## STATE OF ILLINOIS

# DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN THE VILLAGE OF DOLTON AND CITY OF CALUMET CITY.

# **PROPOSED** HIGHWAY PLANS

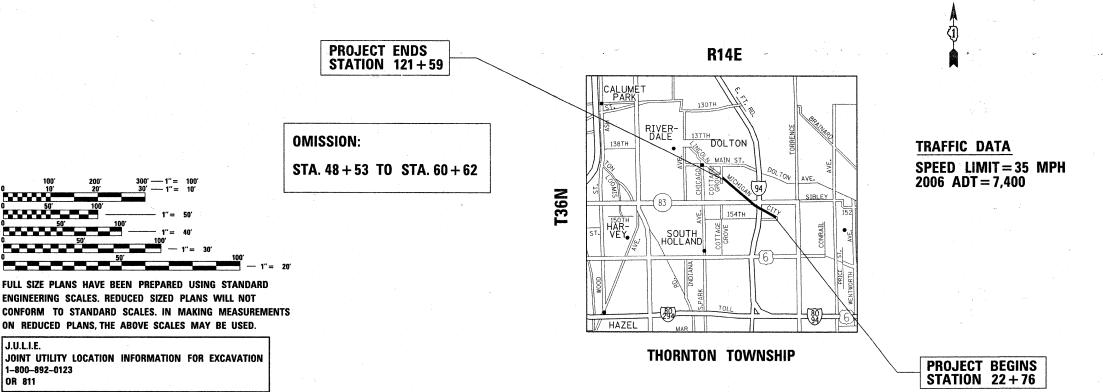
**FAU ROUTE 3593: MICHIGAN CITY ROAD** 154TH STREET TO COTTAGE GROVE AVENUE

**SECTION: 3256 A-RS-1** PROJECT: — —

**RESURFACING** 

**COOK COUNTY** 

C-91-270-10



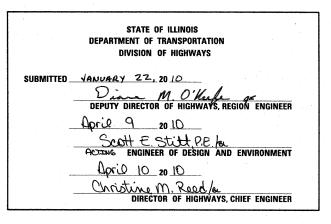
GROSS LENGTH OF PROJECT = 9,883 LF = 1.87 MILES

NET LENGTH OF PROJECT = 8,674 LF = 1.64 MILES

3256 A-RS-1 COOK ILLINOIS CONTRACT NO. 60J80

#### D-91-270-10





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60J80

PROJECT MANAGER: KEN ENG

PROJECT ENGINEER: DAN WILGREEN (847) 705-4240

1-800-892-0123

#### INDEX OF SHEETS

#### STATE STANDARDS

SHEET NO.	DESCRIPTION	STANDARD	NO. DES	SCRIPTION	
and the second second	TITLE SHEET	000001-	os TYPICAL SYMBOLS,	ABBREVIATIONS AND	PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	442201 -	03 CLASS C AND D PA	TCHES	
<b>3</b>	SUMMARY OF QUANTITIES	604001-	03 FRAME AND LIDS, T	TYPE 1	
4-5	EXISTING AND PROPOSED TYPICAL SECTIONS	606001-	04 CONCRETE CURB AN	D COMBINATION CONC	RETE CURB AND GUTTER
6-10	ROADWAY AND PAVEMENT MARKING PLANS	701301-6	03 LANE CLOSURE, 2L,	2W, SHORT TIME OPE	ERATIONS
11	DETECTOR LOOP REPLACEMENT PLANS	701501-6	os urban Lane Closu	IRE, 2L, 2W, UNDIVIDE	D :
12	DRIVEWAY DETAILS, DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 M)			•	ITH MOUNTABLE MEDIAN
13	DETAILS FOR FRAME AND LIDS ADJUSTMENT WITH MILLING	<ul> <li>A control of the contro</li></ul>	06 URBAN LANE CLOSU		SECTION
14	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT		of TRAFFIC CONTROL		
15	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT		OI DETECTOR LOOP IN		w.
16	BUTT JOINT AND HMA TAPER DETAILS	**************************************	O TYPICAL LAYOUT F	OR DETECTION LOOPS	in the Arthur State of the Stat
17	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS	en de la companya de La companya de la co	and the second s	· · · · · · · · · · · · · · · · · · ·	
18	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)				
19	DISTRICT ONE TYPICAL PAVEMENT MARKINGS				
20	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC)				
21	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC ST	[AGING			
22	ARTERIAL INFORMATION SIGNING				
23	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS				

#### GENERAL NOTES

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

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF DOLTON AND CALUMET CITY.

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

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

ALL PAYEMENT PATCHING AND DRIVEWAY PAYEMENT REMOVAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER, AT (708) 597-9800 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

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

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DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR

ROADWAY RESURFACING

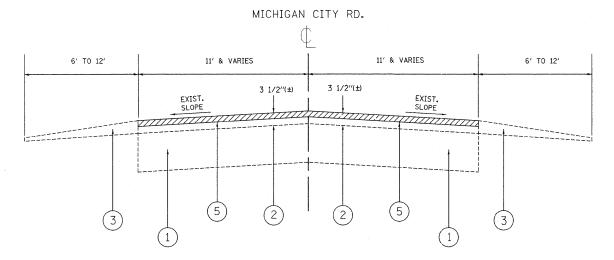
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	CITY ROAD	•					
INDEX OF	SHEETS, STA	HE SIAL	ADAKD2	AND	GENERA	F MOIF2	
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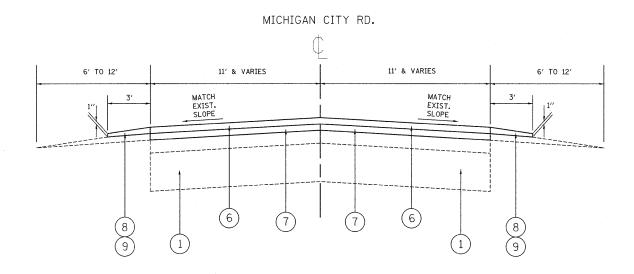
		37.5					
	F.A.U. RTE.	SECTI	ON		COUNTY	TOTAL SHEETS	SHEET NO.
	3593	3256 A-	RS-1		COOK	24	2
					CONTRACT	NO. 6	0J80
٠.	FED. RO	AD DIST. NO. 1	LINOIS FED.	AID	PROJECT		

	SUMMARY OF QUANTITIES		URBAN 100% STATE		CONSTRUCT	TION TYPE	CODE		SU	JMMARY OF QUANTITIES		URBAN 100%.STATE		CON	NSTRUCTION	N TYPE CO	DF.
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000				CODE NO	)	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY IOOO				
20201006	GRADING AND SHAPING SHOULDERS	UNIT	34	34				6030030	5 FRAMES A	AND LIDS TO BE ADJUSTED	EACH	5	5				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	120	120				6030031	1	AND LIDS TO BE ADJUSTED	EACH	5	5				
25200110	SODDING, SALT TOLERANT	SQ YD	120	120					(SPECIAL		5400	75	75				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	35	35				6040600		AND LIDS, TYPE 1, OPEN LID	EACH	35	35				
40600300	AGGREGATE (PRIME COAT)	TON	170	170				6700040		R'S FIELD OFFICE, TYPE A	CAL MO	1	6			-	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	65	65 :				7010262	O TRAFFIC	CONTROL AND PROTECTION,	L SUM	1	1				
40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1760	1760	e.	·		7010262	1	CONTROL AND PROTECTION,	L SUM	1	1				
40600895	CONSTRUCTING TEST STRIP	EACH	2	2					STANDARD		L CIM						
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	520	520				7010263	STANDARE	CONTROL AND PROTECTION, D 701701	L SUM	1	1		-		
40601005	HOT-MIX ASPHALT REPLACEMENT OVER	TON	220	220				7030010	OO SHORT-TE	ERM PAVEMENT MARKING	FOOT	5200	5200				
40601003	PATCHES	,	J. J				-	7030021		RY PAVEMENT MARKING RS AND SYMBOLS	SQ FT	300	300				
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	2	2				7030022	TEMPORAF	RY PAVEMENT MARKING	FOOT	17000	17000				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O	TON	3120	3120				7030024	TEMPORAL	RY PAVEMENT MARKING	FOOT	800	800				
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	530	530				7030025	TEMPORAL	RY PAVEMENT MARKING	FOOT	600	600				
42001300	PROTECTIVE COAT	SQ YD	240	240				7030026		RY PAVEMENT MARKING	FOOT	800	800				
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SO YO	40	40	encentral trades de de la companya de de la companya de la company	And the second of the second o	ti Sir militir nargines kur	7030028	- LINE		FOOT	500	500	an Majorian	1 1,100 00		eng sir general
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5	SQ FT	100	100	and the second s				- LINE-	24"	+ 1445 h	(444)	4000		- 20		
44000158		SQ YD	37100	37100				7030100 *7800010		NE PAVEMENT MARKING REMOVAL LASTIC PAVEMENT MARKING	SQ FT	300	300				
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	5400	5400				*7800020	- LETTE	RS AND SYMBOLS	FOOT	17000	17000				
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	50	50					- LINE								
44000600		SQ FT	100	100				*780004	OO THERMOP	PLASTIC PAVEMENT MARKING 6"	FOOT	800	800				
44001700		FOOT	1500	1500				*780005	THERMOP	PLASTIC PAVEMENT MARKING 8"	FOOT	600	600				
44002214	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3 1/2"	SQ YD	1100	1100				*780006	THERMOP	PLASTIC PAVEMENT MARKING	FOOT	800	800				
44201765		SQ YD	600	600				<del>*</del> 780006		PLASTIC PAVEMENT MARKING	FOOT	500	500				
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	300	300				*781001	- LINE	REFLECTIVE PAVEMENT MARKER	EACH	250	250			*	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	100	100				783002		REFLECTIVE PAVEMENT MARKER	EACH	180	180				
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	115	115				183002	REMOVAL					: f .			
55039700	STORM SEWERS TO BE CLEANED	FOOT	1600	1600				*886006	OO DETECTO	OR LOOP REPLACEMENT	FOOT	700	700	1			
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	2	2				X03222	56 TEMPORA	ARY INFORMATION SIGNING	SQ FT	51	51			A CONTRACT	
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	2	2				Z00045	зо нот-міх	C ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	10	10				
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	40	40				Z00185		SE STRUCTURES TO BE CLEANED	EACH	80	80				·
FILE NAME =	the state of the s	DESIGNED -		REVISED			CT	TATE OF ILLINOIS	1. O. LOIAL	MICHIGAN CITY ROAD (1	54TH ST. TO	COTTAGE G	ROVE AVE.)	F.A.U. RTE.	SECTION		COUNTY
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EXISTING TYPICAL SECTION MICHIGAN CITY RD.

STATION: 22+76 to 46+48



PROPOSED TYPICAL SECTION MICHIGAN CITY RD.

STATION: 22+76 to 46+48

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## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

#### LEGEND

- (1) EXIST. PCC BASE COURSE, 10"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 3 1/2"(±)
- ③ EXIST. AGG. SHOULDER (HMA SHOULDER EXISTS NEAR STA. 41+00)
- (4) EXIST. CONCRETE CURB AND GUTTER
- (5) PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4" (1 1/4"(±) OF HOT-MIX ASPHALT TO REMAIN)
- 6 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- (7) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- (8) PROP. AGG. WEDGE SHOULDER, TYPE B
- (9) PROP. GRADING AND SHAPING SHOULDERS
- (1) PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

#### NOTES:

SCALE:

- 1. PAVEMENT PATCHING SHALL BE DONE PRIOR TO MILLING OF THE ROADWAY.
- 2. ALL HMA SHOULDER SHALL BE MILLED AND RESURFACED THE SAME AS ADJACENT PAVEMENT.

#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

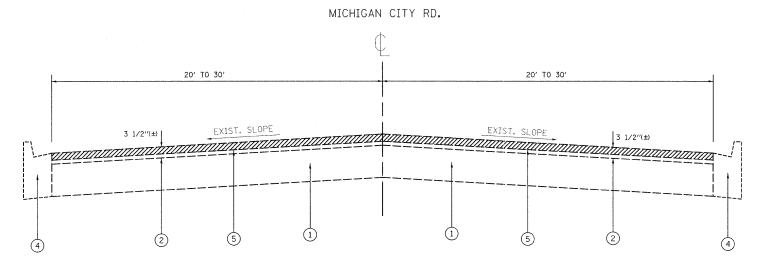
	MIXTURE TYPE	AIR VOIDS (%)
	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5MM), 1 1/2"	4% @ 70 GYR
ROADWAY	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, (IL-9.5MM), 1 3/4"	4% @ 90 GYR
	POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"	4% @ 50 GYR
HOT-MIX ASPHALT SUNTO, (IL-9.5MM), 1 1/2  ROADWAY  POLYMERIZED HOT-MICOURSE, MIX "F", N9  POLYMERIZED LEVELINGO, 3/4"  CLASS D PATCHES, (ENDER IL HOT-MIX ASPHALT REPATCHES, (BINDER IL HOT-MIX ASPHALT BAKE)  (BINDER IL-19.0 MM),	CLASS D PATCHES, (BINDER IL-19.0 MM), 10"	4% @ 70 GYR
	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (BINDER IL-19.0 MM), 3 1/2"	4% @ 70 GYR
DRIVEWAY	HOT-MIX ASPHALT BASE COURSE, (BINDER IL-19.0 MM), 8"	4% @ 50 GYR
5111	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL-9.5MM), 2"	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES 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.

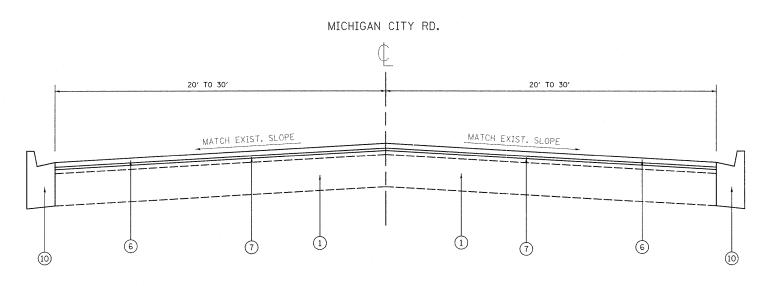
FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

MICHIGAN	N CITY ROA	AD (1	54TH ST.	TO COTTA	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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EXISTING TYPICAL SECTION MICHIGAN CITY RD.

STATION: 46+48 to 48+53 60+62 to 121+59



PROPOSED TYPICAL SECTION MICHIGAN CITY RD.

STATION: 46+48 to 48+53 60+62 to 121+59

### LEGEND

- (1) EXIST. PCC BASE COURSE, 10"(±)
- (2) EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING), 3 1/2"(±)
- (3) EXIST. AGG. SHOULDER (HMA SHOULDER EXISTS NEAR STA. 41+00)
- 4 EXIST. CONCRETE CURB AND GUTTER
- (5) PROP. HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4" (1 1/4"(±) OF HOT-MIX ASPHALT TO REMAIN)
- 6 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
- (7) PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- (8) PROP. AGG. WEDGE SHOULDER, TYPE B
- (9) PROP. GRADING AND SHAPING SHOULDERS
- (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

### NOTES:

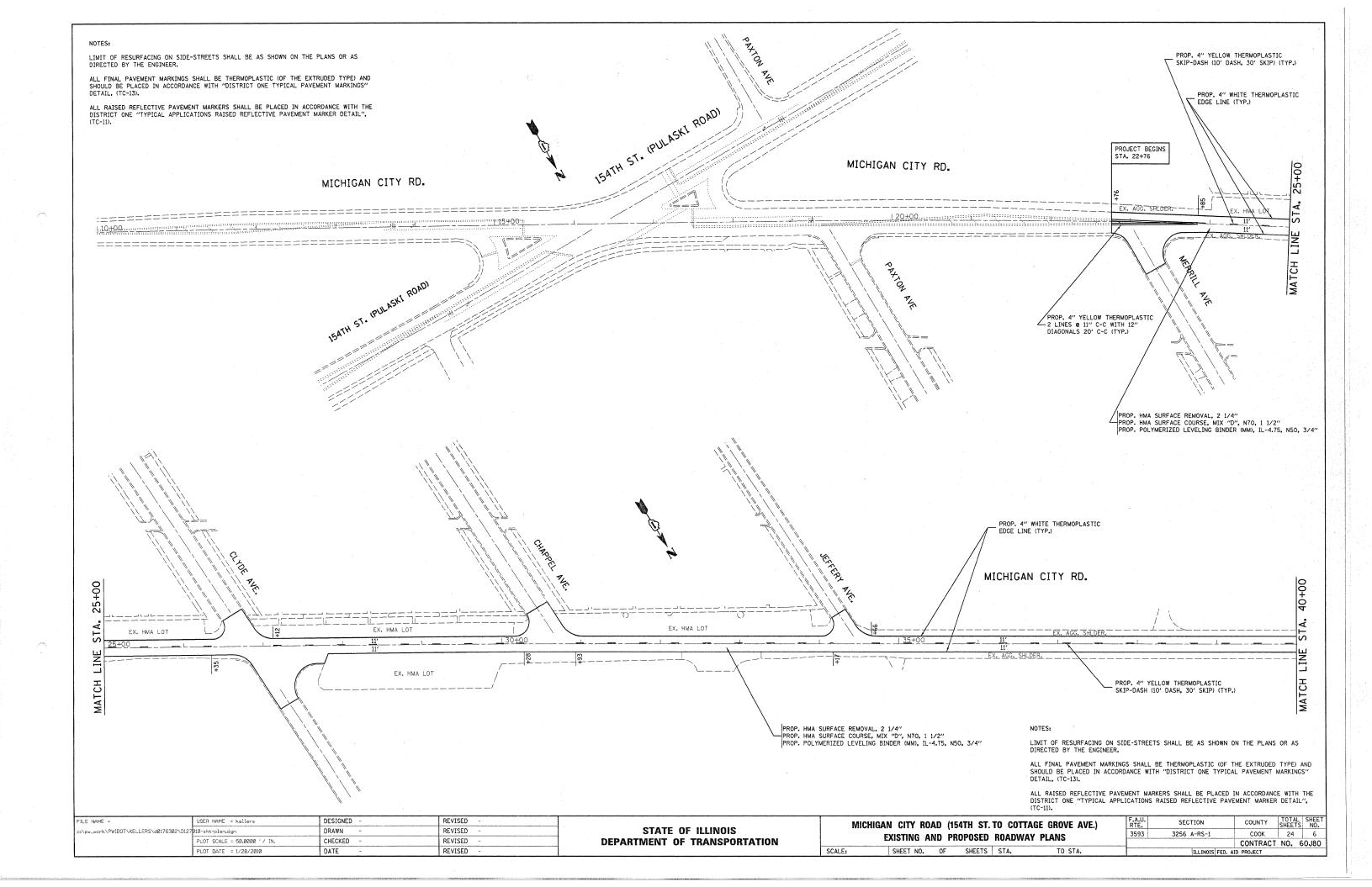
- 1. SEE ROADWAY AND PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS OF THRU LANES, LEFT TURN LANES AND PAINTED MEDIANS.
- 2. PAVEMENT PATCHING SHALL BE DONE PRIOR TO MILLING OF THE ROADWAY.
- 3. DETECTOR LOOPS EXIST AT WOODLAWN AVE. (STA 84+00). NO PLANS WERE AVAILABLE. ESTIMATED QUANTITY ADDED TO SOQ.
- 4. BETWEEN STA. 60+62 TO 65+12, POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" WILL BE USED. POLYMERIZED LEVELING BINDER WILL REMAIN THE SAME. MILLING DEPTH WILL BE 2 1/2".

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	AN CITY ROA	•			GROVE AVE.)	
SCALE: NONE	SHEET NO.	OF	SHEETS S	TA.	TO STA.	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.							
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		CONTRACT	NO. 6	0180							
ILLINOIS FED. AID PROJECT											

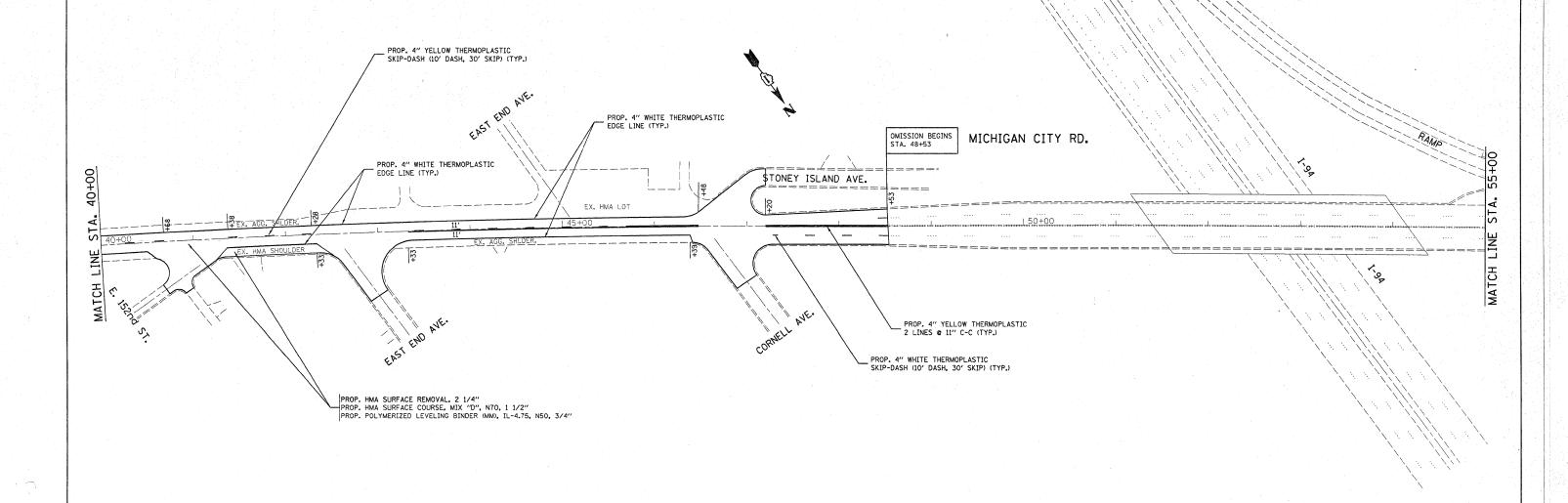




LIMIT OF RESURFACING ON SIDE-STREETS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13).

ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER DETAIL", (TC-11).



#### NOTE

LIMIT OF RESURFACING ON SIDE-STREETS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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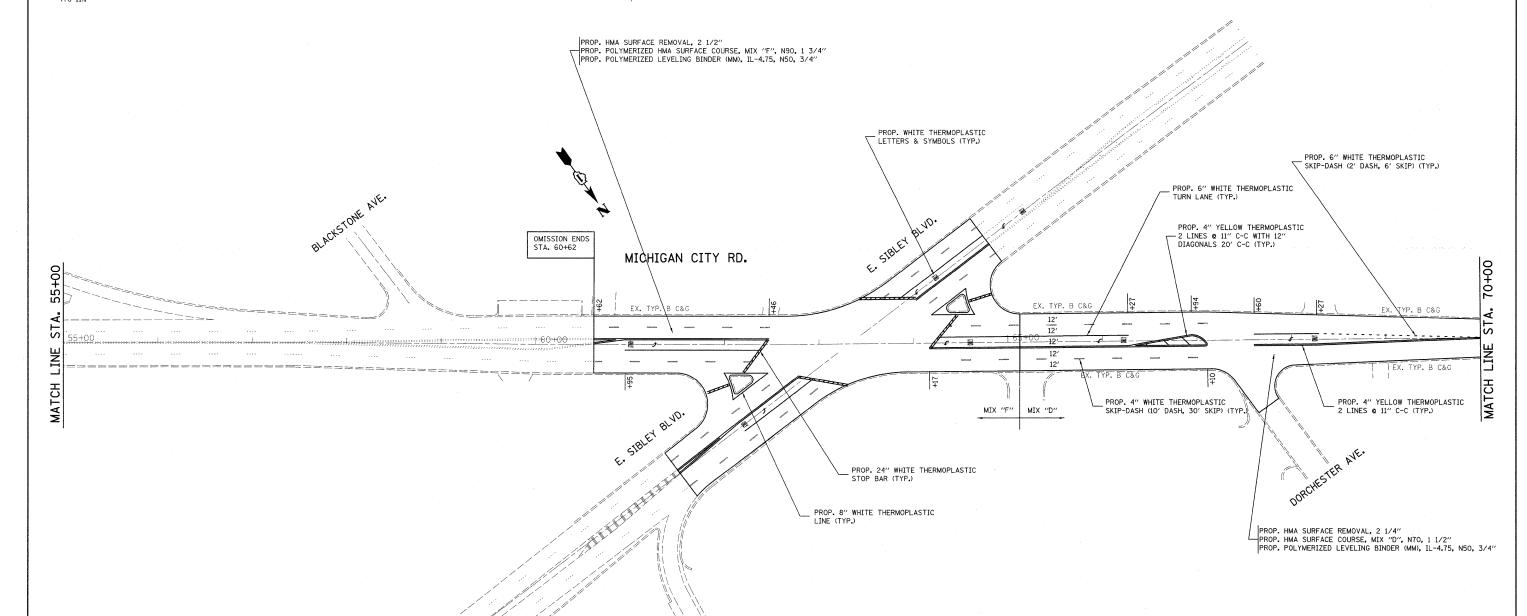
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	PLOT DATE = 1/28/2010	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT	1101 00000

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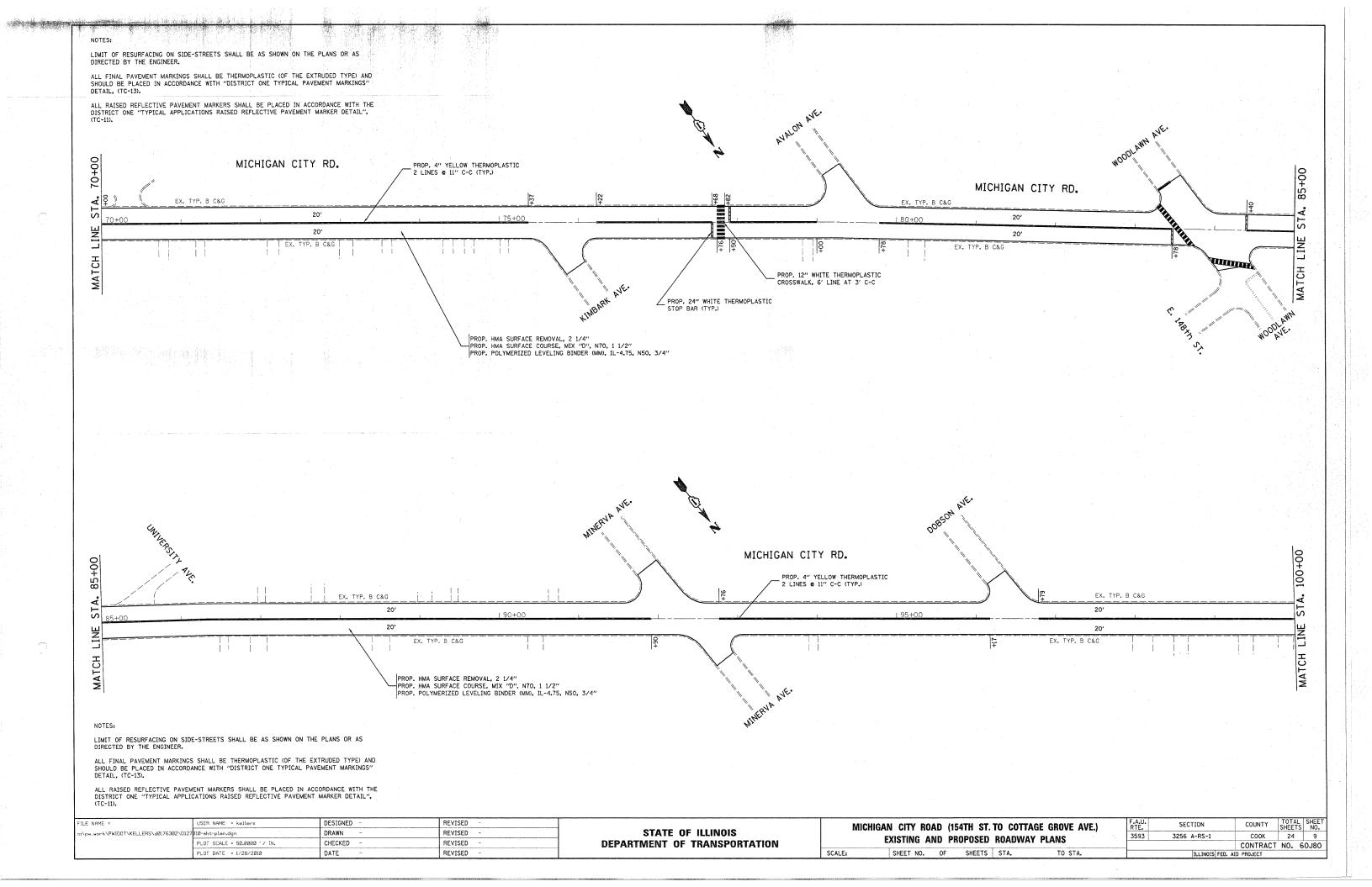
#### NOTES

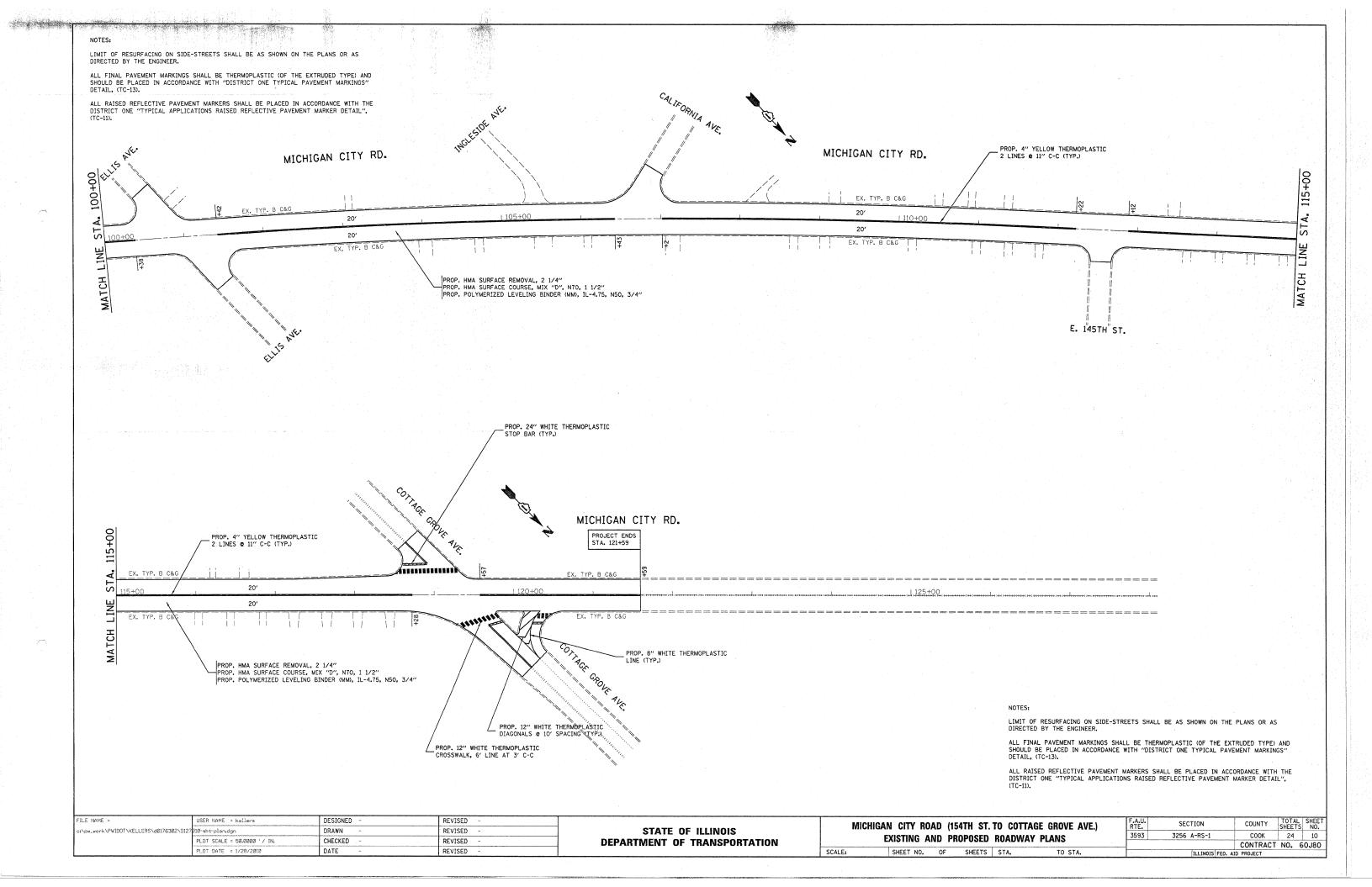
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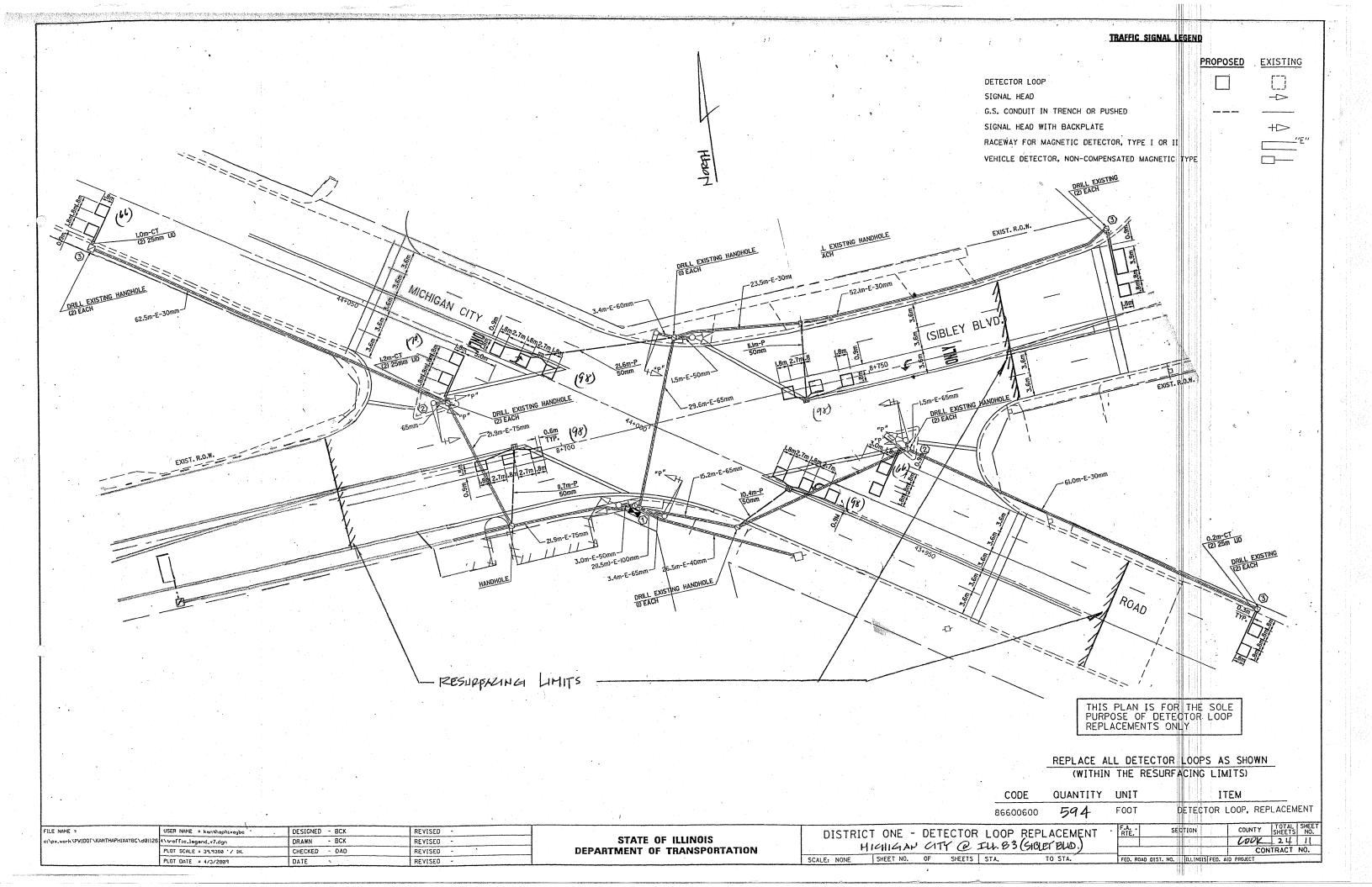
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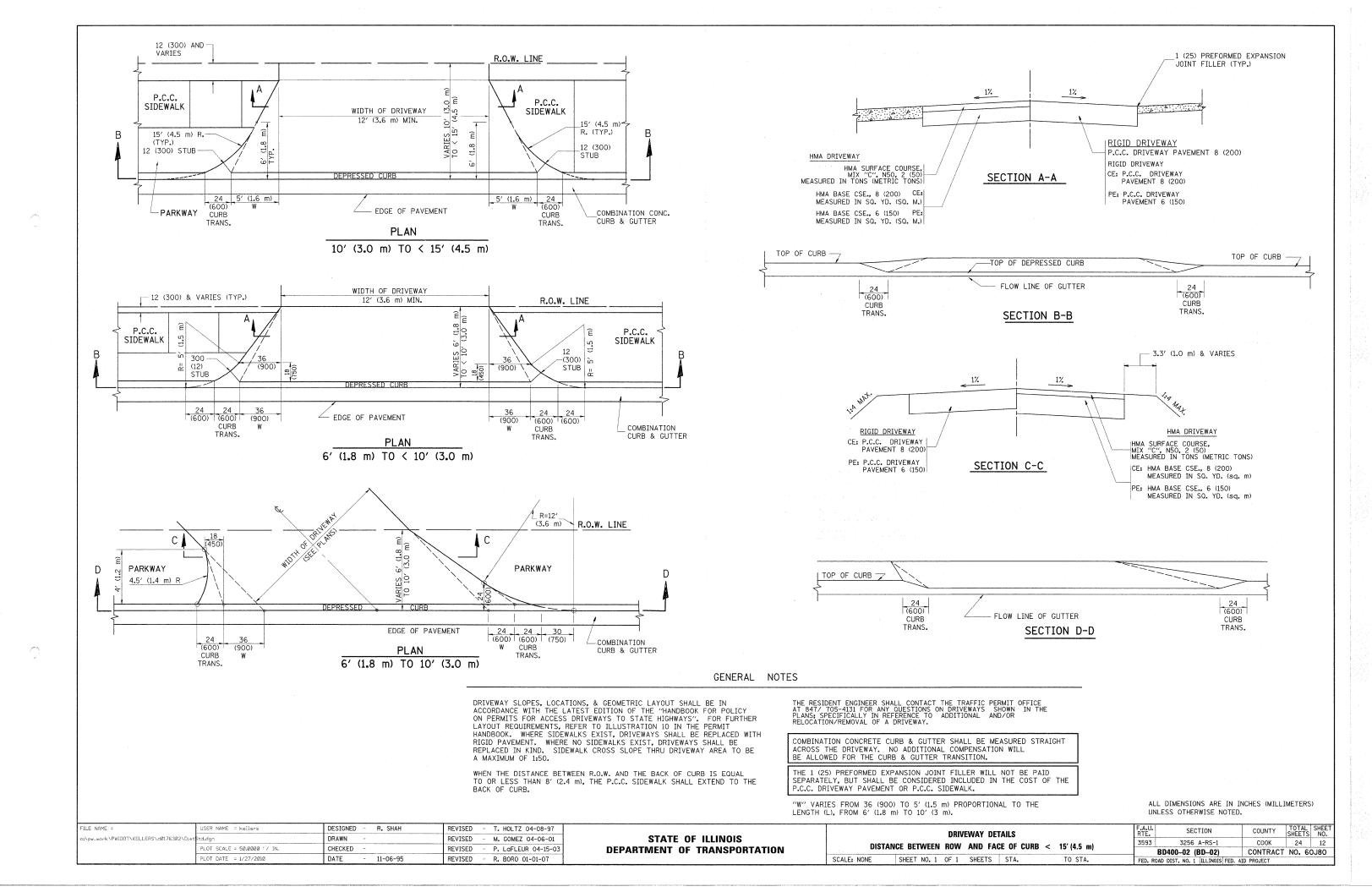
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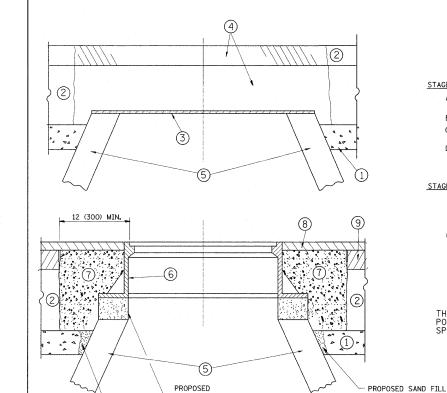
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o:\pw_work\PWIDOT\KELLERS\d0176302\D127	310-sht-plan.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	WITCH	GAN CITT NO	AU (134	нп эі.	IU GUITA	GE GROVE AVE.)	RIE.			SHEETS	, NO.
FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -		MICH	CAN CITY DO	AD /15/	TU CT	TO COTTA	GE GROVE AVE.)	F.A.U.	SECTION	COUNTY	TOTAL	SHEET











BRICK, MORTAR, OR CONC. ADJUSTING RINGS

PROPOSED SAND FILL

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

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAYEMENT 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.

UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

NOTES:

LEGEND

CONSTRUCTION PROCEDURES

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.

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.

STAGE 1 (BEFORE PAVEMENT MILLING)

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

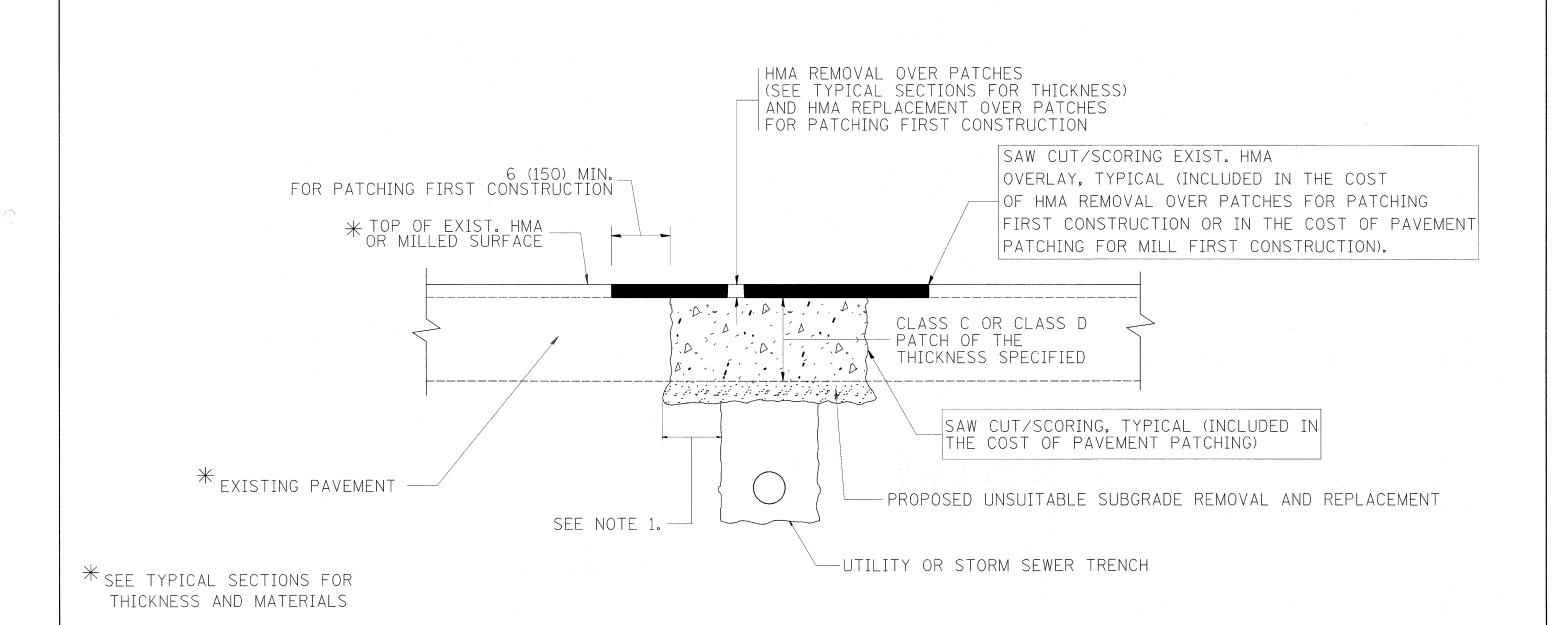
ILE NAME = DESIGNED R. SHAH REVISED - R. SHAH 03-10-95 JSER NAME = kellers \pw\_work\PWIDOT\KELLERS\dØ1763Ø2\Dist DRAWN REVISED - A. ABBAS 03-21-97 LOT SCALE = 50.0000 '/ IN. CHECKED REVISED - R. WIEDEMAN 05-14-04 DATE 10-25-94 REVISED - R. BORO 01-01-07 LOT DATE = 1/27/2010

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**DETAILS FOR** FRAMES AND LIDS ADJUSTMENT WITH MILLING SHEET NO. 1 OF 1 SHEETS STA. SCALE: NONE

TOTAL SHEE SHEETS NO. COUNTY 3256 A-RS-1 COOK CONTRACT NO. 60J80 BD600-03 (BD-8)

WITH MILLING



#### 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)

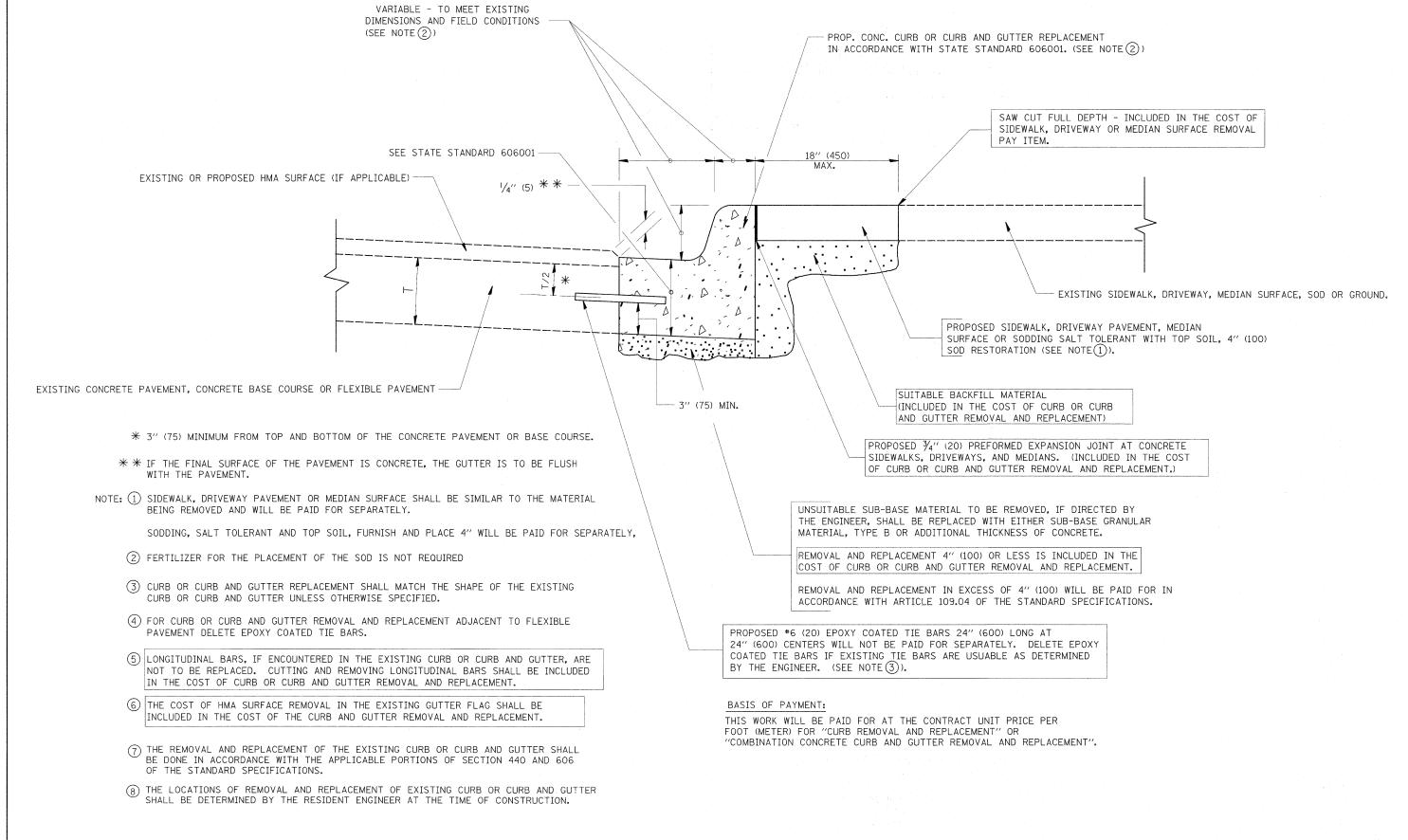
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### 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.

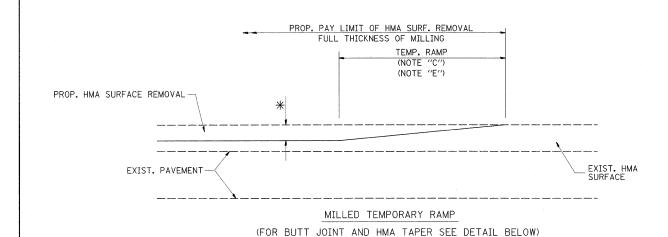
FILE NAME =	USER NAME = kellers	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A.U. RTF.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
ci\pw_work\PWIDOT\KELLERS\dØ1763Ø2\Dis	£ td.dgn	DRAWN ~	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS		HMA SURFACED PAVEMENT		3593	3256 A-RS-1	COOK	24 14
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION				BD	400-04 (BD-22)	CONTRAC	T NO. 60J80
	PLOT DATE = 1/27/2010	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 FEE	. AID PROJECT	



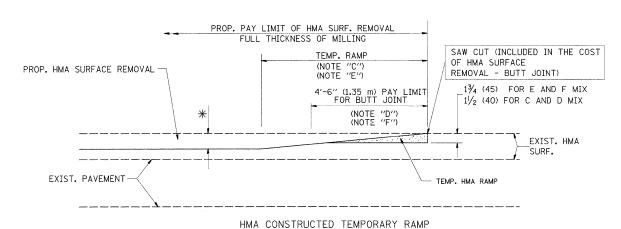
## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

REVISED - A. ABBAS 03-21-97 STATE OF ILLINOIS PLOT SCALE = 50.0000 // IN. CHECKED - REVISED - M. GOMEZ 01-22-01 CONTRACT NO. 60.		PLOT DATE = 1/27/2010	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED.	AID PROJECT		
CINDWINDTKELLERS\d0176302\District tot.dgm DRAWN - REVISED - A. ABBAS 03-21-97  STATE OF ILLINOIS  CURB OR CURB AND GUTTER  REV. SECTION COUNT SHEETS  3593 3256 A-RS-1 COOK 24		PLOT SCALE = 50.0000 '/ IN.		REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		NEWIOVAL AND NEPLACEMENT		BD	D600-06 (BD-24)	CONTRAC	CT NO. 60	JJ80
CIIDD AND CIITED DECTION COUNTI CUETTS	c:\pw_work\PWIDOT\KELLERS\dØ1763Ø2\	.DistStd.dgn							3593	3256 A-RS-1	COOK	24	15
	FILE NAME =	USER NAME = kellers	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	ATT OF 11111010		CURB OR CURB AND GUTTER		RTE.	SECTION	COUNTY	SHEETS	NO.

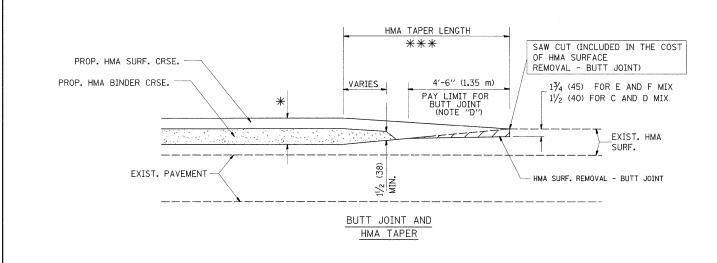


#### OPTION 1

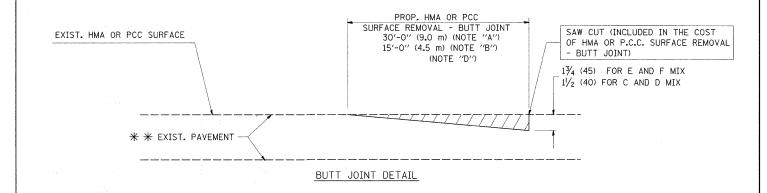


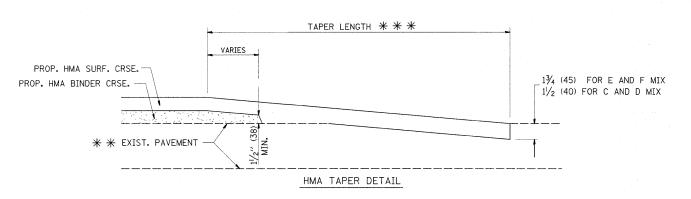
## (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW) OPTION 2

### TYPICAL TEMPORARY RAMP



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





## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

 $\ensuremath{*}\ensuremath{*}$  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'-O" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

#### BASIS OF PAYMENT:

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

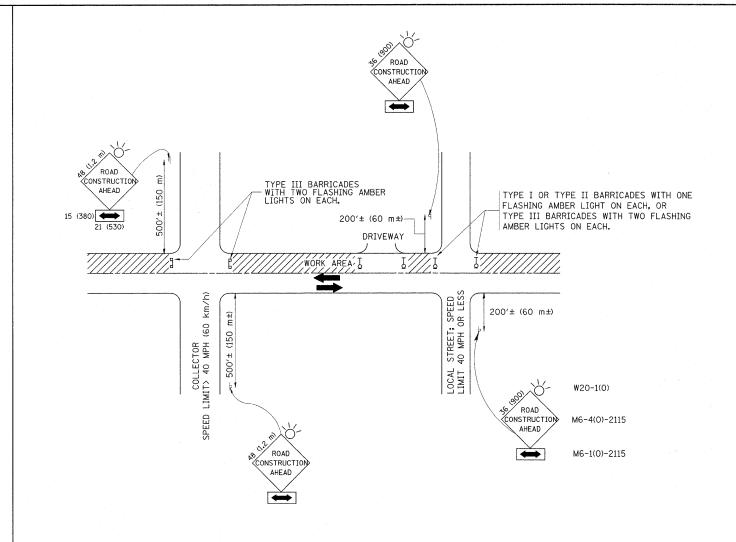
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

COUNTY

TOTAL SHEET NO.

COOK 24 16 CONTRACT NO. 60J80

FILE NAME =	USER NAME = kellers	DESIGNED - M. DE YONG  DRAWN -	REVISED - R. SHAH 10-25-94	OTATE OF HAMINIO	BUTT JOINT AND	F.A.U. RTE.	SECTION
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	DEPARTMENT OF TRANSPORTATION	NIVA TAFEN DETAILS	BD400-	-05 BD32
	PLOT DATE = 1/27/2010	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. N	NO. 1 ILLINOIS FEE
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#### TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

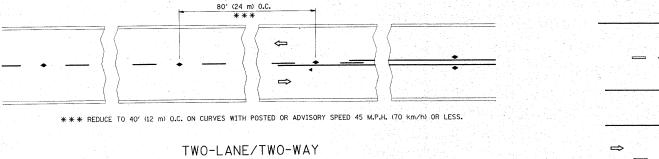
#### NOTES:

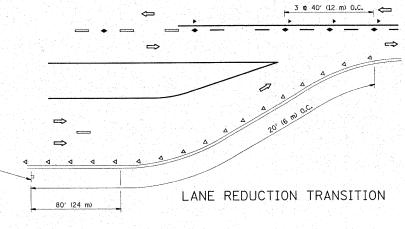
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- Q) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE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

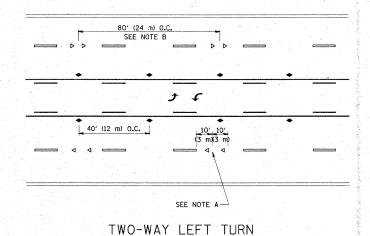
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

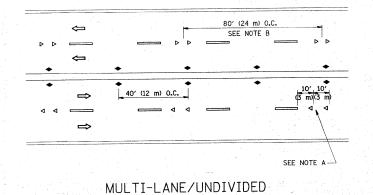
All dimensions are in millimeters (inches) unless otherwise shown.

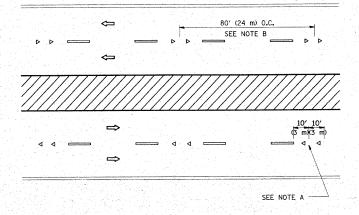
FILE NAME =	USER NAME = kellers	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95			TRAFFIC CONTROL AND PROTECTION FOR	F.A.U. SE	CTION	COUNTY	TOTAL SHEET
c:\pw_work\PWIDOT\KELLERS\dØ1763Ø2\Dist	td.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96	STATE OF ILLINOIS		SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	3593 3256	A-RS-1	COOK	24 17
	PLOT SCALE = 50.0000 // IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96	DEPARTMENT OF TRANSPORTATION			TC-	10 (	CONTRACT !	NO. 60J80
	PLOT DATE = 1/27/2010	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00	SCALE:	: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	1 ILLINOIS FED. AID I	PROJECT	











MULTI-LANE/DIVIDED

#### GENERAL NOTES

- 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

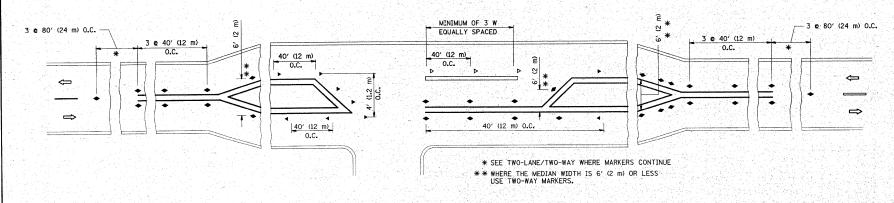
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

### SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

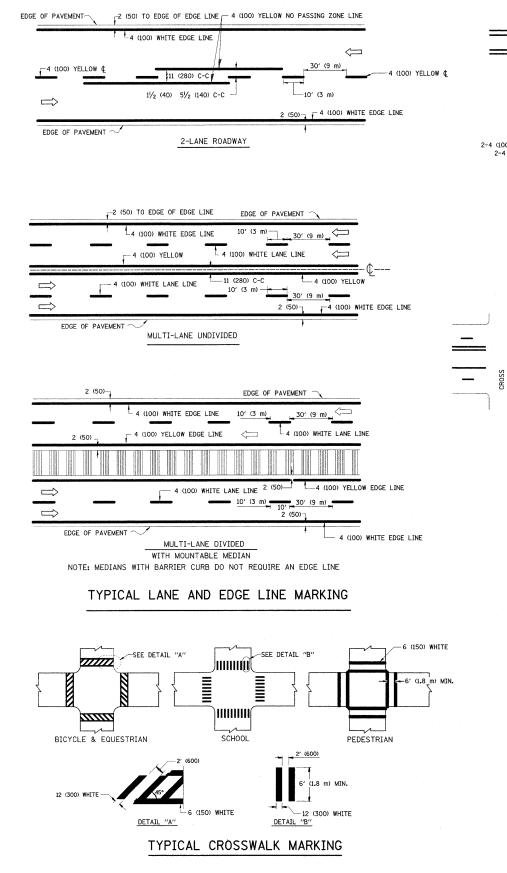
- ◆ ONE-WAY AMBER MARKER
- ◇ ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER



LEFT TURN

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

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	RTE. SECTION CO	OUNTY SHEETS NO.
c:\pw_work\PWIDOT\KELLERS\dØ1763Ø2\Dist	itd.dgn	DRAWN	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	3593 3256 A-RS-1 C	COOK 24 18
나무를 가고를 하는 것이 있는 것이다.	PLOT SCALE = 50.0000 '/ IN.	CHECKED	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION		TC-11 CON	NTRACT NO. 60J80
되고가 어떻게 하는 그리셔서까?	PLOT DATE = 1/27/2010	DATE	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJ	JUECT
					마이트 바다 사람들이 되었다. 그 사람들은 사람들이 되었다. 그 사람들은 사람들이 되었다. 그 사람들이 되었다. 		



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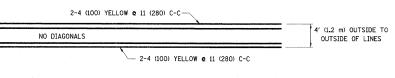
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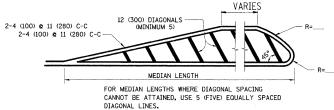
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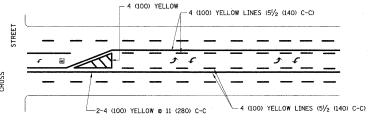


#### 4' (1.2 m) WIDE MEDIANS ONLY

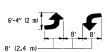


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

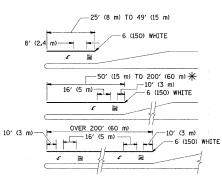


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

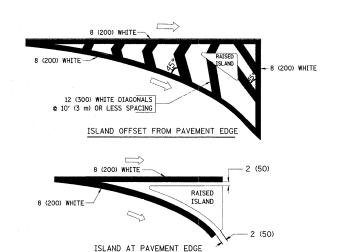


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² )  $\P$  AREA = 20.8 SQ. FT. (1.9 m²)

\* 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

<u> </u>	T		I	Γ
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	5/2 (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 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°	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	SEE TIFICAL FAINTED 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 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 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.

REVISED	-T. RAMMACHER	10-27-94	

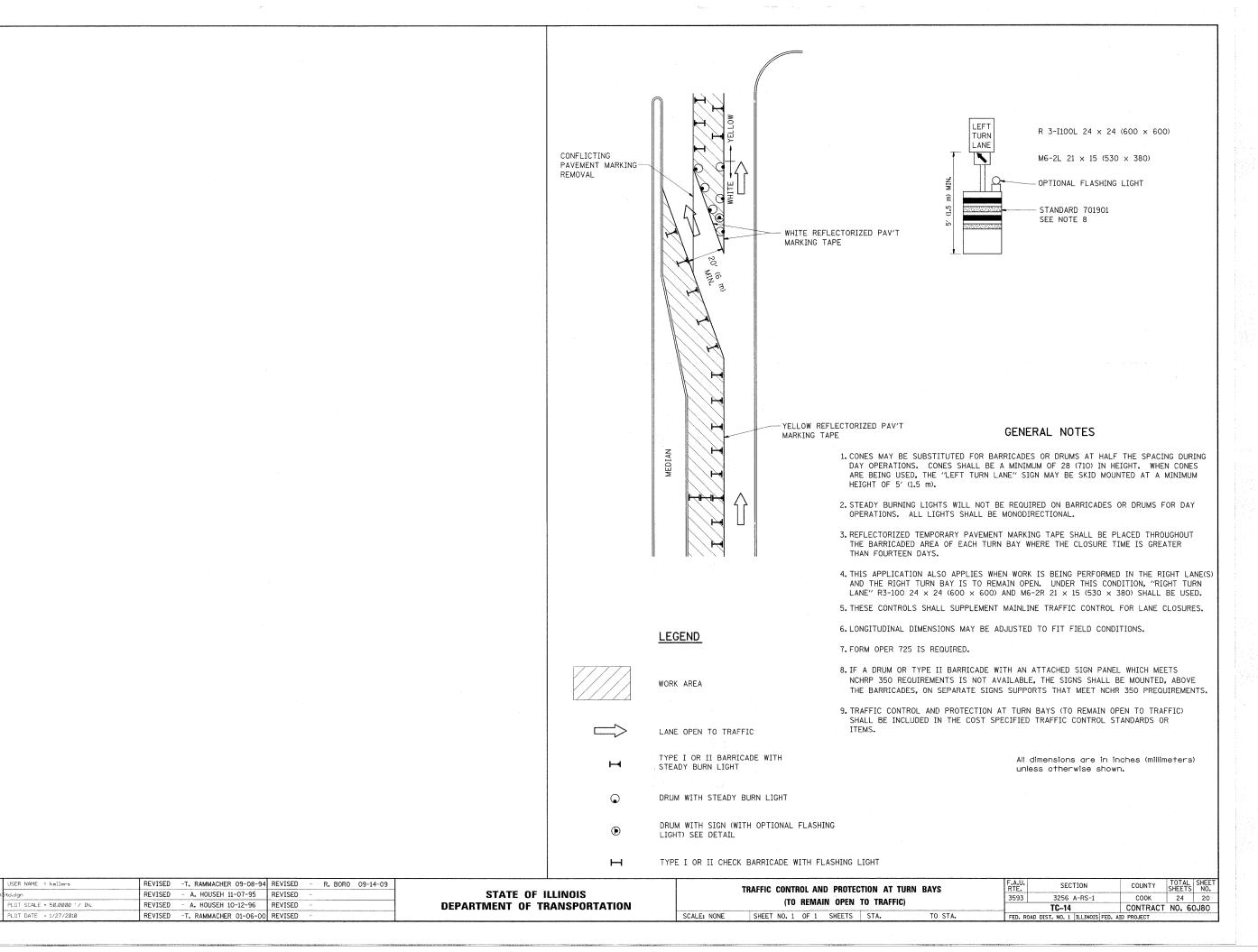
REVISED -C. JUCIUS 09-09-09

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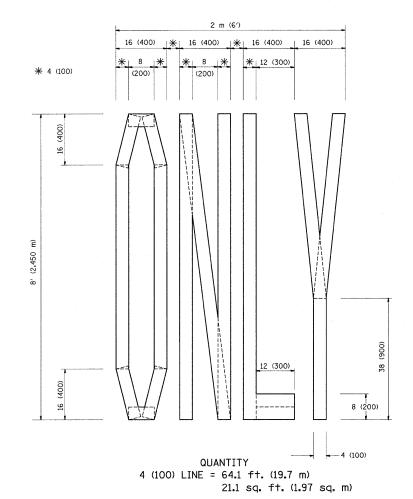
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DEPARTMENT	0F	TRANSPORTATION

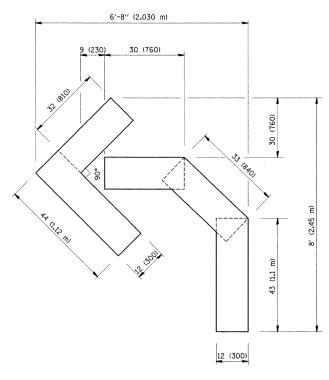
	DISTRICT OF	NE		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TYPICAL PAVEMENT	MARKINGS		3593	3256 A-RS-1	COOK	24	19
	1	WANKINGS	<u> </u>		TC-13	CONTRACT	NO. 6	0380
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RC	DAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



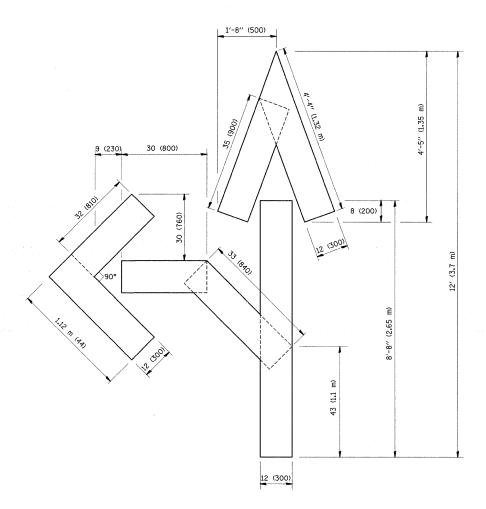
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QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

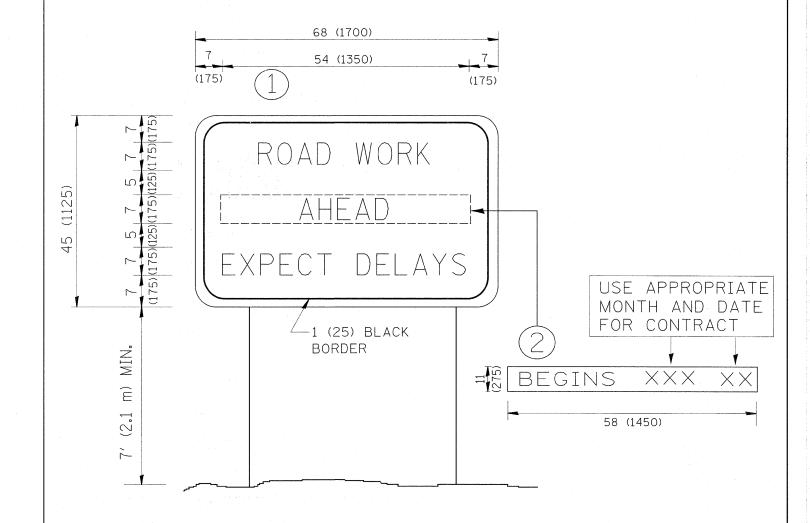


QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = kellers	DESIGNED	-	REVISED	-T.	RAMMACHER 06-05-96			PAVEMEN
c:\pw_work\PWIDOT\KELLER\$\d0176302\Dist	Std.dgn	DRAWN	-	REVISED	-T.	RAMMACHER 11-04-97	STATE OF ILLINOIS		PAVEIVIEN
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-	REVISED	-T.	RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION		
	PLOT DATE = 1/27/2010	DATE	- 09-18-94	REVISED	- E.	GOMEZ 08-28-00		SCALE: NONE	SHEET NO.

	PAVEMENT	S AND	SYMBOLS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
								3593	3256 A-RS-1	COOK	24	21
	FOR TRAFFIC STAGING								TC-16	CONTRACT	NO. 6	080
NONE	NE SHEET NO. 1 OF 1 SHEETS STA.					O STA.		FED. RO	DAD DIST. NO. 1   ILLINOIS FED. A	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.

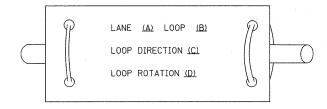
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

L																
F	FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	R. MIRS 09-15-97			ARTERIAL ROAD				F.A.U.	SECTION	COUNTY	TOTAL S	HEET
c:\pw_work\PWIDOT\KELLERS\d0176302\Dist\$td.dgn		td.dgn	DRAWN ~	REVISED -	- R. MIRS 12-11-97	STATE OF II	LINOIS	ARTERIAL ROAD INFORMATION SIGN			3593	3256 A-RS-1	COOK	24	22	
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	T. RAMMACHER 02-02-99	DEPARTMENT OF TRANS	ANSPORTATION					TC-22		CONTRACT NO. 60		30,180
L		PLOT DATE = 1/27/2010	DATE -	REVISED -	- C. JUCIUS 01-31-07			SCALE: NONE	SHEET NO. 1 OF 1 SHEET	S STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED.		1101 000	

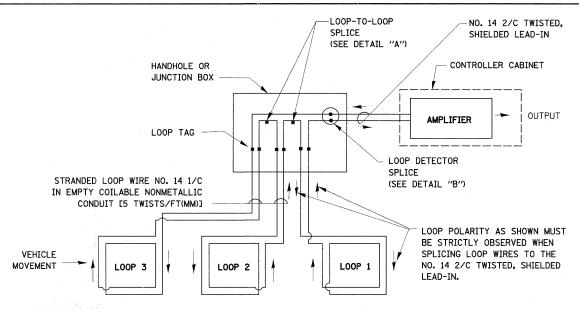
#### LOOP DETECTOR NOTES

- 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

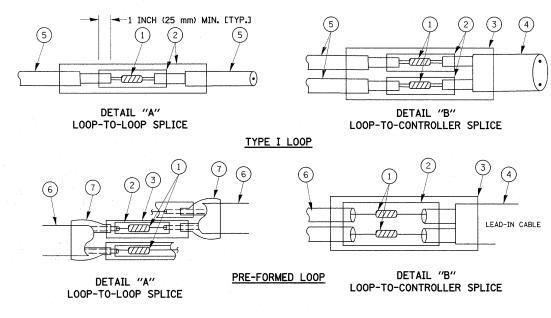


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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

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

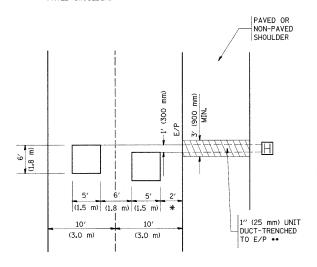
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT O	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	TOTAL SHEE					
STANDARD TRAFFIC SIGNA	3593	3256 A-RS-1	COOK	24	23					
STANDARD TRAFFIC SIGNA		TS-05	CONTRACT	NO. 6	.0J80					
SCALE: NONE SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	FED. R	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

#### LOOPS NEXT TO SHOULDERS

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



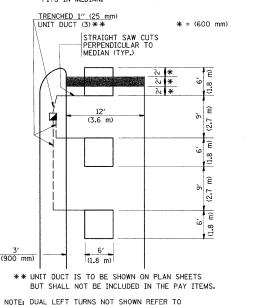
\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS

\* = (600 mm)

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

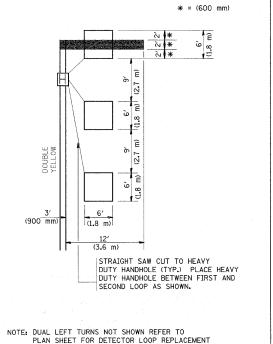
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS, HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE, REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN,



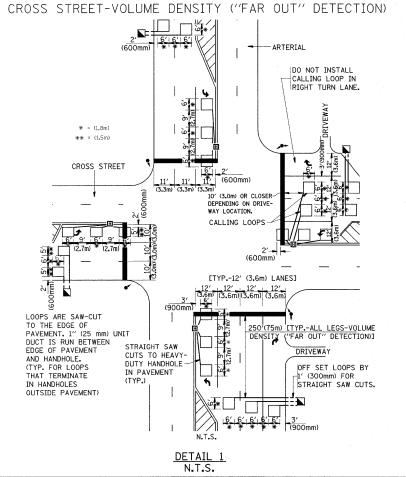
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

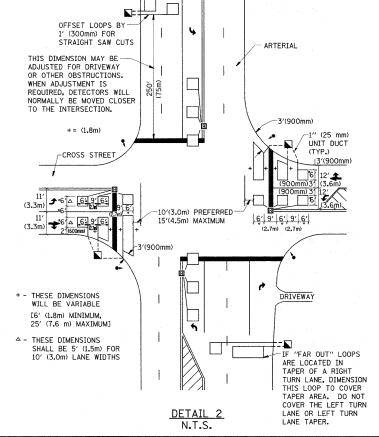
(PROTECTED / PERMITTED LEFT TURN PHASING)



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



ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)



#### NOTES:

#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIFLDED.
- \* 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 ALL SIGNAL LAYOUT PLAN SHEETS.

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

#### NOTE:

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

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION