

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-24	D9 CM PATCH 2017-1	MASSAC	8	1
		ILLINOIS	CONTRACT NO. 78528	

TRAFFIC DATA			
I-24 (FAI 24) MASSAC	LOC A:	LOC B:	LOC C:
M.P.	(0.00-2.77)	(2.77-13.52)	(13.52-15.09)
<b>(2016)</b>			
PV =	9,825	9,770	25,400
SU =	685	785	2,040
MU =	4,820	5,075	5,710
ADT =	15,330	15,630	33,150
<b>(2036)</b>			
PV =	13,220	13,155	37,740
SU =	925	1,060	3,030
MU =	6,495	6,835	8,490
ADT =	20,640	21,050	49,260
TRUCK %	36	8	23.4

DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**

FAI 24 ROUTE I-24  
SECTION D9 CM PATCH 2017-1

PAVEMENT PATCHING  
MASSAC COUNTY

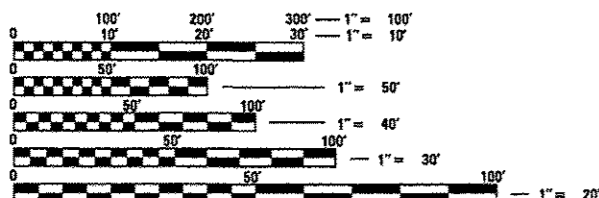
C-99-030-16

**TOWNSHIP:**

- VIENNA
- GRANTSBURG
- METROPOLIS
- WEST BROOKLYN
- GOREVILLE
- TUNNEL HILL
- BLOOMFIELD

**SPEED LIMIT:**  
70 MPH

PROJECT BEGINS  
JOHNSON COUNTY LINE: EQ. STA. 456 + 69.50 BK (¢ MEDIUM)  
MASSAC COUNTY LINE: STA. 50 + 54.47 AH (¢ MEDIUM)  
M.P. 23.92

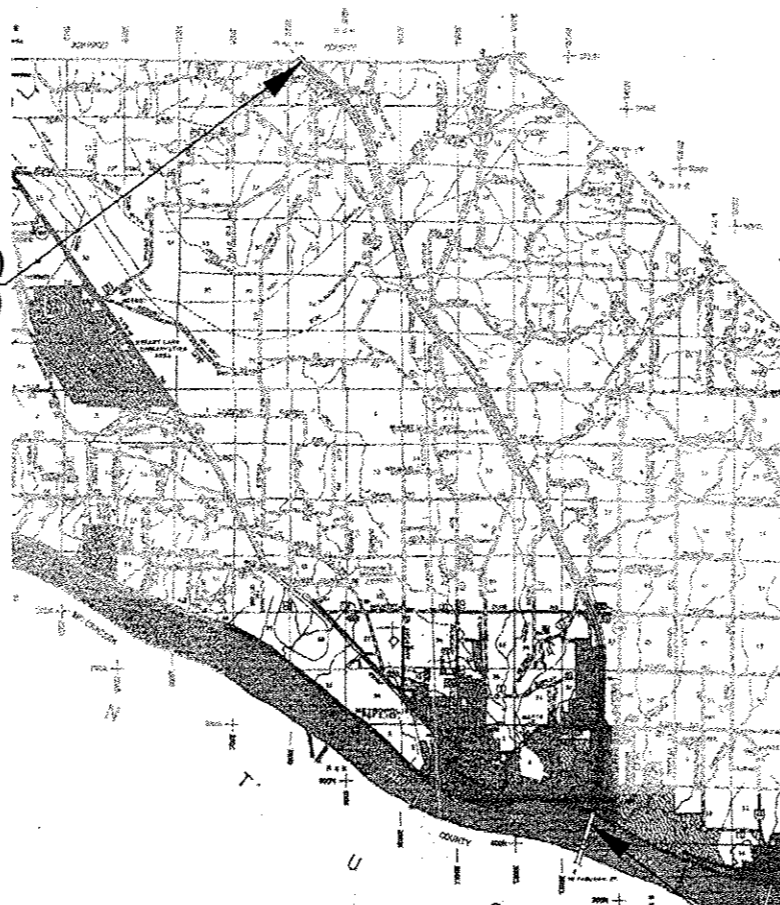


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

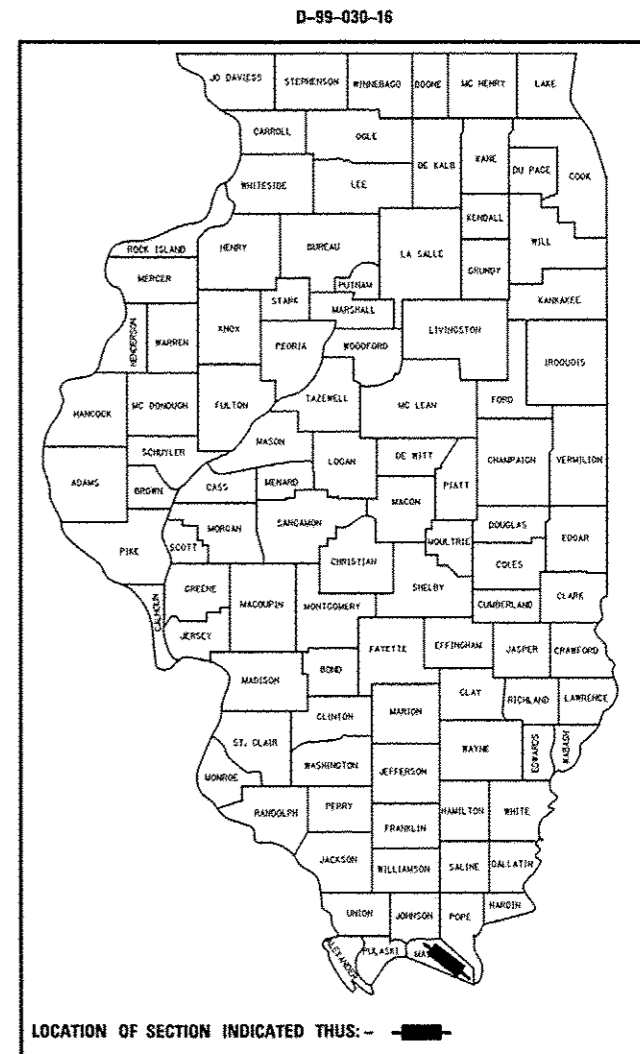
PROJECT ENGINEER CHARLES STEIN 618-351-5210  
PROJECT MANAGER AESHA JACKSON 618-351-5215

CONTRACT NO. 78528



END OF PROJECT  
STA. 427 + 72.69 (¢ E.B. LANES)  
M.P. 38.91

GROSS LENGTH = 79,144.72 FT. = 15 MILE  
OMISSION LENGTH = 2409.24 FT. = 0.46 MILE  
NET LENGTH = 76,735.48 FT. = 14.54 MILE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *May 5* 20 *16*

*Jeffrey A. Keim*  
REGIONAL ENGINEER

*July 1* 20 *16*  
*Morgan M. Addison, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

*July 1* 20 *16*  
*Chad Osman, P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS



# INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3-4	INDEX OF SHEETS, STATION EQUATION & OMISSIONS, GENERAL NOTES, HIGHWAY STANDARDS, AND COMMITMENTS, MIX DESIGN
5	SUMMARY QUANTITIES
6-7	PATCHING SCHEDULE
8	TYPICALS

# HIGHWAY STANDARDS

- 421201-06 24 FT CONCRETE PAVEMENT-WITH LUG SYSTEM
- 000001-06 STANDARD SYMBOLS ABBREVIATION & PATTERNS
- 001006 DECIMAL OF INCH & FOOT
- 420001-08 PAVEMENT JOINTS
- 442001-04 CLASS A PATCHES
- 701101-05 OFF ROAD OPERATIONS-MULTILANE-LESS THAN 15 FT TO EOP
- 701400-08 APPROACH TO LANE CLOSURE -FREEWAY EXPRESSWAY
- 701401-09 LANE CLOSURE FREEWAY EXPRESSWAY
- 701411-09 LANE CLOSURE MULTI LANE -ENTRY OR EXIT RAMP 45 MPH OR MORE
- 701428-01 TRAFFIC CONTROL SETUP REMOVAL FREEWAY EXPRESSWAY

# STATION EQUATIONS

- ☉ STA. 456+69.50 BK. (☉ MEDIAN) = STA. 50+54.47 AH. (☉ MEDIAN)
- 40' LT. STA. 301+81.06 BK. (☉ MEDIAN) = STA. 1301+73.45 AH. (TL W.B.L.)
- 40' RT. STA. 301+81+.06 BK. (☉ MEDIAN) = STA. 301+86.33 AH. (TL E.B.L.)
- 40' RT. STA. 1417+84.96 (TL W.B.L. ) BK. = STA. 417+03.53 AH. (☉ MEDIAN)
- 40' LT. STA. 417+07.71 BK. (TL E.B.L.) = STA. 417+03.53 AH. (☉ MEDIAN)
- STA. 446+93.78 BK. (☉ MEDIAN) = STA. 32+66.19 AH. (☉ MEDIAN)

# COMMITMENTS

NONE

# OMISSIONS

STA. 201+16.37	TO	STA. 202+08.62	(OMISSION)	EBL	STA. 200+51.37	TO	STA. 201+43.64	(OMISSION)	WBL
STA. 253+53.07	TO	STA. 255+03.90	(OMISSION)	EBL	STA. 252+56.09	TO	STA. 254+06.92	(OMISSION)	WBL
STA. 328+53.07	TO	STA. 330+73.00	(OMISSION)	EBL	STA. 1327+24.69	TO	STA. 1329+03.68	(OMISSION)	WBL
STA. 94+17.08	TO	STA. 95+73.91	(OMISSION)	EBL	STA. 93+52.09	TO	STA. 95+08.92	(OMISSION)	WBL
STA. 139+09.68	TO	STA. 140+28.18	(OMISSION)	EBL	STA. 138+71.82	TO	STA. 139+90.32	(OMISSION)	WBL
STA. 239+87.16	TO	STA. 241+17.66	(OMISSION)	EBL	STA. 240+39.14	TO	STA. 241+69.64	(OMISSION)	WBL
STA. 400+42.91	TO	STA. 401+54.74	(OMISSION)	EBL	STA. 400+49.93	TO	STA. 401+61.76	(OMISSION)	WBL
STA. 412+49.34	TO	STA. 413+90.00	(OMISSION)	EBL	STA. 412+61.53	TO	STA. 414+02.19	(OMISSION)	WBL
STA. 416+75.71	TO	STA. 417+79.28	(OMISSION)	EBL	STA. 416+84.54	TO	STA. 417+88.47	(OMISSION)	WBL

FILE NAME :	USER NAME : jacksonc	DESIGNED :	REVISED :	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATION EQUATION &amp; OMISSIONS, GENERAL NOTES HIGHWAY STANDARDS, AND COMMITMENTS, MIX DESIGN</b>	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	Documents\DOT Offices\District 9\Projects\78528\DRAWING\CD\Sheets\shLdgn	CHECKED :	REVISED :			1-24	09 CM PATCH 2017-1	JEFFERSON	8	3	
	PLOT SCALE = 100.0000' / in.	DATE :	REVISED :			SCALE: SHEET OF SHEETS STA. TO STA.					
	PLOT DATE = 6/16/2016					ILLINOIS FED. AID PROJECT					

# GENERAL NOTES

QUANTITIES SHOWN IN THE PLANS FOR PATCHING ARE ESTIMATES. THE ACTUAL AMOUNT OF PATCHING REQUIRED WILL BE DETERMINED BY THE ENGINEER.

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL BITUMINOUS CONCRETE ..... 2.016 TONS/CU.YD.

IF ANY STATION FALLS WITHIN THE PATCH AREA, THE NEW PATCH SHALL BE RESTAMPED. THE STATION SYMBOL STAMPS USED SHALL BE FURNISHED BY THE CONTRACTOR. THEY SHALL BE 5 1/2 " TALL OF A DESIGN APPROVED BY THE ENGINEER, AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

IF BASE REPAIR IS NEEDED FOR A PROPOSED PATCH, THE WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

EXISTING CONTINUOUSLY REINFORCED CONCRETE PAVEMENT ALONG I-24 IN MASSAC COUNTY HAS 22 #5 BARS AT 6.5 FT CENTERS AND #4 TRAVERSE BARS AT 4 FT CENTERS.

THERE ARE NO AVAILABLE WASTE SITES ON THE EXISTING RIGHT OF WAY WITHIN THE PROJECT LIMITS. DISPOSAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.3 OF THE STANDARD SPECIFICATIONS.

# MIX DESIGN

Locations	Partial Depth Patching
Mixture Use(s):	Polymerized Hot-Mix Asphalt Surface Course, Mix E, N90
AC/PG:	SBS PG76-22
ABR % (Max):	See Special Provision
Design Air Voids:	4.0 %, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	E Surface
Quality Management Program:	QCQA

FILE NAME *	USER NAME * jacksoned	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATION EQUATION &amp; OMISSIONS, GENERAL NOTES HIGHWAY STANDARDS, AND COMMITMENTS, MIX DESIGN-CONT'D</b>	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\110648ID\INTEG\Illinois\gavi\PW\DOT\Documents\1001 Offices\Districts 9\Projects\705	OBANK\CA\Sheets\etLdgn	CHECKED -	REVISED -			I-24	D9 CM PATCH 2017-1	JEFFERSON	8	4
PLOT SCALE * 1/8"=1'-0"	PLOT DATE * 5/16/2016	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
Default						[ILLINOIS] FED. AID PROJECT				

# SUMMARY OF QUANTITIES

<b>COUNTY:</b>	Massac County (127)
<b>ROUTE:</b>	FAI 24 I-24
<b>FUNDING:</b>	100% STATE
<b>LOCATION:</b>	RURAL
<b>TOTAL QUANTITY</b>	<b>ROADWAY</b>
	0005

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	255	255
44200573	CLASS A PATCHES, TYPE I, 12 INCH	SQ YD	61	61
44200577	CLASS A PATCHES, TYPE II, 12 INCH	SQ YD	126	126
44200581	CLASS A PATCHES, TYPE III, 12 INCH	SQ YD	16	16
44213000	PATCHING REINFORCEMENT	SQ YD	203	203
44213200	SAW CUTS	FOOT	1,637	1,637
67100100	MOBILIZATION	LSUM	1	1
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	2	2
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2
X4406240	PARTIAL DEPTH REMOVAL, TYPE II, 4"	SQ YD	580	580
X4421000	PARTIAL DEPTH PATCHING	TON	91	91
X7010410	SPEED DISPLAY TRAILER	CAL MO	2	2

# I-24 PATCHING SCHEDULE

<b>EASTBOUND I-24</b>									
<b>PATCH NUMBER</b>	<b>MILEPOST</b>	<b>LANE</b>	<b>PLAN</b>		<b>CLASS A</b>	<b>CLASS A</b>	<b>CLASS A</b>	<b>SAW CUTS</b>	<b>PATCHING</b>
			<b>WIDTH</b>	<b>LENGTH</b>	<b>PATCH, TY I, 12</b>	<b>PATCH, TY II, 12</b>	<b>PATCH, TY III, 12</b>	<b>FOOT</b>	<b>REINFORCEMENT</b>
			<b>FOOT</b>	<b>FOOT</b>	<b>SQ YD</b>	<b>SQ YD</b>	<b>SQ YD</b>	<b>FOOT</b>	<b>SQ YD</b>
1	24.5	DRIVING	6.0	4.5	3			33	3
2	24.5	DRIVING	12.0	6.0		8		60	8
3	24.8	DRIVING	6.0	4.5	3			33	3
4	25.8	DRIVING	6.0	6.0	4			36	4
5	25.8	DRIVING	6.0	4.5	3			33	3
6	25.9	DRIVING	12.0	6.0		8		60	8
7	26	DRIVING	6.0	4.5	3			33	3
8	28.6	DRIVING	6.0	6.0	4			36	4
9	29.7	DRIVING	12.0	4.5		6		57	6
10	30.3	DRIVING	6.0	6.0	4			36	4
11	30.4	DRIVING	8.0	8.0		7		48	7
12	30.4	DRIVING	12.0	4.5		6		57	6
13	31.5	DRIVING	12.0	4.5		6		57	6
14	31.5	DRIVING	6.0	6.0	4			36	4
15	32.5	DRIVING	12.0	6.0		8		60	8
16	33.4	DRIVING	6.0	6.0	4			36	4
17	34.5	DRIVING	12.0	4.5		6		57	6
18	34.5	DRIVING	12.0	6.0		8		60	8
19	34.5	DRIVING	6.0	4.5	3			33	3
20	35.2	DRIVING	12.0	6.0		8		60	8
21	35.2	DRIVING	6.0	6.0	4			36	4
22	35.2	DRIVING	6.0	6.0	4			36	4
23	35.2	DRIVING	6.0	4.5	3			33	3
24	35.8	DRIVING	12.0	4.5		6		57	6
<b>I-24 EASTBOUND TOTALS</b>					<b>46</b>	<b>77</b>	<b>0</b>	<b>1,083</b>	<b>123</b>

WESTBOUND I-24									
PATCH NUMBER	MILEPOST	LANE	PLAN		CLASS A PATCH, TY I, 12	CLASS A PATCH, TY II, 12	CLASS A PATCH, TY III, 12	SAW CUTS	PATCHING REINFORCEMENT
			WIDTH FOOT	LENGTH FOOT					
1	25.1	DRIVING	6.0	6.0	4			36	4
2	25.1	DRIVING	12.0	12.0			16	72	16
3	29.2	DRIVING	8.0	12.0		11		56	11
4	29.2	DRIVING	6.0	12.0		8		48	8
5	30	DRIVING	12.0	4.5		6		57	6
6	30.4	DRIVING	12.0	6.0		8		60	8
7	30.4	DRIVING	12.0	6.0		8		60	8
8	30.4	DRIVING	12.0	6.0		8		60	8
9	30.6	DRIVING	6.0	4.5	3			33	3
10	30.9	DRIVING	6.0	6.0	4			36	4
11	35.3	DRIVING	6.0	6.0	4			36	4
<b>I-24 WESTBOUND TOTALS</b>					<b>15</b>	<b>49</b>	<b>16</b>	<b>554</b>	<b>80</b>
<b>TOTAL</b>					<b>61</b>	<b>126</b>	<b>16</b>	<b>1,637</b>	<b>203</b>

PARTIAL DEPTH PATCHING					
MP EASTBOUND	WIDTH	LENGTH	PARTIAL DEPTH REMOVAL, 4 IN, TYPE II	PARTIAL DEPTH PATCHING	BITUMINOUS MATERIALS (TACK COAT)
	FOOT	FOOT	SQ YD	TON	POUND
25.1	2	500	112	25	50
26.7	2	100	23	5	10
27.7	2	100	23	5	10
29	2	100	23	5	10
32.5	2	100	23	5	10
33.4	2	120	27	6	12
35.2	2	100	23	5	10
35.5	2	100	23	5	10
35.5	2	55	13	3	6
<b>I-24 EASTBOND TOTALS</b>			<b>290</b>	<b>28</b>	<b>128</b>

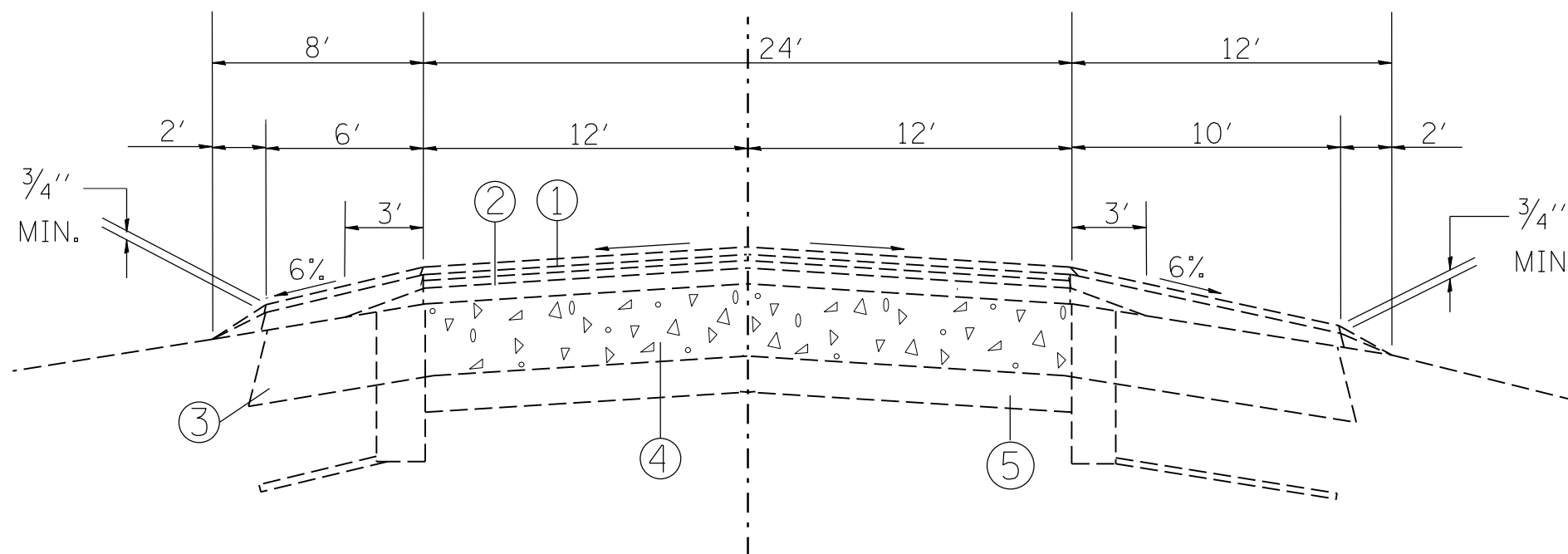
PARTIAL DEPTH PATCHING					
MP WESTBOUND	WIDTH	LENGTH	PARTIAL DEPTH REMOVAL, 4 IN, TYPE II	PARTIAL DEPTH PATCHING	BITUMINOUS MATERIALS (TACK COAT)
	FOOT	FOOT	SQ YD	TON	POUND
25.1	2	500	112	25	50
26.7	2	100	23	5	10
27.7	2	100	23	5	10
29	2	100	23	5	10
32.5	2	100	23	5	10
33.4	2	120	27	6	12
35.2	2	100	23	5	10
35.5	2	100	23	5	10
35.5	2	55	13	3	6
<b>I-24 WESTBOUND TOTALS</b>			<b>290</b>	<b>64</b>	<b>128</b>
<b>TOTAL</b>			<b>580</b>	<b>91</b>	<b>255</b>

# TYPICAL SECTION

DRAWING NOT TO SCALE

EB & WB LANES  
F.A.I. RTE 24

⊕  
(LOOKING IN DIRECTION OF TRAVEL)



- ① EXIST. POLY. BIT. CONC. SURF. CSE., SUPERPAVE, MIX. D, N105, 1 1/2"
- ② EXIST. POLY. BIT. CONC. BINDER CSE., SUPERPAVE, IL 19.0, N105, 2 1/2"
- ③ EXIST. BITUMINOUS SHOULDERS
- ④ EXIST. 8" C.R.C PAVEMENT
- ⑤ EXIST. 4" AGGREGATE SUB-BASE

TO BE USED:

- E.B. STA. 50+54.47 (MP. 23.9) TO STA. 96+62 (MP. 24.8)
- E.B. STA. 96+62 (MP. 24.8) TO STA. 142+02 (MP. 25.6)
- E.B. STA. 142+02 (MP. 25.6) TO STA. 200+51.39 (MP. 26.7)
- E.B. STA. 201+51.39 (MP. 26.7) TO STA. 217+12 (MP. 27.0)
- E.B. STA. 217+12 (MP. 26.7) TO STA. 241+17.66 (MP. 35.3)
- E.B. STA. 241+17.66 (MP. 35.3) TO 430+96.50 (MP. 38.9)
- W.B. STA. 50+54+47 (MP. 23.9) TO STA. 142+02 (MP. 25.6)
- W.B. STA. 142+02 (MP. 25.6) TO STA. 241+69.64 (MP. 35.3)
- W.B. STA. 241+69.64 (MP. 35.3) TO STA. 301+81.06 (MP. 28.6)
- W.B. STA. 1301+73.45 (MP. 28.6) TO STA. 1417+84.96 (MP. 30.8)
- W.B. STA. 417+03.53 (MP. 30.8) TO STA. 446+93.78 (MP. 31.4)
- W.B. STA. 446+93.78 (MP. 31.4) TO STA. 430+96.50 (MP. 38.9)

FILE NAME =	USER NAME = jacksonc	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICALS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL084EBIDINTEG\Illinois.gov\PIDOT\Documents\DOT Offices\District 9\Projects\78528\Drawings\CAD\Sheets\shd.dgn		CHECKED -	REVISED -			I-24	D9 CM PATCH 2017-1	JEFFERSON	8	8
Default		DATE -	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		
									CONTRACT NO. 78528	