01-21-2022 LETTING ITEM 057

INDEX OF SHEETS

1 COVER SHEET

0

0

 \circ

 \bigcirc

2 HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS

SUMMARY OF QUANTITIES

4 TYPICAL SECTIONS

5-6 SCHEDULE OF QUANTITIES7 LOCATION MAP

8-9 CLASS A PATCHING (SPECIAL)

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO.2

TRAFFIC DATA

I-70 WESTBOUND

2021 ADT = 25500 (ACTUAL) 2041 ADT = 32400 (ESTIMATED)

SU=2.8% MU=33.3%

I-70 EASTBOUND

2021 ADT = 26800 (ACTUAL) 2041 ADT = 34000 (ESTIMATED)

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS

PROJECT ENGINEER: BILLIE OWEN (618) 346–3209

PROJECT MANAGER: PHIL FREIMUTH (618) 346-3194

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

SU=2.8% MU=38.1%

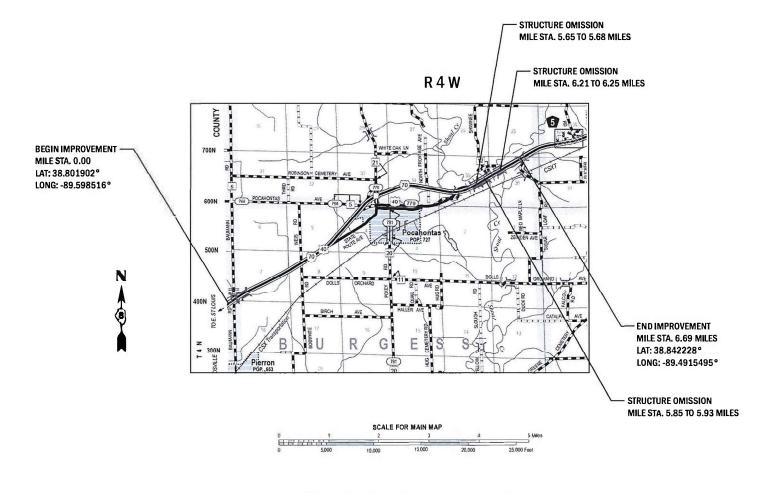
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAI ROUTE 70 (I-70) SECTION 3-(1,2)PP-1

PATCHING BOND COUNTY

C-98-060-22



GROSS LENGTH = 35,323.20 FEET = 6.69 MILES

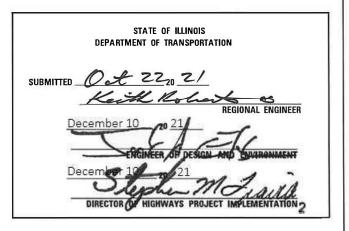
NET LENGTH = 34,531.20 FEET = 6.54 MILES

CONTRACT NO. 76P87

1-800-892-0123

D-98-031-22





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. - MS

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
442001-04	CLASS A PATCHES
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
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 > 45 MPH
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
420001-10	PAVEMENT JOINTS

GENERAL NOTES

1. UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	TYPE	AERIAL	BURIED
AMEREN ILLINOIS	GAS & ELECTRIC	X	X
AT & T ILLINOIS	COMMUNICATIONS	X	X
BOND MADISON WATER COMPANY	WATER		X
CLEARWAVE COMMUNICATIONS	COMMUNICATIONS	X	
DEPARTMENT OF CENTRAL MANAGEMENT SERVICES	COMMUNICATIONS	X	X
FRONTIER COMMUNICATIONS	COMMUNICATIONS	X	X
VILLAGE OF GRANTFORK	WATER & SANITARY SEWER		X
CITY OF GREENVILLE	WATER & SANITARY SEWER		X
ILLINOIS NETWORK ALLIANCE	COMMUNICATIONS	X	X
PLAINES MARKETING, LP	PIPELINE		X
VILLAGE OF POCAHONTAS	WATER & SANITARY SEWER		X
SOUTHWESTERN ELECTRIC COOPERATIVE, INC	ELECTRIC	Х	X

- 2. NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
- 3. FOUR CHANGEABLE MESSAGE SIGNS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED TWO WEEKS PRIOR TO ANY LANE CLOSURE AND REMAIN IN PLACE FOR THE DURATION OF THE PROJECT. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
- 4. ALL BRIDGES WITHIN PROJECT LIMITS SHALL BE OMITTED FROM PATCHING.
- 5. ALL PATCHES 100 FT. LONG OR MORE SHALL INCLUDE PROPOSED THERMOPLASTIC PAVEMENT MARKING, 6". THERMOPLASTIC PAVEMENT MARKING SHALL BE PAID FOR SEPARATELY AND IS NOT INCLUDED AS A PART OF THE PATCH. THE PLAN QUANTITY IS ESTIMATED TO BE 29,000 FT.
- 6. THE MIXTURE REQUIREMENTS ARE AS FOLLOWS:

PAVEMENT PATCHING ALONG I-70 FROM MADISON COUNTY LINE TO SUGAR LOAF RD	PATCHING				
MIXTURE USE	POLY SURFACE				
AC/PG	SBS PG 76-22				
RAP % (MAX)	SEE SPECIAL PROVISION				
MIX COMPOSITION (GRADATION)	IL 9.5				
DESIGN AIR VOIDS	4.0% @ Ndes=90				
FRICTION AGG	MIXTURE "E"				
QUALITY MGMT PROGRAM	QC/QA				
MATERIAL TRANSFER DEVICE REQUIRED?	NO				

PLAN QUANTITIES FOR HOT-MIX ASPHALT ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).

SCALE:

COMMITMENTS

NONE

USER NAME = simam	DESIGNED	REVISED =
	DRAWN +	REVISED _
PLOT SCALE = 100.0000 / in.	CHECKED	REVISED -
PLOT DATE = 10/27/2021	DATE	REVISED +

	HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS						SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
							3-(1,2)PP-1		BOND	9	2
	GLIVENA	AL NOIL	3, tk 00	IAIIAII I IAI	LIVIO				CONTRACT	NO. 7	6P87
	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS	FED.	PROJECT		

					CONSTR. CODE
					100% STATE
					ROADWAY
	CODE			TOTAL	0006
	NO.	ITEM	UNIT	QUANTITY	RURAL
	44213000	PATCHING REINFORCEMENT	SQ YD	557	557
	44213200	SAW CUTS	FOOT	942	942
		TIE 0100	F A G11	40-	427
	44213204	TIE BARS 3/4"	EACH	137	137
	67100100	MOBILIZATION	L SUM	1	1
	07100100	INDITE IZATION	E 30M		1
	70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4	4
	70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
	70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	376	376
	70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1
~	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	29000	29000
不	70000400	THE MICHEASTIC LAVENERY MARKETING S ETNE 0	1001	29000	23000
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	384	384
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	384	384
	X1700051	CLASS A PATCHES, TYPE IV, 15 INCH (SPECIAL)	SQ YD	557	557
	X4405020	LONGITUDINAL PARTIAL DEPTH REMOVAL 2"	FOOT	1452	1452

* SPECIALTY ITEM

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2021	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

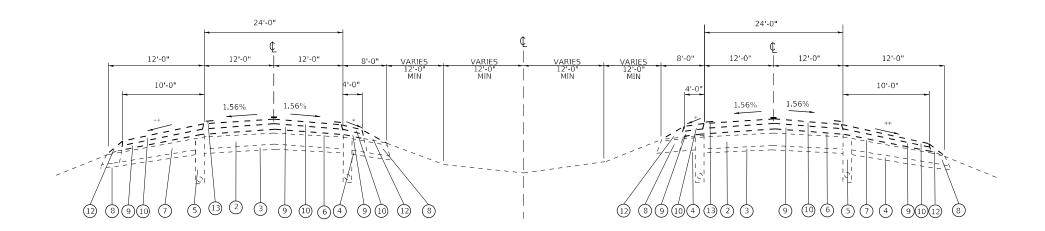
	SUMMARY OF QUANTITIES	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		70	3-(1,2)PP-1	BOND	9	3
				CONTRAC	T NO. 76	5P87
SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. /	AID PROJECT		

				CONSTR. CODE
				100% STATE
				ROADWAY
CODE			TOTAL	0006
NO.	I TEM	UNIT	QUANTITY	RURAL
X4406020	PARTIAL DEPTH REMOVAL, TYPE I, 2"	SQ YD	16	16
X4406220	PARTIAL DEPTH REMOVAL, TYPE II, 2"	SQ YD	73	73
X4406420	PARTIAL DEPTH REMOVAL, TYPE III, 2"	SQ YD	59	59
X4406620	PARTIAL DEPTH REMOVAL, TYPE IV, 2"	SQ YD	13403	13403
X4420900	LONGITUDINAL PARTIAL DEPTH PATCHING	TON	36	36
X4421000	PARTIAL DEPTH PATCHING	TON	1491	1491

EXISTING TYPICAL SUPERELEVATED CROSS SECTION

* ¾"/FT. MAX

** 4.2% AND VARIABLE



EXISTING TYPICAL TANGENT CROSS SECTION

WB/EB MILE STA. 0.00 TO MILE STA. 6.69

LEGEND

1) EXISTING CONTINUOUSLY REINFORCED P.C.C. PAVEMENT 7" 2) EXISTING CONTINUOUSLY REINFORCED P.C.C. PAVEMENT 8"

EXISTING STABILIZED SUBBASE 4"
EXISTING AGGREGATE SUBBASE

EXISITNG PIPE UNDERDRAINS

EXISTING BITUMINOUS CONCRETE OVERLAY 31/4"

EXISTING BITUMINOUS SHOULDER

EXISTING AGGREGATE SHOULDER

9 EXISTING BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, IL-19.0 N90 - 1¾"

(1) EXISTING BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX D, N90 1½"

EXISTING BITUMINOUS SHOULDERS

EXISTING BITUMINOUS SHOULDERS VARIES 1¾" TO 1½"

EXISTING PAVEMENT MARKING

USER NAME = simam	DESIGNED -	REVISED -				TYPICAI	SECT	IUNIC		F.A.I.	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS			IIIIUA	L JLUI	IONS		70	3-(1.2)PP-1	BOND	9	4
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRACT	NO. 76	6P87
PLOT DATE = 10/27/2021	DATE -	REVISED -		SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

	I-70 EASTBOUND												
		WIDTH	LENGTH	PAR	TIAL DEPTI	H REMOVAL	, 2"	LONGITUDINAL PARTIAL LONGITUDINAL PARTIAL PARTIAL D					
MILE STA.	LANE	WIDTH	LENGIA	TYPE I	TYPE II	TYPE III	TYPE IV	DEPTH REMOVAL, 2"	DEPTH PATCHING	PATCHING			
		FOOT	FOOT	SQ YD	SQ YD	SQ YD	SQ YD	FOOT	TON	TON			
#REF!													
1.420	D	6	6	4.00						1			
1.440	D	2	50					50.00	1.30				
3.754	D	4	12	5.33						1			
4.470	D	4	23		10.22					1			
4.470	CL	4	23445				10420.00			1167			
	SUB-TO) TAL		9.33	10.22	0.00	10420.00	50.00	1.30	1169			
А	NTICIPATED FA	ILURES (10%)	1	0.93	1.02	0.00	1042.00	5.00	0.13	117			
	10	11	0	11462	55	1	1286						

I-70 WESTBOUND											
		WIDTH	LENGTH	PAI	PARTIAL DEPTH REMOVAL, 2" LON			LONGITUDINAL PARTIAL	LONGITUDINAL PARTIAL	PARTIAL DEPTH	
MILE STA.	LANE	VAIDIU	LENGIA	TYPE I	TYPE II	TYPE III	TYPE IV	DEPTH REMOVAL, 2"	DEPTH PATCHING	PATCHING	
		FOOT	FOOT	SQ YD	SQ YD	SQ YD	SQ YD	FOOT	TON	TON	
6.613	CL	3	75		25.00					2.80	
6.110	Р	4	4	1.78						0.20	
5.767	CL	2	10					10.00	0.30		
5.653	CL	4	40		17.78					2.00	
4.840	CL	4	3240				1440.00			161.30	
4.352	CL	2	980				217.78	980.00	24.40		
3.992	CL	2	200					200.00	5.00		
	SUB-1	OTAL		1.8	42.8	0.0	1657.8	1190.0	29.7	166.30	
7	ANTICIPATED F	AILURES (10%	5)	0.2	4.3	0.0	165.8	119.0	3.0	16.63	
	WB SUB-T	2	47	0	1824	1309	33	183			

P= PASSING LANE
D= DRIVING LANE

CL= CENTER LINE

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2021	DATE -	REVISED -

STATE (OF ILLINOIS
DEPARTMENT OF	F TRANSPORTATION

	SCHEDUL	E OF QUA	ANTITIES		F.A.I. RTE	SECT	ΠΟN		COUNTY	TOTAL SHEETS	SHEET NO.
					70	3-(1,2)PP-1		BOND	8	5
									CONTRACT	NO. 76	5P87
SHEET 1	OF 2	SHEETS	STA.	TO STA.			ILLINOIS	FED. A	ID PROJECT		

PARTIAL DEPTH PATCHING TOTALS														
I-70 WESTBOUND	PAF	RTIAL DEPTH	I REMOVAL,	2"	LONGITUDINAL PARTIAL	LONGITUDINAL PARTIAL	PARTIAL DEPTH							
1-70 WESTBOOND	TYPE I	TYPE II	TYPE III	TYPE IV	DEPTH REMOVAL, 2"	DEPTH PATCHING	PATCHING							
	SQ YD	SQ YD	SQ YD	SQ YD	FOOT	TON	TON							
WB SUB TOTAL A	2	47	0	1824	1309	33	183							
WB SUB TOTAL B	4	15	59	117	88	2	22							
EB TOTAL	10	11	0	11462	55	1	1286							
GRAND TOTAL	16	73	59	13403	1452	36	1491							

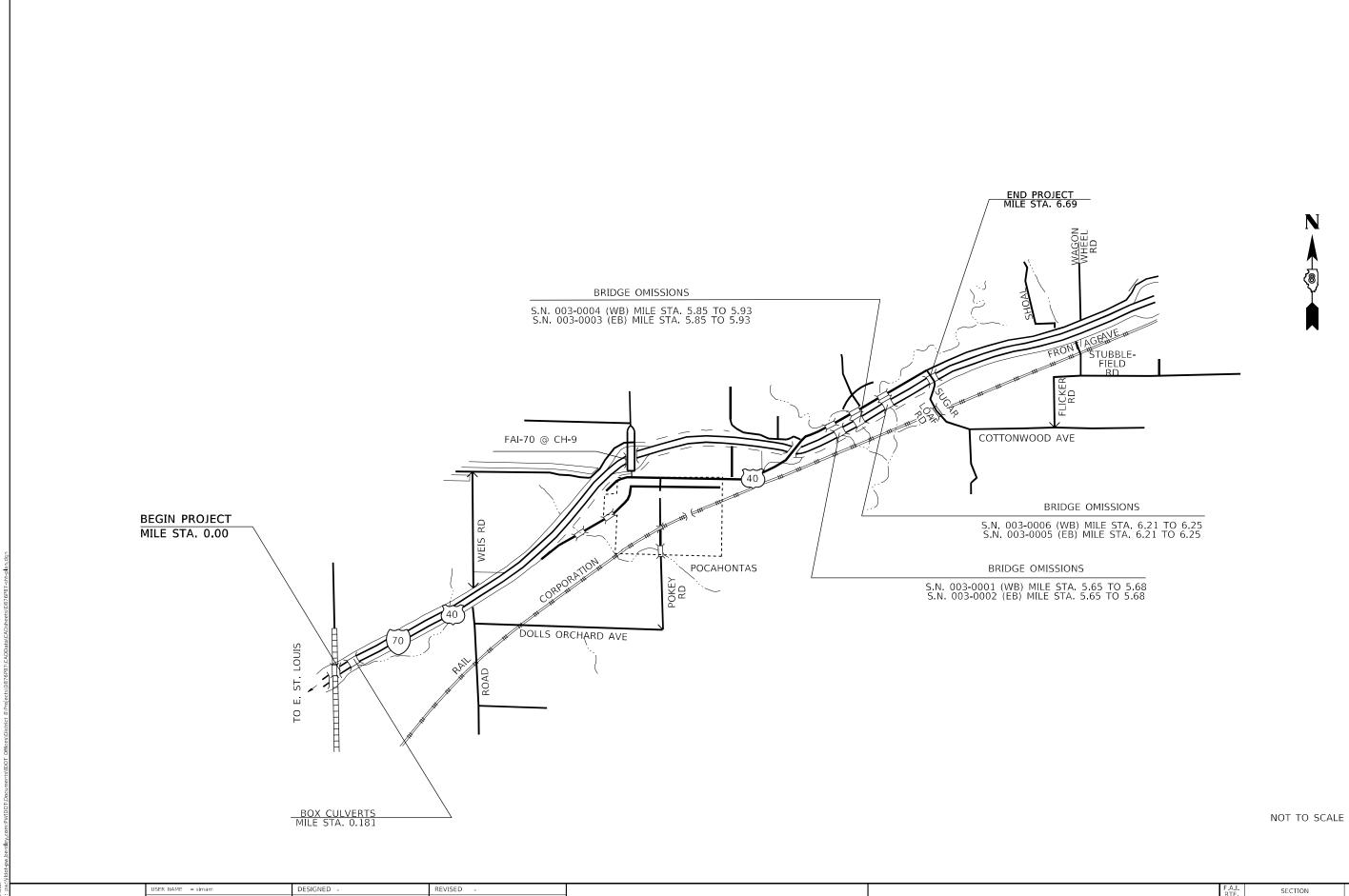
SCALE:

P= PASSING LANE
D= DRIVING LANE
CL= CENTER LINE

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2021	DATE -	REVISED -

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

								F.A.I RTE	SECT	ΠΟN		COUNTY	TOTAL SHEETS	SHEET NO.
								70	3-(1,2)PP-1		BOND	9	6
												CONTRACT	NO. 7	6P87
	SHEET	2	OF	2	SHEETS	STA.	TO STA.			ILLINOIS	FED. A	ID PROJECT		



MODEL: Default

DRAWN

DATE

CHECKED

PLOT SCALE = 100.0015 / in

REVISED

REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

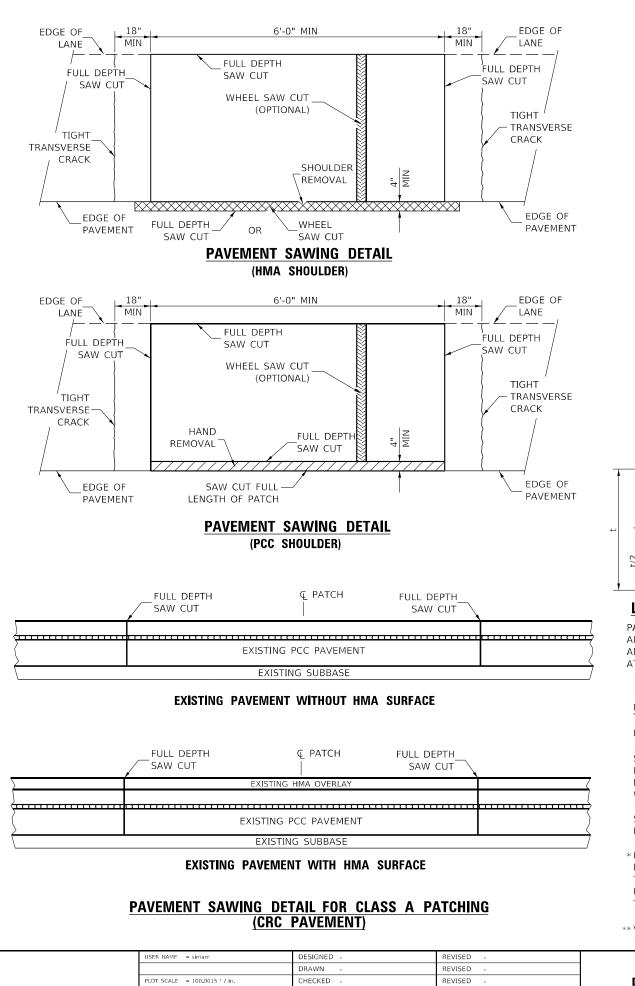
SCALE: NONE

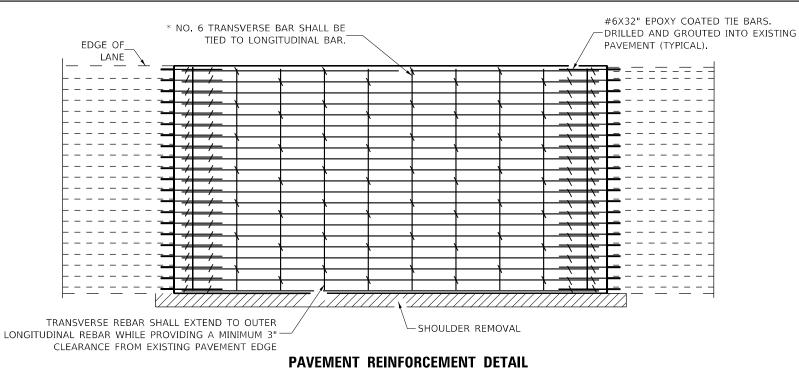
TE. SECTION COUNTY SHEETS NO.

70 3-(1,2)PP-1 BOND 9 7

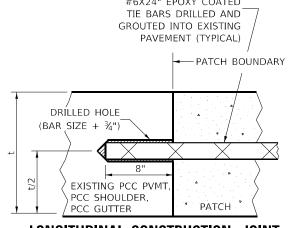
CONTRACT NO. 76P87

| ILLINOIS | FED. AID PROJECT





#6X24" EPOXY COATED TIE BARS DRILLED AND



LONGITUDINAL CONSTRUCTION JOINT

PATCHES MORE THAN 20' IN LENGTH SHALL BE TIED TO ADJACENT PAVEMENT, PCC SHOULDERS OR PCC CURB AND GUTTER WITH #6x24" EPOXY COATED TIE BARS AT 36" CENTERS.

NOTES:

EXISTING LONGITUDINAL REINFORCEMENT SPACING; ±6½".

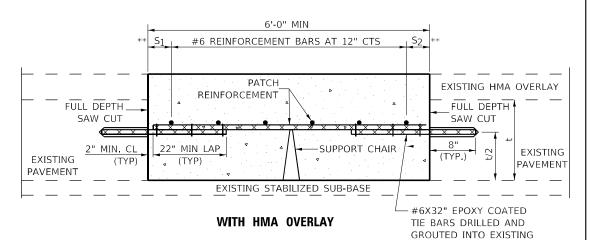
SPACING OF NEW LONGITUDINAL REINFORCEMENT AND NEW LONGITUDINAL TIE BARS SHALL MATCH SPACING OF EXISTING REINFORCEMENT AND SHALL BE TIED TOGETHER WITH A MINIMUM OF TWO TIES PER BAR.

SUPPORT CHAIRS SHALL BE REQUIRED WHENEVER PATCH LENGTH EXCEEDS 6'-0"

* EVERY THIRD INTERSECTION MUST BE TIED. WHEN THE MINIMUM CLEARANCE CANNOT BE OBTAINED WITH THE TRANSVERSE REBAR ON TOP, THEN THE TRANSVERSE REBAR SHALL BE TIED TO THE BOTTOM OF THE LONGITUDINAL REBAR.

** VARIABLES WHERE S $_1$ AND S $_2$ ARE $2\frac{1}{2}$ " MIN. AND 12" MAX.

6'-0" MIN #6 REINFORCEMENT BARS AT 12" CTS REINFORCEMENT FULL DEPTH FULL DEPTH SAW CUT SAW CUT 2" MIN CL 22" MIN LAP -SUPPORT CHAIR EXISTING (TYP.) **EXISTING** (TYP) PAVEMENT PATCH PAVEMENT EXISTING STABILIZED SUB-BASE #6X32" EPOXY COATED TIE BARS DRILLED AND WITHOUT HMA OVERLAY GROUTED INTO EXISTING PAVEMENT (TYPICAL)



PATCHING DETAIL FOR CLASS A PATCHING

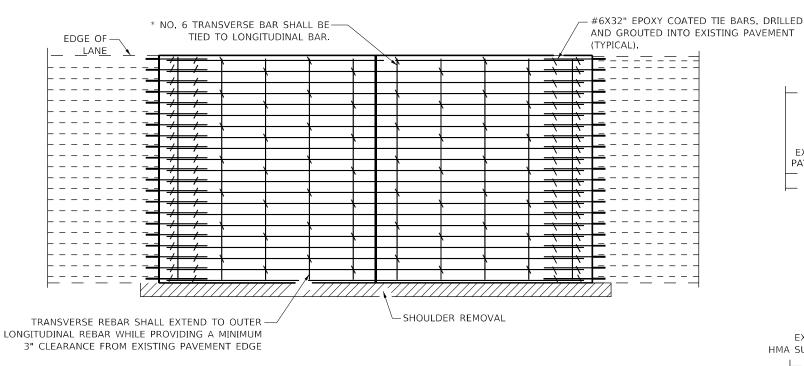
PAVEMENT (TYPICAL)

(CRC PAVEMENT)

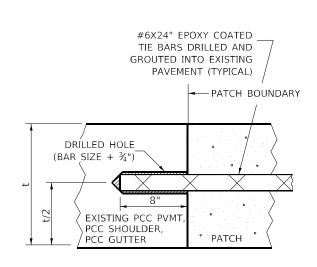
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

						(0050111		F.A.I. RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
CLASS A PATCHING (SPECIAL)									70 3-(1,2)PP-1 BOND		BOND	9	8	
												CONTRACT	NO. 76	5P87
: NONE	SHEET	1	OF	2	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT					

TRANSVERSE EXPANSION JOINTS

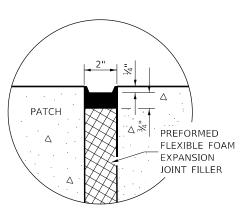


PAVEMENT REINFORCEMENT DETAIL



LONGITUDINAL CONSTRUCTION JOINT

PATCHES MORE THAN 20' IN LENGTH SHALL BE TIED TO ADJACENT PAVEMENT, PCC SHOULDERS OR PCC CURB AND GUTTER WITH #6x24" EPOXY COATED TIE BARS AT 36" CENTERS.



FULL DEPTH -(TYP) SAW CUT 2" MIN CL 224 MIN LAP **EXISTING** (TYP) · (TYP) ▼ **PAVEMENT** WITH HMA OVERLAY

12'-0" MIN 6'-0" MIN 6'-0" MIN SEE SEALING DETAILS \(\) © PATCH REINFORCEMENT FULL DEPTH -FULL DEPTH SAW CUT SAW CUT SUPPORT <u>2" MIN</u> CL 22" MIN LAP CHAIR (TYP.) **EXISTING** (TYP) 4 (TYP) EXISTING PAVEMENT PAVEMENT. EXISTING STABILIZED SUB-BASE

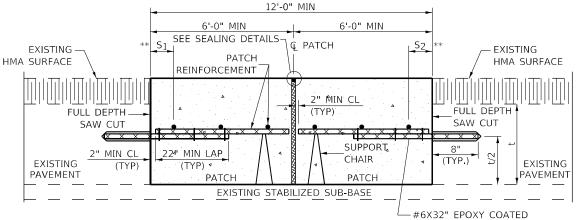
WITHOUT HMA OVERLAY

-#6X32" EPOXY COATED TIE BARS DRILLED AND GROUTED INTO EXISTING PAVEMENT (TYPICAL)

TIE BARS DRILLED AND

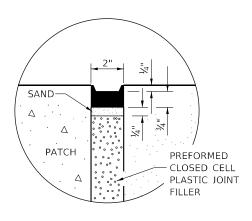
PAVEMENT (TYPICAL)

GROUTED INTO EXISTING



CLASS A PATCH WITH EXPANSION JOINT

SEALING DETAIL



SEALING DETAIL

SCALE: NONE

NOTES:

EXISTING LONGITUDINAL REINFORCEMENT SPACING; ±6½".

SPACING OF NEW LONGITUDINAL REINFORCEMENT AND NEW LONGITUDINAL TIE BARS SHALL MATCH SPACING OF EXISTING REINFORCEMENT AND SHALL BE TIED TOGETHER WITH A MINIMUM OF TWO TIES PER BAR.

SUPPORT CHAIRS SHALL BE REQUIRED WHENEVER PATCH LENGTH EXCEEDS 6'-0"

* EVERY THIRD INTERSECTION MUST BE TIED, WHEN THE MINIMUM CLEARANCE CANNOT BE OBTAINED WITH THE TRANSVERSE REBAR ON TOP, THEN THE TRANSVERSE REBAR SHALL BE TIED TO THE BOTTOM OF THE LONGITUDINAL REBAR.

** VARIABLES WHERE S $_1$ AND S $_2$ ARE 2½" MIN. AND 12" MAX.

USER NAME = simam	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0015 / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2021	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CLASS A PATCHING (SPECIAL)	70	3-(1,2)PP-1	BOND	9	9	
				CONTRACT	NO. 76	5P87
SHEET 2 OF 2 SHEETS STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		