

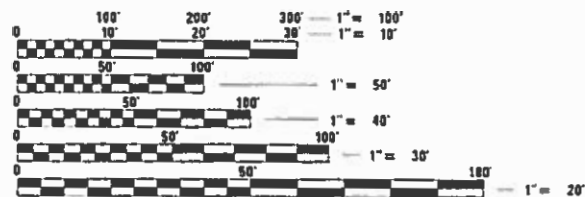
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FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO.2

TRAFFIC DATA

2017 ADT (ACTUAL): 12100
 2038 ADT (ESTIMATED): 12200
 SU: 6.0%
 MU: 2.4%



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 LOCATING INFORMATION FOR EXCAVATORS
 1-800-892-0123
 OR 811

PROJECT ENGINEER: TIM PADGETT (618) 346-3325
 PROJECT MANAGER: MESERET SIMA (618) 346-3141

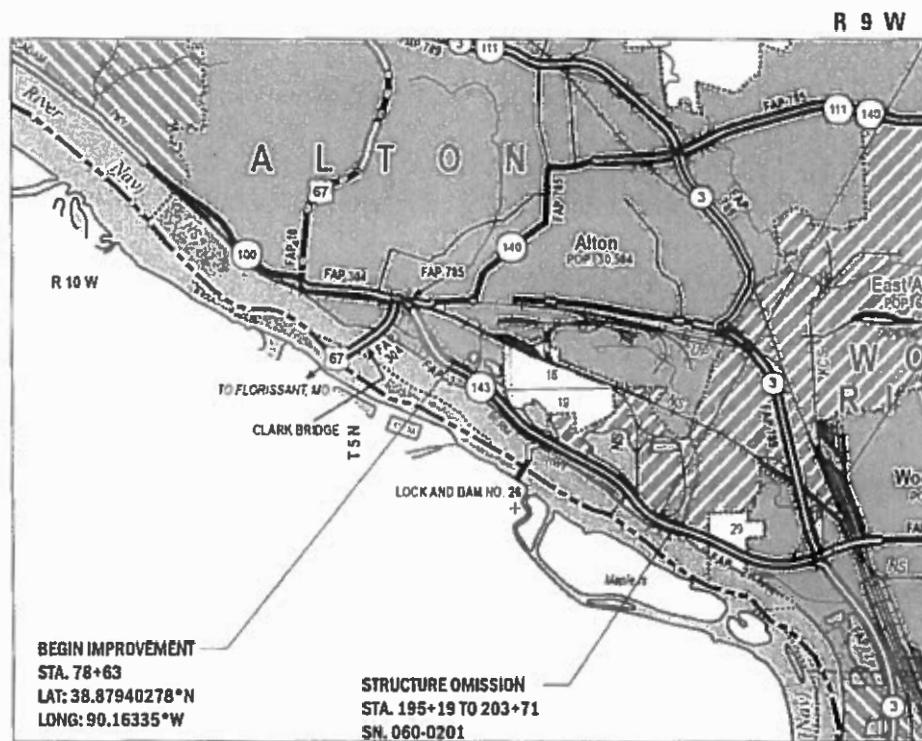
CONTRACT NO. 76N09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 HIGHWAY PLANS**

F.A.P. ROUTE 2 (IL-143)
 SECTION 406RS-3
 PROJECT NHPP-B89L(558)
 RESURFACING-SMART FROM 0.3 MILES S OF
 DISCOVERY PKWY TO 0.2 MILES N OF IL 3
 MADISON COUNTY

C-98-049-20



BEGIN IMPROVEMENT
 STA. 78+63
 LAT: 38.87940278°N
 LONG: 90.16335°W

STRUCTURE OMISSION
 STA. 195+19 TO 203+71
 SN. 060-0201

STRUCTURE OMISSION
 STA. 191+00 TO 192+98
 SN. 060-0200

END IMPROVEMENT
 STA. 251+81
 LAT: 38.85658889°N
 LONG: 90.11166667°W



GROSS LENGTH = 17,318.40 FEET = 3.280 MILES
 NET LENGTH = 16,268.40 FEET = 3.081 MILES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	1
		ILLINOIS	CONTRACT NO. 76N09	

D-98-035-20



LOCATION OF SECTION INDICATED THIS: —

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 2 20 19
Keith Roberts
 REGIONAL ENGINEER

Jan 31 20 20
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

Jan 31 20 20
[Signature]
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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 OF THE STATE OF ILLINOIS**

HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-09	PAVEMENT JOINTS
442001-04	CLASS A PATCHES
701400-09	APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS \geq 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS \geq 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
701446-10	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701456-05	PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY

GENERAL NOTES

- ① ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. (1-800-892-0123 OR 811) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY.
- ② THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- ③ THE THICKNESS OF HOT-MIX ASPHALT SURFACE MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- ④ AN ESTIMATED QUANTITY OF 7970 TONS OF CUTTINGS FROM HMA REMOVAL IS ANTICIPATED.
- ⑤ THE PROPOSED PAVEMENT MARKINGS SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKINGS, AS DIRECTED BY THE ENGINEER.
- ⑥ THE MATERIAL TRANSFER DEVICE CAN CROSS IN AN UNLOADED CONDITION ON ALL STRUCTURES WITHIN THE PROJECT LIMITS.
- ⑦ TWO CHANGEABLE MESSAGE SIGNS SHALL BE PLACED 14 DAYS IN ADVANCE OF CONSTRUCTION. EXACT LOCATION OF CHANGEABLE MESSAGE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
- ⑧ THE DEPARTMENT 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 IN 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. 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 METTING WORKFORCE AND TRAINEE GOALS.
- ⑨ LOCATING UNDERGROUND CABLE WILL BE PAID AS FORCE ACCOUNT PER ARTICLE 109.04.
- ⑩ THE MIXTURE REQUIREMENTS ARE AS FOLLOWS:

MIXTURE USE	SURFACE
AC/PG	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=90
MIX COMPOSITION (GRADATION)	IL 9.5
FRICTION AGG	MIXTURE "D"
QUALITY MGMT PROGRAM	QCP

PLAN QUANTITIES FOR BITUMINOUS CONCRETE SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN

COMMITMENTS

NONE

REV. - MS

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PLOT DATE = 11/26/2019	DATE -	REVISED +

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	2
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76N09	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	NHPP ROADWAY 0005 URBAN
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	42694		42694
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	340		340
40600990	TEMPORARY RAMP	SQ YD	275		275
40604064	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	TON	7970		7970
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	94876		94876
44200565	CLASS A PATCHES, TYPE II, 11 INCH	SQ YD	252		252
44200569	CLASS A PATCHES, TYPE III, 11 INCH	SQ YD	18		18
44200571	CLASS A PATCHES, TYPE IV, 11 INCH	SQ YD	29		29
44213000	PATCHING REINFORCEMENT	SQ YD	299		299
44213200	SAW CUTS	FOOT	1980		1980
44213204	TIE BARS 3/4"	EACH	10		10
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2		2
67100100	MOBILIZATION	L SUM	1		1
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	L SUM	1		1

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	3
CONTRACT NO. 76N09			ILLINOIS FED. AID PROJECT	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				NHPP ROADWAY 0005 URBAN	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1	1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	5006	5006	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2012	2012	
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	281	281	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	74941	74941	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	266	266	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	281	281	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE4"	FOOT	74941	74941	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	266	266	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	436	436	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	436	436	
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	5011	5011	
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	25793	25793	

* SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				80% FED 20% STATE	
				NHPP ROADWAY 0005 URBAN	
Ø Z0076600	TRAINEES	HOUR	500	500	
Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	43899	43899	
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500	
Z0034105	MATERIAL TRANSFER DEVICE	TON	7970	7970	

Ø 0042

REV. - MS

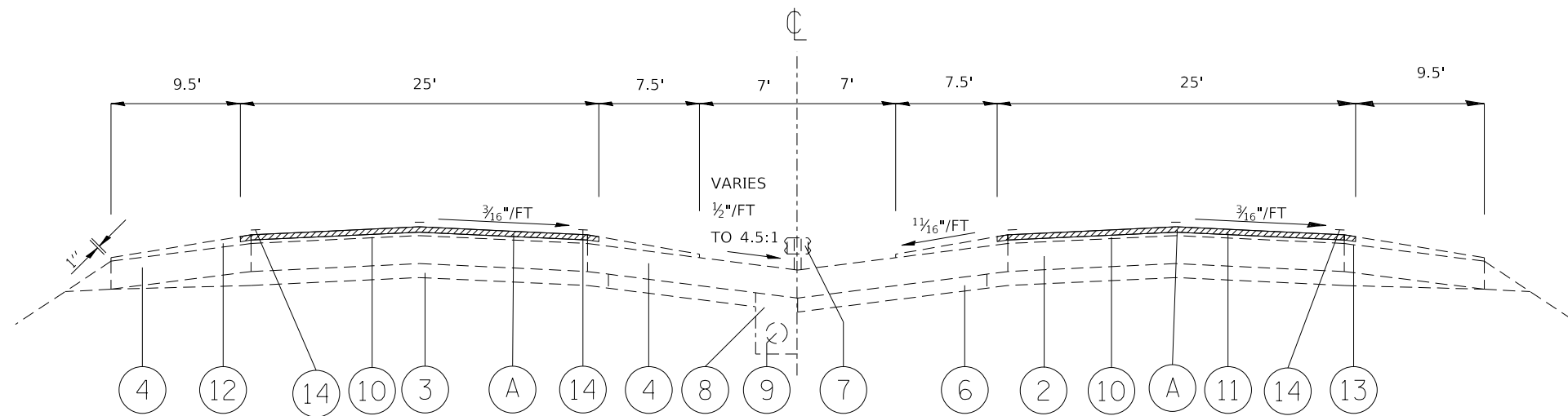
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

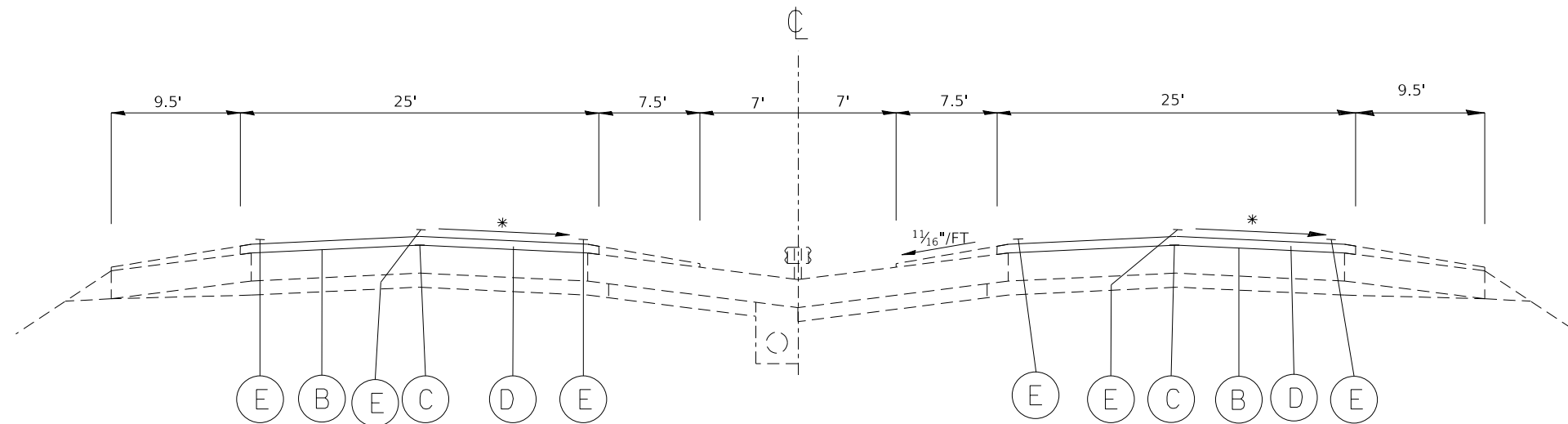
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	4
CONTRACT NO. 76N09			ILLINOIS FED. AID PROJECT	



EXISTING TYPICAL SECTION

STA. 78+63 TO STA. 86+40
 STA. 96+85 TO STA. 158+00
 STA. 217+59 TO STA. 250+54



PROPOSED TYPICAL SECTION

STA. 78+63 TO STA. 86+40
 STA. 96+85 TO STA. 158+00
 STA. 217+59 TO STA. 250+54

* MATCH EXISTING

LEGEND

- ① EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-9.24
- ② EXISTING CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- ③ EXISTING STABILIZED SUB-BASE, 4"
- ④ EXISTING STABILIZED SHOULDERS, 8"
- ⑤ EXSITING CONCRETE MEDIAN SURFACE, 4"
- ⑥ EXISTING SUB-BASE GRANULAR MATERIAL, TYPE C
- ⑦ EXISTING STEEL PLATE BEAM GUARDRAIL, DOUBLE RAIL
- ⑧ EXISTING PCC
- ⑨ EXISTING PIPE UNDERDRAINS, 6"

LEGEND

- ⑩ EXISTING LEVEL BINDER, MACHINE METHOD, SUPERPAVE 1"
- ⑪ EXISTING POLYMERIZED SURFACE COURSE, SUPERPAVE, 1 1/2"
- ⑫ EXISTING BITUMINOUS SHOULDERS, SUPERPAVE
- ⑬ EXISTING STRIP REFLECTIVE CRACK CONTROL
- ⑭ EXISTING THERMOPLASTIC PAVEMENT MARKING LINE, 4"
- (A) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- (B) PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- (C) PROPOSED LONGITUDINAL JOINT SEALANT
- (D) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90 1 1/2"
- (E) PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE, 4"

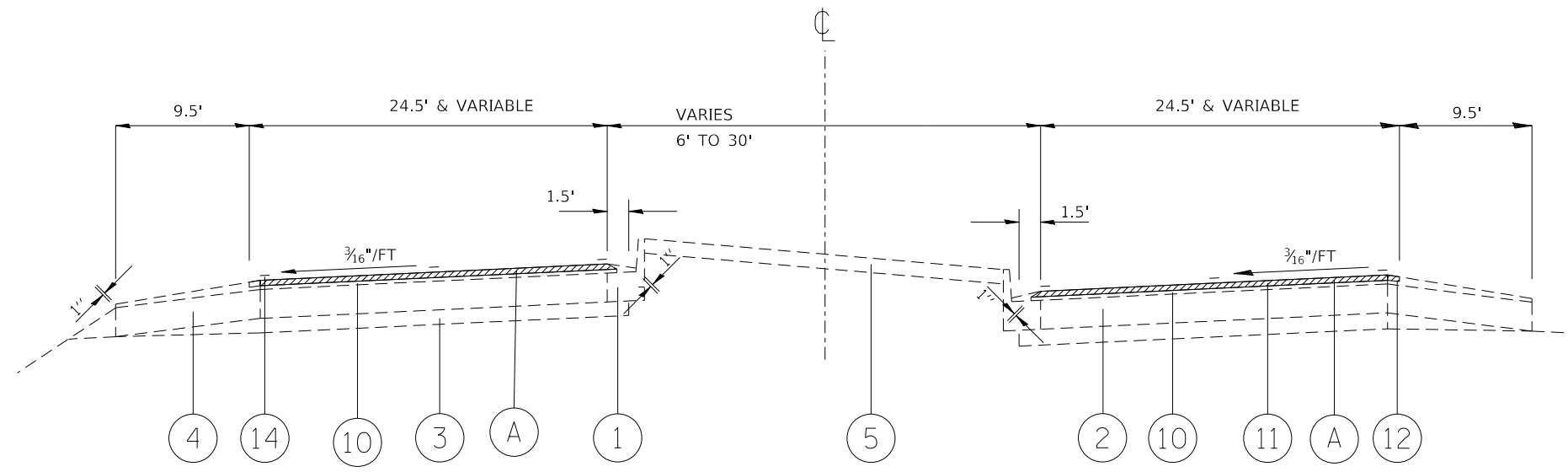
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 OFFICE: DISTRICT 8
 PROJECT: 406RS-3
 SHEET: 15 OF 15

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

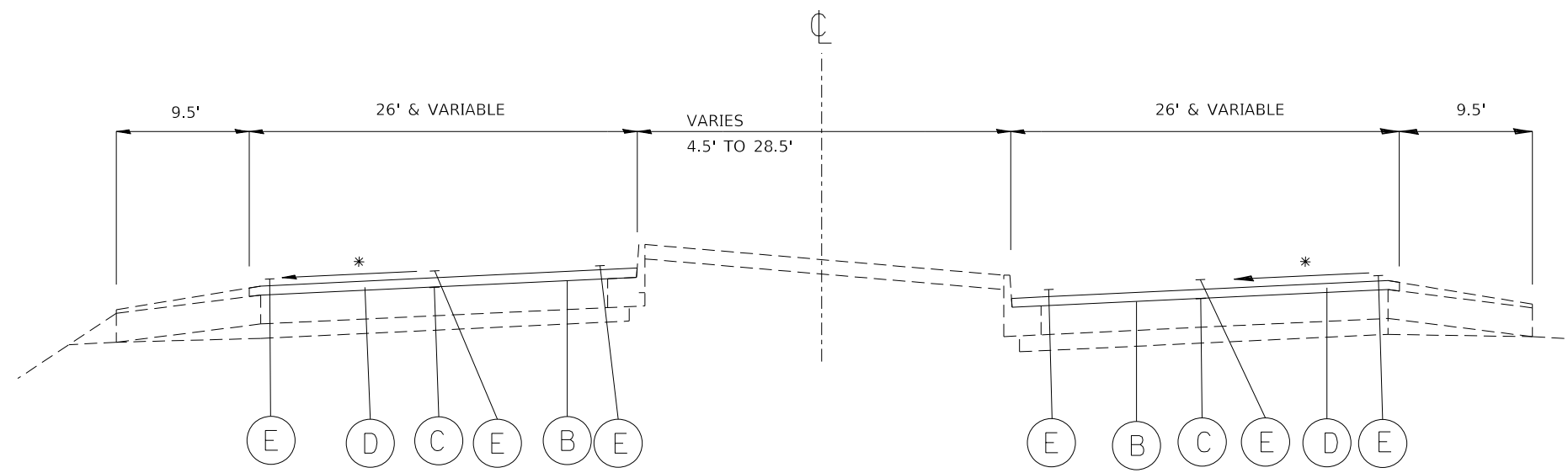
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	5
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION

STA. 86+40 TO STA. 96+85
 STA. 158+48 TO STA. 173+66
 STA. 205+15 TO STA. 217+59
 STA. 250+54 TO STA. 251+81



PROPOSED TYPICAL SECTION

STA. 86+40 TO STA. 96+85
 STA. 158+48 TO STA. 173+66
 STA. 205+15 TO STA. 217+59
 STA. 250+54 TO STA. 251+81

LEGEND

- ① EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-9.24
- ② EXISTING CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- ③ EXISTING STABILIZED SUB-BASE, 4"
- ④ EXISTING STABILIZED SHOULDERS, 8"
- ⑤ EXSITING CONCRETE MEDIAN SURFACE, 4"
- ⑥ EXISTING SUB-BASE GRANULAR MATERIAL, TYPE C
- ⑦ EXISTING STEEL PLATE BEAM GUARDRAIL, DOUBLE RAIL
- ⑧ EXISTING PCC
- ⑨ EXISTING PIPE UNDERDRAINS, 6"

LEGEND

- ⑩ EXISTING LEVEL BINDER, MACHINE METHOD, SUPERPAVE 1"
- ⑪ EXISTING POLYMERIZED SURFACE COURSE, SUPERPAVE, 1½"
- ⑫ EXISTING BITUMINOUS SHOULDERS, SUPERPAVE
- ⑬ EXISTING STRIP REFLECTIVE CRACK CONTROL
- ⑭ EXISTING THERMOPLASTIC PAVEMENT MARKING LINE, 4"
- Ⓐ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1½"
- Ⓑ PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- Ⓒ PROPOSED LONGITUDINAL JOINT SEALANT
- Ⓓ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90 1½"
- Ⓔ PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE, 4"

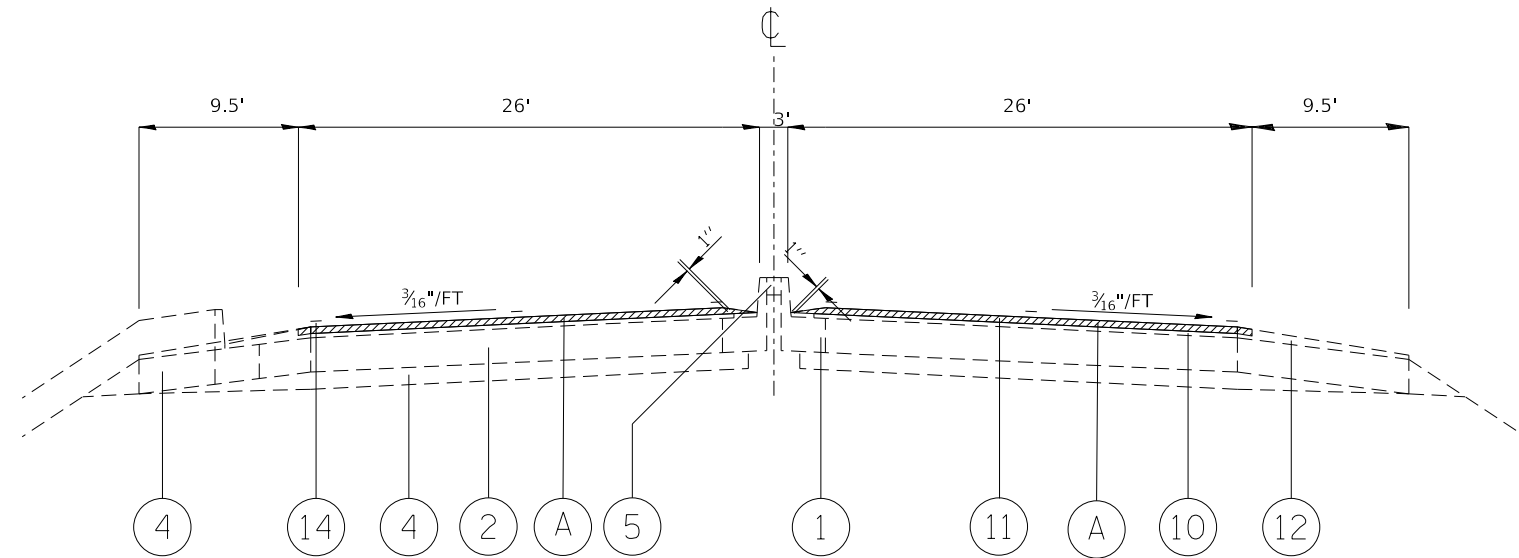
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

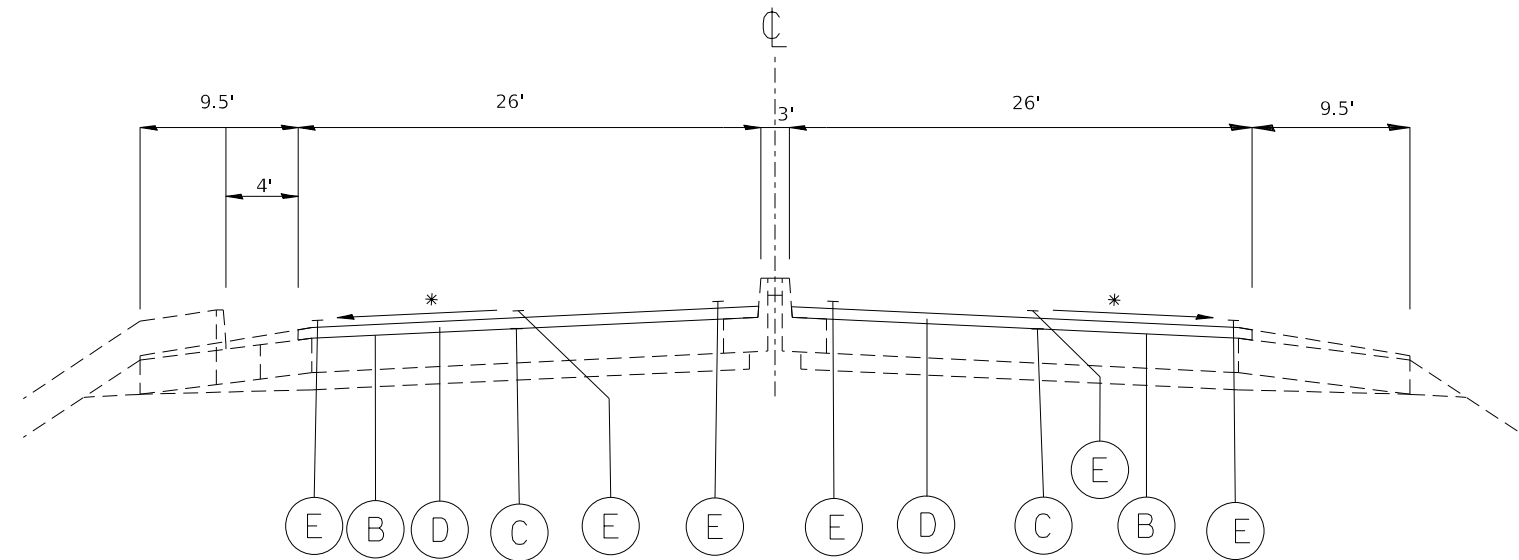
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	6
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION AUXILIARY LANE

STA. 173+66 TO STA. 191+00
 STA. 191+00 TO STA. 192+98 (BRIDGE OMISSION)
 STA. 192+98 TO STA. 195+19
 STA. 195+19 TO STA. 203+71 (BRIDGE OMISSION)
 STA. 203+71 TO STA. 205+15



* MATCH EXISTING

PROPOSED TYPICAL SECTION AUXILIARY LANE

STA. 173+66 TO STA. 191+00
 STA. 191+00 TO STA. 192+98 (BRIDGE OMISSION)
 STA. 192+98 TO STA. 195+19
 STA. 195+19 TO STA. 203+71 (BRIDGE OMISSION)
 STA. 203+71 TO STA. 205+15

LEGEND

- ① EXISTING COMBINATION CONCRETE CURB & GUTTER, TYPE B-9.24
- ② EXISTING CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- ③ EXISTING STABILIZED SUB-BASE, 4"
- ④ EXISTING STABILIZED SHOULDERS, 8"
- ⑤ EXSITING CONCRETE MEDIAN SURFACE, 4"
- ⑥ EXISTING SUB-BASE GRANULAR MATERIAL, TYPE C
- ⑦ EXISTING STEEL PLATE BEAM GUARDRAIL, DOUBLE RAIL
- ⑧ EXISTING PCC
- ⑨ EXISTING PIPE UNDERDRAINS, 6"

LEGEND

- ⑩ EXISTING LEVEL BINDER, MACHINE METHOD, SUPERPAVE 1"
- ⑪ EXISTING POLYMERIZED SURFACE COURSE, SUPERPAVE, 1 1/2"
- ⑫ EXISTING BITUMINOUS SHOULDERS, SUPERPAVE
- ⑬ EXISTING STRIP REFLECTIVE CRACK CONTROL
- ⑭ EXISTING THERMOPLASTIC PAVEMENT MARKING LINE, 4"
- A PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"
- B PROPOSED BITUMINOUS MATERIALS (TACK COAT)
- C PROPOSED LONGITUDINAL JOINT SEALANT
- D PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90 1 1/2"
- E PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE, 4"

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS			
SCALE:	SHEET 3	OF 3	SHEETS
STA.	TO STA.		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	7
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				

CLASS A PAVEMENT PATCHING 11 INCH SCHEDULE

STATION	LANE	LENGTH	LANE WIDTH	CLASS A PATCH TYPE II	CLASS A PATCH TYPE III	CLASS A PATCH TYPE IV	PATCHING REINF.	TIE BARS NO. 6	SAWCUT
		FOOT	FOOT	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(EACH)	(FT)
NORTHBOUND									
251+73	2	6	12	8.00			8.00		60.00
204+61	1	6	12	8.00			8.00		60.00
204+61	2	6	12	8.00			8.00		60.00
194+61	1	6	12	8.00			8.00		60.00
194+61	2	6	12	8.00			8.00		60.00
193+01	1	6	12	8.00			8.00		60.00
193+01	2	6	12	8.00			8.00		60.00
171+04	1	6	12	8.00			8.00		60.00
171+04	2	12	12		16.00		16.00		72.00
128+98	1	6	12	8.00			8.00		60.00
78+63	2	6	12	8.00			8.00		60.00
SOUTHBOUND									
78+63	1	6	12	8.00			8.00		60.00
78+63	2	6	12	8.00			8.00		60.00
110+44	1	10	12	13.33			13.33		68.00
142+16	1	20	12			26.67	26.67	9.00	88.00
142+16	2	6	12	8.00			8.00		60.00
170+01	2	6	12	8.00			8.00		60.00
170+01	1	6	12	8.00			8.00		60.00
172+37	1	6	12	8.00			8.00		60.00
172+58	2	6	12	8.00			8.00		60.00
191+13	1	8	12	10.67			10.67		64.00
193+83	1	6	12	8.00			8.00		60.00
193+83	2	6	12	8.00			8.00		60.00
195+38	1	6	12	8.00			8.00		60.00
195+38	2	6	12	8.00			8.00		60.00
204+81	1	6	12	8.00			8.00		60.00
204+81	2	10	12	13.33			13.33		68.00
218+75	1	6	12	8.00			8.00		60.00
SUB-TOTAL				229.33	16.00	26.67	272.00	9.00	1800.00
ANTICIPATED FAILURES (10%)				22.93	1.60	2.67	27.20	0.90	180
TOTAL				252	18	29	299	10	1980

NOTE: ALL LANE NUMBERS ARE FROM LEFT TO RIGHT IN DIRECTION OF TRAVEL.

PAVEMENT SCHEDULE

LOCATION			HMA SURFACE REMOVAL, 1 1/2"	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N90	LONGITUDINAL JOINT SEALANT
STA.	TO	STA.	SQ YD	POUND	TON	FOOT
IL-143 SOUTHBOUND						
78+63	TO	86+40	2158.33	971.25	181.30	777.00
86+40	TO	96+85	3018.89	1358.50	253.59	2090.00
96+85	TO	158+00	16986.11	7643.75	1426.83	6115.00
158+00	TO	173+66	4524.00	2035.80	380.02	3132.00
173+66	TO	191+00	4816.67	2167.50	404.60	1734.00
191+00	TO	192+98				
BRIDGE OMISSION						
192+98	TO	195+19	638.44	287.30	53.63	221.00
195+19	TO	203+71				
BRIDGE OMISSION						
203+71	TO	205+15	416.00	187.20	34.94	144.00
205+15	TO	217+59	3593.78	1617.20	301.88	2488.00
217+59	TO	250+54	9152.78	4118.75	768.83	3295.00
250+54	TO	251+81	366.89	165.10	30.82	127.00
87+63		LEFT TURN LANE	468.00	210.60	39.31	351.00
153+46		RIGHT TURN LANE	577.33	259.80	48.50	433.00
237+93		LEFT TURN LANE	602.67	271.20	50.62	452.00
IL-143 NORTHBOUND						
78+63	TO	86+42	2163.89	973.75	181.77	779.00
86+40	TO	96+85	3018.89	1358.50	253.59	1045.00
96+85	TO	158+00	16986.11	7643.75	1426.83	6115.00
158+00	TO	173+66	4524.00	2035.80	380.02	3132.00
173+66	TO	191+00	4816.67	2167.50	404.60	1734.00
191+00	TO	192+98				
BRIDGE OMISSION						
192+98	TO	195+19	638.44	287.30	53.63	221.00
195+19	TO	203+71				
BRIDGE OMISSION						
203+71	TO	205+15	416.00	187.20	34.94	144.00
205+15	TO	217+59	3593.78	1617.20	301.88	1244.00
217+59	TO	250+54	9152.78	4118.75	768.83	6590.00
250+54	TO	251+81	366.89	165.10	30.82	127.00
94+93		RIGHT TURN LANE	400.00	180.00	33.60	300.00
94+93		LEFT TURN LANE	400.00	180.00	33.60	300.00
163+39		LEFT TURN LANE	648.00	291.60	54.43	486.00
246+78		LEFT TURN LANE	430.67	193.80	36.18	323.00
SUB TOTAL			94876.00	42694.20	7969.58	43899.00
TOTAL			94876	42694	7970	43899

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	8
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				

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BUTT JOINT AND TEMPORARY RAMP SCHEDULE							
LOCATION			WIDTH	LENGTH	TEMPORARY RAMP LENGTH	HMA SURFACE REMOVAL - BUTT JOINT	TEMPORARY RAMP
STA.	TO	STA.	FOOT	FOOT	FOOT	SQ YD	SQ YD
IL-143 NORTHBOUND							
78+63	TO	78+73	25	10	5	27.78	14
190+90	TO	191+00	25	10	5	27.78	14
192+98	TO	193+08	26	10	5	28.89	14
195+09	TO	195+19	25	10	5	27.78	14
203+71	TO	203+81	26	10	5	28.89	14
251+71	TO	251+81	26	10	5	28.89	14
IL-143 SOUTHBOUND							
78+63	TO	78+73	25	10	5	27.78	14
190+90	TO	191+00	25	10	5	27.78	14
192+98	TO	193+08	26	10	5	28.89	14
195+09	TO	195+19	25	10	5	27.78	14
203+71	TO	203+81	26	10	5	28.89	14
251+71	TO	251+81	26	10	5	28.89	14
SIDE ROAD							
CPL. CHRIS BELCHIK MEMORIAL EXPRESSWAY (RT)			60		2		13
CPL. CHRIS BELCHIK MEMORIAL EXPRESSWAY (LT)			58		2		13
CPL. CHRIS BELCHIK MEMORIAL EXPRESSWAY			12		2		3
LOCKS AND DAM WAY			92		2		20
ACROSS LOCKS AND DAM WAY			48		2		11
CANAL RD			45		2		10
ENVIRO WAYL (RT)			56		2		12
ENVIRO WAY (LT/RT)			102		2		23
TOTAL						340	275

PAVEMENT MARKING SCHEDULE													
LOCATION			THERMOPLASTIC /TEMPORARY PAVEMENT MARKING LINE, 4"				TEMPORARY/THERMOPLASTIC PAVEMENT MARKING LINE 24"	THERMOPLASTIC /TEMPORARY PAVEMENT MARKING LINES, LETTERS & SYMBOLS	RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL	RAISED REFLECTIVE PAVEMENT MARKERS	TEMPORARY PAVEMENT MARKING REMOVAL	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL
			SOLID WHITE	SOLID WHITE	SOLID YELLOW	WHITE							
			LANE LINE	EDGE LINE	EDGE LINE	SKIP-DASH							
STA.	TO	STA.	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH	EACH	SQ FT	FOOT	SQ FT
IL-143 SOUTHBOUND													
78+63	TO	251+81		16268.4	16268	4067			203	203	12201	2780.4	926.8
BRIDGE OMISSION													
191+00	TO	192+98										33.8	11.3
195+19	TO	203+71										145.6	48.5
LEFT TURN LANE													
88+67	TO	91+18	251				40	46.8	7	7	210	42.9	14.3
RIGHT TURN LANE													
155+16	TO	157+81	265				36	46.8	9	9	207	45.3	15.1
LEFT TURN LANE													
240+52	TO	242+46	194				36	15.6			152	33.2	11.1
IL-143 NORTHBOUND													
78+63	TO	251+81		16268.0	16268	4067			203	203	12201	2780.3	926.8
BRIDGE OMISSION													
191+00	TO	192+98											
195+19	TO	203+71											
LEFT TURN LANE													
91+99	TO	94+45	246				36	46.8			201	42.0	14.0
RIGHT TURN LANE													
91+99	TO	94+77	278				36	31.2			196	47.5	15.8
LEFT TURN LANE													
158+56	TO	161+68	312				36	62.4	6	6	238	53.3	17.8
LEFT TURN LANE													
243+55	TO	245+43	188				46	31.2	7	7	186	32.1	10.7
SUB TOTAL			1734.00	32536.40	32536.40	8134.10	266.00	280.80	435.71	435.71	25793.10	5005.58	2012.19
TOTAL				74941			266	281	436	436	25793	5006	2012

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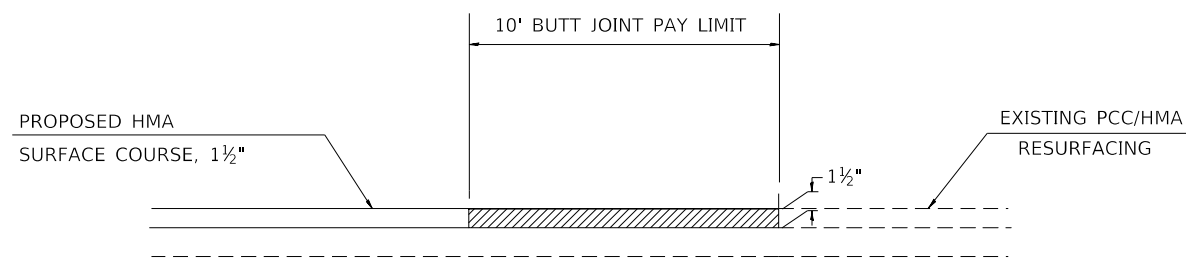
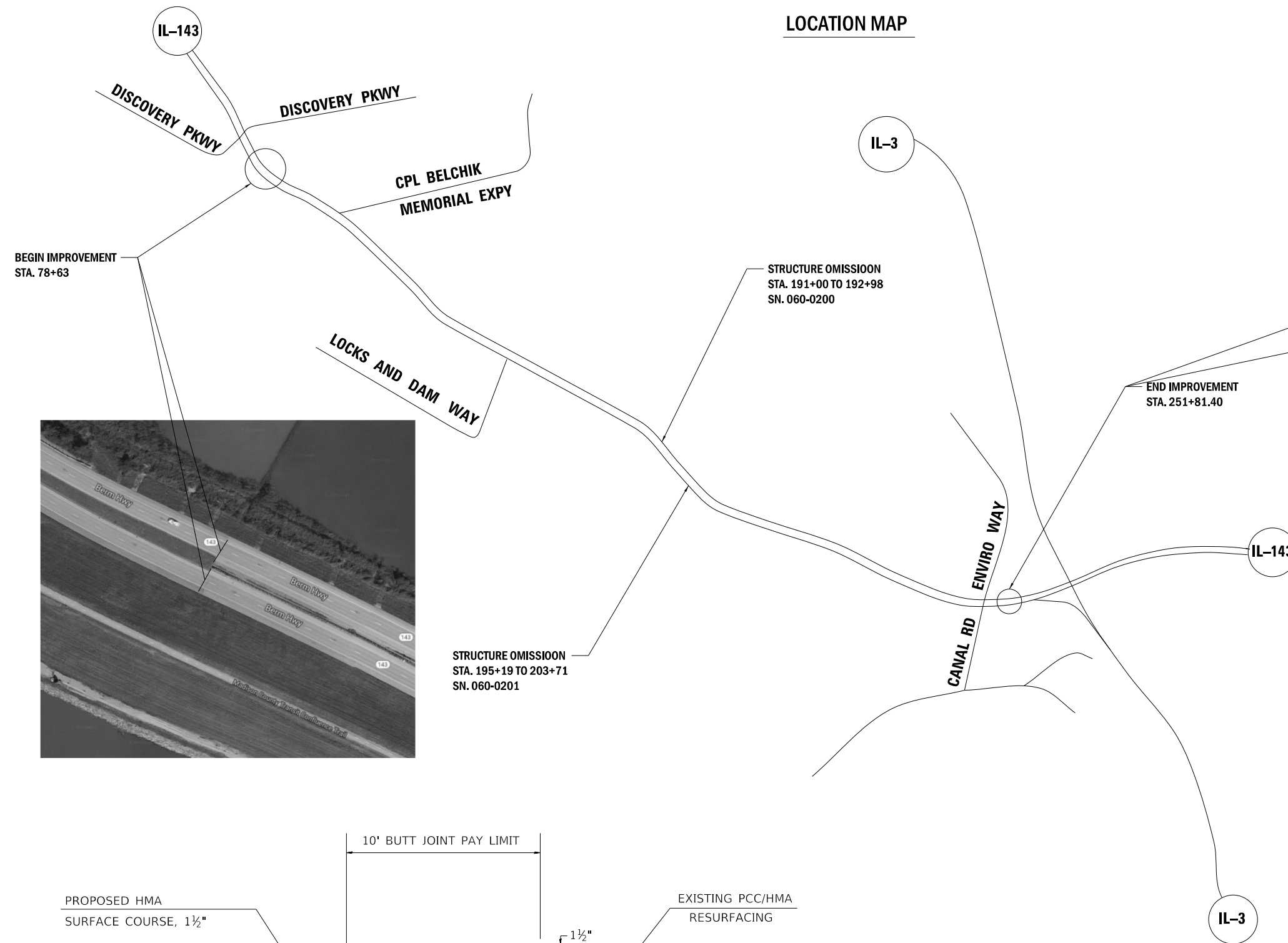
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	9
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				

LOCATION MAP



BUTT JOINT DETAIL

SEE SHEET 9 OF 15 FOR LOCATIONS.



NOT TO SCALE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOCATION MAP & BUTT JOINT DETAIL

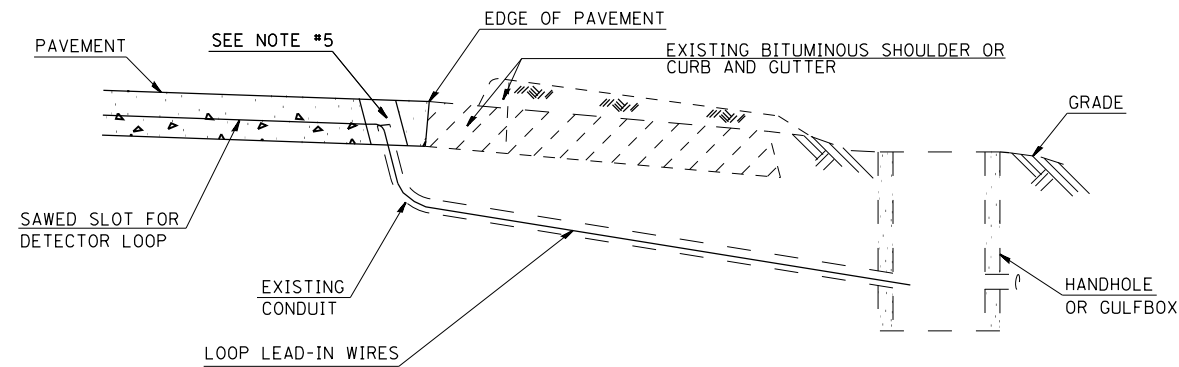
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	10
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				

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	IL 143 & CPL. BELCHIK	IL 143 & LOCKS & DAMS WAY	IL 143 & CANAL RD. ENVIROWAY
CODE NO	ITEM	UNIT				
80300100	LOCATING UNDERGROUND CABLE	FOOT	120	40	40	40
88600600	DETECTOR LOOP REPLACEMENT	FOOT	5011	1335	1316	2360



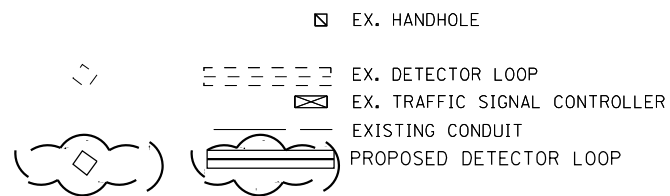
DETAIL A
(NO SCALE)

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



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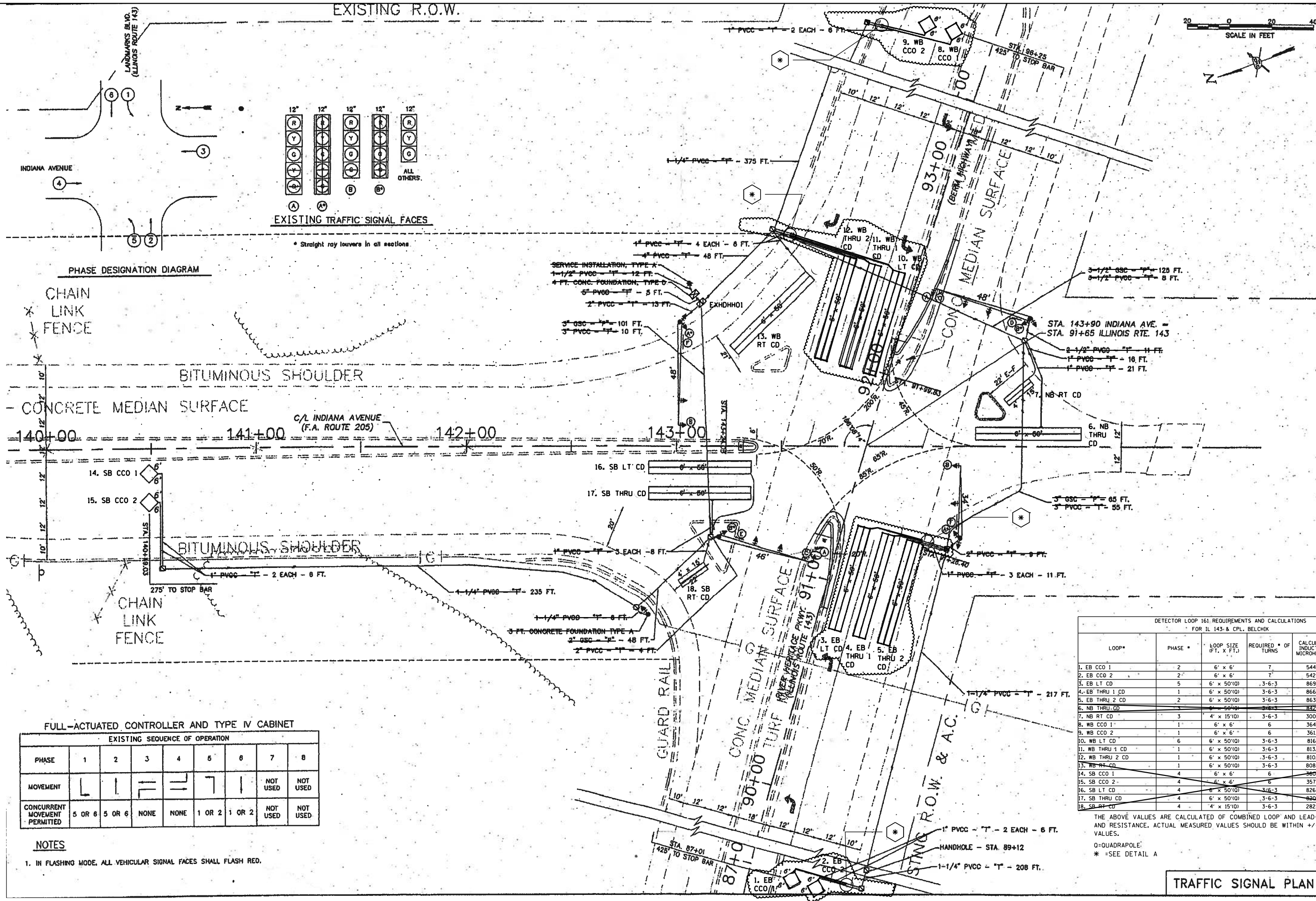
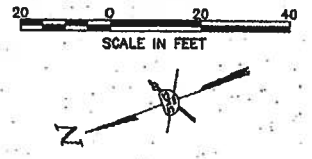
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT
GENERAL NOTES, SCHEDULE OF QUANTITIES,
DETAIL AND LEGEND**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	11
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				



PHASE DESIGNATION DIAGRAM



BITUMINOUS SHOULDER

CONCRETE MEDIAN SURFACE

C/L INDIANA AVENUE (F.A. ROUTE 205)

14. SB CCO 1

15. SB CCO 2

BITUMINOUS SHOULDER

CHAIN LINK FENCE

FULL-ACTUATED CONTROLLER AND TYPE IV CABINET

EXISTING SEQUENCE OF OPERATION		1	2	3	4	5	6	7	8
PHASE									
MOVEMENT		L	I	F	E	T	I	NOT USED	NOT USED
CONCURRENT MOVEMENT PERMITTED		5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED

NOTES

1. IN FLASHING MODE, ALL VEHICULAR SIGNAL FACES SHALL FLASH RED.

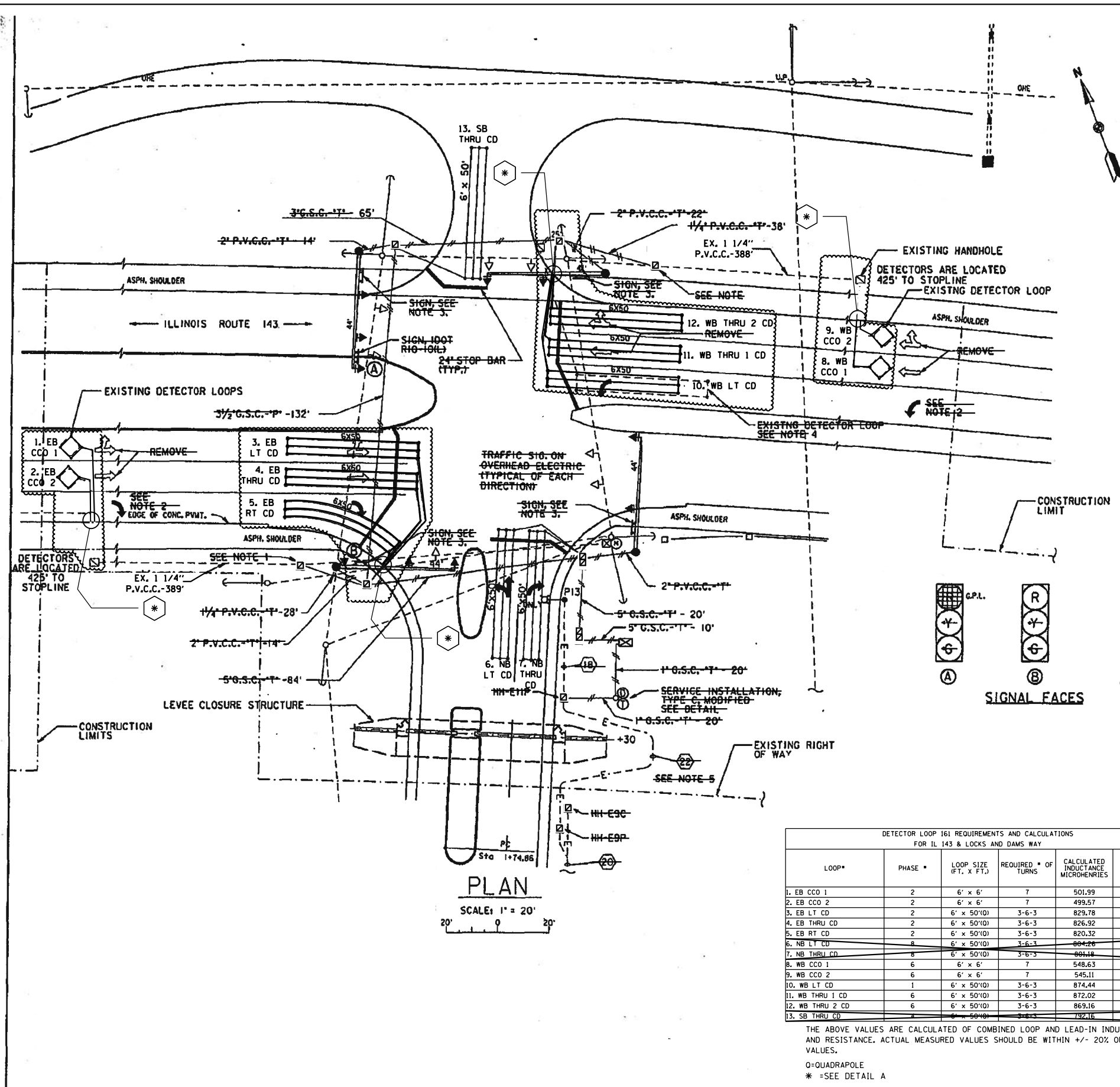
DETECTOR LOOP 161 REQUIREMENTS AND CALCULATIONS FOR IL 143 & CPL BELCHIK

LOOP*	PHASE *	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. EB CCO 1	2	6' x 6'	7	544.89	4.49
2. EB CCO 2	2	6' x 6'	7	542.03	4.42
3. EB LT CD	5	6' x 50'(0)	3-6-3	869.38	3.49
4. EB THRU 1 CD	1	6' x 50'(0)	3-6-3	866.74	3.43
5. EB THRU 2 CD	2	6' x 50'(0)	3-6-3	863.88	3.36
6. NB THRU CD	3	6' x 50'(0)	3-6-3	862.54	2.88
7. NB RT CD	3	4' x 15'(0)	3-6-3	300.70	1.69
8. WB CCO 1	1	6' x 6'	6	364.88	2.86
9. WB CCO 2	1	6' x 6'	6	361.58	2.79
10. WB LT CD	6	6' x 50'(0)	3-6-3	816.14	2.28
11. WB THRU 1 CD	1	6' x 50'(0)	3-6-3	813.50	2.22
12. WB THRU 2 CD	1	6' x 50'(0)	3-6-3	810.64	2.15
13. WB RT CD	1	6' x 50'(0)	3-6-3	808.00	2.09
14. SB CCO 1	4	6' x 6'	6	360.70	2.77
15. SB CCO 2	4	6' x 6'	6	357.62	2.70
16. SB LT CD	4	6' x 50'(0)	3-6-3	826.04	2.50
17. SB THRU CD	4	6' x 50'(0)	3-6-3	820.32	2.37
18. SB RT CD	4	4' x 15'(0)	3-6-3	282.00	1.66

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.
 0=QUADRAPOLE
 * =SEE DETAIL A

TRAFFIC SIGNAL PLAN

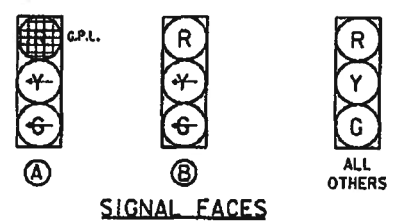
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	PLOT DATE = 10/15/2019	DATE -	REVISED -								



SEQUENCE OF OPERATION							
PHASE	1	2	3	4	5	7	8
MOVEMENT	WBLT	EB		SB		WB	NB
SIMULTANEOUS MOVEMENT PERMITTED	6	6	NOT USED	8	NOT USED	1 OR 2	4

APPLICABLE I.D.O.T. STANDARD DRAWINGS	
720016	MAST ARM MOUNTED STREET NAME SIGNS
814001	CONCRETE HANDHOLES
814006	DOUBLE HANDHOLES
834001	STEEL MAST ARM ASSEMBLY AND POLE
838001	CONCRETE FOUNDATION DETAILS
839001	TRAFFIC SIGNAL MOUNTING DETAILS
846001	DETECTOR LOOP INSTALLATION
846006	TYPICAL LAYOUT FOR DETECTION LOOPS
857001	STANDARD PHASE DESIGNATION DIAGRAMS
866001	ELECTRICAL SERVICE INSTALLATION DETAILS

LEGEND	
P.V.C.C.	POLYVINYL CHLORIDE CONDUIT
G.P.L.	GEOMETRICALLY PROGRAMMED LOUVER
G.S.C.	GALVANIZED STEEL CONDUIT
	EXISTING SIGNAL HEAD BRACKET MOUNTED ON CABLE
	PROPOSED SIGNAL HEAD WITH BACKPLATE MAST ARM MOUNTED
	EXISTING HANDHOLE
	PROPOSED TRAFFIC SIGNAL CONTROLLER
	EXISTING TRAFFIC SIGNAL CONTROLLER-POLE MOUNTED
	EXISTING DETECTOR LOOP
	PROPOSED DETECTOR LOOP - QUADRUPLE TYPE
	EXISTING ELECTRIC UTILITY METER
	DISCONNECT, 50A CIRCUIT BREAKER, NEMA 4X ENCLOSURE
	TRANSFORMER, 5KA OUTDOOR, POLE-MOUNTED
	PROPOSED CABLE RUN IN CONDUIT; 'T' - TRENCH 'P' - PUSHED
	EXISTING SPAN WIRE SIGNALS
	EXISTING DOWN-GUY WIRE



DETECTOR LOOP REQUIREMENTS AND CALCULATIONS FOR IL 143 & LOCKS AND DAMS WAY					
LOOP*	PHASE *	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. EB CCO 1	2	6' x 6'	7	501.99	3.51
2. EB CCO 2	2	6' x 6'	7	499.57	3.46
3. EB LT CD	2	6' x 50'(Q)	3-6-3	829.78	2.59
4. EB THRU CD	2	6' x 50'(Q)	3-6-3	826.92	2.52
5. EB RT CD	2	6' x 50'(Q)	3-6-3	820.32	2.37
6. NB LT CD	8	6' x 50'(Q)	3-6-3	804.26	2.01
7. NB THRU CD	8	6' x 50'(Q)	3-6-3	801.18	1.94
8. WB CCO 1	6	6' x 6'	7	548.63	4.57
9. WB CCO 2	6	6' x 6'	7	545.11	1.49
10. WB LT CD	1	6' x 50'(Q)	3-6-3	874.44	3.60
11. WB THRU 1 CD	6	6' x 50'(Q)	3-6-3	872.02	3.55
12. WB THRU 2 CD	6	6' x 50'(Q)	3-6-3	869.16	3.48
13. SB THRU CD	6	6' x 50'(Q)	3-6-3	792.18	1.73

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
 * -SEE DETAIL A

PLAN
SCALE: 1" = 20'

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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 143 & LOCKS AND DAMS WAY
DETECTOR LOOP REPLACEMENT PLAN**

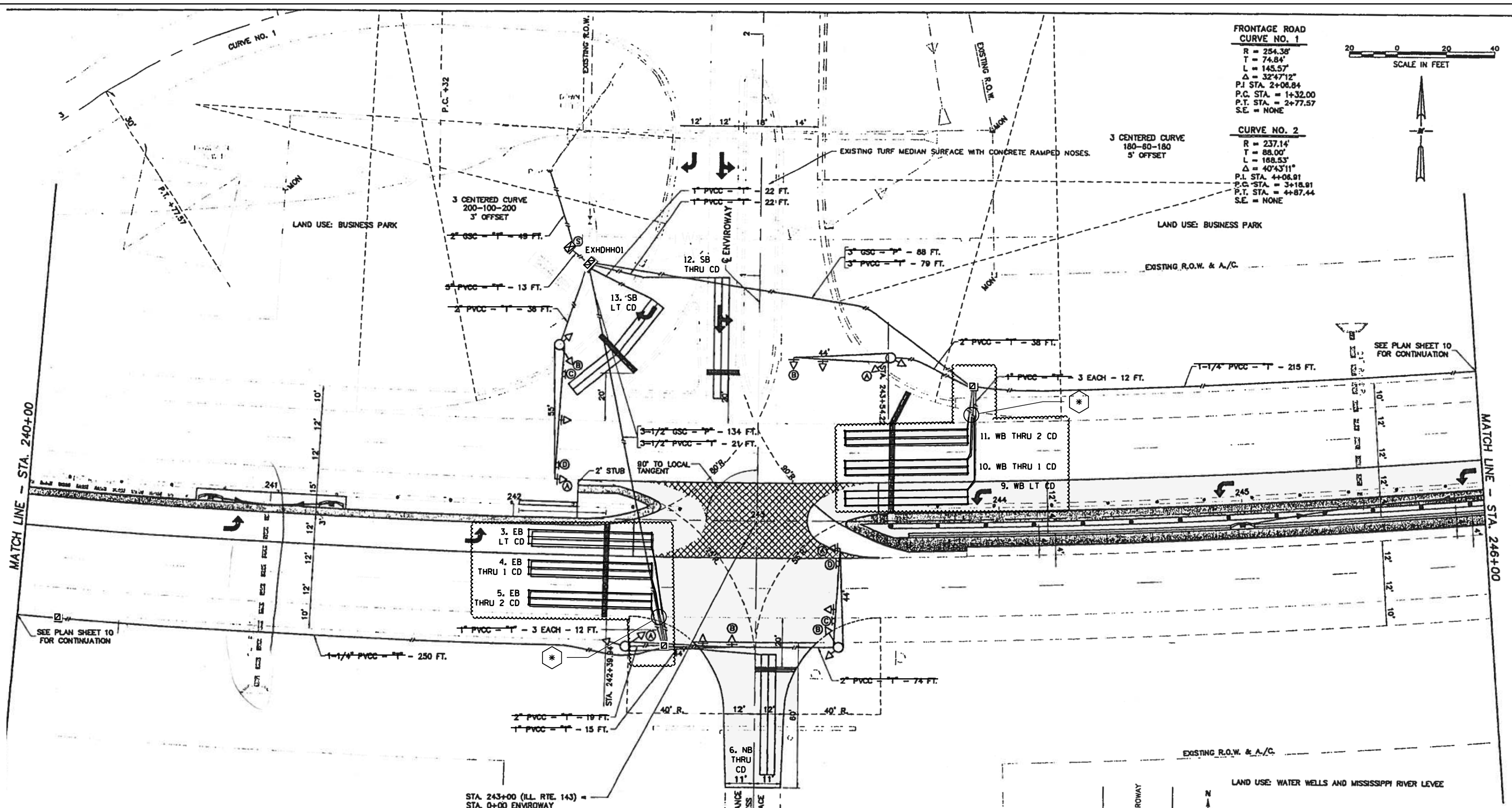
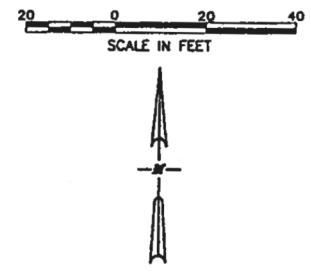
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F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	13
				CONTRACT NO. 76N09
ILLINOIS FED. AID PROJECT				

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FRONTAGE ROAD CURVE NO. 1
 R = 254.36'
 T = 74.84'
 L = 145.57'
 Δ = 32°47'12"
 P.I. STA. = 2+06.84
 P.C. STA. = 1+32.00
 P.T. STA. = 2+77.57
 S.E. = NONE

CURVE NO. 2
 R = 237.14'
 T = 88.00'
 L = 168.53'
 Δ = 40°43'11"
 P.I. STA. = 4+06.01
 P.C. STA. = 3+18.01
 P.T. STA. = 4+87.44
 S.E. = NONE

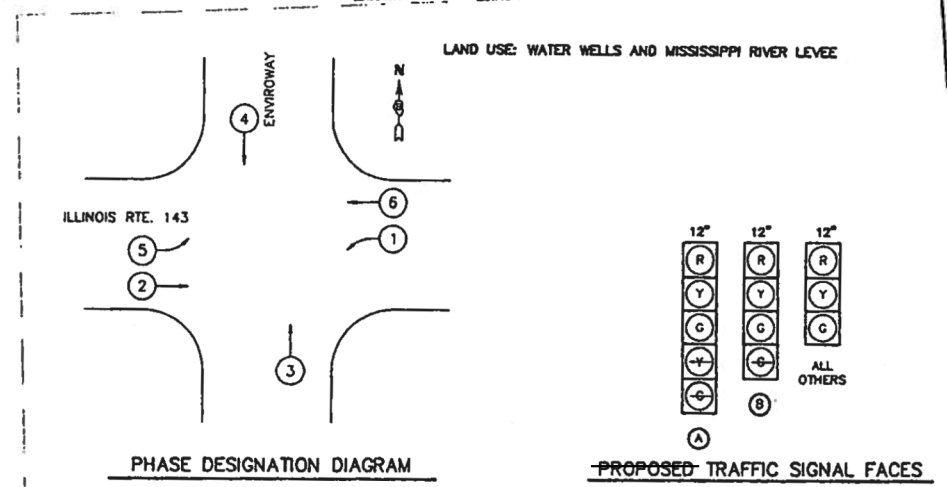


FULL-ACTUATED CONTROLLER AND TYPE IV CABINET

PROPOSED SEQUENCE OF OPERATION

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	↔	←	↙	↘	↗	→	NOT USED	NOT USED
CONCURRENT MOVEMENT PERMITTED	5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED

NOTES
 1. IN FLASHING MODE, ALL VEHICULAR SIGNAL FACES SHALL FLASH RED.



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	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 143 & CANAL RD./ENVIROWAY
 DETECTOR LOOP REPLACEMENT PLAN 1 OF 2**

SCALE: SHEET OF SHEETS STA. TO STA.

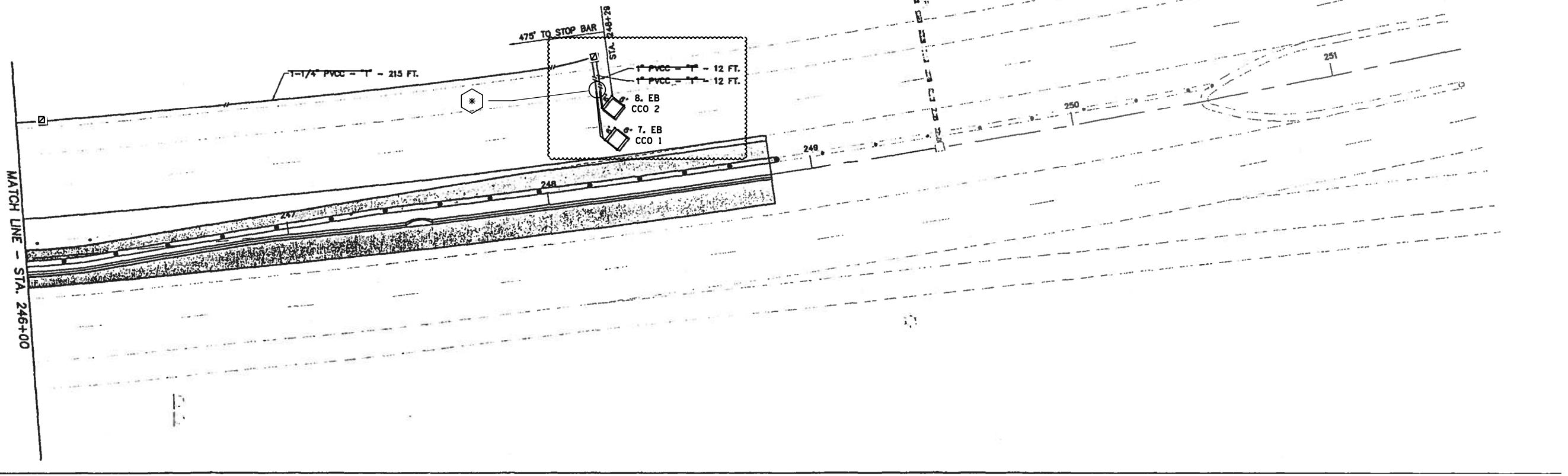
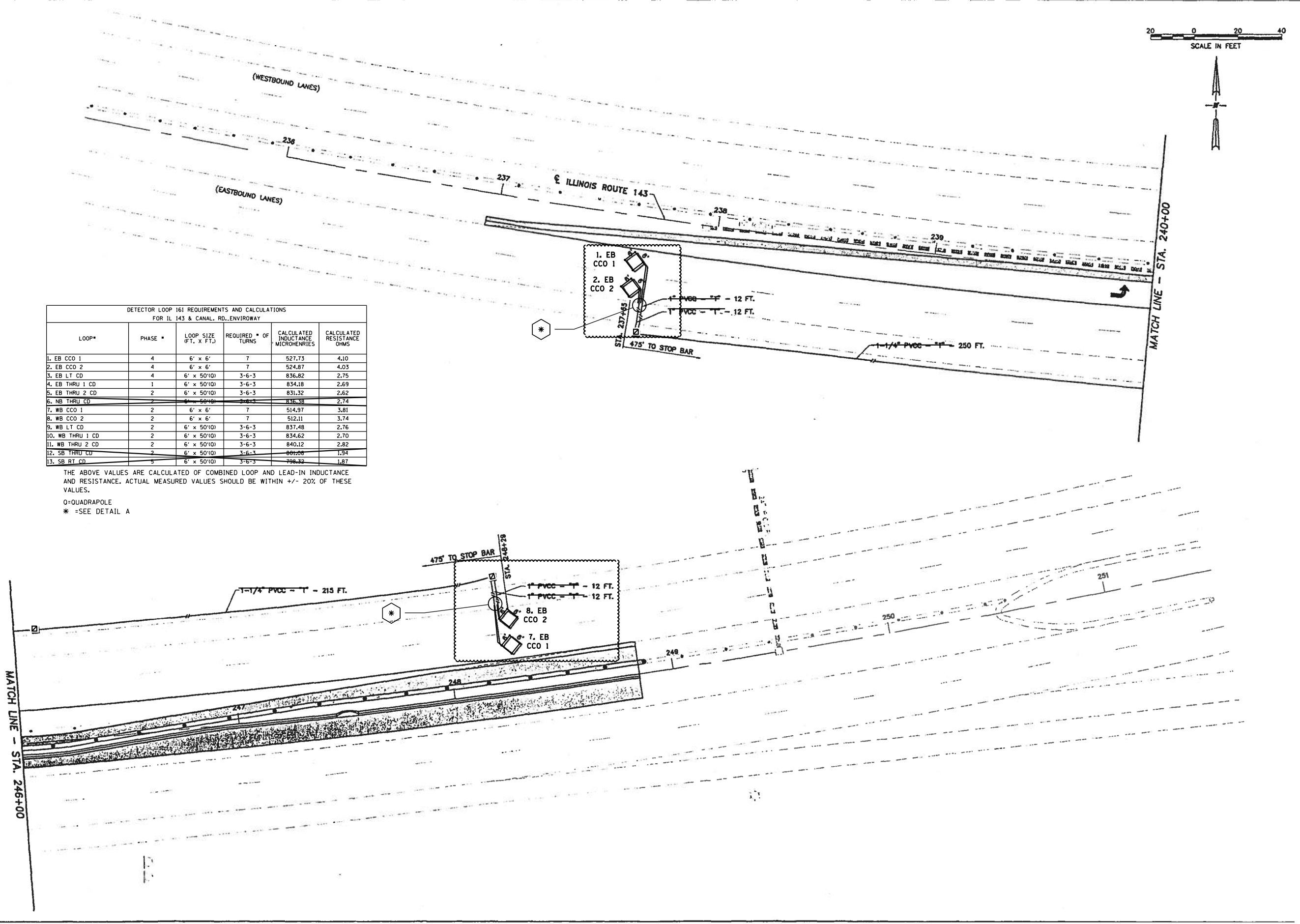
F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	14
CONTRACT NO. 76N09				
ILLINOIS FED. AID PROJECT				



**DETECTOR LOOP 161 REQUIREMENTS AND CALCULATIONS
FOR IL 143 & CANAL RD./ENVIROWAY**

LOOP*	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. EB CCO 1	4	6' x 6'	7	527.73	4.10
2. EB CCO 2	4	6' x 6'	7	524.87	4.03
3. EB LT CD	4	6' x 50'(0)	3-6-3	836.82	2.75
4. EB THRU 1 CD	1	6' x 50'(0)	3-6-3	834.18	2.69
5. EB THRU 2 CD	2	6' x 50'(0)	3-6-3	831.32	2.62
6. NB THRU CD	2	6' x 50'(0)	3-6-3	836.38	2.74
7. WB CCO 1	2	6' x 6'	7	514.97	3.81
8. WB CCO 2	2	6' x 6'	7	512.11	3.74
9. WB LT CD	2	6' x 50'(0)	3-6-3	837.48	2.76
10. WB THRU 1 CD	2	6' x 50'(0)	3-6-3	834.62	2.70
11. WB THRU 2 CD	2	6' x 50'(0)	3-6-3	840.12	2.82
12. SB THRU CD	2	6' x 50'(0)	3-6-3	881.08	1.94
13. SB RT CD	5	6' x 50'(0)	3-6-3	798.32	1.87

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.
 O=QUADRAPOLE
 * -SEE DETAIL A



MODEL: Default
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USER NAME = prestonme	DESIGNED -	REVISED -
PLOT SCALE = 43.5390' / in.	DRAWN -	REVISED -
PLOT DATE = 10/15/2019	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

IL 143 & CANAL RD./ENVIROWAY DETECTOR LOOP REPLACEMENT 2 OF 2				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	406RS-3	MADISON	15	15
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