## STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

FAU ROUTE 2605: MIDLOTHIAN ROAD IL 176 TO OLD McHENRY RD.
SECTION: 48 RS-3
RESURFACING
PROJECT: M-2605(001)
LAKE COUNTY

C-91-520-10

R 10 E

GROSS LENGTH = 25,823 FT. = 4.89 MILES

NET LENGTH = 25,623 FT. = 4.85 MILES

FREMONT AND ELA TOWNSHIPS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN THE VILLAGE OF MUNDELEIN

TRAFFIC DATA

2007 ADT = 14,700

SPEED LIMIT = 45 MPH

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

PROJECT ENGINEER: ROBERT BORO (847)-705-4178
PROJECT MANAGER: ISSAM RAYYAN

CONTRACT NO. 60K51

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

 2605
 48 RS-3
 LAKE
 4.7
 1

 FED. ROAD DIST. NO.
 ILLINOIS
 CONTRACT NO. 60K51

#### D-91-520-10



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 3, 20 11

Dian M. O' Heefe gr.
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 85 20 11

Scott E. Stitt P.E. Ja. acting ENGINEER OF DESIGN AND ENVIRONMENT

March 25 20 11

Christine M. Roso & DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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#### STATE STANDARDS

STANDARD NO.	DESCRIPTION
442201 <i>-<b>03</b></i>	CLASS C AND D PATCHES
630001 <i><b>-09</b></i>	STEEL PLATE BEAM GUARDRAIL
630301 <b>-<i>0</i>5</b>	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINAL
604001- <b>03</b>	FRAME AND LIDS TYPE I
701201 <b>- 04</b>	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301 <b>-04</b>	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701311 <b>-03</b>	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701501 <b>-06</b>	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701 <b>-07</b>	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901 <b>-01</b>	TRAFFIC CONTROL DEVICES

#### 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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF MUNDFIFTM.

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

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT

THE ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 715-8414 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS 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)

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE PRIOR TO BEGINNING WORK.

THE THICKNESS OF THE HMA 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 OF BASE ON WHICH THE HMA

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.

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

DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINE IN THE FIELD BE THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE CONTRACTOR SHALL VERIFY THE EXISTING TYPE/ HEIGHT OF EXISTING GUARDRAIL BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL THE TERMINAL SECTION SHELL MATCH THE HEIGHT OF THE EXISTING GUARDRAIL.

THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR "GUARDRAIL REMOVAL."

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

TO STA.

FILE NAME =	USER NAME = midyja		REVISED -
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 2/7/2011	DATE -	REVISED -

#### STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

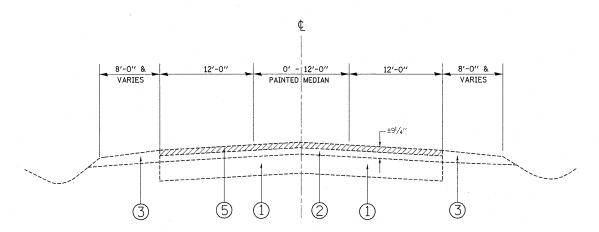
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STATE	STANDAR	DS,	<b>GENERAL</b>	NOTES	

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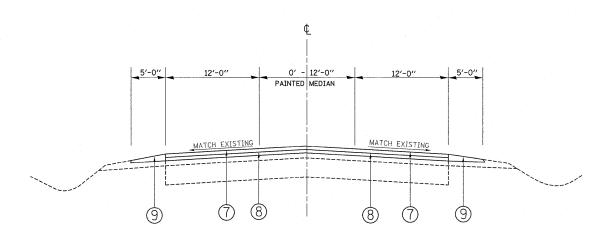
SCALE:

A.U. TE.	· SEC	TION		COUNTY	TOTAL SHEETS	SHEE'
605	- 48 F	RS-3		LAKE	27	: 2
-				CONTRAC	T NO. 6	OK51
		ILLINOIS	FED. AI	D PROJECT		

	SUMMARY OF QUANTITIES		URBAN 801 FEO.		CO	NSTRUCTIO	ON TYPE	CODE: OC	005		SUMMA	ARY OF QUANTITIES		URBAN 801. FED	<u>.</u>		CONSTRUCT	TION TYPE	CODE: 0	005
CODE NO	ITEM	UNIT	ZO? STATE TOTAL QUANTITIES	0005						CODE NO		ITEM	UNI	ZOI. STATE TOTAL TOTAL						
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE	CU YD	56	56						67100100	MOBILIZATIO	N	L SI	JM 1	1.	-				
20400800	MATERIAL FURNISHED EXCAVATION	CU YD	180	180				,		70100450	TRAFFIC CON	TROL AND PROTECTION,	L SI	JM 1	1					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	368	368						70102620	TRAFFIC CON	TROL AND PROTECTION,	L SI	JM 1	1					
25000210	SEEDING, CLASS 2A	ACRE	0.06	0.06						70102635	STANDARD 70	1501 TROL AND PROTECTION,	L SI	IM 1	1					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	7	. 7							STANDARD 70									
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	7	7						70300100	SHORT TERM	PAVEMENT MARKING	F00	T 9546	9546					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	7	7				-	-	70300210	TEMPORARY P.	AVEMENT MARKING SYMBOLS	SQ I	T 1222	1222					
25100630	EROSION CONTROL BLANKET	SQ YD	318	318						70300220	1	AVEMENT MARKING	F00	T 104730	104730					
25200110	SODDING, SALT TOLERANT	SO YD	50	50							- LINE 4"									
35501308	HOT-MIX ASPHALT BASE COURSE, 6"	SO YD	85	85						70300240	- LINE 6"	AVEMENT MARKING	F00	T   5044	5044					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	77	77	-					70300250		AVEMENT MARKING	FOO	T 208	208					
40600300	AGGREGATE (PRIME COAT)	TON	385	385						7070000	- LINE 8"	AVENEUT MARKING	500	-						
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	145	145						70300260	- LINE 12"	AVEMENT MARKING	F00	T 1392	1392					
40600895	CONSTRUCTING TEST STRIP	EACH	2	2						70300280	TEMPORARY P.	AVEMENT MARKING	FOO		323					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT	SQ YD	544	544						78000100		IC PAVEMENT MARKING	SO I	T 1222	1222					
10000302	JOINT SOM ASE REMOVAE										- LETTERS A		34 .	1222	1222					
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	10	10		-				<b>*</b> 78000200	THERMOPLAST	IC PAVEMENT MARKING	F00	T 104730	104730					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	8093	8093	·					<b>*</b> 78000400	THERMOPLAST	IC PAVEMENT MARKING	F00	T 5044	5044					
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	2051	2051						<b>X</b> 78000500	THERMOPLAST	IC PAVEMENT MARKING	FOO	T 208	208					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	94294	94294							- LINE 8"									
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	85	85						<b>★</b> 78000600	THERMOPLAST - LINE 12"	IC PAVEMENT MARKING	F00	T 1392	1392					
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SO YD	1146	1146						<b>*</b> 78000650	1	IC PAVEMENT MARKING	FOO	T 323	323					
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SQ YD	636	636						70100100	- LINE 24"	TOTIVE DAVENEUT MARKE								
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SO YD	1256	1256						<b>*</b> 78100100		ECTIVE PAVEMENT MARKE		and the second	823					
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SO YD	45	45						× 78201000		RKER - DIRECT APPLIED			3					
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1503	1503						78300200	REMOVAL	ECTIVE PAVEMENT MARKE	R EAC	H 600	600					
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	1	1						* 88600600	DETECTOR LO	OP REPLACEMENT	F00	T 1812	1812					
60262700	INLETS TO BE RECONSTRUCTED	EACH	3	3					-	X2020110	GRADING AND	SHAPING SHOULDERS	UNI	T 444	444					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	10	10						X4060826	POLYMERIZED METHOD), IL	LEVELING BINDER (MAC	HINE TO	3890	3890					
60404950	FRAMES AND GRATES, TYPE 24	EACH	5	5						△ x5539700		S TO BE CLEANED	F00	T 500	500					
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	5	5						X6030310		LIDS TO BE ADJUSTED	EAC		21					
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	10	10							(SPECIAL)									
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3						Z0004562	1 .	CONCRETE CURB AND GUREPLACEMENT	TTER FOO	T 650	650					
63200310	GUARDRAIL REMOVAL	FOOT	150	150		•	∆=No.	n-particif	ating	△ Z0018500	DRAINAGE ST	RUCTURES TO BE CLEANE	D EAC	Н 27	27				14	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5	·		* 306	Walty 17	1113	Z0030850	TEMPORARY II	NFORMATION SIGNING	SQ F	T 102.8	102.8					
ILE NAME = \pw_work\pwidof\midy		SIGNED -		REVISED REVISED	-			S	TATE OF	ILLINOIS			MIDLOTHIAN			F.A.L RTE.		CTION	COUNTY	TOTAL SHEE SHEETS NO.
		ECKED -		REVISED REVISED	-		ı			RANSPORTA	TION		SUMMARY OF QU O. OF SHEETS		TO STA.	2609	ROAD DIST, NO.	RS-3	CONTRAC	27 DT NO. 60K



EXISTING TYPICAL SECTION MIDLOTHIAN RD.
STA. 20+84 TO STA. 247+00



PROPOSED TYPICAL SECTION
MIDLOTHIAN RD.
STA. 20+84 TO STA. 247+00

### LEGEND

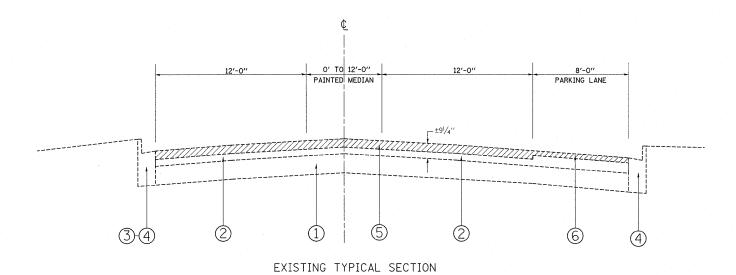
- 1) EXISTING PCC PAVEMENT, ±8"
- ② EXISTING HOT-MIX ASPHALT SURFACE COURSE AFTER MILLING ±7"
- 3 EXISTING AGGREGATE SHOULDER
- 4 EXISTING COMBINATION CONCRETE CURB AND GUTTER
- $^{(5)}$  proposed hot-mix asphalt surface removal,  $2^{1}/_{4}{}^{\prime\prime}$
- $^{\circ}$  PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 1 $^{1}\!\!/_{2}$ "
- PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1/2"
- 8 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, ¾"
- (9) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

## THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

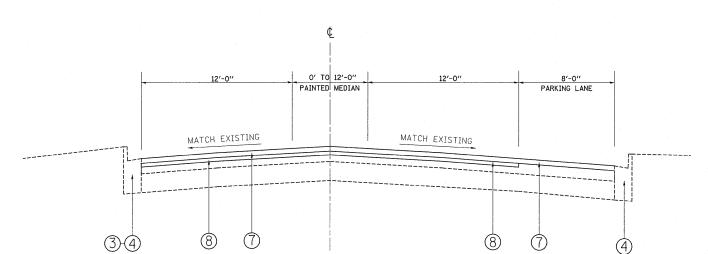
HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ NODES
RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL 9.5 mm)	4% @ 70 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4% @ 50 GYR.
PATCHING	
CLASS D PATCHES, (HMA BINDER IL-19 mm)	4% @ 70 GYR
DRIVEWAY	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5 mm); 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm); 6"	4% @ 50 GYR.

- THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ.YD./IN
- THE AC TYPE FOR POLYMERIZED HMA MIXES SHALL BE SBS/SBR PG 70 -22 AND FOR NON-POLYMERIZED HMA THE AC TYPE SHALL BE PG 64 -22 UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME =	USER NAME = midyja	DESIGNED -	REVISED -		MIDLOTHIAN RD. EXISTING & PROPOSED TYPICAL SECTIONS			F.A.U.	SECTION	COUNTY	TOTAL	SHEET	
c:\pw_work\pwidot\midyja\d0208730\D1520	Ø-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS			260E	40 DC-7	LAKE	SHEETS	NO.		
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			EXISTING & PROPUSED TYPICAL SECTIONS		2603	C-CN 0P	CONTRAC	CT NO C	OK51
	PLOT DATE = 2/4/2011	DATE -	REVISED -		SCALE:	SHEET NO. OF SH	EETS STA.	TO STA.		ILLINOIS FE	. AID PROJECT	,1 NO. 0	0031



MIDLOTHIAN RD. STA. 247+00 TO STA. 279+07



PROPOSED TYPICAL SECTION
MIDLOTHIAN RD.
STA. 247+00 TO STA. 279+07

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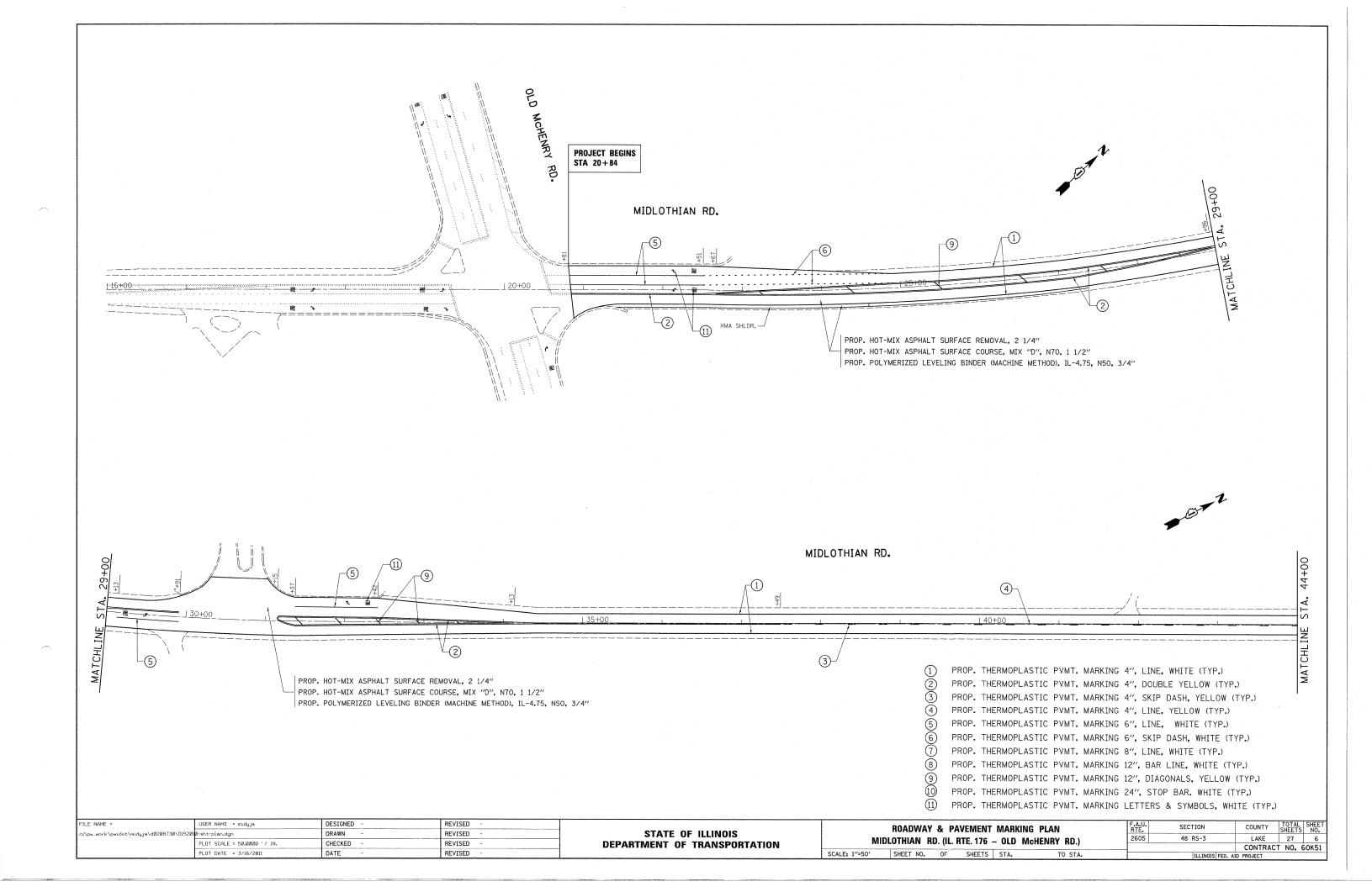
## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

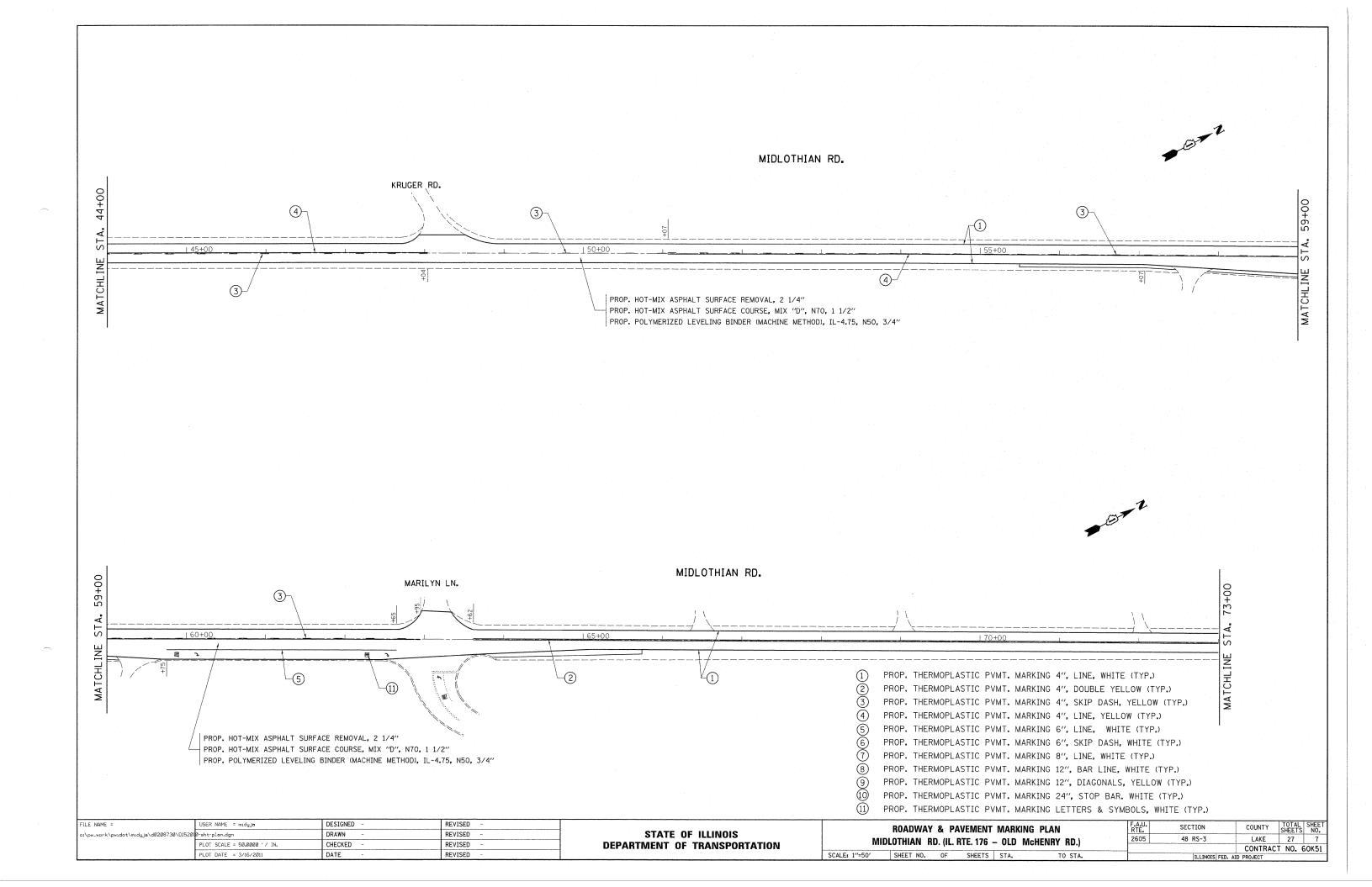
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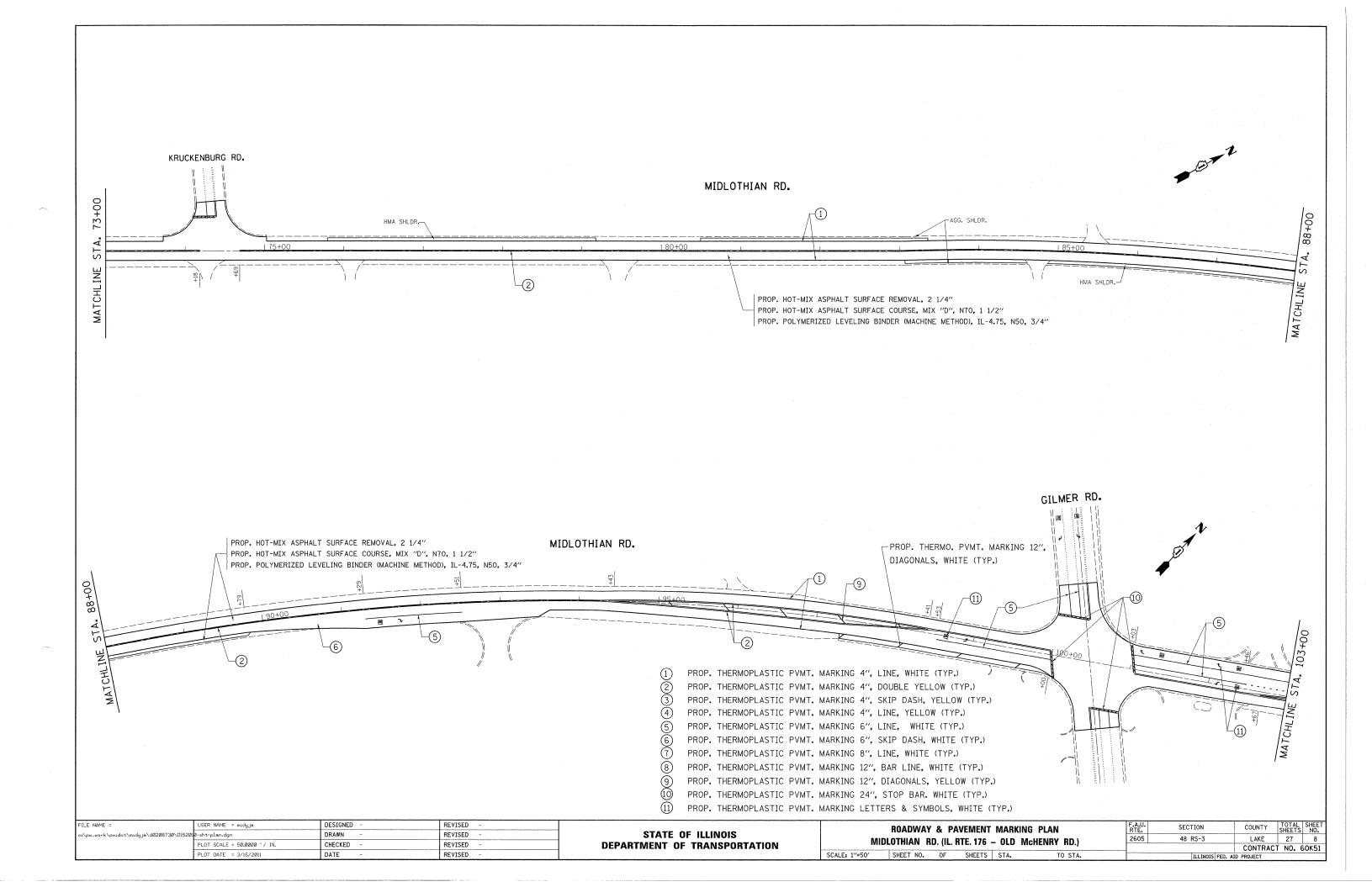
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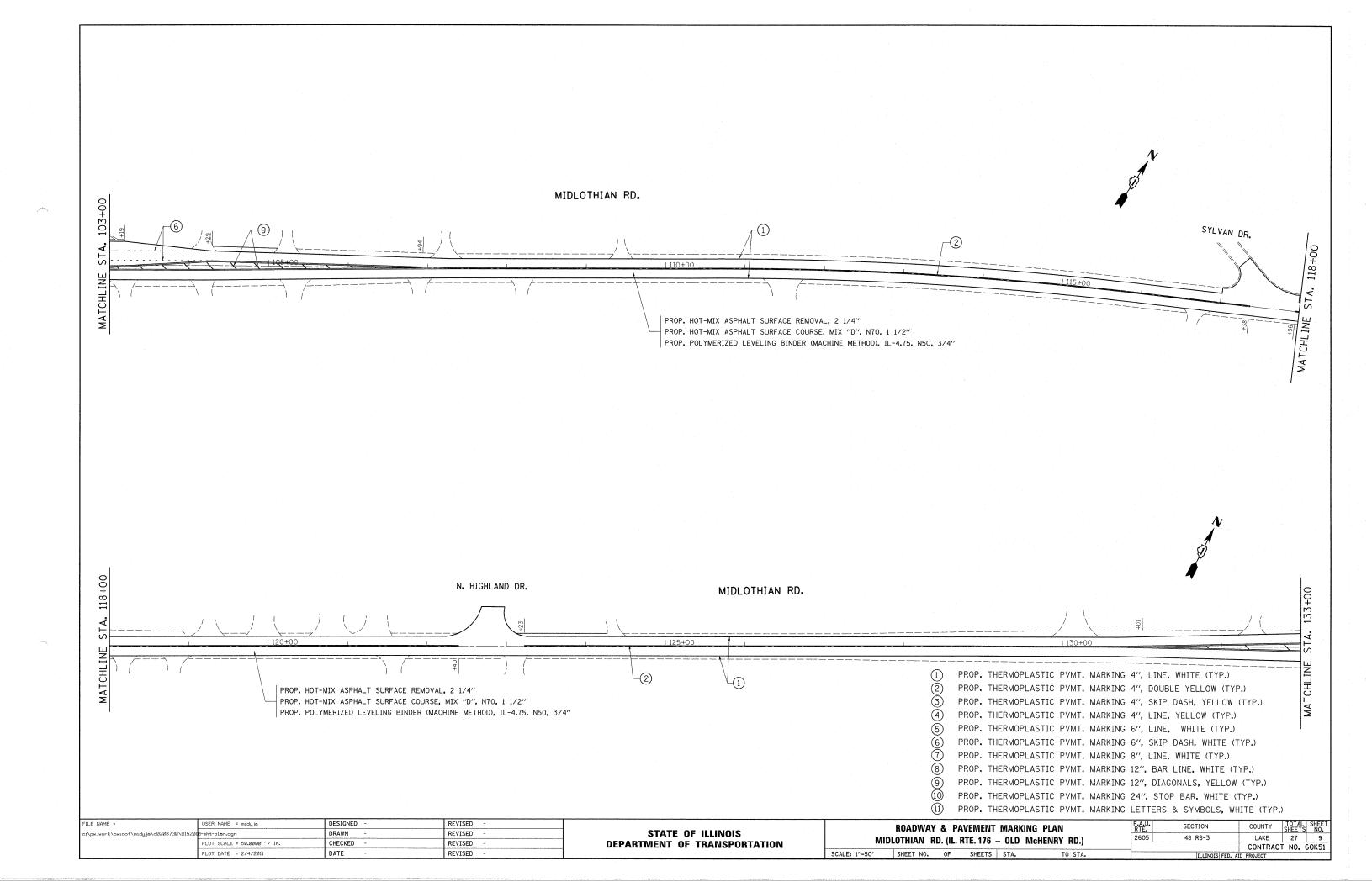
#### LEGEND

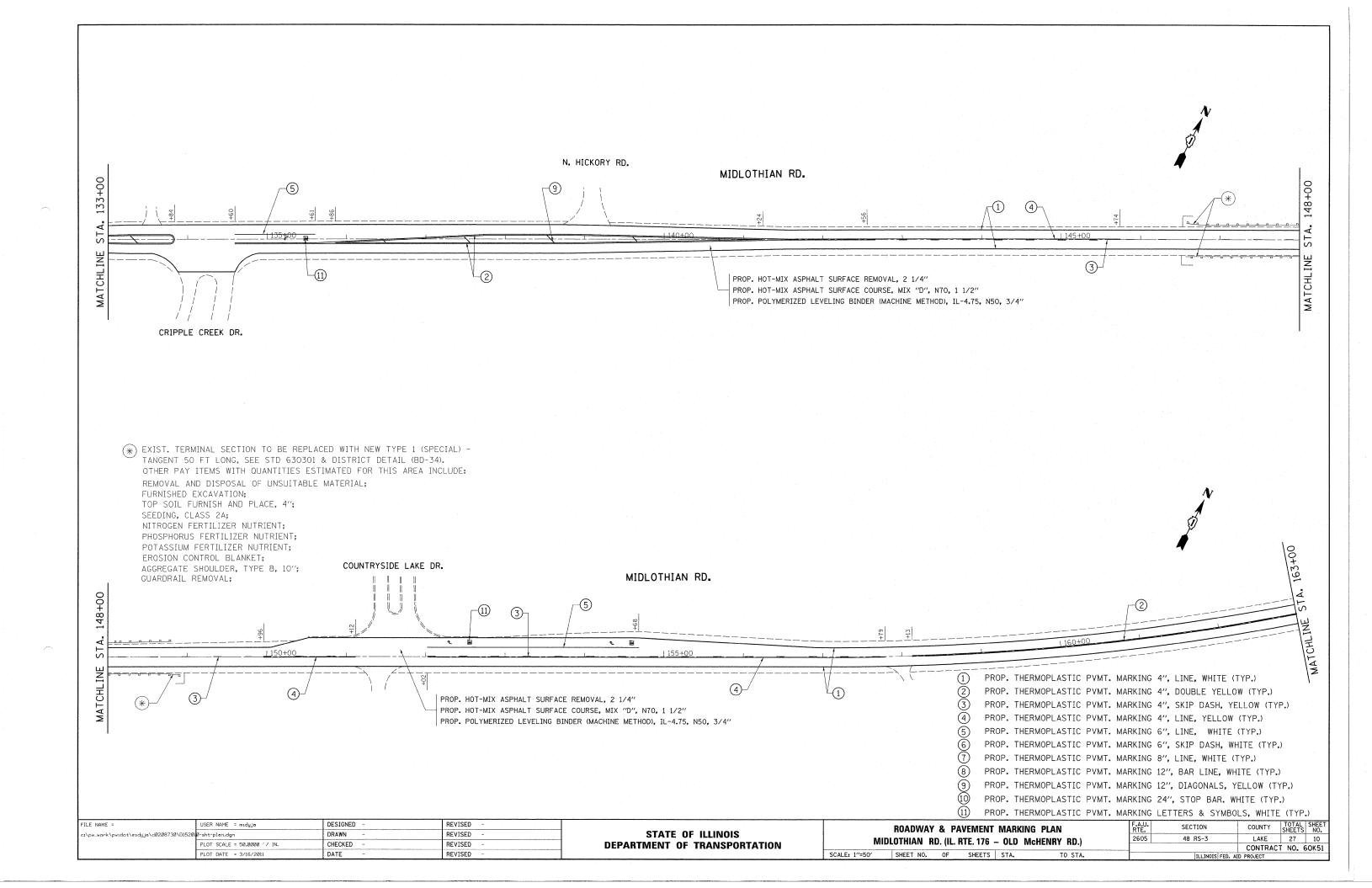
- 1 EXISTING PCC PAVEMENT, ±8"
- 2 EXISTING HOT-MIX ASPHALT SURFACE COURSE AFTER MILLING ±7"
- 3 EXISTING AGGREGATE SHOULDER
- 4 EXISTING COMBINATION CONCRETE CURB AND GUTTER
- 5 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 21/4"
- 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, 11/2"
- PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 11/2"
- 8 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, ¾"
- 9 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B

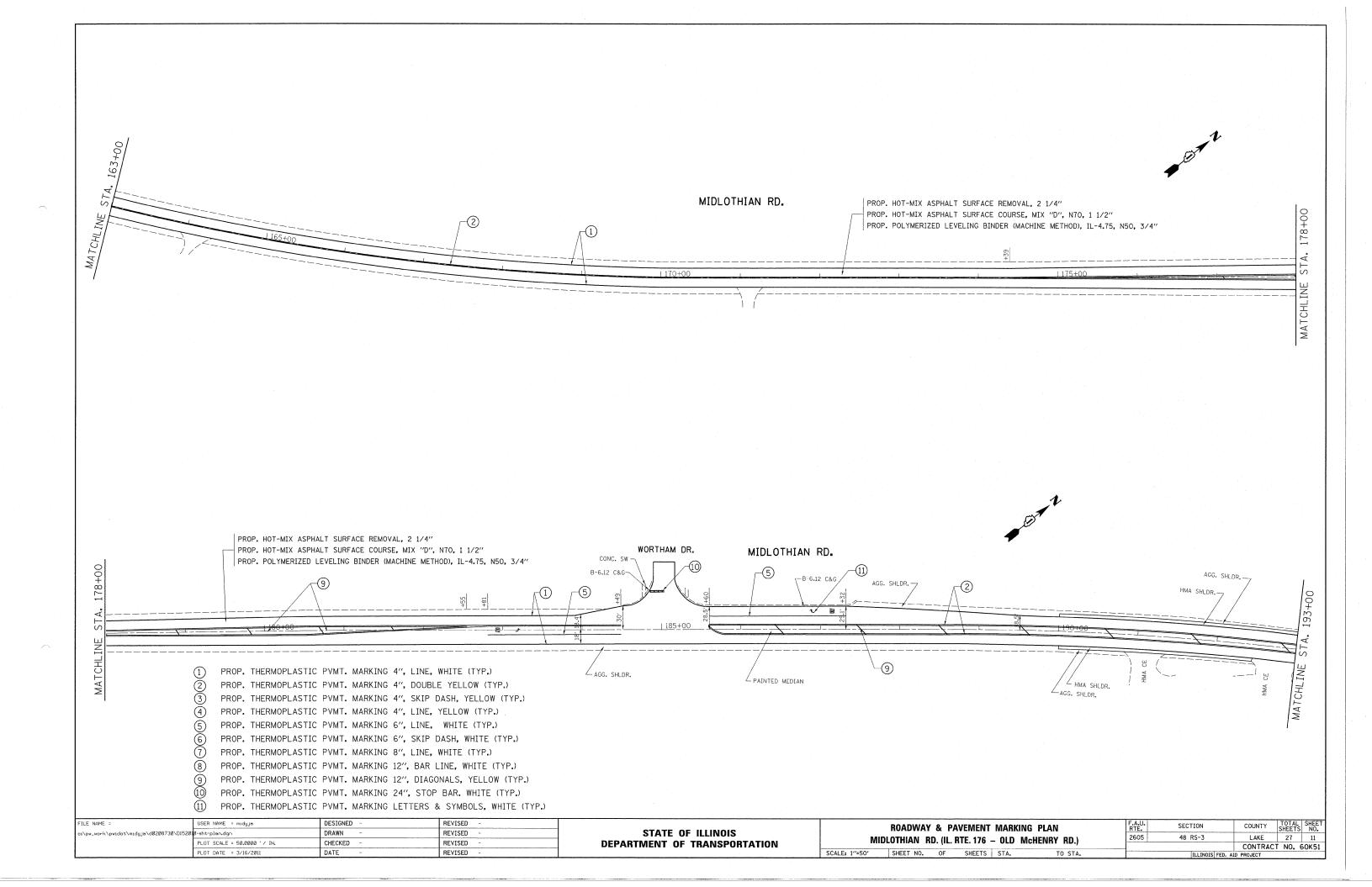


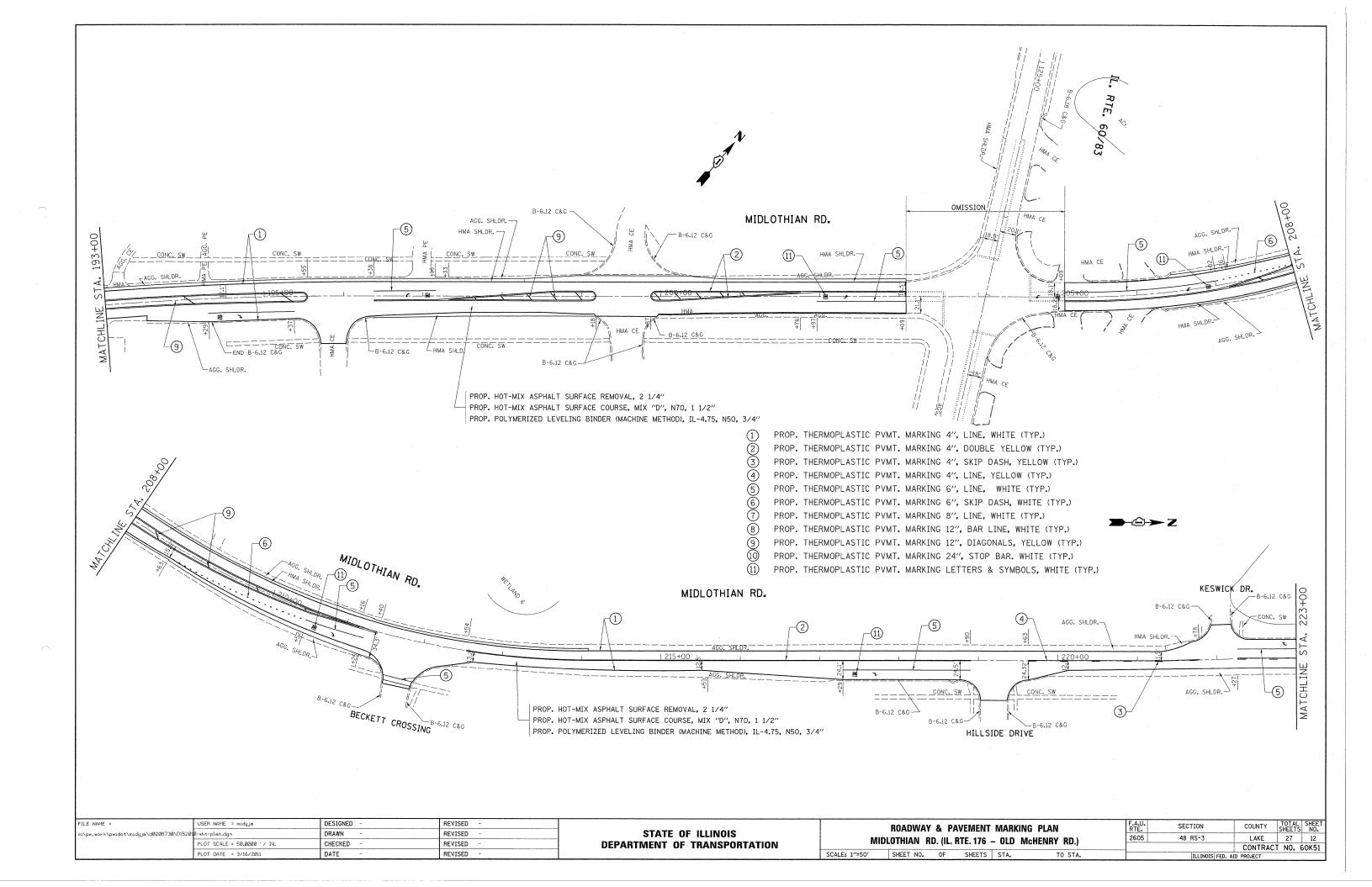


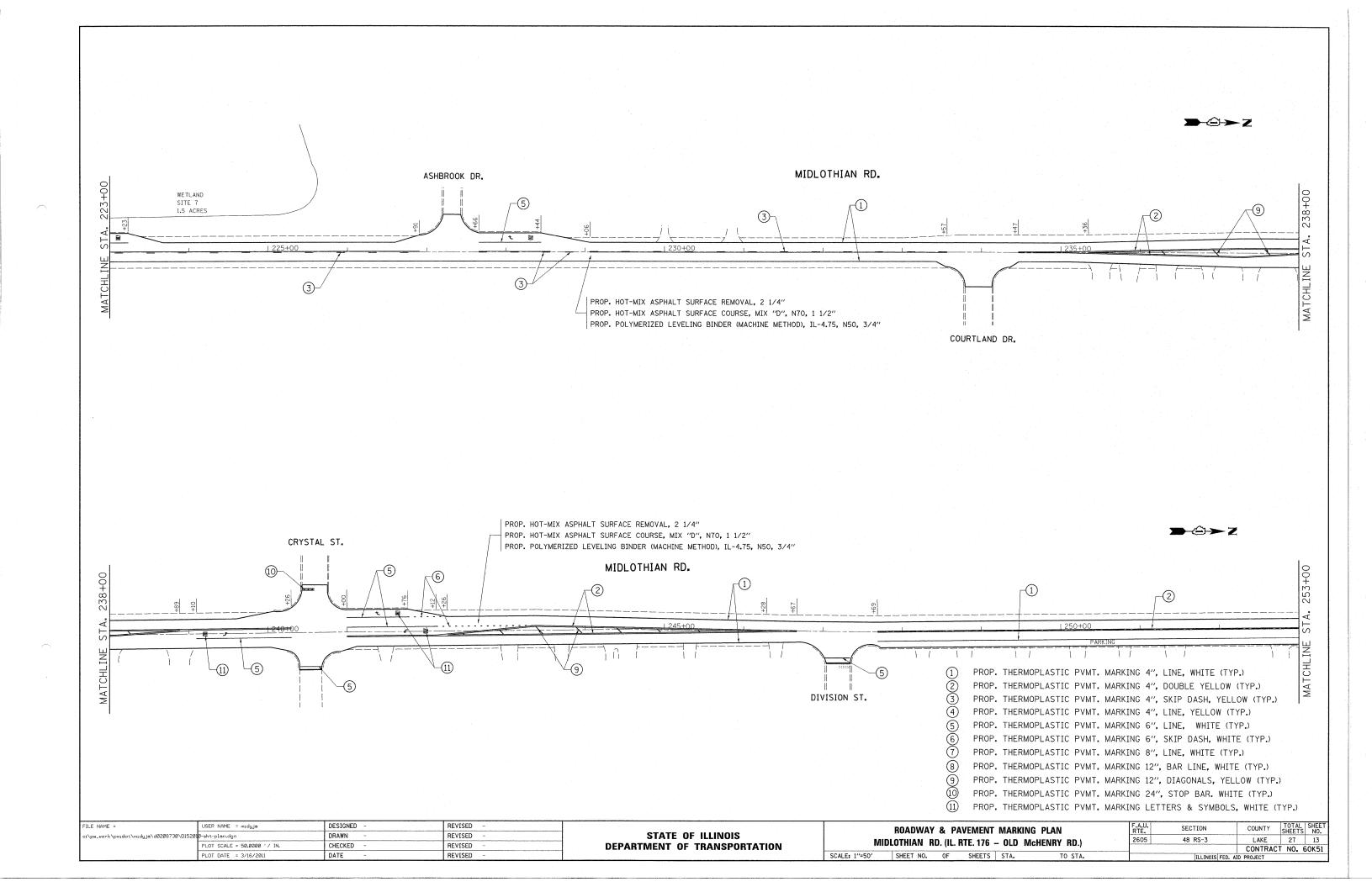


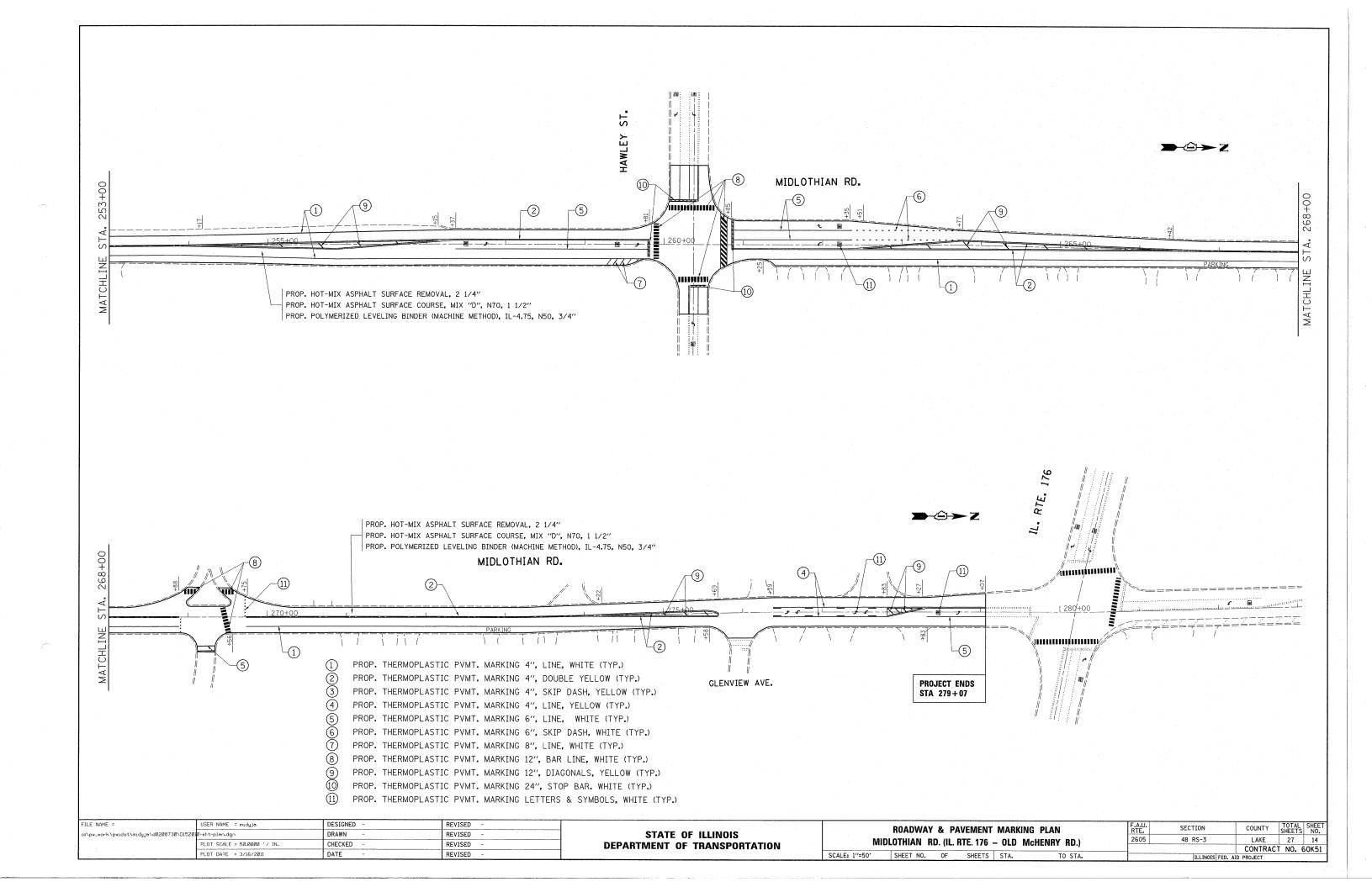


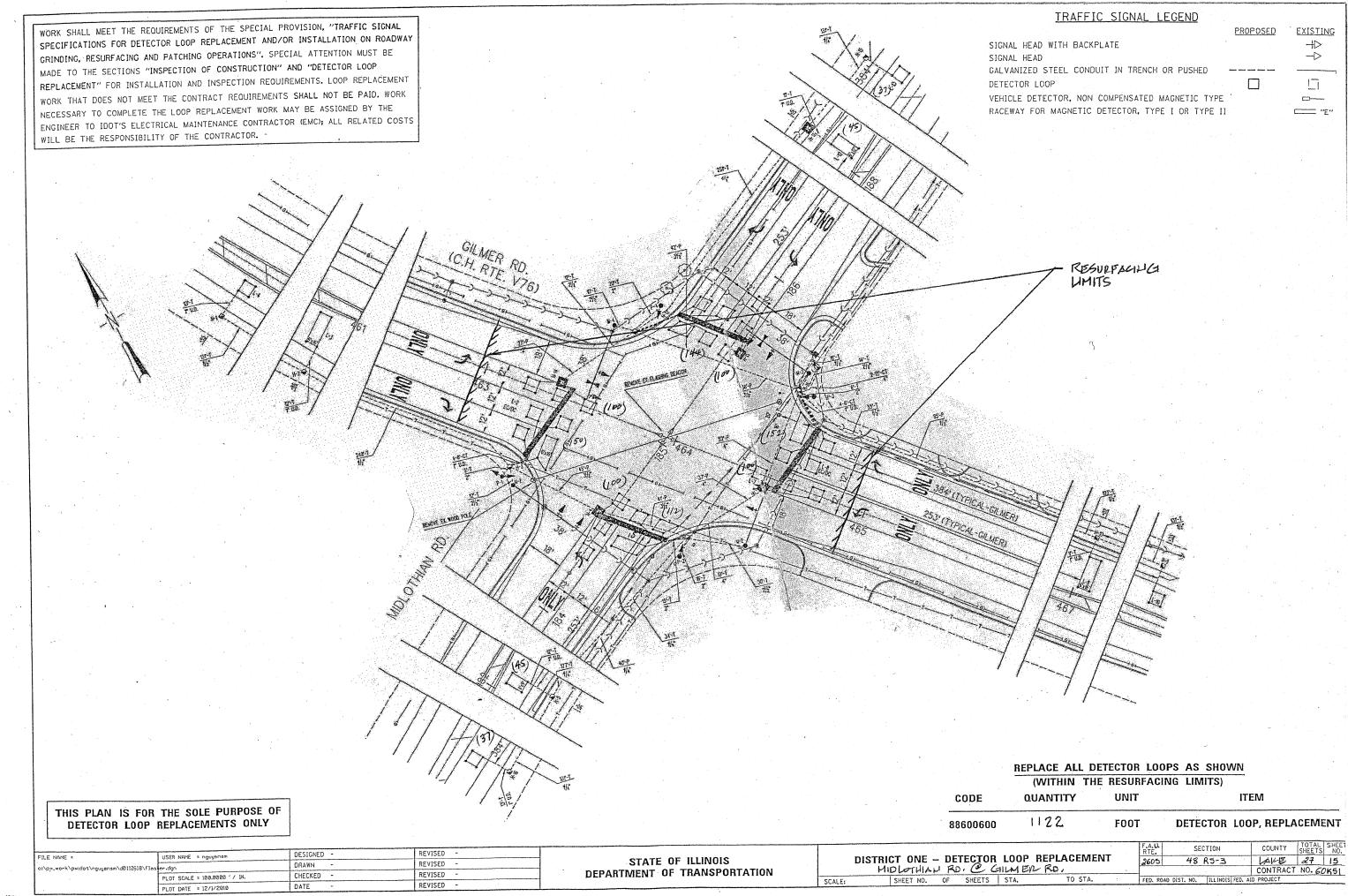












TRAFFIC SIGNAL LEGEND WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL PROPOSED EXISTING SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY SIGNAL HEAD WITH BACKPLATE 10 GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE  $\rightarrow$ SIGNAL HEAD MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP CALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS, LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE  $\Box$ NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. IS ASED ON LIMITS SHOWN ON PLAN IT APPEARS THESE LOOPS WILL HOT BE AFFECTED, THE RESHALL DETERMINE LOCATION OF LOOPS IN- FIELD. REPLACE ALL DETECTOR LOOPS AS SHOWN RESUPFACIOG (WITHIN THE RESURFACING LIMITS) LIMITS CODE QUANTITY ITEM THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY DETECTOR LOOP, REPLACEMENT 88600600 FOOT DESIGNED -REVISED FILE NAME : USER NAME = nguyensm DISTRICT ONE - DETECTOR LOOP REPLACEMENT
MID LOTHIAN RD & TL RTE. 60/83

SHEET NO. OF SHEETS STA. TO STA. 2605 48 RS-3 LAVE 27 16

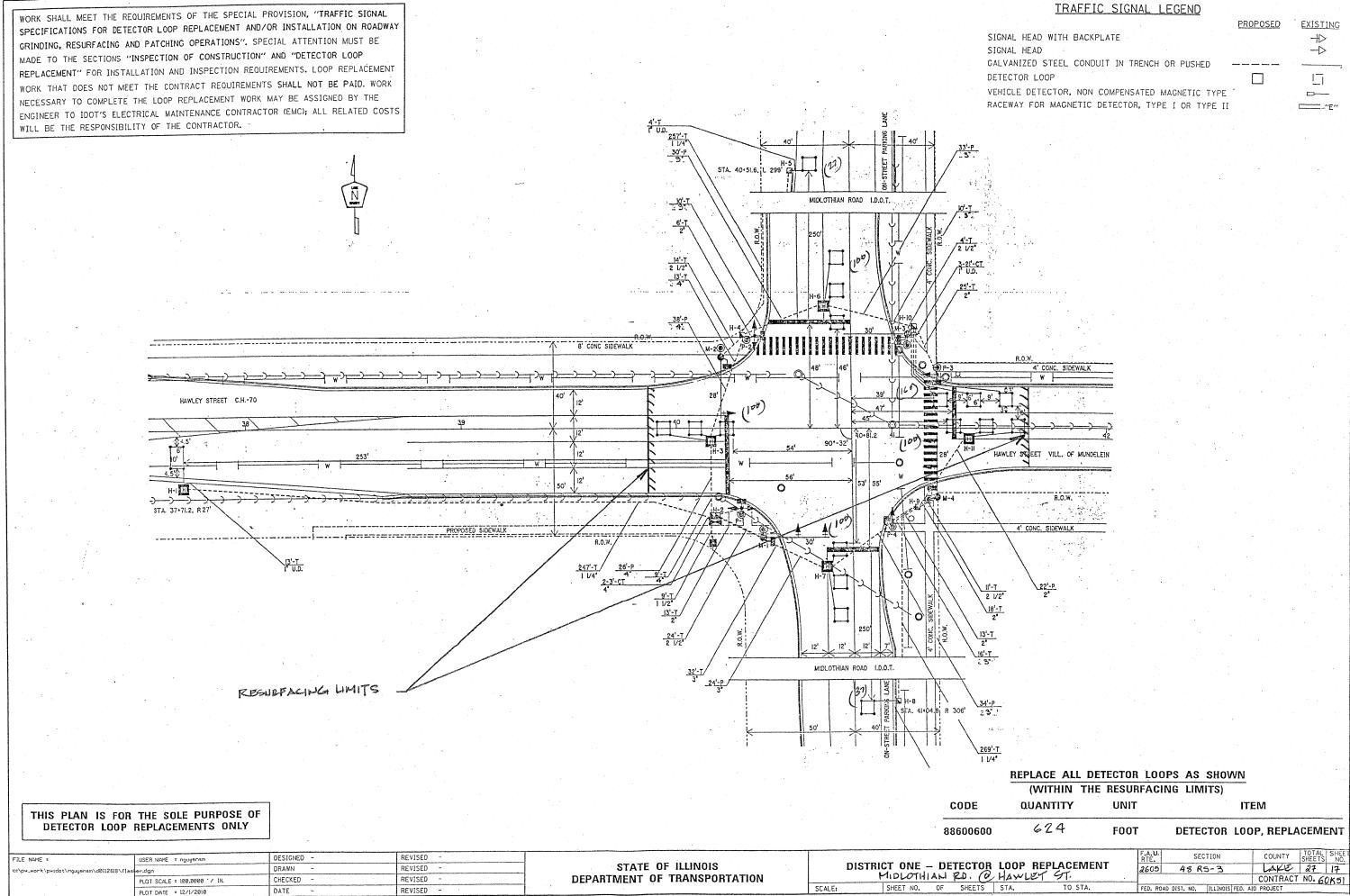
CONTRACT NO. 60 K51

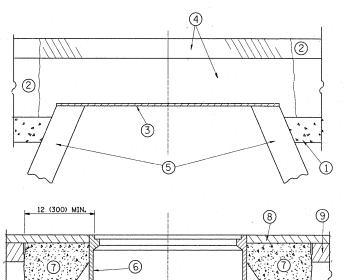
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT STATE OF ILLINOIS REVISED DRAWN -DEPARTMENT OF TRANSPORTATION PLOT SCALE = 100.0000 ' / IN. CHECKED -REVISED SCALE:

DATE

PLOT DATE = 12/1/2010

REVISED





# 1 PROPOSED BRICK, MORTAR, OR CONC. ADJUSTING RINGS

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN. THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\*
  CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

#### LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- 7 CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 5 EXISTING STRUCTURE
- 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

#### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

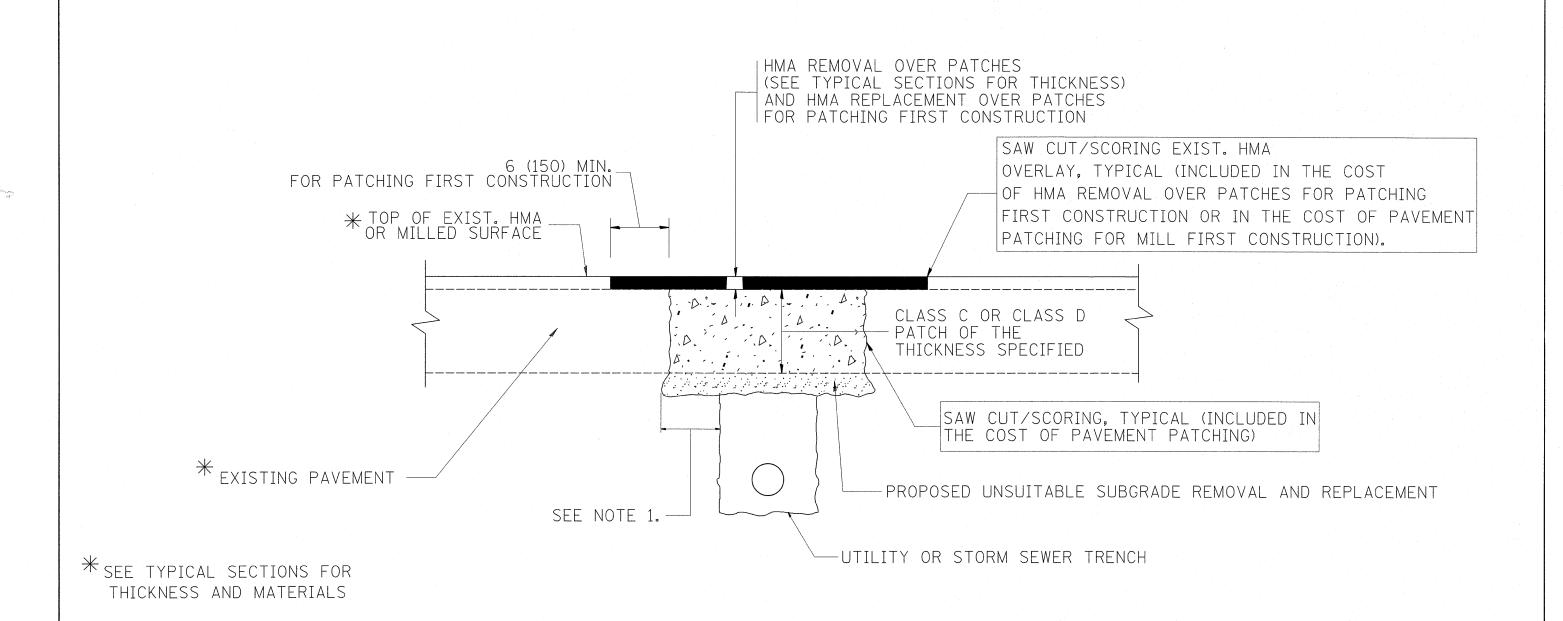
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i	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 3/21/2011	DATE - 10-25-94	REVISED - R. BORO 03-09-11

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

		D	ETAILS FO	R	
	FRAMES A	ND LIDS	ADJUSTN	TENT WITH	MILLING
SCALE: NONE	SHEET NO.	1 OF 1	SHEETS	STA.	TO

COUNTY TOTAL SHEET NO.

LAKE 27 18 2605 CONTRACT NO. 60K51 BD600-03 (BD-8) FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



#### 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 (PATCHING FIRST)

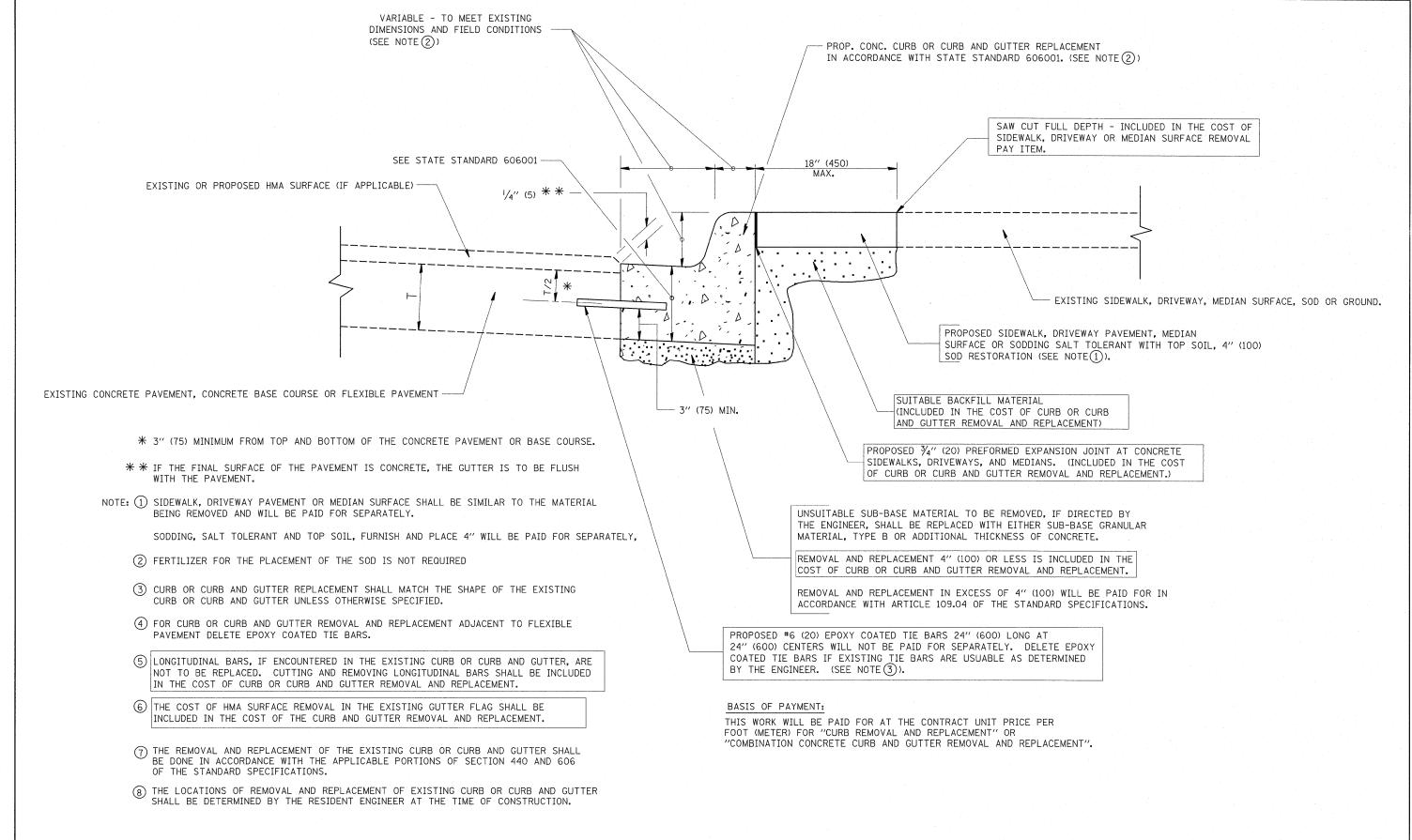
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

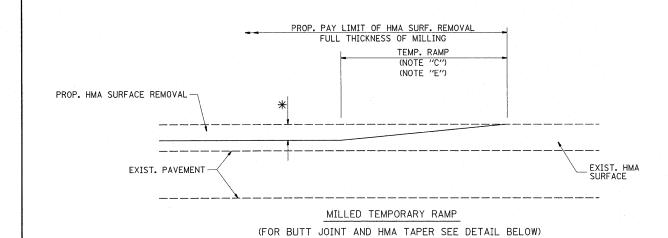
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c:\pw_work\pwidot\midyja\d0208730\DistSt	d.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		2605 48 RS-3 LAKE 27 19
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	BD400-04 (BD-22) CONTRACT NO. 60K51
	PLOT DATE = 2/4/2011	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT



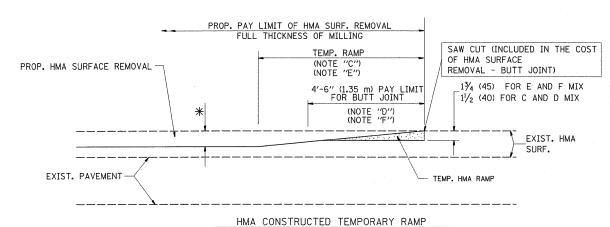
## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = midyja	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	CTATE OF HILINOIC		CURB OR CURB AND GUTTER		F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEE NO.
c:\pw_work\pwidot\midyja\d0208/30\Uist	PLOT SCALE = 50.0000 '/ IN.	DRAWN - CHECKED -	REVISED - A. ABBAS 03-21-97  REVISED - M. GOMEZ 01-22-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		REMOVAL AND REPLACEMENT		2605 RI	48 RS-3 D600-06 (BD-24)	LAKE	27 [ NO. F	20 OK 51
	PLOT DATE = 2/4/2011	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD		AID PROJECT		552



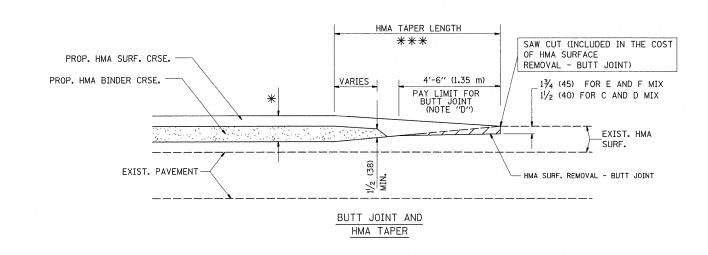
### OPTION 1



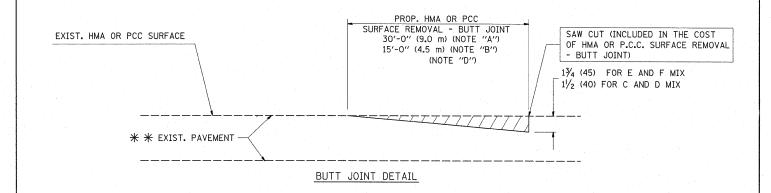
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

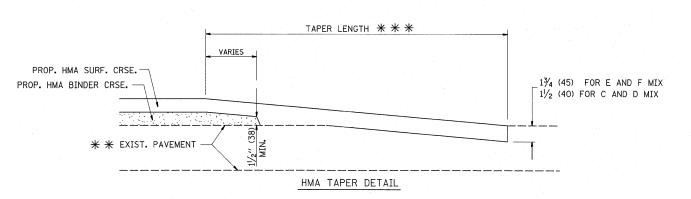
#### OPTION 2

#### TYPICAL TEMPORARY RAMP



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





TO STA.

### 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.
- \*\* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

#### BASIS OF PAYMENT:

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

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

48 RS-3

BD400-05 BD32

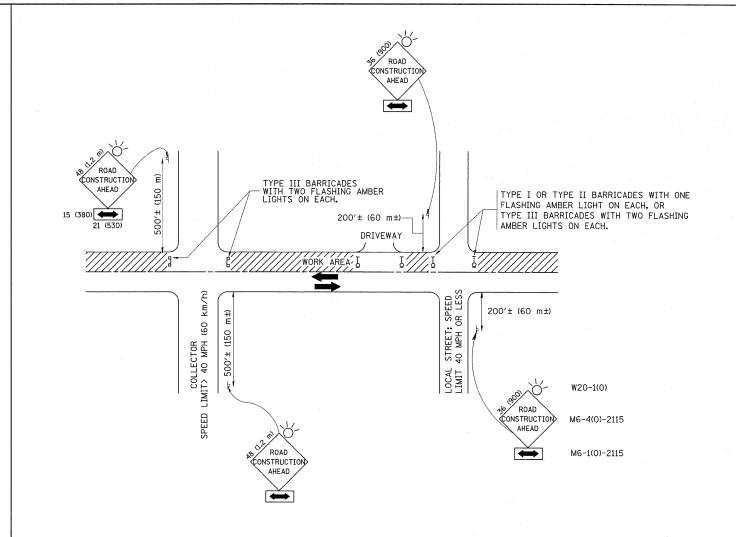
COUNTY

LAKE

TOTAL SHEET NO.

CONTRACT NO. 60K51

FILE NAME =	USER NAME = midyja	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94				DIITT	JOINT A	MD
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	PLOT DATE = 2/4/2011	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1	OF 1 S	SHEETS	STA.



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

#### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. 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:
- a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 × 48 (1.2 m × 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 (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- 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.

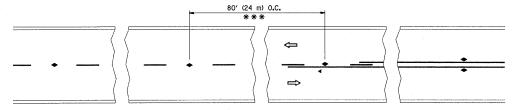
All dimensions are in millimeters (inches) unless otherwise shown.

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	PLOT DATE = 2/4/2011	DATE -	06-89	REVISED	-T. RAMMACHER 01-06-00

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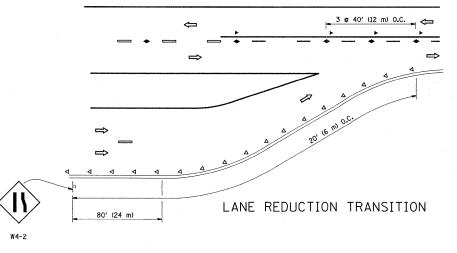
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SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS									
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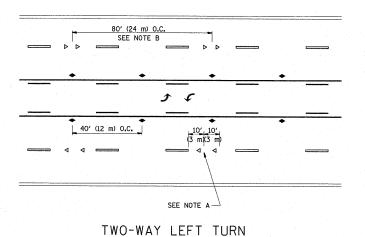
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	F.A.U. RTE.		SEC	TION		COUNTY	TOTAL SHEETS	SHEE NO.



\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

#### TWO-LANE/TWO-WAY





80' (24 m) O.C.

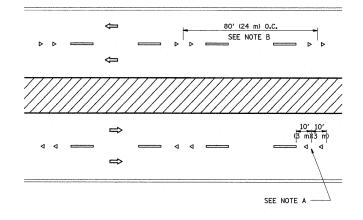
SEE NOTE B

40' (12 m) O.C.

3 mix3 m

SEE NOTE A

MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

#### GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 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

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

#### 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.
- 4. 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

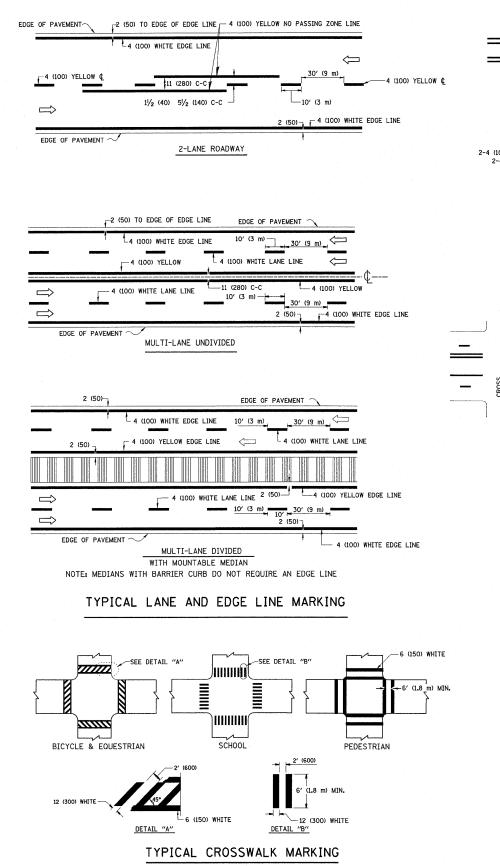
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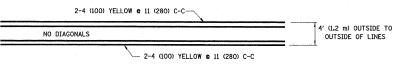
FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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	PLOT DATE = 2/4/2011	DATE -	REVISED	- C. JUCIUS	09-09-09

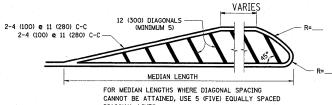
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

			7				
	RAISED	REFLECTIVE	PAVEMENT	MARKERS	(SNOW-PLOW	RESISTANT)	
SCALE:	NONE	SHEET NO	1 OF 1	SHEETS	STA.	TO STA.	



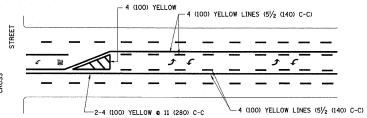


#### 4' (1.2 m) WIDE MEDIANS ONLY

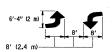


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

#### MEDIANS OVER 4' (1.2 m) WIDE

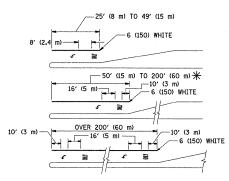


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

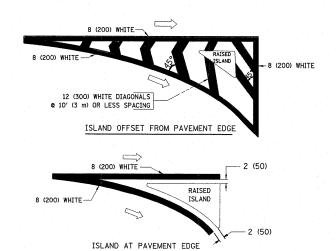


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\footnotemark$  AREA = 15.6 SO. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

★ 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 UNDIVIDED PAVEMENT	2 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 <b>c</b> 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE 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' (500) APART 2' (500) 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	DIAGONALS: 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 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>©</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.

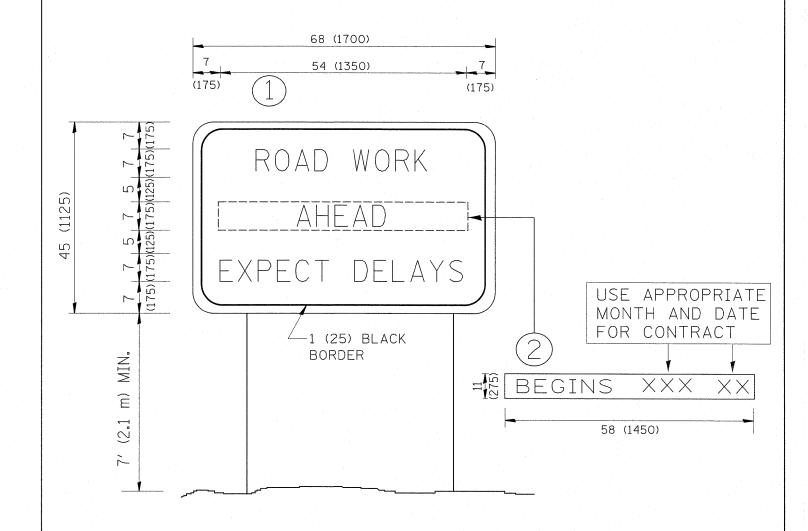
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4.5	PLOT DATE = 2/4/2011	DATE	-	03-19-90	REVISED	-	

FILE NAME =

STATE	OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

DISTRICT ONE						F.A.U. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.			
			TV	PIC	II P	AVEMENT	MARKINGS		2605	48 RS-3	LAKE	27	24
						TC-13	CONTRACT	NO.	60K51				
 SCALE: NONE		SHEET	NO.	1 0	F 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1   ILLINOIS FED. AI	D PROJECT		



## 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.

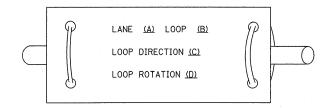
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

- 1								
	FILE NAME =	USER NAME = midyJa	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD	F.A.U. SECTION	COUNTY TOTAL SHEET
	c:\pw_work\pwidot\midyja\d0208730\DistStd	td.dgn DRAWN -		REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	1	2605 48 RS-3	LAKE 27 25
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN	TC-22	CONTRACT NO. 60K51
		PLOT DATE = 2/4/2011	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	

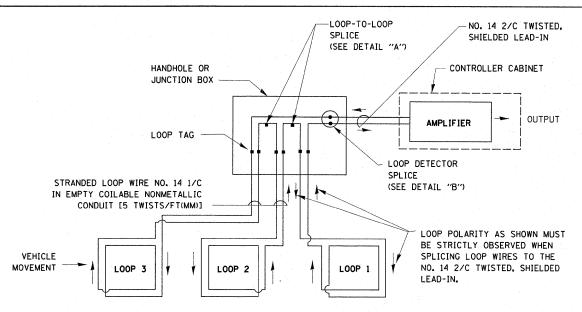
#### LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT 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

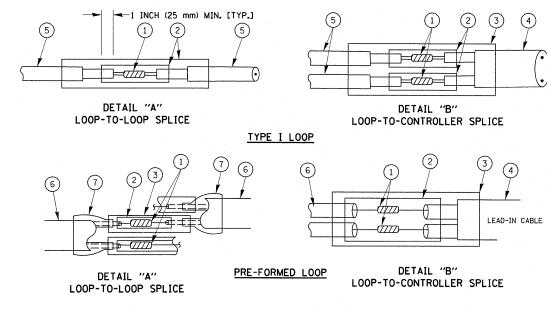


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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

- $\ensuremath{\bigcirc}$  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.
- (6) PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR
  BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

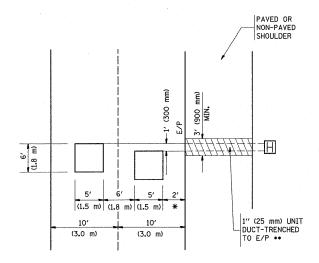
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	PLOT DATE = 2/4/2011	DATE	-	10-28-09	REVISED	

STATE	: OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

DISTRICT ONE		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
	STANDARD	TRAFFIE	C SIGNAL	DECIGN	DETAILS		2605	48 RS-3	LAKE	27	26
	JIANDAND	111/5/111	JUINAL	DESIGN	DLIMILO			TS-05	CONTRACT	NO. 6	OK51
SCALE: NONE	SHEET NO. 1	OF 6	SHEETS	STA.		TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. AI	PROJECT		

#### LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



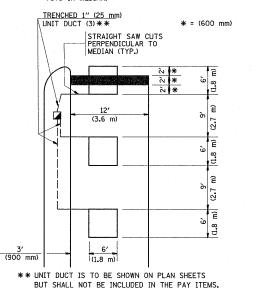
\* = (600 mm)

\* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

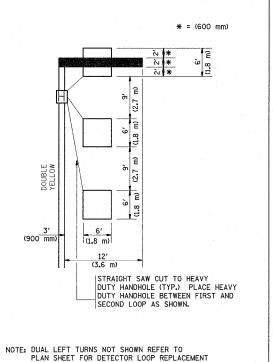
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

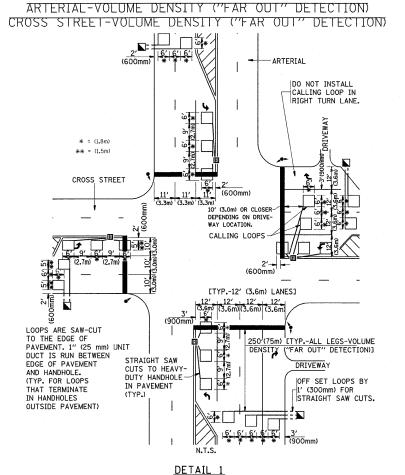
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

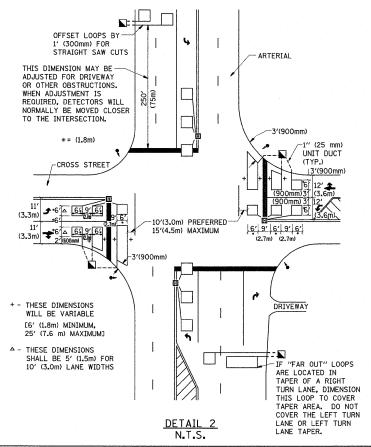
(PROTECTED / PERMITTED LEFT TURN PHASING)



SCALE: NONE

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  $\underline{\mathsf{ALL}}$  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.

#### NOTF:

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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	PLOT DATE = 2/4/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION											
		DET/	ILS	FOR	ROADW	AY RESURFACING					
	SHEET	NO. 1	OF	1	SHEETS	STA.	ТО	STA.			

	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2605	48 RS-3	LAKE	27	27
_		TS-07	CONTRACT	NO. 6	OK51
	FED. R	OAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		