAIL III

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

the shear key clamping device.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

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



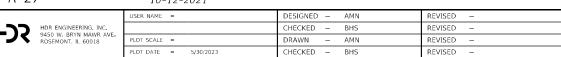
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-2710-12-2021



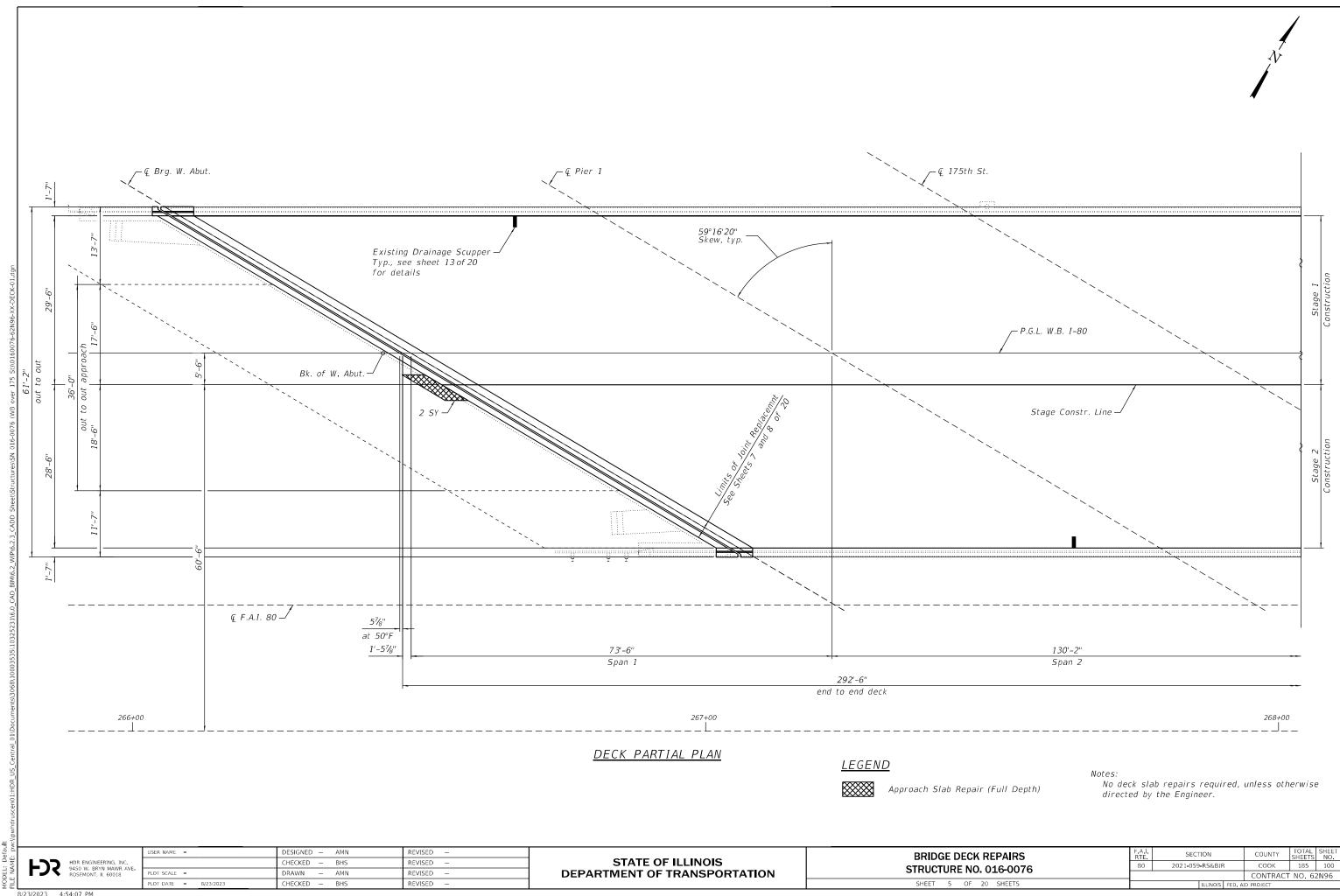
STEEL RETAINER P 1" x "H" x 10" (Detail III) (Detail I and II)



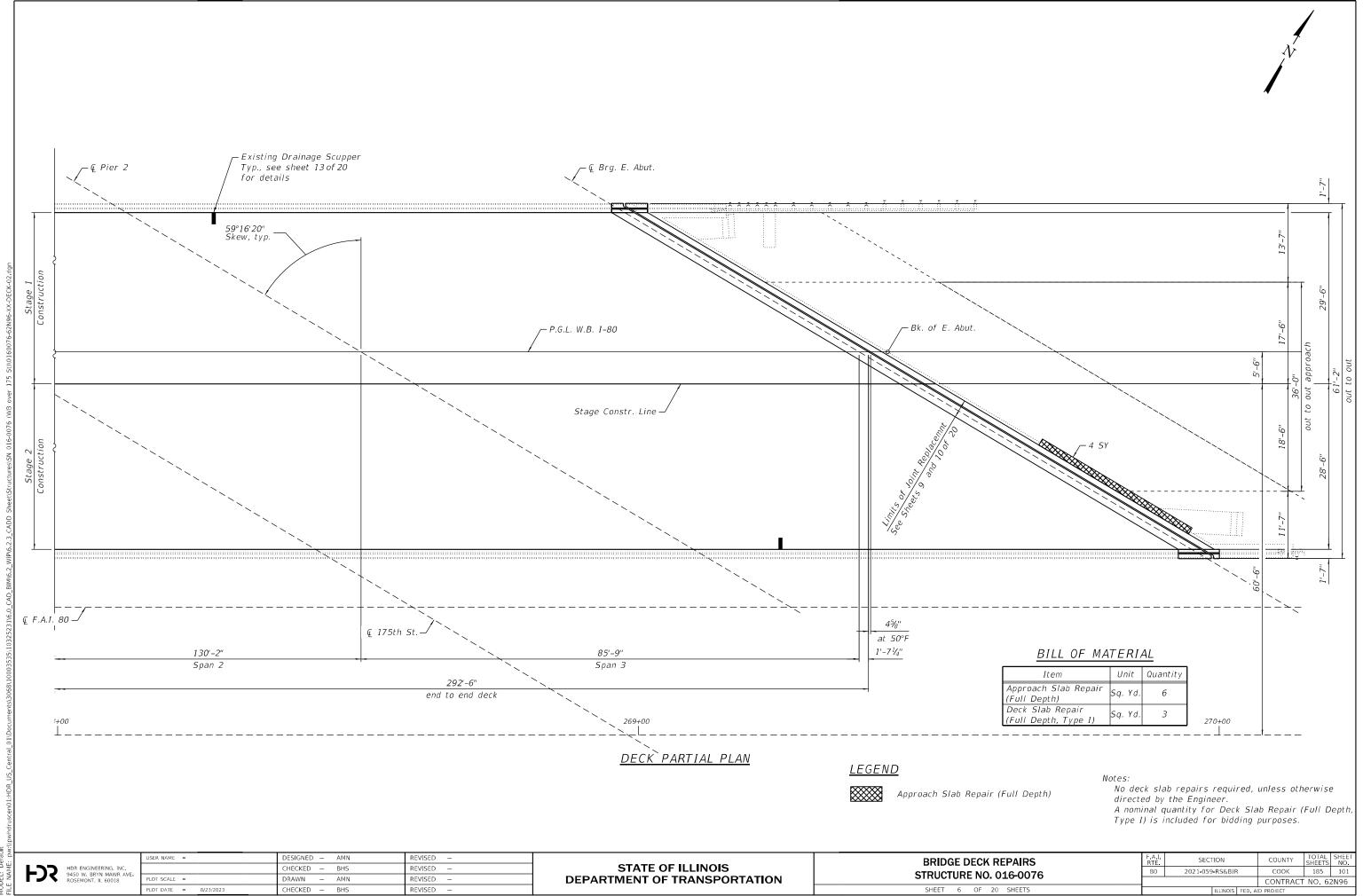
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR COOK 185 99 **STRUCTURE NO. 016-0076** CONTRACT NO. 62N96 SHEET 4 OF 20 SHEETS

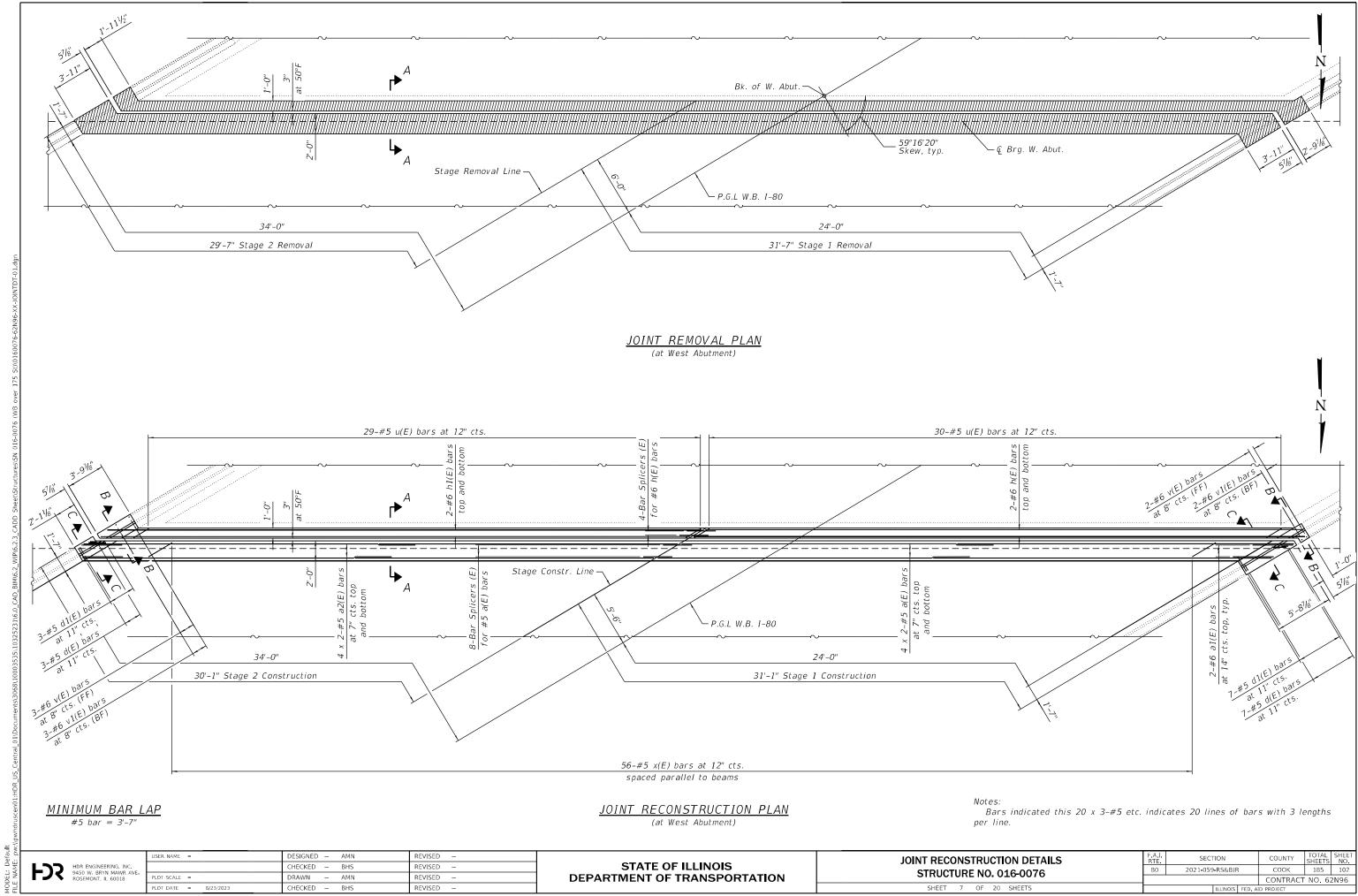
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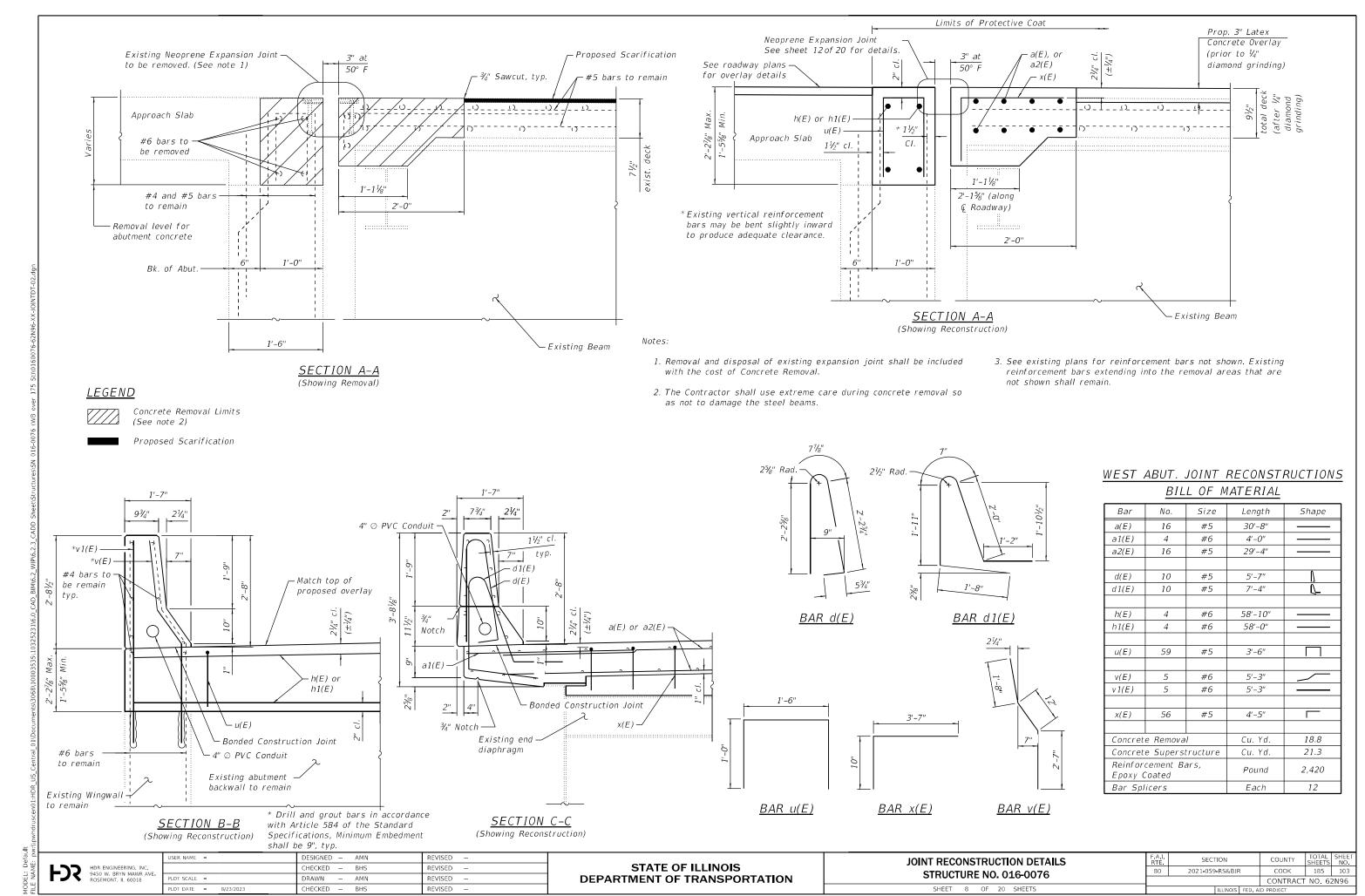
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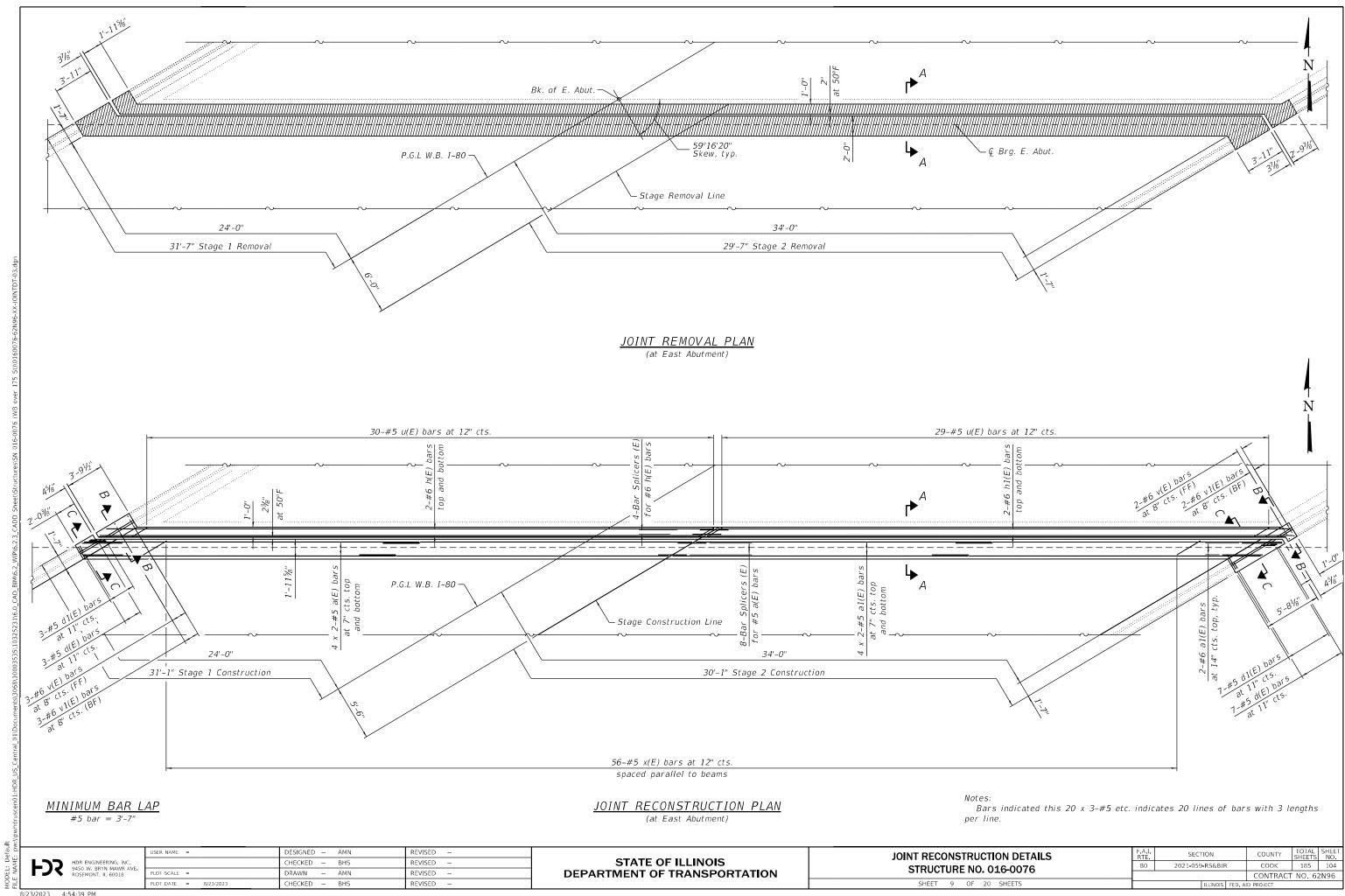


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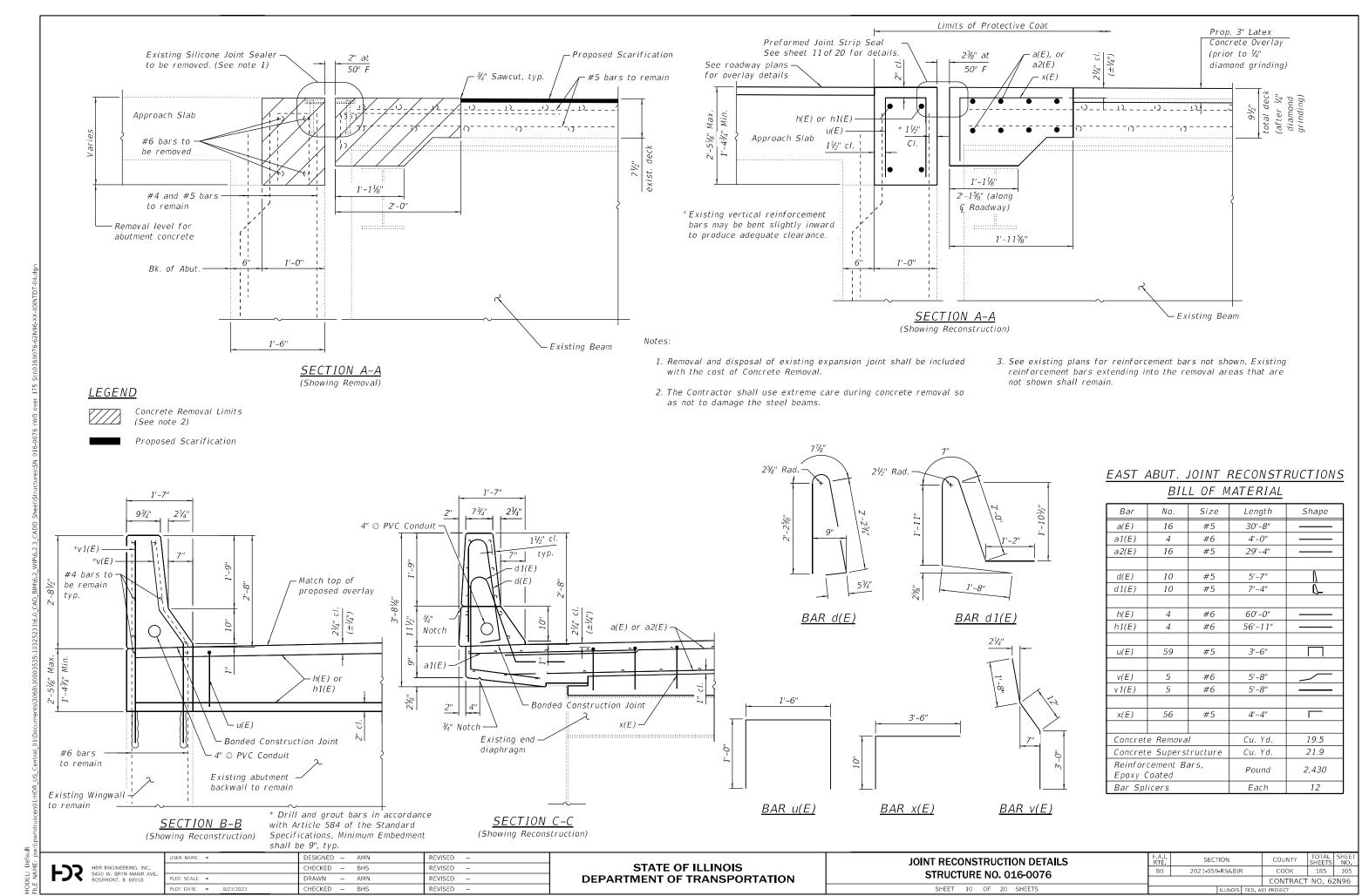


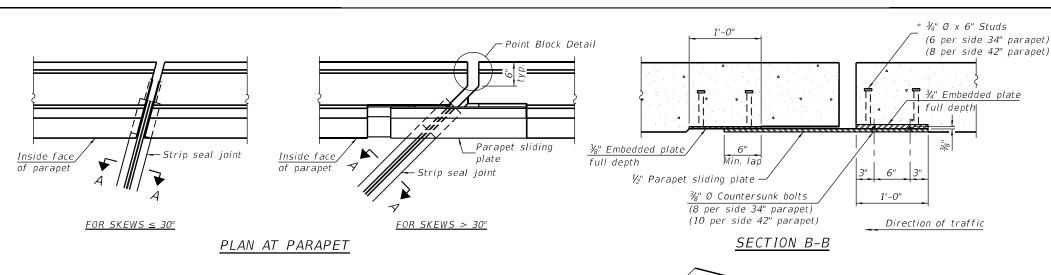
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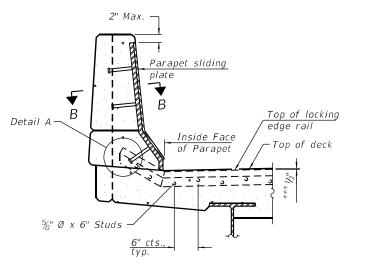




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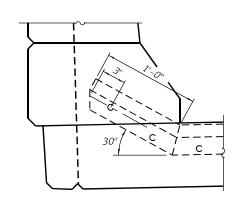




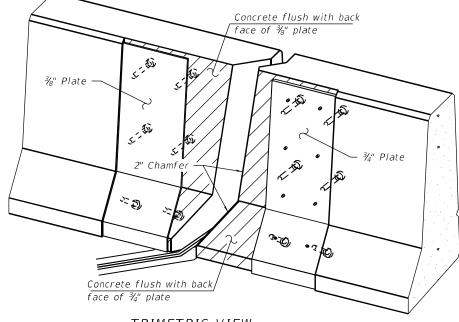


ELEVATION AT PARAPET

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



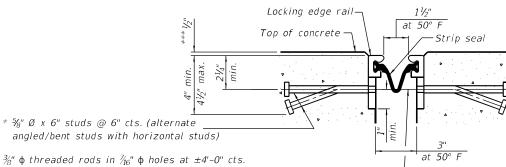
DETAIL A



TRIMETRIC VIEW (Showing embedded plates only)

Locking edge railat 50° F Top of concrete -Strip seal at 50°

SHOWING ROLLED RAIL JOINT



 $\frac{3}{6}$ " ϕ threaded rods in $\frac{1}{16}$ " ϕ holes at ± 4 '-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed

off flush with the plates after concrete is set.

SECTION A-A

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

*** Prior to 1/4" diamond grinding

ROLLED WELDED RAIL (EXTRUDED) RAIL

LOCKING EDGE RAILS

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

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

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

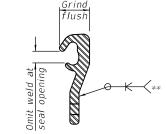
The manufacturer's recommended installation methods shall be followed.

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

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

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

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	116.0

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ſ	PLOT SCALE =	DRAWN -	AMN	REVISED —
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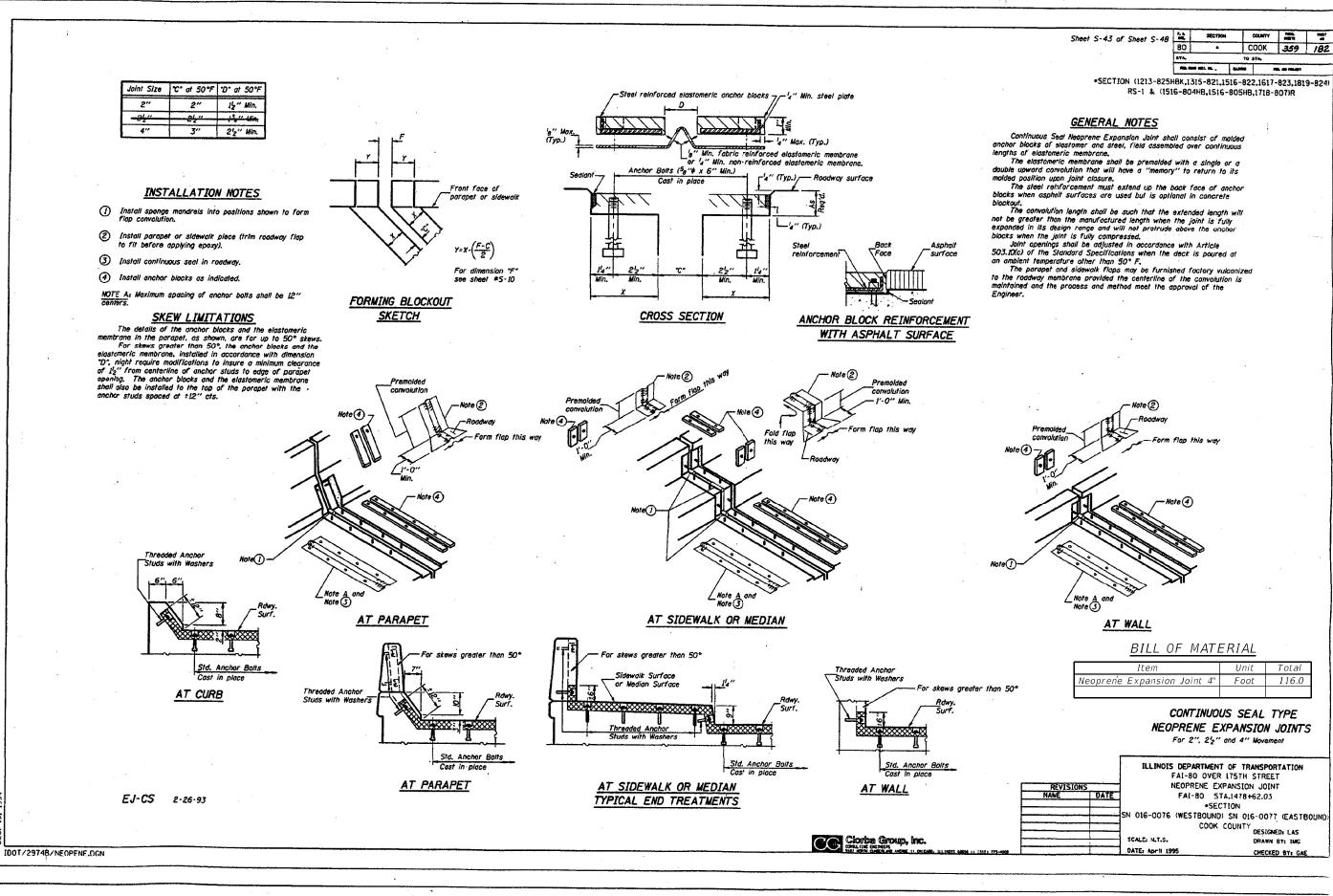
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

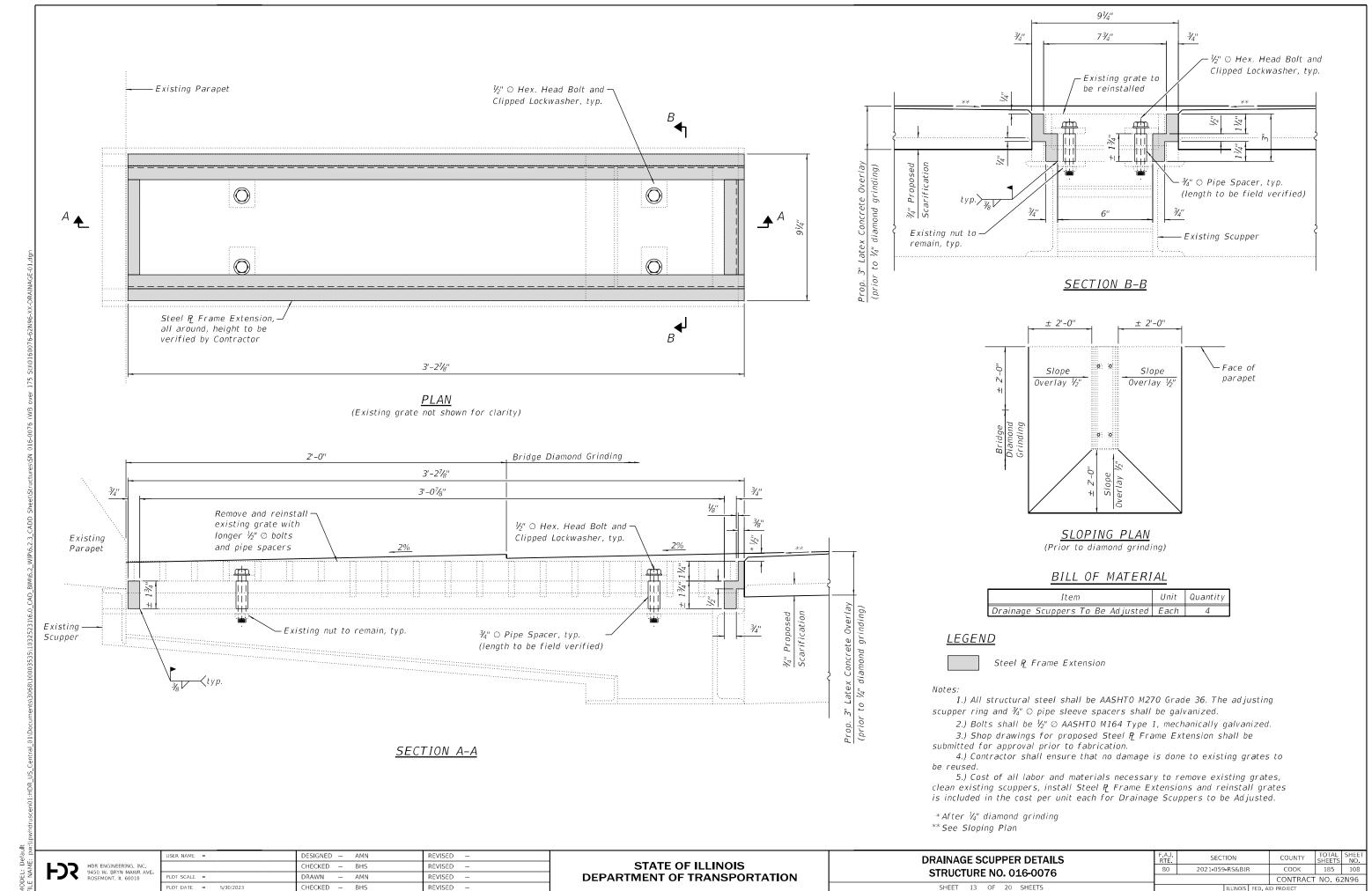
SHOWING WELDED RAIL JOINT

MODIFIED PREFORMED JOINT STRIP SEAL **STRUCTURE NO. 016-0076** SHEET 11 OF 20 SHEETS

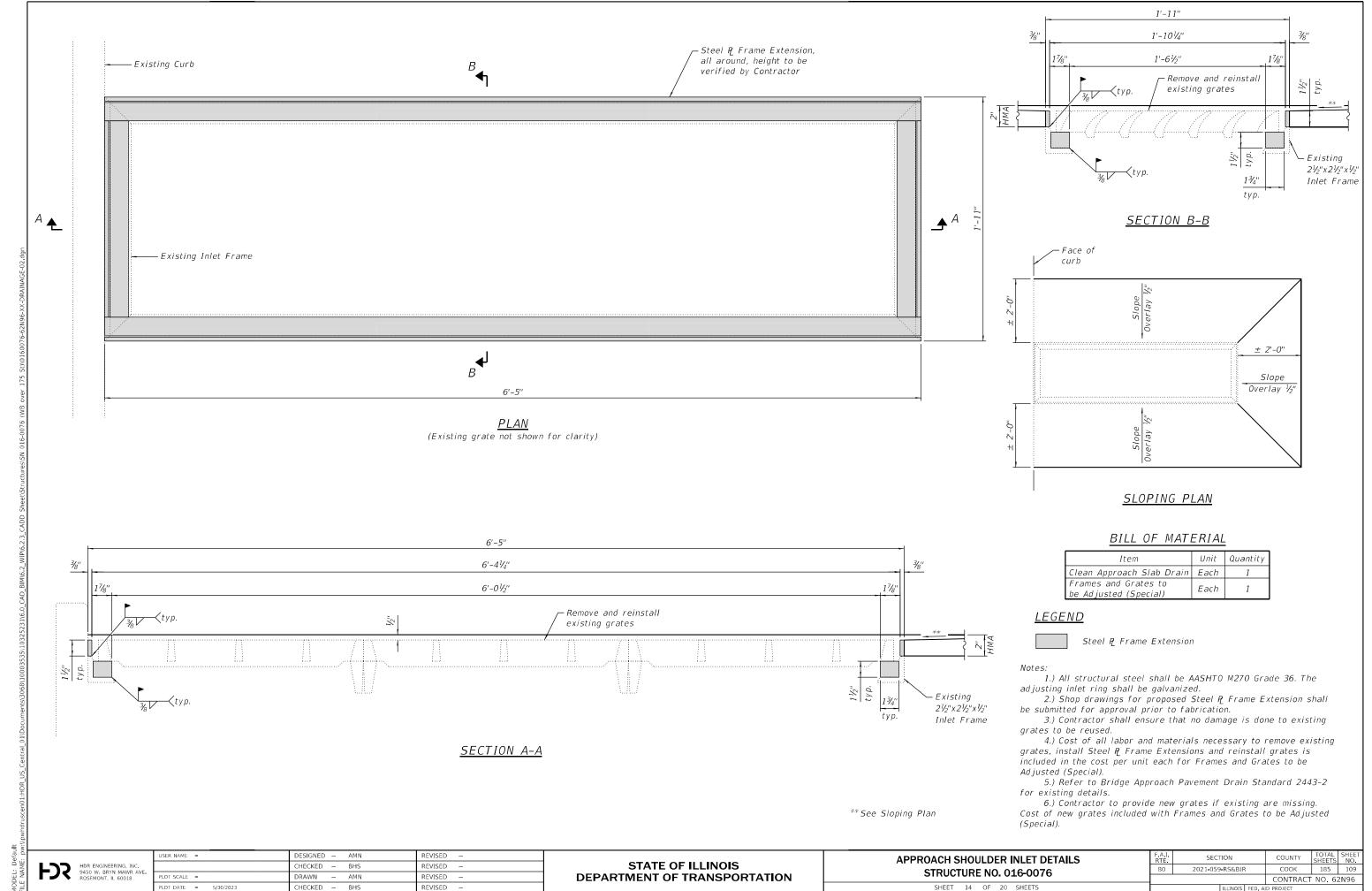
F.A.I. RTE.	SECT	TION			COUNTY	TOTAL SHEETS	SHEE NO.
80	2021-059	-RS&BJF	₹		COOK	185	106
					CONTRACT	NO. 62	2N96
		THE INDICE.	EED	۸١	ID PROJECT		

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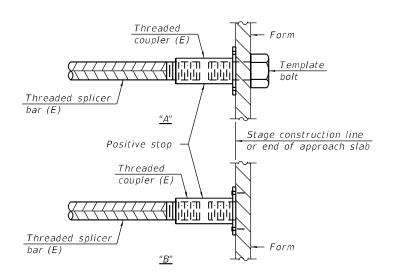
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

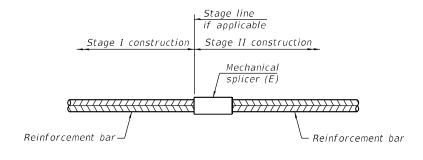
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4'-0"
			•



INSTALLATION AND SETTING METHODS

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

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

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

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements

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

alternatives.

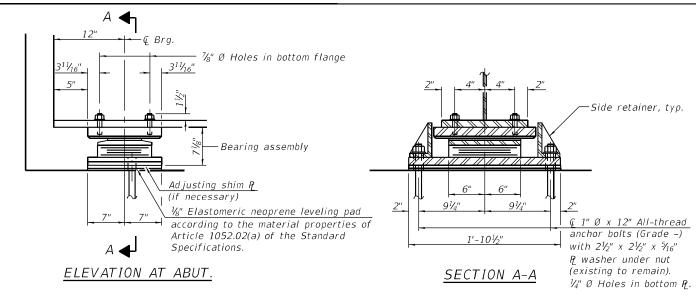
BSD-1

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٠.	PLOT SCALE =	DRAWN - AMN	REVISED -
	PLOT DATE = 5/30/2023	CHECKED - BHS	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **BAR SPLICER ASSEMBLY DETAILS STRUCTURE NO. 016-0076** SHEET 15 OF 20 SHEETS

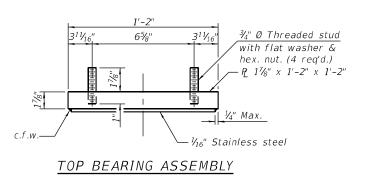
SECTION COUNTY 2021-059-RS&BJR COOK 185 110 CONTRACT NO. 62N96

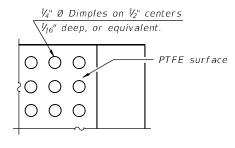


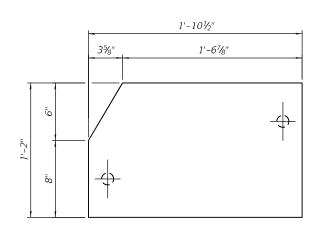
JACK AND REMOVE EXISTING BEARINGS PROCEDURE

- 1. The Contractor shall submit, for approval by the Engineer, plans for jacking and removing the existing bearings at the Abutments prior to jacking existing girders.
- Jacking and removal of existing bearings shall be performed while staged traffic is on the opposite side of the bridge deck.
- 3. The new bearings shall be in place and the jacks lowered prior to installation for the new bridge deck overlay.
- 4. At the bearings to be removed, the dead load reaction per beam is 24.5 kips at the West Abutment and 33.8 kips at the East Abutment. The minimum jack capacity
- 5. Prior to ordering any material, the Contractor shall verify the existing bearing heights to be replaced.

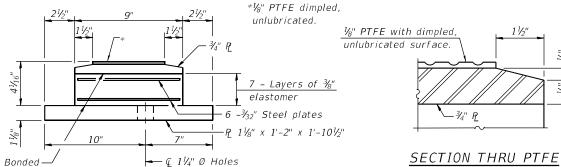
TYPE II ELASTOMERIC EXP. BRG.

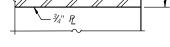






PLAN-PTFE SURFACE





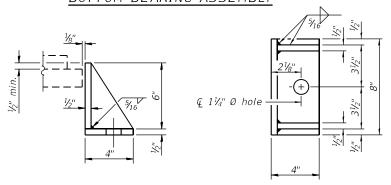
PLAN OF BOTTOM PLATE

Leveling pad required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type II.

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates and placed as shown on bearing details.

BOTTOM BEARING ASSEMBLY



SIDE RETAINER

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

€ Bott. Brg.— € Bott. Brg. -

 $D=\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	2
Anchor Bolts, 1"	Each	4
Jack and Remove Existing Bearings	Each	2

I-2E-2

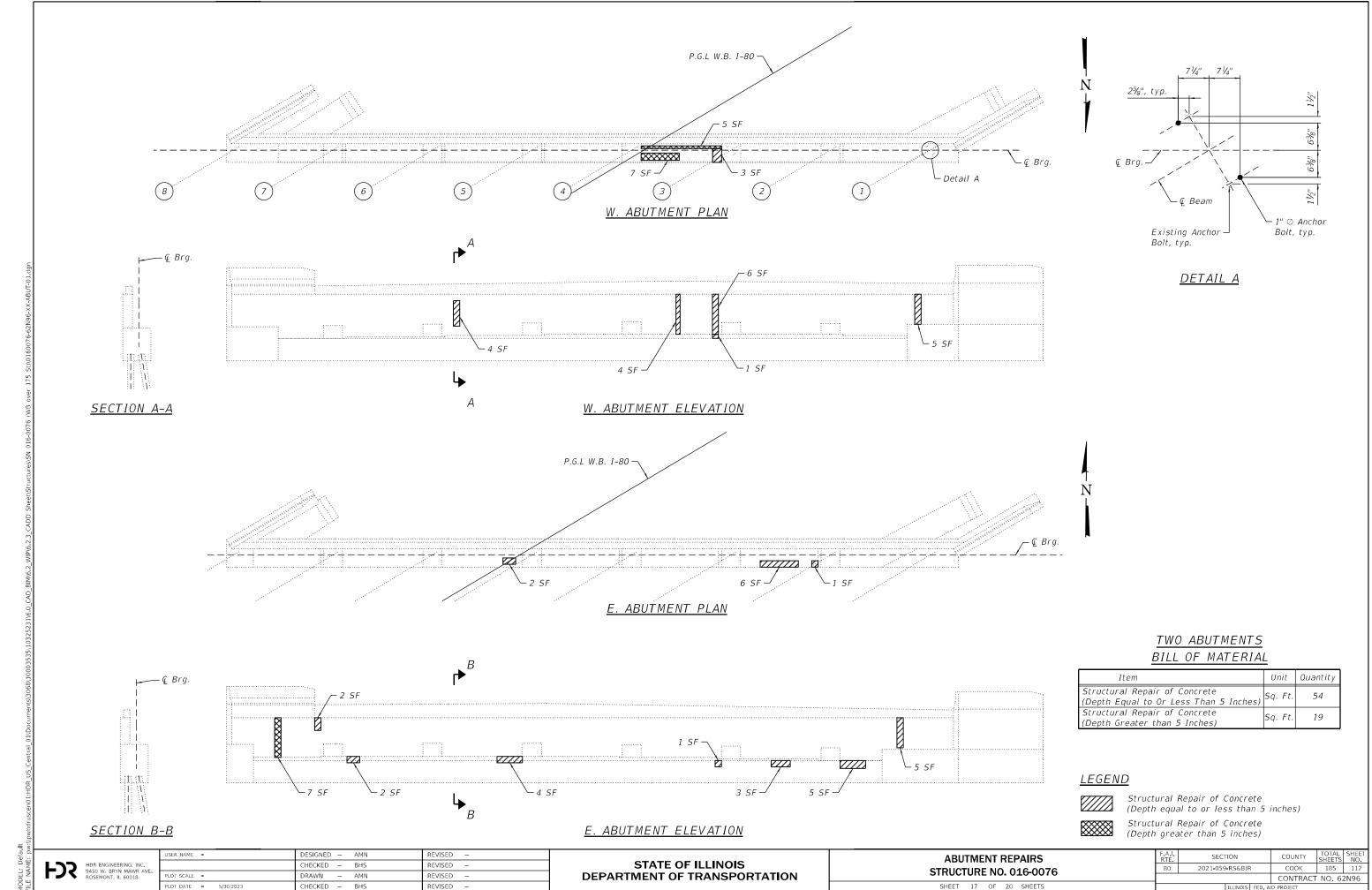
6-15-2019

SINEERING, INC. BRYN MAWR AVE. NT, IL 60018	USER NAME =	DESIGNED - AMN	REVISED —
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	PLOT DATE = 5/30/2023	CHECKED - BHS	REVISED -

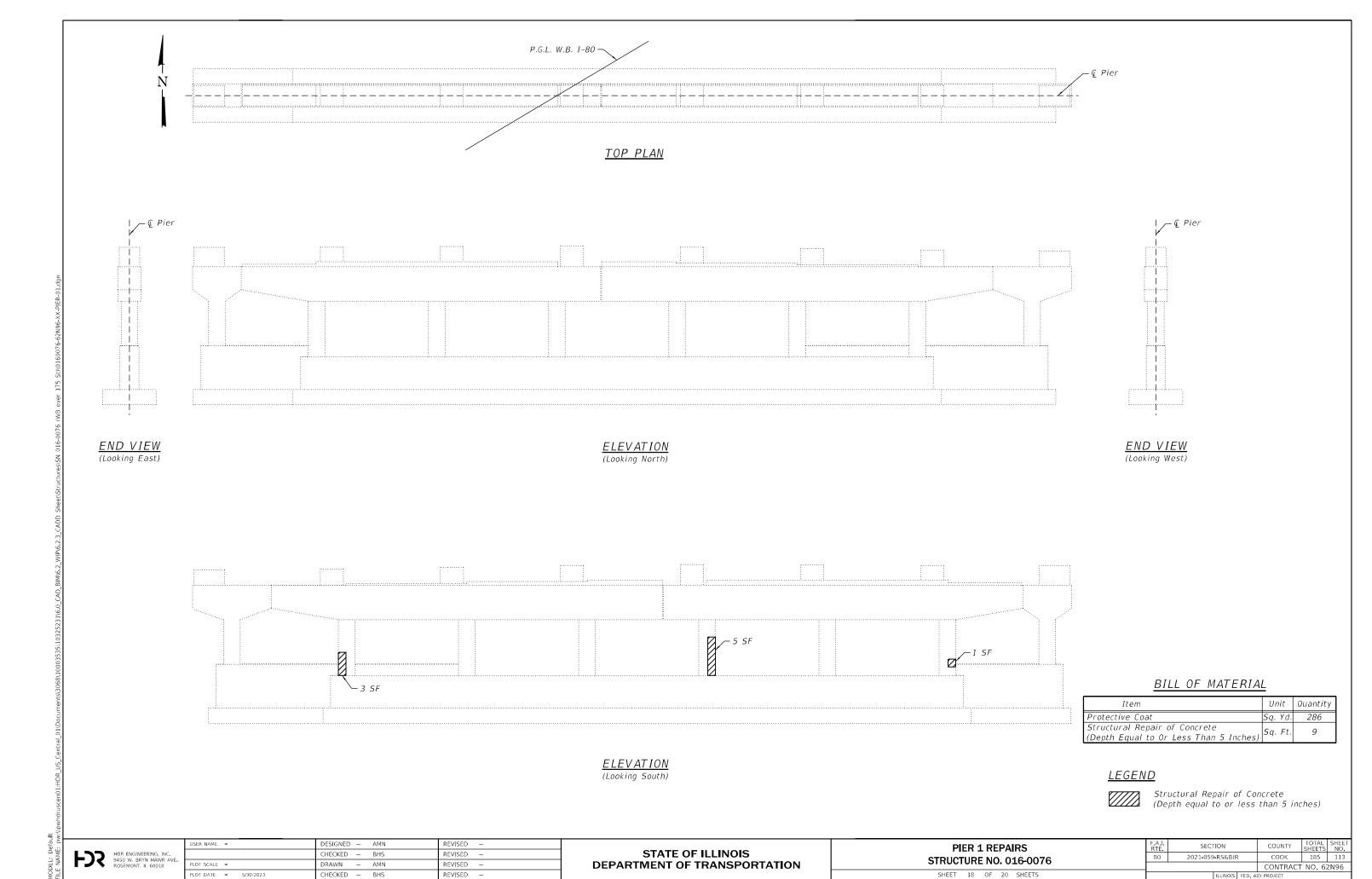
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION **BEARING REPAIRS STRUCTURE NO. 016-0076** SHEET 16 OF 20 SHEETS

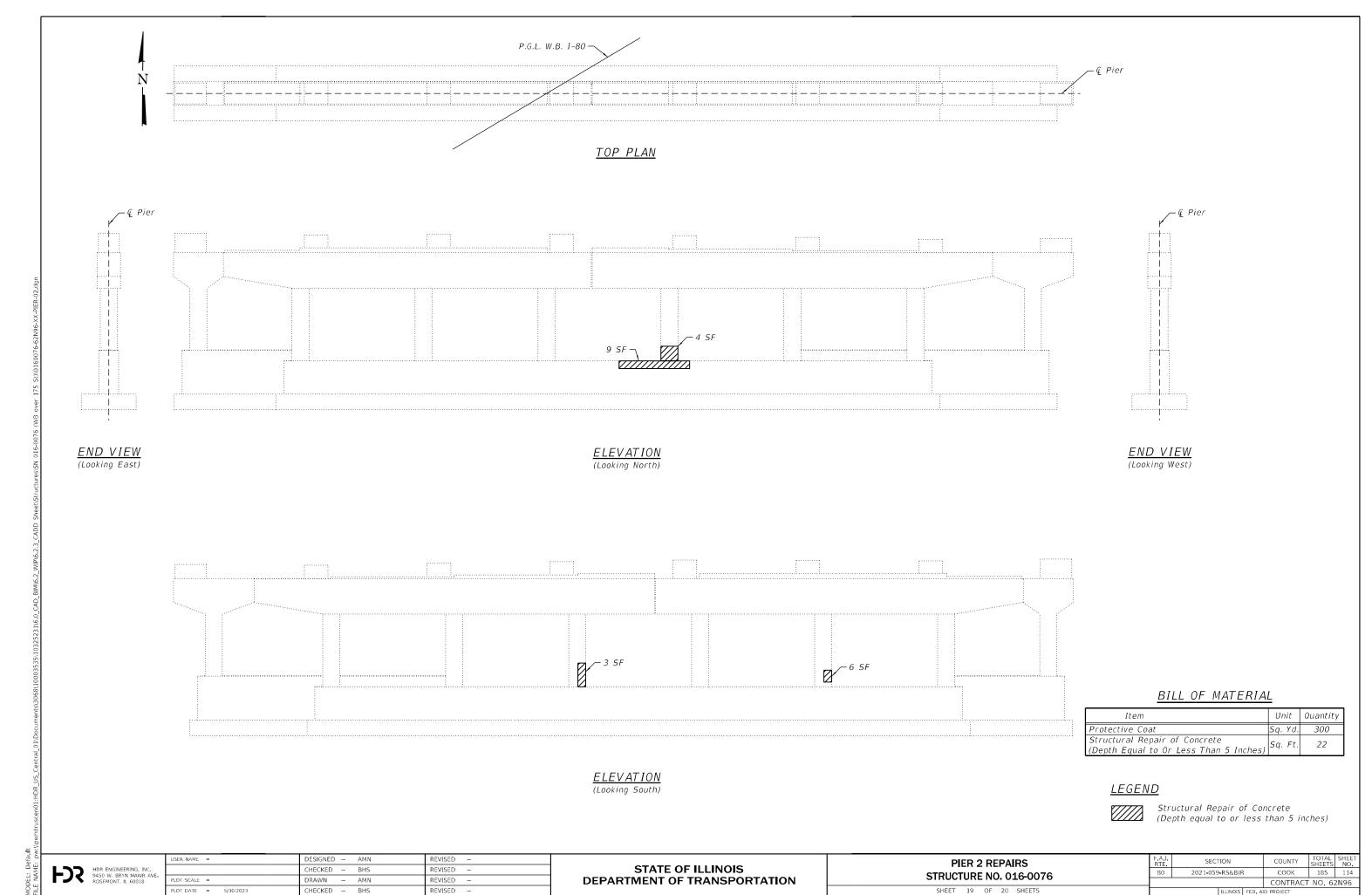
2021-059-RS&BJR COOK 185 111 CONTRACT NO. 62N96



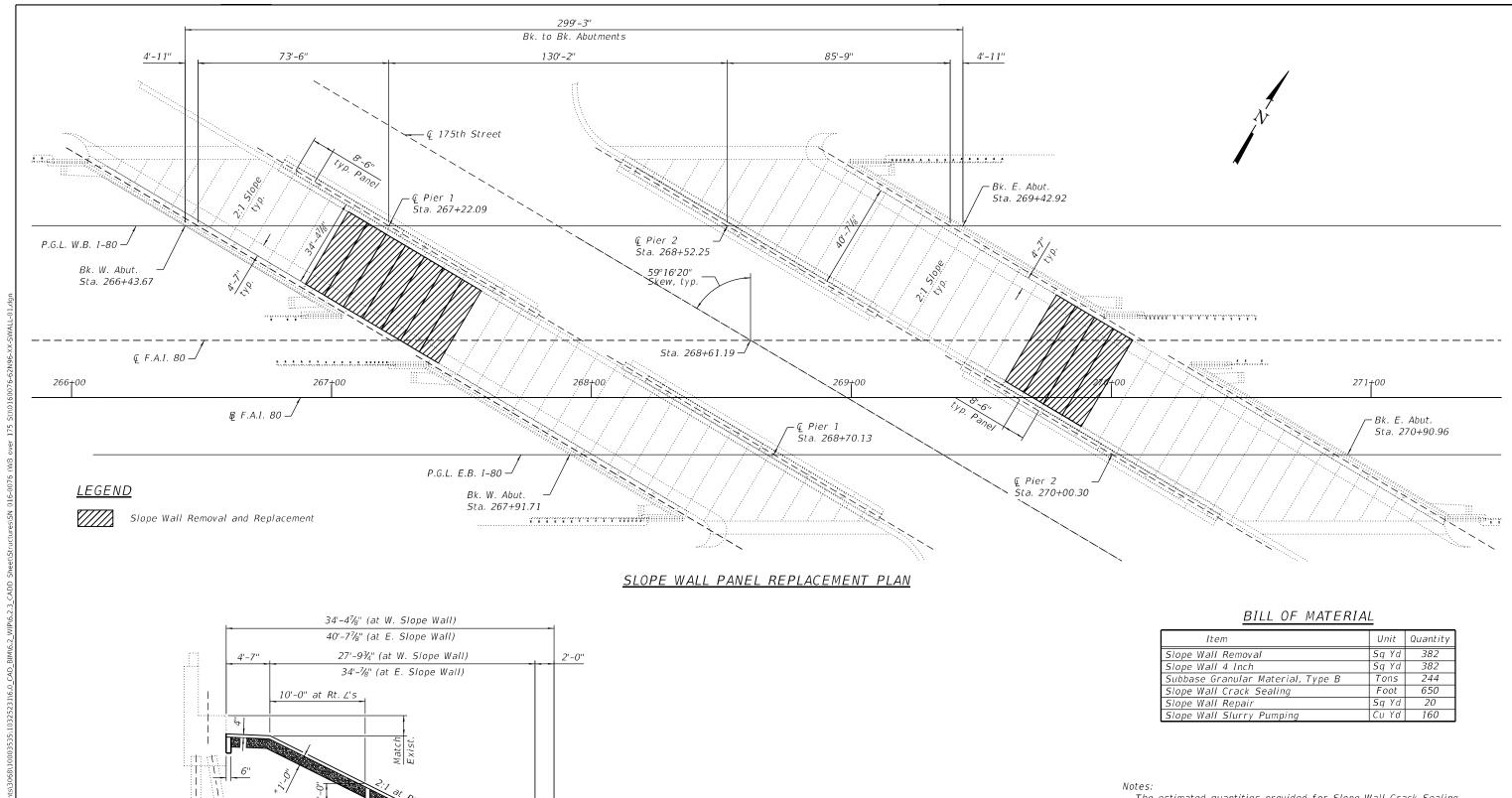
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1" P.J.F.-

4" Slopewall

SECTION THRU SLOPE WALL

Subbase Granular

Material, Type B

* Depth of Subbase Granular Material, Type B to fill voids beneath removed slope wall panels to be verified in the field, and placed as directed by the Engineer. The estimated quantities provided for Slope Wall Crack Sealing, Slope Wall Repair, and Slope Wall Slurry Pumping are inclusive of SN 016-0076 and SN 016-0077. Repairs shall be performed at the direction of the Engineer.

Slope wall reinforced with welded wire fabric, 6 x 6 mesh, #4 wire weighing 58 lbs./100 Sq. Ft.

Existing welded wire fabric shall extend 6" into the proposed Slope Wall Repair. The exposed 6" of welded wire fabric on either side shall be lapped with the proposed slope wall reinforcement.

Cost of welded wire fabric shall be included in Slope Wall 4 Inch.

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPEWALL REPAIR PLAN STRUCTURE NO. 016-0076
 F.A.I. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEETS NO.

 80
 2021-059-RS&BJR
 COOK
 185
 115

 CONTRACT NO. 62N96

 IILLINOIS FED, AID PROJECT

Existing Structure: S.N. 016-0077 Built under Section 1516-805HB in 1964. DESIGN SPECIFICATIONS EXISTING DESIGN STRESSES PROPOSED DESIGN STRESSES Redecked and widened in 1995 under Section (1516-805HB)R. In 1996, rehabilitation 1966 CONSTRUCTION 1996 CONSTRUCTION FIELD UNITS: consisted of substructure and superstructure widening and deck replacement. Structure 2002 AASHTO Standard Specifications consists of a reinforced concrete deck supported by continuous welded plate girders on for Highway Bridges fc = 1.400 psif'c = 3.500 psif'c = 4,000 psi (Superstructure)pile bent abutments and multiple column piers. 299'-3" back-to-back of abutments, fs = 20,000 psi (Reinforcement)fy = 60,000 psi (Reinforcement)fy = 60,000 psi (Reinforcement) 61'-2" out-to-out. LOADING HS20-44 fs = 20,000 psi (Structural Steel) fs = 20,000 psi (Structural Steel) fy = 36,000 psi (Structural Steel)Traffic to be maintained utilizing stage construction. No allowance for future wearing surface No salvage. 124'-4" Limits of Protective Shield Reconstruct expansion joint with-Light Pole (South — -Reconstruct expansion joint with Neoprene Expansion Joint parapet only) Preformed Joint Strip Seal Exist. Traffic Barrier ¢ Pier 1— └─- Ç Brg. **-**- ♀ Pier 2 ⊊ Brg. Exist. Traffic Barrier Terminal Type 6 W. Abut. E. Abut. Terminal Type 5 ្នះពត់បត់ពត់បត់ពត់អត់ពេលតំពេ<u>តិអតិពន្ធិតិកិត្</u>ត L ** 14'-10" Exist. 60" Plate Girder Min. Clean Paved Ditch, typ. ** Point of Minimum Vertical Clearance is location beneath Vert. I-80 WB over 175th street, Refer to SN 016-0076 for CI. location. ELEVATION Remove and replace broken slope wall panels, typ. both slope walls (see SN 016-0076 for details) Remove and reconstruct expansion joints with Preformed Joint Strip Exist. Drainage Scupper -Seal (East Abutment) and Neoprene Expansion Joint (West Abutment) to be adjusted, typ. @ Brg. E. Abut. -G Brg. W. Abut € 175th Street Exist. Traffic Barrier Terminal Type 5 15'-0'' 15'-0" Sta. 268+61.19 typ. each side an Proprieta Pro 59°16'20" 268+00 270+00 271+00 Skew, typ. ► B F.A.I. 80 🕯 Brg. W. Abut Stage Constr. Sta. 267+96.63 * 30'-0" *±112'-0" Line Appr. Slab, typ. Transition Pavement - Bk. E. Abut. ∽ P.G.L. E.B. I-80 Sta. 270+90.96 © Pier 1 © Pier 2 & Brg. E. Abut. Sta. 268+70.13 Sta. 270+00.30 Sta. 270+86.04 12'-0" Shldr. Bk. W. Abut. ⊢ Adjust frame Sta. 267+91.71 i and grates and clean approach ក្រសួលនៅត្រីម៉ Light Pole Perform ¾" bridge deck scarification and apply 3" bridge ∟ Exist. Traffic Barrier 15'-0" 15'-0" Terminal Type 6, deck latex concrete overlay (prior to 1/4" diamond grinding) typ. each side to all portions of deck except the reconstructed expansion joint areas. 4'-11" 73'-6" 130'-2" 85'-9" 4'-11'' *See Roadway Plans for Overlay Details Span 1 Span 2 Span 3 299'-3" Bk. to Bk. Abutments Range 13E, 3rd P.M. SCOPE OF WORK PLAN GENERAL PLAN AND ELEVATION 1. Install Protective Shield. Perform Bridge Deck Scarification ¾", adjust scuppers Perform Structural Repair of Concrete at substructure units. and approach slab drain, install Bridge Deck Latex I-80 EASTBOUND OVER 175TH STREET Remove and replace existing expansion joints with Apply Protective Coat on the top surface of the deck overlay, Concrete Overlay 3" (prior to 1/4" diamond grinding), Preformed Joint Strip Seal at East Abutment and reconstructed deck expansion joints, the top and inside faces F.A.I. RTE. 80 and perform Bridge Deck Grooving (Longitudinal). Neoprene Expansion Joint at West Abutment. of the existing parapets, and the piers. SEC. 2021-059-RS&BJR Clean and reseal approach slab relief joints. Refer to Perform repairs on bridge deck and approach slabs. 11. Clean and paint abutment bearings and beam ends. Roadway Plans for quantities and details. COOK COUNTY Replace Elastomeric Bearing at East Abutment Clean approach slab drain. STATION 268+61.19 Install 2" Polymerized Hot-Mix Asphalt Surface Course Beam 16 (outside fascia beam). (SMA) on the approach slabs and transition pavements. LOCATION SKETCH STRUCTURE NO. 016-0077 13. Clean paved ditch at base of slope walls. Refer to Roadway Plans for quantities and details. 14. Seal cracks on slope walls. Preform Epoxy Crack Injection on parapets 8. JSER NAME = DESIGNED - AMN REVISED -SECTION **GENERAL PLAN & ELEVATION** STATE OF ILLINOIS HDR ENGINEERING, INC HECKED - BHS REVISED -2021-059-RS&BIR COOK 185 116 **STRUCTURE NO. 016-0077** RAWN REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62N96 SHEET 1 OF 19 SHEETS CHECKED - BHS REVISED -LOT DATE = 8/23/2023 8/23/2023 4:56:12 PM

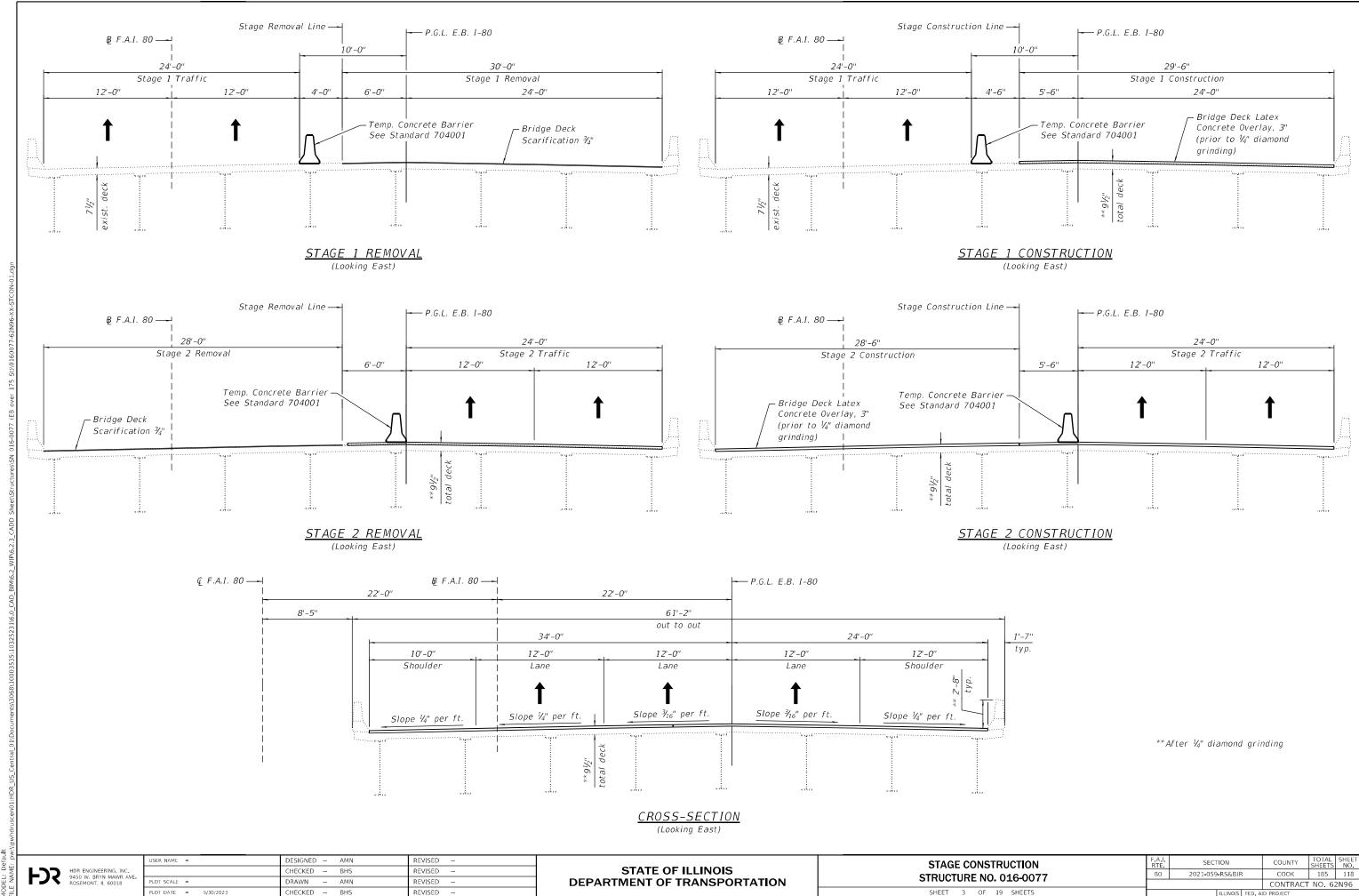
- 1. Reinforcement bars designated (E) shall be epoxy coated.
- 2. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½" deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 3. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 4. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 5. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 6. 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.
- 7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 8. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 9. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 10. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 11. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. All exposed concrete edges shall have a 3/4" chamfer, except where shown otherwise.
- 13. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 14. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- 15. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.
- 16. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.

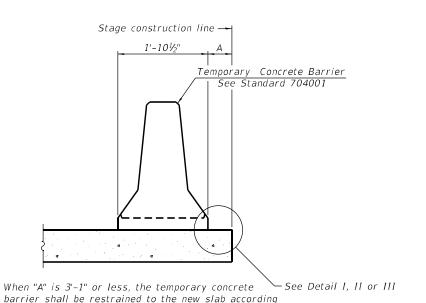
INDEX OF SHEETS

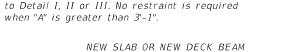
- 1 General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- Joint Reconstruction Details
- 8 Joint Reconstruction Details 9 Joint Reconstruction Details
- 10 Joint Reconstruction Details
- 11 Modified Preformed Joint Strip Seal
- 12 Neoprene Expansion Joint
- 13 Drainage Scupper Details
- 14 Approach Shoulder Inlet Details
- 15 Bar Splicer Assembly Details
- 16 Bearing Repairs
- 17 Abutment Repairs
- 18 Pier 1 Repairs
- 19 Pier 2 Repairs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	35.7
Protective Shield	Sq Yd	846
Concrete Superstructure	Cu Yd	40.7
Protective Coat	Sq Yd	2,808
Reinforcement Bars, Epoxy Coated	Pound	4,840
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	116.0
Neoprene Expansion Joint 4"	Foot	116.0
Elastomeric Bearing Assembly, Type I	Each	1
Anchor Bolts, 1"	Each	2
Epoxy Crack Injection	Foot	50
Cleaning Paved Ditch	Foot	292
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,190
Frames And Grates To Be Adjusted (Special)	Each	1
Approach Slab Repair (Full Depth)	Sq Yd	5
Jack and Remove Existing Bearings	Each	1
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,835
Containment And Disposal Of Lead Paint Cleaning Residues No. 4	L Sum	1
Cleaning And Painting Steel Bridge No. 4	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,835
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft	74
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft	67
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,784







1'-101/2" Temporary Concrete Barrier See Standard 704001 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".

— Stage removal line

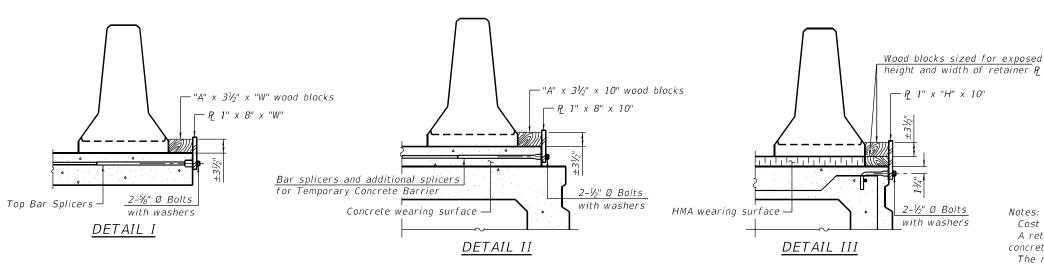
EXISTING SLAB

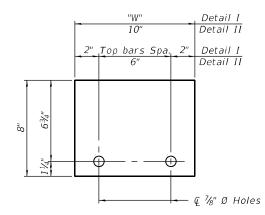
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

— Stage removal line

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM





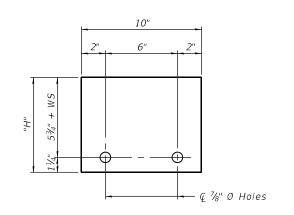
STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)

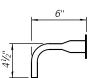
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021



STEEL RETAINER P 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 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

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.

COOK 185 119

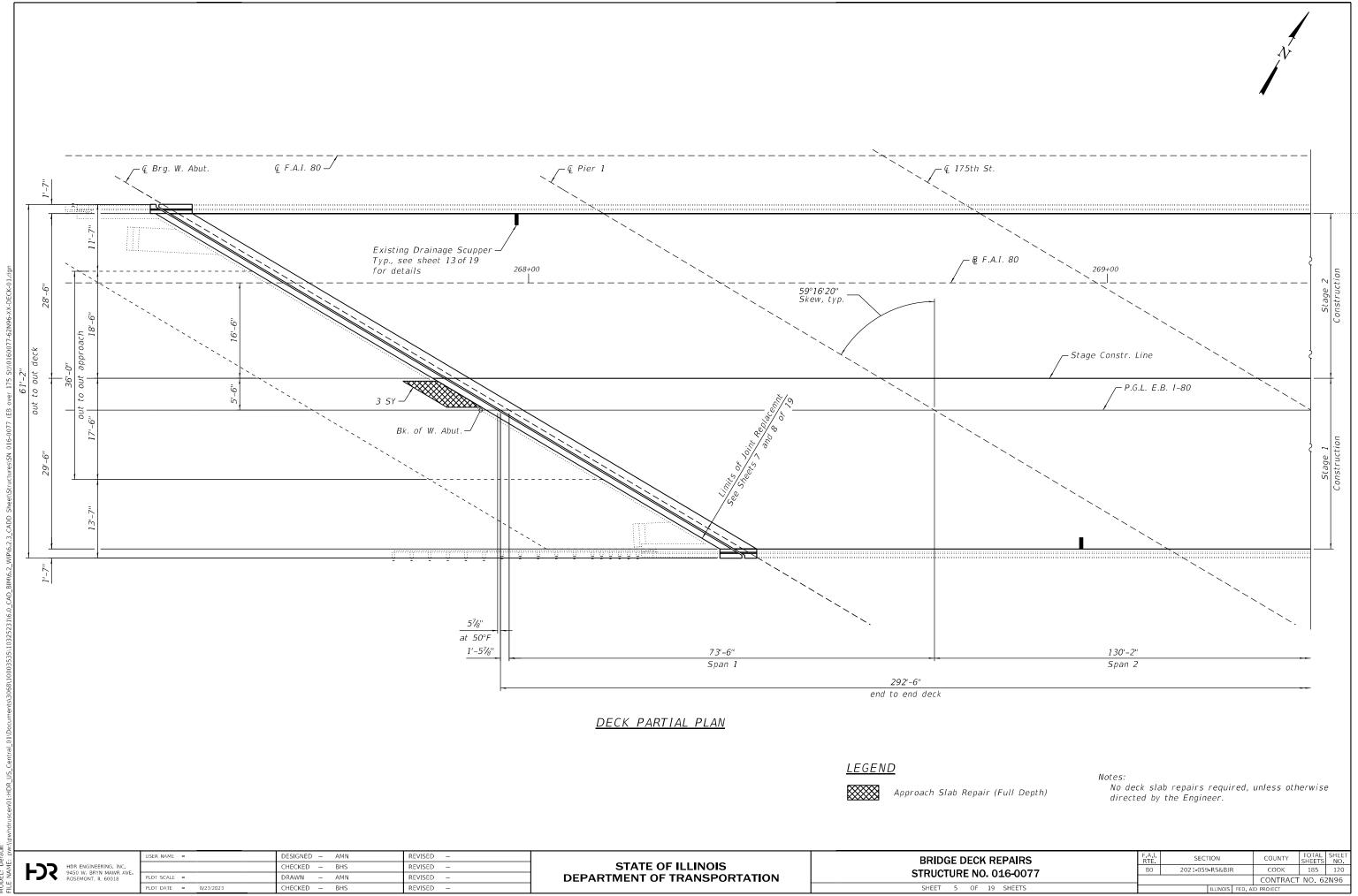
CONTRACT NO. 62N96

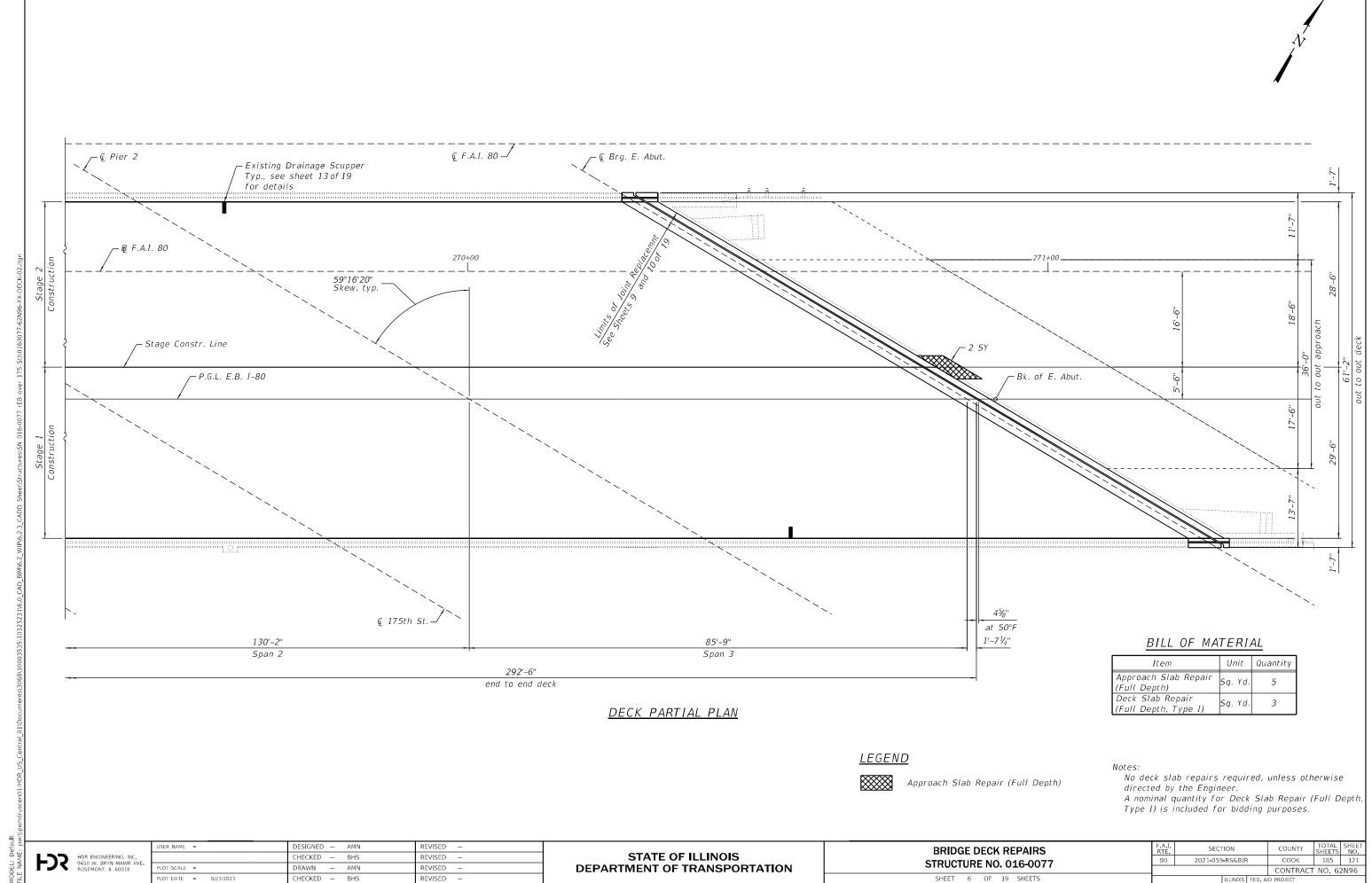
DESIGNED - AMN REVISED -HECKED - BHS REVISED -RAWN REVISED CHECKED - BHS REVISED -LOT DATE = 5/30/2023

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

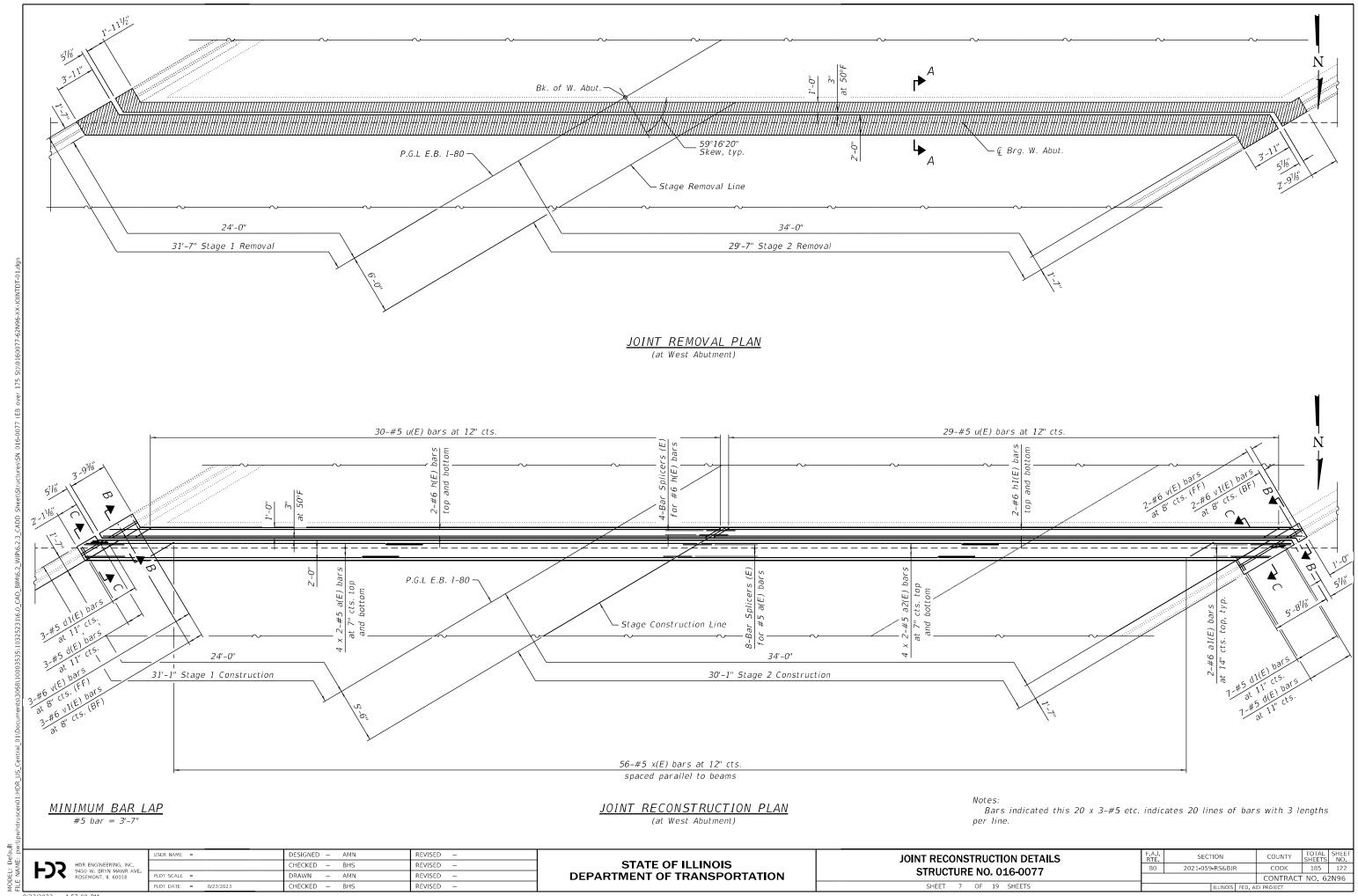
SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR **STRUCTURE NO. 016-0077** SHEET 4 OF 19 SHEETS

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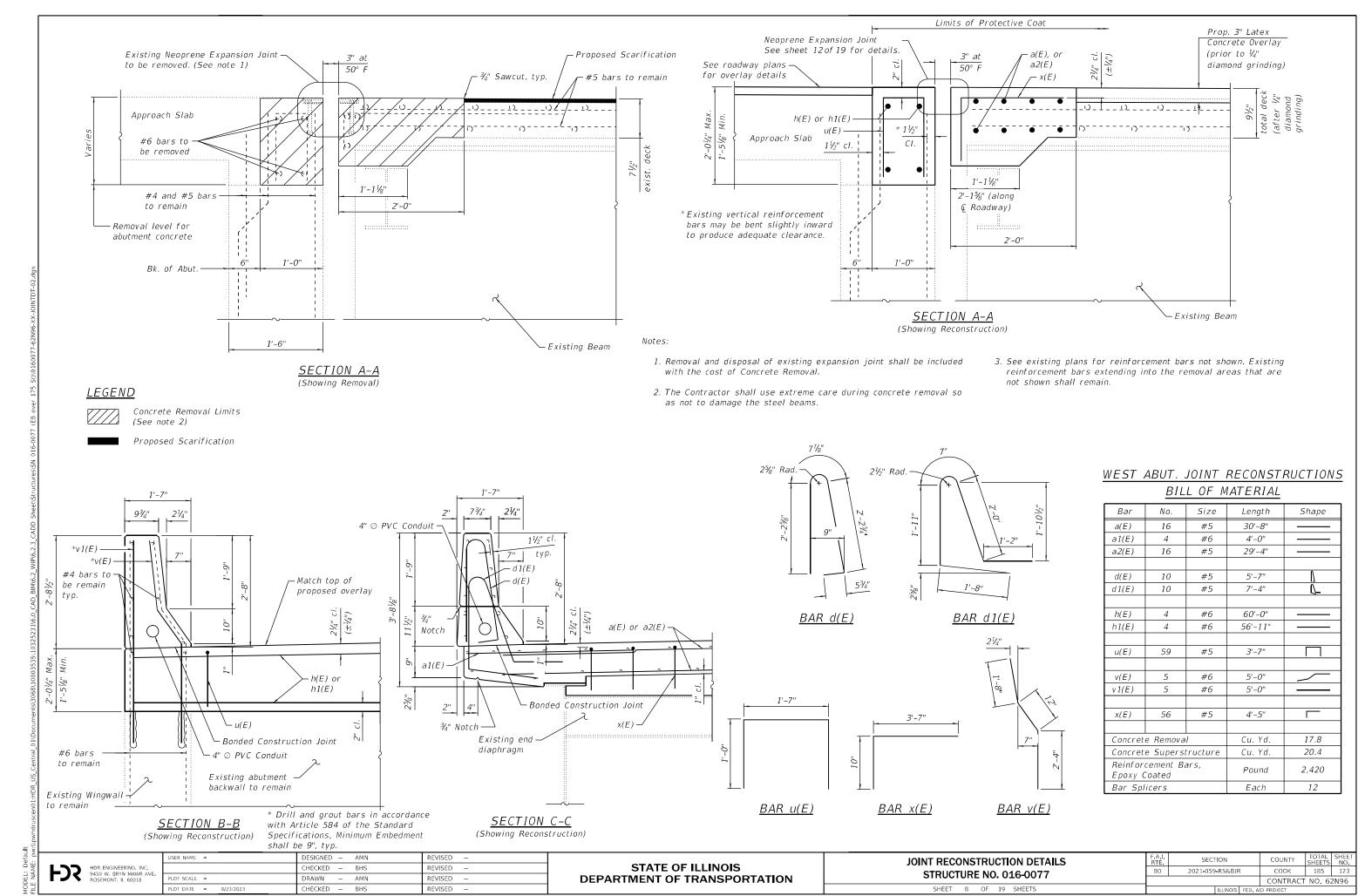


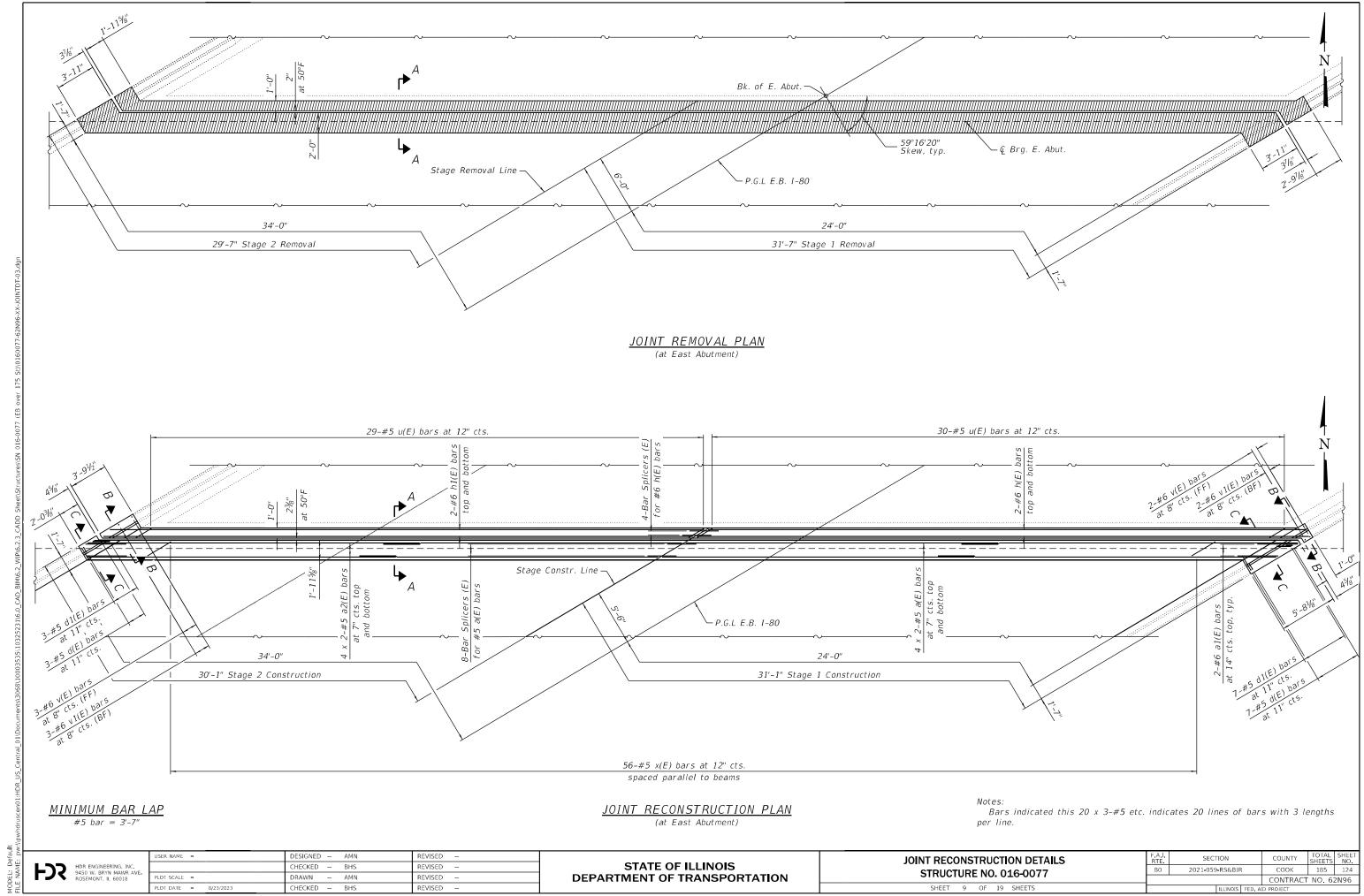


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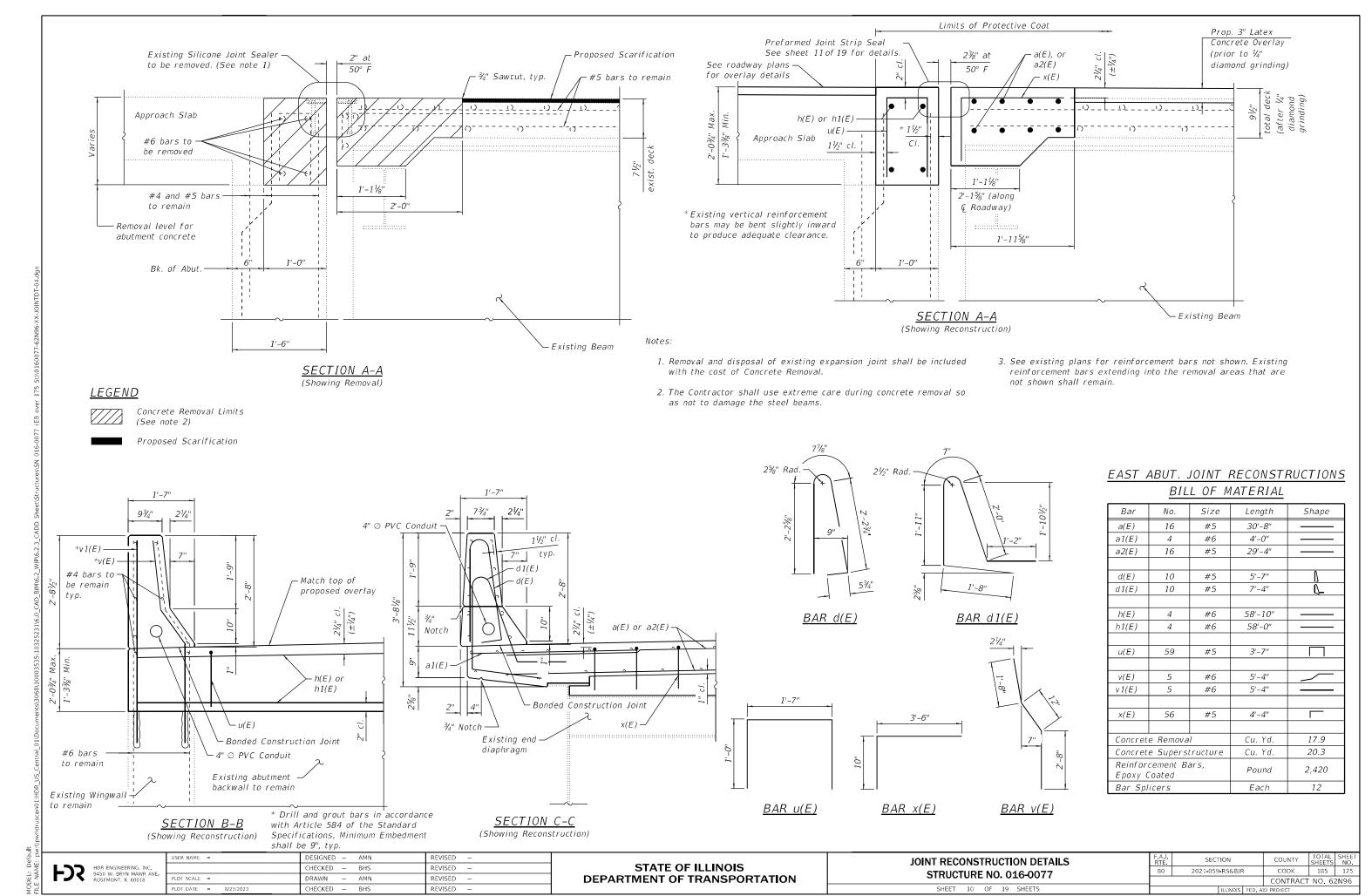


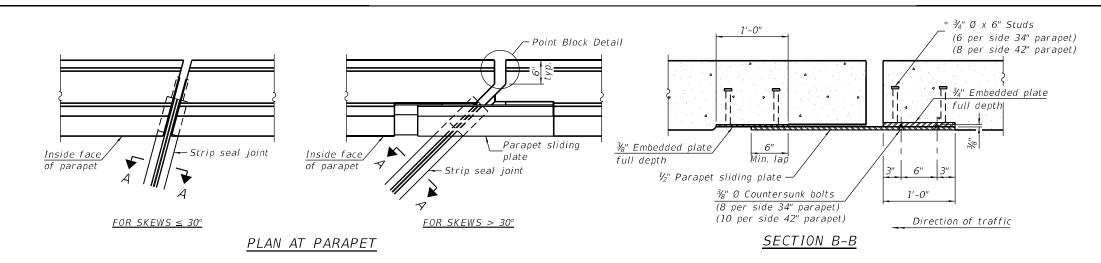
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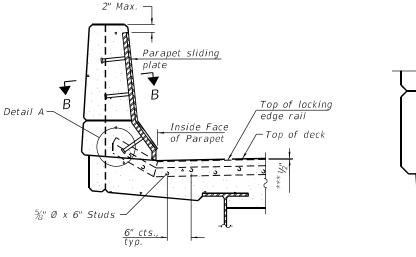




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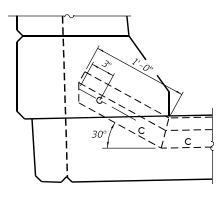




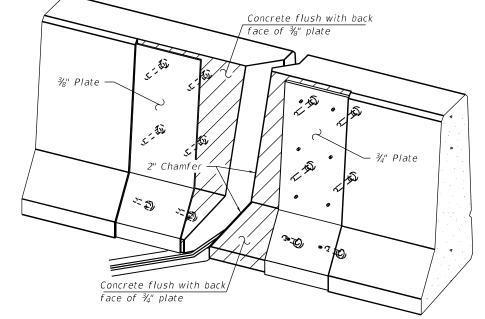


ELEVATION AT PARAPET

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



DETAIL A



TRIMETRIC VIEW
(Showing embedded plates only)

Locking edge rail Top of concrete Strip seal 23%" at 50° F at 50° F at 50° F

SHOWING ROLLED RAIL JOINT

Locking edge rail Top of concrete * $\frac{1}{2}$ Top of concrete * $\frac{1}{2}$ *

%'' ϕ threaded rods in $\%'_{6}$ '' ϕ holes at $\pm 4'$ -0" cts. for holding the proper joint opening based on — the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

*** Prior to 1/4" diamond grinding

LOCKING EDGE RAILS

(EXTRUDED) RAIL

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

Not

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. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be $\frac{3}{6}$ " 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.

Seal opening

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	116.0

HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHOWING WELDED RAIL JOINT

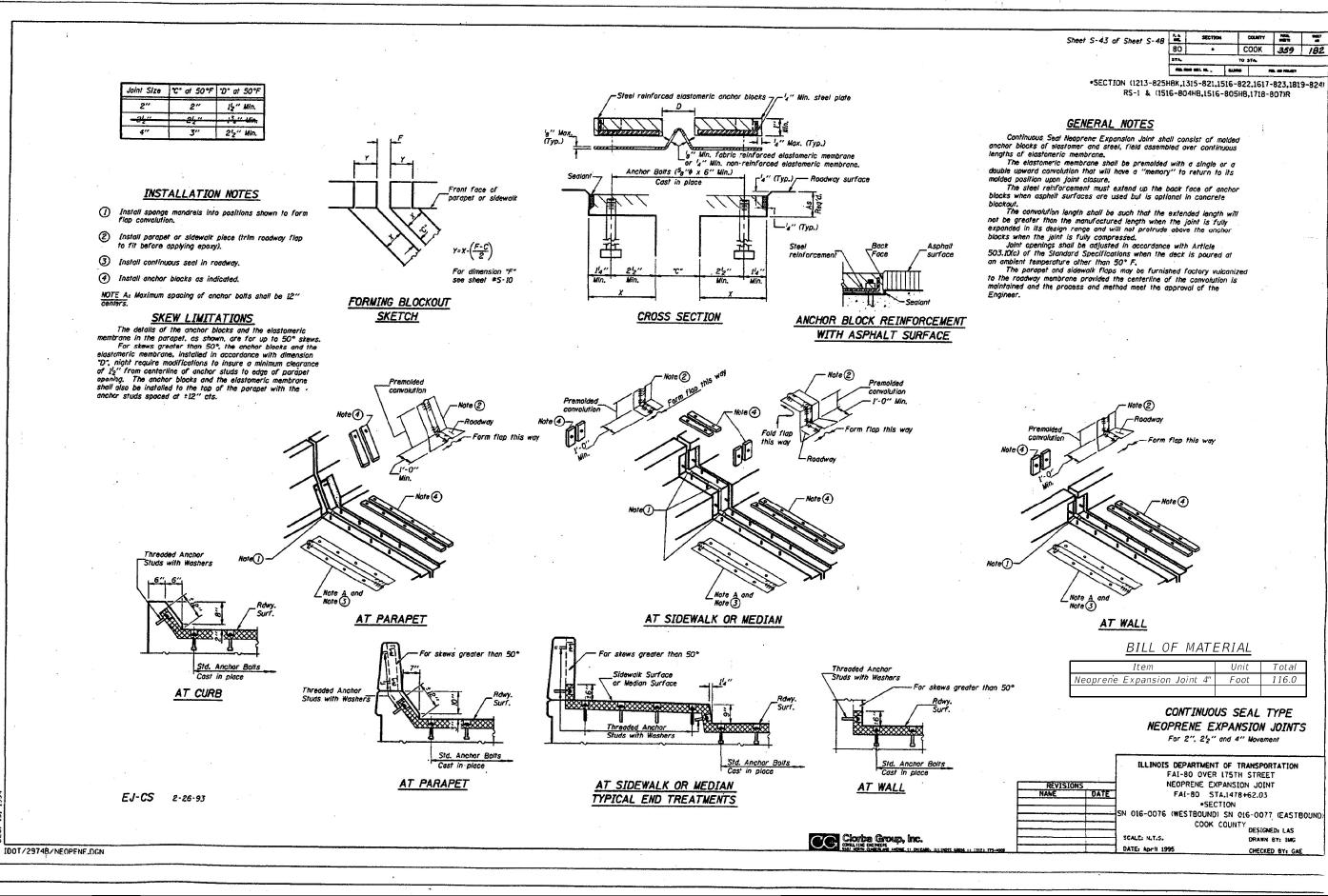
MODIFIED PREFORMED JOINT STRIP SEAL STRUCTURE NO. 016-0077

F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
80	2021-059-RS&BJF	l .	COOK	185	126
			CONTRACT	NO. 62	2N96
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SHEET 11 OF 19 SHEETS



FILE NAME: DW:

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 USER NAME
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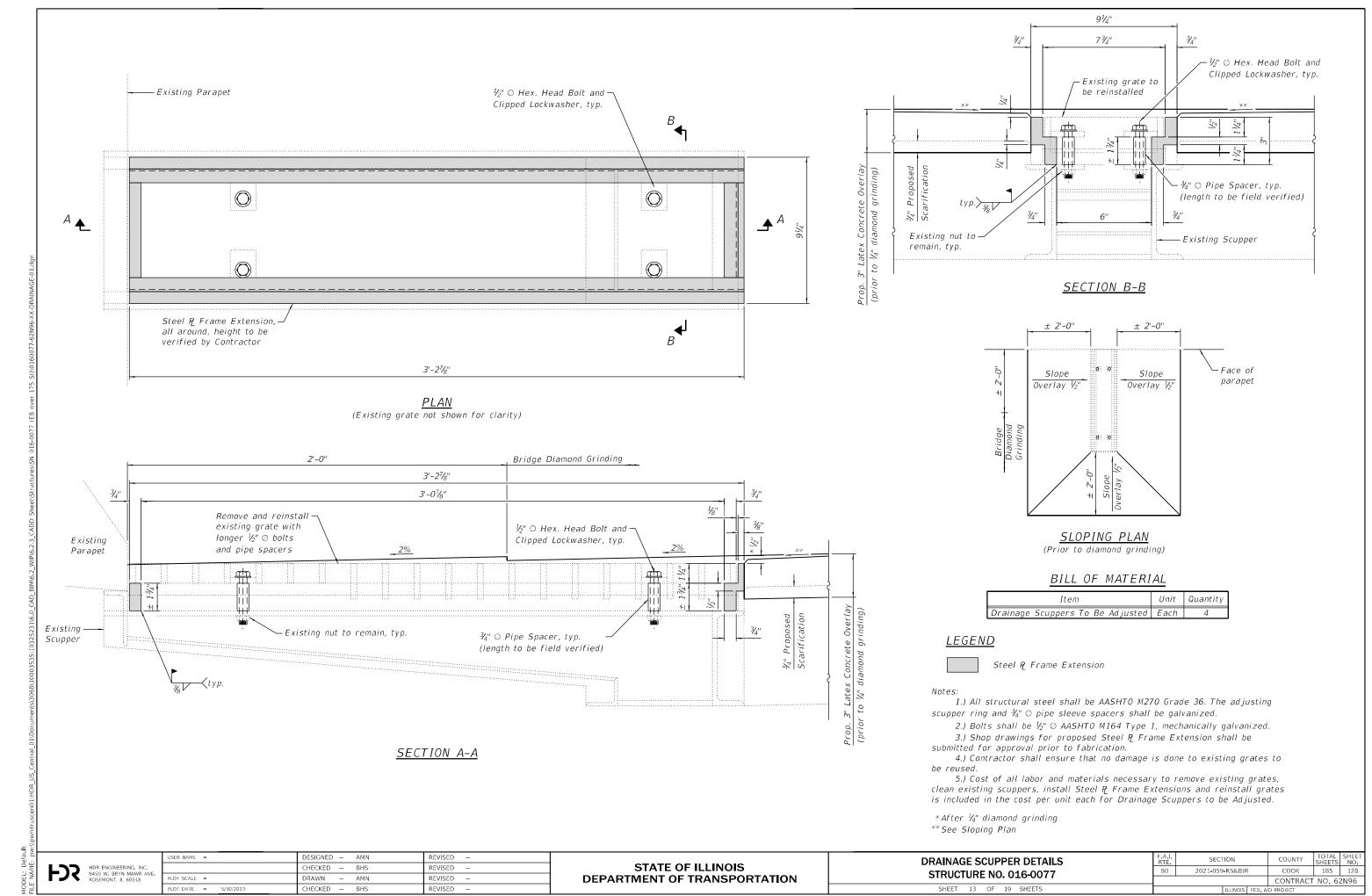
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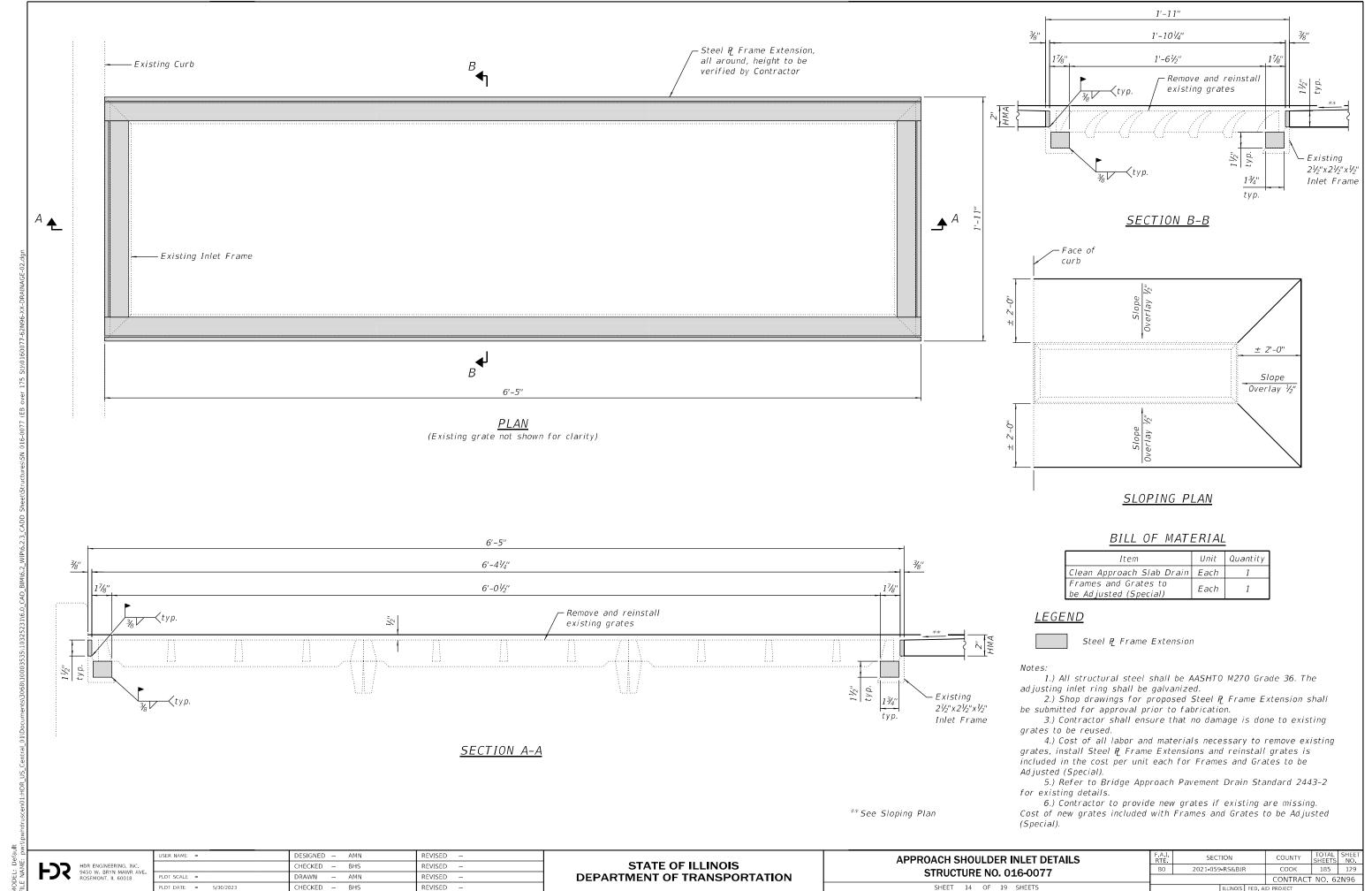
 PLOT DATE
 5/30/2023
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

NEOPRENE EXPANSION JOINT STRUCTURE NO. 016-0077



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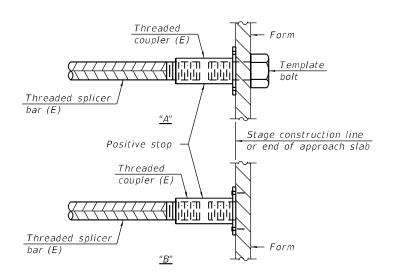
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

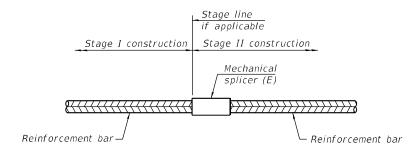
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4-0"



INSTALLATION AND SETTING METHODS

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

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

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

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

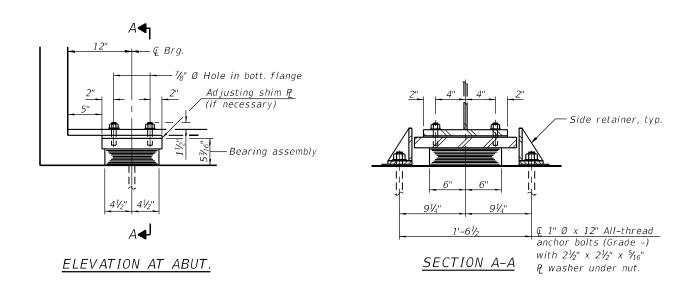
BSD-1

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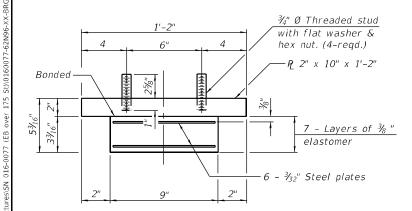
HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL 60018

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F.A.I. RTE.			COUNTY	TOTAL SHEETS	SHEE	
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		CONTRACT	NO. 6	2N96		
		ILLINOIS	FED. A	ID PROJECT		

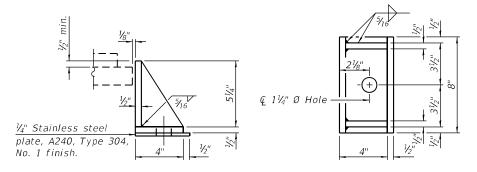


TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Shim plates shall not be placed under bearing assembly.



<u>SIDE RETAINER</u> Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Туре І.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	1
Anchor Bolts, 1"	Each	2
Jack and Remove Existing Bearings	Each	1
	<u> </u>	

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6-15-2019

	1
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018	
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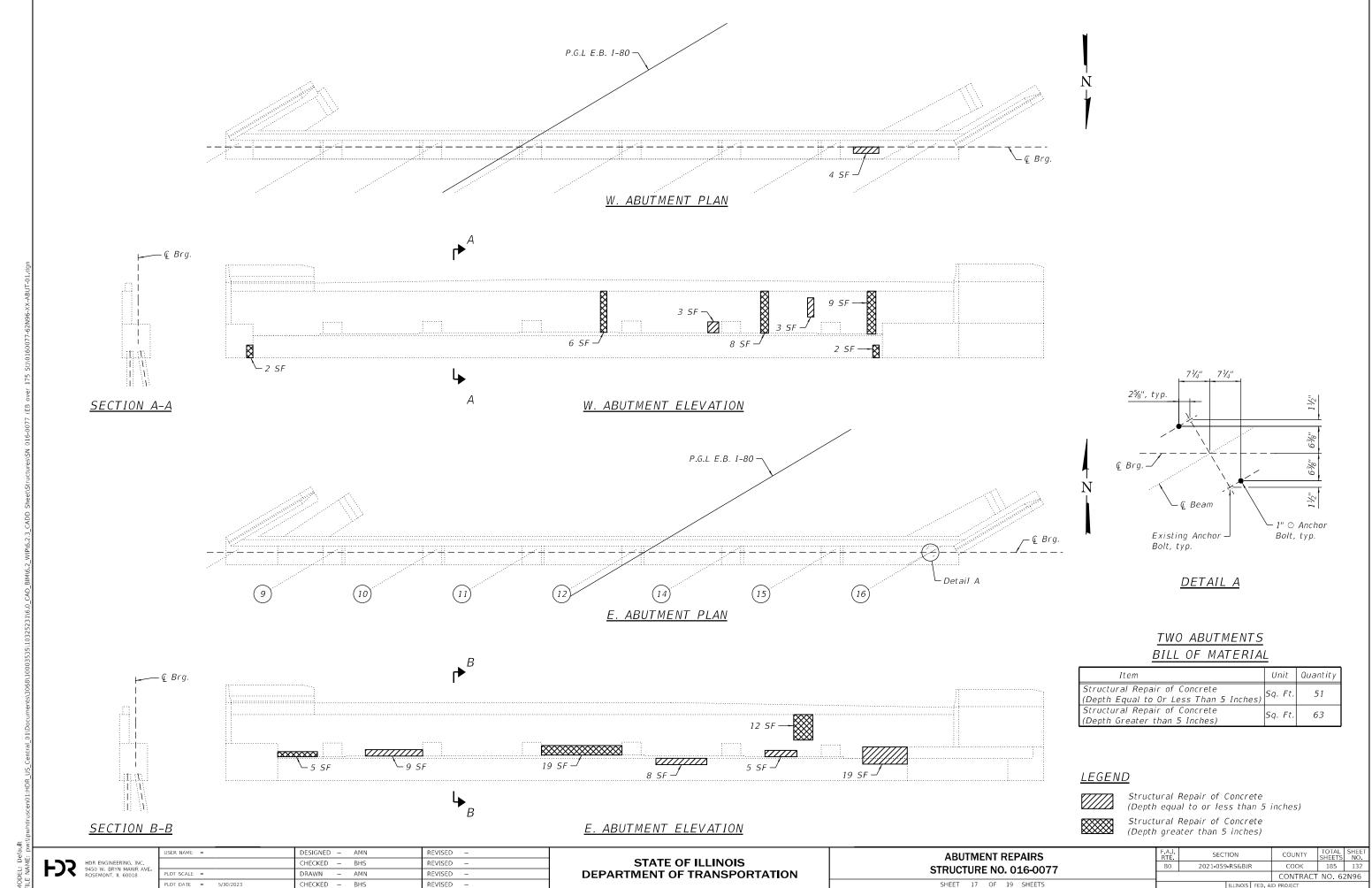
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

BEARING REPAIRS STRUCTURE NO. 016-0077 SHEET 16 OF 19 SHEETS

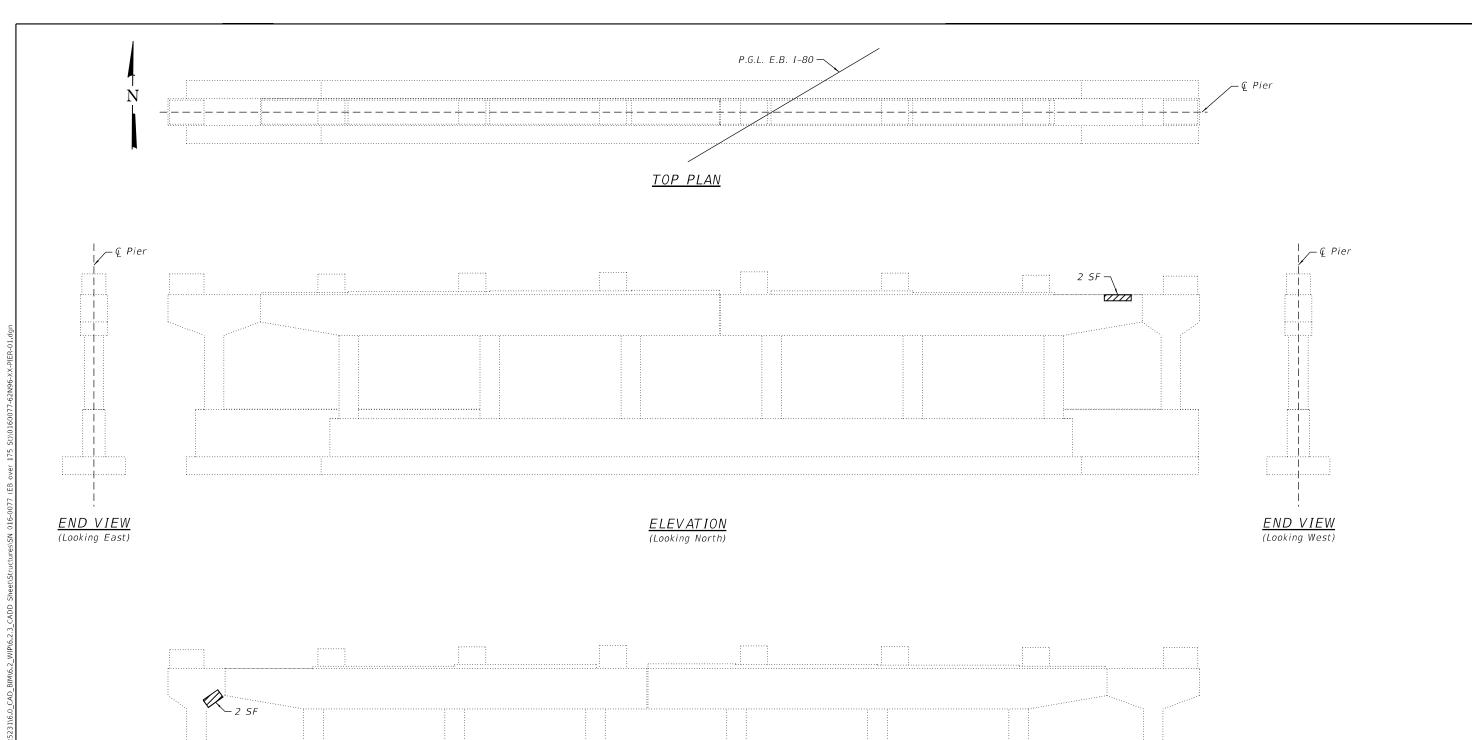
SECTION COUNTY SHEETS NO.

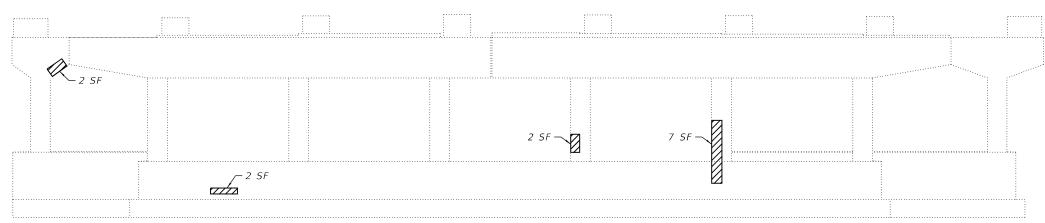
COOK 185 131 2021-059-RS&BJR CONTRACT NO. 62N96

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ELEVATION (Looking South)

BILL OF MATERIAL

Item	Unit	Quantity
Protective Coat	Sq. Yd.	299
Structural Repair of Concrete (Depth Equal to Or Less Than 5 Inches)	Sq. Ft.	15

<u>LEGEND</u>



Structural Repair of Concrete (Depth equal to or less than 5 inches)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

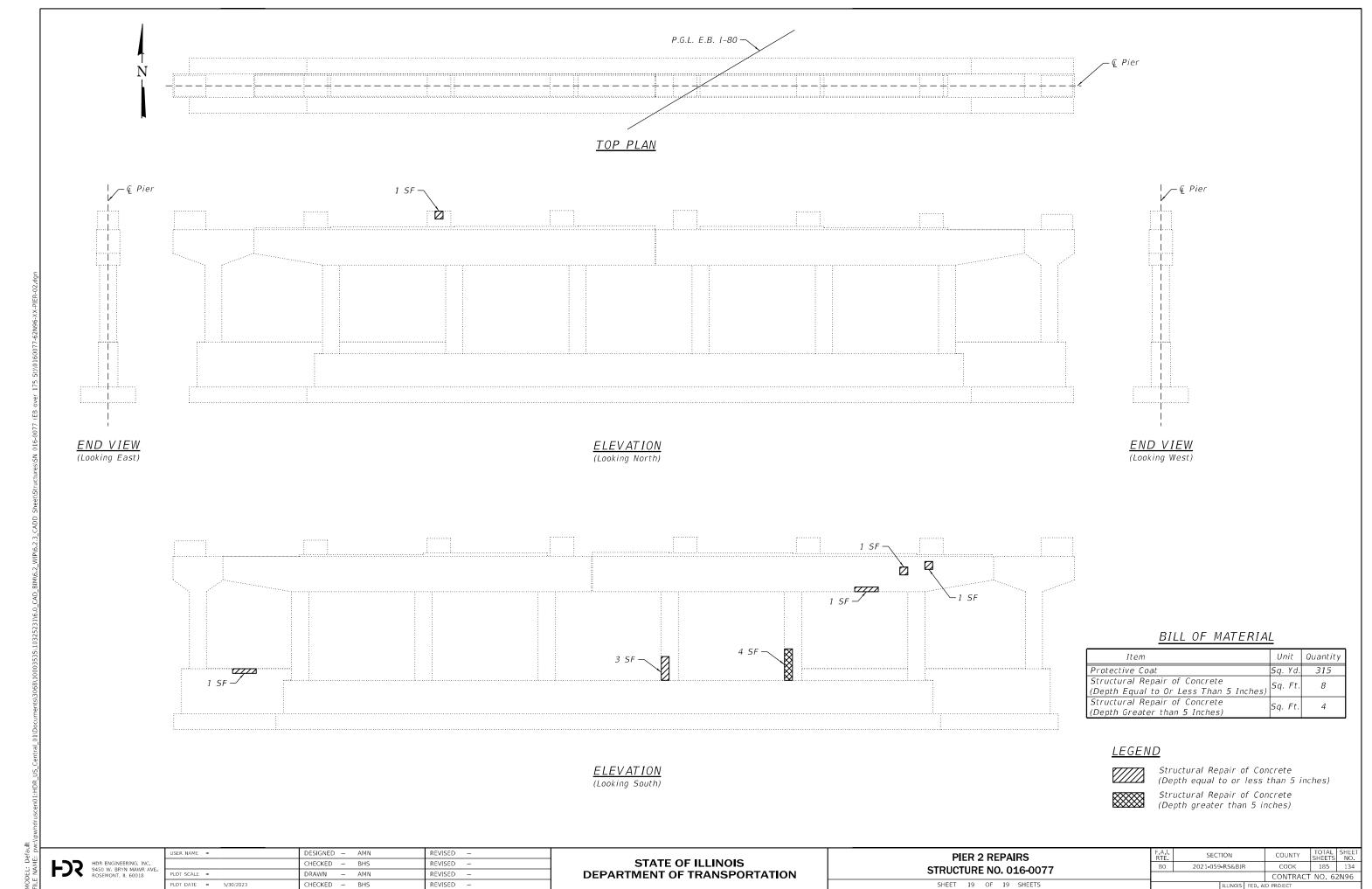
PIER 1 REPAIRS
STRUCTURE NO. 016-0077

SHEET 18 OF 19 SHEETS

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

 80
 2021-059-RS&BJR
 COOK
 185
 133

 CONTRACT NO. 62N96



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Existing Structure: S.N. 016-0078 Built under Section 1718-807HB in 1964. Redecked and widened in 1995 under Section (1718-807HB)R. In 1996, rehabilitation consisted of substructure and superstructure widening and deck replacement. Structure consists of a reinforced concrete deck supported by continuous rolled steel beams on pile bent abutments and multiple column piers. 185'-3" back-to-back of abutments, 61'-2" out-to-out.

DESIGN SPECIFICATIONS 2002 AASHTO Standard Specifications

for Highway Bridges

LOADING HS20-44 No allowance for future wearing surface

EXISTING DESIGN STRESSES

1996 CONSTRUCTION 1966 CONSTRUCTION fc = 1.400 psif'c = 3.500 psi

fs = 20,000 psi (Reinforcement)

fs = 20,000 psi (Structural Steel)

fy = 60,000 psi (Reinforcement)fs = 20,000 psi (Structural Steel) PROPOSED DESIGN STRESSES

FIELD UNITS:

f'c = 4,000 psi (Superstructure)fy = 60,000 psi (Reinforcement)fy = 36,000 psi (Structural Steel)

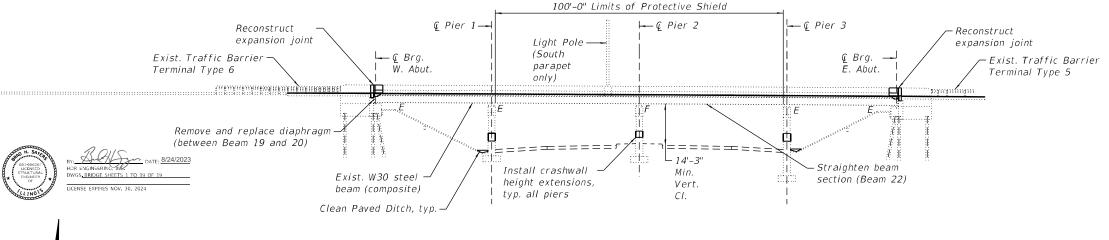
SCOPE OF WORK

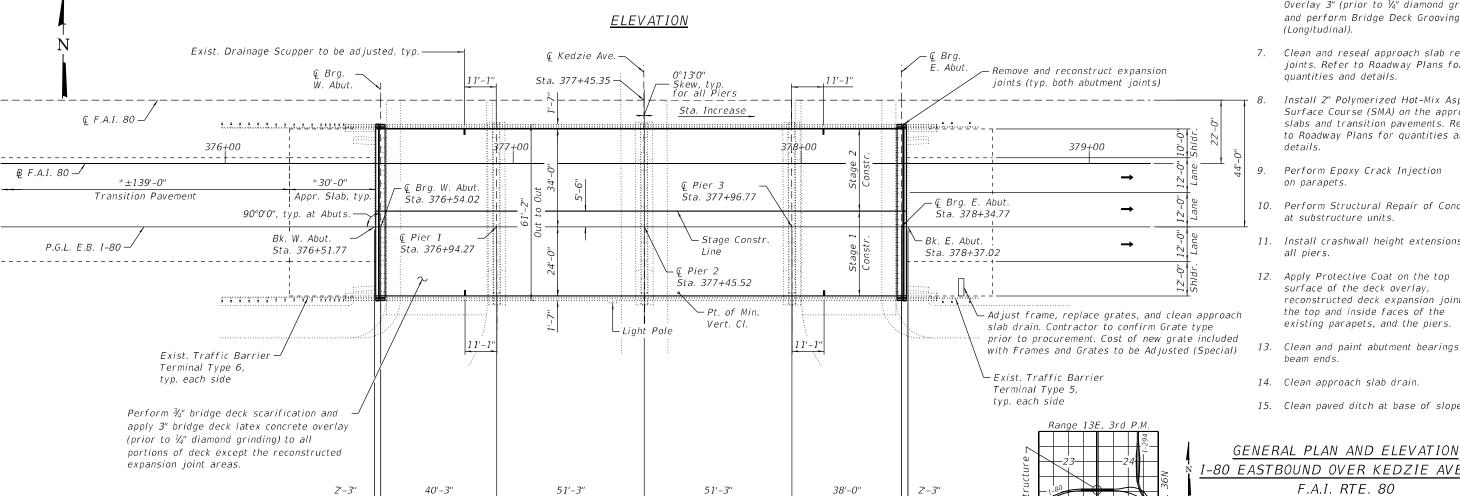
- 1. Mechanically straighten deformed steel on Beams 21 and 22.
- 2. Remove and replace diaphragms between Beams 19 and 20 and between Beams 13 and 14 at the West Abutment.
- Install Protective Shield.
- Remove and replace existing expansion joints at both abutments with Preformed Joint Strip Seals.
- Perform repairs on bridge deck and annroach slabs
- 6. Perform Bridge Deck Scarification 3/4", adjust scuppers and approach slab drain, install Bridge Deck Latex Concrete Overlay 3" (prior to 1/4" diamond grinding), and perform Bridge Deck Grooving (Longitudinal).
- Clean and reseal approach slab relief joints. Refer to Roadway Plans for quantities and details.
- Install 2" Polymerized Hot-Mix Asphalt Surface Course (SMA) on the approach slabs and transition pavements. Refer to Roadway Plans for quantities and details.
- Perform Epoxy Crack Injection on parapets.
- Perform Structural Repair of Concrete at substructure units.
- 11. Install crashwall height extensions at all piers.
- 12. Apply Protective Coat on the top surface of the deck overlay, reconstructed deck expansion joints, the top and inside faces of the existing parapets, and the piers.
- Clean and paint abutment bearings and beam ends.
- 14. Clean approach slab drain.
- 15. Clean paved ditch at base of slope walls

I-80 EASTBOUND OVER KEDZIE AVENUE F.A.I. RTE. 80 SEC. 2021-059-RS&BJR COOK COUNTY STATION 377+45.35 STRUCTURE NO. 016-0078

Traffic to be maintained utilizing stage construction.

No salvage.





<u>PLAN</u>

185'-3"

Bk. to Bk. Abutments

Span 2

*See Roadway Plans for Overlay Details

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Span 1

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

Span 3

Span 4

GENERAL PLAN & ELEVATION STRUCTURE NO. 016-0078 SHEET 1 OF 19 SHEETS

LOCATION SKETCH

SECTION 2021-059-RS&BJR COOK 185 135 CONTRACT NO. 62N96

- 2. No field welding is permitted except as specified in the contract documents.
- 3. Reinforcement bars designated (E) shall be epoxy coated.
- 4. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ½" deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 5. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 6. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 7. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 8. 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.
- 9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 11. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 13. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 14. All exposed concrete edges shall have a $\frac{3}{4}$ " chamfer, except where shown otherwise.
- 15. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 16. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- 17. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.

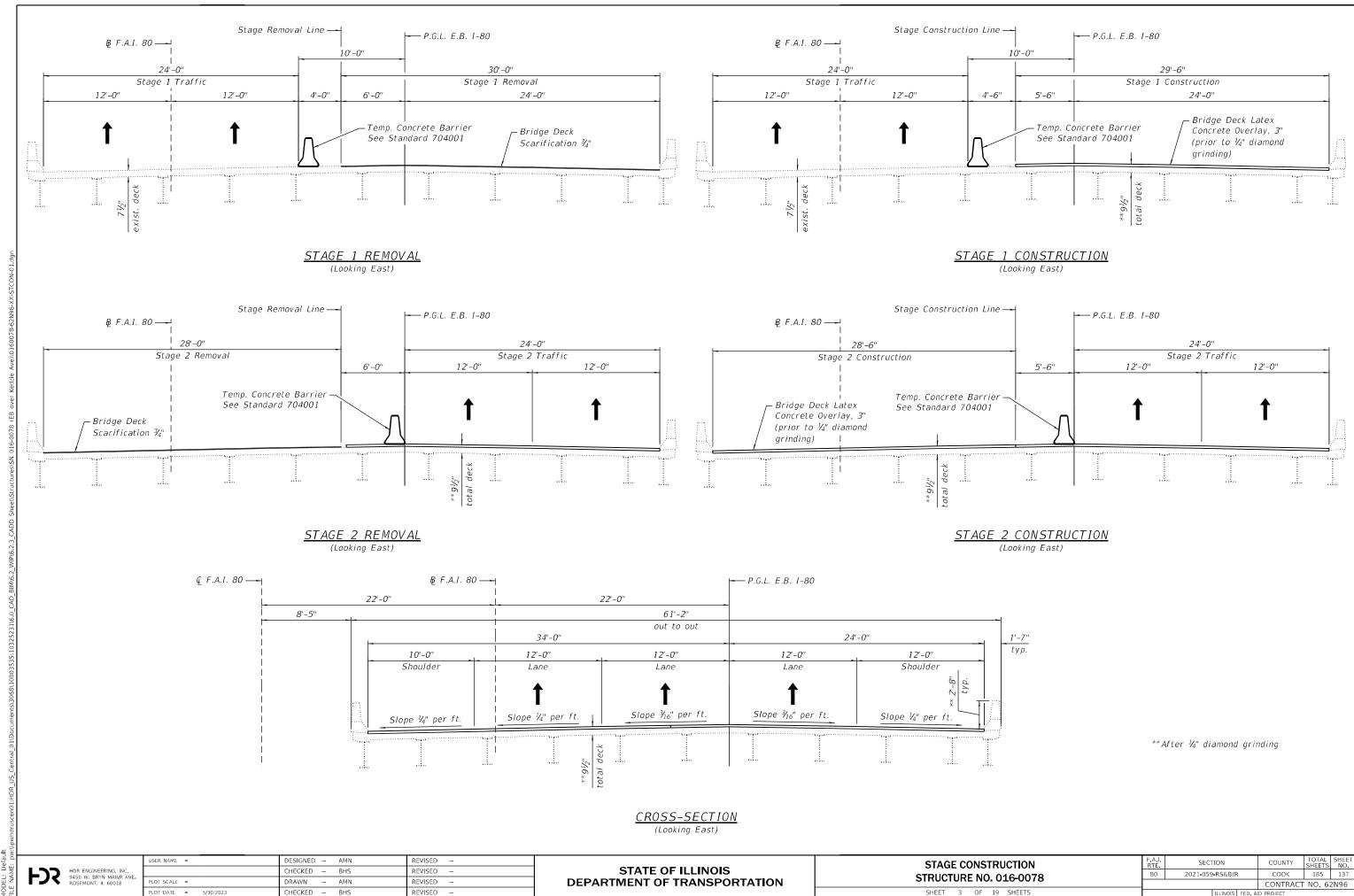
INDEX OF SHEETS

- General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- 7 Joint Reconstruction Details
- 8 Joint Reconstruction Details
- 9 Modified Preformed Joint Strip Seal
- 10 Drainage Scupper Details
- 11 Approach Shoulder Inlet Details
- 12 Bar Splicer Assembly Details
- 13 Structural Steel Repairs
- 14 Structural Steel Repairs15 Abutment Repairs
- 16 Pier 1 Repairs
- 17 Pier 2 Repairs
- 18 Pier 3 Repairs
- 19 Pier Repair Details

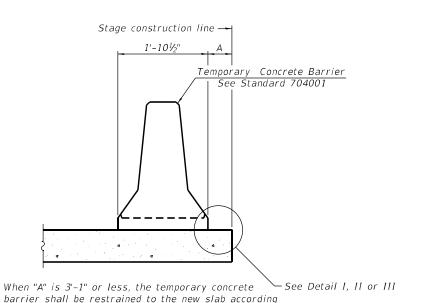
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	18.3
Protective Shield	Sq Yd	680
Concrete Structures	Cu Yd	36.2
Concrete Superstructure	Cu Yd	21.0
Protective Coat	Sq Yd	1,907
Furnishing And Erecting Structural Steel	Pound	610
Reinforcement Bars, Epoxy Coated	Pound	7,810
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	120.0
Epoxy Crack Injection	Foot	50
Cleaning Paved Ditch	Foot	150
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	737
Frames And Grates To Be Adjusted (Special)	Each	1
Structural Steel Removal	Pound	590
Beam Straightening	L Sum	1
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,146
Containment And Disposal Of Lead Paint Cleaning Residues No. 5	L Sum	1
Cleaning And Painting Steel Bridge No. 5	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,146
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	79
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,106

18. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.



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

NEW SLAB OR NEW DECK BEAM

— Stage removal line — Stage removal line 1'-101/2" Temporary Concrete Barrier See Standard 704001 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

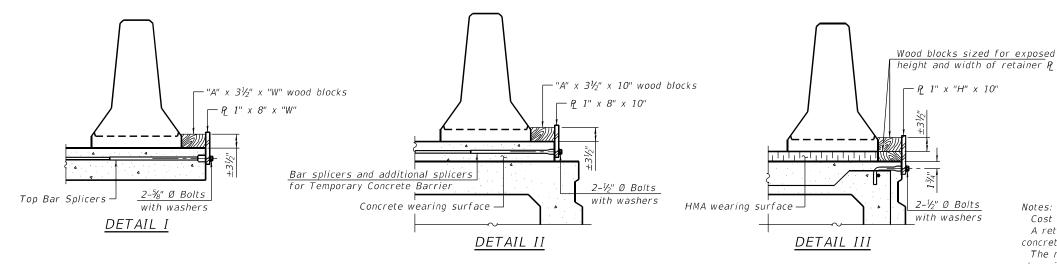
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

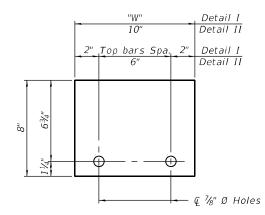
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

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

EXISTING SLAB





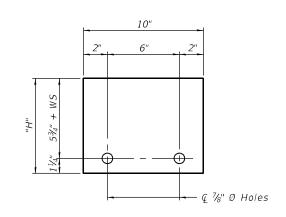
STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)

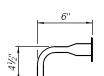
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021



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



RESTRAINING PIN

BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

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.

1x8 UNC

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

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

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

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

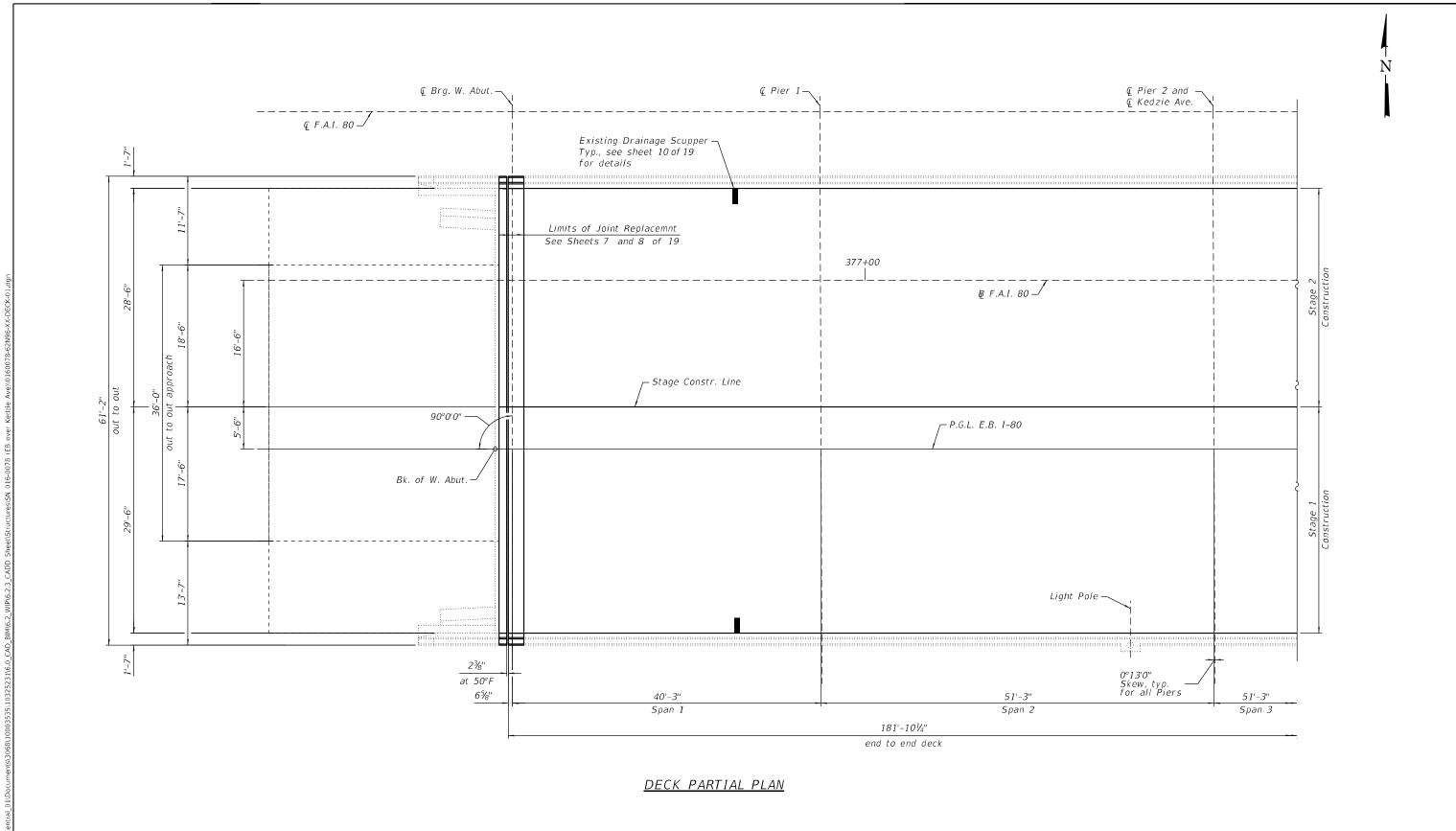
COOK 185 138

CONTRACT NO. 62N96

DESIGNED - AMN REVISED -HECKED - BHS REVISED -RAWN REVISED CHECKED - BHS REVISED -LOT DATE = 5/30/2023

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR **STRUCTURE NO. 016-0078** SHEET 4 OF 19 SHEETS



Notes:

No deck slab repairs required, unless otherwise directed by the Engineer.

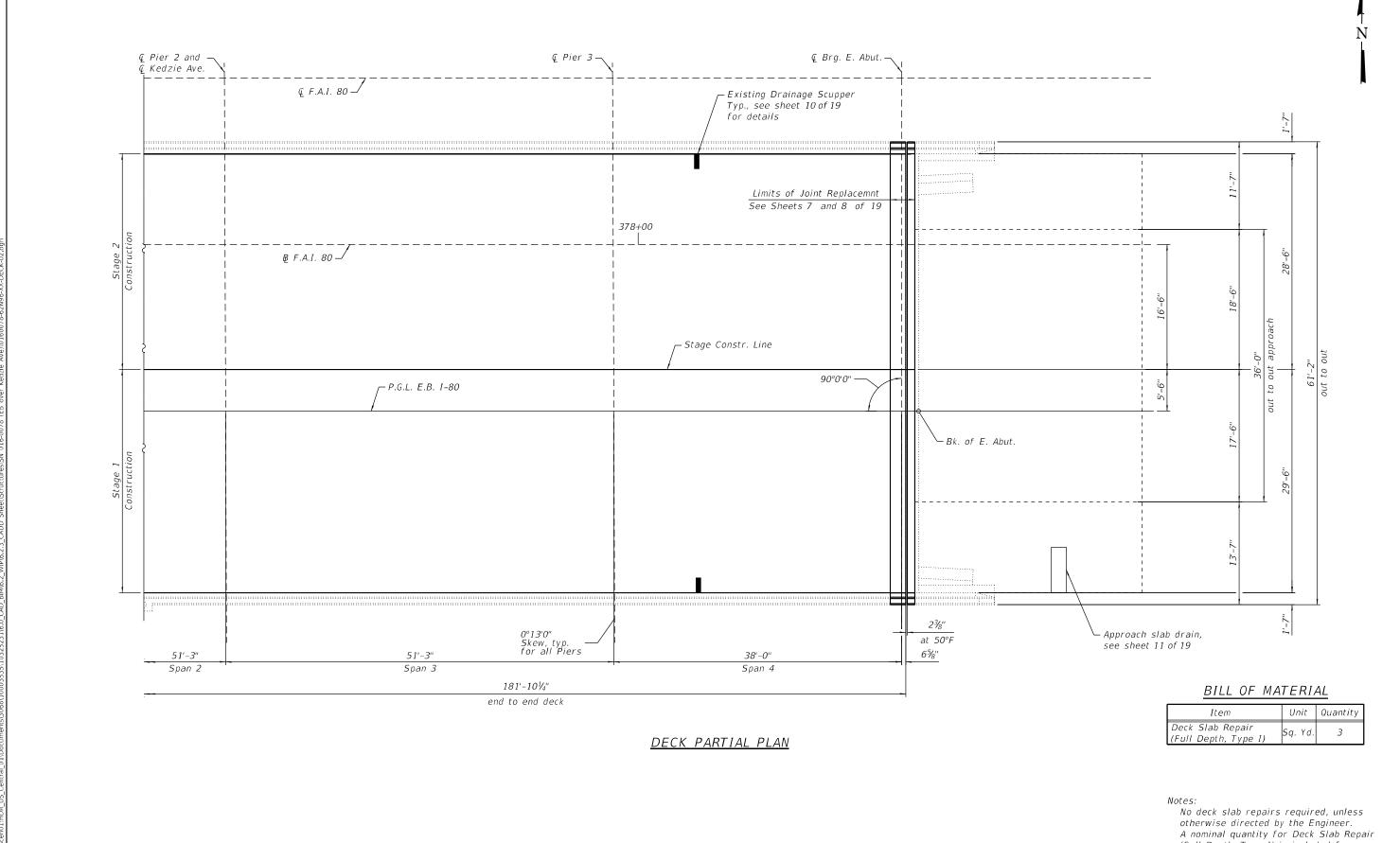
HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

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		CHECKED - BHS	REVISED —
VE.	PLOT SCALE =	DRAWN - AMN	REVISED -
	PLOT DATE = 5/30/2023	CHECKED - BHS	REVISED -

STATE OF ILLINOIS		
DEPARTMENT OF TRANSPORTATION		

BRIDGE DECK REPAIRS	F.A.I. RTE	SEG
STRUCTURE NO. 016-0078		2021-05
311001011E 110: 010-0016		
CHEET F OF 10 CHEETC		

F.A.I. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
80	2021-059-RS&BJF	}	COOK	185	139
			CONTRACT	NO. 6	2N96
	ILLINOIS	FED A	ID PROJECT		



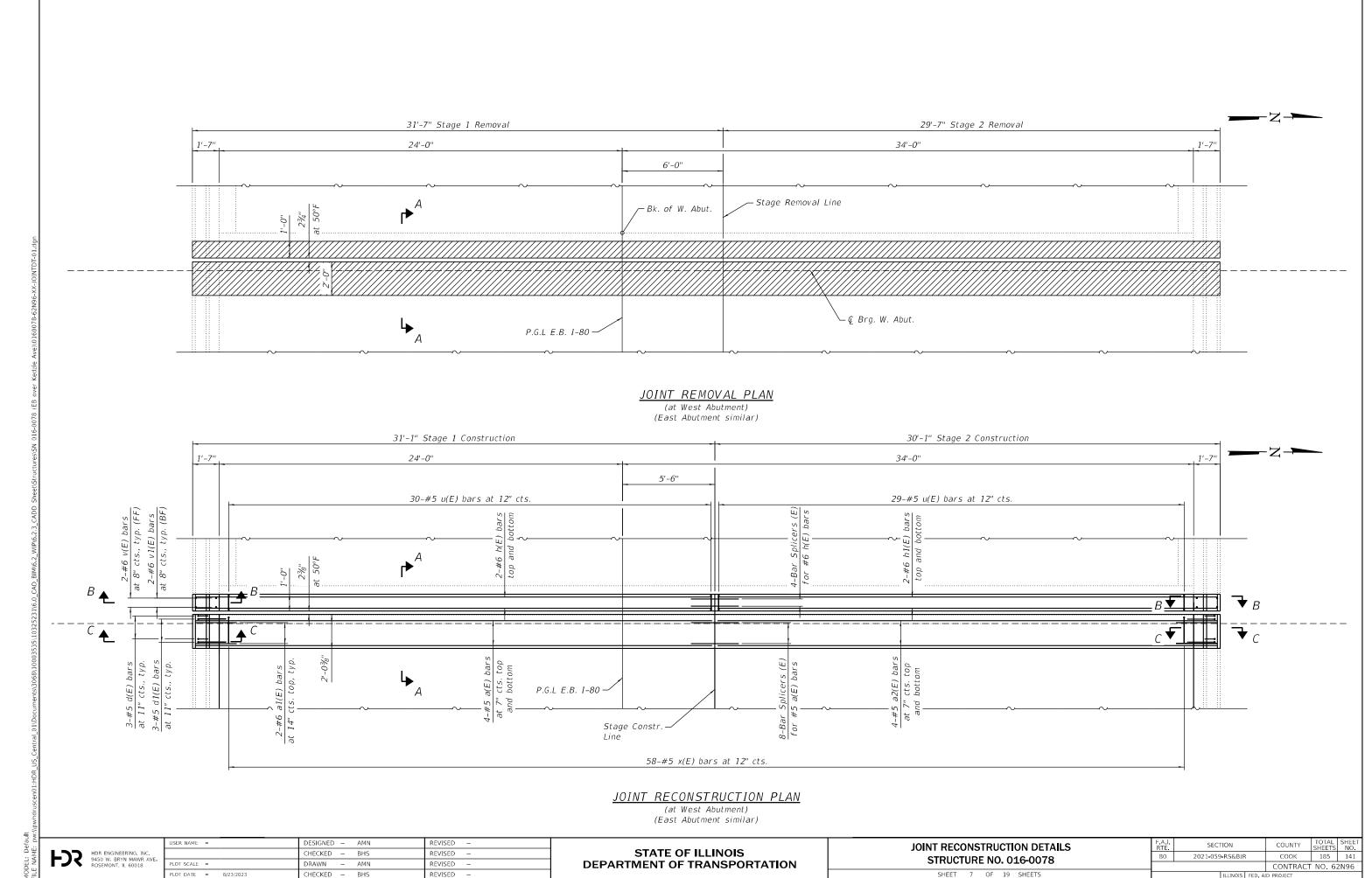
(Full Depth, Type I) is included for bidding purposes.

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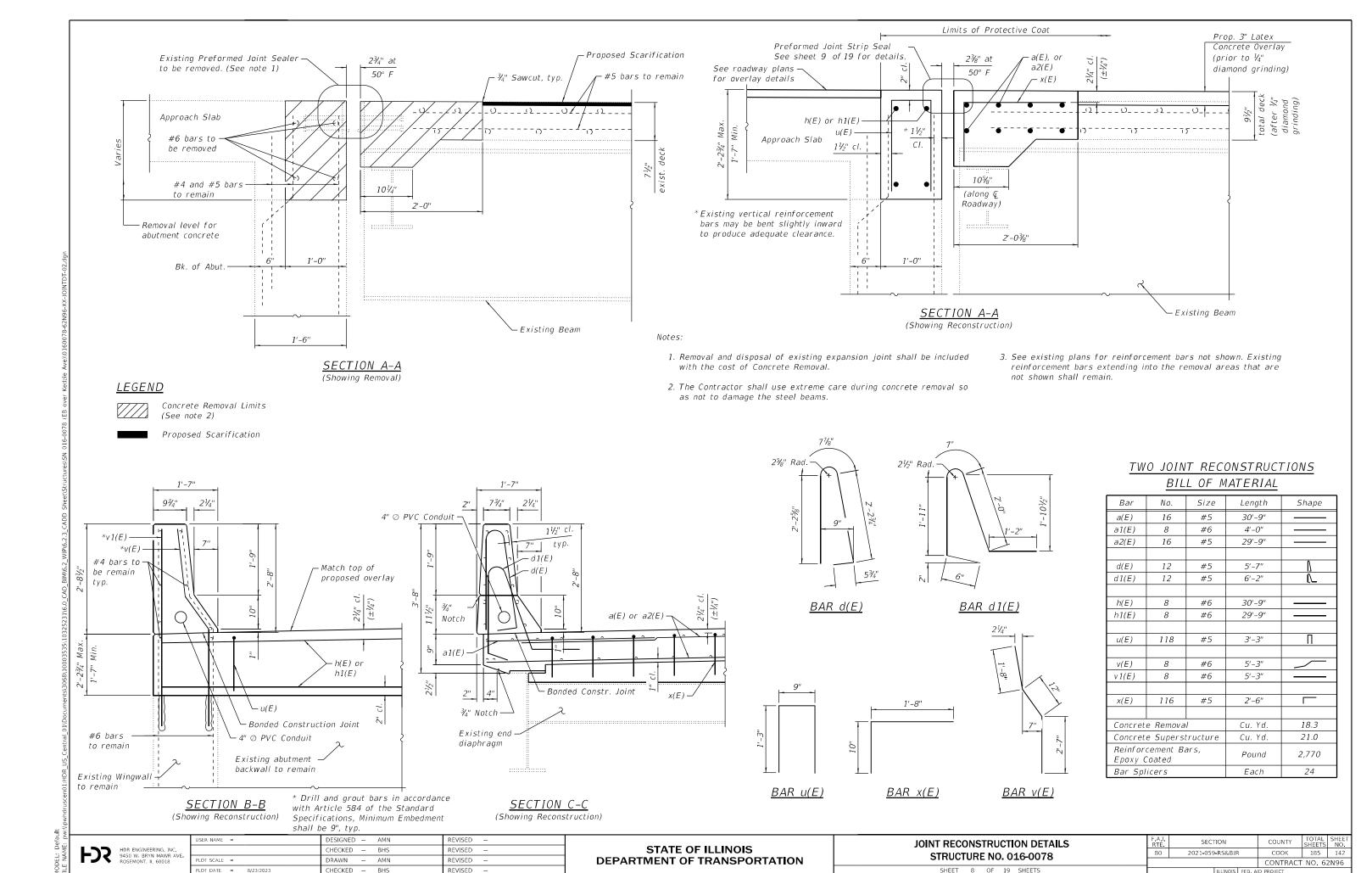
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE DECK REPAIRS **STRUCTURE NO. 016-0078** SHEET 6 OF 19 SHEETS

COUNTYTOTAL SHEET NO.COOK185140CONTRACTNO. 62N96 SECTION 2021-059-RS&BJR

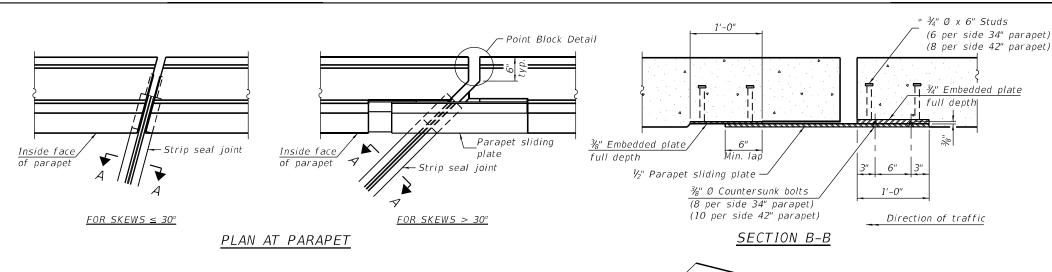


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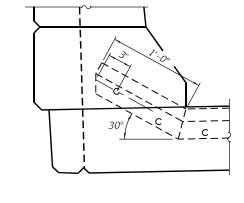


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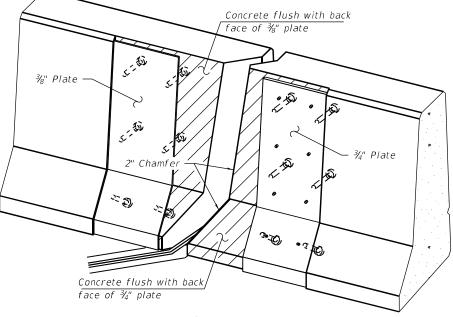
LOT DATE = 8/23/2023



2" Max. Parapet sliding В Top of locking Detail A edge rail Inside Face -Top of deck of Parapet



DETAIL A

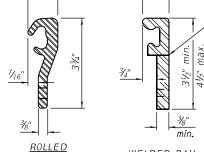


ELEVATION AT PARAPET

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

TRIMETRIC VIEW (Showing embedded plates only)

Locking edge rail-11/2" at 50° F Top of concrete -Strip seal * $\frac{5}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° $\frac{3}{6}$ " ϕ threaded rods in $\frac{1}{6}$ " ϕ holes at ± 4 '-0" cts.



ROLLED WELDED RAIL (EXTRUDED) RAIL

LOCKING EDGE RAILS

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

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

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

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

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 at 50° F Top of concrete Strip seal at 50° F

SHOWING ROLLED RAIL JOINT

SECTION A-A

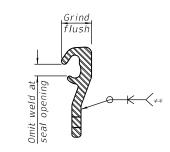
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

for holding the proper joint opening based on

the temperature during the deck pour. Place to

miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

*** Prior to 1/4" diamond grinding



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	120.0

9450 W. BRYN MAWR AVE ROSEMONT, IL 60018

%" Ø x 6" Studs

REVISED -JSER NAME = DESIGNED - CHP CHECKED - PS REVISED -RAWN REVISED OT DATE = 5/30/2023 CHECKED - BHS REVISED -

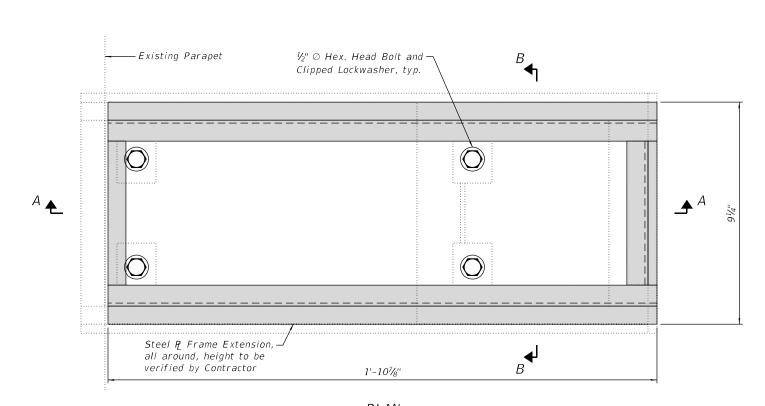
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SHOWING WELDED RAIL JOINT

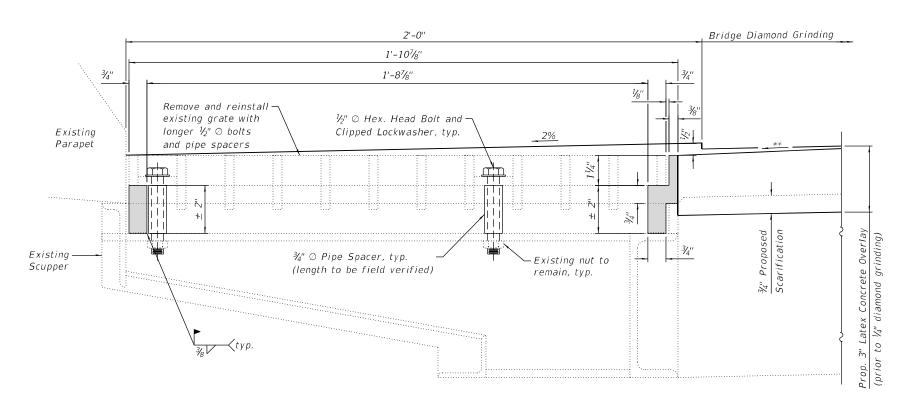
MODIFIED PREFORMED JOINT STRIP SEAL **STRUCTURE NO. 016-0078** SHEET 9 OF 19 SHEETS

RTE SECTION			COUNTY	TOTAL SHEETS	SHE NC		
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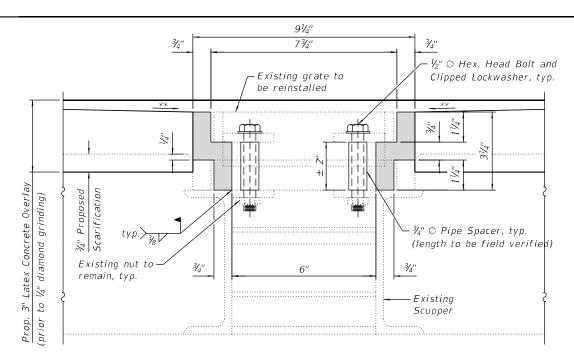
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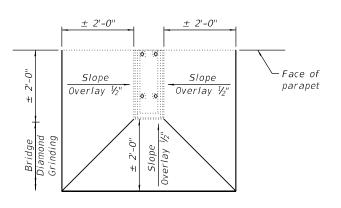
<u>PLAN</u>
(Existing grate not shown for clarity)



SECTION A-A



<u>SECTION B-B</u>



<u>SLOPING PLAN</u> (Prior to diamond grinding)

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scuppers To Be Adjusted	Each	4

LEGEND



Steel R Frame Extension

Notes

- 1.) All structural steel shall be AASHTO M270 Grade 36. The adjusting scupper ring and $\frac{3}{4}$ " \oslash pipe sleeve spacers shall be galvanized.
 - 2.) Bolts shall be $\frac{1}{2}$ " \oslash AASHTO M164 Type 1, mechanically galvanized.
- 3.) Shop drawings for proposed Steel R Frame Extension shall be submitted for approval prior to fabrication.
- 4.) Contractor shall ensure that no damage is done to existing grates to be reused.
- 5.) Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install Steel P. Frame Extensions and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 016-0078

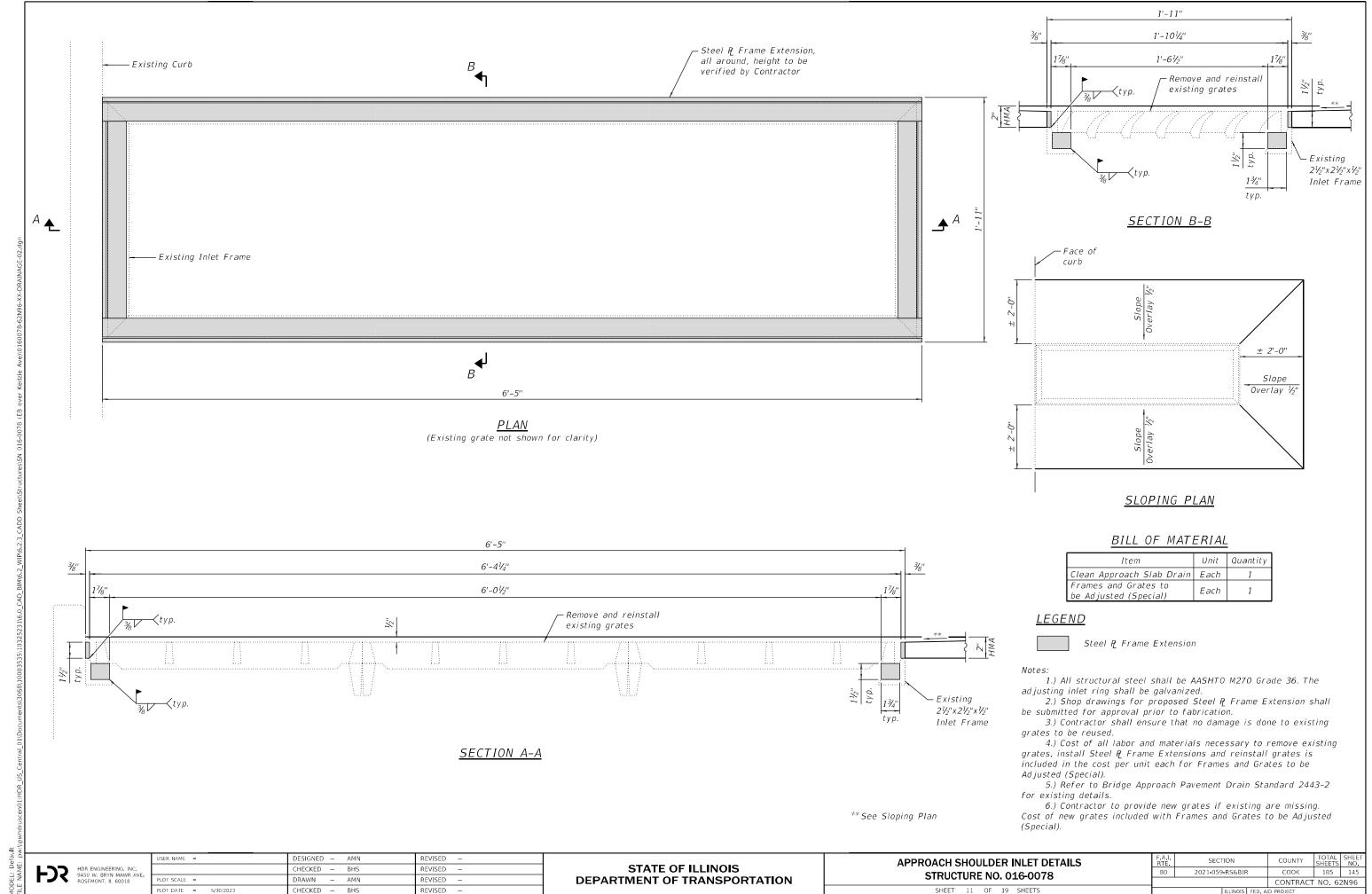
SHEET 10 OF 19 SHEETS

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

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 2021-059-RS&BJR
 COOK
 185
 144

 CONTRACT NO. 6≥N96

^{**} See Sloping Plan



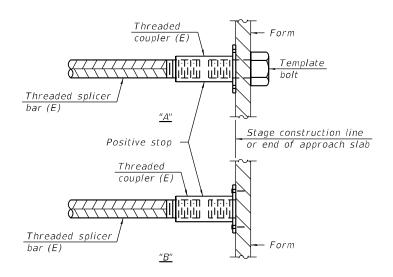
STANDARD BAR SPLICER ASSEMBLY PLAN

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.

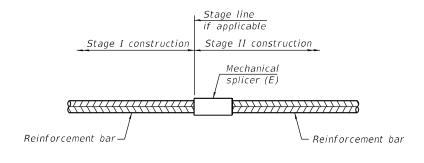
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4'-0"
			•



INSTALLATION AND SETTING METHODS

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

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

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

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

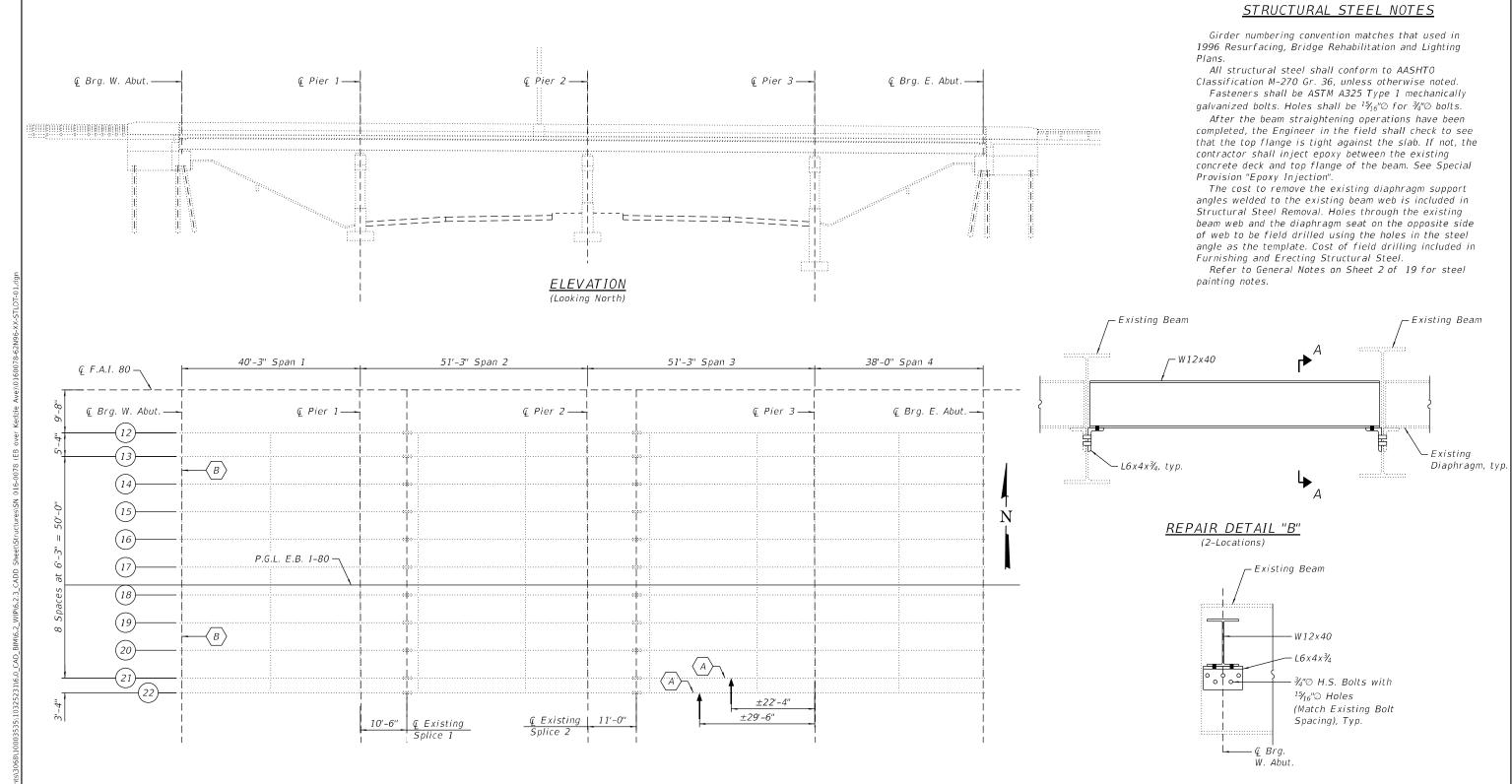
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **BAR SPLICER ASSEMBLY DETAILS STRUCTURE NO. 016-0078** SHEET 12 OF 19 SHEETS

SECTION COUNTY 2021-059-RS&BJR COOK 185 146 CONTRACT NO. 62N96

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SECTION A-A

Imp<u>act</u> Line

 $\langle A \rangle$ – Existing Beam to be Straightened. Paid for as Beam Straightening.

B - Existing Diaphragm to be Replaced. Removal paid for as Structural Steel Removal. New steel paid for as Furnishing and Erecting Structural Steel.

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

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

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	610
Structural Steel Removal	Pound	590
Beam Straightening	L. Sum	1

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	PLOT DATE = 8/23/2023	CHECKED - BHS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN

STRUCTURAL STEEL REPAIRS
STRUCTURE NO. 016-0078

SHEET 13 OF 19 SHEETS

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

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 COOK
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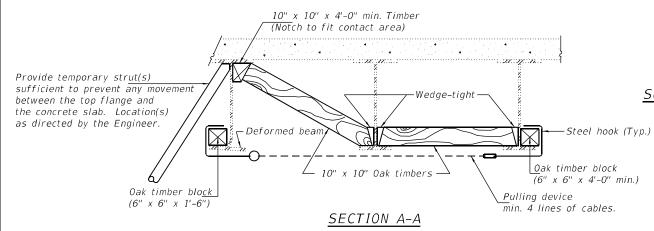
 CONTRACT NO. 62N96
 PULLING DEVICE

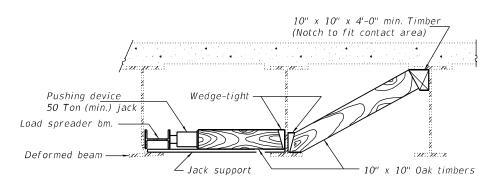
PARTIAL PLANS

PUSHING DEVICE

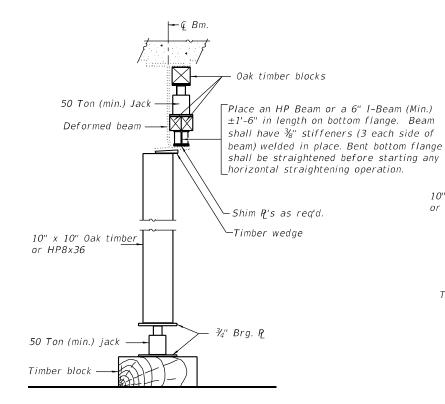
SUGGESTED BEAM STRAIGHTENING METHODS

Straightening force shall be maintained on all load transfer blocking during beam straightening.



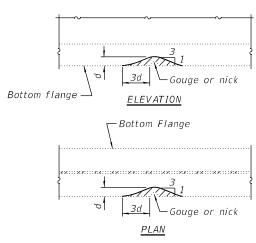


SECTION B-B



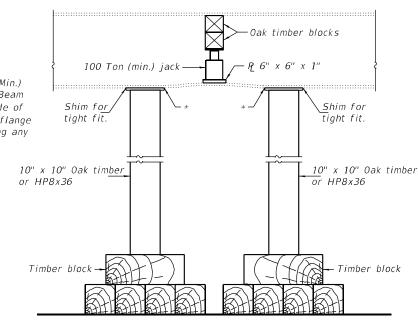
SUGGESTED VERTICAL STRAIGHTENING DETAIL

(To correct flange rotation.)



GRINDING DETAIL

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately ¼" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.



SUGGESTED VERTICAL STRAIGHTENING DETAIL

(To correct localized vertical flange deformations.)

* Edge of plate shall line up with edge of deformation.

Note:

Braces and jack assembly shall be placed on same side of web. Bent bottom flange shall be straightened before starting any horizontal straightening operations.



EXISTING DEFORMATION

TO BE STRAIGHTENED

(Looking East)

(Approximate max. deflections) Deflected length of beam to be straightened is approximately .

LOCATION	Χ	Υ
Beam 21	1¾;"	1/8"
Beam 22	3"	1/2"

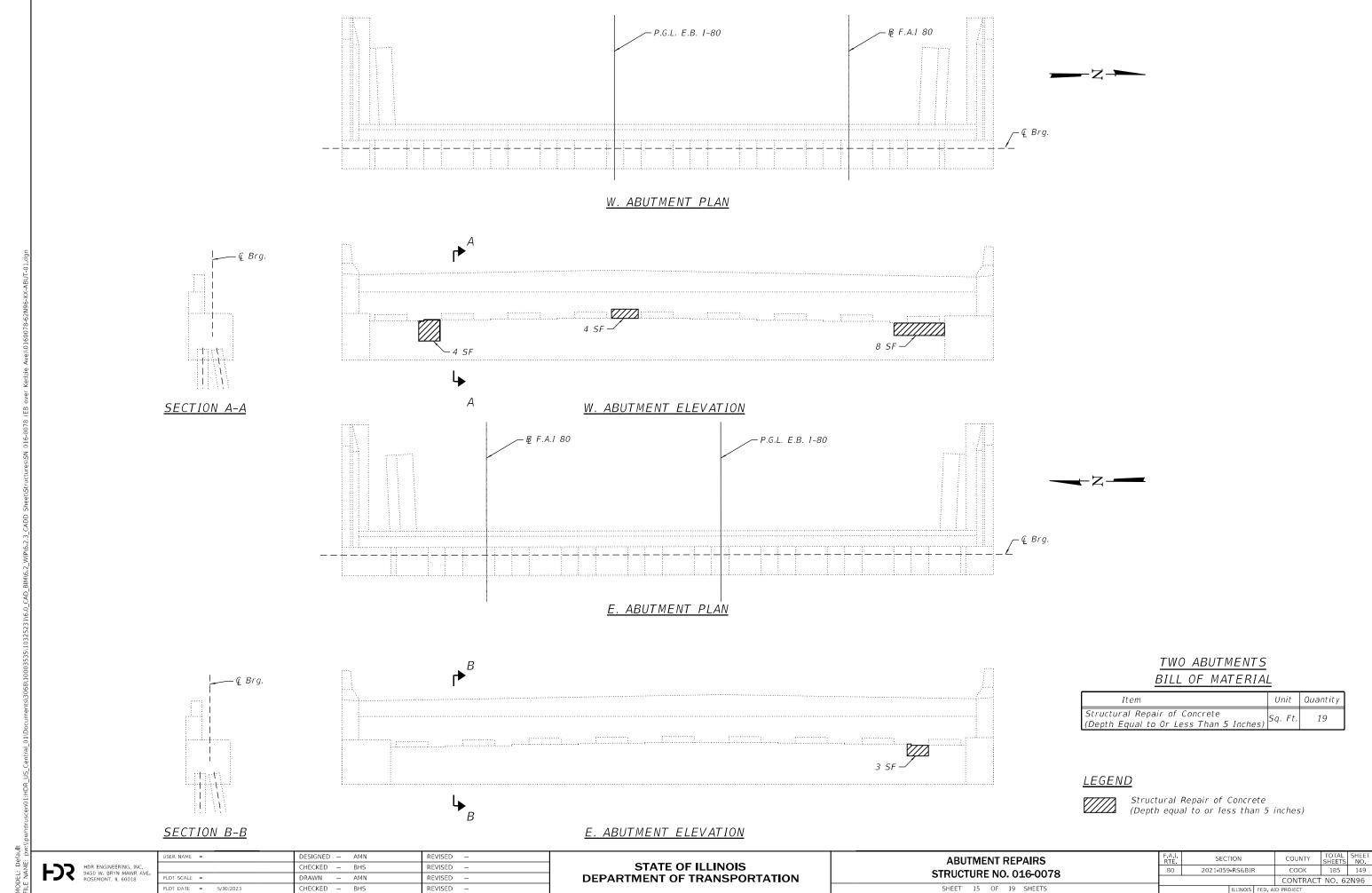
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HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

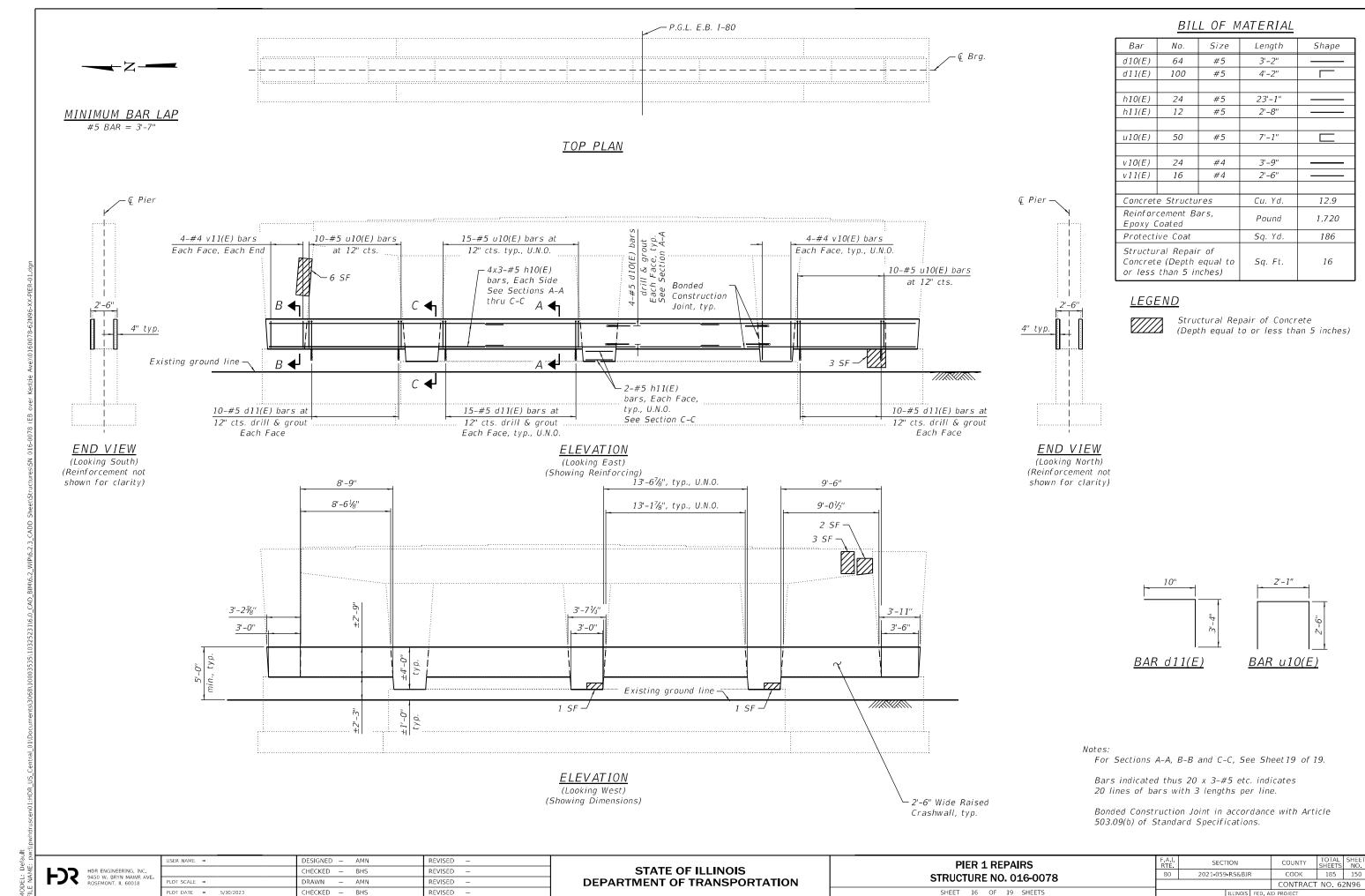
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

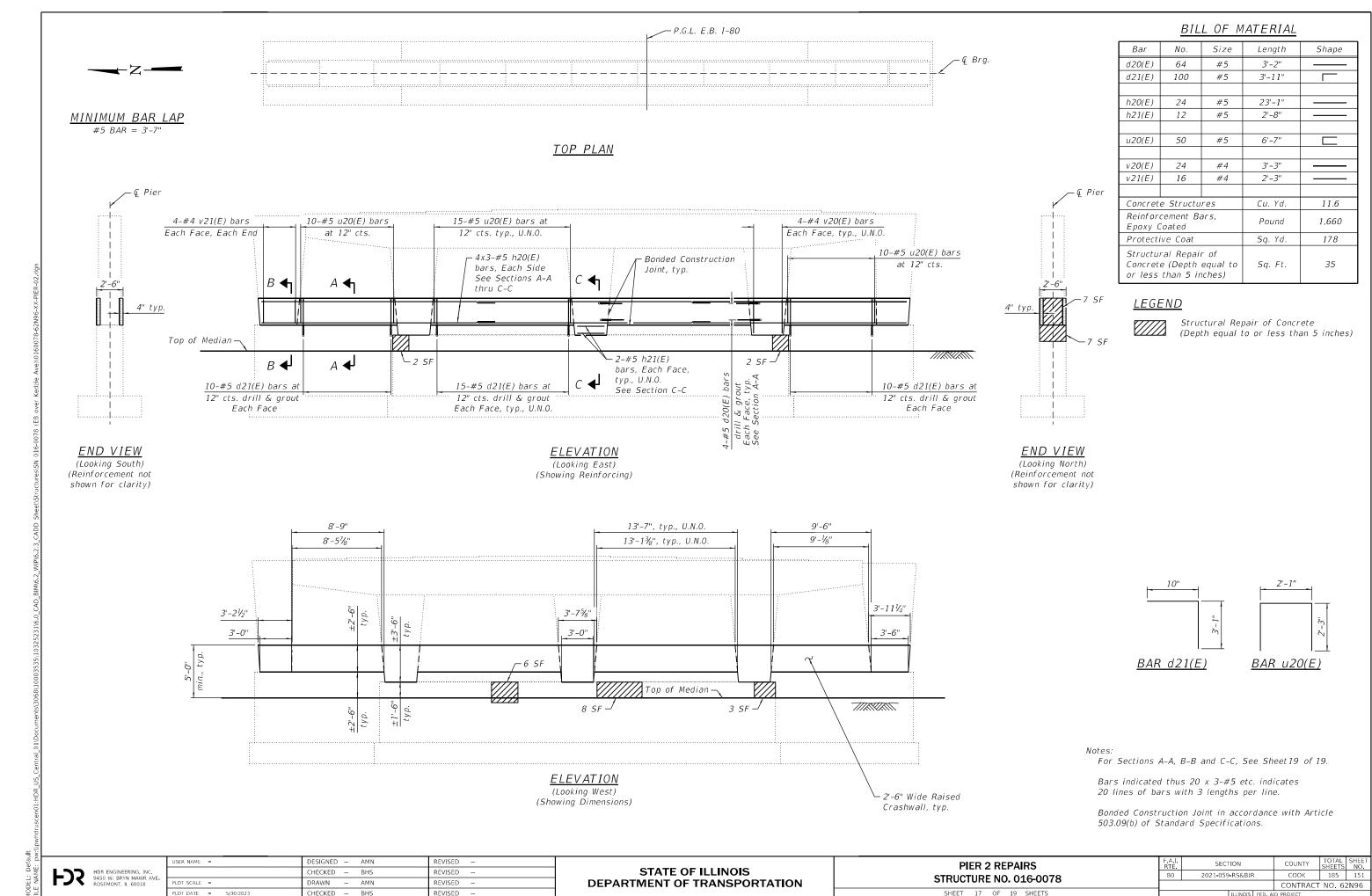
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	SHEET	14	OF	19	SHEETS



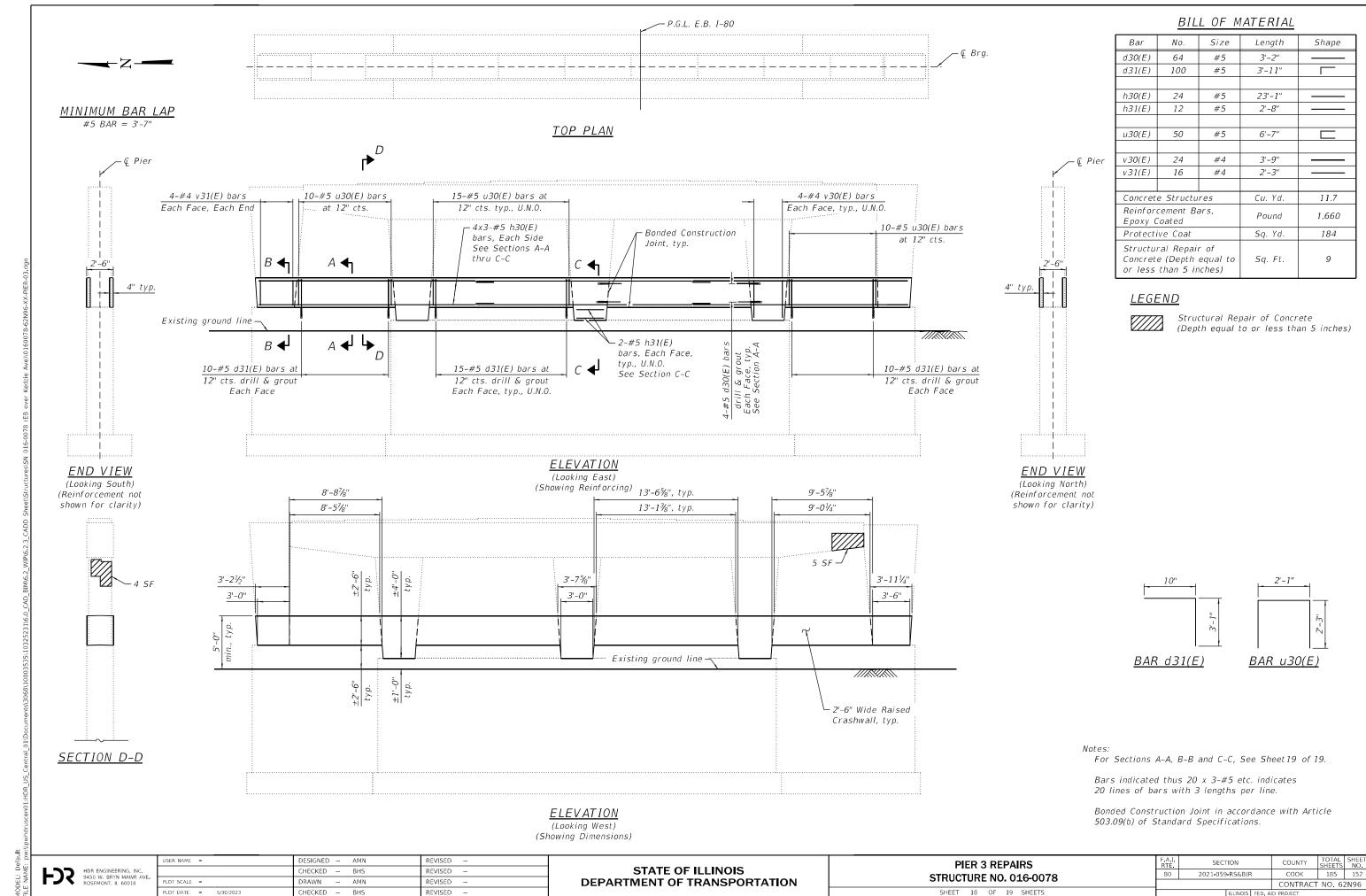
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Showing Proposed Crashwall Showing Removal € Pier h10(E), h20(E) or h30(E) Bonded Construction -Joint, typ. v10(E), v20(E) or v30(E) ⅓" dia. hook bolt, typ. h11(E), h21(E) or h31(E) Existing Crashwall SECTION C-C

SECTION B-B

DIMENSIONS

Pier	Α	В	С	D
Pier 1	±2'-9"	±2'-91/8"	±4'-0"	±4'-01/8"
Pier 2	±2'-6"	±2'-61/8"	±3'-6"	±3'-61/8"
Pier 3	±2'-6"	±2'-61/8"	±4'-0"	±4'-01/8"

LEGEND

Concrete Removal

For Location of Sections A-A, B-B and C-C, See Sheet 16 of 19 thru Sheet 18 of 19.

The areas to have concrete removed shall have all loose, unsound concrete removed completely by the use of chipping hammers, or other methods approved by the Engineer. The chipping hammer for removing concrete shall be a light-duty pneumatic or electric tool with a 15 lb. (7 kg) maximum class or less. Existing reinforcement bar with 50 percent or more of the bar perimeter exposed shall be undercut to a depth of 3/4 in. or the diameter of the reinforcement bar, whichever is greater. The Engineer shall be notified of concrete removal that exceeds 6 in. in depth, or if more than half the vertical column reinforcement is exposed in a cross section. Excessive deterioration or removal may require further evaluation of the structure or installation of temporary shoring and cribbing support system. Concrete removal and disposal included in the cost of Concrete Structures.

The hook bolts shall be spaced at 15 in. maximum centers both vertically and horizontally, and shall be a minimum of 6 in. away from the corners of the existing column. The hook provided per Section 1006.09 bolts shall be installed according to Section 584. Cost included with Concrete Structures.

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Existing Structure: S.N. 016-0079 Built under Section 1718-807HB in 1964. Redecked and widened in 1995 under Section (1718-807HB)R. In 1996, rehabilitation consisted of substructure and superstructure widening and deck replacement. Structure consists of a reinforced concrete deck supported by continuous rolled steel beams on pile bent abutments and multiple column piers. 185'-3" back-to-back of abutments, 61'-2" out-to-out.

DESIGN SPECIFICATIONS

for Highway Bridges

2002 AASHTO Standard Specifications No allowance for future wearing surface

LOADING HS20-44 EXISTING DESIGN STRESSES

1966 CONSTRUCTION fc = 1.400 psifs = 20,000 psi (Reinforcement)fs = 20,000 psi (Structural Steel)

f'c = 3.500 psify = 60,000 psi (Reinforcement)fs = 20,000 psi (Structural Steel)

1996 CONSTRUCTION

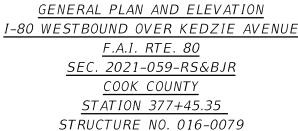
PROPOSED DESIGN STRESSES

FIELD UNITS:

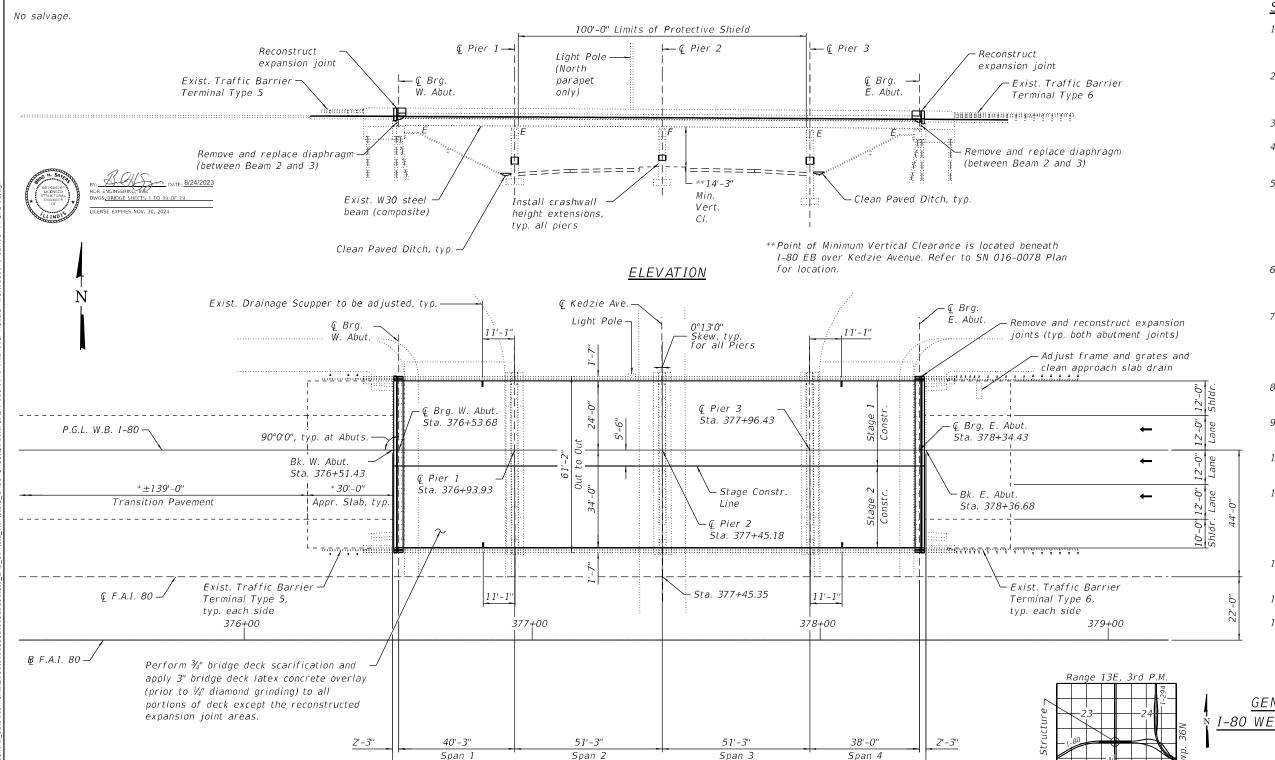
f'c = 4,000 psi (Superstructure)fy = 60,000 psi (Reinforcement)fy = 36,000 psi (Structural Steel)

SCOPE OF WORK

- 1. Remove and replace diaphragms between Beams 2 and 3 at both abutments. Repair ends of Beams 2 and 3 at East Abutment.
- 2. Remove and replace existing expansion joints at both abutments with Preformed Joint Strip Seals.
- Install Protective Shield.
- Perform repairs on bridge deck and approach slabs.
- 5. Perform Bridge Deck Scarification ¾", adjust scuppers and approach slab drain, install Bridge Deck Latex Concrete Overlay 3" (prior to 1/4" diamond grinding), and perform Bridge Deck Grooving (Longitudinal).
- 6. Clean and reseal approach slab relief joints. Refer to Roadway Plans for quantities and details.
- 7. Install 2" Polymerized Hot-Mix Asphalt Surface Course (SMA) on the approach slabs and transition pavements. Refer to Roadway Plans for quantities and details.
- Perform Epoxy Crack Injection on parapets.
- Perform Structural Repair of Concrete at substructure units.
- 10. Install crashwall height extensions at all piers.
- 11. Apply Protective Coat on the top surface of the deck overlay, reconstructed deck expansion joints, the top and inside faces of the existing parapets, and the piers.
- 12. Clean and paint abutment bearings and beam ends.
- 13. Clean approach slab drain.
- 14. Clean paved ditch at base of slope walls.



Traffic to be maintained utilizing stage construction.



185'-3"

Bk. to Bk. Abutments

<u>PLAN</u>

*See Roadway Plans for Overlay Details

JSER NAME = DESIGNED - AMN REVISED -HECKED - BHS REVISED RAWN REVISED CHECKED - BHS LOT DATE = 8/23/2023 REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **GENERAL PLAN & ELEVATION STRUCTURE NO. 016-0079** SHEET 1 OF 19 SHEETS

LOCATION SKETCH

SECTION 2021-059-RS&BIR COOK 185 154 CONTRACT NO. 62N96

- 2. No field welding is permitted except as specified in the contract documents.
- 3. Reinforcement bars designated (E) shall be epoxy coated.
- 4. Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ¼" deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 5. Plan dimensions and details relative to existing plans are subject to nominal construction variation. 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 variation 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.
- 6. Existing reinforcement extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any existing reinforcement bars intended for reuse and damaged during the concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system to the satisfaction of the Engineer. Cost included with Concrete Removal.
- 7. The Contractor shall take appropriate measures to assure the Protective Coat is not applied to the drainage scuppers.
- 8. 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.
- 9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- 11. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 12. Cleaning and painting of existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 5 ft (measured along beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).
- 13. The designated areas cleaned per Near White Blast Cleaning (SSPC-SP10) and per Commercial Grade Power Tool Cleaning (SSPC-SP15) shall be painted according to the requirements of the Epoxy Mastic / Acrylic / Acrylic Paint System. The color of the final coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- 14. All exposed concrete edges shall have a $\frac{3}{4}$ " chamfer, except where shown otherwise.
- 15. During repair operations, the Contractor shall locate and protect all utilities in the vicinity of the work including, but not limited to, fiber optic and/or electrical conduits, conduits under the bridge deck, under-deck lighting, traffic signals or signs attached to the structure. This work shall be performed to the satisfaction of the Engineer and will not be paid for separately, but shall be included with the contract. It shall be the Contractor's responsibility to restore and replace any damaged utilities or facilities to the satisfaction of the Engineer at no cost to the Department.
- 16. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- 17. The Contractor is responsible to protect the existing conduit embedded in the parapet during concrete removal and construction. Any damage to the existing conduit shall be repaired by the Contractor at no additional cost to the Department.

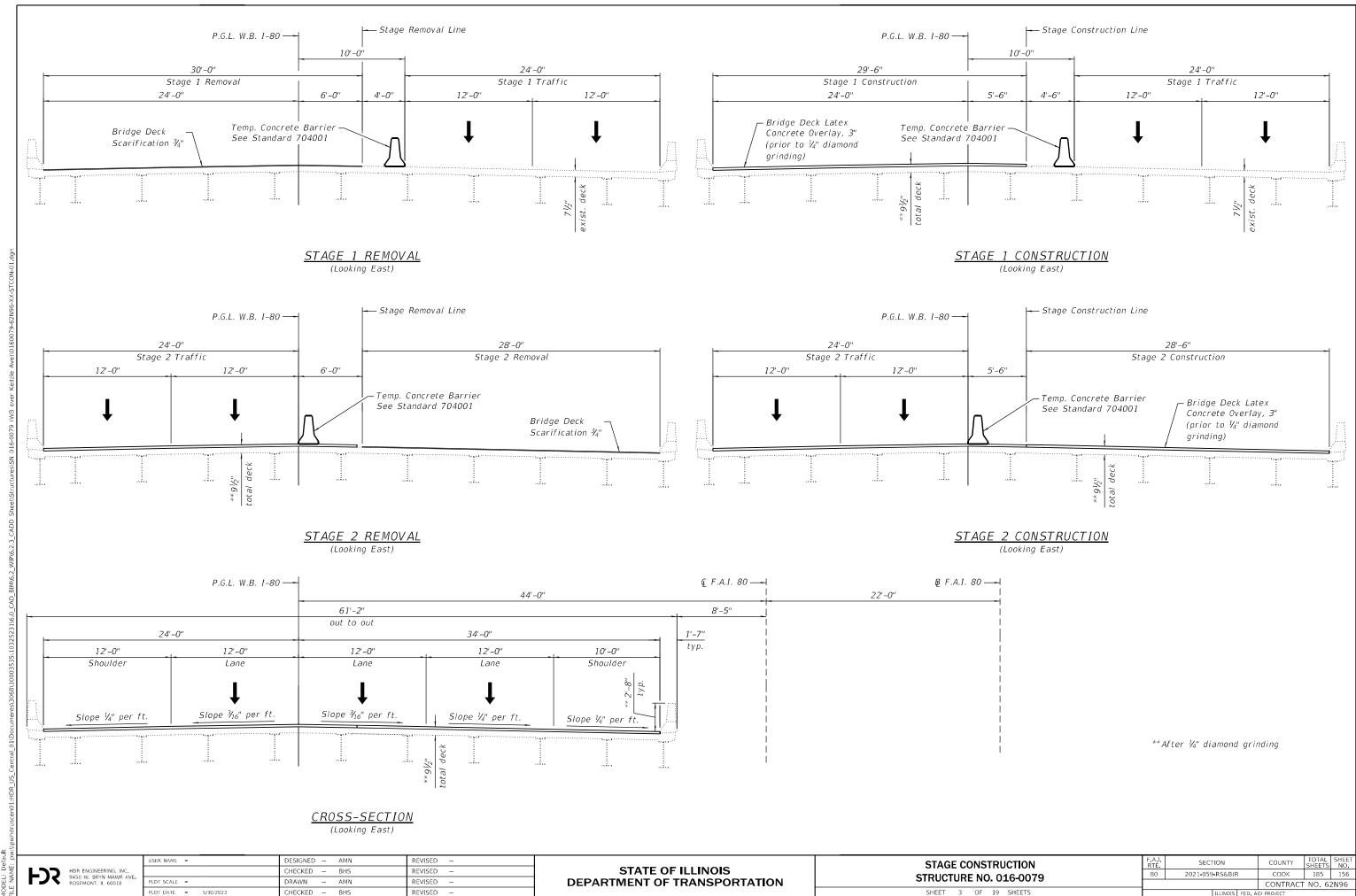
INDEX OF SHEETS

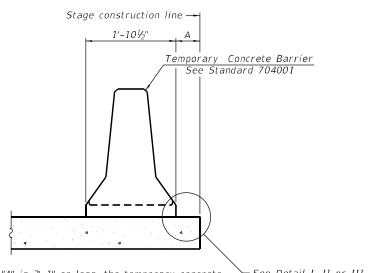
- General Plan & Elevation
- 2 General Notes, Index of Sheets & Total Bill of Materials
- 3 Stage Construction
- 4 Temporary Concrete Barrier for Stage Construction
- 5 Bridge Deck Repairs
- 6 Bridge Deck Repairs
- Joint Reconstruction Details
- 8 Joint Reconstruction Details
- 9 Modified Preformed Joint Strip Seal
- 10 Drainage Scupper Details
- 11 Approach Shoulder Inlet Details
- 12 Bar Splicer Assembly Details
- 13 Structural Steel Repairs
- 14 Structural Steel Repairs15 Abutment Repairs
- 16 Pier 1 Repairs
- 17 Pier 2 Repairs
- 18 Pier 3 Repairs
- 19 Pier Repair Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	18.3
Protective Shield	Sq Yd	680
Concrete Structures	Cu Yd	33.3
Concrete Superstructure	Cu Yd	21.1
Protective Coat	Sq Yd	1,910
Furnishing And Erecting Structural Steel	Pound	610
Reinforcement Bars, Epoxy Coated	Pound	7,650
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	120.0
Epoxy Crack Injection	Foot	50
Cleaning Paved Ditch	Foot	150
Clean Approach Slab Drain	Each	1
Bridge Deck Grooving (Longitudinal)	Sq Yd	737
Frames And Grates To Be Adjusted (Special)	Each	1
Approach Slab Repair (Full Depth)	Sq Yd	4
Structural Steel Removal	Pound	590
Structural Steel Repair	Pound	160
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,146
Containment And Disposal Of Lead Paint Cleaning Residues No. 6	L Sum	1
Cleaning And Painting Steel Bridge No. 6	L Sum	1
Bridge Deck Scarification 3/4"	Sq Yd	1,146
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	32
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft	5
Deck Slab Repair (Full Depth, Type I)	Sq Yd	3
Drainage Scuppers To Be Adjusted	Each	4
Diamond Grinding (Bridge Section)	Sq Yd	1,106

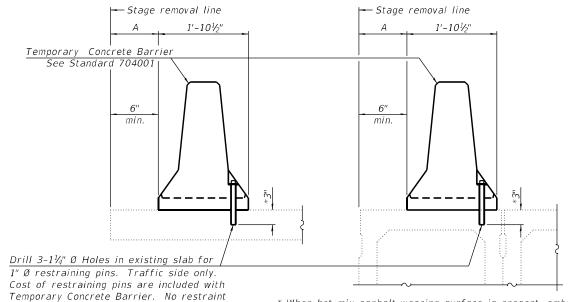
18. A nominal quantity of Epoxy Crack Injection is provided for parapet repair to be performed at the direction of the Engineer.





∽ 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".

NEW SLAB OR NEW DECK BEAM



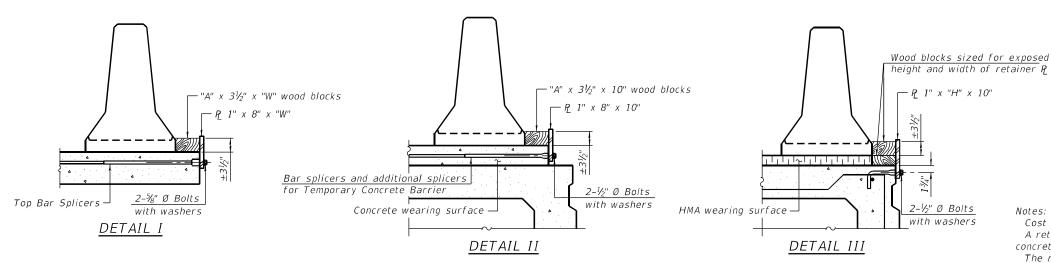
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

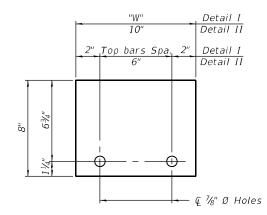
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

EXISTING SLAB

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





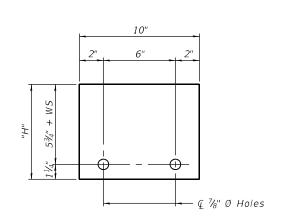
STEEL RETAINER P 1" x 8" x "W"

(Detail I and II)

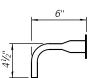
RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 10-12-2021



STEEL RETAINER P 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 Q of each temporary concrete barrier.

1x8 UNC

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

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

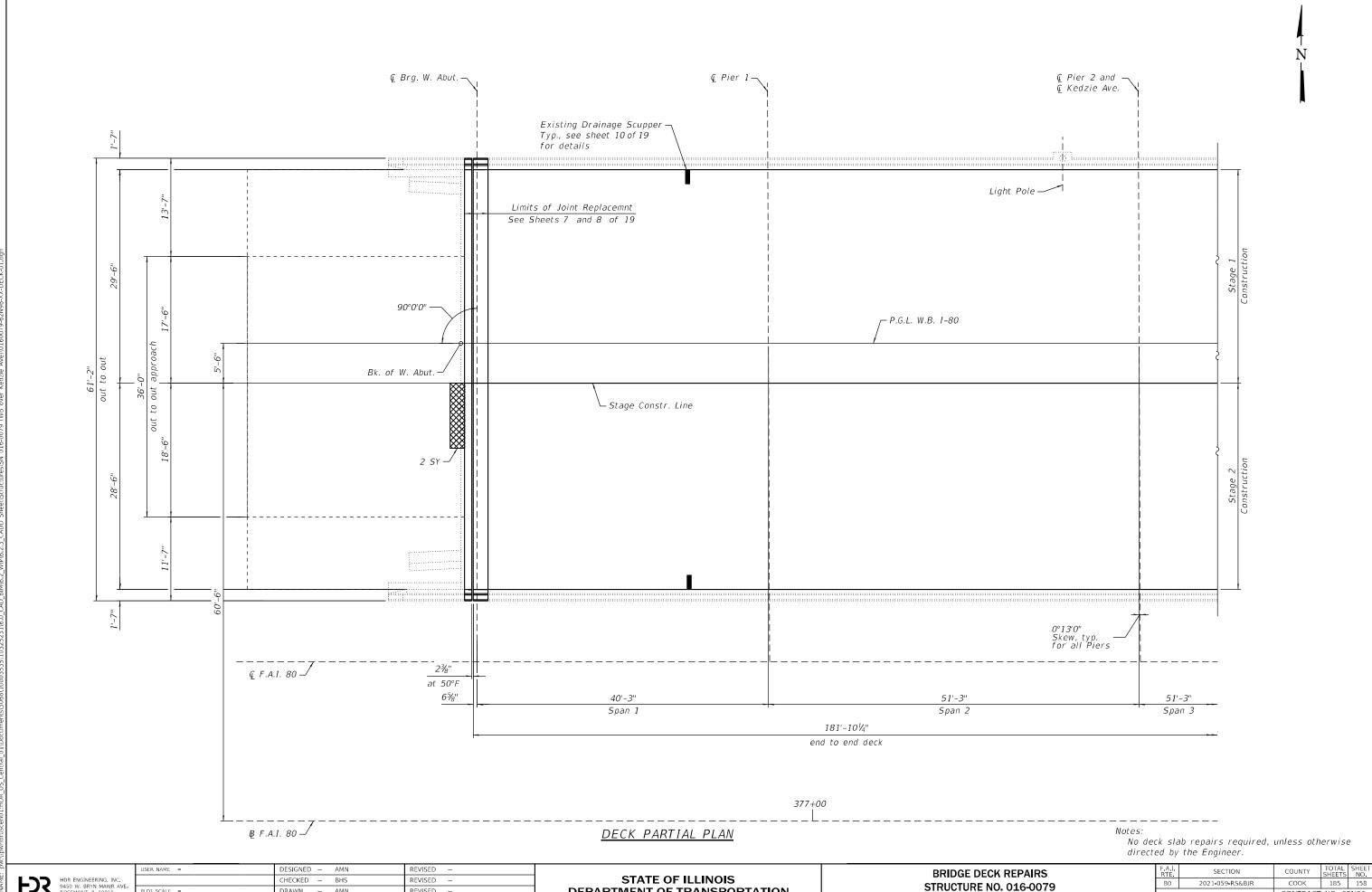
When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

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

DESIGNED - AMN REVISED -HECKED - BHS REVISED RAWN REVISED CHECKED - BHS REVISED -LOT DATE = 5/30/2023

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 2021-059-RS&BJR COOK 185 157 **STRUCTURE NO. 016-0079** CONTRACT NO. 62N96 SHEET 4 OF 19 SHEETS



HDR ENGINEERING, INC. 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

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CHECKED - BHS LOT SCALE = REVISED -LOT DATE = 5/30/2023

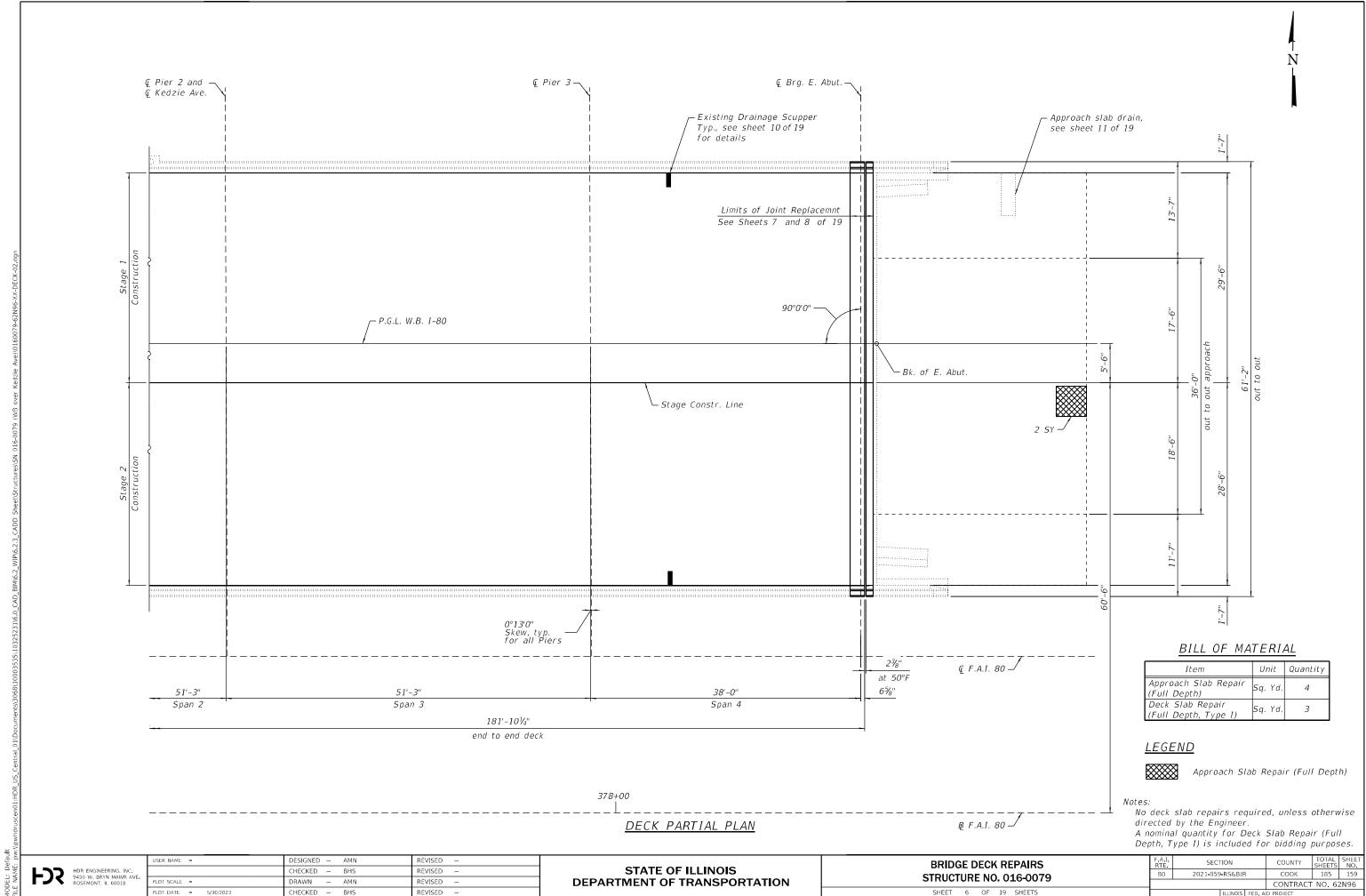
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-0079 SHEET 5 OF 19 SHEETS

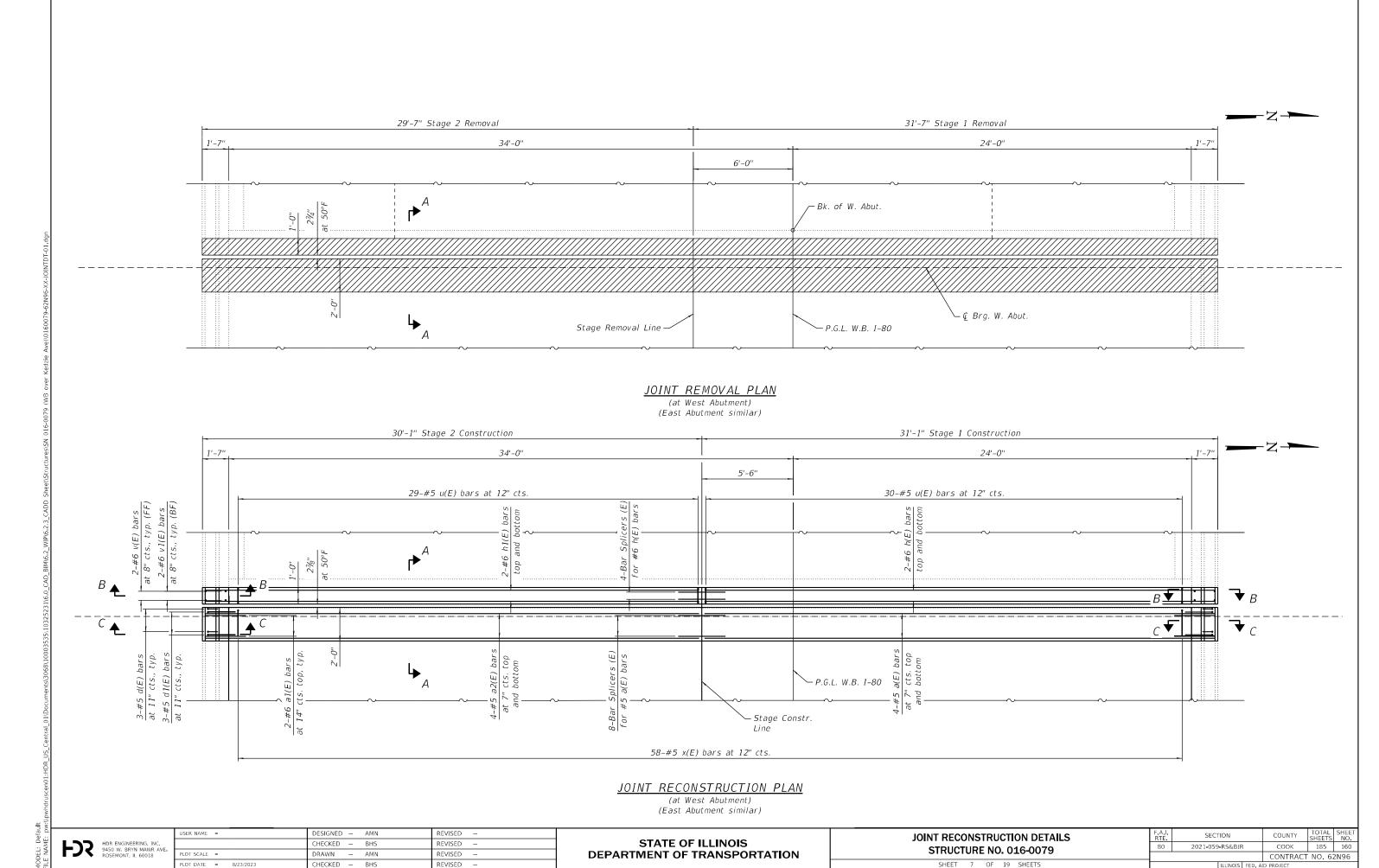
COUNTY TOTAL SHEET NO.

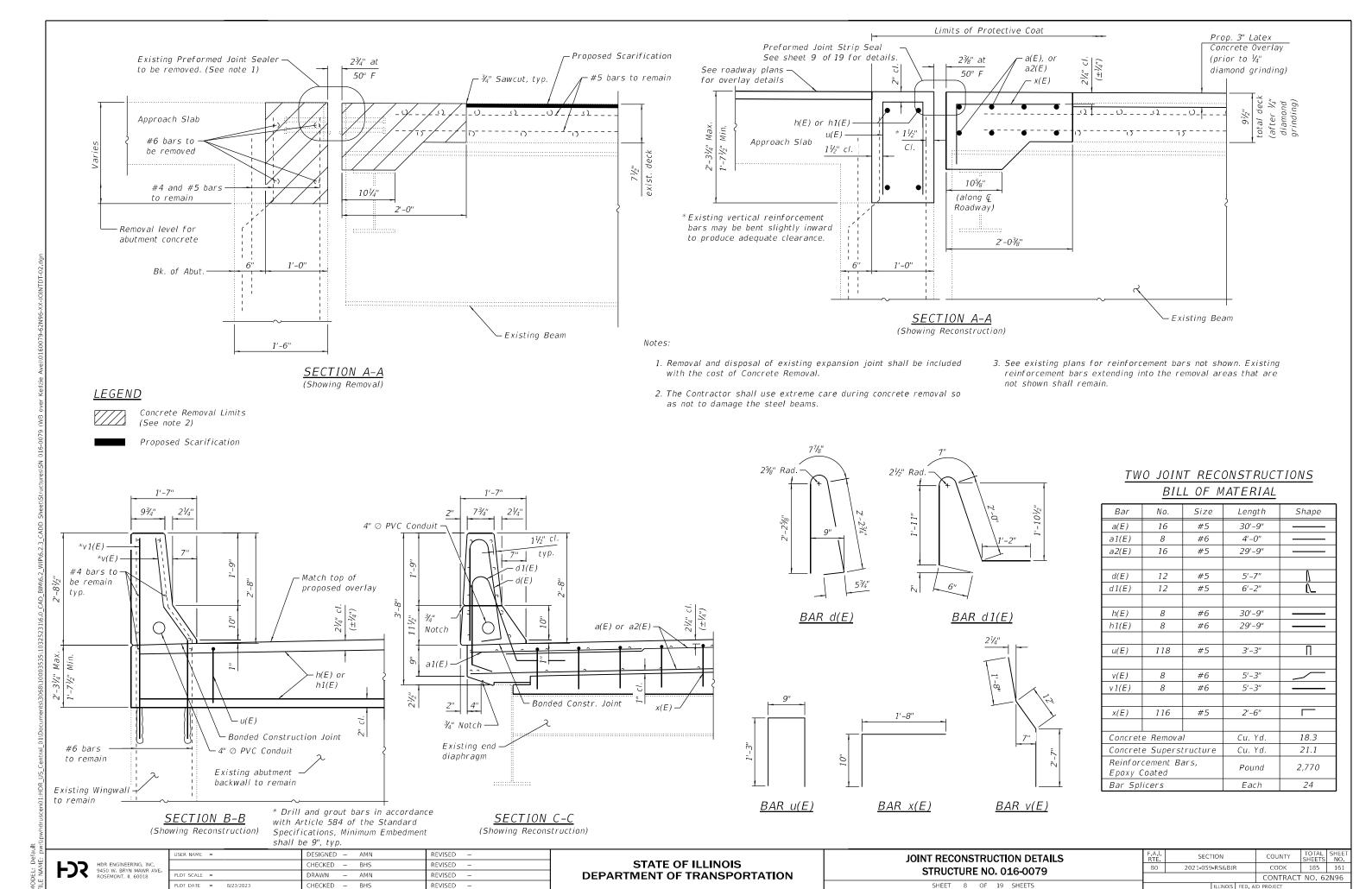
COOK 185 158

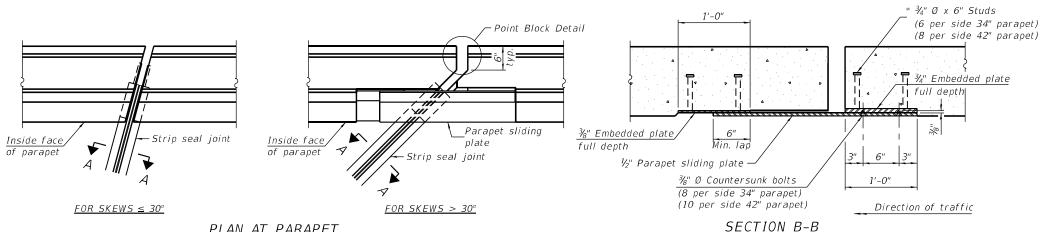
CONTRACT NO. 62N96



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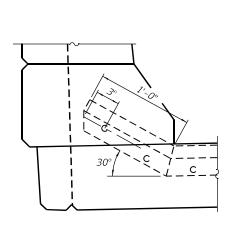


PLAN AT PARAPET

Top of locking

-Top of deck

edge rail



DETAIL A

Concrete flush with back face of ¾" plate ¾" Plate Concrete flush with back face of 3/4" plate

TRIMETRIC VIEW (Showing embedded plates only)

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

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

The manufacturer's recommended installation methods shall be followed.

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

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

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 railat 50° F Top of concrete Strip seal at 50°

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

except as shown in plan view.)

2" Max.

В

%" Ø x 6" Studs

Detail A

Parapet sliding

Inside Face

SHOWING ROLLED RAIL JOINT

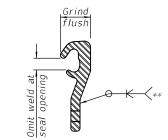
Locking edge rail-11/2" at 50° F Top of concrete -Strip seal * $\frac{1}{8}$ " Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs) at 50° I $\frac{3}{6}$ " ϕ threaded rods in $\frac{1}{6}$ " ϕ holes at ± 4 '-0" cts.

for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

ROLLED WELDED RAIL (EXTRUDED) RAIL

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	120.0

SECTION A-A

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

*** Prior to 1/4" diamond grinding

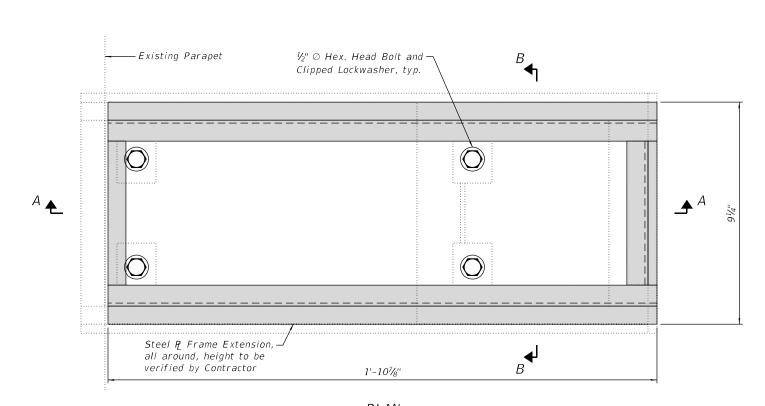
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ノく		PLOT SCALE =		DRAWN -	AMN	REVISED -
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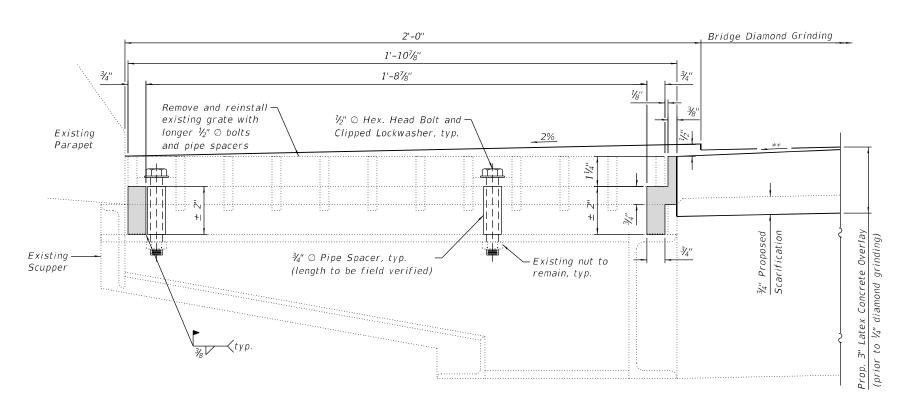
SHOWING WELDED RAIL JOINT

MODIFIED PREFORMED JOINT STRIP SEAL **STRUCTURE NO. 016-0079** SHEET 9 OF 19 SHEETS

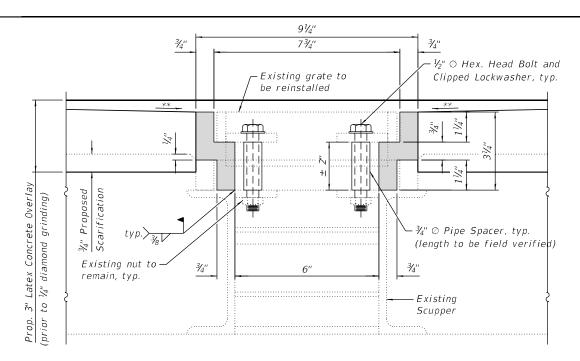
SECTION 2021-059-RS&BJR COOK 185 162 CONTRACT NO. 62N96



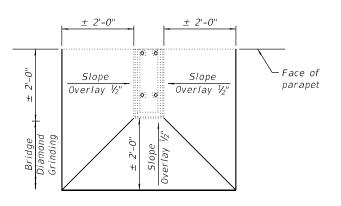
<u>PLAN</u>
(Existing grate not shown for clarity)



SECTION A-A



<u>SECTION B-B</u>



<u>SLOPING PLAN</u> (Prior to diamond grinding)

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scuppers To Be Adjusted	Each	4

<u>LEGEND</u>



Steel R Frame Extension

Notes

- 1.) All structural steel shall be AASHTO M270 Grade 36. The adjusting scupper ring and $\frac{3}{4}$ " \oslash pipe sleeve spacers shall be galvanized.
 - 2.) Bolts shall be $\frac{1}{2}$ " \oslash AASHTO M164 Type 1, mechanically galvanized.
- 3.) Shop drawings for proposed Steel R Frame Extension shall be submitted for approval prior to fabrication.
- 4.) Contractor shall ensure that no damage is done to existing grates to be reused.
- 5.) Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install Steel P. Frame Extensions and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

** See Sloping Plan

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 016-0079

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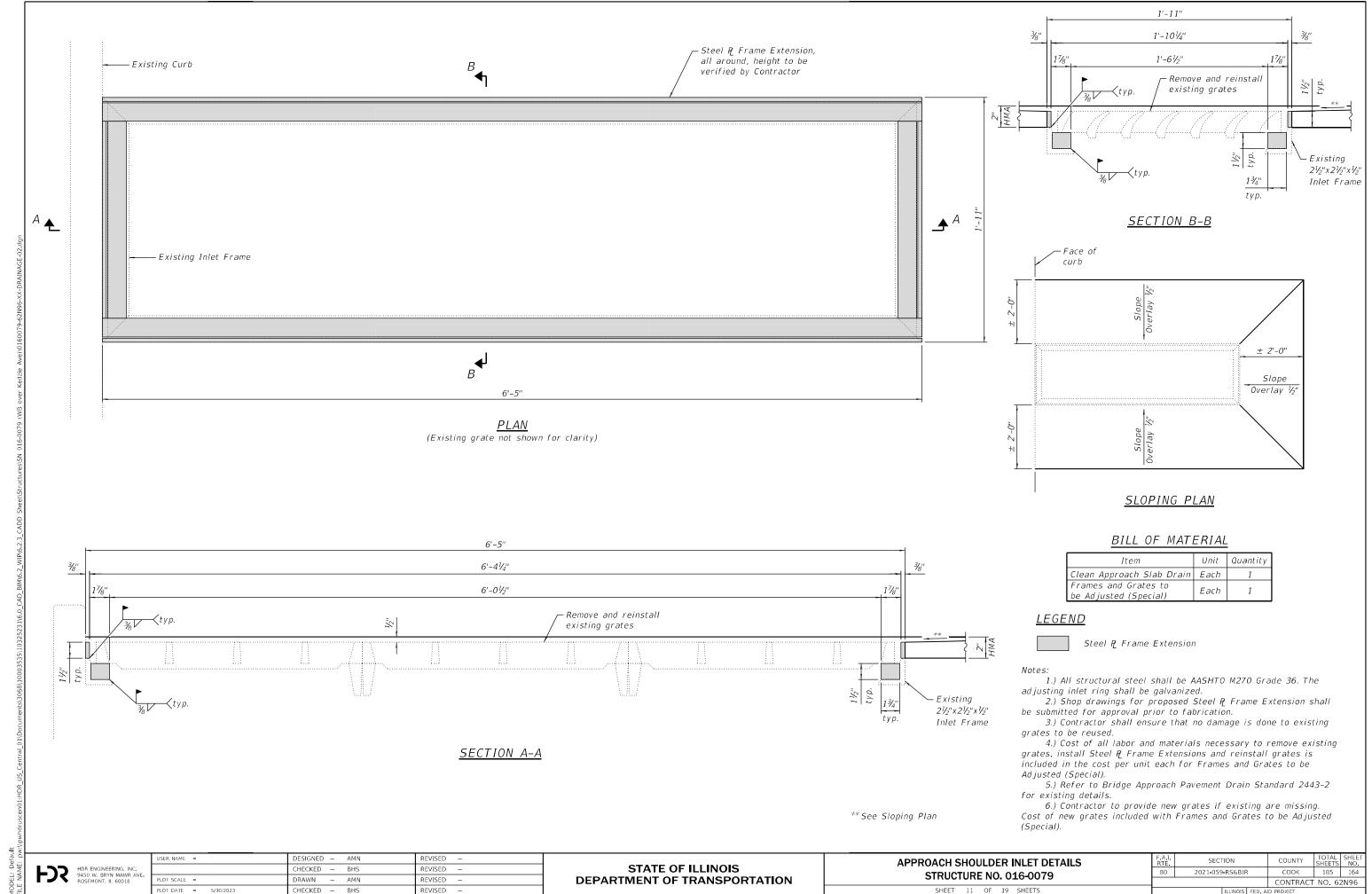
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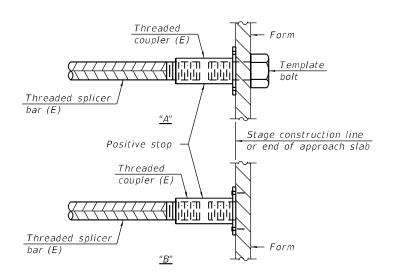
STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

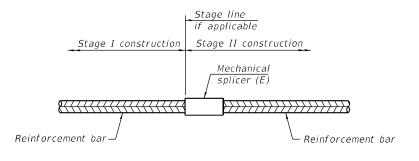
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4'-0"



INSTALLATION AND SETTING METHODS

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

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

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

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

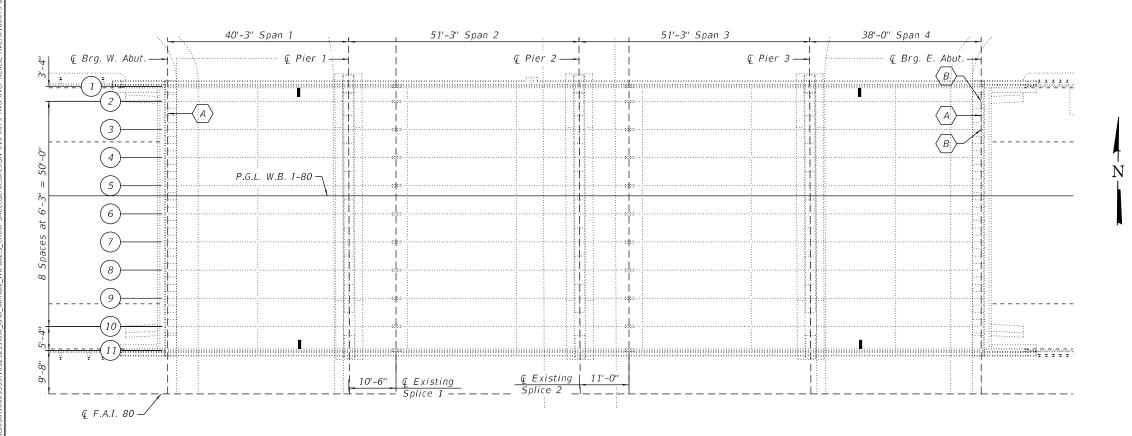
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© Brg. W. Abut. — © Pier 1 — © Pier 2 — © Brg. E. Abut. — © Brg. E

ELEVATION (Looking North)



FRAMING PLAN

- (A) Existing Diaphragm to be Replaced. Removal paid for as Structural Steel Removal. New steel paid for as Furnishing and Erecting Structural Steel.
- igg(Bigg) Beam End Repair. Paid for as Structural Steel Repair.

BILL OF MATERIAL

STRUCTURAL STEEL NOTES

Girder numbering convention matches that used in 1996 Resurfacing, Bridge Rehabilitation and Lighting

All structural steel shall conform to AASHTO

Classification M-270 Gr. 36, unless otherwise noted. Fasteners shall be ASTM A325 Type 1 mechanically galvanized bolts. Holes shall be $^{15}\!\!\!/_{16}$ " \bigcirc for $^{3}\!\!\!/_{10}$ " \bigcirc bolts. Refer to General Notes on Sheet 2 of 19 for steel

Plans.

painting notes.

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	610
Structural Steel Removal	Pound	590
Structural Steel Repair	Pound	160

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIRS
STRUCTURE NO. 016-0079

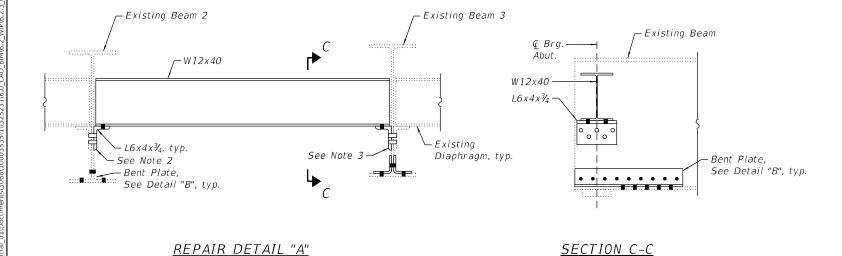
SHEET 13 OF 19 SHEETS

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- 1. For the beam repair, the holes in the new bent plate may be shop or field drilled. Use the holes in the new bent plate as the template to field drill holes in the existing girder. Cost of field drilling included in Structural Steel Repair.
- 2. For the diaphragm seat replacement at Beam 2, the cost to remove the existing bolted steel angle from the existing beam web is included in Structural Steel Removal. Match the existing bolt spacing using the holes in the existing web as the template to field drill holes in the new steel angle. Cost of field drilling included in Furnishing and Erecting Structural Steel.
- 3. For the diaphragm seat replacement at Beam 3, the cost to remove the existing welded steel angle from the existing beam web is included in Structural Steel Removal. Holes in the new steel angle may be shop or field drilled. Holes through the existing beam web and the diaphragm seat on the opposite side of web to be field drilled using the holes in the steel angle as the template. Cost of field drilling included in Furnishing and Erecting Steel.



Weld Bent Plate to Flange, Typ.

Typ. ## Bent Plate

Weld Bent Plate to Flange, Typ.

Plate

Cut flush the existing threaded studs, typ.

Top Bearing Assembly

SECTION D-D

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

(2-Locations)

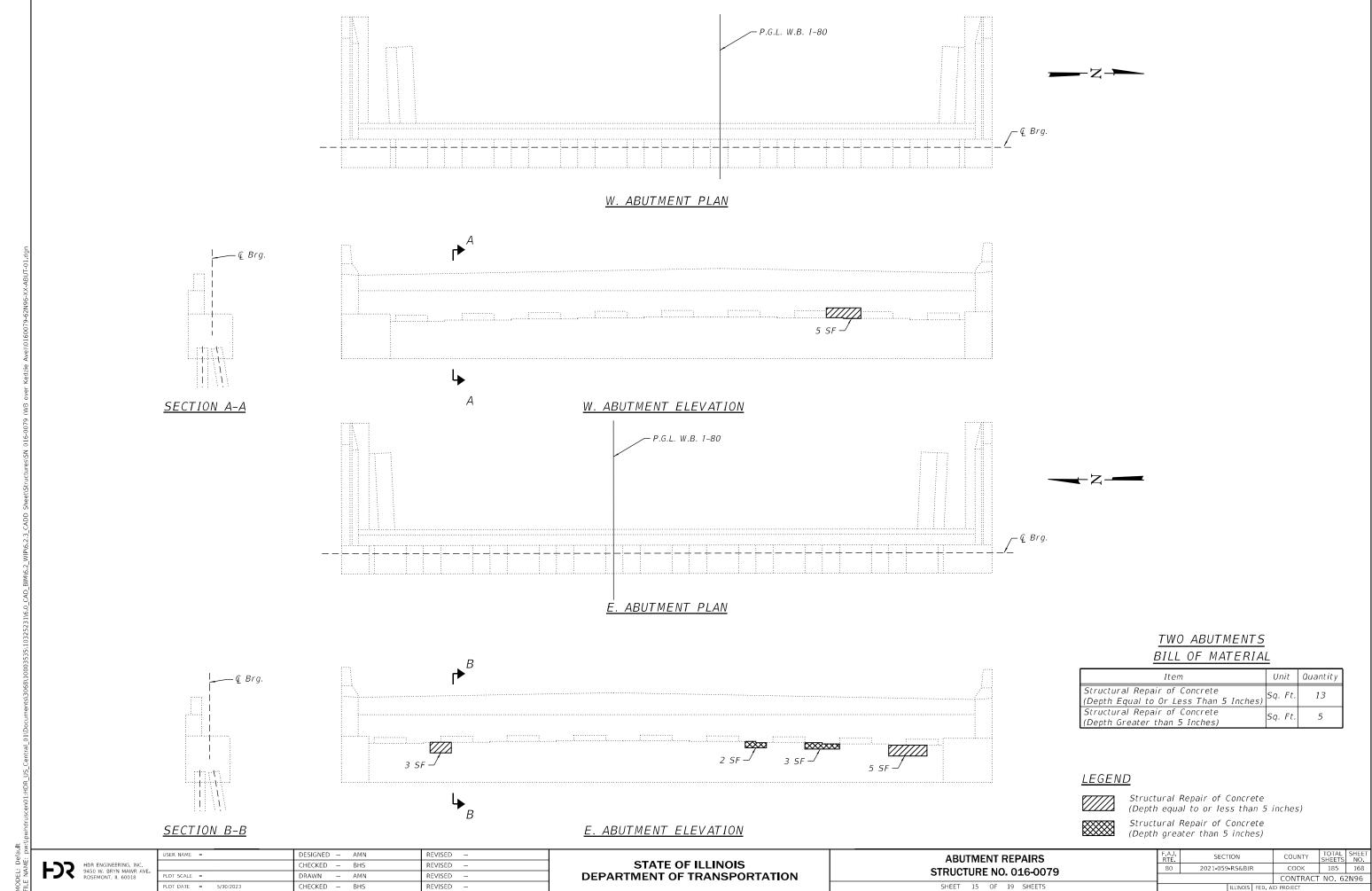
O Use holes in existing steel as template to field drill holes in new steel

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ROSEMONT, IL 60018	

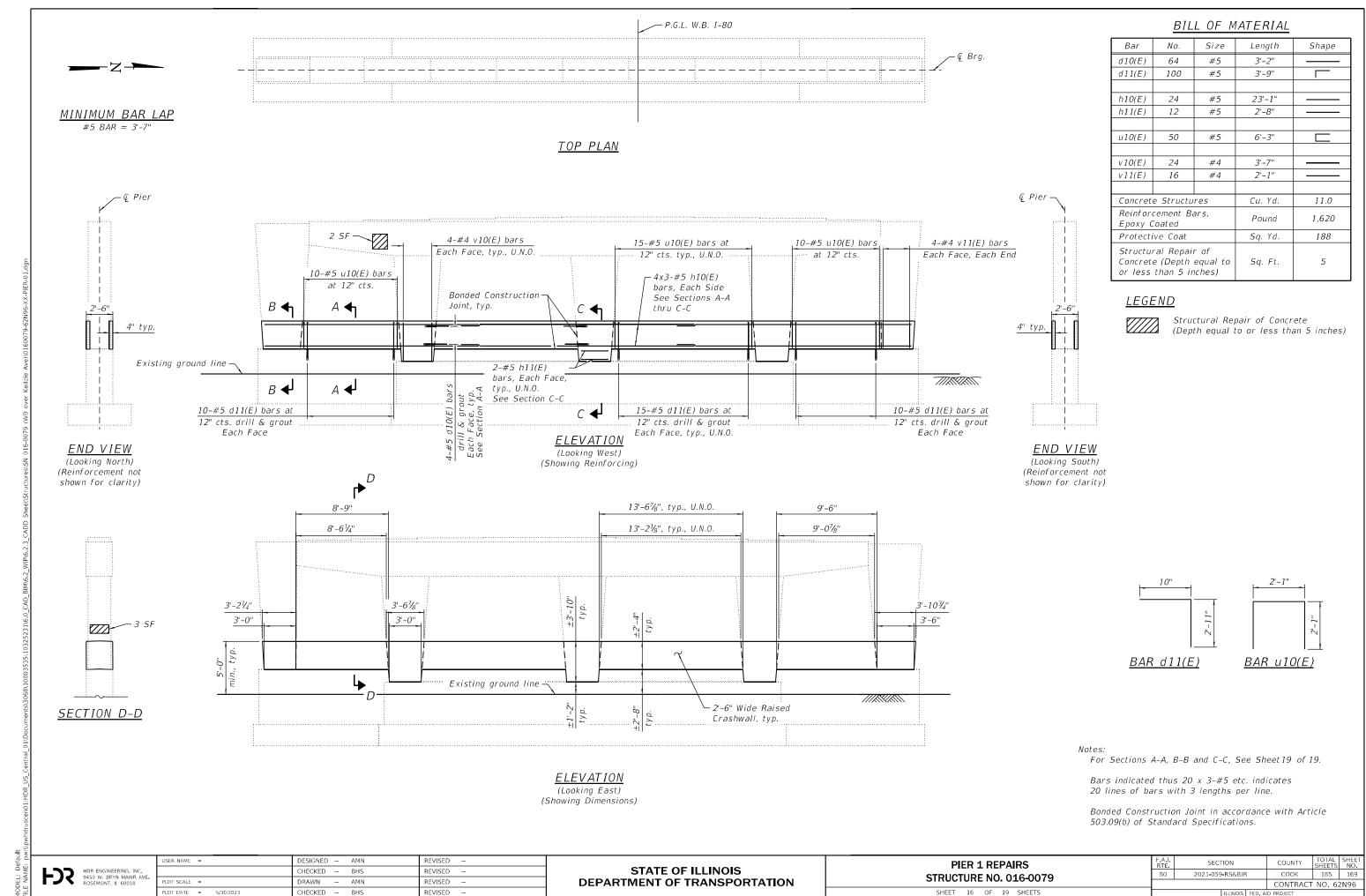
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STATE OF ILLINOIS
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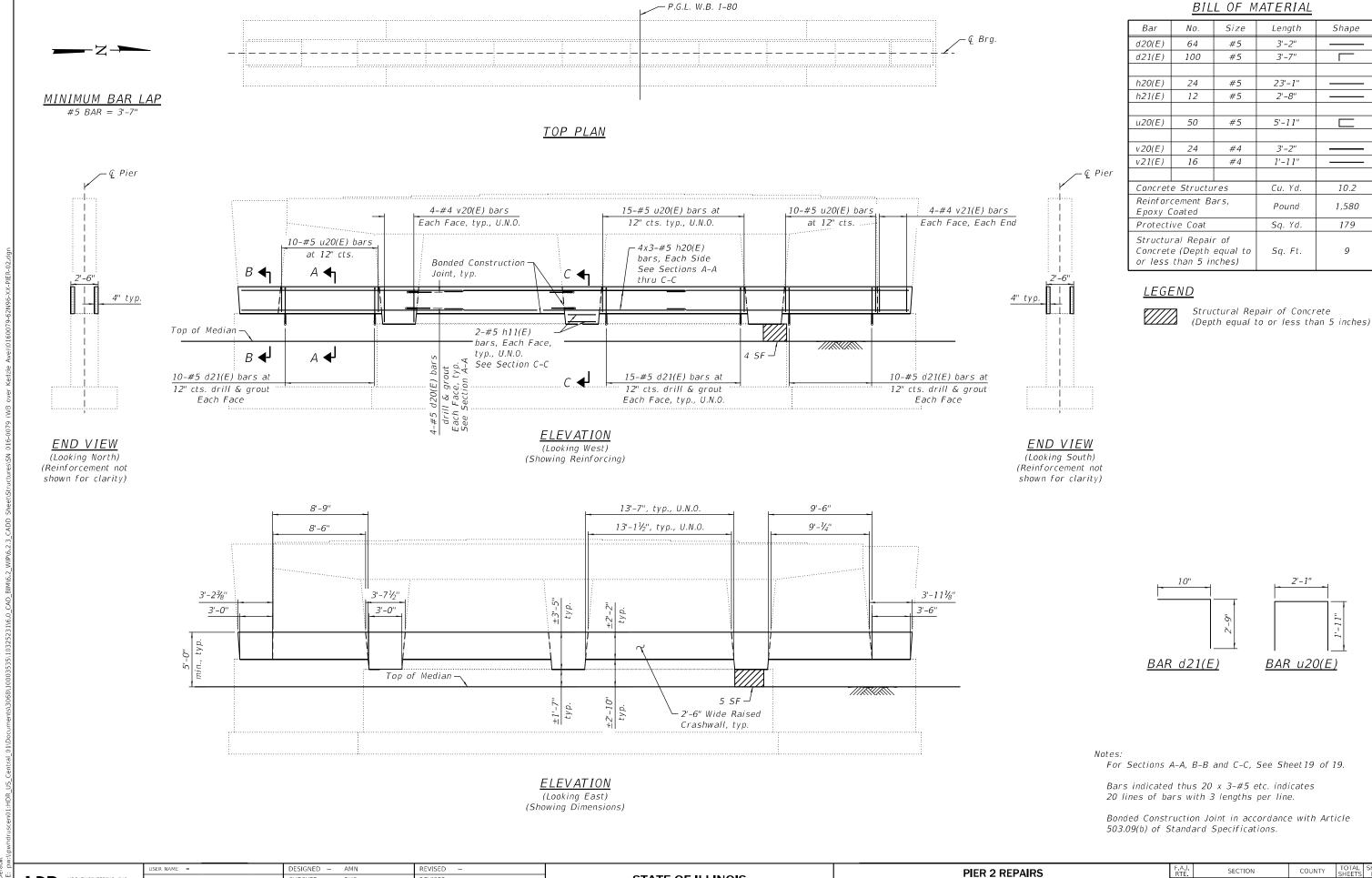
STRUCTURAL STEEL REPAIRS STRUCTURE NO. 016-0079		SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
		2021-059-RS&BJR	COOK	185	167
5111001011L 1101 010-0015			CONTRACT	NO. 6	2N96
SHEET 14 OF 19 SHEETS		ILLINOIS FED	AID PROJECT		



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STATE OF ILLINOIS

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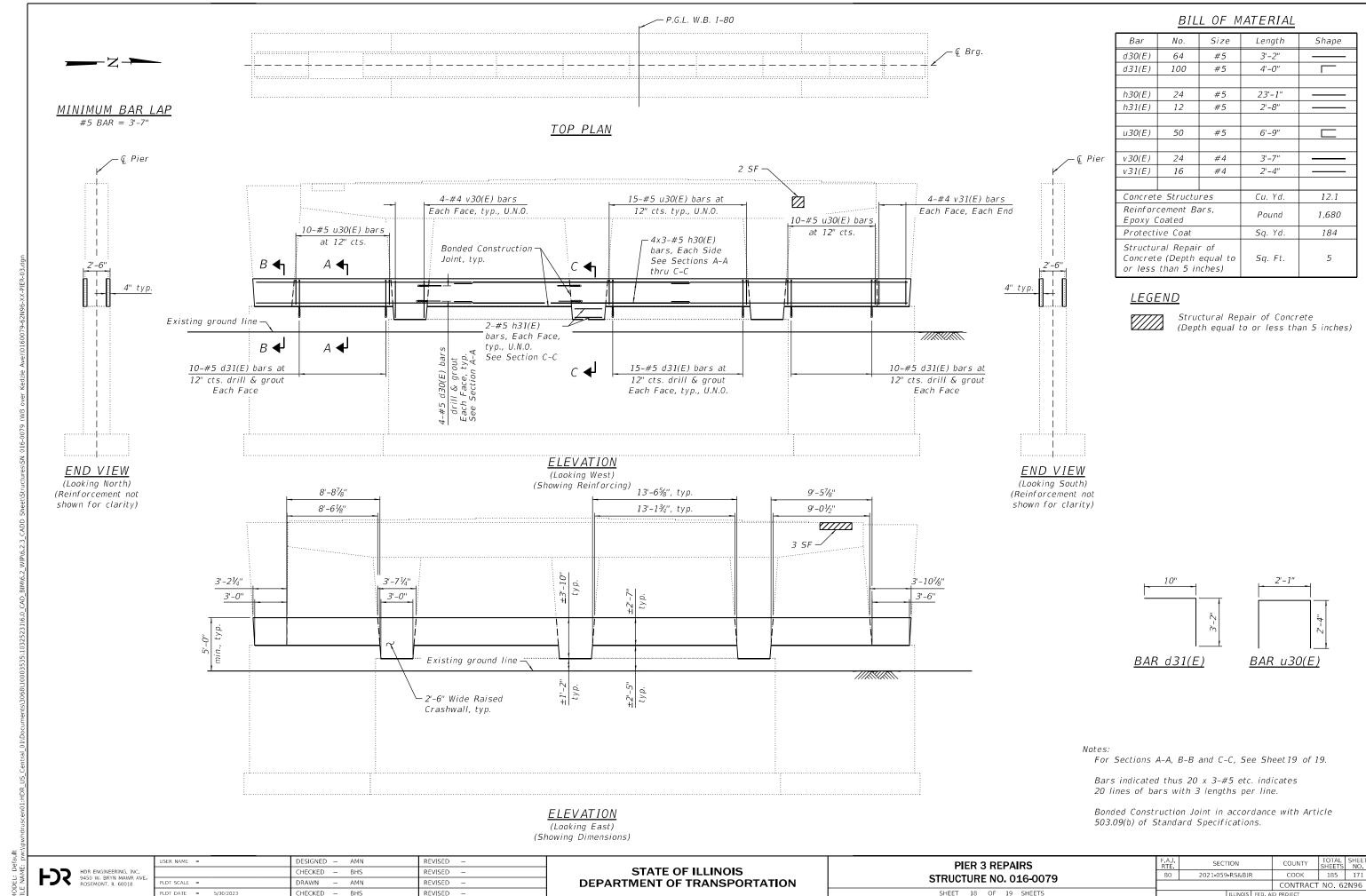
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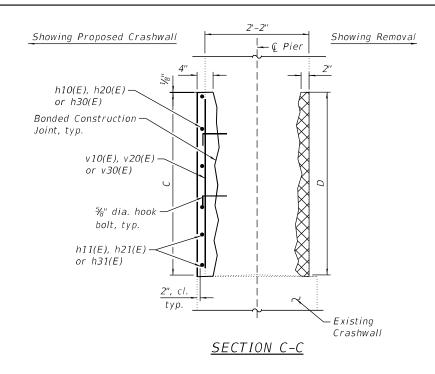
STRUCTURE NO. 016-0079

SHEET 17 OF 19 SHEETS



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SECTION B-B



DIMENSIONS

Pier	Α	В	С	D
Pier 1	±2'-4"	±2'-41/8"	±3'-10"	±3'-101/8"
Pier 2	±2'-2"	±2'-21/8"	±3'-5"	±3'-51/8"
Pier 3	±2'-7"	±2'-71/8"	±3'-10"	±3'-101/8"

LEGEND

Concrete Removal

For Location of Sections A-A, B-B and C-C, See Sheet 16 of 19 thru Sheet 18 of 19.

The areas to have concrete removed shall have all loose, unsound concrete removed completely by the use of chipping hammers, or other methods approved by the Engineer. The chipping hammer for removing concrete shall be a light-duty pneumatic or electric tool with a 15 lb. (7 kg) maximum class or less. Existing reinforcement bar with 50 percent or more of the bar perimeter exposed shall be undercut to a depth of 3/4 in. or the diameter of the reinforcement bar, whichever is greater. The Engineer shall be notified of concrete removal that exceeds 6 in. in depth, or if more than half the vertical column reinforcement is exposed in a cross section. Excessive deterioration or removal may require further evaluation of the structure or installation of temporary shoring and cribbing support system. Concrete removal and disposal included in the cost of Concrete Structures.

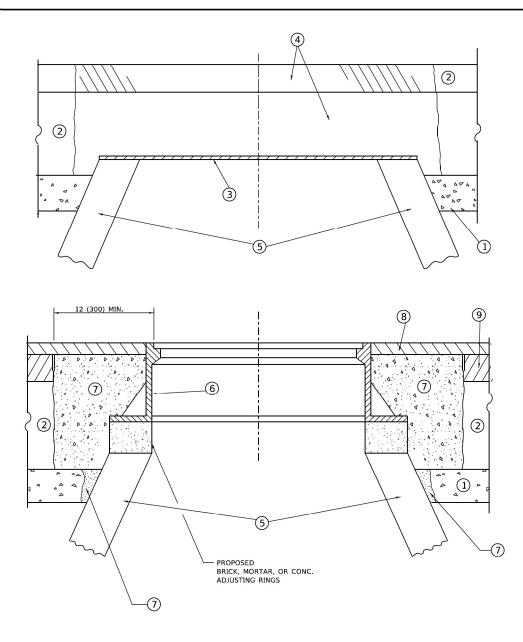
The hook bolts shall be spaced at 15 in. maximum centers both vertically and horizontally, and shall be a minimum of 6 in. away from the corners of the existing column. The hook bolts provided per Section 1006.09 shall be installed according to Section 584. Cost included with Concrete Structures.

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION PIER REPAIR DETAILS 2021-059-RS&BIR COOK 185 172 **STRUCTURE NO. 016-0079** CONTRACT NO. 62N96 SHEET 19 OF 19 SHEETS



DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

NOTES

- 1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
- CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
- 4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE
- D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 1 1/2 (40) HMA TO REMAIN AFTER MILLING).

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS*PP-1 CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- *UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- (2) EXISTING PAVEMENT
- (7) CLASS*PP-1 CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- 4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8 PROPOSED HMA SURFACE COURSE
- (5) EXISTING STRUCTURE
- (9) PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT

- 1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
- THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- 4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

HDR 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

 USER NAME
 = demanchelt
 DESIGNED
 R. SHAH
 REVISED
 R. BORO
 01-01-07

 PLOT SCALE
 = 100.0000 '/ In.
 CHECKED
 REVISED
 R. BORO
 03-09-11

 PLOT DATE
 = 2/2/2022
 DATE
 10-25-94
 REVISED
 K. SMITH
 02-01-22

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMES AND LIDS ADJUSTMENT WITH MILLING

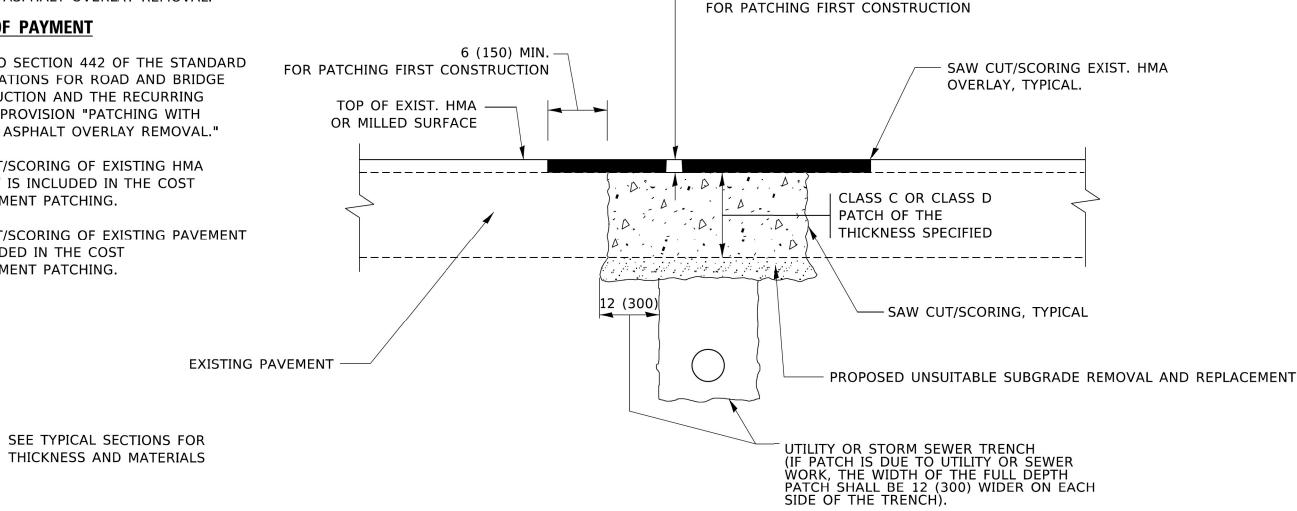
SHEET 1 OF 1 SHEETS STA. TO STA.

METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

BASIS OF PAYMENT

- 1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
- 2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
- 3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



HMA REMOVAL OVER PATCHES *

SCALE: NONE

AND HMA REPLACEMENT OVER PATCHES

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

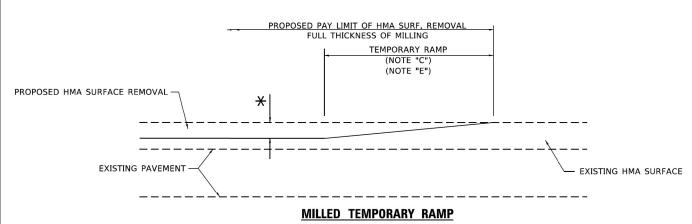
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

	USE
HDR 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018	PLO
	DI O

USER NAME = demanchelt	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07
	DRAWN -	REVISED - R. BORO 09-04-07
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08
PLOT DATE = 2/2/2022	DATE - 10-25-94	REVISED - K. SMITH 02-01-22

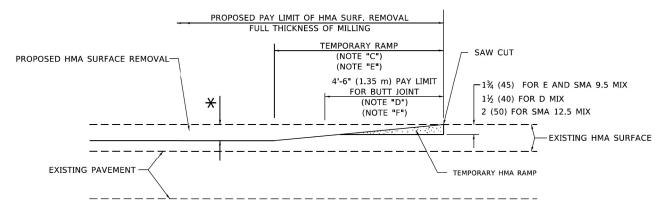
STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	PAVEMENT PATCHING FOR		F.A.I. RTE.			COUNTY	SHEETS					
	HMA SURFACED PAVEMENT			80	2021-059-RS&BJF	~	COOK	185	174			
					BD400-04 (BD-22)		CONTRACT	NO. 62	N96			
ET	1	OF	1	SHEETS	STA.	TO STA.		ILLINOIS	FED. Al	ID PROJECT		



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

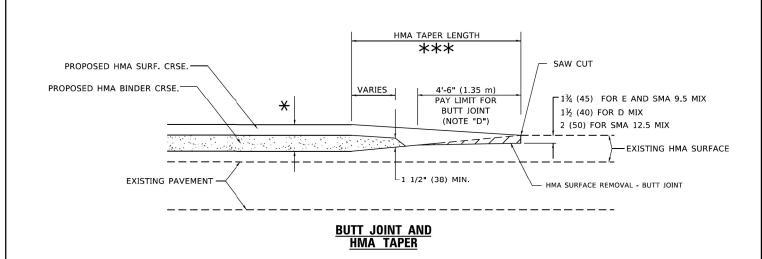


HMA CONSTRUCTED TEMPORARY RAMP

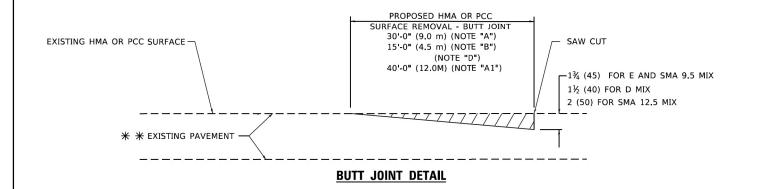
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

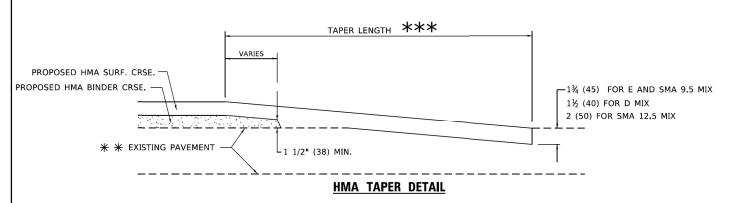
OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

GENERAL NOTES

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - \bigstar SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

SCALE: NONE

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

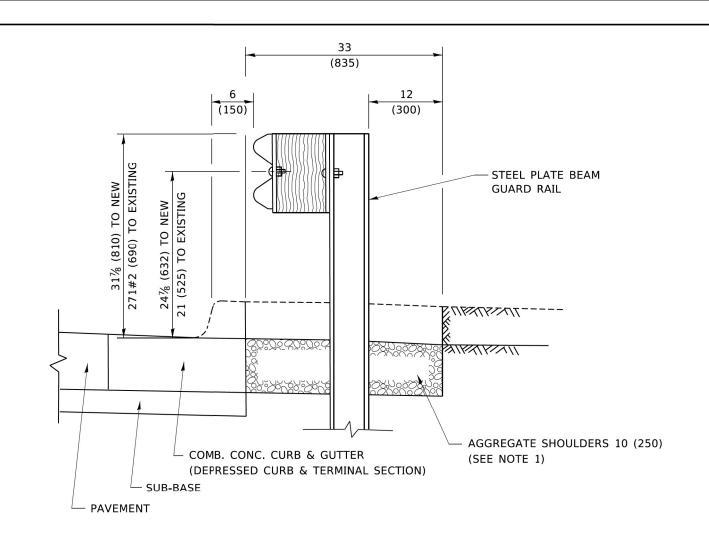
HDR 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

USER NAME = demanchelt DESIGNED - M. DE YONG REVISED - A. ABBAS 03-21-97 DRAWN REVISED - M. GOMEZ 04-06-01 PLOT SCALE = 100,0000 ' / in. CHECKED -REVISED -R. BORO 01-01-07 PLOT DATE = 2/2/2022 DATE REVISED - K. SMITH 02-01-22

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

BUTT JOINT AND HMA TAPER DETAILS OF 1 SHEETS STA. SHEET 1 TO STA

SECTION COUNTY 2021-059-RS&BJR COOK 185 175 BD400-05 BD-32 CONTRACT NO. 62N96



SECTION A-A

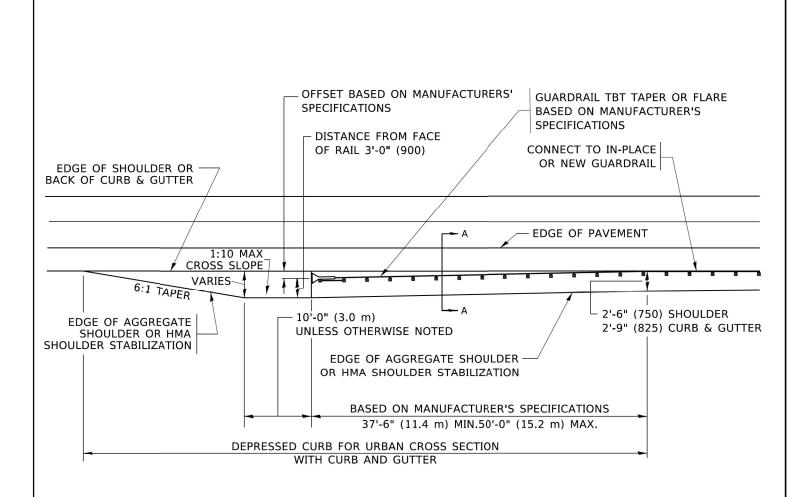
NOTES:

- 1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
- 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
- 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM

GUARD RAIL ADJACENT TO CURB AND GUTTER

[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

HDR 9450 W. BRYN MAWR AVE. ROSEMONT, IL 60018

 USER NAME
 = footem]
 DESIGNED
 M. DE YONG
 REVISED
 R. BORO 12-08-2008

 DRAWN
 REVISED
 R. BORO 09-14-2009

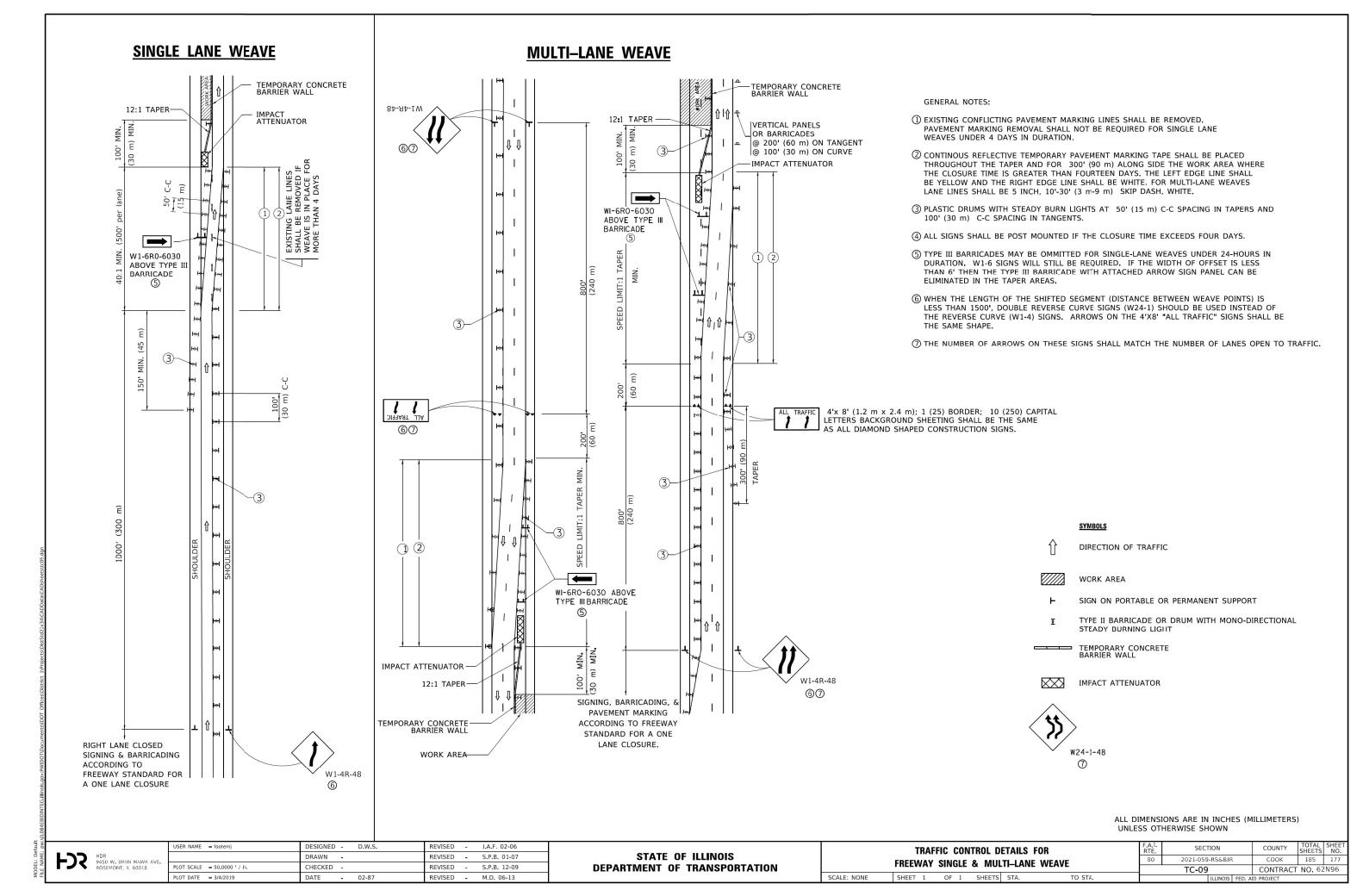
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 = 50.0000 '/ in.
 CHECKED
 REVISED
 R. BORO 08-06-2012

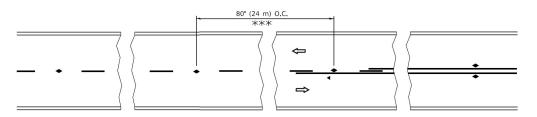
 PLOT DATE
 = 3/27/2019
 DATE
 09-22-90
 REVISED
 R. BORO 05-08-2015

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

| SHEET 1 OF 1 SHEETS STA. TO STA.

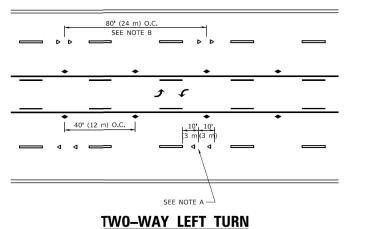




*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

3 @ 40' (12 m) O.C. \Rightarrow LANE REDUCTION TRANSITION

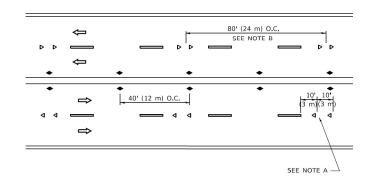
SEE FIGURE 3B-14 MUTCD

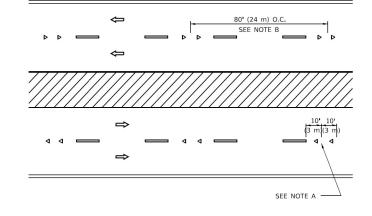


TW0-LANE/TW0-WAY

O.C.

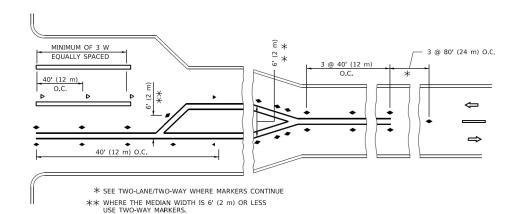
40' (12 m)





MULTI-LANE/DIVIDED

MULTI-LANE/UNDIVIDED



TURN LANES

GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE
- 4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- INVOLVED.

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

3 @ 80' (24 m) O.C.

REVISED - T. RAMMACHER 03-12-99 USER NAME = footemj DESIGNED -DRAWN REVISED - T. RAMMACHER 01-06-00 PLOT SCALE = 50.0000 ' / in. CHECKED -REVISED - C. JUCIUS 09-09-09 PLOT DATE = 3/4/2019 REVISED - C JUCIUS 07-01-13 DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHEET 1 OF 1 SHEETS STA.

SECTION 2021-059-RS&BJR COOK 185 178 CONTRACT NO. 62N96 TC-11

SYMBOLS

ONE-WAY AMBER MARKER

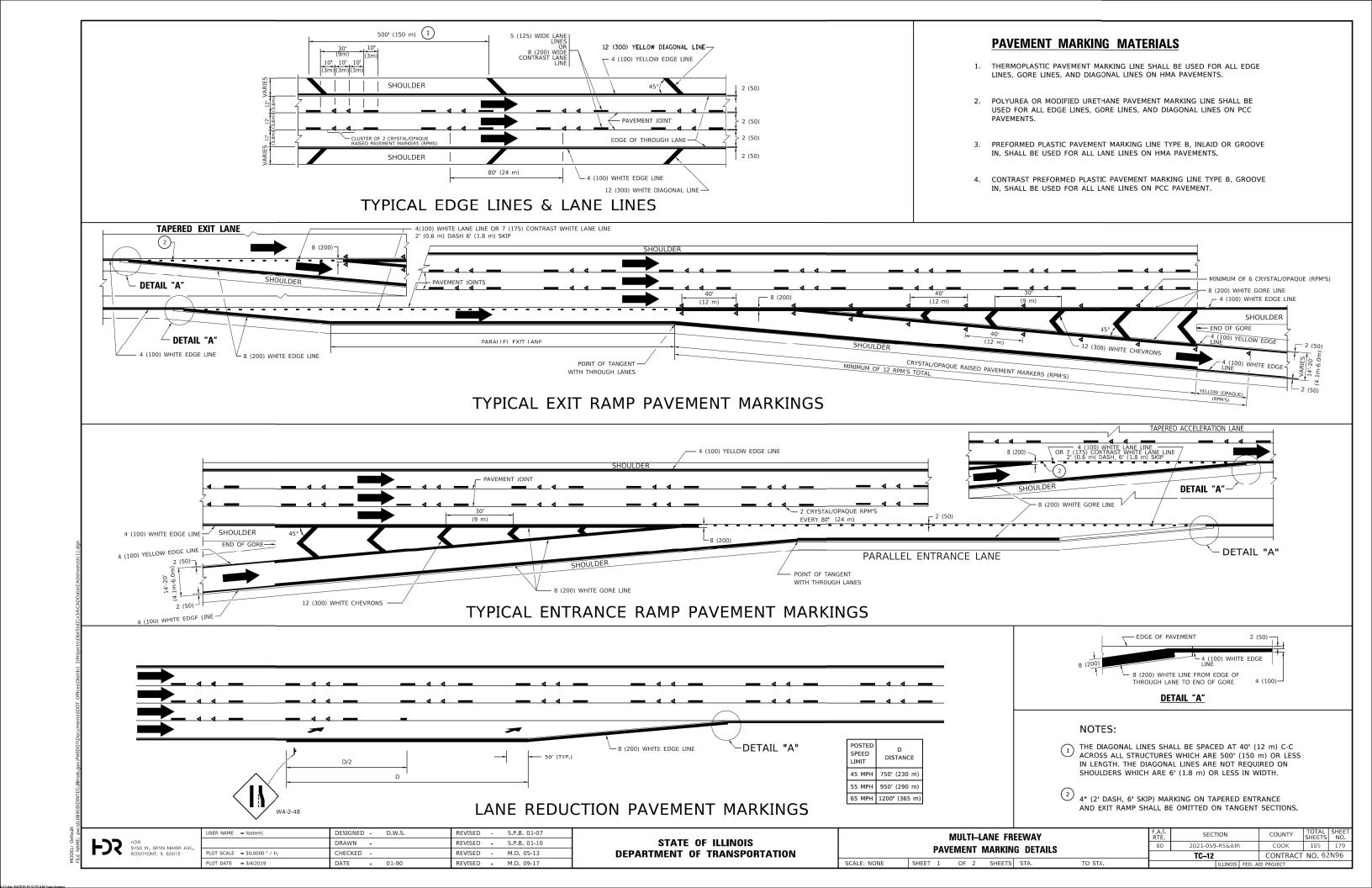
TWO-WAY AMBER MARKER

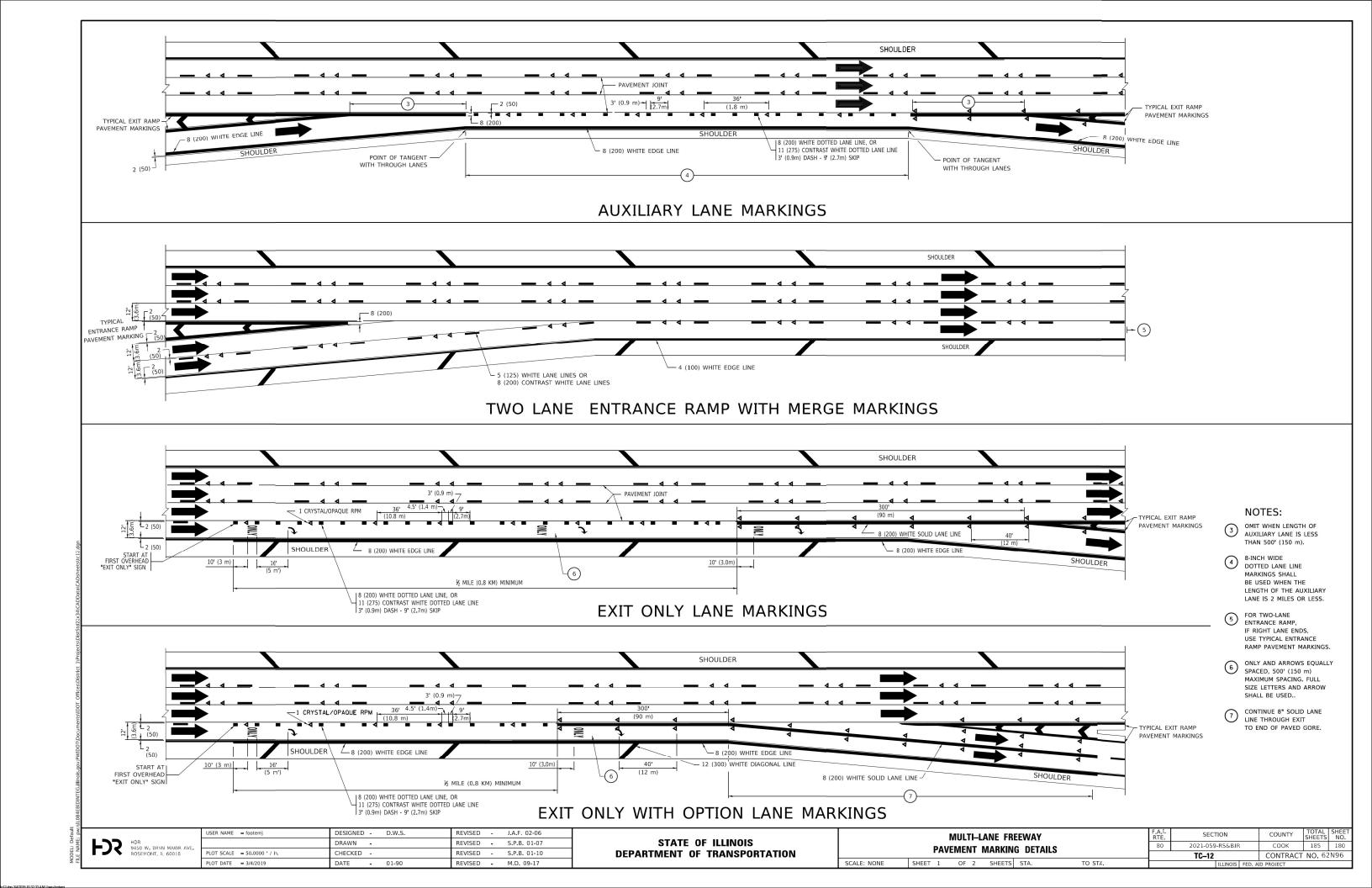
d ONE-WAY CRYSTAL MARKER (W/O)

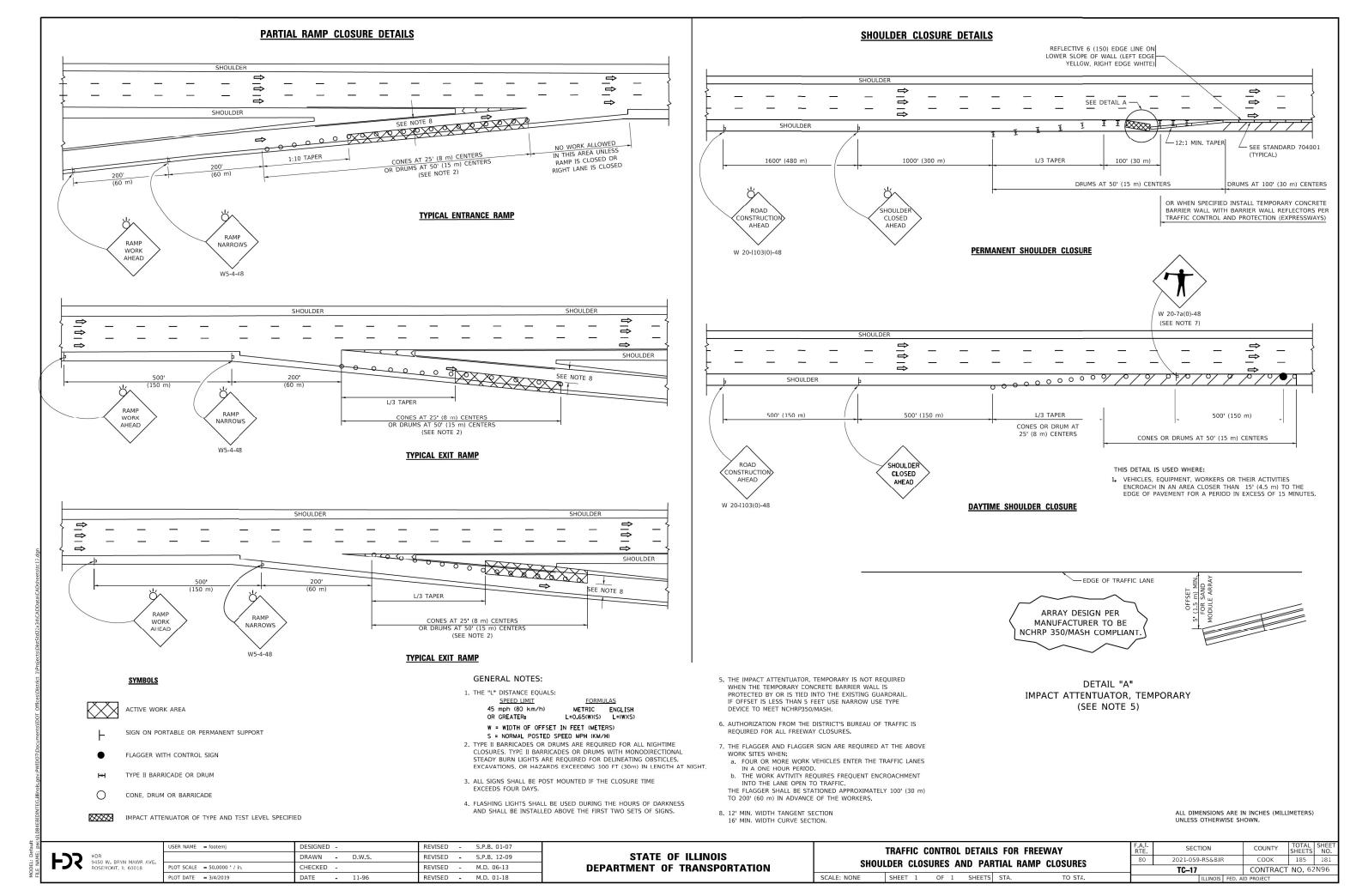
_____ YELLOW STRIPE

■ WHITE STRIPE

- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE

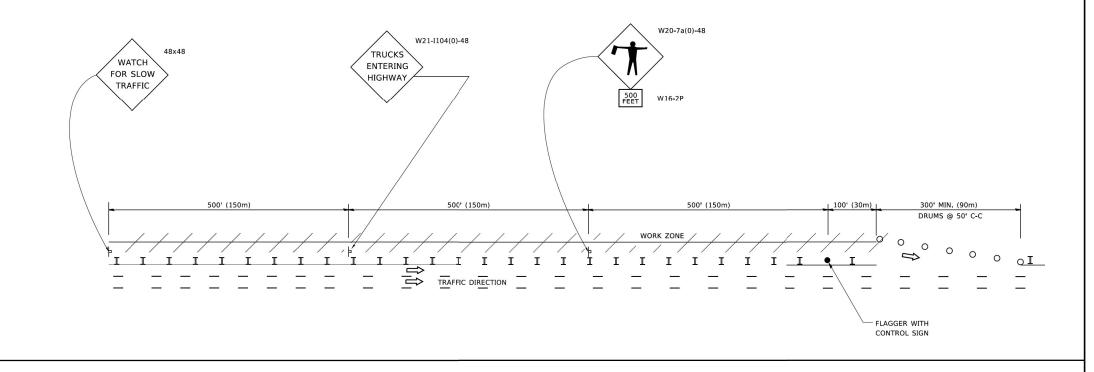




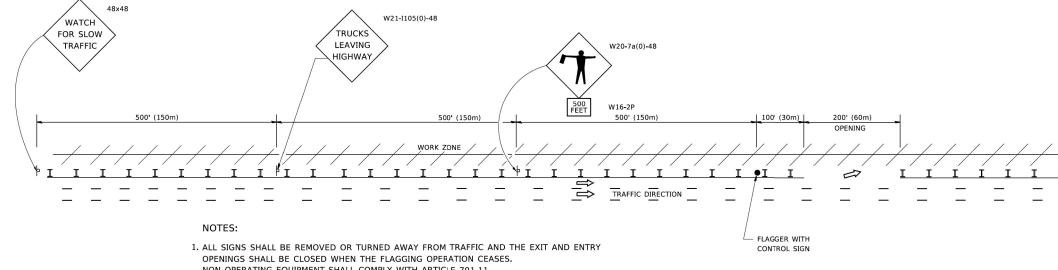


SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11

2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF

ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.

3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL

4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

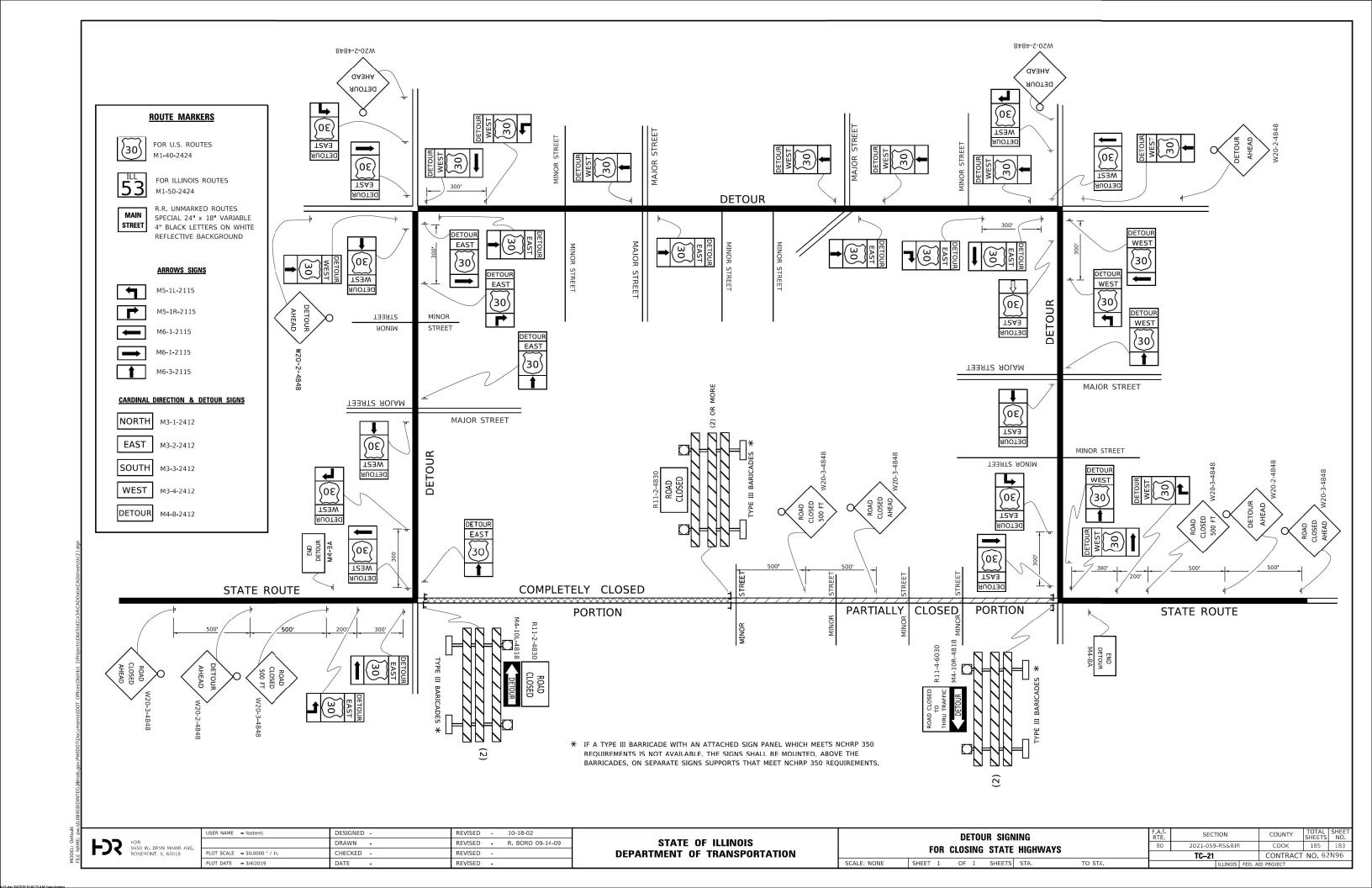
HDR 9450 W. BRYN MAWR AV ROSEMONT, IL 60018

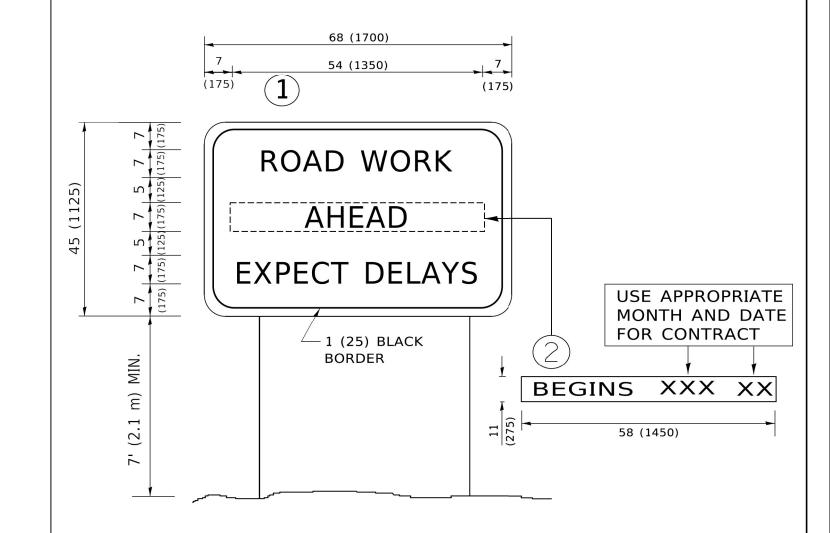
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BE PROHIBITED.

FREEWAY /EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS ON FREEWAYS /EXPRESSWAYS

ENDINE SHEET 1 OF 1 SHEETS STA. TO STA.





NOTES:

- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN(1)WITH INSTALLED PANEL(2)ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL 2 SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

SCALE: NONE

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

HDR 9450 W. BRYN MAWR AVE.	
ROSEMONT, IL 60018	

USER NAME = footemj	DESIGNED -	REVISED	- R. MIRS 09-15-97
	DRAWN -	REVISED	- R. MIRS 12-11-97
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED	-T. RAMMACHER 02-02-99
PLOT DATE = 3/4/2019	DATE -	REVISED	- C. JUCIUS 01-31-07

STATI	E OF	- ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

ARTERIAL ROAD					F.A.I. RTE.	SEC
	INFOR	VIATION	CICN		80	2021-05
	HALOU	VIATION	SIGN			TC-22
EET 1	OF 1	SHEETS	STA.	TO STA.		

. SECTION COUNTY SHEETS NO.

2021-059-RS&BJR COOK 185 184

TC-22 CONTRACT NO. 62N96

| ILLINOIS | FED. AID PROJECT

