### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE VILLAGE OF GLENVIEW

### PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 1300: CENTRAL ROAD

I-294 TO HUBER LANE

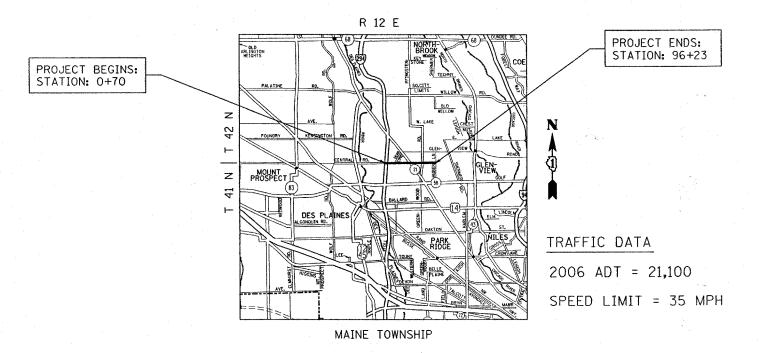
**SECTION: 1922 RS-4** 

**RESURFACING (MAINTENANCE)** 

PROJECT: M-1300(006)

**COOK COUNTY** 

C-91-385-08



GROSS AND NET LENGTH OF IMPROVEMENT = 9.553 FEET = 1.81 MILES

PROJECT ENGINEER: JENPAI CHANG (847) 705–4432 PROJECT MANAGER: KEN ENG

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. 60E46

1-800-892-0123

ALU. SECTION COUNTY TOTAL SHEET NO. 300 1922 RS-4 COOK 25 1

ED. ROAD DIST. NO. 1 ILLINOIS CONTRACT NO. 60E46





## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS SUBMITTED MAY 20, 20 08 Divin M. O'Krafte gar DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER Grue 27, 20 08 Grue 1, Harmfore Patrim Engineer of Design and Environment

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

### INDEX OF SHEETS

### STATE STANDARDS

SHEE	T NO.	DESCRIPTION	STANDARD NO.	<u>DESCRIPTION</u>
1		TITLE SHEET	000001-05	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	442201- <b>03</b>	CLASS C AND D PATCHES
3	3	SUMMARY OF QUANTITIES	604086-01	FRAME AND GRATE, TYPE 23
4	1-6	EXISTING AND PROPOSED TYPICAL SECTIONS	604091 <b>-01</b>	FRAME AND GRATE, TYPE 24
- 7	7-10	ROADWAY AND PAVEMENT MARKING PLANS	606001 <b>-03</b>	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
1	1-14	DETECTOR LOOP REPLACEMENT PLANS	701011- <i>01</i>	OFF-ROAD MOVING OPERATIONS, 2L, 2W DAY ONLY
. 1	5	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT		
1	6	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	101201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, ON-ROAD TO 600 MM (24") OFF-ROAD
1	.7	BUTT JOINT AND HMA TAPER	701306- <b>01</b>	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS - DAY ONLY
1	8	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS.	701501-04	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
		INTERSECTIONS AND DRIVEWAYS	701901	TRAFFIC CONTROL DEVICES
. 1	9	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	886001	DETECTOR LOOP INSTALLATION
2	20	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	886006	TYPICAL LAYOUT FOR DETECTION LOOPS
2	21	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC)		
2	22	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING		
. 2	23	ARTERIAL INFORMATION SIGNING		
2	24	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN		

### GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC. TELEPHONE, AND GAS FACILITIES, (48 HOUR NOTIFICATION REQUIRED)

THE CONTRACTOR WILL NOT BE ABLE TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT.

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS UNLESS OTHERWISE SPECIFIED.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 11/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISABILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SNOWN IN THE PLANS.

THE RESIDENT ENGINEER SHALL CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

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DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR

STATE	OF	ILLINOIS	
PEPARTMENT (	OF 1	TRANSPORTATION	

SCALE:

CENTRAL RD. (I-294 TO HUBER LN.)	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
DEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	1300	1922 RS-4	соок	25	2
			CONTRACT	NO. 6	50E46
SHEET NO. OF SHEETS STA. TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		* .

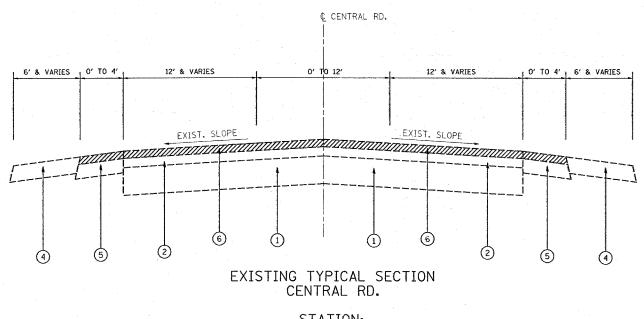
F.A.U. RTE.	SECTION		COUNT	Υ	TOTAL SHEETS	SHEET NO.
1300	1922 RS-4		соок		25	3
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PRO	JECT

CONTRACT NO. 60E46

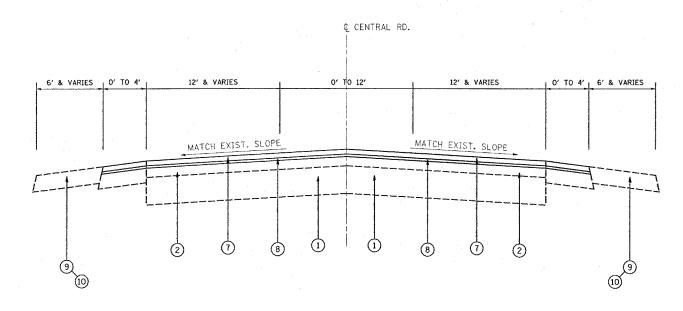
	SUMMARY OF QUANTITIES					CONSTRUCT	TION TYPE	CODE			SUMMARY OF QUANTITIES				1	CONSTRUCT	ION TYPE	CODE	
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES 801. FED. 201. STATE	I000-2A						CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES 801.FED. 201.STATE	1000-2A					
20201006	GRADING AND SHAPING SHOULDERS	UNIT	86	86	4.					70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1				-	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	36	36						70102620	TRAFFIC CONTROL AND PROTECTION.	L SUM	1	1					
40600300	AGGREGATE (PRIME COAT)	TON	90	90							STANDARD 701501								
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	23	23						70300100	SHORT-TERM PAVEMENT MARKING	FOOT	6600	6600	ì				
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					1	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	400	400					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	437	437						70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	33700	33700					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	900	900					·	70300240	TEMPORARY PAVEMENT MARKING LINE 6"	FOOT	1870	1870 51.87	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NTO	TON	3755	3755						70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	F00T	1250	1250					
42001300	PROTECTIVE COAT	SQ YD	80	80						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	520	520					
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5	SQ FT	150	150						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2600	2600					
42400800	DETECTABLE WARNINGS	SQ FT	24	24				-		<del>*</del> 78000100	THERMOPLASTIC PAVEMENT MARKING	SQ FT	400	400					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	44700	44700						<del>*</del> 78000200	- LETTERS AND SYMBOLS  THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	33700	33700					
44000600	SIDEWALK REMOVAL	SQ FT	150	150						<del>*</del> 78000400	THERMOPLASTIC PAVEMENT MARKING	FOOT	1870	1870					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	218	218							- LINE 6"								
44002224	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 6"	SQ YD	2674	2674							THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1250	1250					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	1849	1849						<del> </del>   <del> </del>   <del> </del>   <del> </del>     <del> </del>	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	520	520					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	144	144						<del>*</del> 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	376	376					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	200	200						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	356	356					
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	532	532						X88600600	DETECTOR LOOP REPLACEMENT	FOOT	1498	1498					
60254330	CATCH BASINS TO BE RECONSTRUCTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	1	1							TEMPORARY INFORMATION SIGNING	SQ FT	51. 4	51.4					
60254340	CATCH BASINS TO BE RECONSTRUCTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	1	1						X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1761	1761					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	3 . 8	8						NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	39	39					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6						Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					
67100100	MOBILIZATION	L SUM	1	1															1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1								r							
							1						`						

\* SPECIALITY ITEMS
NP= Non-participating

REVISION	s	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		SUMMARY OF QUANTITIES



STATION: 0+70 TO 16+89 60+92 TO 73+63 79+92 TO 96+23



PROPOSED TYPICAL SECTION CENTRAL RD.

STATION: 0+70 TO 16+89 60+92 TO 73+63 79+92 TO 96+23

### LEGEND

- (1) EXISTING PCC BASE COURSE, 10"(±)
- 2 EXISTING HOT-MIX ASPHALT SURFACE COURSE, 6"(±)
- ③ EXISTING CONC. CURB AND GUTTER, TYPE B-6.24
- 4 EXISTING AGGREGATE SHOULDER, 6"
- (5) EXISTING HOT-MIX ASPHALT SHOULDER, 8"
- 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4 "
- 7 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", 7NO, 1 1/2"
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- (9) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (10) PROPOSED GRADING AND SHAPING SHOULDERS

### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE USE	AC TYPE	AIR VOIDS (%)
ROADWAY	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 MM), 1 3/4 "	PG 64-22	4% @ 70 GYR
ROADWAT	POLYMERIZED LEVELING BINDER, (MM) IL-4.75, N50, 3/4"	SBS/SBR PG 76-28/-22	4% @ 50 GYR
PATCHES	CLASS D PATCHES, (HMA BINDER IL-19.0 MM), 10"	PG 64-22 *	4% @ 70 GYR
FAICHES	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (HMA BINDER IL-19.0 MM)	PG 64-22 *	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

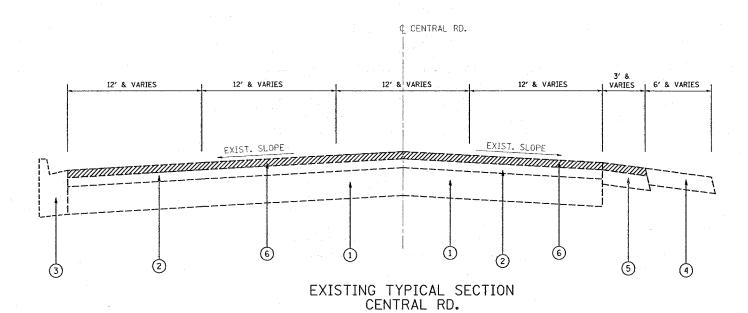
\* WHEN RAP EXCEEDS 20%. THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

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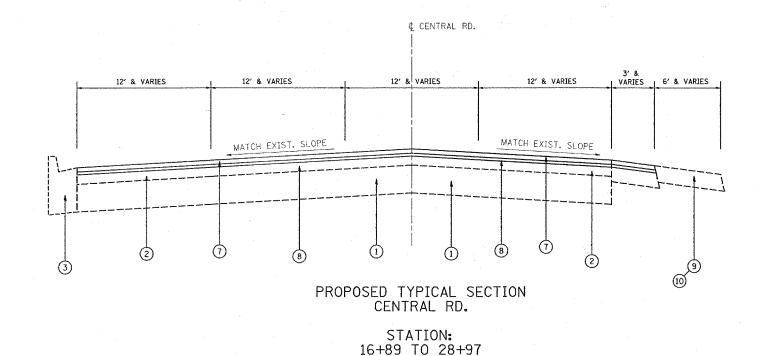
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CENTRAL	RD. (I–294 T	O HUBER	LN.)
EXISTING AND	PROPOSED	<b>TYPICAL</b>	SECTIONS
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STATION: 16+89 TO 28+97

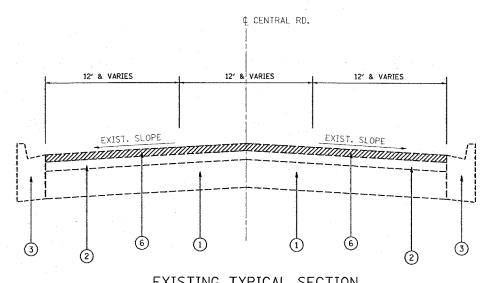


### LEGEND

- ① EXISTING PCC BASE COURSE, 10"(±)
- 2 EXISTING HOT-MIX ASPHALT SURFACE COURSE, 6"(±)
- 3 EXISTING CONC. CURB AND GUTTER, TYPE B-6.24
- (4) EXISTING AGGREGATE SHOULDER, 6"
- (5) EXISTING HOT-MIX ASPHALT SHOULDER, 8"

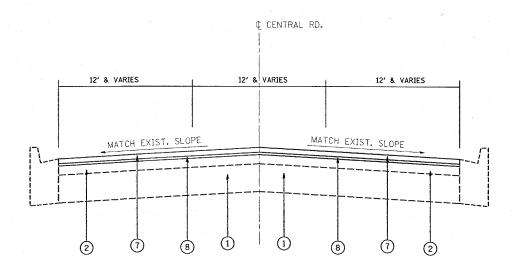
- 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4 "
- (7) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", 7NO, 1 1/2"
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (10) PROPOSED GRADING AND SHAPING SHOULDERS

SCALE:



EXISTING TYPICAL SECTION CENTRAL RD.

STATION: 28+97 TO 46+77



PROPOSED TYPICAL SECTION CENTRAL RD.

STATION: 28+97 TO 46+77

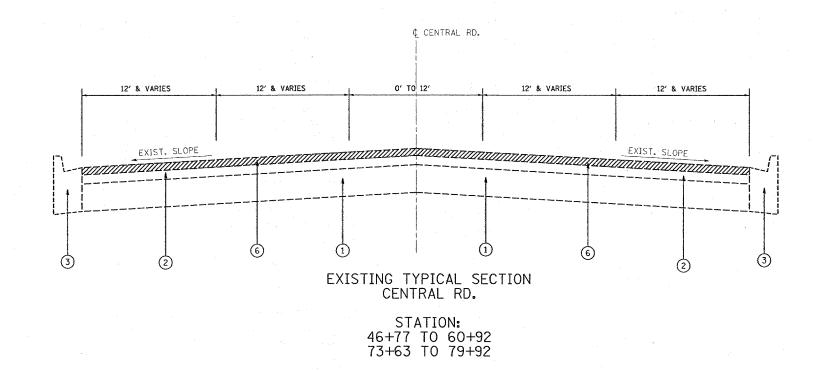
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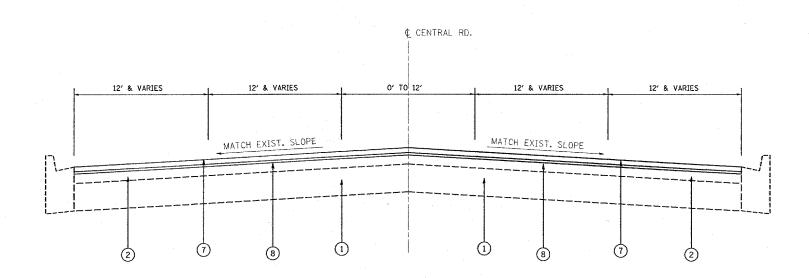
EXISTING AND PROPOSED TYPICAL SECTIONS

SHEET NO. OF SHEETS STA. TO STA.

FALL SECTION COUNTY TOTAL SHEETS NO. 1922 RS-4 COOK 25 S STA.

CONTRACT NO. 60E46





PROPOSED TYPICAL SECTION CENTRAL RD.

STATION: 46+77 TO 60+92 73+63 TO 79+92

### LEGEND

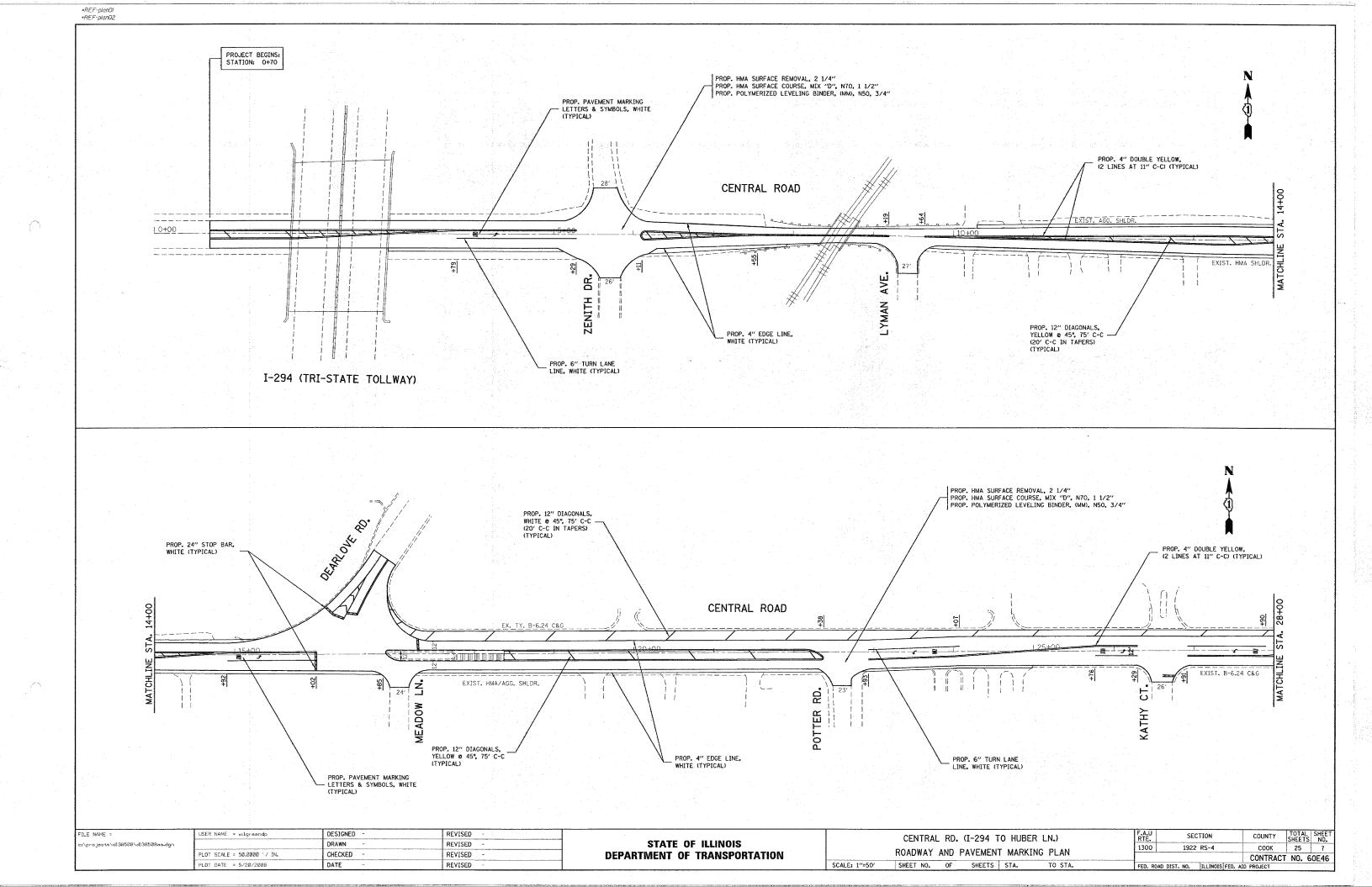
- 1 EXISTING PCC BASE COURSE, 10"(±)
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- 8 PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- (9) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- (1) PROPOSED GRADING AND SHAPING SHOULDERS

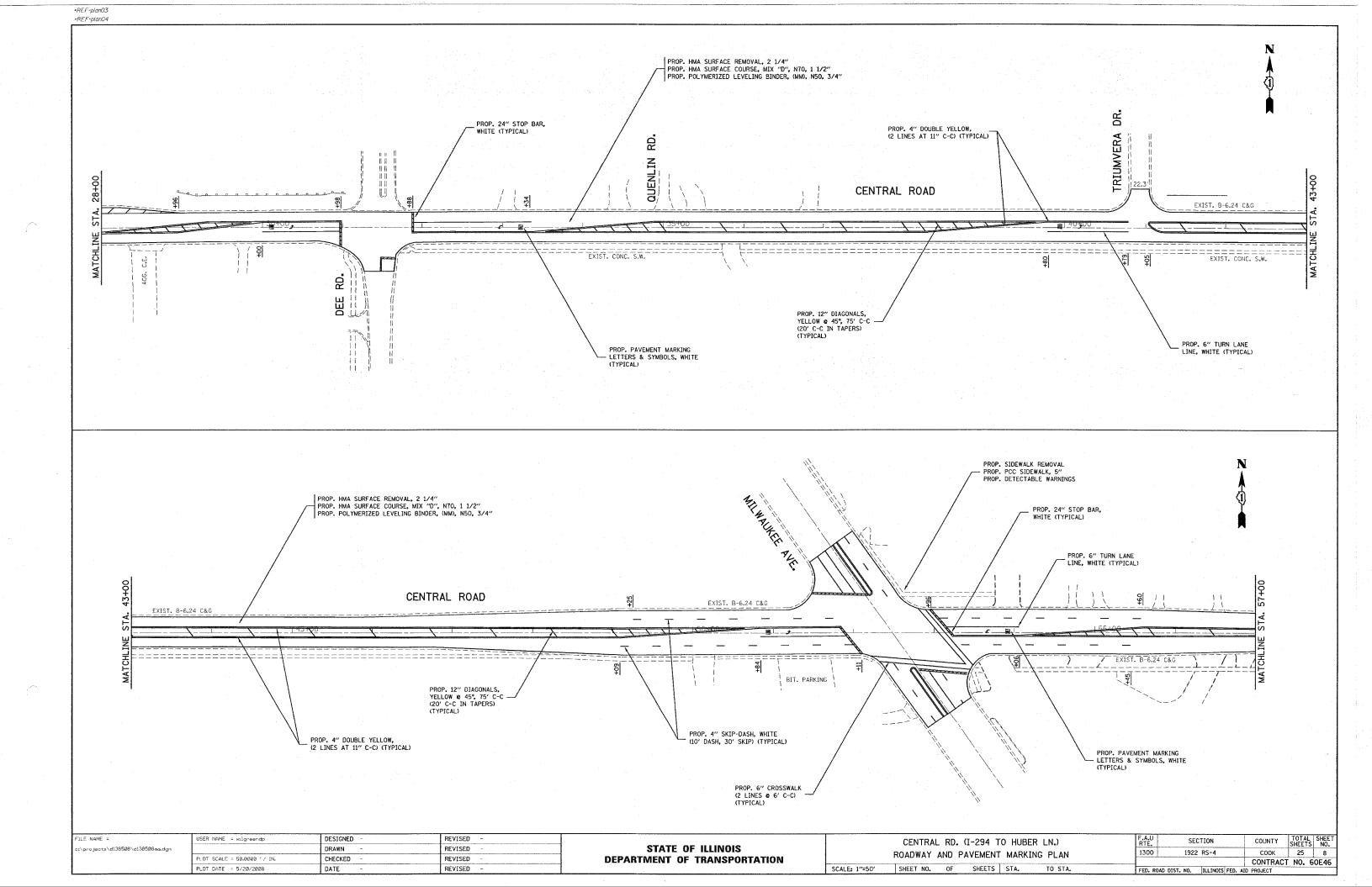
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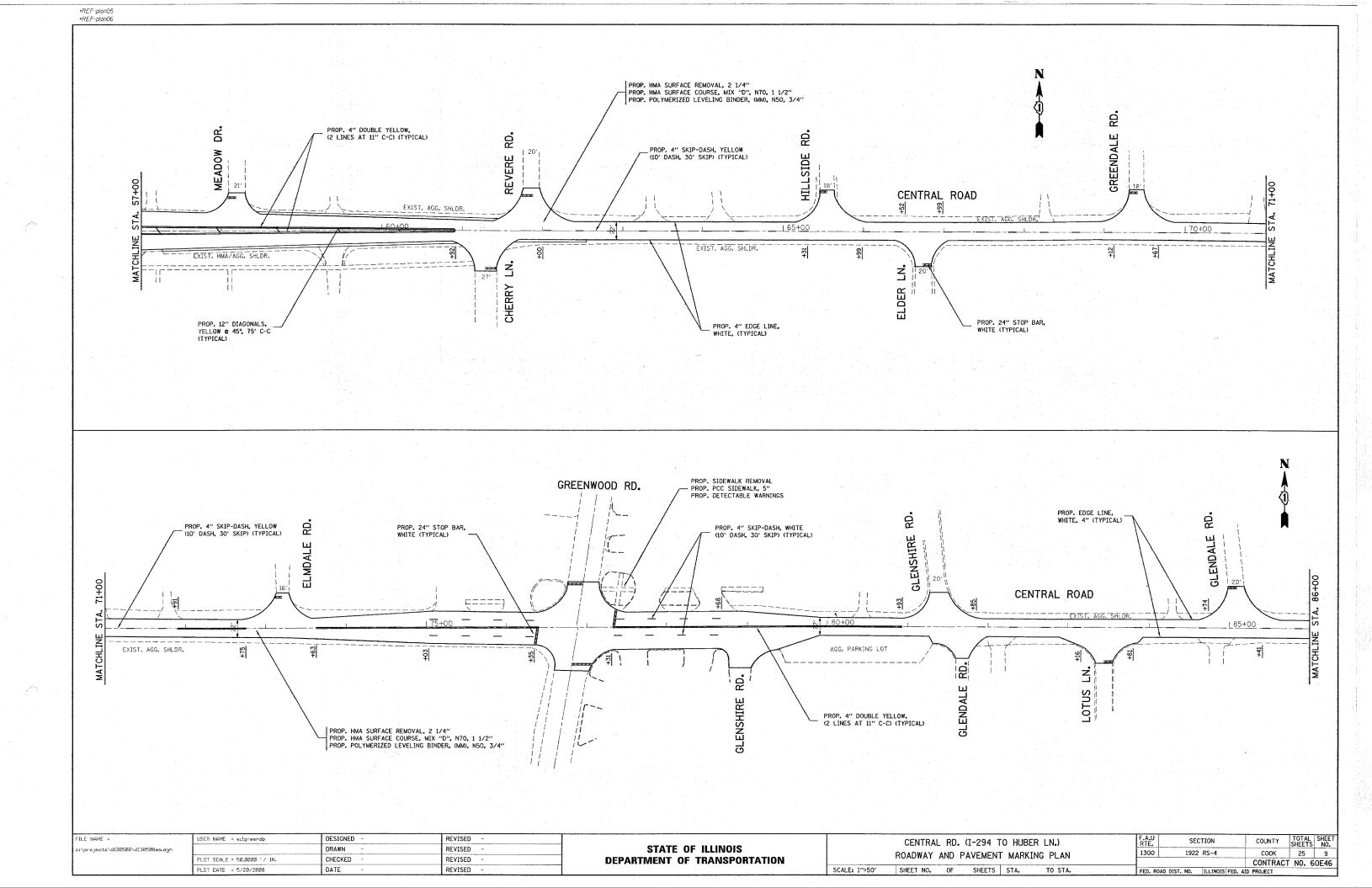
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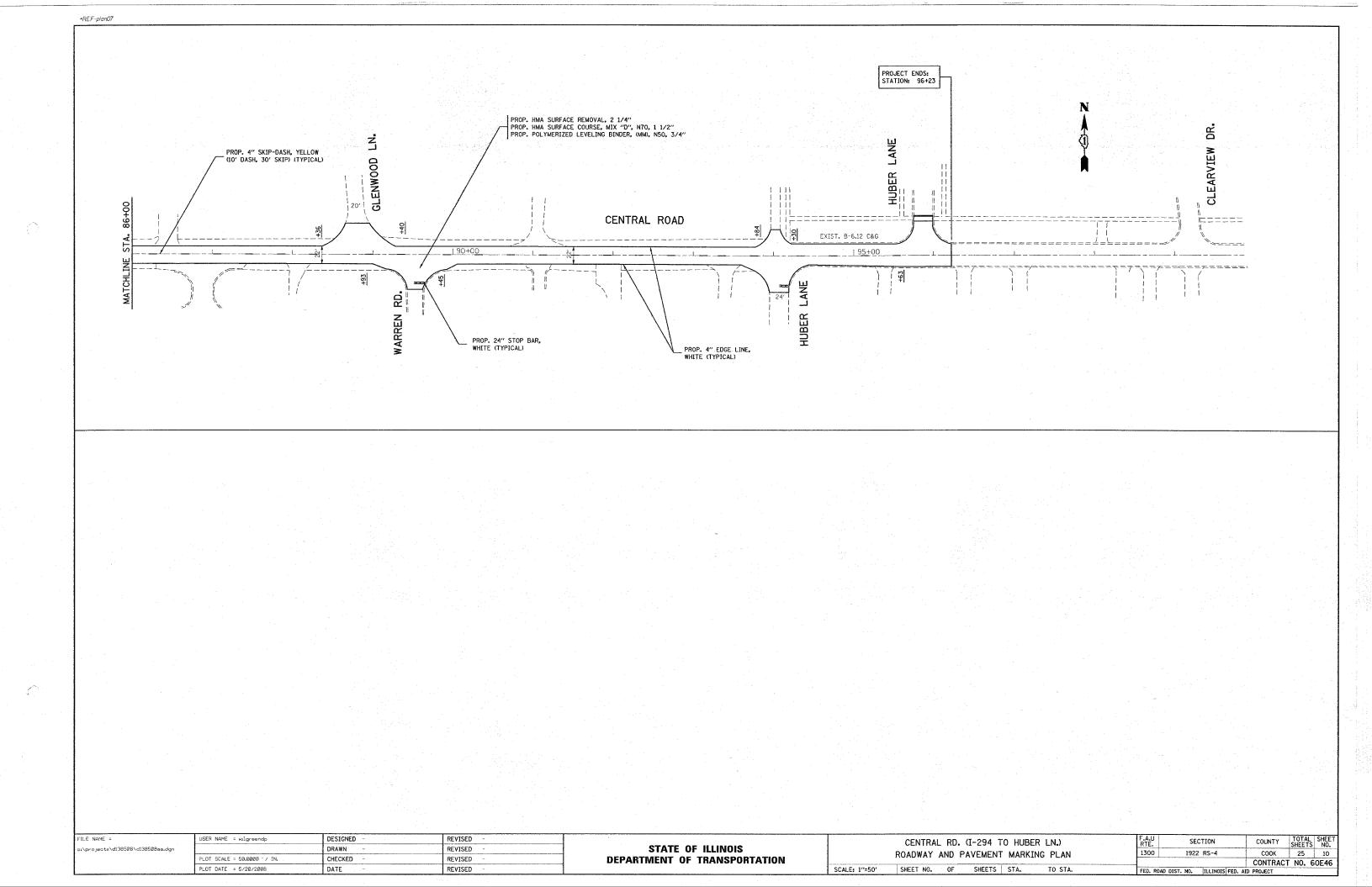
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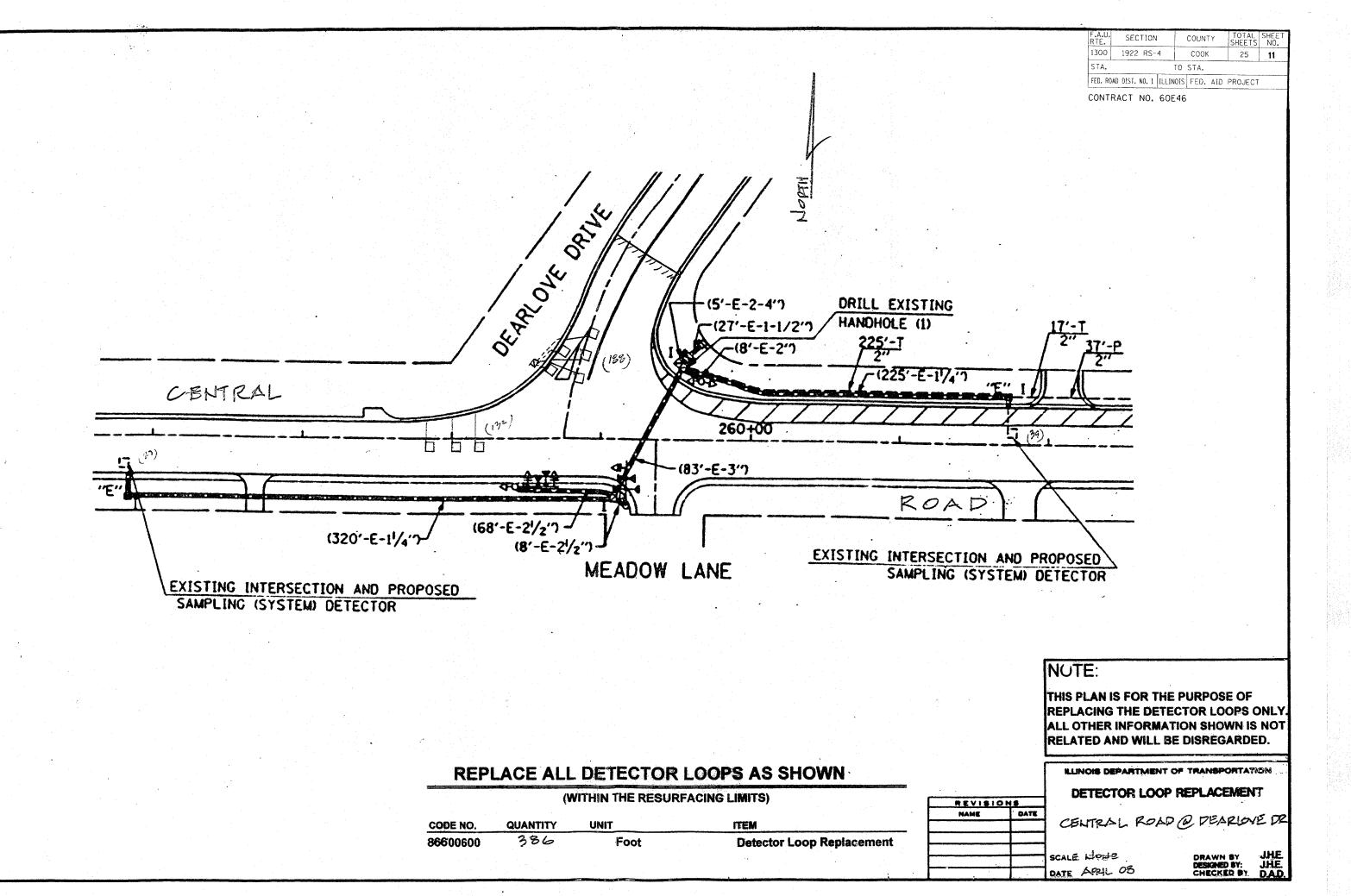
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		CONTRACT	NO.	50E4
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LP. E.	SECTION	COUNTY	TOTAL SHEETS	SHE

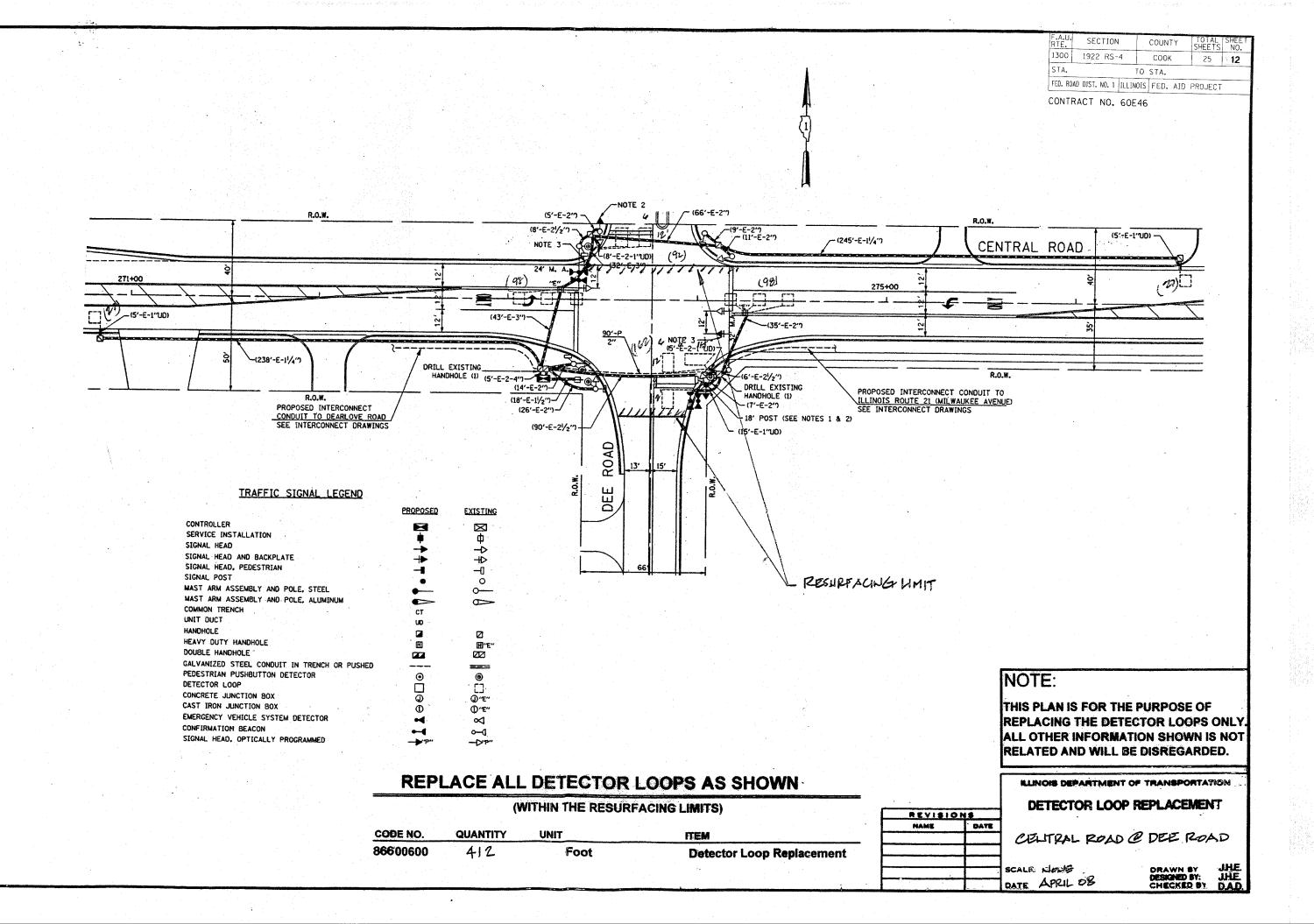


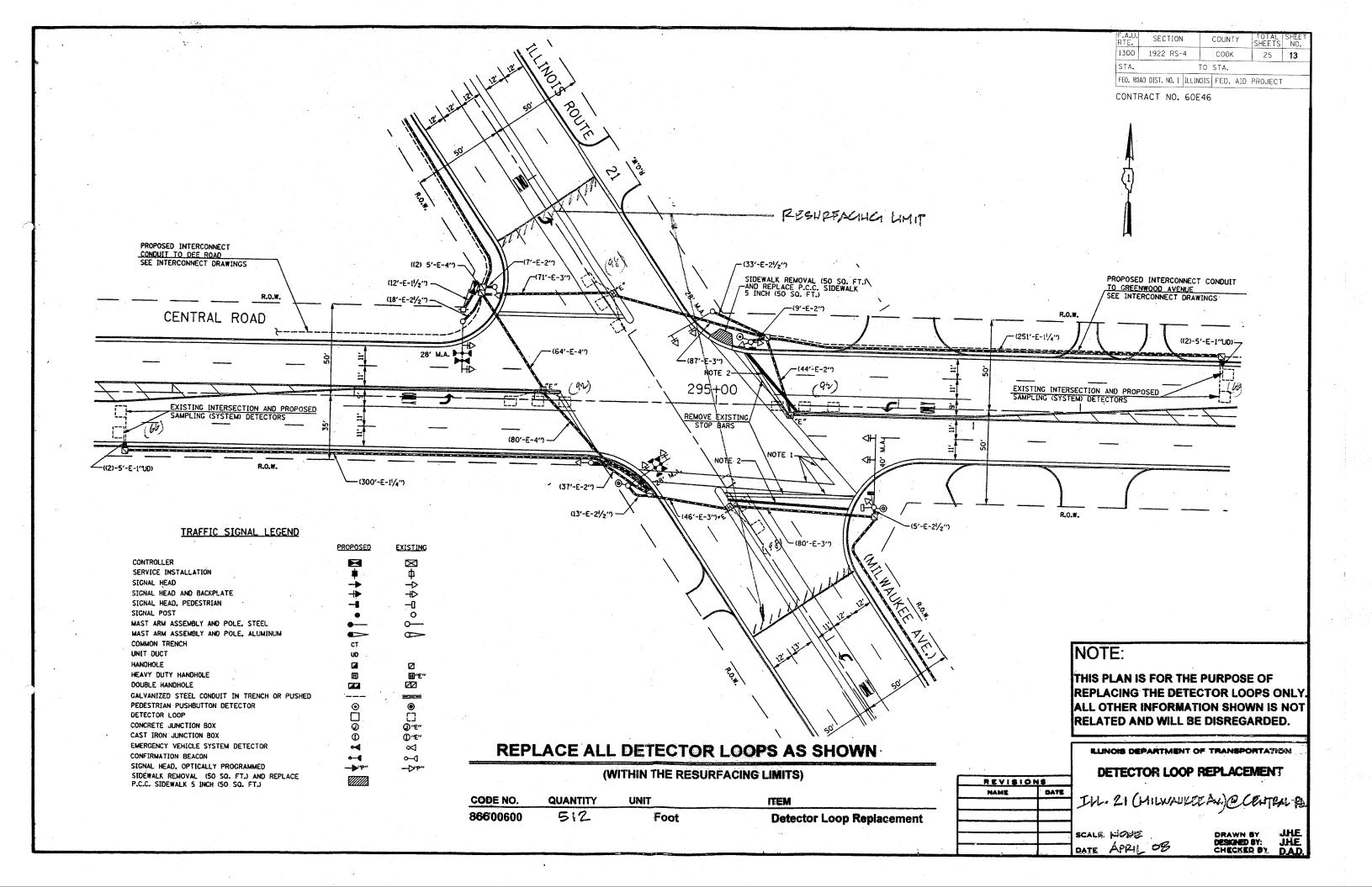


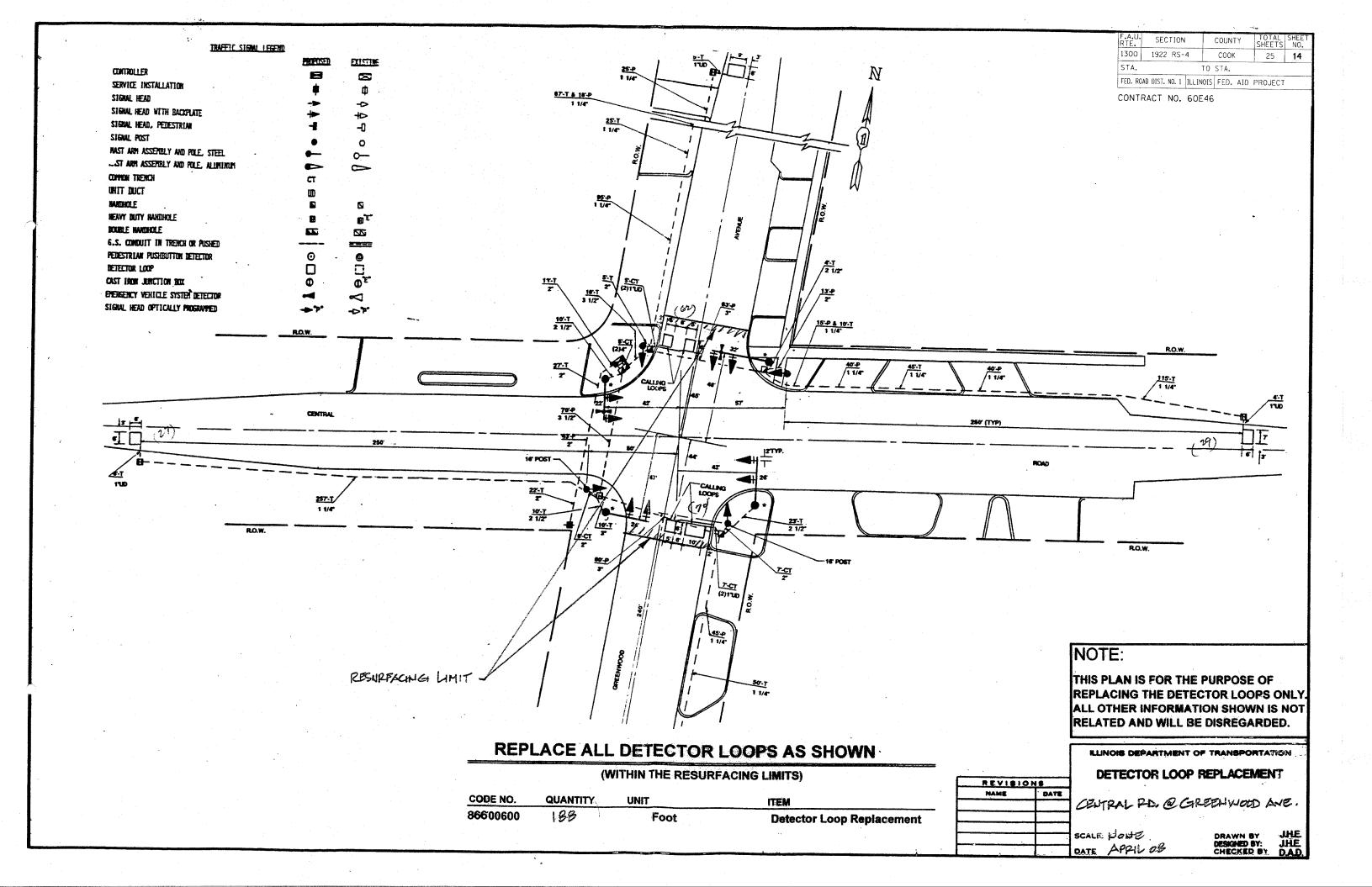


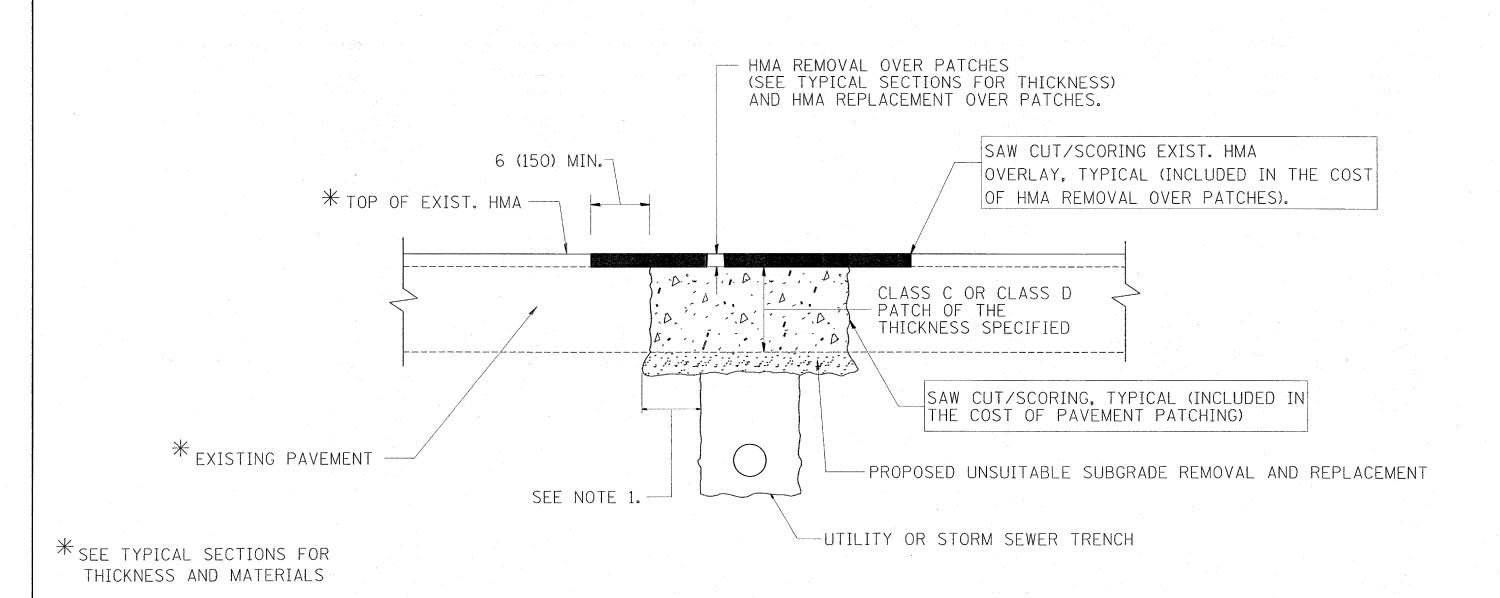












### NOTES:

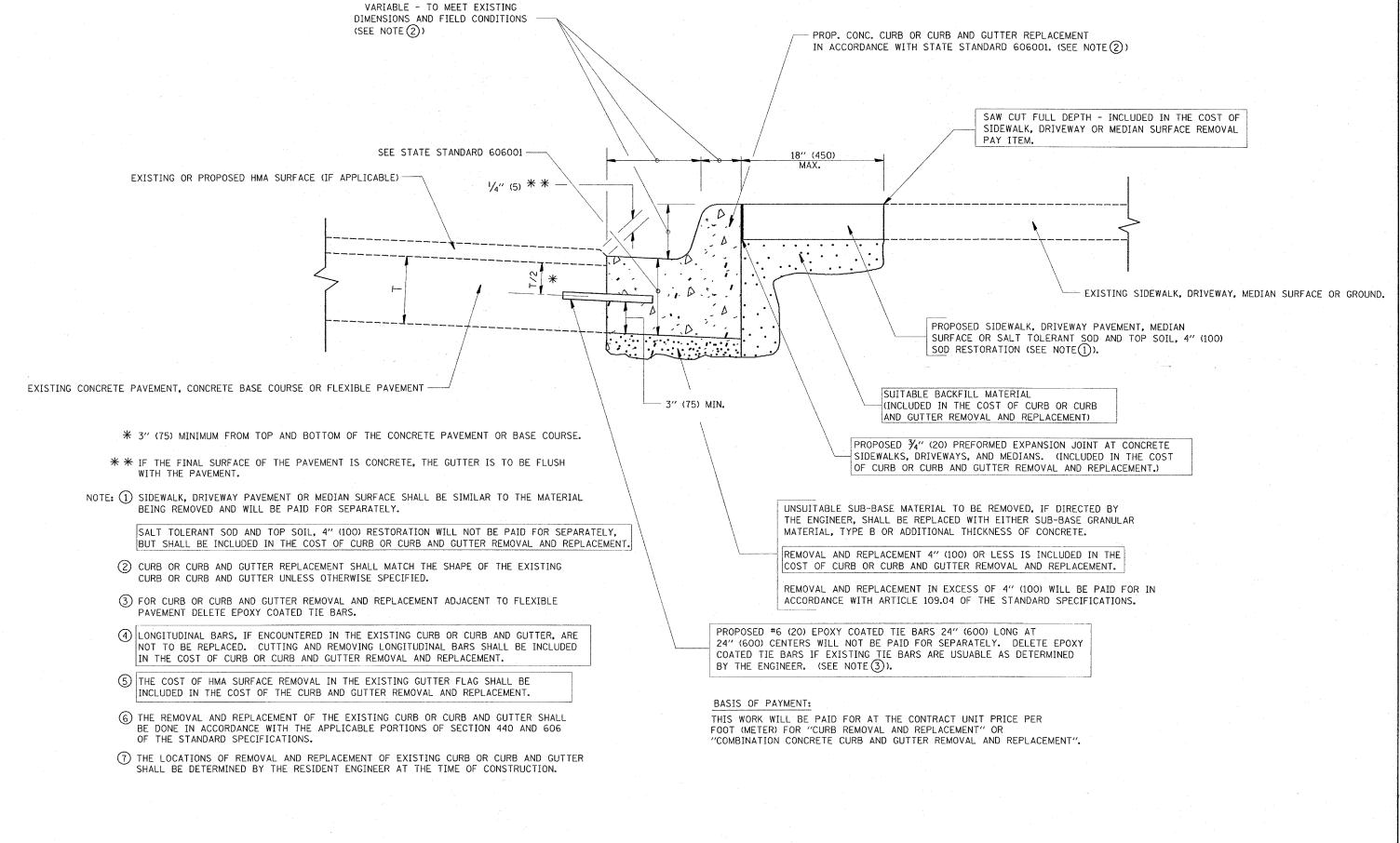
- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

### SEQUENCE OF CONSTRUCTION

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE FULL DEPTH PATCHES
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN,  $% \left( \frac{1}{2}\right) =\frac{1}{2}\left( \frac{1}{2}\right) \left( \frac$ 

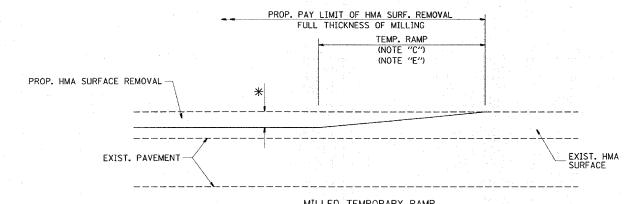
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\\distIntfs2\users\wilgreendp\Besktop\Central Rd. Details\bd22.dgn	DRAWN -	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS	HMA SURFACED PAVEMENT	1300 1922 RS-4	C00K 25 15
PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION	HIMA SURFACED PAVEMENT	BD400-04 (BD-22)	CONTRACT NO. 60E46
PLOT DATE = 5/20/2008	DATE ~ 10-25-94	REVISED - R. BORO 09-04-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	



### CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

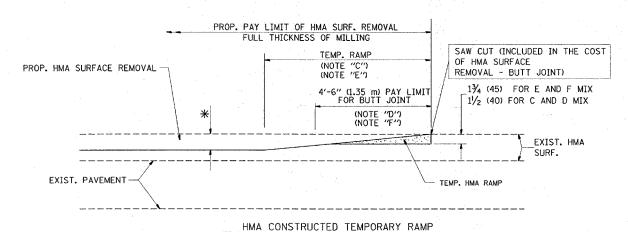
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PL	LOT SCALE = 50.000 ′/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT	RD600-06 (RD-24)	CONTRACT NO. 60E46
PL	LOT DATE = 5/20/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. A	



### MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

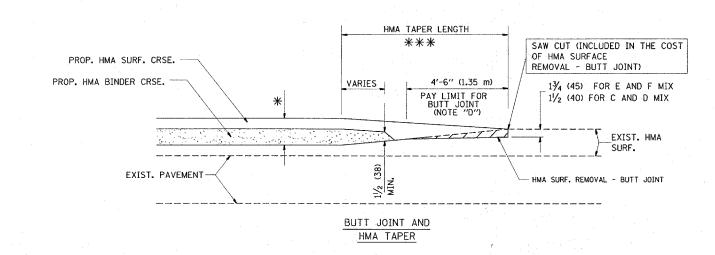
### OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

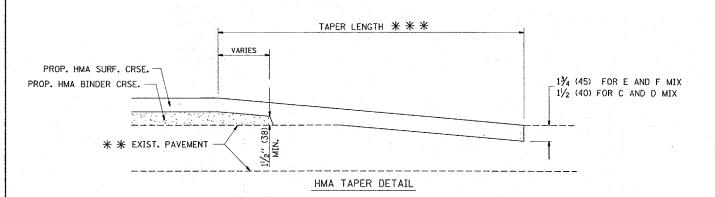
### OPTION 2

### TYPICAL TEMPORARY RAMP



### TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

## PROP. HMA OR PCC SURFACE REMOVAL - BUTT JOINT 30'-0" (9.0 m) (NOTE "A") 15'-0" (4.5 m) (NOTE "B") (NOTE "D") \*\* \* EXIST. PAVEMENT BUTT JOINT DETAIL



### TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

### NOTES

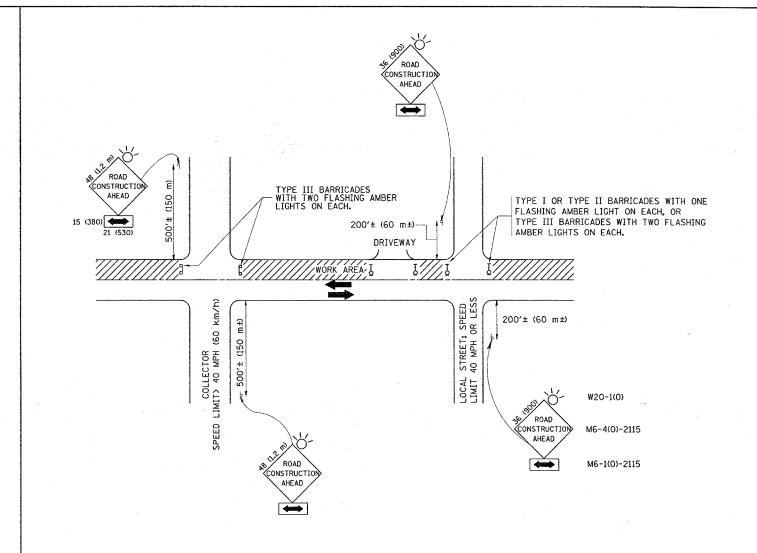
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

### BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
FOR "MOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

FILE NAME = USER NAME = wilgreendp DESIGNED COUNTY TOTAL SHEET SHEETS NO. M. DE YONG REVISED R. SHAH 10-25-94 SECTION **BUTT JOINT AND** tral Rd. Details\bd32.dgn DRAWN - A. ABBAS 03-21-97 STATE OF ILLINOIS 1300 1922 RS-4 COOK 25 17 HMA TAPER DETAILS CHECKED **DEPARTMENT OF TRANSPORTATION** LOT SCALE = 49,9999 1/ IN. REVISED M. GOMEZ 04-06-01 BD400-05 BD32 CONTRACT NO. 60E46 PLOT DATE = 5/20/2008 DATE 06-13-90 REVISED - R. BORO 01-01-07 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



### TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER, THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

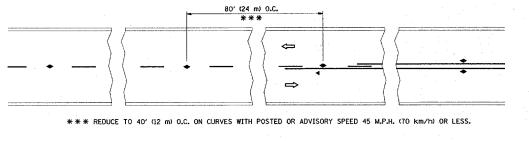
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches unless otherwise shown.

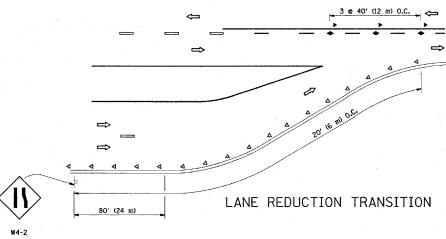
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

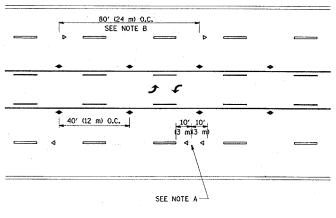
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SHEET NO. 1 OF 1 SHEETS STA.

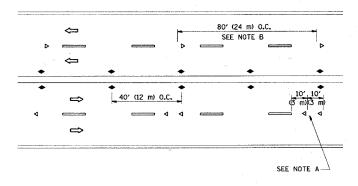


TWO-LANE/TWO-WAY

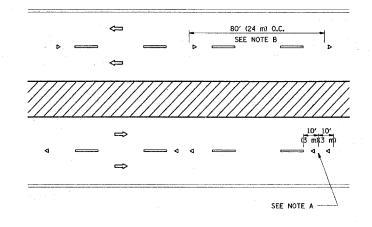




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

### GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

### LANE MARKER NOTES

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

### SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

### DESIGN NOTES

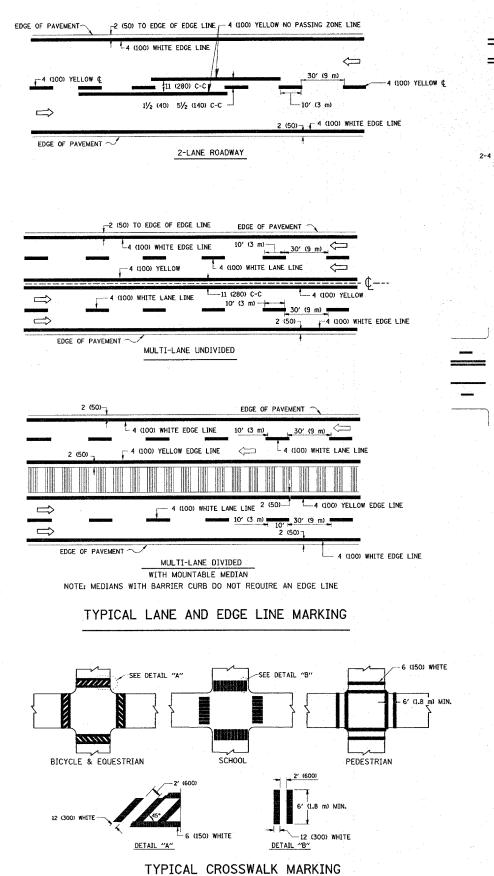
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

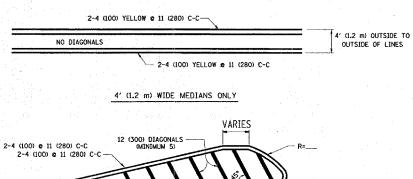
### 

LEFT TURN

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

FILE NAME = DESIGNED REVISED - T. RAMMACHER 09-19-94 USER NAME = wilgreendp SECTION COUNTY TYPICAL APPLICATIONS STATE OF ILLINOIS DRAWN REVISED - T. RAMMACHER 03-12-99 1300 1922 RS-4 COOK 25 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) CHECKED -T. RAMMACHER 01-06-00 **DEPARTMENT OF TRANSPORTATION** LOT SCALE = 50.000 '/ IN. REVISED TC-11 CONTRACT NO. 60E46 SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE PLOT DATE = 5/20/2008 DATE REVISED TO STA.





DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

### 4 (100) YELLOW 4 (100) YELLOW LINES (5½ (140) C-C) 2-4 (100) YELLOW 0 11 (280) C-C 4 (100) YELLOW LINES (5½ (140) C-C)

A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING

MEDIANS OVER 4' (1.2 m) WIDE

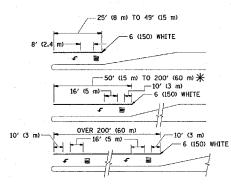
DIAGONAL LINES.

CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED



MEDIAN WITH TWO-WAY LEFT TURN LANE

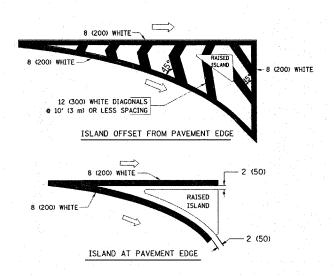
### TYPICAL PAINTED MEDIAN MARKING



 $\divideontimes$  TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING



### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 & 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1,2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS & 45°	SOLID	WHITE	DIACONALS: 15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"-3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"-54.0 SO. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))

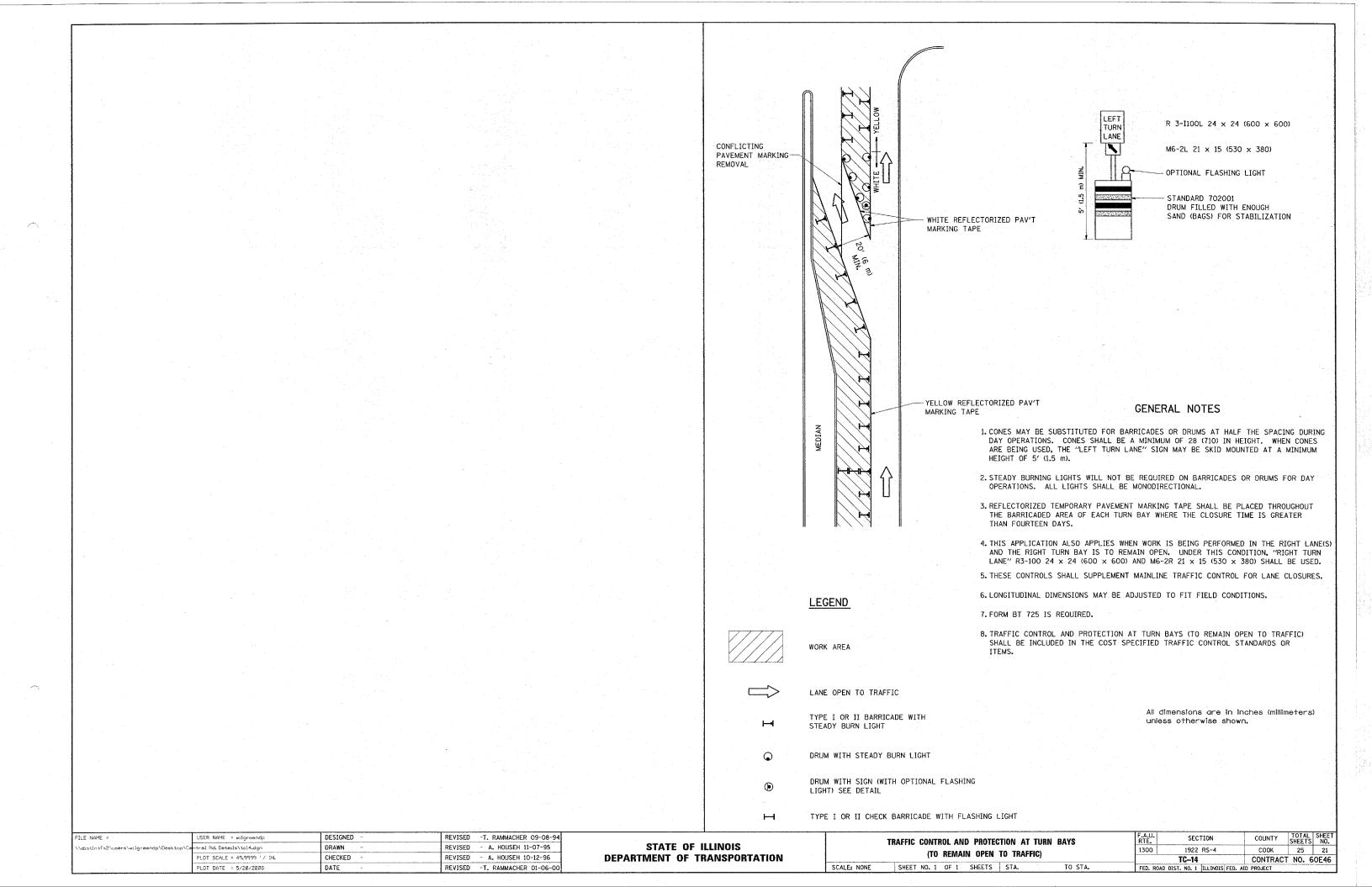
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

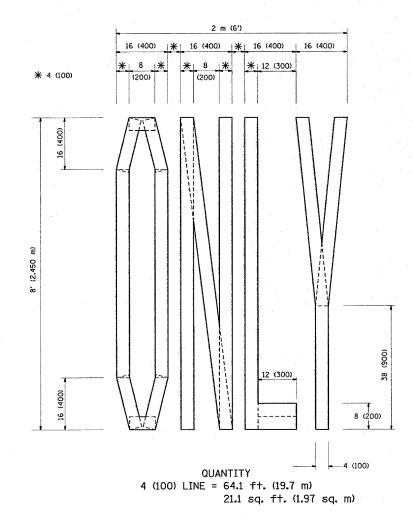
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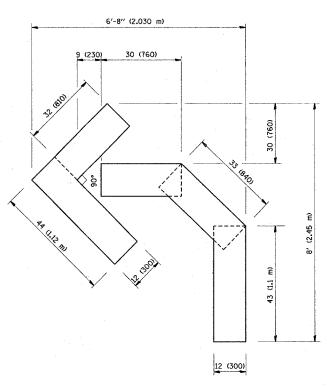
FILE NAME =	USER NAME -= wilgreendp	DESIGNED - EVERS	REVISED	-T. RAMMACHER 10-27-94
\\distintfs2\users\wilgreendp\Desktop\Ce	ntral Rd. Details\tc13.dgn	DRAWN -	REVISED	-A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED	-A. HOUSEH 10-17-96
	PLOT DATE = 5/20/2008	DATE - 03-19-90	REVISED	-T. RAMMACHER 01-06-00

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

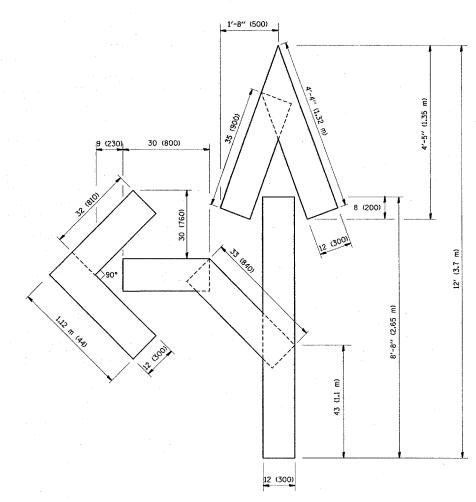
	DISTRICT ONE						SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		TYPICAL PA	1300	1922 RS-4	COOK	25	20			
i		TYPICAL PAVEMENT MARKINGS					TC-13	CONTRACT	NO. 6	50E46
	SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1   ILLINOIS FED. AI	D PROJECT		







QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

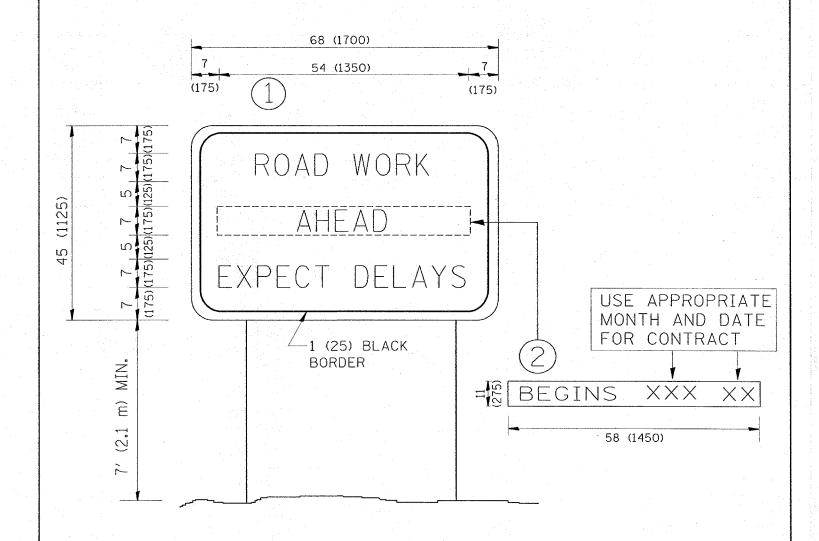
PAVEMENT MARKING LETTERS AND SYMBOLS
FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

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

 1300
 1922 RS-4
 COOK
 25
 22

 TC-16
 CONTRACT NO.
 60E46



### NOTES:

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

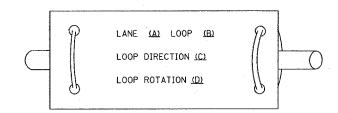
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = wilgreendp	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD	F.A.L	U. SECTION	COUNTY	TOTAL SHEET SHEETS NO.
\\distIntfs2\users\wilgreendp\Desktop\C	ntral Rd. Details\to22.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS			1300	00 1922 RS-4	COOK	25 23
1	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION SIGN		TC-22	-	T NO. 60E46
	PLOT DATE = 5/20/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED.	. ROAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT	

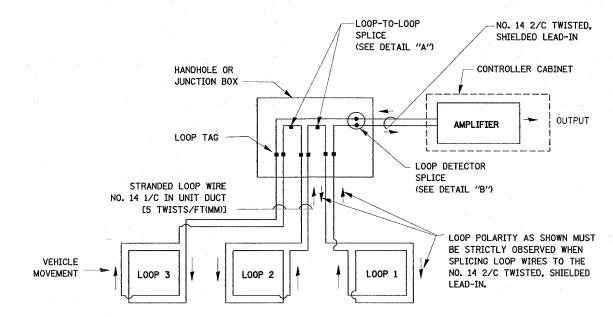
### LOOP DETECTOR NOTES

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

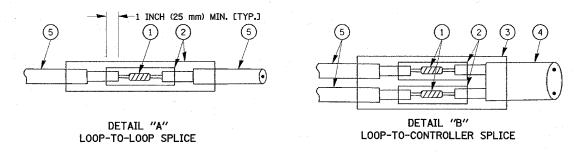


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



### DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE,
   THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



### LOOP DETECTOR SPLICE

- 1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE,
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

FILE NAME =	USER NAME = wilgreendp	DESIGNED	-	D.A.D.	REVISED	- 11-12-01
\\dist1ntfs2\users\wilgreendp\Desktop\Ce	ntral Rd. Details\ts05.dgn	DRAWN	-	R.W.P.	REVISED	- BUR. TRAFFIC 01-01-02
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-	D.A.Z.	REVISED	-
	PLOT DATE = 5/20/2008	DATE	-	05-30-00	REVISED	-
\\dist1ntfs2\users\wilgreendp\Desktop\Ce	ntral Rd. Details\ts05.dgn PLOT SCALE = 50.0000 '/ IN.	DRAWN CHECKED		R.W.P. D.A.Z.	REVISED REVISED	

STATI	E 01	FILLINOIS
DEPARTMENT	OF	TRANSPORTATION

DISTRICT ONE					F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEL		
	STANDARD	TRAFFI	: SIGNAI	DESIGN	DETAILS		1300	1922 RS-4	COOK	25	24
	01/11/0/11/0		, y.u.i.i.					TS-05	CONTRACT	NO. 6	0E4
SCALE: NONE	SHEET NO. 1	OF 4	SHEETS	STA.	7	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

# PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER \* = (600 mm) \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. ARTERIAL - VOLUME DENSITY ("FAR OIL"

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD BI4001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN. TRENCHED 1" (25 mm) WINIT DUCT (3)\*\* \*\* (3.6 m) \*\* (900 mm) \*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

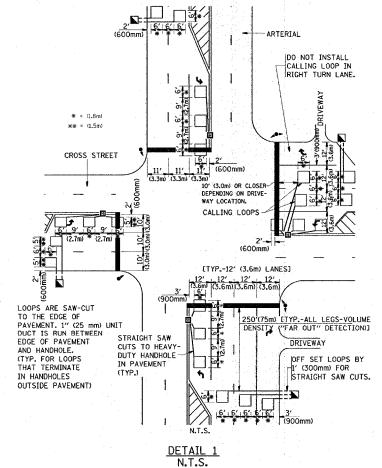
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

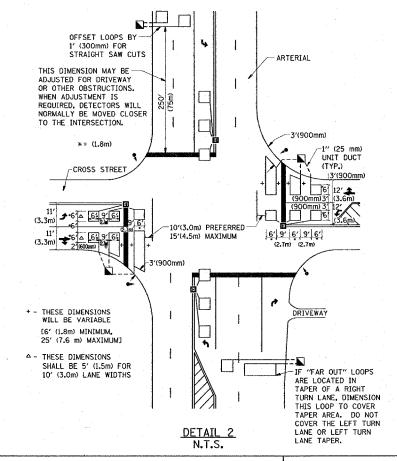
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)





NOTES:

### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE
  THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR
  (I.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS, EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

### PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\text{ALL}}$  SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

### NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING

 SCALE: NONE
 SHEET NO. 1 OF 1 SHEETS
 STA.
 TS—07
 CONTF

 SCALE: NONE
 SHEET NO. 1 OF 1 SHEETS
 STA.
 TO STA.
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT