## STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

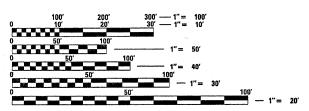
# **PROPOSED** HIGHWAY PLANS

F.A.P. ROUTE 607 (US ROUTE 30) KRAKAR AVE. TO I-80 SECTION: 13 RS-6 PROJECT: --**RESURFACING WILL COUNTY** C-91-117-10

## THE PROJECT IS LOCATED IN THE

FOR INDEX OF SHEETS, SEE SHEET NO. 2

CITY OF JOLIET AND THE VILLAGE OF NEW LENOX IN WILL COUNTY.



ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS. THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-392-0123 OR 811

PROJECT ENGINEER: KARI SMITH (847) 705-4437

PROJECT MANAGER: KEN ENG

R 10 E R 11 E PROJECT BEGINS: LOCKPORT STA. 14+35 DEREST HILL OMISSION BEGINS: STA. 50+08.5 LENOX OMISSION ENDS: STA. 51+69.5 PRESTON HEIGHTS PROJECT ENDS: STA. 172+55

JOLIET TOWNSHIP & NEW LENOX TOWNSHIP

GROSS LENGTH OF IMPROVEMENT = 15.820 FEET = 3.0 MILES NET LENGTH OF IMPROVEMENT = 15,659 FEET = 2.97 MILES

### TRAFFIC DATA

2006 ADT = 19.700 POSTED SPEED LIMIT= 40-45 MPH

SECTION WILL 28 1
ILLINOIS CONTRACT NO. 60167 607 13 RS-6

#### D-91-117-10



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

SUBMITTED JANUARY 24 2010

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER March 19, 20 10

Scotl E Still PE DO Acting ENGINEER OF DESIGN AND ENVIRONMENT

Christine M. Reed/10 DIRECTOR OF HIGHWAY'S, CHIEF ENGINEER

PRINTED BY THE AUTHOR TY OF THE STATE OF ILLINO S

CONTRACT NO. 60167

#### INDEX OF SHEETS

SHE	ET NO.	DESCRIPTION
	1	TITLE SHEET
	2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
	3	SUMMARY OF QUANTITIES
	4-6	EXISTING AND PROPOSED TYPICAL SECTIONS
	7-12	ROADWAY AND PAVEMENT MARKING PLANS
	13-16	DETECTOR LOOP REPLACEMENT SHEETS
	17	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
	18	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
	19	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
	20	BUTT JOINT AND HMA TAPER
* .	21	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
	22	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
	23	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
	24	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
	25	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
	26	ARTERIAL INFORMATION SIGNING
	27	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
	28	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING

#### STATE STANDARDS

#### STANDARD NO.

#### DESCRIPTION

000001-05	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	REINFORCEMENT BARS, AREAS WEIGHTS, AND SPACING
442201-03	CLASS C AND D PATCHES
604001- <i>03</i>	FRAME AND LID, TYPE 1
604091- <i>0</i> 2	FRAME AND GRATE, TYPE 24
606001- <i>04</i>	COMBINATION CONCRETE CURB AND GUTTER
606301- <i>04</i>	MEDIAN, CONCRETE
701701- <i>06</i>	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
701501- <i>05</i>	URBAN LANE CLOSURE, 2L, 2W
701301- <i>03</i>	TRAFFIC CONTROL & PROTECTION

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

701502-03 URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE 701601-00 URBAN LANE CLOSURE, MULTILANE, 2W WITH NONTRAVERSABLE MEDIAN

# US 30 (KRAKAR AVE. TO 1–80) INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES SCALE:NOT TO SCALE SHEET NO. OF SHEETS STA. TO STA.

## 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)

GENERAL NOTES

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE VILLAGE OF NEW LENOX AND THE CITY OF JOLIET AND UTILITY COMPANIES.

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.

THE RESIDENT ENGINEER SHALL CONTACT MS. CORA MATHIS, AREA TRAFFIC FIELD ENGINEER, AT (847) 715-8428 A MINIMUM OF 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 1½ 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).

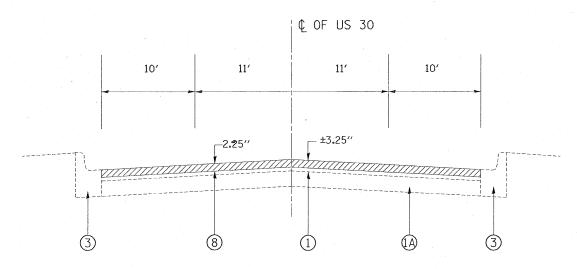
THE RESIDENT ENGINEER SHALL VERIFY LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO MILLING OR RESURFACING.

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.

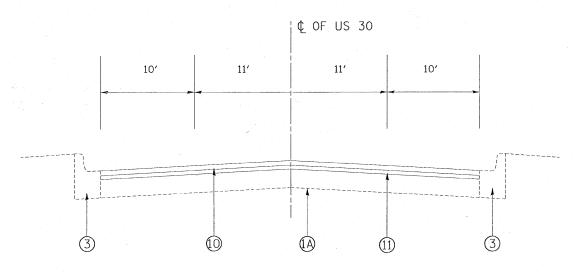
LOCATIONS OF CLASS D PATCHING AND COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

	SUMMARY OF QUANTITIES		LIRBAN 100% STATE		C	ONSTRUCT	ION TYPE	CODE			SUMMAF	RY OF QUANTITIES		URBAN 100% STATE			CONSTRUC	TION TYPE	CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	1000						CODE NO		ITEM	UNIT	TOTAL OUANTITIES	1000					
20201006	GRADING AND SHAPING SHOULDERS	UNIT	55	55					. 44	70102635	TRAFFIC CONT	ROL AND PROTECTION,	L SUM	. 1	1					
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	87	87						70107015										
25200110	SODDING, SALT TOLERANT	SO YD	87	87						70103815		ROL SURVEILLANCE	CAL DA	5	5					
10600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	61	61						70300100	*	AVEMENT MARKING	FOOT	16461	16461					
10600300	AGGREGATE (PRIME COAT)	TON	301	301						70300210	TEMPORARY PA - LETTERS AN	VEMENT MARKING D SYMBOLS	SO FT	657	657					
10600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	113	113						70300220	TEMPORARY PA	VEMENT MARKING	FOOT	45562	45562					
10600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	3097	3097						70300240	TEMPORARY PA	VEMENT MARKING	FOOT	1844	1844					
10600895	CONSTRUCTING TEST STRIP	EACH	2	2			-			70300260	TEMPORARY PA	VEMENT MARKING	FOOT	77	77					
10600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	803	803						70300280	TEMPORARY PA - LINE 24"	VEMENT MARKING	FOOT	172	172					
10603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	6305	6305	र <sup>ा</sup> री				- Hallerin	70301000	WORK ZONE PA	VEMENT MARKING REMOVAL	SO FT	5487	5487	-				
12001200	PAVEMENT FABRIC	SO YD	130	130					•	78000100	THERMOPLASTI - LETTERS AN	C PAVEMENT MARKING D SYMBOLS	SO FT	657	657					
12001300	PROTECTIVE COAT  HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	1133 75059	1133 75059	5				•	78000200		C PAVEMENT MARKING	FOOT	45545	45545					
14000158	COMBINATION CONCRETE CURB AND GUTTER	FOOT	520	520					•	78000400		C PAVEMENT MARKING	FOOT	1844	1844					
14002020	REMOVAL AND REPLACEMENT  CONCRETE MEDIAN SURFACE REMOVAL	SO FT	6562	6562						78000600		C PAVEMENT MARKING	FOOT	77	77				are or an	
14200970	CLASS B PATCHES, TYPE II, 10 INCH	SO YD	158	158	e .					78000650		C PAVEMENT MARKING	FOOT	172	172					
14200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	130	130		:					- LINE 24"									
14201789	CLASS D PATCHES, TYPE II, 12 INCH	SO YD	25	25			·			78100100	RAISED REFLE	CTIVE PAVEMENT MARKER	EACH	470	470					
14201827		SO YD	1513	1513						78300200	RAISED REFLE REMOVAL	CTIVE PAVEMENT MARKER	EACH	365	365	-				
14201831	CLASS D PATCHES. TYPE III. 15 INCH	SO YD	631	631						88600600	DETECTOR LOO	P REPLACEMENT	FOOT	1143	1143					
14201833	CLASS D PATCHES, TYPE IV, 15 INCH	SO YD	379	379						X0322256	* *	FORMATION SIGNING	SO FT	206. 6	206.6					
14213200	SAW CUTS	FOOT	408	408						Z0017202	DOWEL BARS 1		EACH	860	860					
18102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	110	110						Z0018500		JCTURES TO BE CLEANED	EACH	45	45					
50300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	7	7			-			Z0048665		TECTIVE LIABILITY INSURANCE	L SUM	1	1					3
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	17	17										-	•					ar Tribani Se
50404950	FRAMES AND GRATES, TYPE 24	EACH	12	12									:		_					
50618300	CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	6562	6562																
37000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				:												
7100100	MOBILIZATION	L SUM	1	1			-	3												
70102620	TRAFFIC CONTROL AND PROTECTION. STANDARD 701501	L SUM	1	1		4	÷ .				• DENOTES S	PECIALTY ITEM		3						
0102622	TRAFFIC CONTROL AND PROTECTION. STANDARD 701502	L SUM	1	1																
0102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1											-					
E NAME =		IGNED -		REVISED		1	<del>                                     </del>		TATE OF !	LINOIS		SUMMAR	Y OF QUANT	ITIES		F.A.I RTE		CTION	COUNTY	TOTAL SHEE SHEETS NO
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EXISTING TYPICAL SECTION US 30 STA. 14+35 TO STA.20+65



PROPOSED TYPICAL SECTION US 30 STA. 14+35 TO STA. 20+65

- \* NOTES:
- 1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF LEFT TURN LANES, RIGHT TURN LANES, PAINTED MEDIAN, CONCRETE MEDIAN, CURB & GUTTER AND AGGREGATE AND HMA SHOULDER.
- 2. PAVEMENT PATCHING SHALL BE DONE FOLLOWING ROADWAY MILLING.

## LEGEND

- (1) EXISTING H.M.A. SURFACE
- (A) EXISTING HMA BASE COURSE, ±11"
- (2) EXISTING P.C.C. BASE COURSE, ±7"
- 3 EXISTING COMB. CONCRETE CURB & GUTTER
- (4) EXISTING H.M.A. SHOULDER
- (5) EXISTING AGGREGATE SHOULDER
- (6) EXISTING CONCRETE MEDIAN SURFACE, 4"
- (7) EXISTING JOINTED P.C.C SURFACE COURSE, ±10"
- (8) PROPOSED H.M.A SURFACE COURSE REMOVAL, 2.25"
- (9) PROPOSED CONCRETE MEDIAN SURFACE REMOVAL
- (10) PROPOSED H.M.A. SURFACE COURSE MIX "D", N70, 1.5"
- (11) PROPOSED POLYMERIZED LEV. BINDER (MM), IL-4.75, N50, 0.75"
- (12) PROPOSED CONCRETE MEDIAN SURFACE, 4"
- (13) PROPOSED AGG. WEDGE SHOULDER, TYPE B
- (14) PROPOSED SHAPING AND GRADING SHOULDERS

#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

		MIXTURE USE	AIR VOIDS (%)
	ROADWAY	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O (IL 9.5 MM), 1.5"	4% @ 70 GYR
	KOADWAT	POLYMERIZED LEVELING BINDER, (MM), IL-4.75, N-50	4% @ 50 GYR
1	PATCHES	CLASS D PATCHES, (HMA BINDER IL-19.0 MM), 12" & 15"	4% @ 70 GYR
	PATCHES	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (BINDER IL-19.0 MM)	4% @ 70 GYR

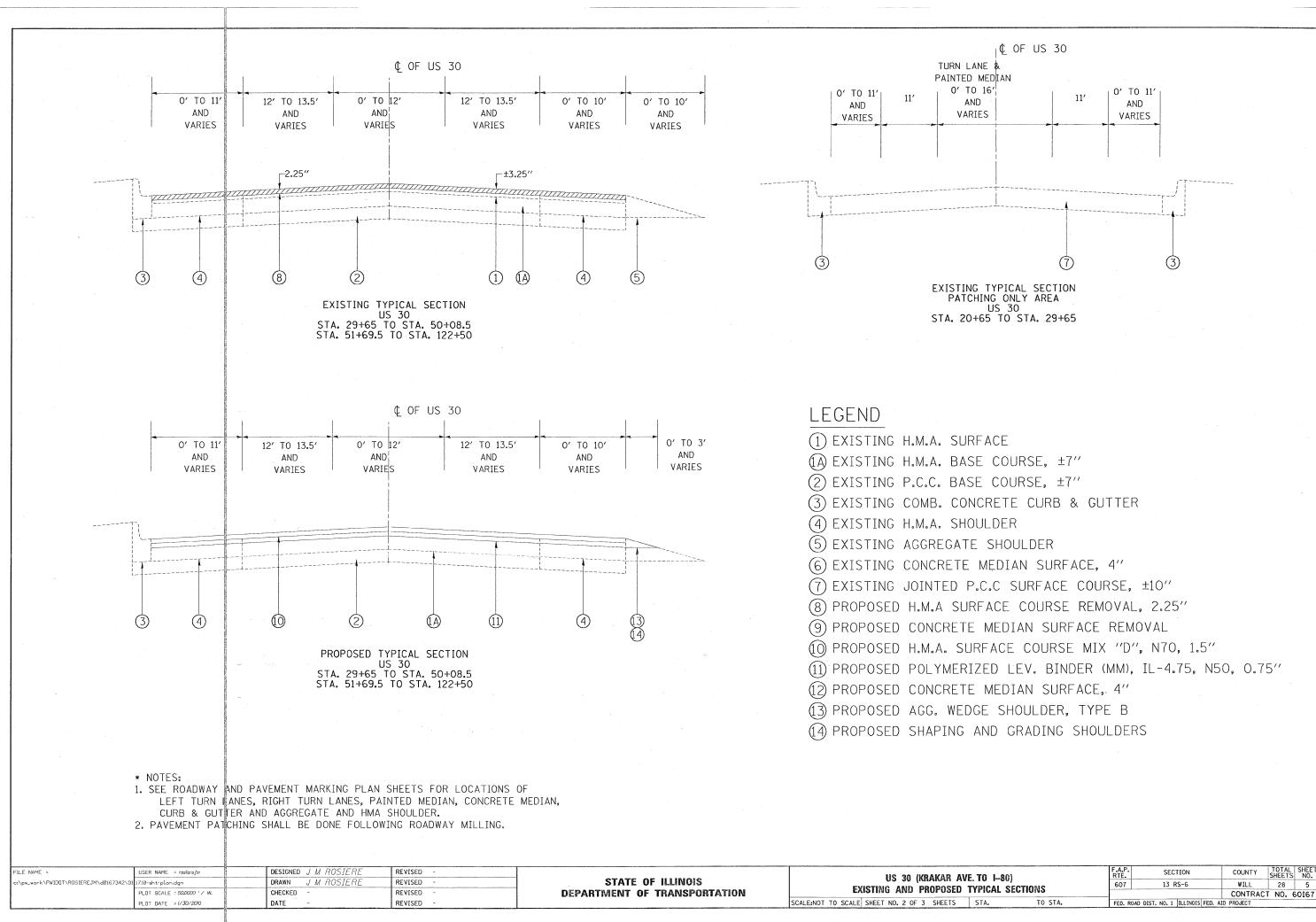
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

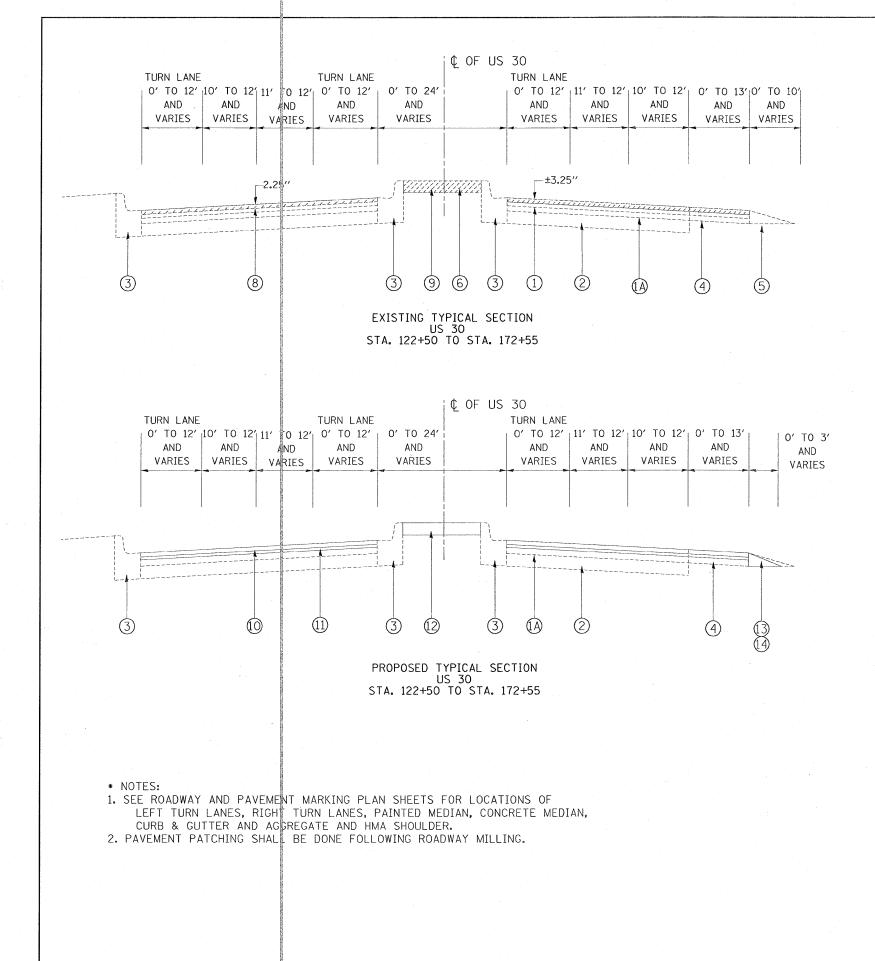
\*THE "AC TYPE FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22"
AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS
MODIFIED BY DISTRICT 1 SPECIAL PROVISIONS.
FOR "PERCENT OF RAP" SEE DISTRICT 1 SPECIAL PROVISIONS

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`	PLOT DATE = 1/30/2010	DATE -	REVISED -

STATE	OF	ILLINOIS
DEPARTMENT O	FT	RANSPORTATION

US 30 (KRAKAR AVI	F TO 18	U)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
EXISTING AND PROPOSED		,	607	13 RS-6	WILL	28	4
EVISHING WAD LUCLOSED		***************************************	CONTRAC	NO.	60167		
SCALE:NOT TO SCALE SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A			



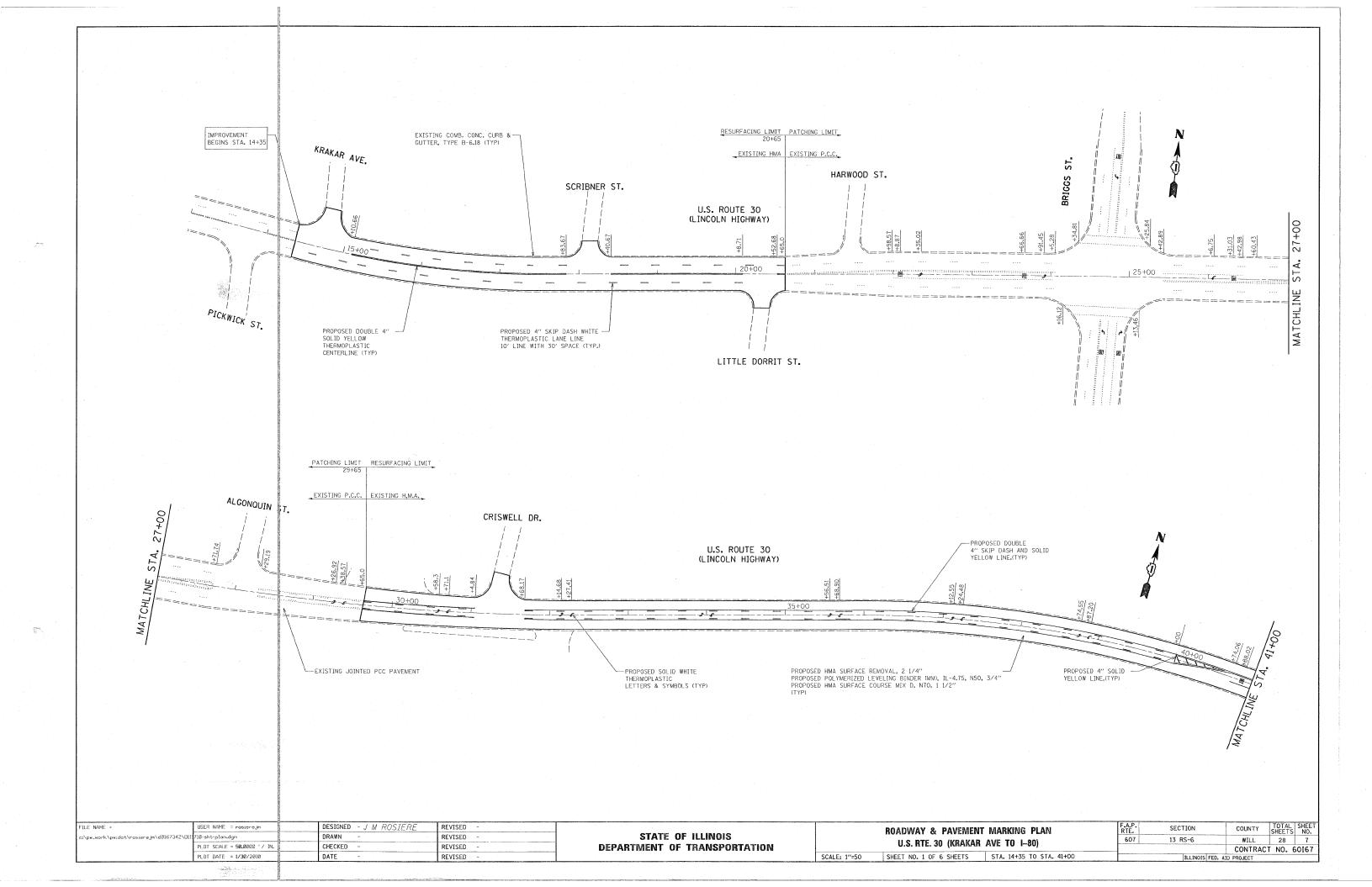


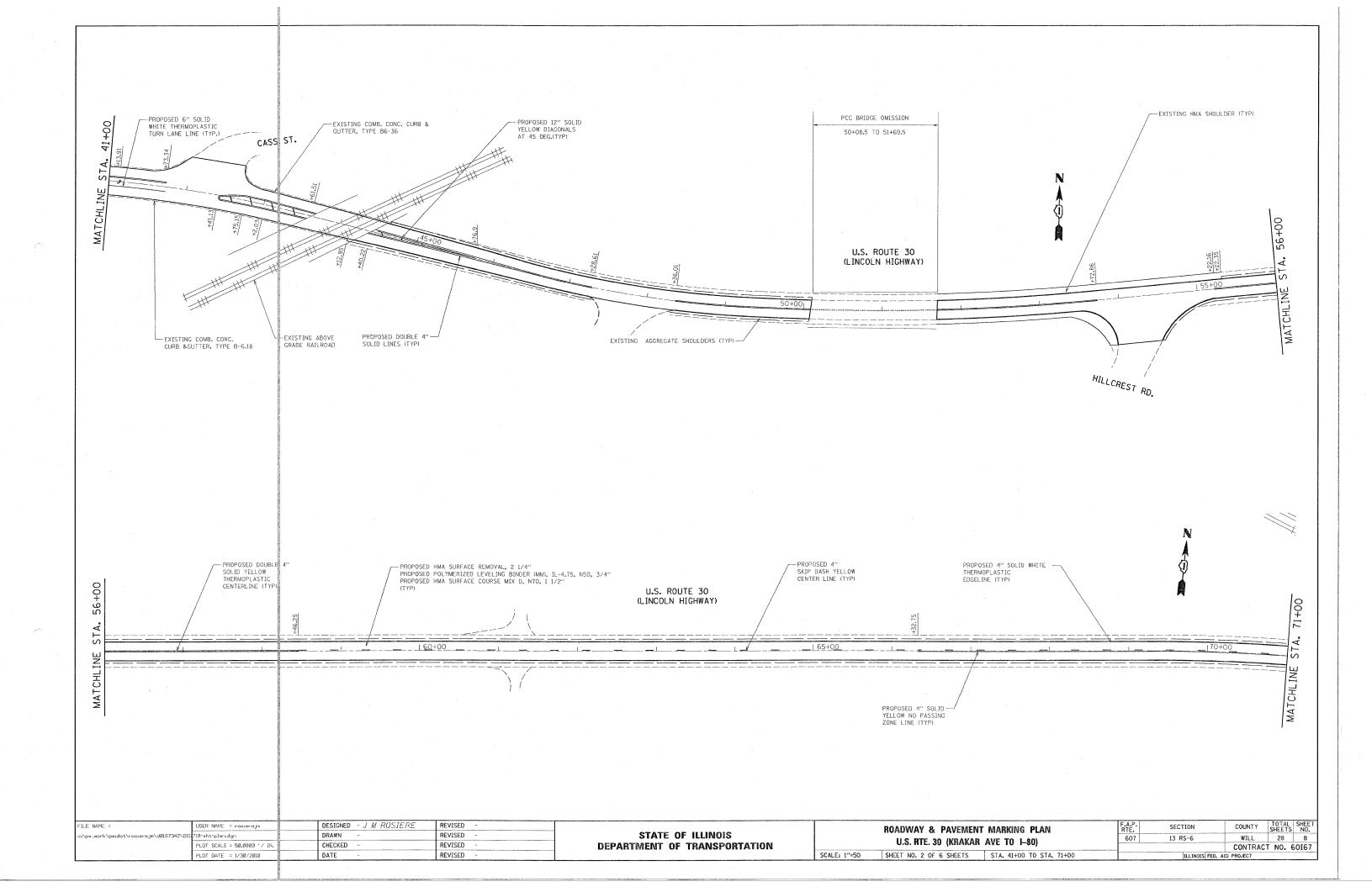
### LEGEND

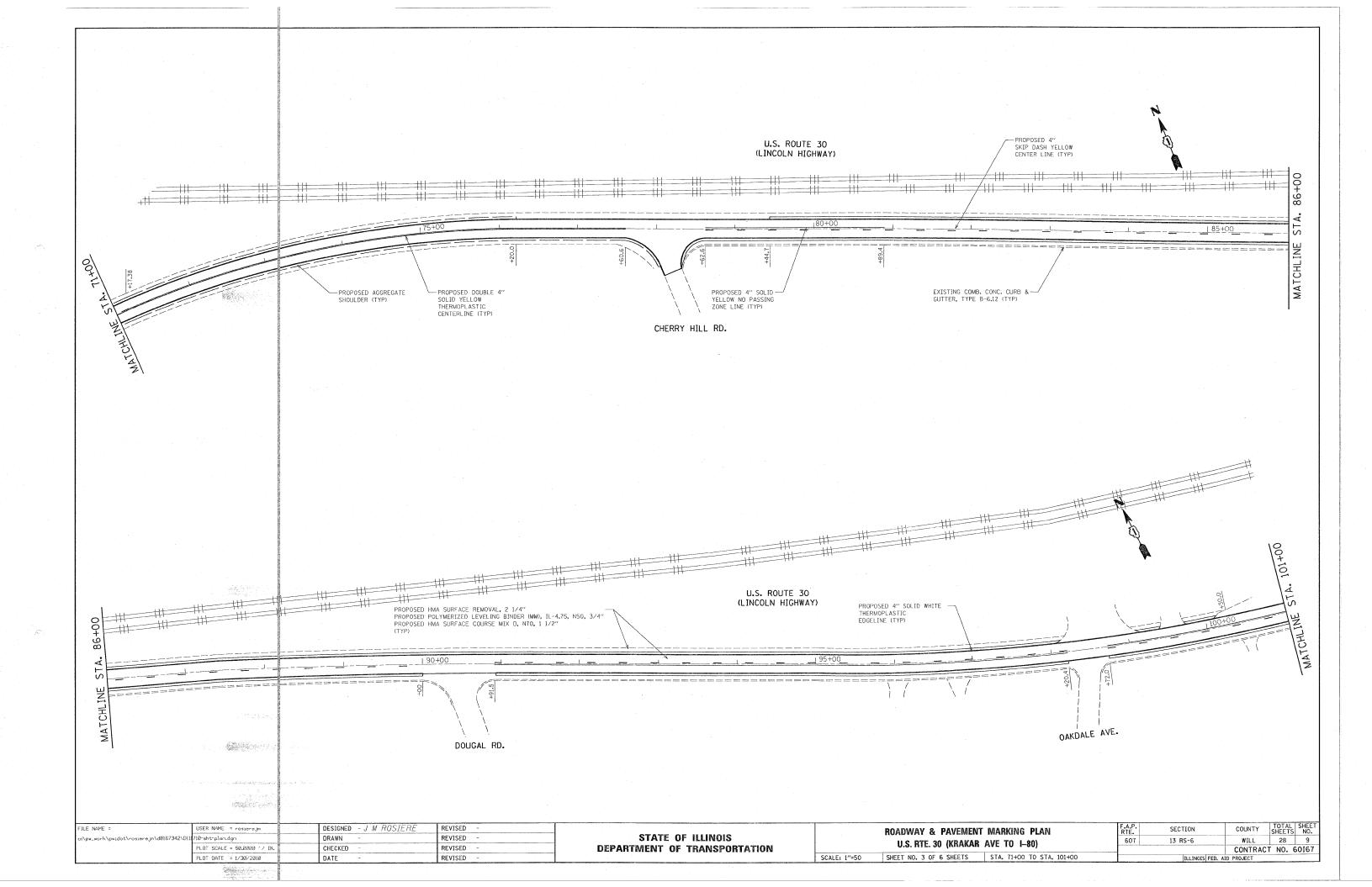
- 1 EXISTING H.M.A. SURFACE
- (A) EXISTING H.M.A. BASE COURSE, ±7"
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- (4) EXISTING H.M.A. SHOULDER
- (5) EXISTING AGGREGATE SHOULDER
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- (12) PROPOSED CONCRETE MEDIAN SURFACE, 4" (STA. 122+40 TO STA. 126+69)
- (13) PROPOSED AGG. WEDGE SHOULDER, TYPE B
- (14) PROPOSED SHAPING AND GRADING SHOULDERS

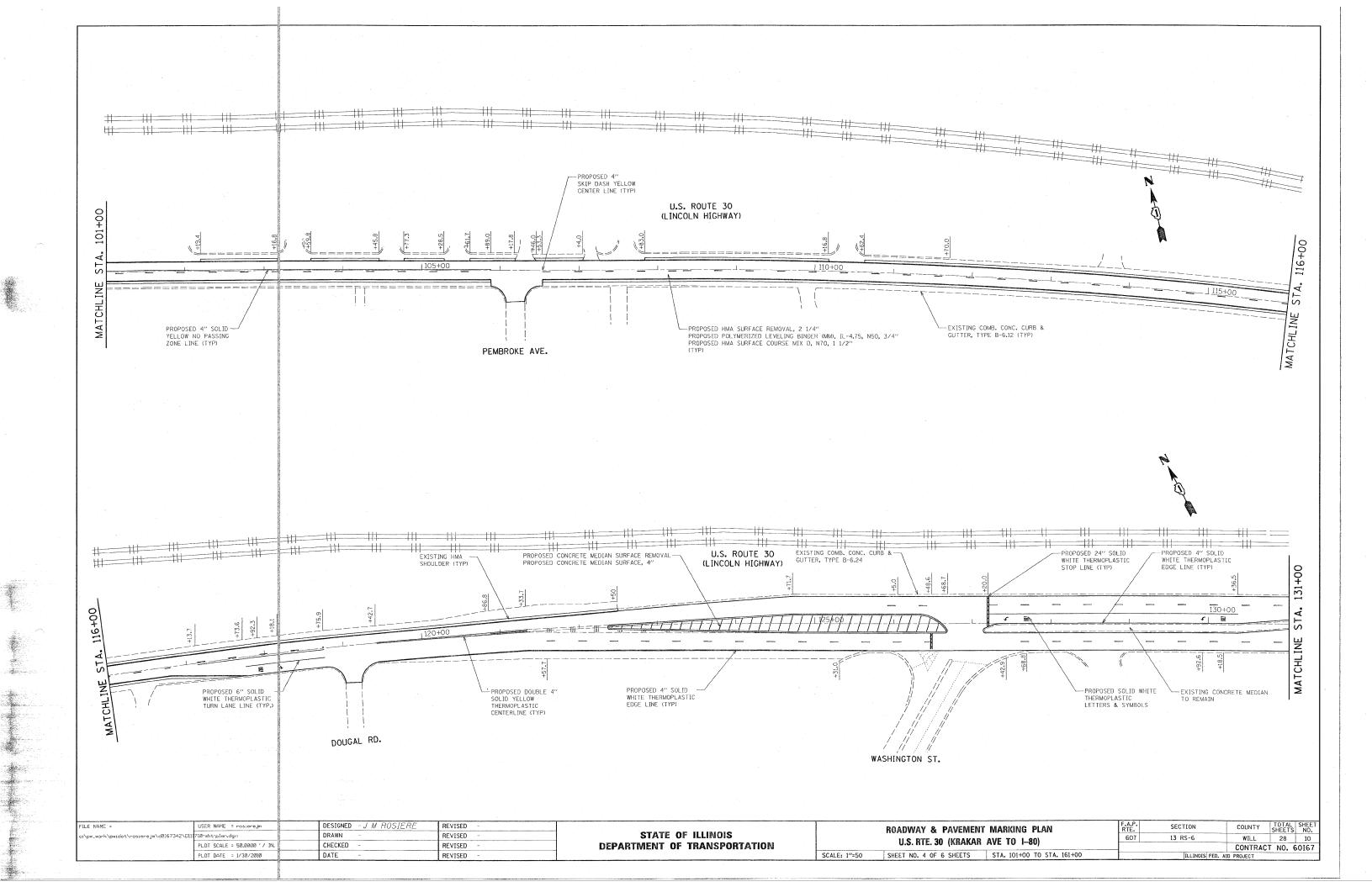
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	PLOT DATE = 1/30/2010	3	DATE -	REVISED -	

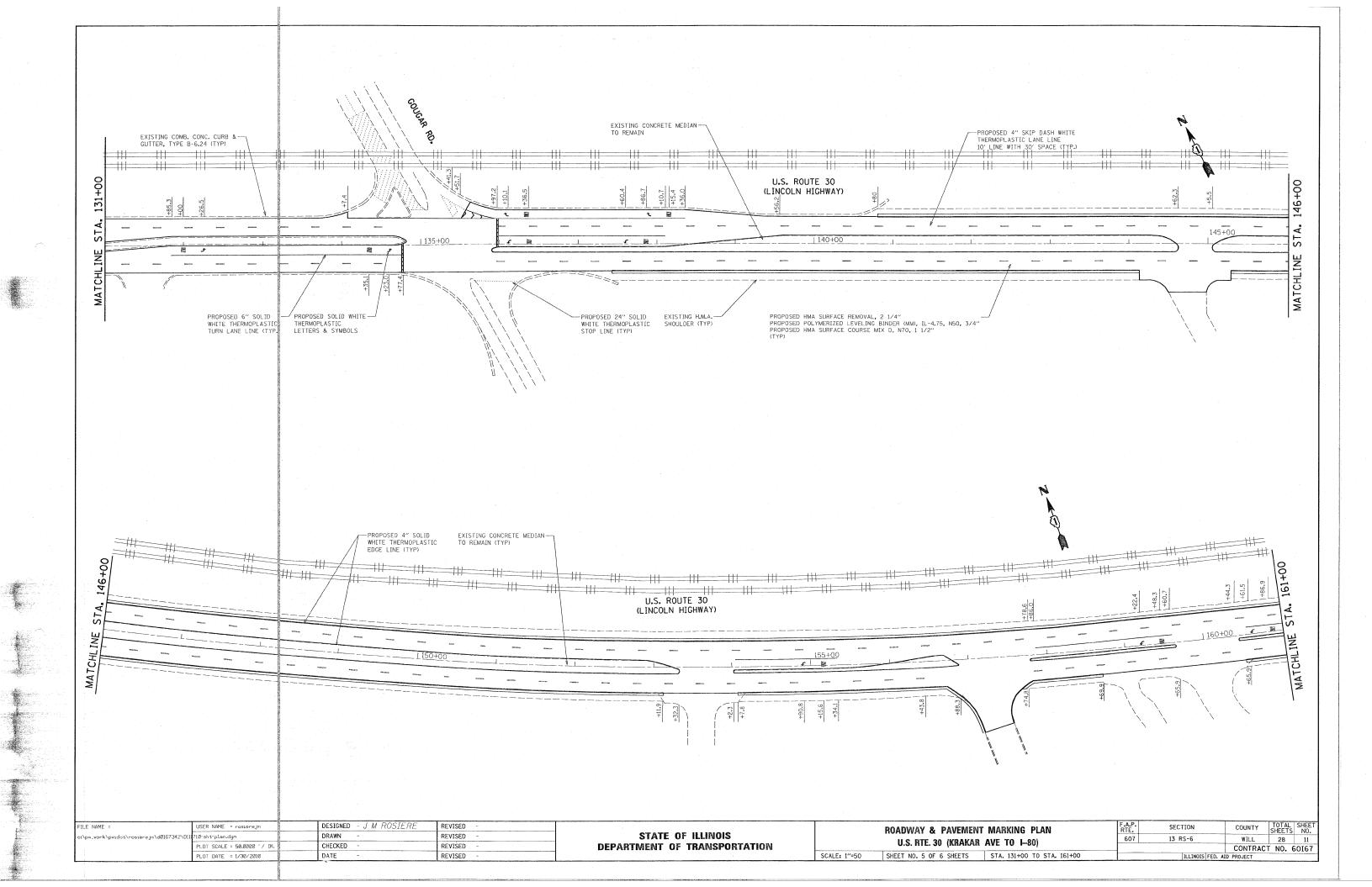
US 30 (KRAKAR AVE. TO 1–80)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
EXISTING AND PROPOSED TYPICAL SECTIONS	607	13 RS-6	WILL	28	6
EVISINA WAN LUOLOSEN LILICHT SECTIONS			CONTRACT	NO. 6	50167
E:NOT TO SCALE SHEET NO. 3 OF 3 SHEETS STA. TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

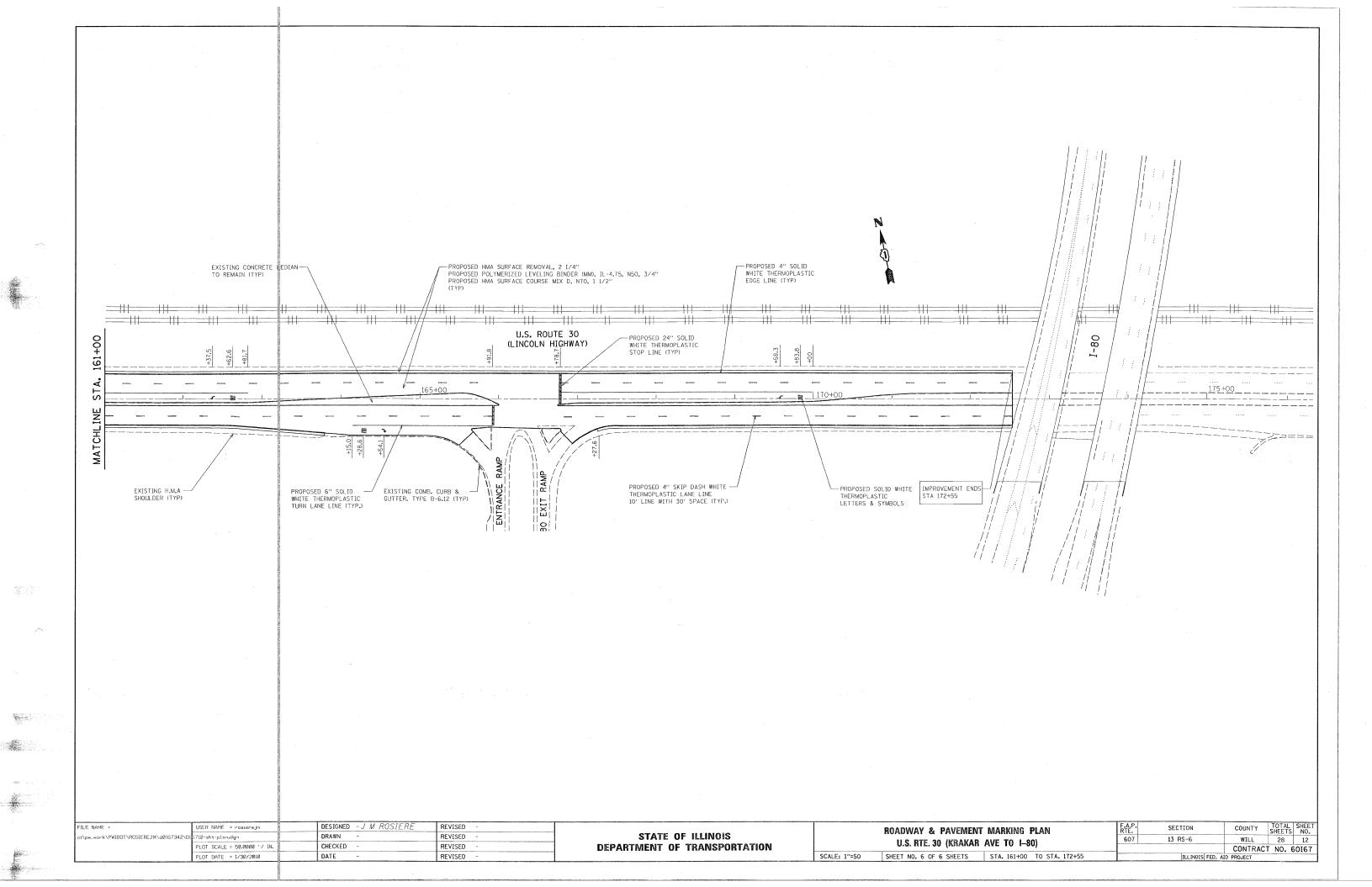


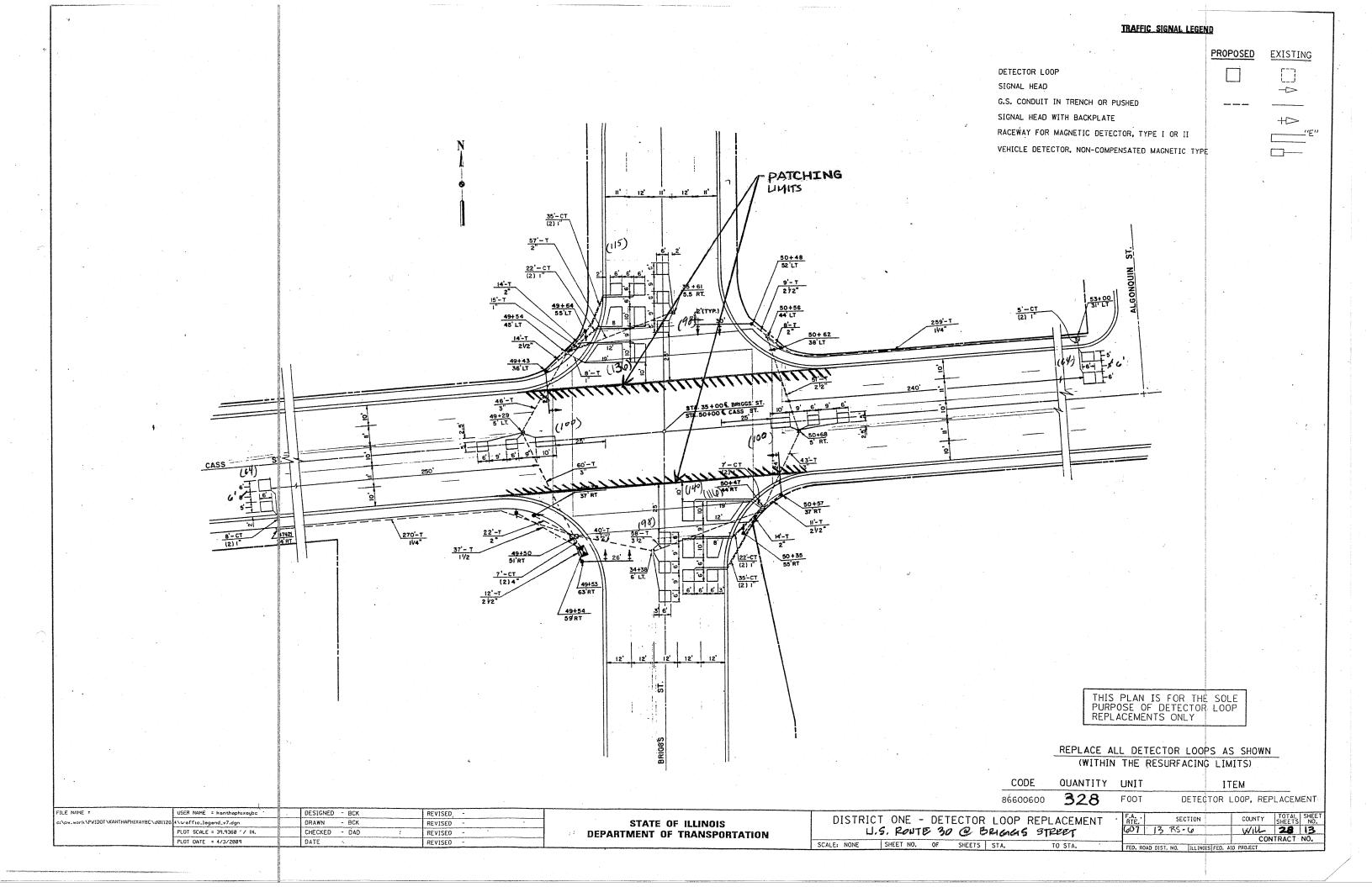


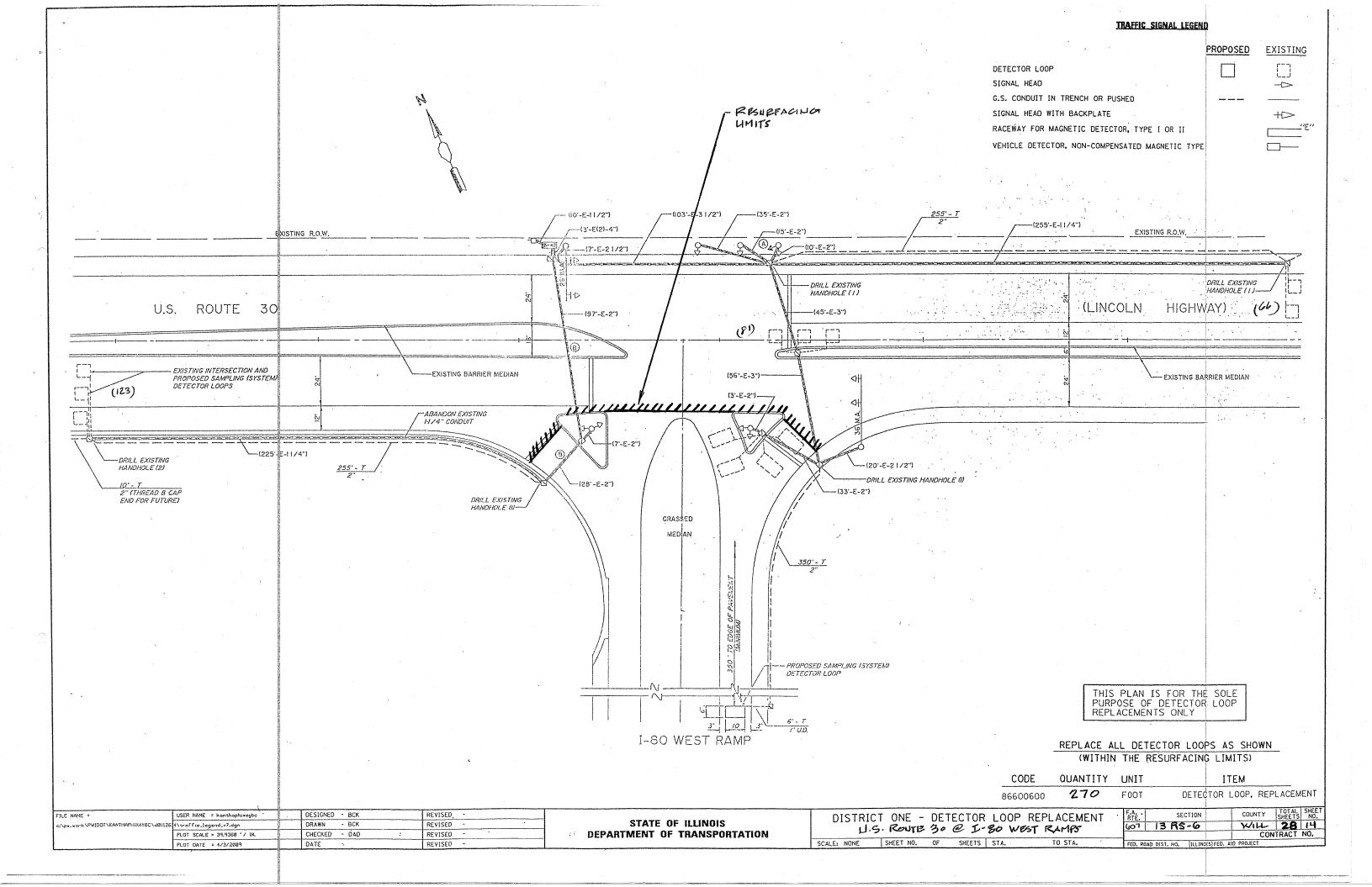


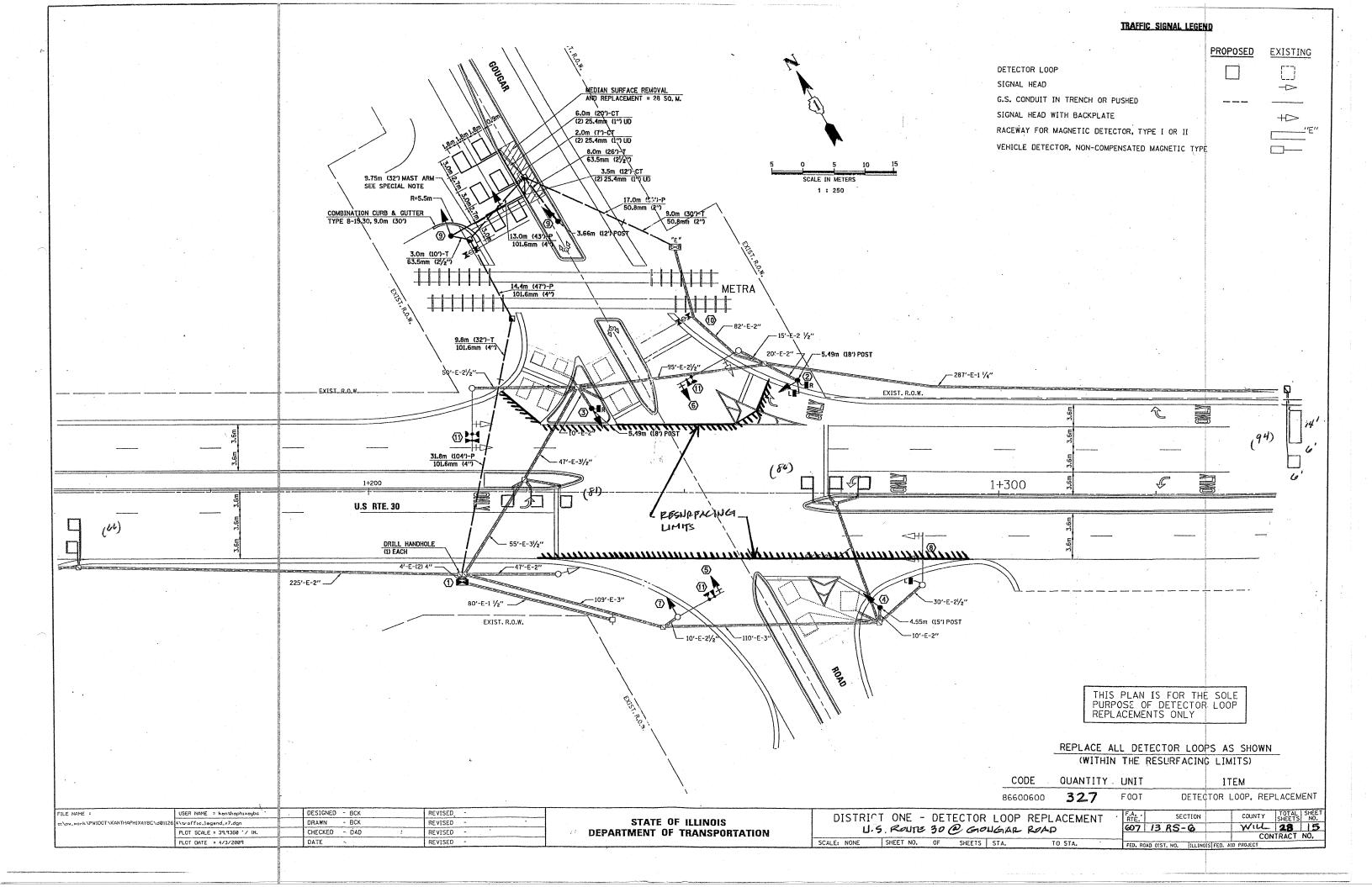


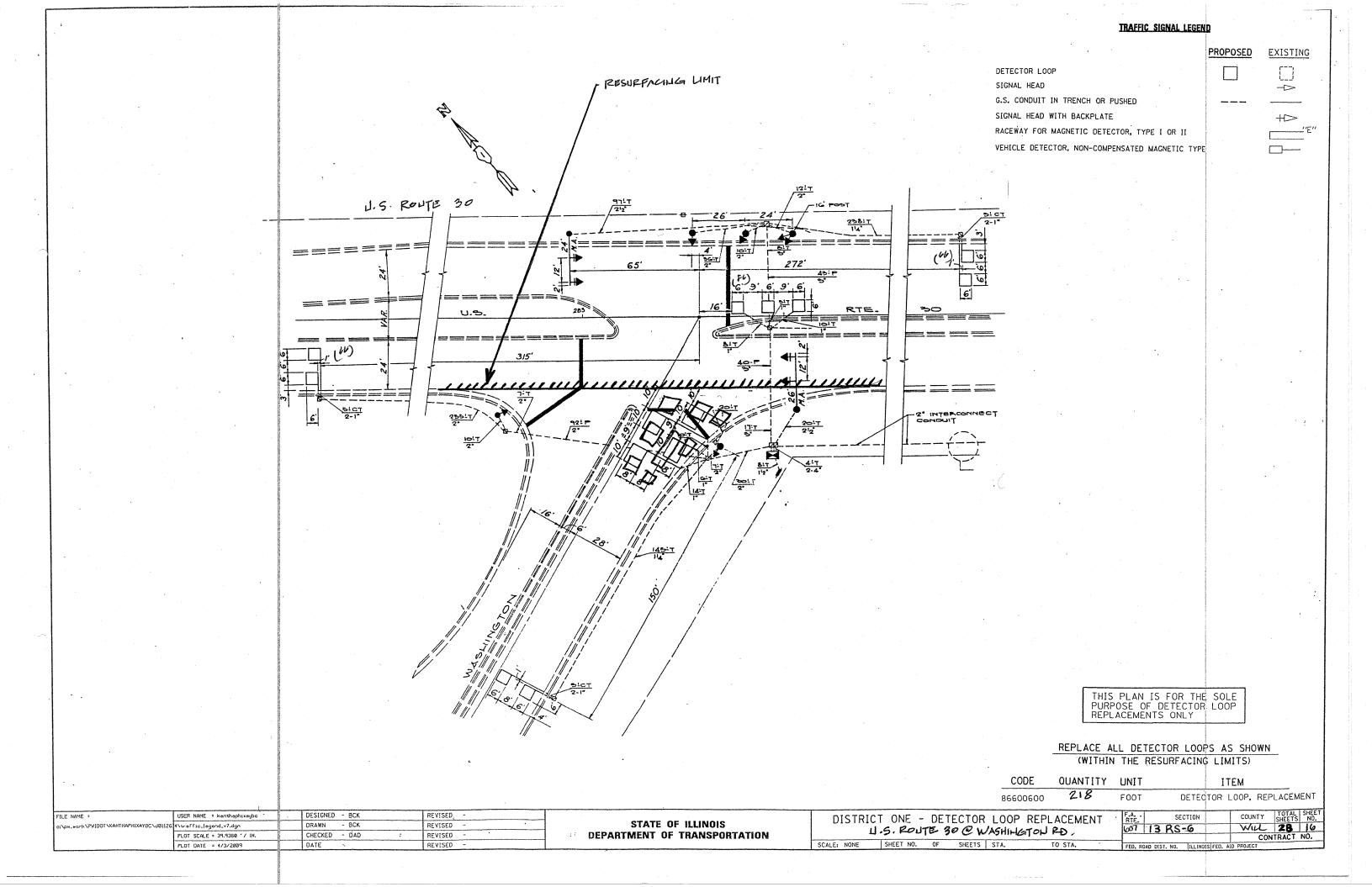


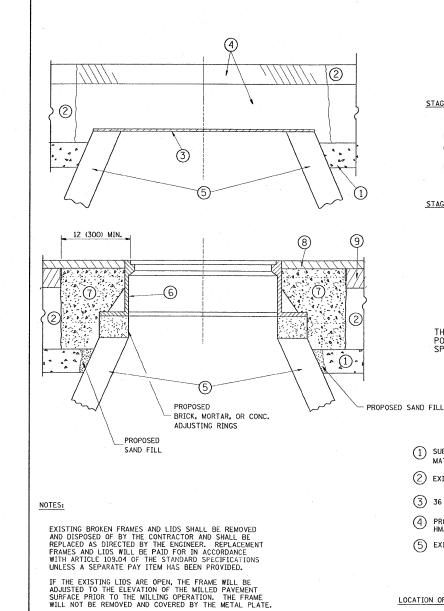












CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS,  $_{\rm T}$ 

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 METAL PLATE.
- 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 SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 5 EXISTING STRUCTURE
- 8 PROPOSED HMA SURFACE COURSE
- 9 PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURES:

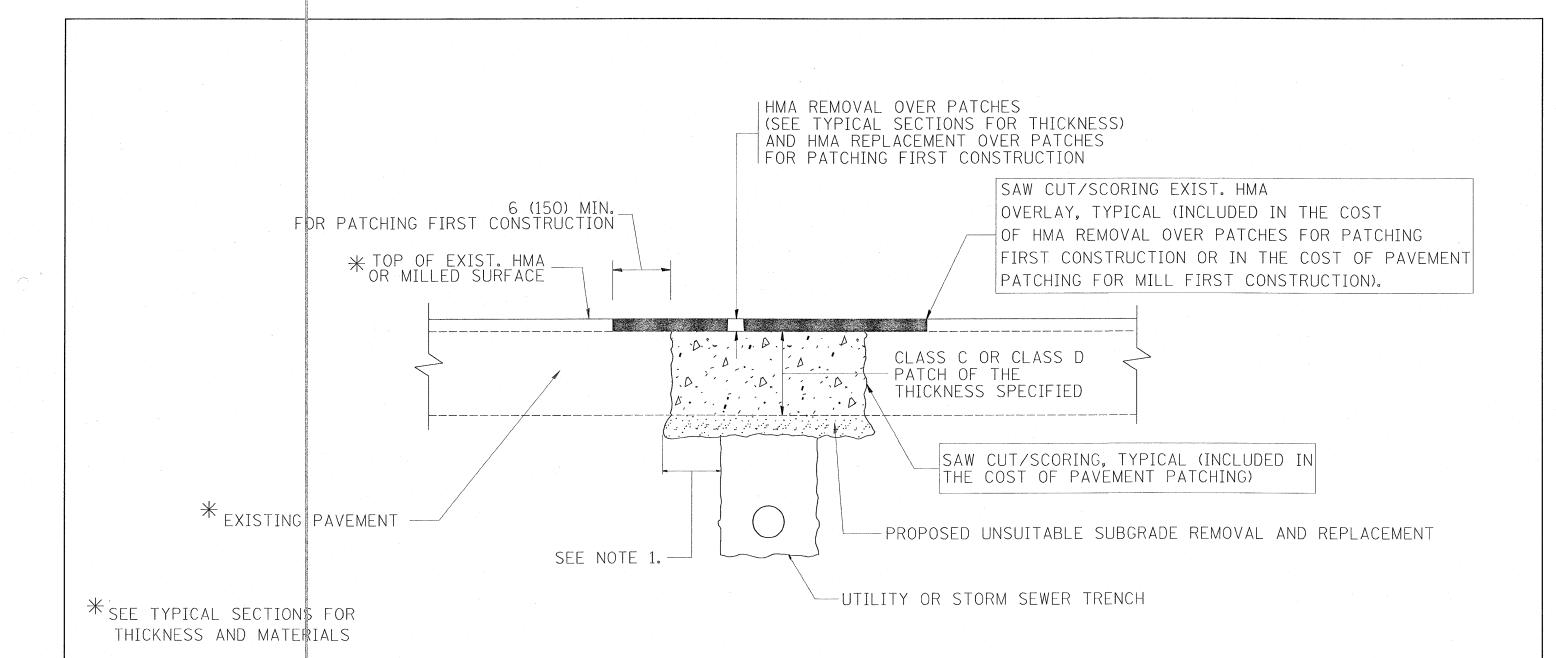
THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

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

	ILE NAME =	USER NAME = rosierejm	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95			DETAILS FOR	F.A.P.	SECTION	COUNTY TOTAL SHEET
	:/pw_work/pwidot/rosierejm/d0167342/Dis	:Std.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS			607	13 RS-6	WILL 28 17
		PLOT SCALE = 50.0000 '/ IN.	 CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION		FRAMES AND LIDS ADJUSTMENT WITH MILLING	BD	600-03 (BD-8)	CONTRACT NO. 60167
. L	:	PLOT DATE = 1/30/2010	DATE - 10-25-94	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD [		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)

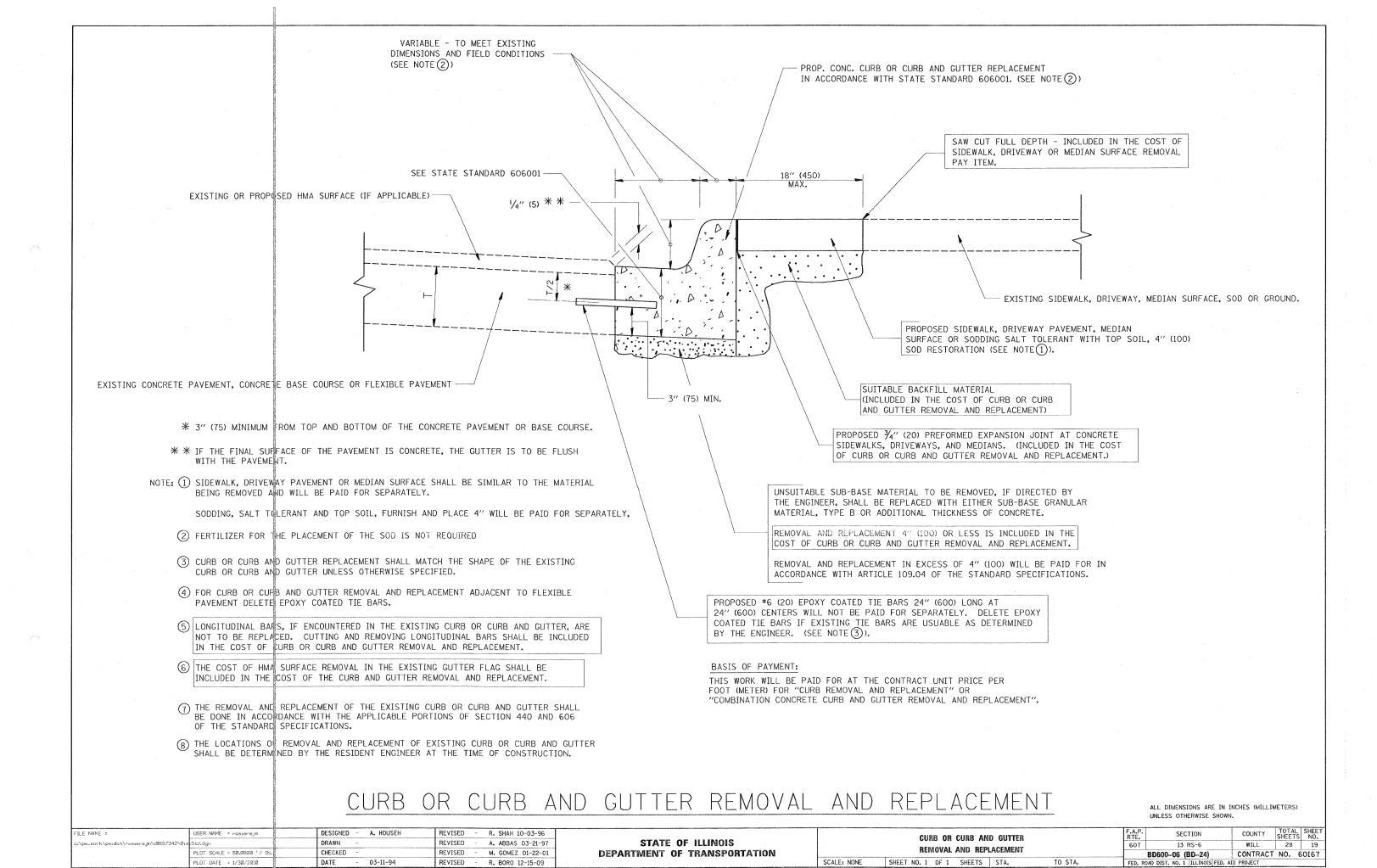
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

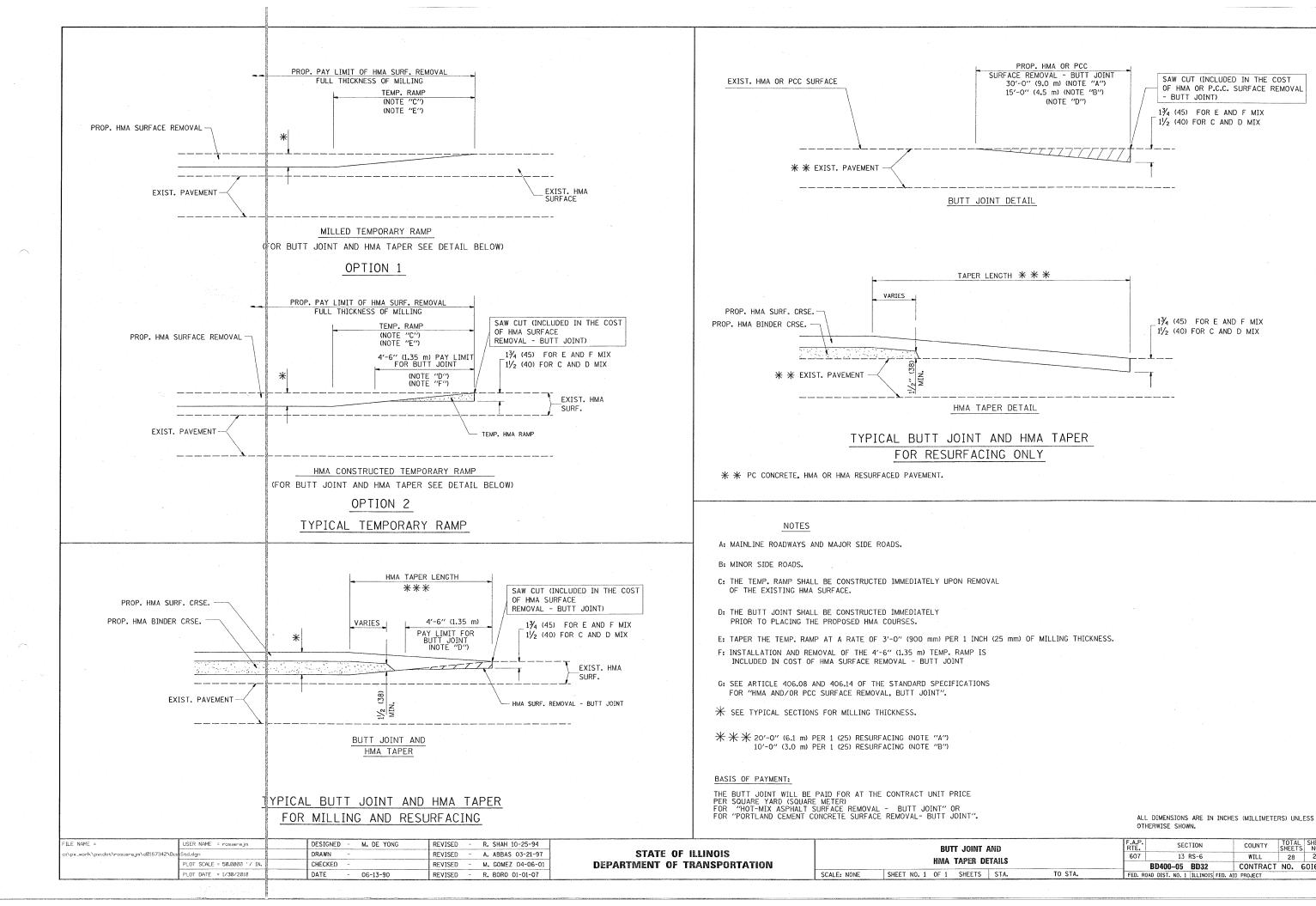
#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  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.

FILE NAME =	USER NAME = rosierejm	DESIGNED - R. SHAH	REVISED -	A. ABBAS 04-27-98			PAVEMENT PATCHING I	OB	F.A.P.	SECTION	COUNTY	TOTAL SHEE SHEETS NO.
c:\pw_work\pwidot\rosierejm\dØ167342\Dis	Std.dgn	 DRAWN -	REVISED -	R. BORO 01-01-07	STATE OF ILLINOIS				607	13 RS-6	WILL	28 18
	PLOT SCALE = 50.0000 '/ IN.	 CHECKED -	REVISED -	R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT		В	D400-04 (BD-22)	CONTRACT	T NO. 60167	
	PLOT DATE = 1/30/2010	DATE - 10-25-94	REVISED -	K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA	TO STA.	FED. ROA	D DIST. NO. 1   ILLINOIS FED.	AID PROJECT	



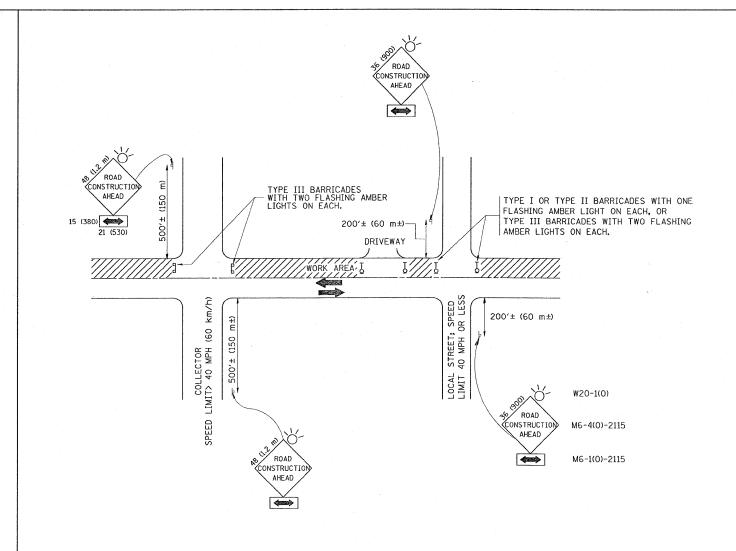


TOTAL SHEET NO. 28 20

CONTRACT NO. 60167

COUNTY

WILL



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:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 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).

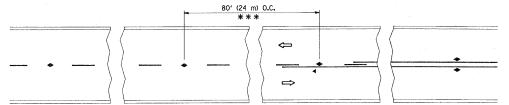
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL 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.

FILE NAME =	USER NAME = rosierejm	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pw_work\pw:dot\rosierejm\d0167342\Dis	:Std.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/30/2010	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

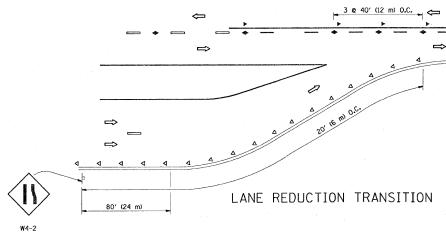
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

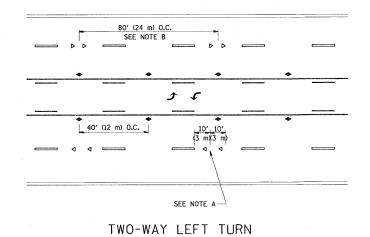
	TRAFFIC CONTROL AND PROTECTION FOR	
	SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	٠



\*\*\* 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.

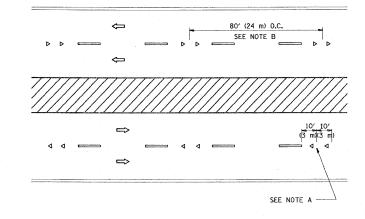
SEE NOTE B

40' (12 m) O.C.

35EE NOTE A

SEE NOTE A

MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

#### GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. 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

- 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 (₩/O)
- ◆ TWO-WAY AMBER MARKER

#### DESIGN NOTES

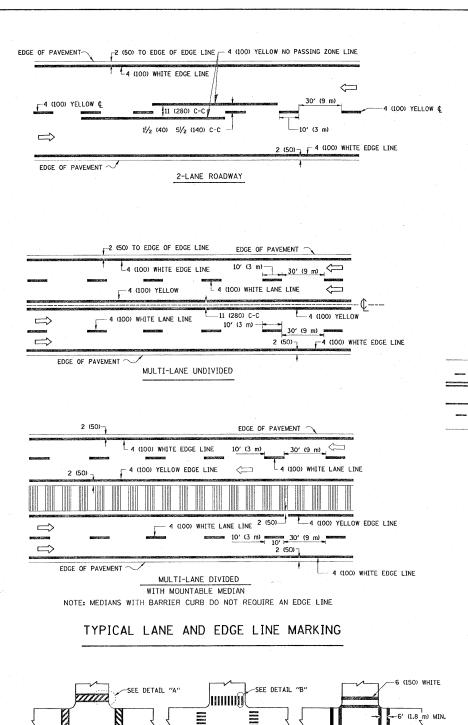
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS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

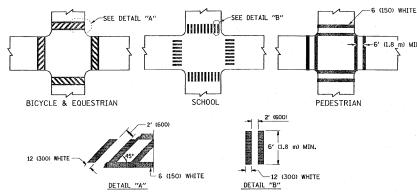
### 

LEFT TURN

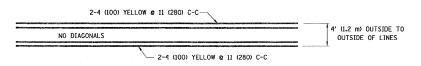
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = roslerejm	DESIGNED -	REVISED -T. RAMMACHER 09-19-94			TYPICAL APPLIC	PARIONS		F.A.P.	SECTION	COUNTY	SHEETS NO.
c:\pw_work\pwidot\rosierejm\d0167342\Dis	Std.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS	Datern	REFLECTIVE PAVEMENT MARKI		USI DECICEANT	607	13 RS-6	WILL	28 22
	PLOT SCALE = 50.00000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	uvi9en			· · · · · · · · · · · · · · · · · · ·		TC-11	CONTRAC	T NO. 60167
* * *	PLOT DATE = 1/30/2010	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD E	IST. NO. 1 ILLINOIS F	ED. AID PROJECT	

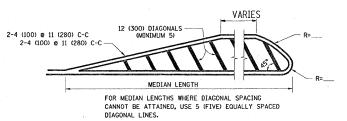




TYPICAL CROSSWALK MARKING



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

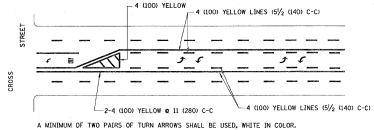


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))

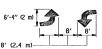
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

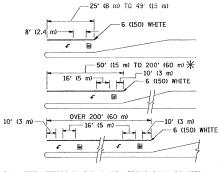


ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

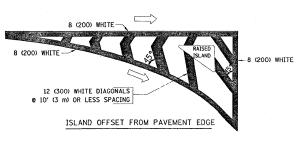
#### TYPICAL PAINTED MEDIAN MARKING

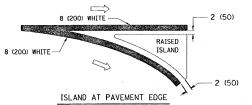


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

# 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 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 @ 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 5EE 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 0 45°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
:	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	
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 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) & 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)) 1150' (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.

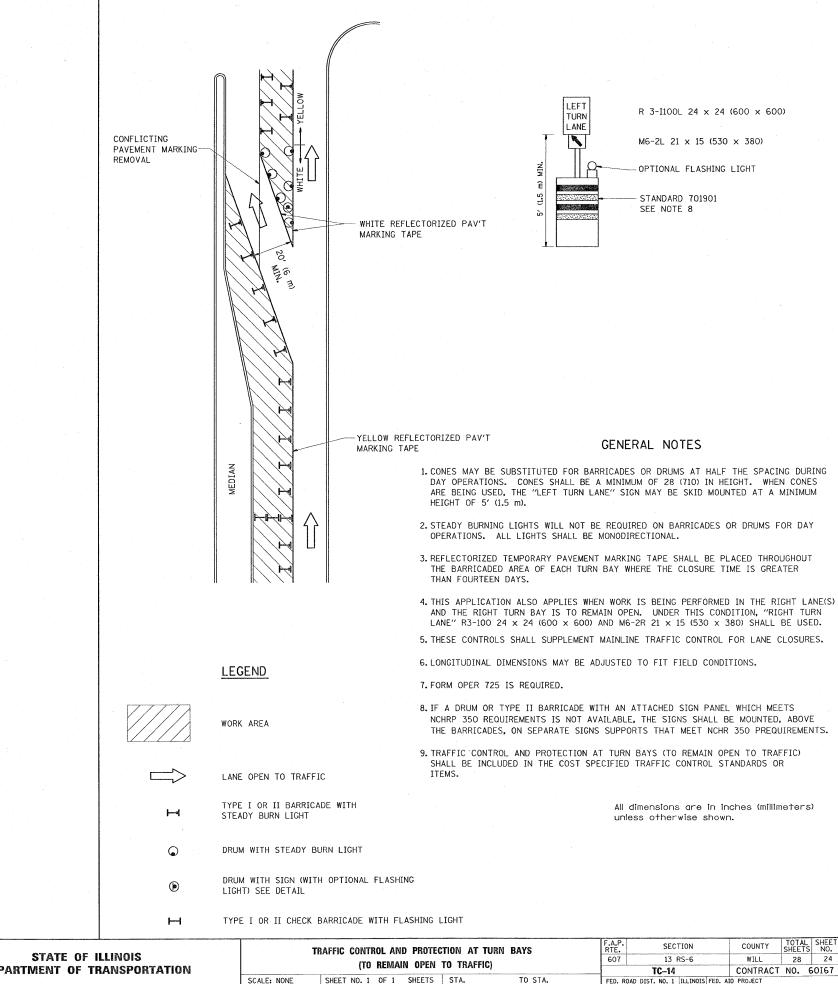
All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL TURN LANE MARKING

FILE NAME =	USER NAME = rosierejm	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	D
	PLOT DATE = 1/30/2010	DATE - 03-19-90	REVISED -	

STATE	OF	ILLINOIS
DEPARTMENT	of	TRANSPORTATION

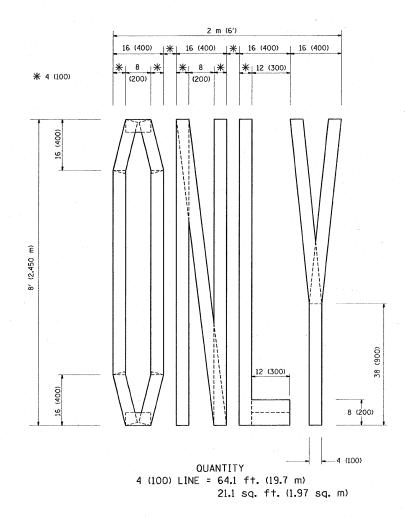
	DISTRICT ONE	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEE NO.
I	TYPICAL PAVEMENT MARKINGS	607	13 RS-6	WILL	28	23
I			TC-13	CONTRACT	NO.	60167
l	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. R	DAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		

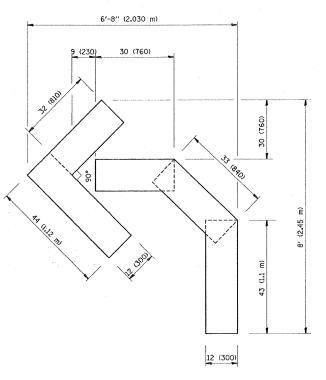


FILE NAME = REVISED -T. RAMMACHER 09-08-94 REVISED R. BORO 09-14-09 REVISED - A. HOUSEH 11-07-95 REVISED REVISED - A. HOUSEH 10-12-96 REVISED PLOT SCALE = 50.0000 '/ IN. PLOT DATE = 1/30/2010 REVISED -T. RAMMACHER 01-06-00 REVISED

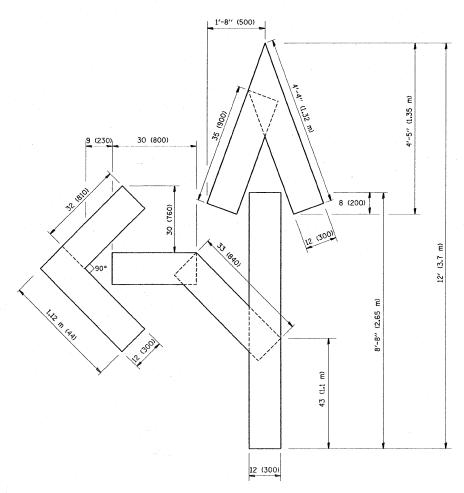
DEPARTMENT OF TRANSPORTATION

TOTAL SHEET SHEETS NO. 28 24 CONTRACT NO. 60167 SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT





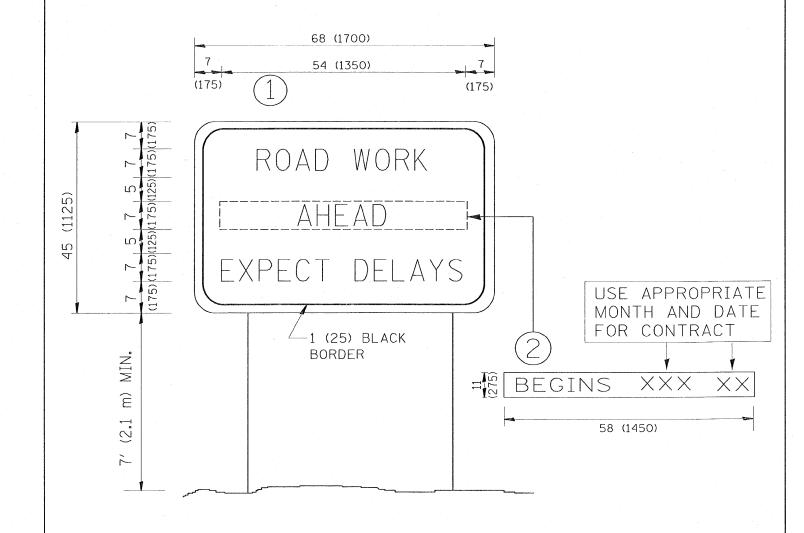
QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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.

FILE NAME =	USER NAME = rosierejm	DESIGNED -	REVISED -T, RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS		F.A	A.P. SECTION	COUNTY SH	OTAL SHEET HEETS NO.
c:\pw_work\pwidot\rosierejm\d0167342\Dis	Std.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS			6	07 13 RS-6	WILL	28 25
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION		FOR TRAFFIC STAGING		TC-16	CONTRACT N	10. 60167
<b>i</b> .	PLOT DATE = 1/30/2010	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FE	ED. ROAD DIST. NO. 1   ILLINOIS FED. A	ID 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.

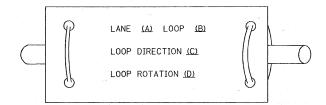
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = rosierejm	DESIGNED -	REVISED - R. MIRS 09-15-97		ARTERIAL ROAD			F.A.P.	SECTION	COUNTY	Y TOTAL SHEETS	
c:\pw_work\pwidot\rosierejm\d0167342\Di	s:Std.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				607	13 RS-6	WILL	28	26
•	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION	SIGN		TC-22	CONTRA	CT NO. E	0167
•	PLOT DATE = 1/30/2010	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED, RO	AD DIST. NO. 1 ILLINOIS	FED. AID PROJECT		

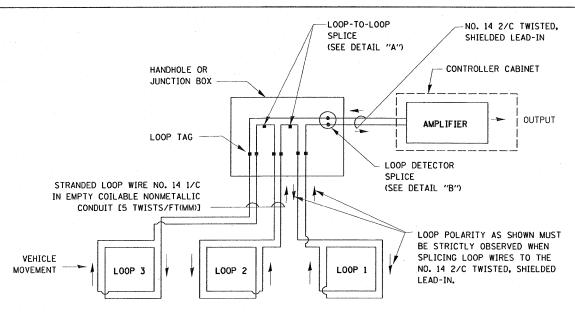
#### LOOP DETECTOR NOTES

- 1. 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

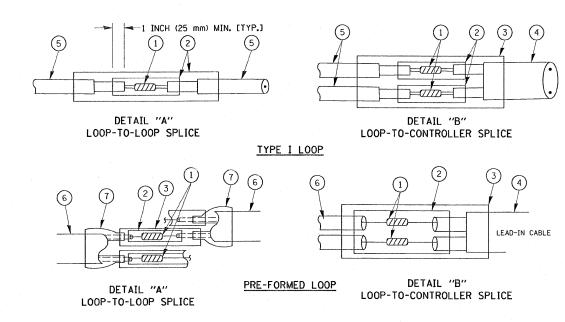


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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

- $\hfill \hfill \hfill$
- (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

FILE NAME ≈	USER NAME = rosierejm	DESIGNED	-	DAD	REVISED	-	Γ
c:\pw_work\pwidot\rosierejm\d0167342\Dis	:Std.dgn	DRAWN	-	BCK	REVISED	-	
•	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-	DAD	REVISED	**	j
	PLOT DATE = 1/30/2010	DATE		10-28-09	REVISED	-	1

STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

		SHEETS NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS 607 13	RS-6 WILL	28 27
STANDARD TRAFFIC SIGNAL DESIGN DETAILS TS-	05 CONTRACT	NO. 60167
SCALE: NONE SHEET NO. 1 OF 6 SHEETS STA. TO STA. FED. ROAD DIST. NO.	1 ILLINOIS FED. AID PROJECT	

#### LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT

(1.5 m) (1.8 m) (1.5 m)

(3.0 m)

NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER  $\blacksquare$ 

\* = (600 mm)

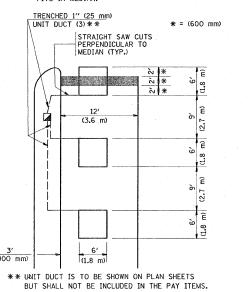
\* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

(3.0 m)

#### 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
SITS IN MEDIAN

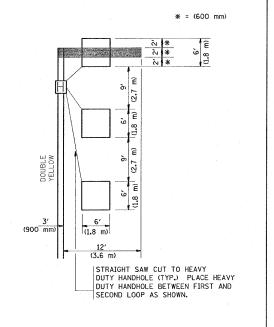


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)



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

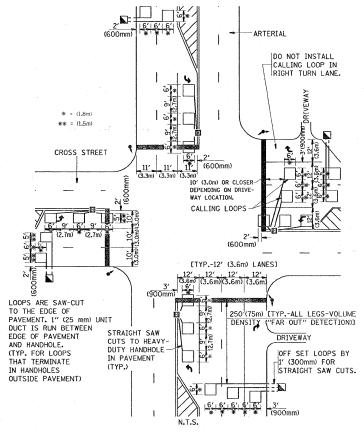
SCALE: NONE

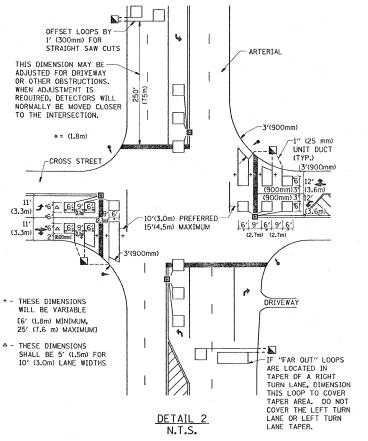
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

1" (25 mm) UNIT

DUCT-TRENCHED

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 ALL DETECTOR LOOPS SHALL BE SIX FEET
- \* 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 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.

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 = 1/30/2010	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DISTRICT 1 - DETECTOR LOOP INSTALLATION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DETAILS FOR ROADWAY RESURFACING	607	13 RS-6	WILL	28	28
		TS-07	CONTRACT	NO. 6	50167
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FFD. R	OAD DIST, NO. 1 TILLINGIS FED. AT	D PROJECT		