

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAU ROUTE 9094 (MISSOURI AVE)
SECTION (1-X)RS-4
RESURFACING-(SMART) PROJECT
MADISON COUNTY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	1
		ILLINOIS	CONTRACT NO. 76F67	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-98-054-12



LOCATION OF SECTION INDICATED THUS: - [thick black line] -

C-98-060-12

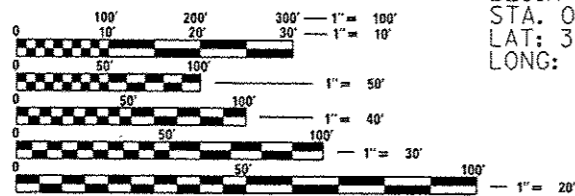
END PROJECT
STA. 96+55
LAT: 38.73466658215444
LONG: -90.13519808650017

OMISSION: PONTOON ROAD
STA. 85+31-62'

OMISSION:RAILROAD CROSSING
STA. 43+86-50'

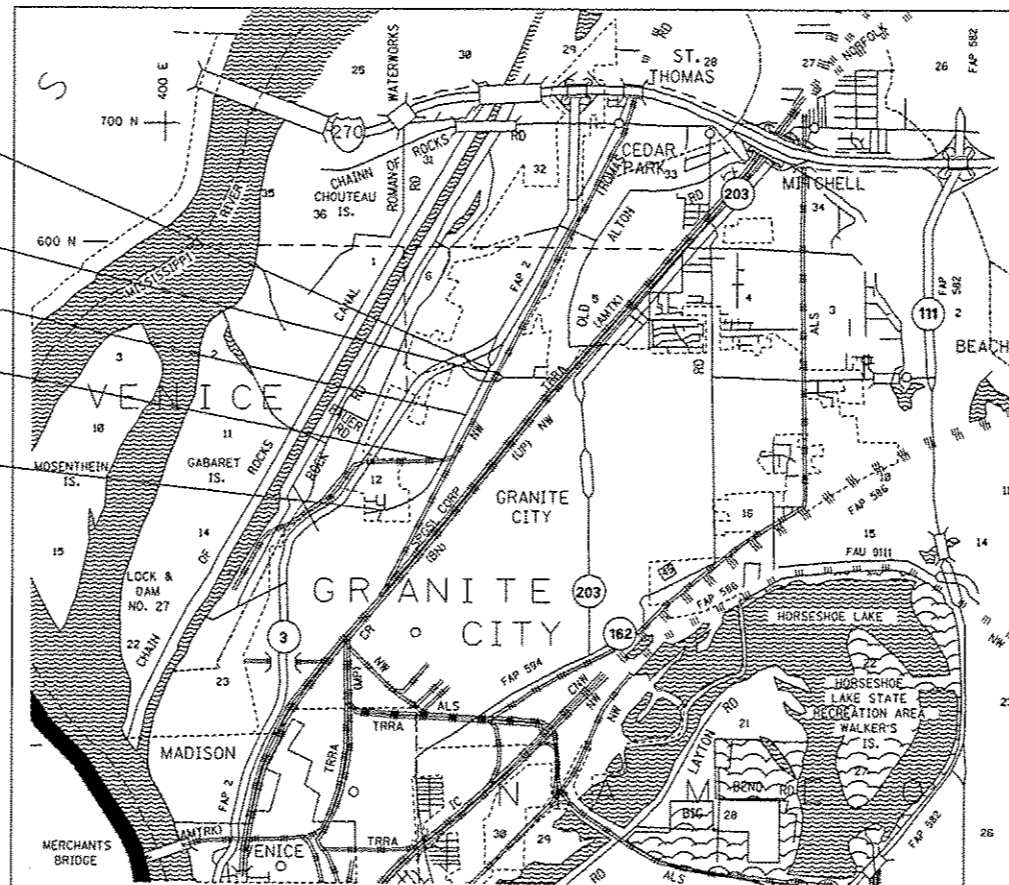
OMISSION:RAILROAD CROSSING
STA. 72+69-36'

BEGIN PROJECT
STA. 0+00
LAT: 38.71424213577204
LONG: -90.15415728092193



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



NOT TO SCALE

PROJECT ENGINEER: CRAIG POETTKER (618)346-3279
PROJECT MANAGER: JOE FRIEDEL (217)983-2385

CONTRACT NO. 76F67

GROSS LENGTH = 9,655 FT. = 1.83 MILE
NET LENGTH = 9,507 FT. = 1.80 MILE

FUNCTIONAL CLASSIFICATION
MINOR ARTERIAL

TRAFFIC DATA
ADT-5500
MU = 4.5%
SU = 3.6%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Oct 31 2013*
Jeffrey Z. Kan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 6 2013
John D. Baranzelli PE, Inc
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 6 2013
Omer Osman PE, Inc
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, COMMITMENTS, RATES OF APPLICATION, HIGHWAY STANDARDS, AND GENERAL NOTES
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- 5-7 TYPICAL SECTIONS
- 8-9 SCHEDULES
- 10 LOCATION MAP
- 11-14 DETAILS
- 15-16 DETECTOR LOOP REPLACEMENT PLANS

GENERAL NOTES

1. THE USE OF VIBRATORY ROLLERS IS PROHIBITED IN RESIDENTIAL AREAS. THIS DOES NOT RELIEVE THE CONTRACTOR OF DENSITY REQUIREMENTS FOR THE HOT-MIX ASPHALT PAVEMENTS AS SPECIFIED IN THE APPROPRIATE SECTIONS OF THE STANDARD SPECIFICATIONS.
2. THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE MIXTURE IS PLACED.
3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMEREN ILLINOIS
 - AT&T ILLINOIS
 - CENTERPOINT ENERGY
 - CHARTER COMMUNICATIONS, INC.
 - CITY OF GRANITE CITY
 - ILLINOIS AMERICAN WATER COMPANY
 - LEVEL 3 COMMUNICATIONS, LLC
 - MADISON COUNTY SPECIAL SERVICE AREA #1

MEMBERS OF J.U.L.I.E. (800)-892-0123 ARE INDICATED BY *. NON J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

4. ALL SHORT-TERM PAVEMENT MARKINGS WILL BE PLACED IN SUCH A MANNER SO AS NOT TO INTERFERE WITH THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS. SHORT-TERM PAVEMENT MARKING HAS BEEN CALCULATED TO BE APPLIED TO THE MILLED AND FINAL HMA SURFACE. REMOVAL OF SHORT-TERM PAVEMENT MARKING FROM THE FINAL HMA SURFACE ONLY IS TO BE PAID AS "WORK ZONE PAVEMENT MARKING REMOVAL". A QUANTITY FOR TEMPORARY PAVEMENT MARKING EQUAL TO THE AMOUNT OF PERMANENT PAVEMENT MARKING HAS BEEN ADDED TO THE PLANS.
5. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED TO MATCH EXISTING OR AS DIRECTED BY R.E.
6. THE CONTRACTOR SHALL BE AWARE THAT THERE ARE MANHOLES & VALVES LOCATED WITHIN THE RESURFACING LIMITS. CARE SHALL BE TAKEN IN THESE LOCATIONS DURING MILLING OPERATIONS.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
8. ALL PATCHING ON THIS PROJECT SHALL BE COMPLETED PRIOR TO HOT-MIX SURFACE REMOVAL.
9. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED.
10. NO OPEN TRENCHES WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NON-WORKING HOURS. ALL TRENCHES WILL BE BACKFILLED DURING THE SAME DAY OF EXCAVATION. NO EXCEPTIONS WILL BE MADE. INGRESS AND EGRESS OF DRIVEWAYS AND ENTRANCES SHALL BE PERMITTED AT ALL TIMES.
11. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS, AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE 48" X 48" FLUORESCENT ORANGE.
12. FLAGMEN SHALL BE PRESENT DURING ALL CLOSURE HOURS, INCLUDING LUNCH HOUR, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
13. BITUMINOUS MATERIALS (COVER AND SEAL COATS) SHALL BE HFRS-2.
14. THE ILLINOIS DEPARTMENT OF TRANSPORTATION STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. PLEASE CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618/874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

15. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE REQUIREMENTS

ROUTE	FAU 9094
SECTION	(I-X) R5-4
COUNTY	Madison
CONTRACT	76F67

DESCRIPTION:	JP Missouri Ave from 25th St to IL 3 Granite City
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ADT (Construction Yr):	5500
MU%:	4.5
SU%:	3.6
20 YR. ESAL'S:	3.16

MIXTURE USE	Poly Surface	PATCHING	INCIDENTAL SURF	Partial Depth Patch
AC/PG	SBS 76-22	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPEC.	SEE SPEC.	SEE SPEC.	SEE SPEC.
DESIGN AIR VOIDS	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=90
MIX COMPOSITION				
(GRADATION MIXTURE)	IL 12.5/9.5	IL 19.0		
FRICTION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "C"	MIXTURE "C"

MIXTURE USE	SHOULDERS ≥ 2.25"	SHOULDERS < 2.25"		
AC/PG	PG 64-22	PG 64-22		
RAP % (MAX)	See Contract RAP Special Provision	See Contract RAP Special Provision		
DESIGN AIR VOIDS	**2.0% @ Ndes=30	**2.0% @ Ndes=30		
MIX COMPOSITION	NMAS 3/4"	NMAS 1/2"		
(GRADATION MIXTURE)				
FRICTION AGG				

** Top Lift Shoulders - Design this mix at 2.0% voids and add asphalt to reduce voids to 1.5%.

Plan quantities for Bituminous Concrete Surface Course Items are calculated using a unit weight of 112 lb/sq yd/in (59.8 kg/sq m/25 mm thickness).

RATES OF APPLICATION

BITUMINOUS MATERIALS (PRIME COAT) = 0.0015646 TONS/SQ YD (AGG BASES)
 BITUMINOUS MATERIALS (PRIME COAT) = 0.0003129 TONS/SQ YD (BIT BASES)
 AGGREGATE (PRIME COAT) = 0.0015 TONS/SQ YD
 HMA SURFACE COURSE = 112 LBS/SQ YD/INCH
 BITUMINOUS MATERIALS (COVER AND SEAL COAT) = 0.00146 TONS/SQ YD
 COVER COAT AGGREGATE = 0.01 TONS/SQ YD
 SEAL COAT AGGREGATE = 0.01 TONS/SQ YD

HIGHWAY STANDARDS

COMMITMENTS

NONE

- 000001-06
- 442201-03
- 701001-02
- 701006-05
- 701011-04
- 701301-04
- 701306-03
- 701311-03
- 701326-04
- 701336-06
- 701701-08
- 701901-03
- 780001-04
- 781001-03
- 886001-01
- 886006-01

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o:\p\work\p\stdos\burnsideen\0292675\076f67.sht-plan.dgn	burnsideen	DRAWN :	REVISED :			9094	(I-X)RS-4	MADISON	16	2	
		CHECKED :	REVISED :			CONTRACT NO. 76F67					
		DATE :	REVISED :			ILLINOIS FED. AID PROJECT					

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0005 100% STATE		
20200100	EARTH EXCAVATION	CU YD	338	338		
28200200	FILTER FABRIC	SQ YD	1217	1217		
40300200	BITUMINOUS MATERIALS (PRIME COAT)	TON	28.9	28.9		
40300400	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	TON	34.3	34.3		
40300500	COVER COAT AGGREGATE	TON	117	117		
40300600	SEAL COAT AGGREGATE	TON	117	117		
40600300	AGGREGATE (PRIME COAT)	TON	51	51		
40600647	LEVELING BINDER (MACHINE METHOD), 1L-9.5FG, N90	TON	513	513		
40600990	TEMPORARY RAMP	SQ YD	372	372		
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	2324	2324		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	21564	21564		
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	6103	6103		
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	67	67		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1369	1369		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4		

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0005 100% STATE		
67100100	MOBILIZATION	L SUM	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1	1		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	3279	3279		
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	307.2	307.2		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	31640	31640		
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	669	669		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	229	229		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	364	364		

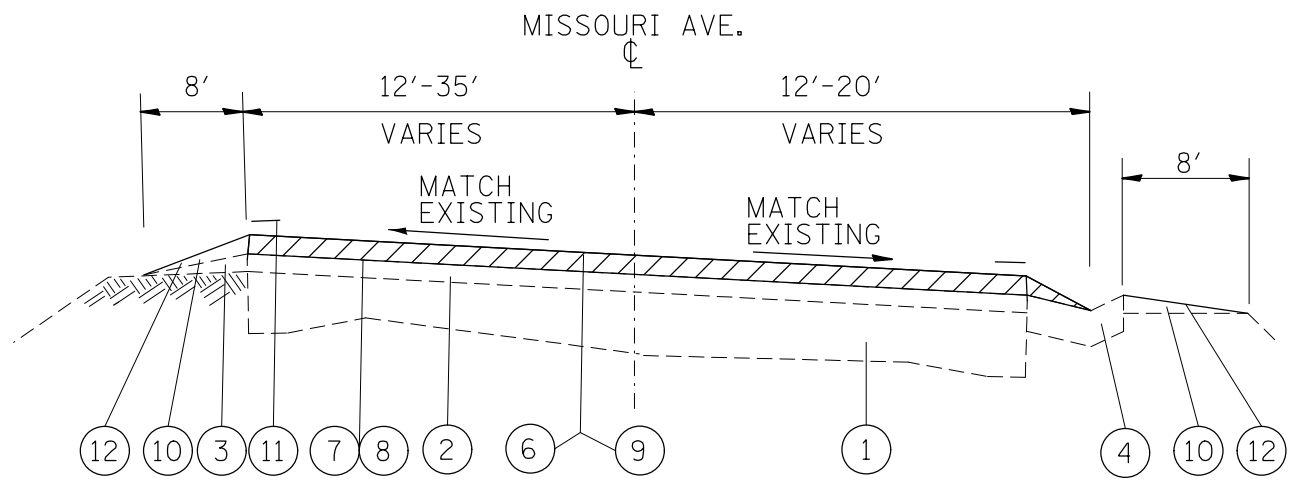
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DEPARTMENT OF TRANSPORTATION**

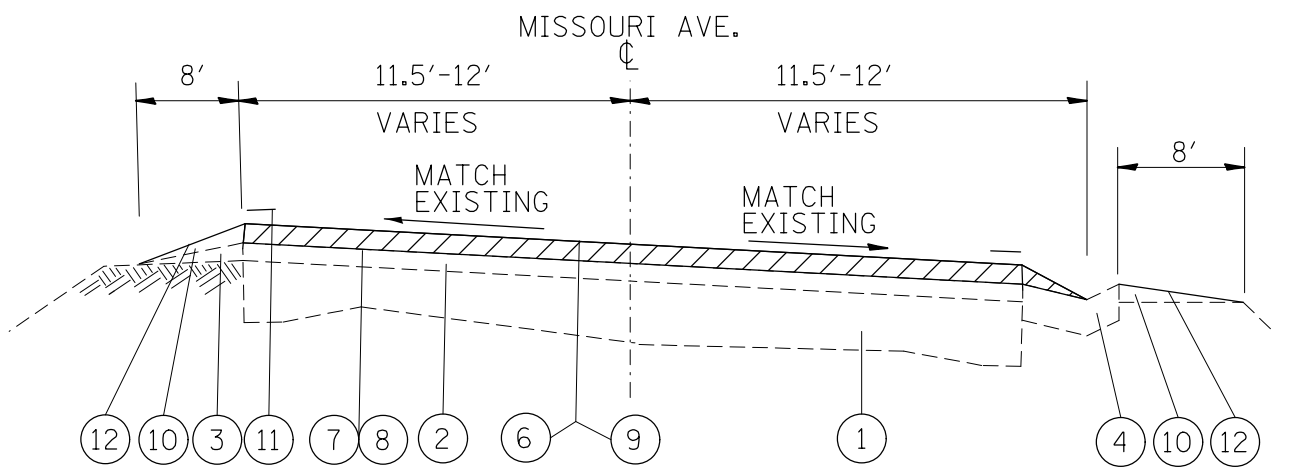
SUMMARY OF QUANTITIES

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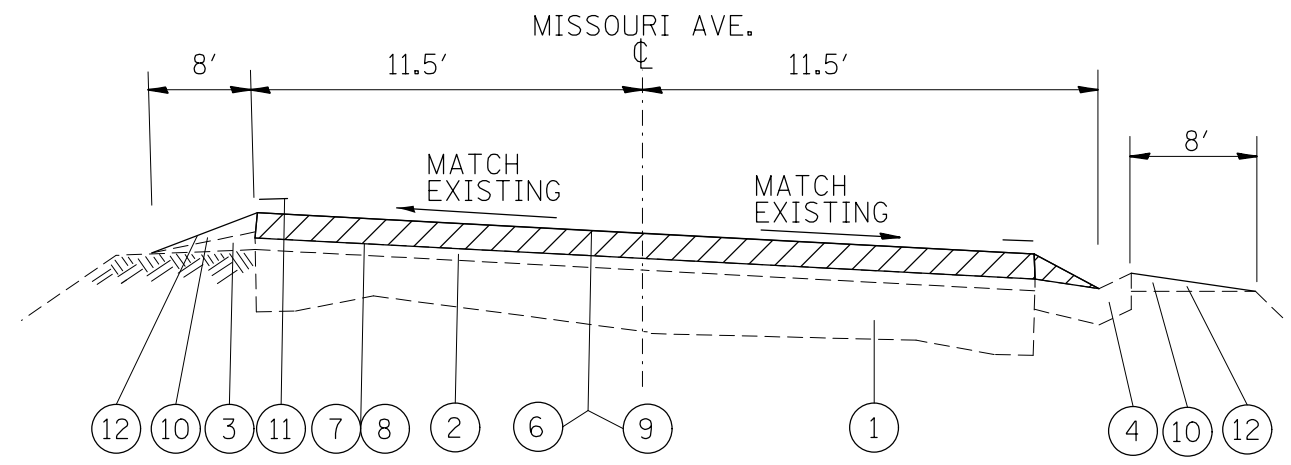
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CONTRACT NO. 76F67				ILLINOIS FED. AID PROJECT



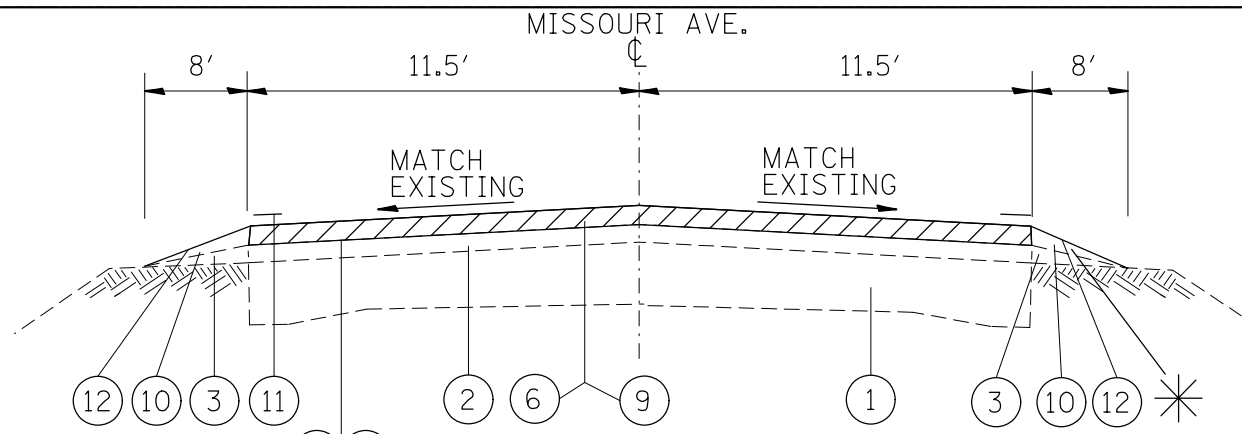
TYPICAL SECTION
STA 0+00 TO STA 1+05



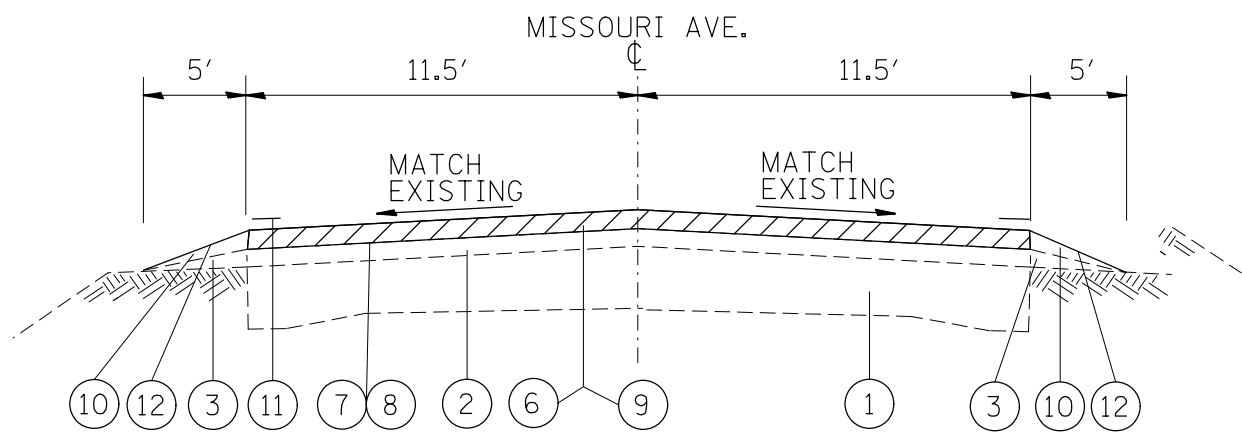
TYPICAL SECTION
STA 1+05 TO STA 2+92



TYPICAL SECTION
STA 2+92 TO STA 7+10



TYPICAL SECTION (TANGENT)
STA 7+10 TO STA 43+61
STA. 43+61 TO 44+11 (RR OMISSION)
STA 44+11 TO STA 61+03
SUPERELEVATED SECTION
STA 7+10 TO STA 9+60
STA 21+00 TO STA 31+75
SLOPE-MATCH EXISTING SUPER



TYPICAL SECTION (TANGENT)
STA 61+03 TO STA 72+51
STA. 72+51 TO STA. 72+87 (RR OMISSION)
STA 72+87 TO STA 79+00

LEGEND

- ① EXISTING CONCRETE PAVEMENT, 10"
- ② EXISTING RESURFACING, 3"
- ③ EXISTING AGGREGATE SHOULDER (WEDGE), TYPE B
- ④ EXISTING PCC GUTTER
- ⑤ EXISTING HMA SHOULDER
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- ⑦ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑧ PROPOSED AGGREGATE (PRIME COAT)
- ⑨ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90, 1 1/2"
- ⑩ PROPOSED AGGREGATE SHOULDER (WEDGE), TYPE B
- ⑪ PROPOSED PAVEMENT MARKING
- ⑫ PROPOSED A2 SURFACE TREATMENT

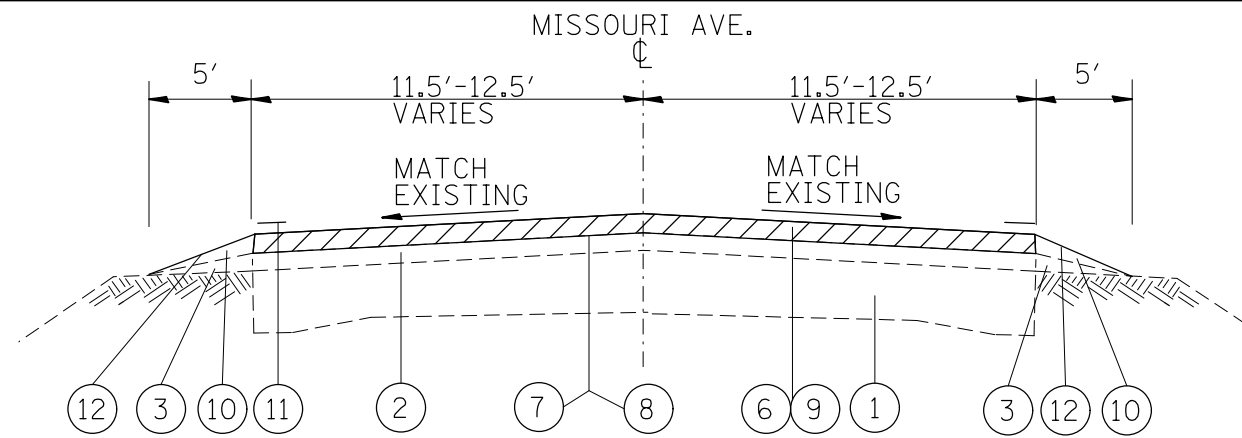
* SEE SHOULDER REPAIR DETAIL AND SCHEDULES FOR LOCATIONS OF SHOULDER REPAIR

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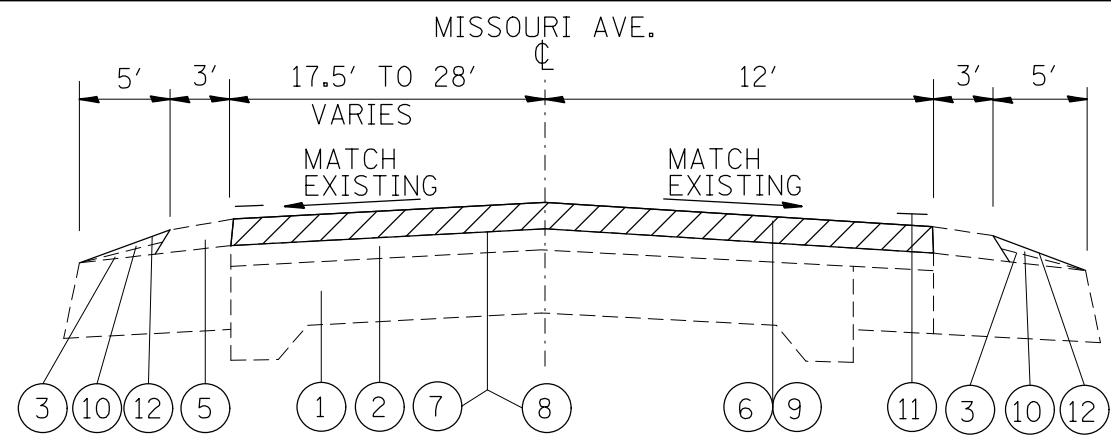
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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS	
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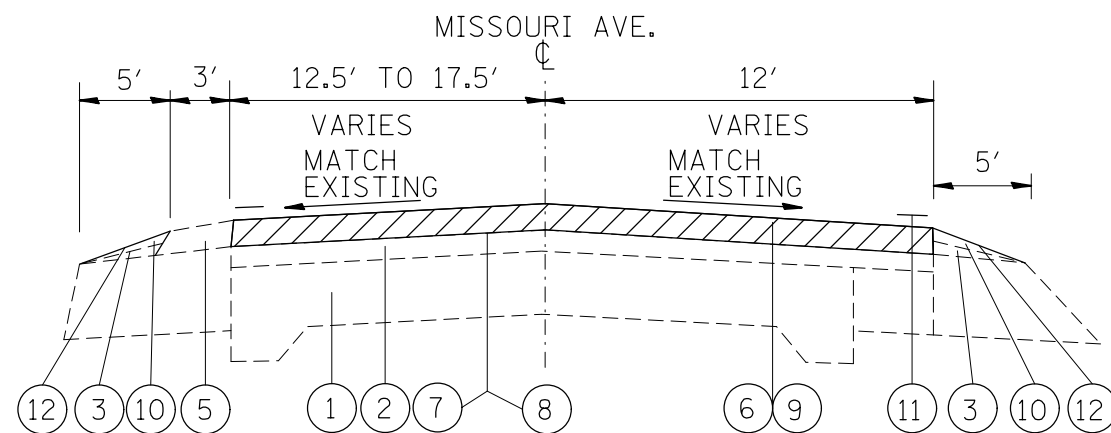
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9094	(1-X)RS-4	MADISON	16	5
CONTRACT NO. 76F67				
ILLINOIS FED. AID PROJECT				



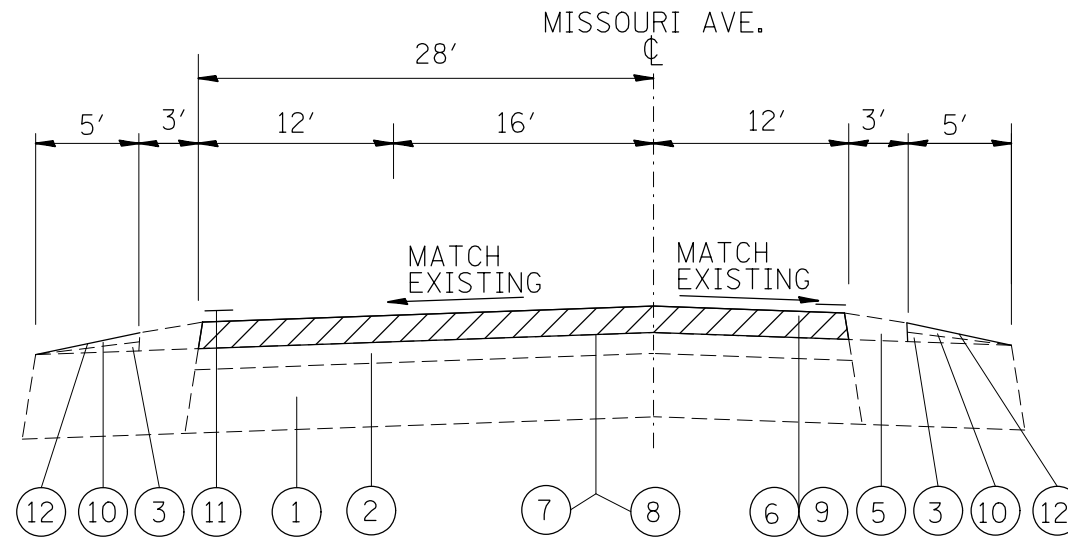
TYPICAL SECTION (TANGENT)
STA 79+00 TO STA 79+23



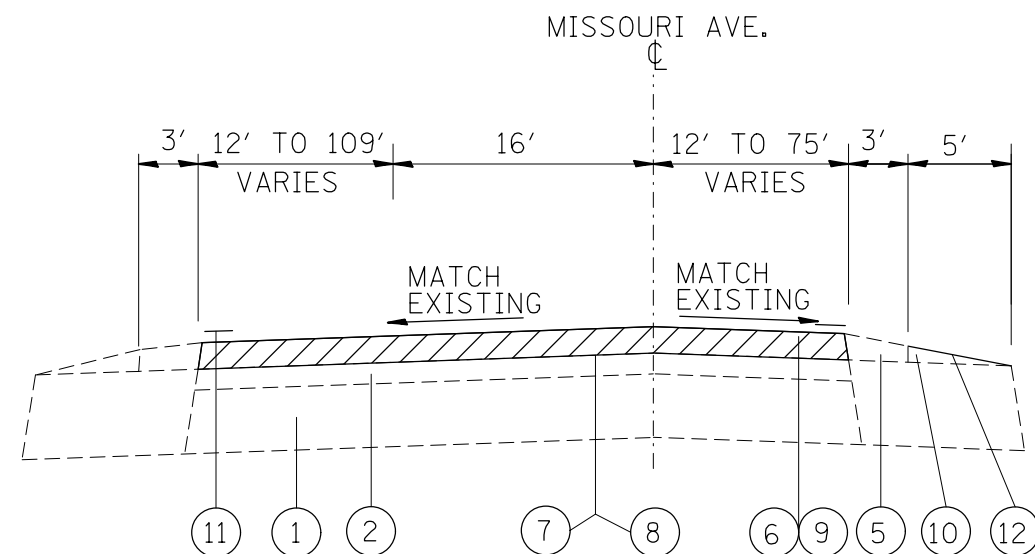
TYPICAL SECTION
STA 79+93 TO STA 81+40



TYPICAL SECTION
STA 79+23 TO STA 79+93



TYPICAL SECTION
STA 81+40 TO STA 83+74



TYPICAL SECTION
STA 83+74 TO STA 85+00
STA 85+00 TO STA 85+62 (PONTOON RD OMISSION)

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LEGEND

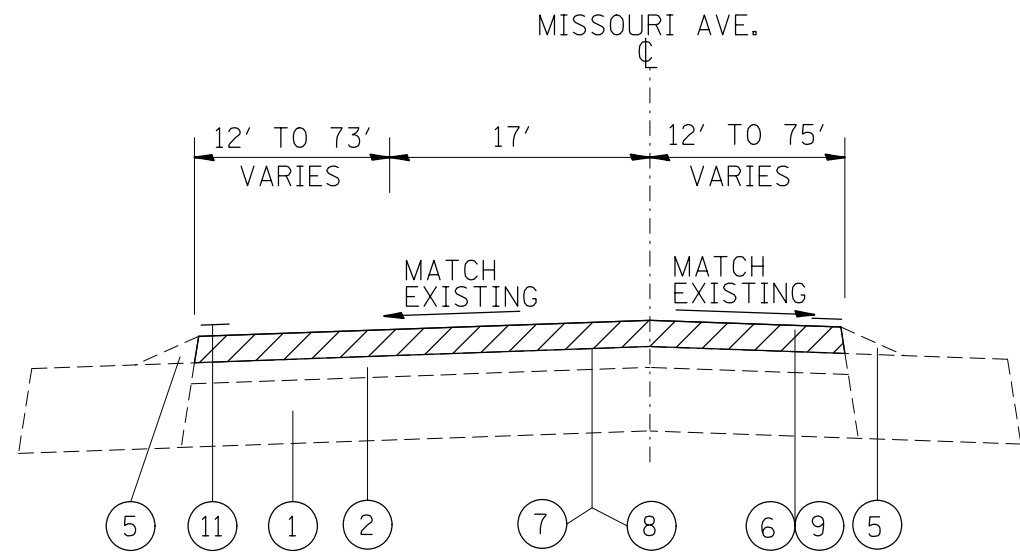
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- ⑤ EXISTING HMA SHOULDER
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- ⑦ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑧ PROPOSED AGGREGATE (PRIME COAT)
- ⑨ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90, 1 1/2"
- ⑩ PROPOSED AGGREGATE SHOULDER (WEDGE), TYPE B
- ⑪ PROPOSED PAVEMENT MARKING
- ⑫ PROPOSED A2 SURFACE TREATMENT

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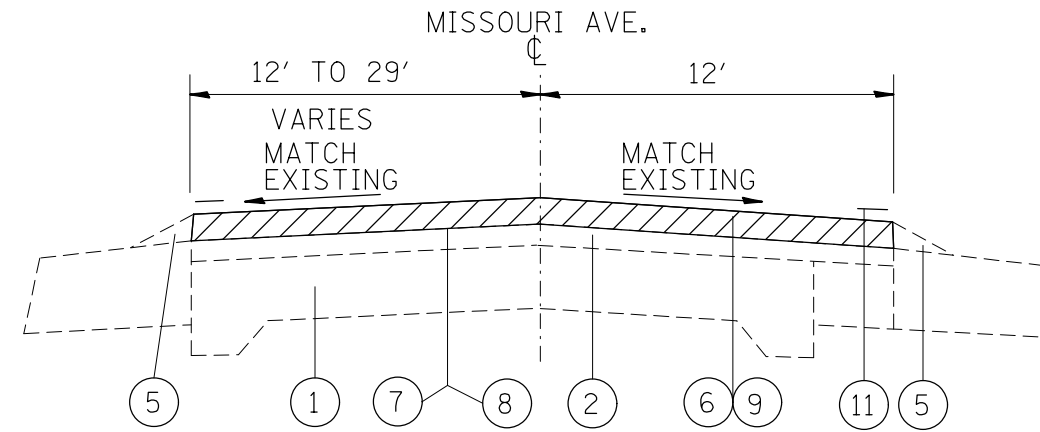
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS			
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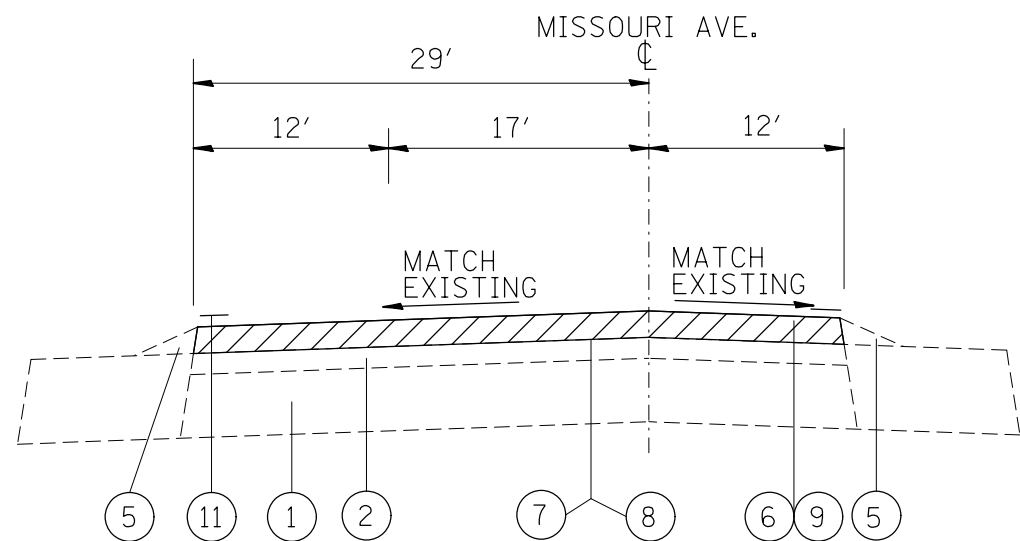
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9094	(1-X)RS-4	MADISON	16	6
CONTRACT NO. 76F67				
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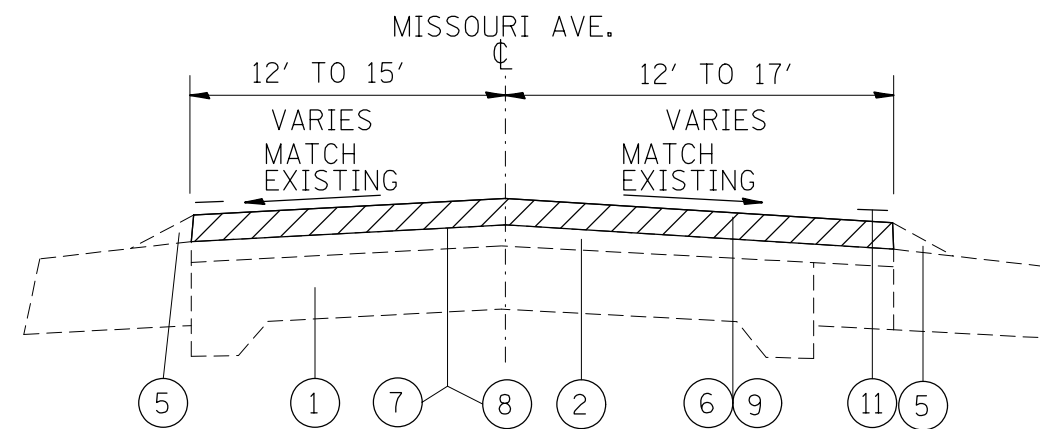
TYPICAL SECTION
STA 85+62 TO STA 87+20



TYPICAL SECTION
STA 89+56 TO STA 92+08



TYPICAL SECTION
STA 87+20 TO STA 89+56



TYPICAL SECTION
STA 92+08 TO STA 96+55

LEGEND

- ① EXISTING CONCRETE PAVEMENT, 10"
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- ⑧ PROPOSED AGGREGATE (PRIME COAT)
- ⑨ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90, 1 1/2"
- ⑩ PROPOSED AGGREGATE SHOULDER (WEDGE), TYPE B
- ⑪ PROPOSED PAVEMENT MARKING
- ⑫ PROPOSED A2 SURFACE TREATMENT

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	PLOT DATE = 10/21/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	7
CONTRACT NO. 76F67				
ILLINOIS FED. AID PROJECT				

THERMOPLASTIC PAVEMENT MARKING SCHEDULE

LOCATION	EDGE LINE (LT) SOLID WHITE 4"	NPZ - SB SOLID YELLOW 4"	SKIP-DASH 10'-30' YELLOW 4"	NPZ - NB SOLID YELLOW 4"	EDGE LINE (RT) SOLID WHITE 4"	LANE LINE SOLID WHITE 4"	PAINTED MEDIAN SOLID YELLOW 4"	DIAGONALS SOLID YELLOW 12"	REMARKS
STATION TO STATION	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	
0+06 - 0+20	14				14				
0+20 - 4+33	413	413		413	413				DOUBLE YELLOW
4+33 - 5+02		69		69	69				DOUBLE YELLOW, WEST 26TH ST
5+02 - 6+10	108	108		108	108				DOUBLE YELLOW
6+10 - 7+40		130		130	130				DOUBLE YELLOW, LOGAN AVE
7+40 - 7+84	44	44		44	44				DOUBLE YELLOW
7+84 - 13+14	530	530	133		530				
13+14 - 19+13	599		150		599				
19+13 - 23+05	392		98	392	392				
23+05 - 31+00	795	795		795	795				DOUBLE YELLOW
31+00 - 35+42	442	442	111		442				
35+42 - 37+67	225		56		225				
37+67 - 42+00	433		108	433	433				
42+00 - 44+90	290	290		290	290				DOUBLE YELLOW
44+90 - 50+09	519	519	130		519				
50+09 - 64+13	1404		351		1404				
64+13 - 65+35			31		122				KONZEN CT
65+35 - 65+72	37		9		37				
65+72 - 71+43	571		143	571	571				
71+43 - 79+00	757	757		757	757				DOUBLE YELLOW
79+00 - 85+00						97	2290	260	SEE DETAIL
85+00 - 85+62									PONTOON RD OMISSION
85+62 - 92+08						99	2480	305	SEE DETAIL
92+08 - 95+12	304	304		304	304				DOUBLE YELLOW
95+12 - 96+55	143	143		143	143				SEE DETAIL
SUBTOTAL	8020	4544	1320	4449	8341	196	4770	565	
TOTAL				31640				565	

PATCHING SCHEDULE

LOCATION	LENGTH (FEET)	WIDTH (FEET)	CLASS D PATCHES TYPE II, 13" (SQ YD)	
STATION	LT / RT			
45+07	RT	18	4	8.00
45+66	RT	21	4	9.33
46+16	RT	33	4	14.67
66+10	RT	26	4	11.56
66+75	RT	26	5	14.44
SUBTOTAL				58
15% ANTICIPATED FAILURES				9
TOTAL				67

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE

LOCATION	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (EACH)	RAISED REFLECTIVE PAVEMENT MARKER TWO WAY AMBER (EACH)	RAISED REFLECTIVE PAVEMENT MARKER ONE WAY AMBER (EACH)	RAISED REFLECTIVE PAVEMENT MARKER ONE WAY CRYSTAL (EACH)	REMARKS
STATION TO STATION					
0+20 - 79+00	99	99			
79+00 - 85+00	48		31	3	SEE DETAIL
85+00 - 85+62					PONTOON RD OMISSION
85+62 - 92+08	49		33	3	SEE DETAIL
92+08 - 95+12	4	4			
95+12 - 96+55	2		2		SEE DETAIL
SUBTOTAL	202	103	66	6	
TOTAL	202		175		

THERMOPLASTIC PAVEMENT MARKING SCHEDULE (CONT.)

LOCATION	CROSSWALK SOLID WHITE 12"	STOP BARS SOLID WHITE 24"	LETTERS & SYMBOLS WHITE (SQ FT)	REMARKS
STATION	LT / RT	(FOOT)	(FOOT)	
0+03	LT & RT	104		
0+20	LT		25	
39+89	RT		11	
40+14	RT		61.2	RAILROAD "X" AND "R"s
40+39	RT		11	
43+39	RT		11	
44+33	LT		11	
47+33	LT		11	
47+58	LT		61.2	RAILROAD "X" AND "R"s
47+83	LT		11	
68+59	RT		11	
68+84	RT		61.2	RAILROAD "X" AND "R"s
69+09	RT		11	
72+09	RT		11	
73+29	LT		11	
76+29	LT		11	
76+54	LT		61.2	RAILROAD "X" AND "R"s
76+79	LT		11	
83+99	TURN LANE		15.6	LEFT TURN ARROW
84+46	TURN LANE		15.6	LEFT TURN ARROW
84+71	TURN LANE & RT	39		
85+91	TURN LANE & LT	33		
86+16	TURN LANE		15.6	LEFT TURN ARROW
86+65	TURN LANE		15.6	LEFT TURN ARROW
TOTAL		104	229	307.2

SHOULDER SCHEDULE - RIGHT

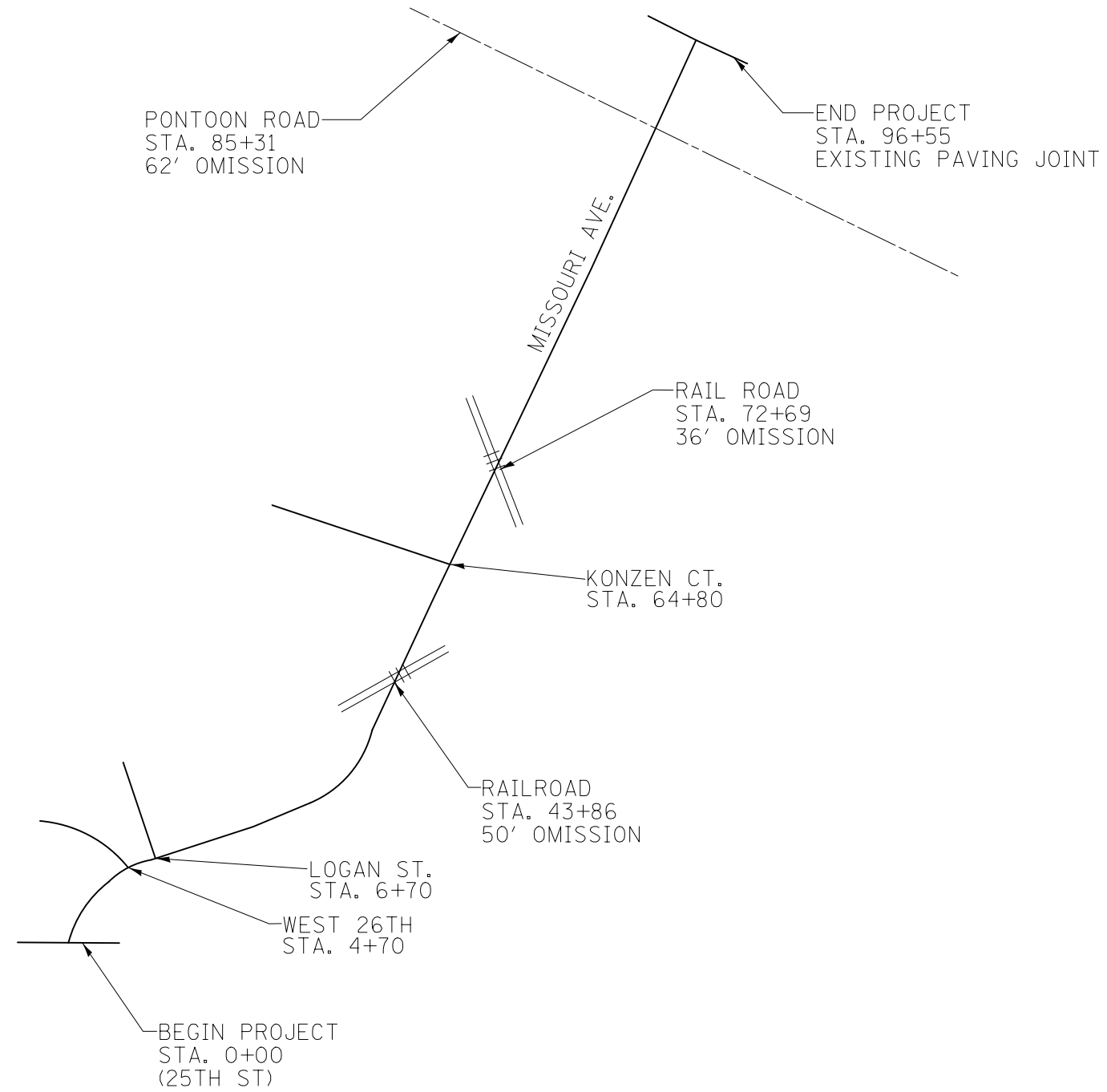
LOCATION	EARTH EXCAVATION (CU YD)	FILTER FABRIC (SQ YD)	POROUS GRANULAR EMBANKMENT, SPECIAL (TON)	AGGREGATE WEDGE SHOULDERS, TYPE B (TON)	BITUMINOUS SURFACE TREATMENT (CLASS A-2)				REMARKS
					BITUMINOUS MATERIALS (PRIME COAT) (TON)	BITUMINOUS MATERIALS (COVER AND SEAL COATS) (TON)	COVER COAT AGGREGATE (TON)	SEAL COAT AGGREGATE (TON)	
RIGHT STATION TO STATION	WIDTH (FT)								
0+00 - 17+41	8			181	2.42	4.52	15.5	15.5	
17+41 - 17+81									C.E. (TOTAL GATE 9)
17+81 - 20+85	8	75	270	67	32	0.42	0.79	2.7	2.7
20+85 - 21+15									C.E. (TOTAL GATE 8)
21+15 - 21+88	8	18	65	16	8	0.10	0.19	0.6	0.6
21+88 - 22+28									C.E. (TOTAL GATE 7)
22+28 - 23+45	8	29	104	26	12	0.16	0.30	1.0	1.0
23+45 - 24+55									C.E. (TOTAL GATE 5/6)
24+55 - 25+63	8	27	96	24	11	0.15	0.28	1.0	1.0
25+63 - 26+23									C.E. (TOTAL GATE 4)
26+23 - 33+19	8			72	0.97	1.81	6.2	6.2	
33+19 - 35+29	8	52	187	47	22	0.29	0.55	1.9	1.9
35+29 - 43+61	8			86	1.16	2.16	7.4	7.4	
43+61 - 44+11									RAILROAD
44+11 - 55+43	8			117	1.57	2.94	10.1	10.1	
55+43 - 56+69									C.E. (INS RAILROAD)
56+69 - 61+03	8			45	0.60	1.13	3.9	3.9	
61+03 - 72+51	5			74	1.00	1.86	6.4	6.4	
72+51 - 72+87									RAILROAD
72+87 - 85+00	5			79	1.05	1.97	6.7	6.7	
TOTAL	201	722	180	739	9.9	18.5	63	63	

SHOULDER SCHEDULE - LEFT

LOCATION		EARTH EXCAVATION (CU YD)	FILTER FABRIC (SQ YD)	POROUS GRANULAR EMBANKMENT, SPECIAL (TON)	AGGREGATE WEDGE SHOULDERS, TYPE B (TON)	BITUMINOUS SURFACE TREATMENT (CLASS A-2)				REMARKS	
STATION TO	STATION					WIDTH (FT)	BITUMINOUS MATERIALS (PRIME COAT) (TON)	BITUMINOUS MATERIALS (COVER AND SEAL COATS) (TON)	COVER COAT AGGREGATE (TON)		SEAL COAT AGGREGATE (TON)
0+00	- 4+40	8			46	0.61	1.14	3.9	3.9		
4+40	- 5+00									S.R. (WEST 26TH ST)	
5+00	- 6+10	8			11	0.15	0.29	1.0	1.0		
6+10	- 7+30									S.R. (LOGAN ST)	
7+30	- 17+45	8			105	1.41	2.63	9.0	9.0		
17+45	- 17+90	8	11	40	10	0.06	0.12	0.4	0.4		
17+90	- 18+76									C.E. (unmarked)	
18+76	- 21+15	8			25	0.33	0.62	2.1	2.1		
21+15	- 22+22	8	26	95	24	0.15	0.28	1.0	1.0		
22+22	- 23+12									C.E. (unmarked)	
23+12	- 24+00	8			9	0.12	0.23	0.8	0.8		
24+00	- 28+05	8	100	360	90	0.56	1.05	3.6	3.6		
28+05	- 29+45									C.E. (KRAFT GATE 4)	
29+45	- 30+63	8			12	0.16	0.31	1.0	1.0		
30+63	- 31+67									C.E. (KRAFT GATE 3)	
31+67	- 34+60	8			30	0.41	0.76	2.6	2.6		
34+60	- 35+38									C.E. (KRAFT GATE 2)	
35+38	- 40+16	8			50	0.66	1.24	4.2	4.2		
40+16	- 40+76									C.E. (KRAFT GATE 1)	
40+76	- 41+25	8			5	0.07	0.13	0.4	0.4		
41+25	- 42+01									C.E. (NS RAILROAD)	
42+01	- 43+61	8			17	0.22	0.42	1.4	1.4		
43+61	- 44+11									RAILROAD	
44+11	- 46+50	8			25	0.33	0.62	2.1	2.1		
46+50	- 47+70									C.E. (TOLL GATE 3)	
47+70	- 52+39	8			49	0.65	1.22	4.2	4.2		
52+39	- 53+17									C.E. (TOLL GATE 2)	
53+17	- 55+59	8			25	0.34	0.63	2.2	2.2		
55+59	- 56+53									C.E. (TOLL GATE 1)	
56+53	- 58+01	8			15	0.21	0.38	1.3	1.3		
58+01	- 58+91									C.E. (DOLLAR-A-DAY)	
58+91	- 61+03	8			22	0.29	0.55	1.9	1.9		
61+03	- 64+15	5			20	0.27	0.51	1.7	1.7		
64+15	- 65+45									S.R. (KONZEN CT)	
65+45	- 72+51	5			46	0.61	1.15	3.9	3.9		
72+51	- 72+87									RAILROAD	
72+87	- 76+17	5			21	0.29	0.54	1.8	1.8		
76+17	- 76+85									C.E. (unmarked)	
76+85	- 82+97	5			40	0.53	0.99	3.4	3.4		
TOTAL			137	495	124	631	8.4	15.8	54	54	

RESURFACING SCHEDULE

LOCATION	HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2"	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	POLYMERIZED HOT MIX ASPHALT SURFACE COURSE MIX "D", N90	REMARKS
STATION TO	STATION	(SQ YD)	(TON)	(TON)	
0+00	- 1+05	461	0.14	0.7	39
1+05	- 2+92	488	0.15	0.7	41
2+92	- 43+61	10399	3.25	15.6	873
43+61	- 44+11				RAILROAD OMISSION
44+11	- 61+03	4324	1.35	6.5	363
61+03	- 72+51	2934	0.92	4.4	246
72+51	- 72+87				RAILROAD OMISSION
72+87	- 79+00	1567	0.49	2.4	132
79+00	- 79+23	61	0.02	0.1	5
79+23	- 79+93	211	0.07	0.3	18
79+93	- 81+40	568	0.18	0.9	48
81+40	- 83+74	1040	0.33	1.6	87
83+74	- 85+00	1081	0.34	1.6	91
85+00	- 85+62				PONTOON ROAD OMISSION
85+62	- 87+20	1157	0.36	1.7	97
87+20	- 89+56	1075	0.34	1.6	90
89+56	- 92+08	910	0.28	1.4	76
92+08	- 96+55	1391	0.44	2.1	117
TOTAL		27667	8.7	42	2324



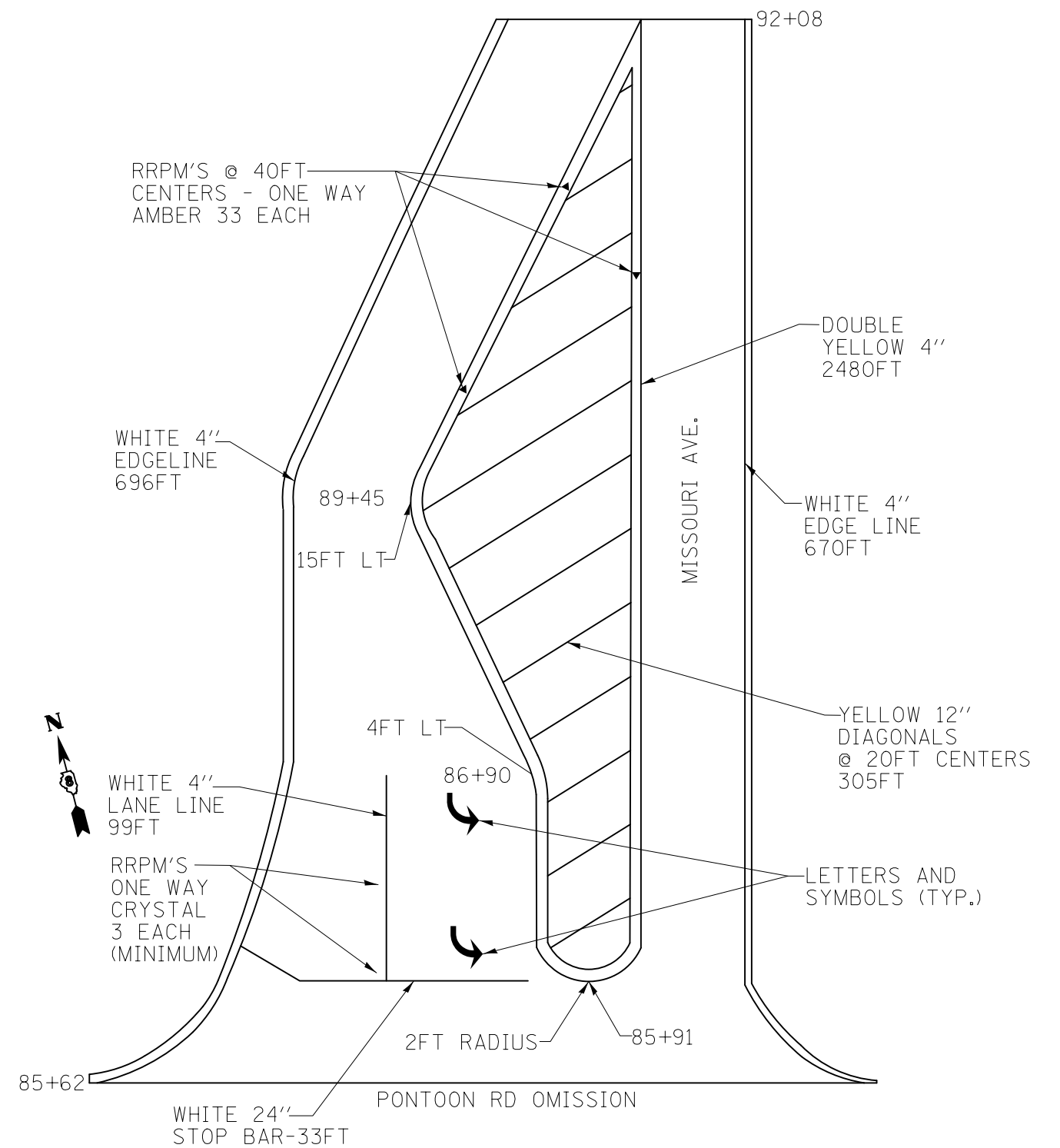
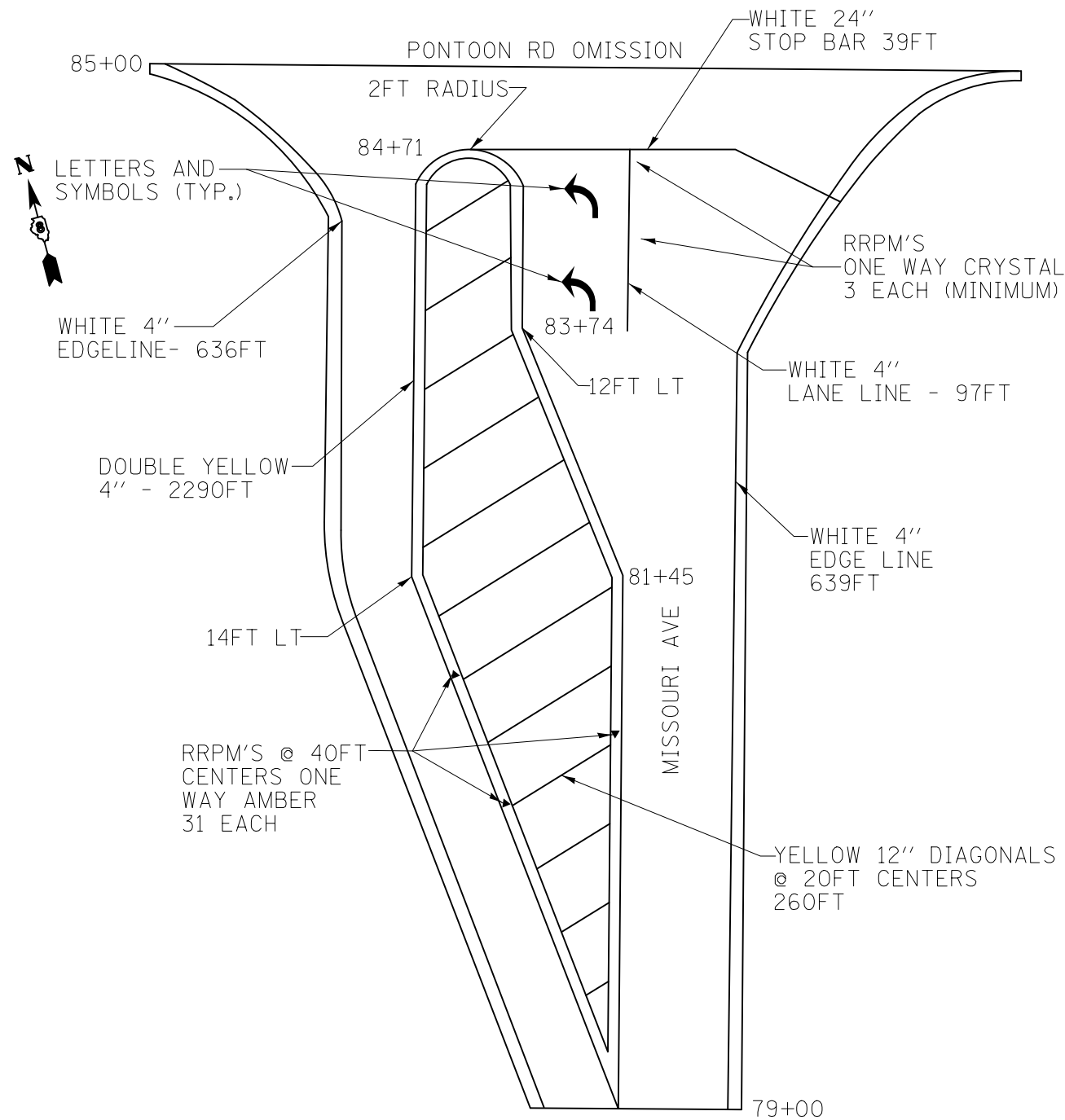
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP

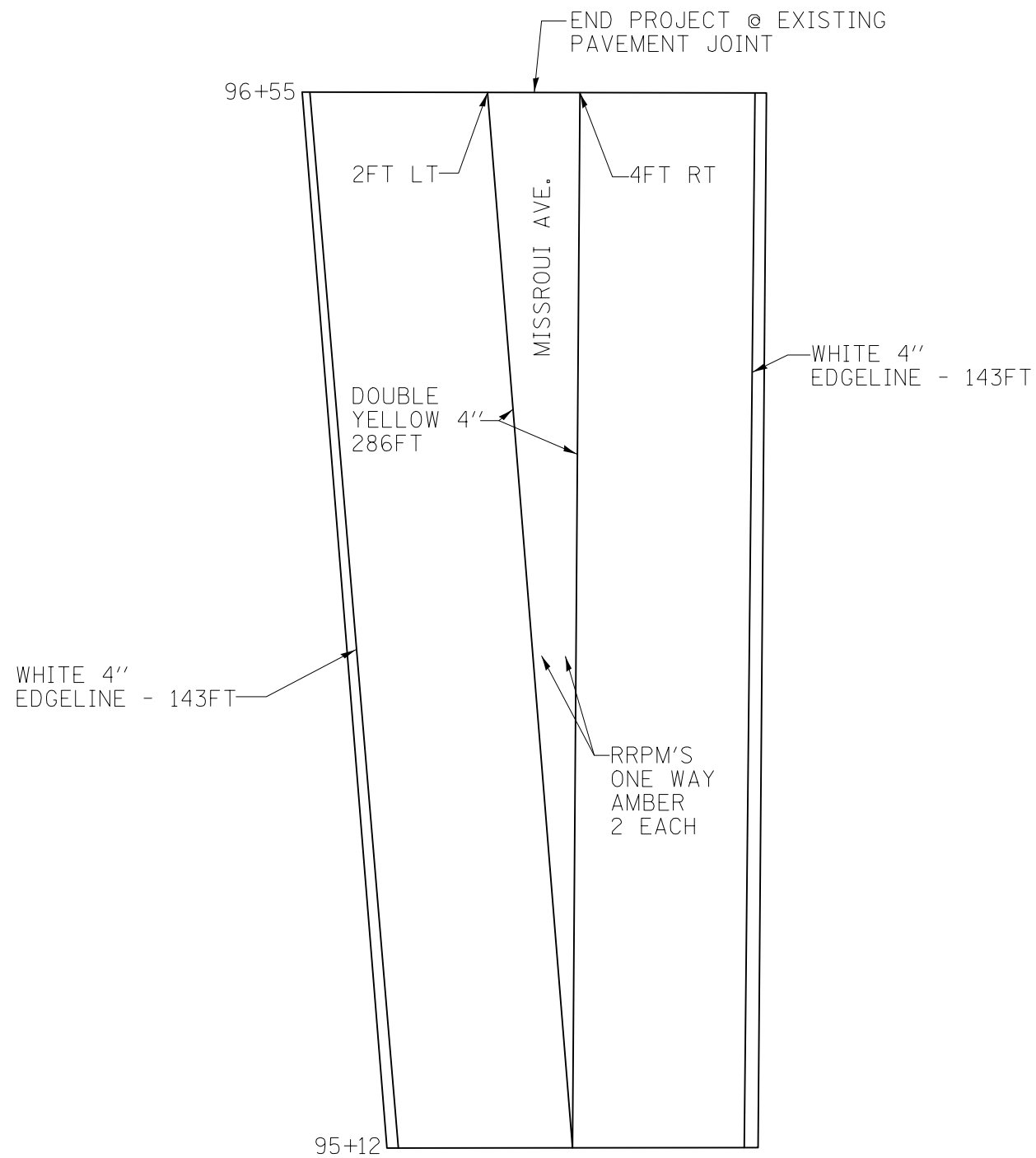
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76F67	



NOT TO SCALE

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PLOT DATE = 10/21/2013		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								
				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.			



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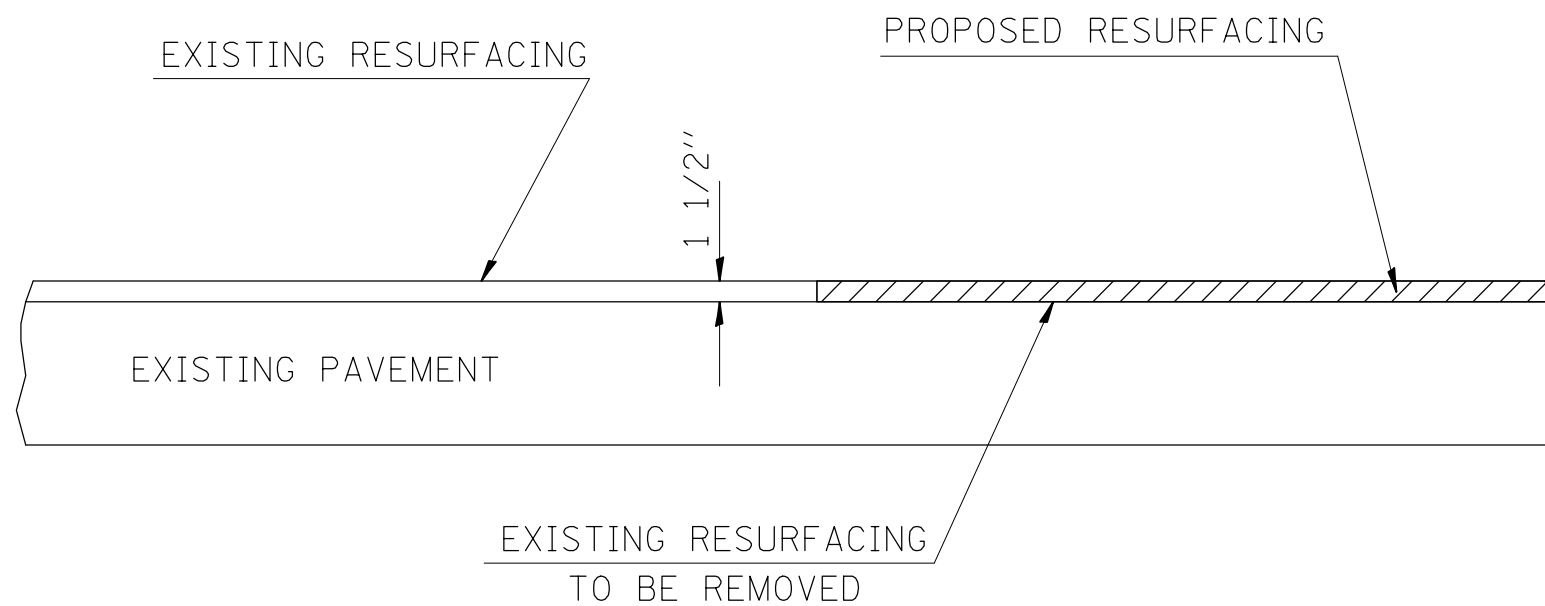
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	12
CONTRACT NO. 76F67				
ILLINOIS FED. AID PROJECT				



BUTT JOINT DETAIL

BEGIN PROJECT STA. 0+00
 RAILROAD OMISSION STA. 43+61
 RAILROAD OMISSION STA. 44+11
 RAILROAD OMISSION STA. 72+51
 RAILROAD OMISSION STA. 72+87
 PONTOON RD. OMISSION STA. 85+00
 PONTOON RD. OMISSION STA. 85+62
 END PROJECT STA. 96+55

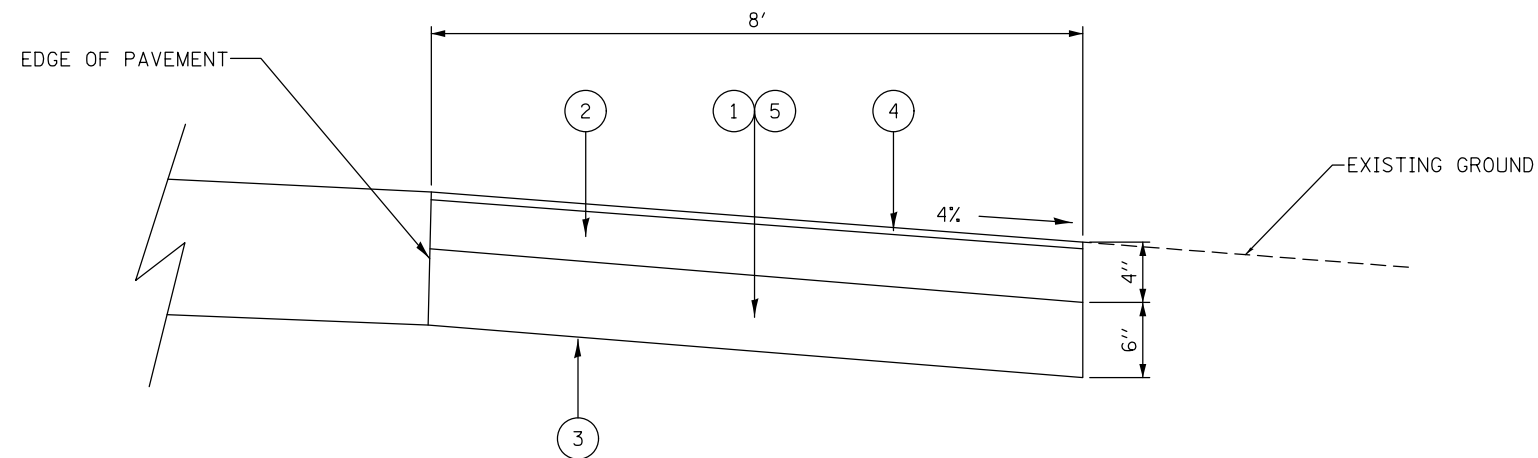
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	PLOT DATE = 10/21/2013	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

BUTT JOINT DETAIL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	13
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76F67	



SHOULDER REPAIR DETAIL

STA. 17+45 TO 17+90 LT
 STA. 17+81 TO 20+85 RT
 STA. 21+15 TO 21+88 RT
 STA. 21+15 TO 22+22 LT
 STA. 22+28 TO 23+45 RT
 STA. 24+00 TO 28+05 LT
 STA. 24+55 TO 25+63 RT
 STA. 33+19 TO 35+29 RT

- ① POROUS GRANULAR EMBANKMENT (SPECIAL)
- ② AGGREGATE SHOULDERS
- ③ FILTER FABRIC
- ④ A2 SURFACE TREATMENT
- ⑤ EARTH EXCAVATION

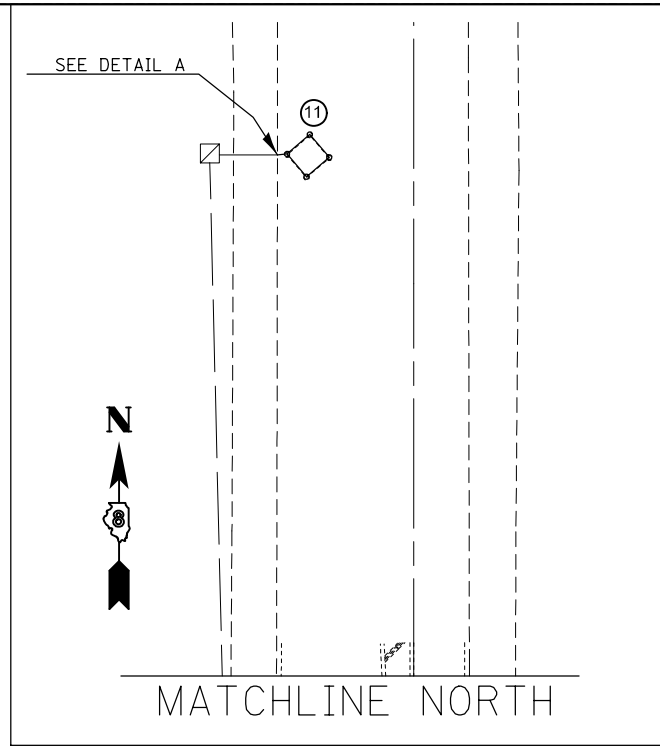
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	PLOT DATE = 10/21/2013	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHOULDER REPAIR DETAIL

SCALE: SHEET OF SHEETS STA. TO STA.

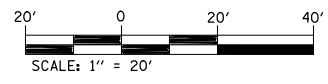
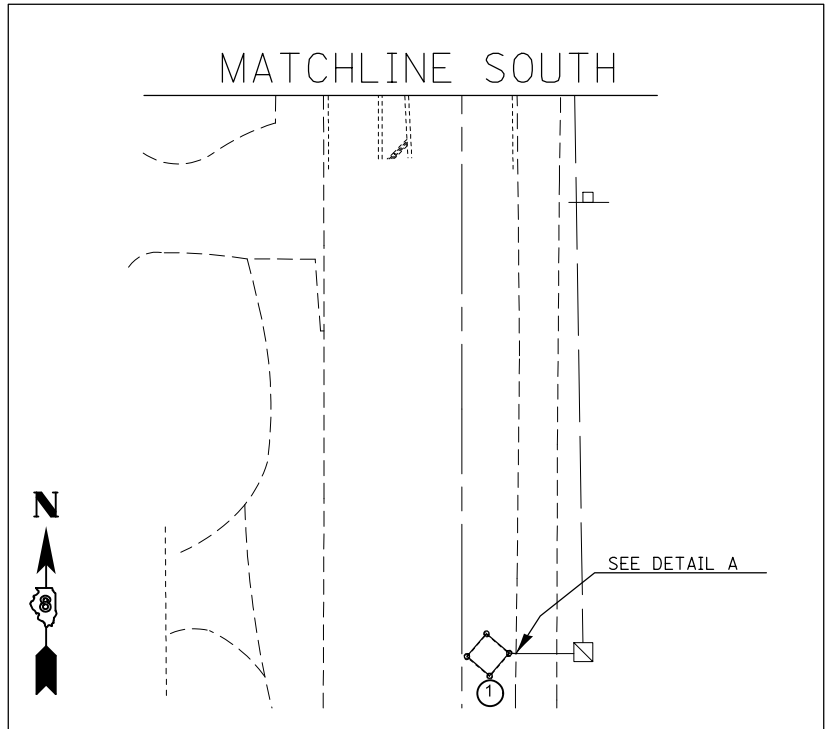
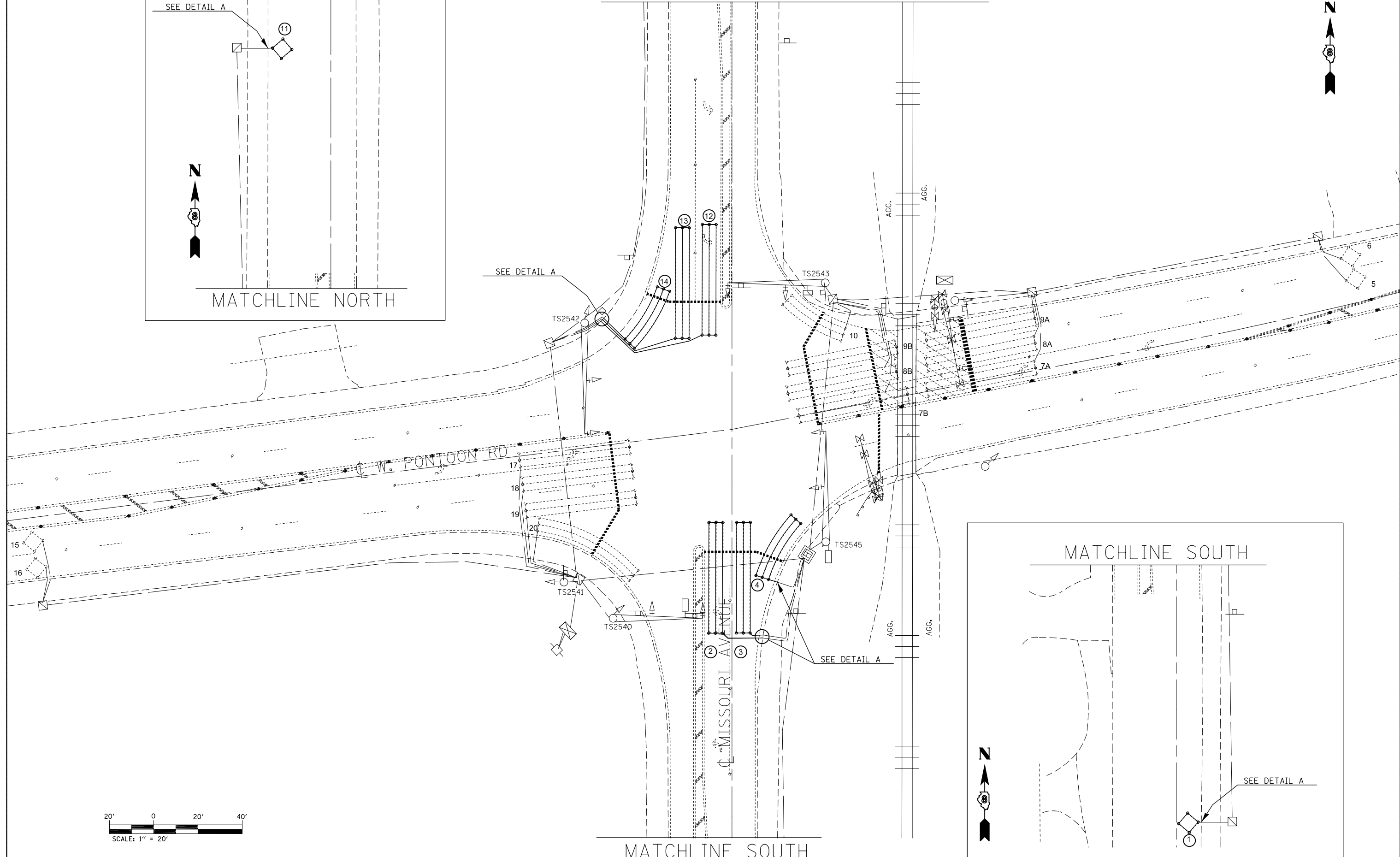
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9094	(1-X)RS-4	MADISON	16	14
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76F67	



MATCHLINE NORTH



SEE DETAIL A



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
1 OF 2

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	(1-X)RS-4	MADISON	16	15
CONTRACT NO. 76F67				

ILLINOIS FED. AID PROJECT

NOTES:

SEE TABLE "DETECTOR LOOP REQUIREMENTS AND CALCULATIONS" FOR LOOP SIZE AND CALCULATED NUMBER OF TURNS.

SEE "DETAIL A" FOR INSTALLING DETECTOR LOOP WIRES IN EXISTING CONDUITS.

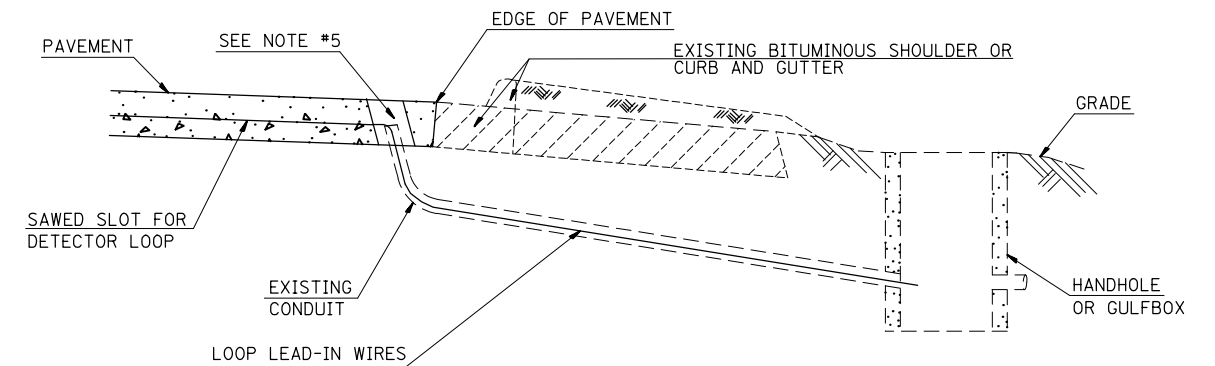
SCHEDULE OF QUANTITIES			TOTAL QUANTITIES	MO. AVE. & PONTOON RD.		
CODE NO	ITEM	UNIT				
80300100	LOCATING UNDERGROUND CABLE	FOOT	50	50		
88600600	DETECTOR LOOP REPLACEMENT	FOOT	1039	1039		

DETECTOR LOOP REQUIREMENTS AND CALCULATIONS FOR MISSOURI AVE. AND PONTOON RD.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1. NB. CCO	6	6 X 6	7	455.6	2.5
2. NB. LT CD	1	6 X 50-Q	3-6-3	832.9	2.7
3. NB. THRU CD	6	6 X 50-Q	3-6-3	829.6	2.6
4. NB. RT CD	6	6 X 30-Q	3-6-3	523.6	1.8
5. WB. CCO	4	6 X 6	NA	NA	NA
6. WB. CCO	4	6 X 6	NA	NA	NA
7A. WB. LT CD	7	6 X 50-Q	NA	NA	NA
8A. WB. THRU A CD	4	6 X 50-Q	NA	NA	NA
9A. WB. THRU B CD	4	6 X 50-Q	NA	NA	NA
7B. WB. LT CD	7	6 X 50-Q	NA	NA	NA
8B. WB. THRU A CD	4	6 X 50-Q	NA	NA	NA
9B. WB. THRU B CD	4	6 X 50-Q	NA	NA	NA
10. WB RT CD	4	6 X 30-Q	NA	NA	NA
11. SB. CCO	2	6 X 6	7	464.8	2.7
12. SB. LT CD	5	6 X 50-Q	3-6-3	810.9	2.2
13. SB. THRU CD	5	6 X 50-Q	3-6-3	808.2	2.1
14. SB. RT CD	5	6 X 30-Q	3-6-3	502.9	1.4
15.EB. CCO	8	6 X 6	NA	NA	NA
16.EB. CCO	8	6 X 6	NA	NA	NA
17.EB. LT CD	3	6 X 50-Q	NA	NA	NA
18.EB. THRU CD	8	6 X 50-Q	NA	NA	NA
19.EB. THRU CD	8	6 X 50-Q	NA	NA	NA
20.EB. RT CD	8	6 X 30-Q	NA	NA	NA

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

Q=QUADRAPOLE



DETAIL A
(NO SCALE)
INSTALLING DETECTOR LOOP WIRES IN EXISTING CONDUIT

1. DRILL OUT PAVEMENT SEALANT AND CLEAN EXISTING CONDUIT.
2. REMOVE EXISTING DETECTOR LOOP WIRES TO HANDHOLE OR GULFBOX.
3. INSTALL NEW LOOP LEAD-IN WIRES IN EXISTING CONDUIT.
4. SPLICE NEW DETECTOR LOOP WIRES TO EXISTING LOOP LEAD-IN CABLE IN HANDHOLE OR GULFBOX.
5. FILL HOLE WITH APPROVED SEALER. PREVENT SEALER FROM ENTERING INTO CONDUIT.
6. LOCATING UNDERGROUND CABLE WILL BE PAID FOR SEPARATELY.

NOT A PAY ITEM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "DETECTOR LOOP REPLACEMENT"

DETECTOR LOOP REPLACEMENT LEGEND

- ☐ EX. HANDHOLE
- ⋯ EX. DETECTOR LOOP
- ⊠ EX. TRAFFIC SIGNAL CONTROLLER
- EXISTING CONDUIT
- ▭ PROPOSED DETECTOR LOOP