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

# **PROPOSED** HIGHWAY PLANS

FAU ROUTE 1376 : GRAND AVE. DUPAGE COUNTY LINE TO US 12/45 (MANNHEIM RD.) SECTION 3059A-RS-1 **RESURFACING COOK COUNTY** C-91-546-09

### R 11 E R 12 E 83 MEMORIAL IMPROVEMENT BEGINS: STATION: 109+78 TRAFFIC DATA: 2006 ADT = 31,000 SPEED LIMIT = 30 MPH IMPROVEMENT ENDS: STATION: 10+89 ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED. WASHINGTON JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION PROJECT ENGINEER: JOSE DOMINGUEZ (847) 705-4385 LEYDEN TOWNSHIP

GROSS AND NET LENGTH OF IMPROVEMENT = 9,889 FEET = 1.87 MILES

CONTRACT NO. 60G90

PROJECT MANAGER: KEN ENG

1-800-892-0123 OR 811

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN THE VILLAGES

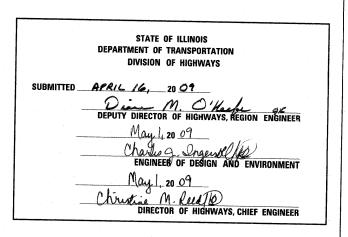
OF FRANKLIN PARK AND NORTHLAKE

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3059A-RS-1 СООК





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#### INDEX OF SHEETS

#### STATE STANDARDS

SHEET NO.	DESCRIPTION	STANDARD NO. DESCRIPTION
1.	TITLE SHEET	000001-05 TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	442201-03 CLASS C AND D PATCHES
3	SUMMARY OF QUANTITIES	604091-02 FRAME AND GRATE TYPE 24
4	EXISTING AND PROPOSED TYPICAL SECTIONS	606001-04 CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
5-9	ROADWAY AND PAVEMENT MARKING PLANS	
*	DETECTOR LOOP REPLACEMENT PLANS	701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
10	DETAILS FOR FRAME AND LIDS ADJUSTMENT WITH MILLING (BD-08)	701606-00 URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
11	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)	701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
12	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD-24)	701901-0/ TRAFFIC CONTROL DEVICES
13	BUTT JOINT AND HMA TAPER (BD-32)	886001-01 DETECTOR LOOP INSTALLATION
14	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)	886006-01 TYPICAL LAYOUT FOR DETECTION LOOPS
15	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)	
16	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)	
17	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)	
18	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TO	C-16)
19	ARTERIAL INFORMATION SIGNING (TC-22)	

#### 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 VILLAGES OF FRANKLIN PARK AND NORTHLAKE.

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 1/2INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

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

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE 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 MR. WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

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

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DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR

ROADWAY RESURFACING (TS-07)

\* TO BE PROVIDED AT A LATER DATE

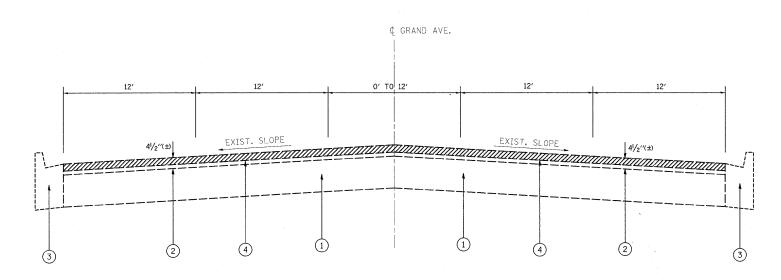
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

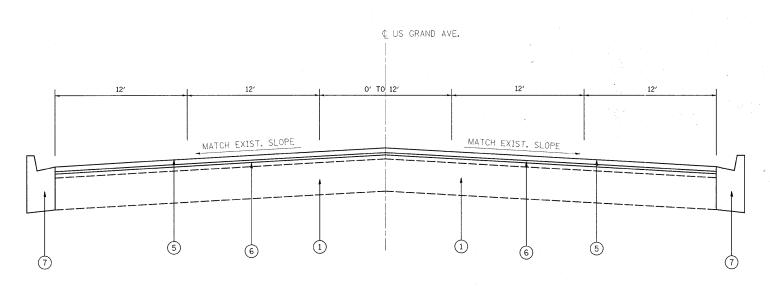
GRAND AVE. (DUPAGE CO. LINE TO US 12/45 INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES SCALE: SHEET NO. OF SHEETS

SECTION 1376 3059A-RS-1 COOK 20 2 CONTRACT NO. 60G90 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

	SUMMARY OF QUANTITIES				(	CONSTRUCT	TION TYPE	CODE			SLIMMA	RY OF QUANTITIES	· .				CONSTRUC	TION TYPE	CODE	
7			TOTAL								JOHN, I		1 .	TOTAL			* 1			
ODE NO	ITEM	UNIT	QUANTITIES	1000						CODE NO		ITEM	UNIT	QUANTITIES	1000					
600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	31	31						70300260	i .	AVEMENT MARKING	FOOT	500	500			:		
600300	AGGREGATE (PRIME COAT)	TON	141	141						72702000	- LINE 12"		500T	470	470		1			
0600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	22	22						70300280	- LINE 24"	AVEMENT MARKING	FOOT	470	470					
600895	CONSTRUCTING TEST STRIP	EACH	1	1						70301000		AVEMENT MARKING REMOVAL	SQ FT	6150	6150					
0600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	605	605						<del>X</del> 78000100	THERMOPLASTI - LETTERS AN	IC PAVEMENT MARKING ND SYMBOLS	SQ FT	875	875					4
0603595	POLYMERIZED HOT-MIX ASPHALT SURFACE	TON	6880	6880	1	5				<b>*</b> 78000200	THERMOPLASTI - LINE 4"	IC PAVEMENT MARKING	FOOT	27300	27300					
2101300	COURSE, MIX "F", N90  PROTECTIVE COAT	SQ YD	1225	1225		-				<b>*</b> 78000400	THERMOPLASTI	IC PAVEMENT MARKING	FOOT	5700	5700					
2400200	PORTLAND CEMENT CONCRETE SIDEWALK 5	SQ FT	500	500						<del>x</del> 78000600	THERMOPLASTI - LINE 12"	IC PAVEMENT MARKING	FOOT	500	500					
1000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	70180	70180						<del>x</del> 78000650	·	IC PAVEMENT MARKING	FOOT	470	470					
1000600	SIDEWALK REMOVAL	SQ FT	500	500						<del>x</del> 78100100	RAISED REFLE	ECTIVE PAVEMENT MARKER	EACH	900	900					
4001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	3500	3500		:				78300200		ECTIVE PAVEMENT MARKER	EACH	900	900					5 .
4201777	CLASS D PATCHES, TYPE II, 11 INCH	SQ YD	150	150			- ,			<b>★</b> 88600600		OP REPLACEMENT	FOOT	1524	1524			100		
201781	CLASS D PATCHES, TYPE III, 11 INCH	SQ YD	300	300						X0322256	TEMPORARY IN	NFORMATION SIGNING	SQ FT	51. 4	51.4					
201783	CLASS D PATCHES, TYPE IV, 11 INCH	SQ YD	3000	3000						X0656100	1	VEMENT REMOVAL AND	SQ YD	100	100					
5039700	STORM SEWERS TO BE CLEANED	FOOT	700	700	:						REPLACEMENT			7076	7076					
250200	CATCH BASINS TO BE ADJUSTED	EACH	5	5						X4067107	POLYMERIZED METHOD), IL	LEVELING BINDER (MACHINE L-4.75, N50	TON	3036	3036					
0252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	2	2	A.C. Constanting of the Constant					Z0018500	DRAINAGE STF	RUCTURES TO BE CLEANED	EACH	165	165					
0255500	MANHOLES TO BE ADJUSTED	EACH	<b>1</b>	1						Z0048665	RAILROAD PRO	OTECTIVE LIABILITY INSURANCE	L SUM	1	1					
0257900	MANHOLES TO BE RECONSTRUCTED	EACH	1	1									4	V						
0300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	65	65														: .		
0300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	165	165																
50404950	FRAMES AND GRATES, TYPE 24	EACH	65	65								The second secon								,
57000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	- 6	6																
57100100	MOBILIZATION	L SUM	1	1																
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1																
0102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																
0300100	SHORT-TERM PAVEMENT MARKING	FOOT	18500	18500						1-										
0300210	TEMPORARY PAVEMENT MARKING	SQ FT	875	875						1										
	- LETTERS AND SYMBOLS																		1,	
0300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	27300	27300												1				
0300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	5700	5700													1 2 2			
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EXISTING TYPICAL SECTION GRAND AVENUE



PROPOSED TYPICAL SECTION GRAND AVENUE

#### LEGEND

- 1 EXIST. PCC BASE COURSE, 9"(±)
- ② EXIST. HOT-MIX ASPHALT SURFACE COURSE (BEFORE MILLING),  $4\frac{1}{2}$ "(±)
- (3) EXIST. CONCRETE CURB AND GUTTER
- 4 PROP. HOT-MIX ASPHALT SURFACE REMOVAL 21/2" (2" OF HOT-MIX ASPHALT TO REMAIN)
- ⑤ PROP. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- 6 PROP. POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- 7 PROP. CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

#### NOTES:

1. THE CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

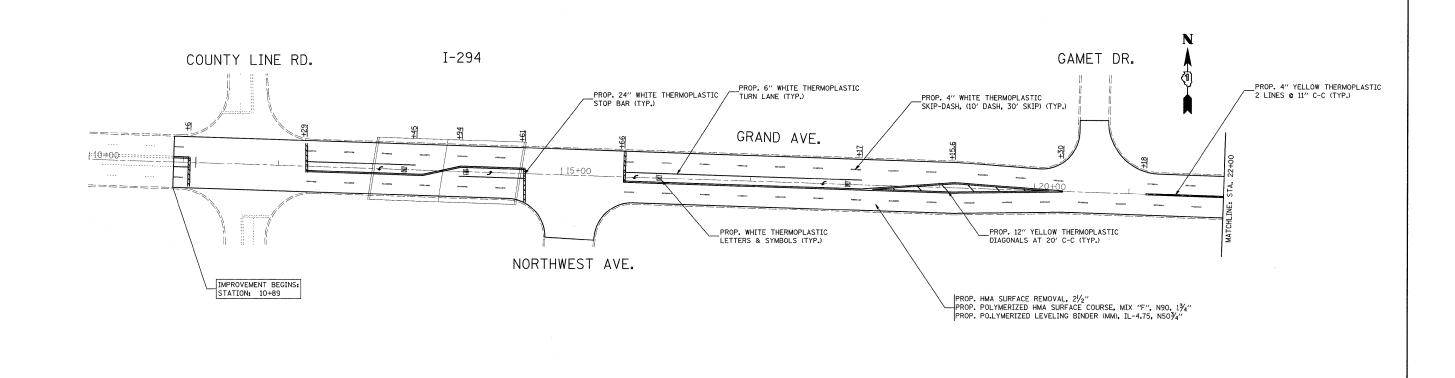
#### HOT-MIX ASPHALT MIXTURE REQUIREMENTS

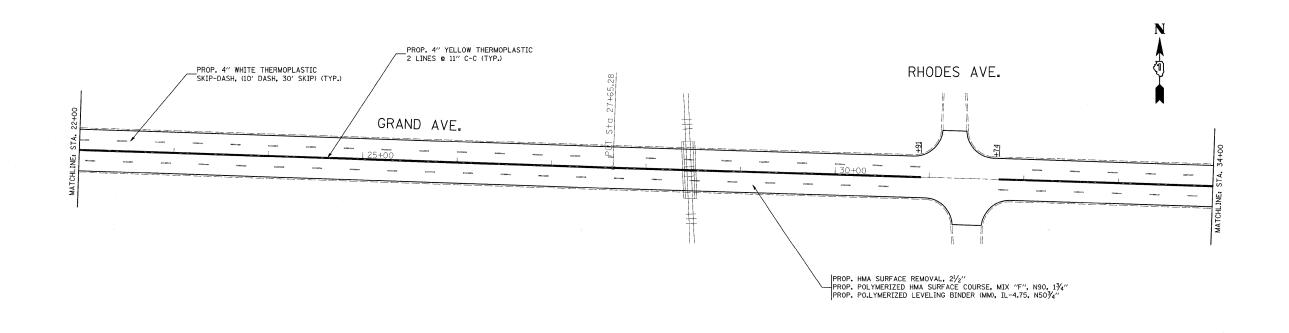
	MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
ROADWAY	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, (IL-9.5MM), 1 3/4 "	SBS/SBR PG 70-22	4% @ 90 GYR
NOADWAT	POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"	SBS/SBR PG 76-28/-22	4% @ 50 GYR
PATCHES	CLASS D PATCHES, (HMA BINDER IL-19.0 MM), 9"	PG 64-22*	4% @ 70 GYR
PAICHES	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (HMA BINDER IL-19.0 MM)	PG 64-22*	4% @ 70 GYR

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

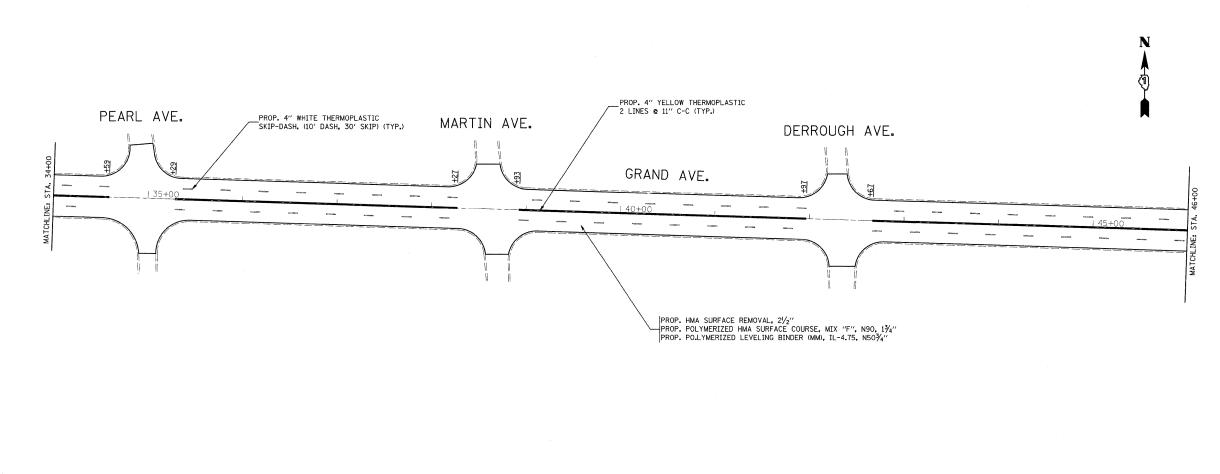
\*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

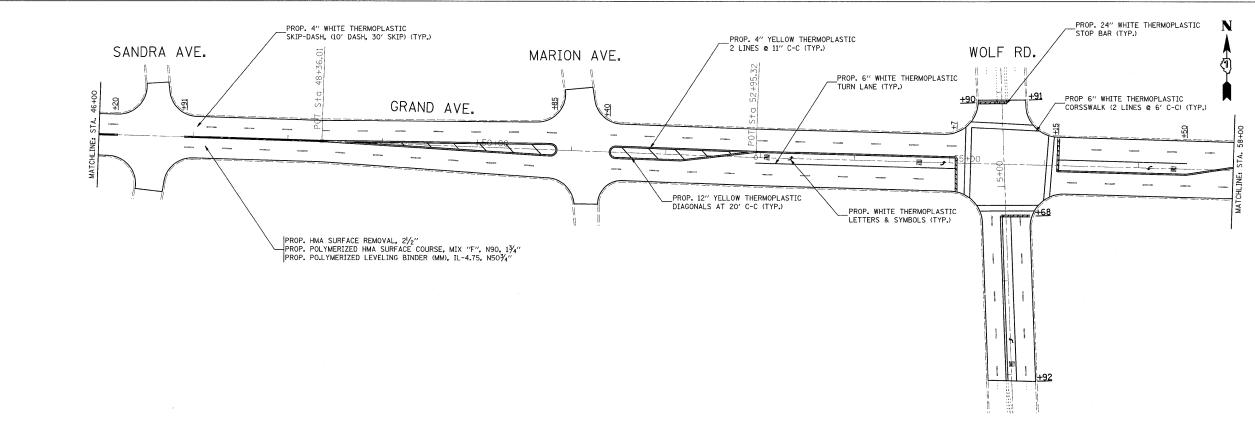
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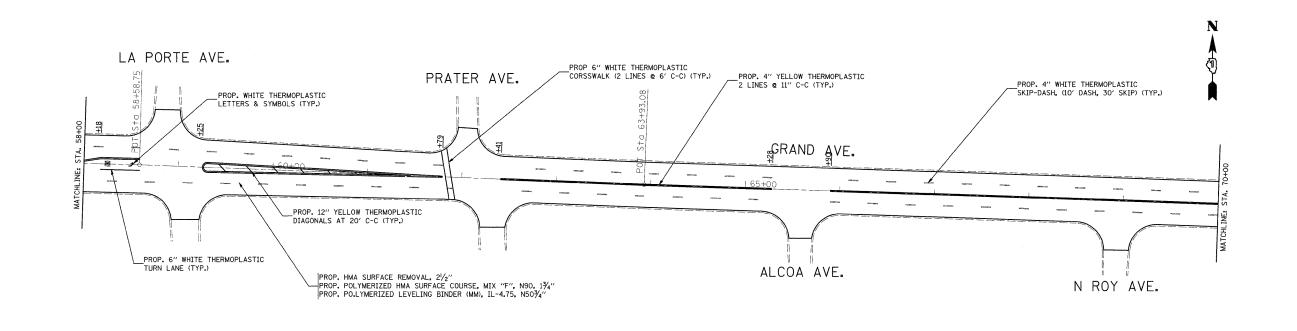


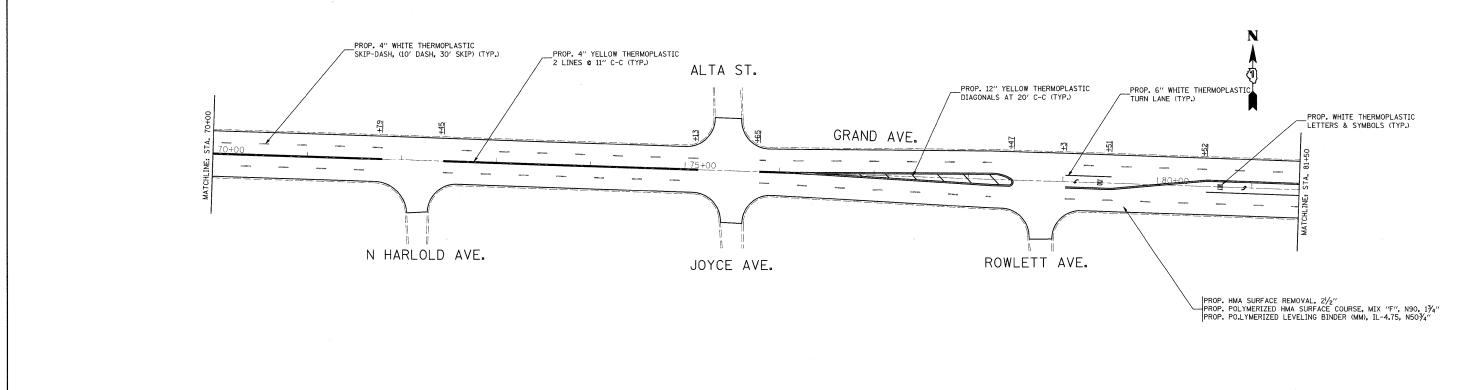
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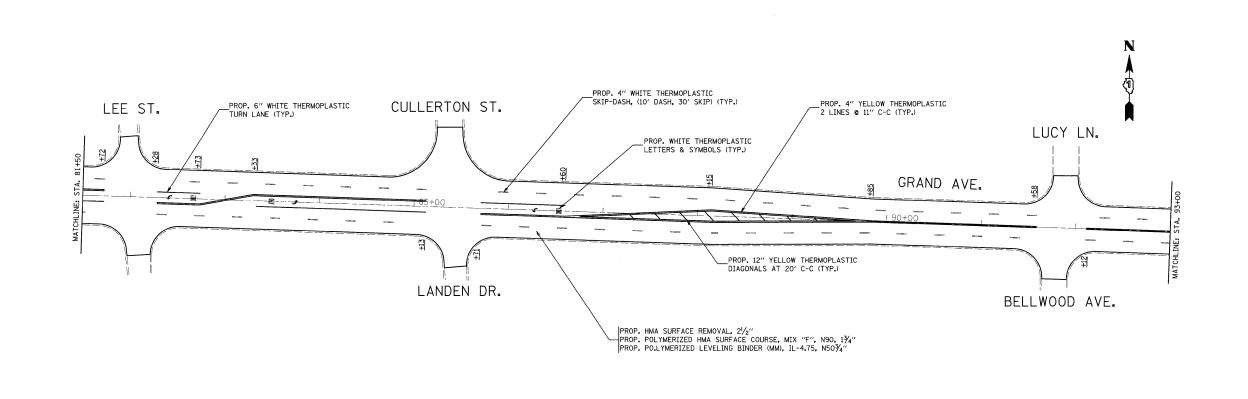


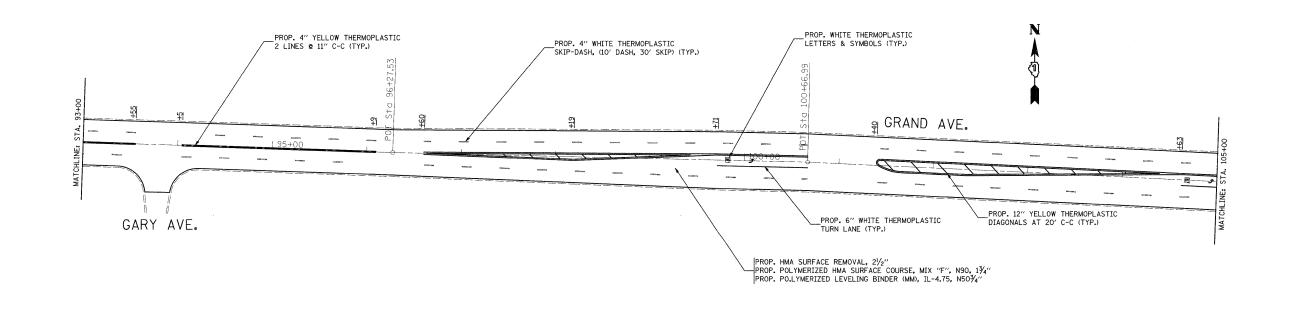
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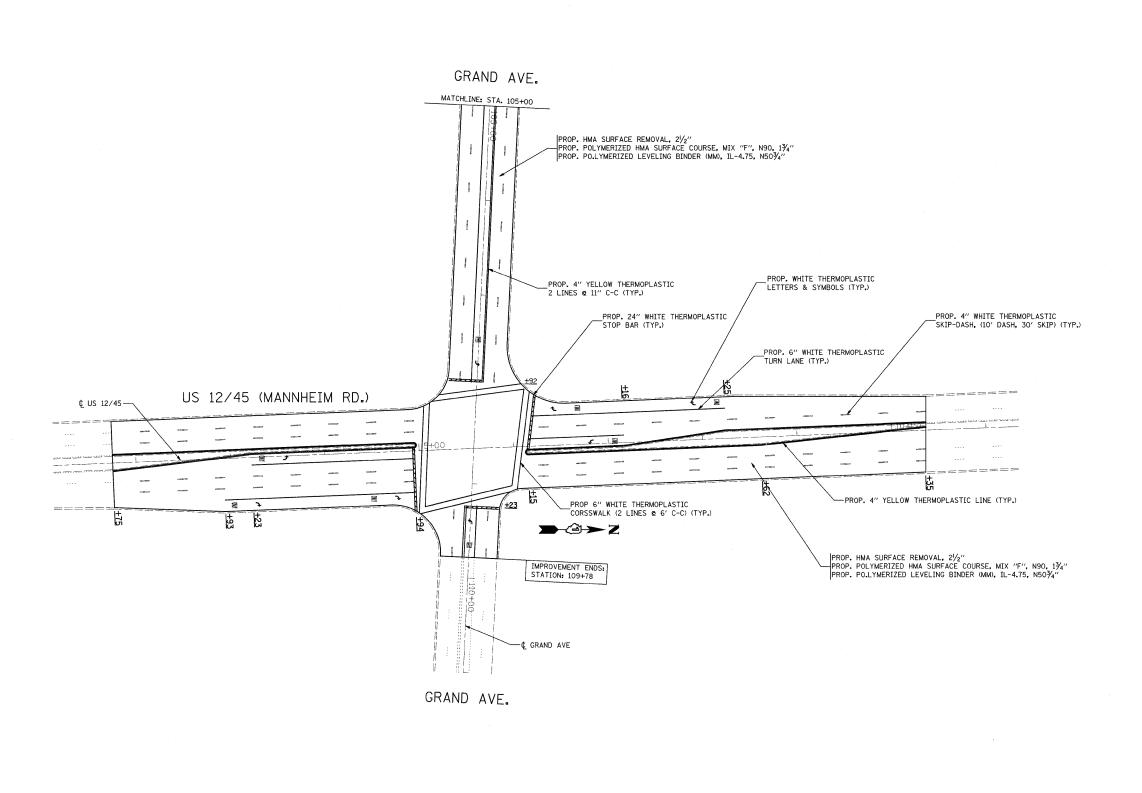


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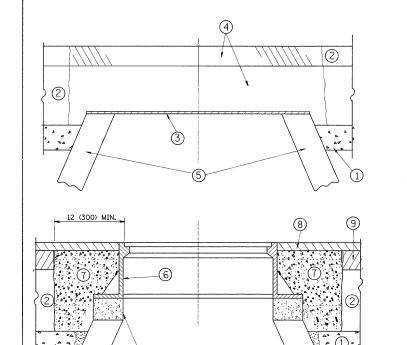




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EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS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

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

NOTES:

BRICK, MORTAR, OR CONC. ADJUSTING RINGS

#### 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  $1^{1\!\!/}_2$  (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

SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

- 2 EXISTING PAVEMENT
- 3 36 (900) DIAMETER METAL PLATE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- (5) EXISTING STRUCTURE
- 6 FRAME AND LID (SEE NOTES)
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 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.

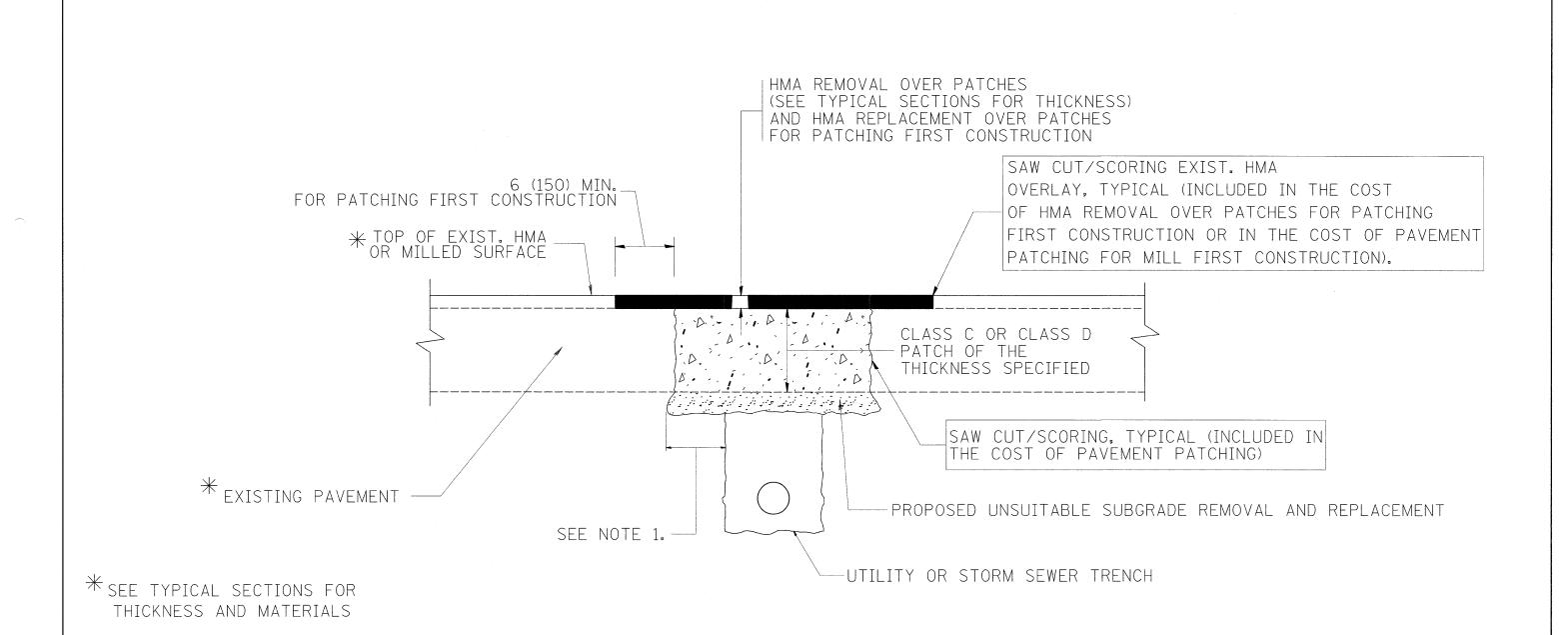
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

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		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04	DEPARTMENT OF TRANSPORTATION				00-03 (BD-8)		T NO. 60G90
		PLOT DATE = 4/16/2009	DATE - 10-25-94	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DI			



#### 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)

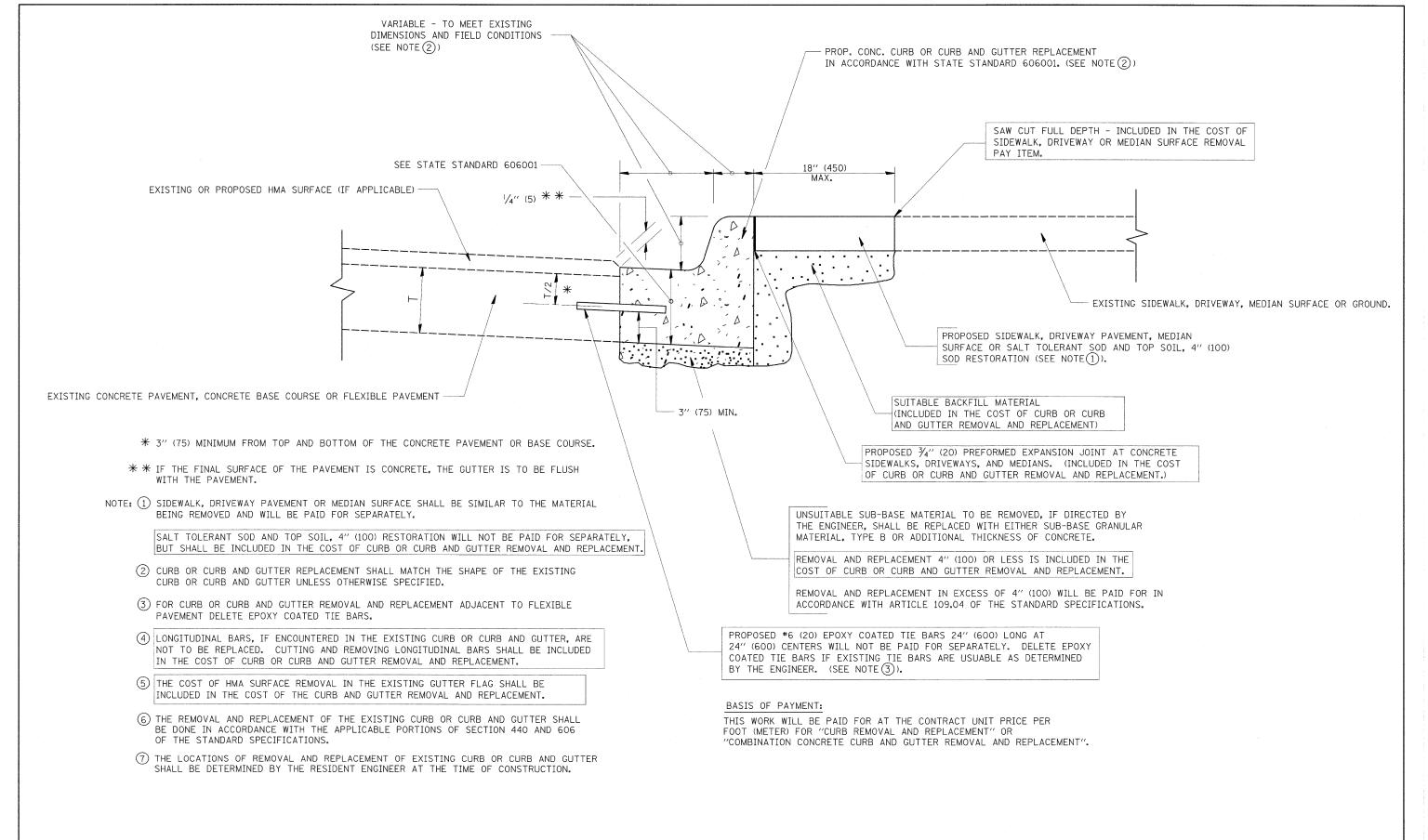
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### 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.

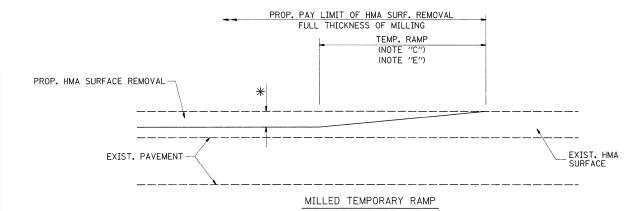
FILE NAME =	USER NAME = anseris	DESIGNED - R. SHAH	REVISED -	A. ABBAS 04-27-98			PAVEMENT PATCHING FOR		F.A.U.	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\ansaris\dØ137611\DistSt	d.dgn	DRAWN -	REVISED -	R. BORO 01-01-07	STATE OF ILLINOIS				1376	3059A-RS-1	СООК	20	11
	PLOT SCALE = 50.0000 '/ IN,	CHECKED -	REVISED -	R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	HMA SUKFACED PAVEMENT		В	D400-04 (BD-22)	CONTRACT	T NO. 6	0G90
	PLOT DATE = 4/16/2009	DATE - 10-25-94	REVISED ~	K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAL		AID PROJECT		



### CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

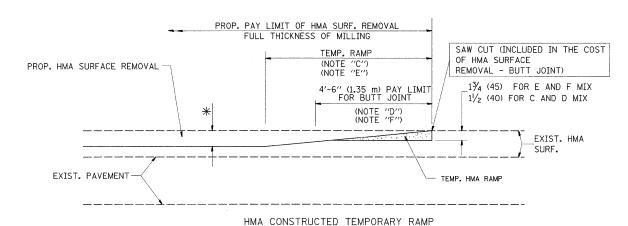
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE	NAME =	USER NAME = ansarıs	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96			CURB OR CURB AND GUTTER		F.A.U.	SECTION	COUNTY	TOTAL	SHEET
c:/pw	v_work\pwidot\ansaris\dØ137611\DistSt	d.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS				1376	3059A-RS-1	СООК	20	12
	i	PLOT SCALE = 50.00000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION	REMOVAL AND REPLACEMENT			Е	BD600-06 (BD-24)	CONTRACT	T NO. f	0690
L		PLOT DATE = 4/16/2009	DATE - 03-11-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		TO STA.			DIS FED. AID PROJECT		***************************************



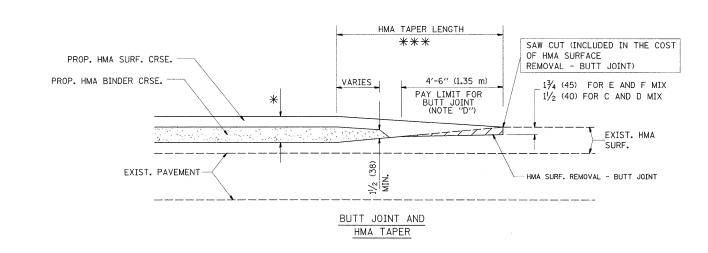
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

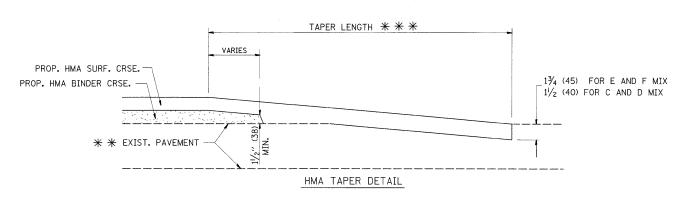
## OPTION 2 TYPICAL TEMPORARY RAMP



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

PROP. HMA OR PCC
SURFACE REMOVAL - BUTT JOINT
30'-0" (9.0 m) (NOTE "B")
15'-0" (4.5 m) (NOTE "B")
1 /4 (45) FOR E AND F MIX
1 /2 (40) FOR C AND D MIX

BUTT JOINT DETAIL



## TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\* \* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

#### NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* \*\* \*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

#### BASIS OF PAYMENT:

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

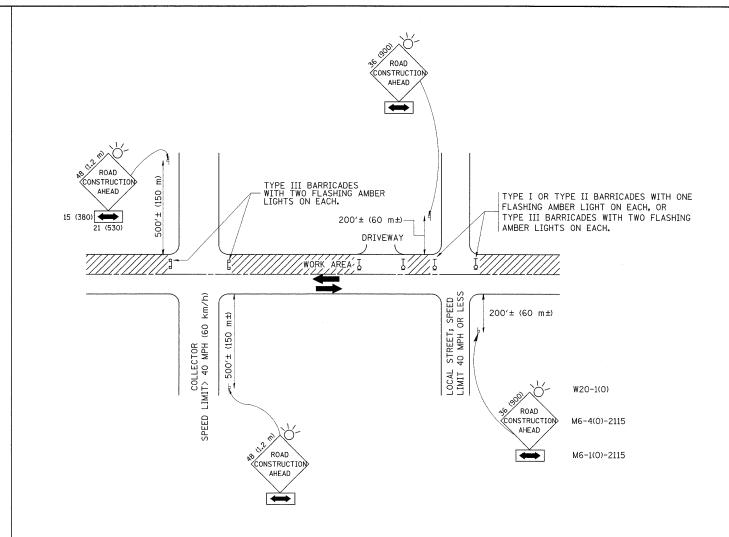
SCALE:

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

FILE NAME =	USER NAME = ansarıs	DESIGNED - M. DE YONG	REVISED -	R. SHAH 10-25-94
c:\pw_work\pwidot\ansaris\d0137611\DistSt	d.dgn	DRAWN -	REVISED	A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	M. GOMEZ 04-06-01
	PLOT DATE = 4/16/2009	DATE - 06-13-90	REVISED -	R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	BU	TT JOINT A	ND		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	нма	TAPER DE	TAILC		1376	3059A-RS-1	COOK	20	13
						BD400-05 BD32	CONTRACT	NO. 6	0G90
: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		



#### 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:
- 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:
- a) 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 (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

#### 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.

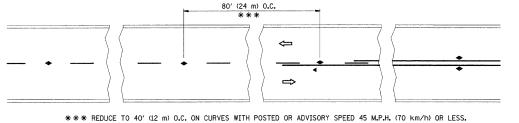
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

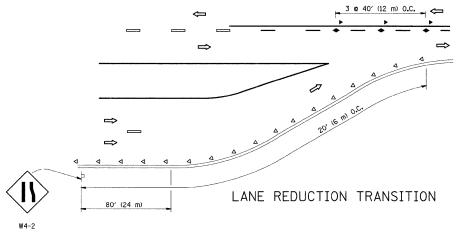
FILE NAME =	USER NAME = ansaris	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pw_work\pwidot\ansaris\d0137611\DistSt	d.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.00000 '/ IN.	CHECKED ~	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 4/16/2009	DATE ~ 06-89	REVISED -T, RAMMACHER 01-06-00

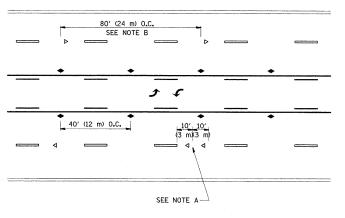
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TR	AFFI	C	CONT	ROL A	ND F	ROTEC	TION	FOR		
SIDE	ROA	DS	, INT	ERSEC	TIONS	, AND	DRIV	EWAYS		
SHEET	NO	1	OF 1	SHIS	FFTS	CTA			TO	c

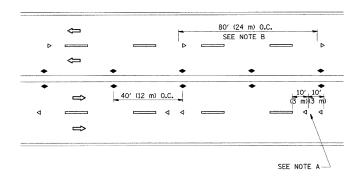




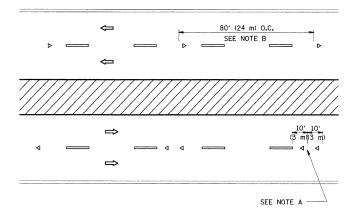




TWO-WAY LEFT TURN



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

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

#### SYMBOLS

- ---- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

#### DESIGN NOTES

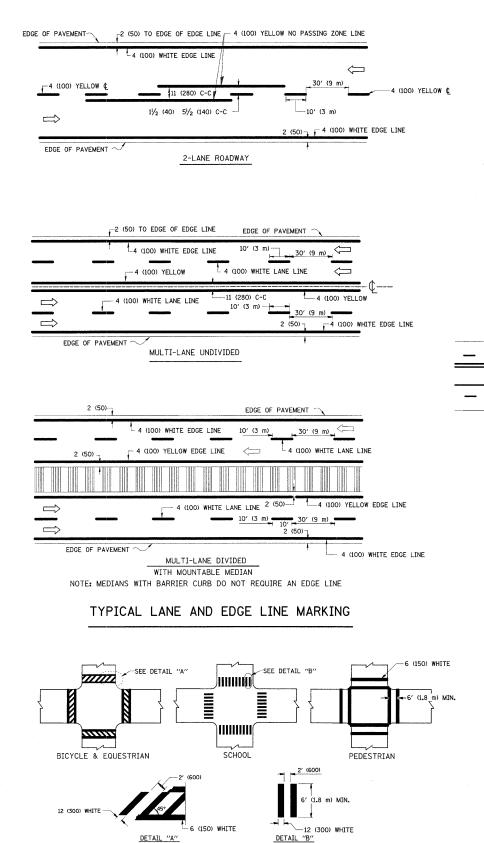
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- 4. MARKERS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

#### MINIMUM OF 3 W 3 @ 80' (24 m) O.C. — 3 @ 80' (24 m) O.C. EQUALLY SPACED 3 @ 40' (12 m) 3 @ 40' (12 m) 40′ (12 m) 0.C. 40' (12 m) O.C. \* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE \* \* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

FILE NAME =	USER NAME = ansaris	DESIGNED -	REVISED	- T. RAMMACHER 09-19-94	4		TVI	PICAL APPLI	CATIONS		F.A.U.	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\ansaris\d0137611\DistS	d.dgn	DRAWN -	REVISED	- T. RAMMACHER 03-12-99	STATE OF ILLINOIS						1376	3059A-RS-1	соок	20	15
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	-T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESIS		RESISTANT)		TC-11		T NO. 6	30G90		
	PLOT DATE = 4/16/2009	DATE -	REVISED	-	·	SCALE: NONE	SHEET NO. 1 OF	1 SHEETS	STA.	TO STA.	FED. ROAD D		AID PROJECT		



TYPICAL CROSSWALK MARKING

CHECKED

03-19-90

DATE

USER NAME = ansamis

PLOT DATE = 4/16/2009

PLOT SCALE = 50.0000 '/ IN.

FILE NAME =

2-4 (100) YELLOW @ 11 (280) C-C

NO DIAGONALS

4' (1.2 m) OUTSIDE TO OUTSIDE OF LINES

2-4 (100) YELLOW @ 11 (280) C-C

4' (1.2 m) WIDE MEDIANS ONLY

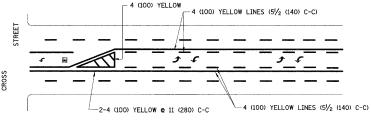
2-4 (100) e 11 (280) C-C
2-4 (100) e 11 (280) C-C

MEDIAN LENGTH

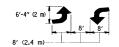
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING
CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

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

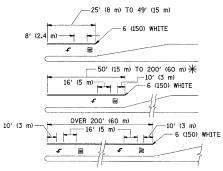


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

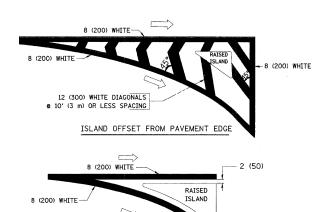


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup> )  $\P$  AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* 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 TURN LANE MARKING



#### TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

- 2 (50)

	T			
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 & 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>e</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE II (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' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	0 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA 0F: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
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) 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.

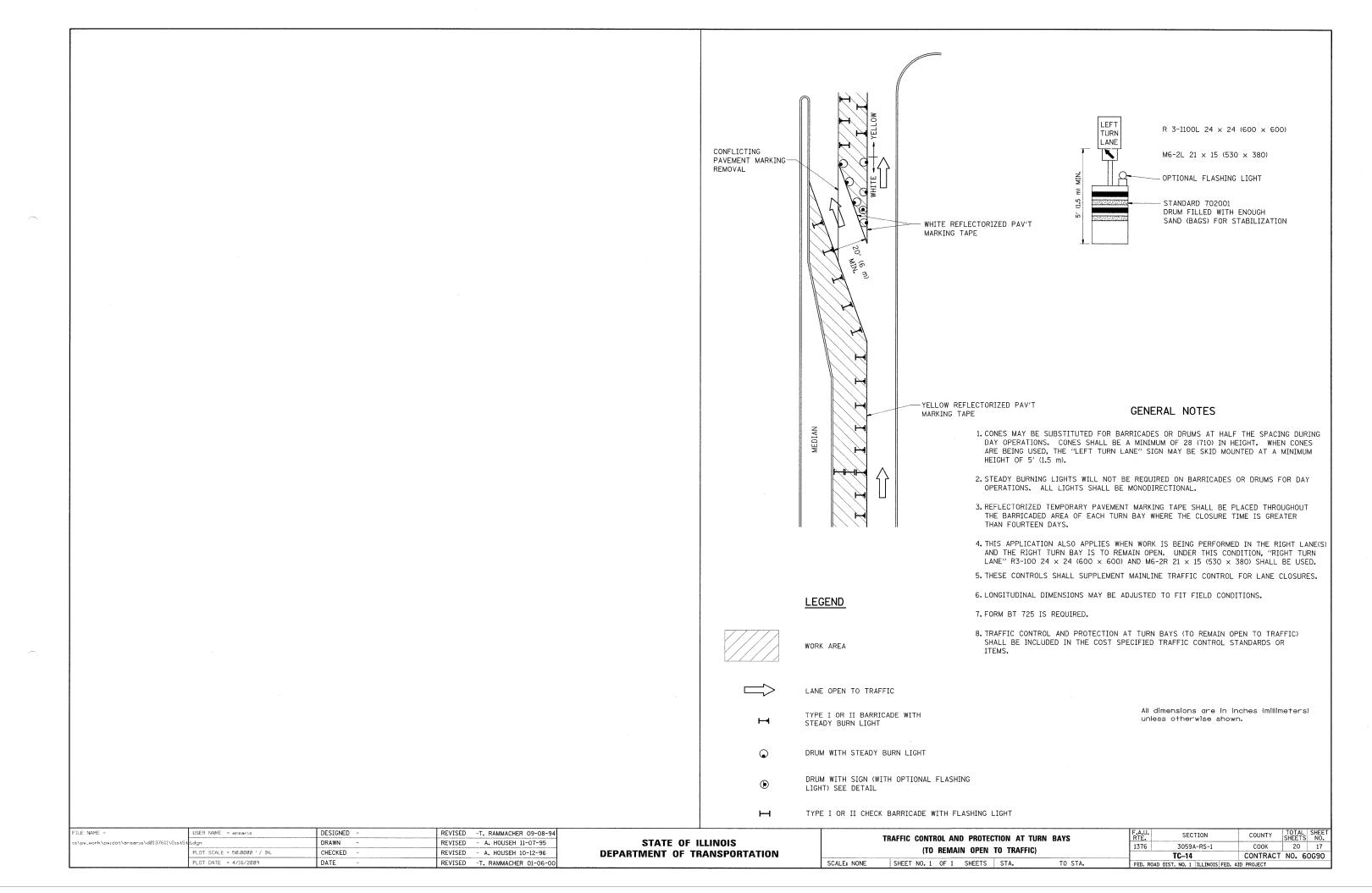
DESIGNED	-	EVERS	REVISED	-T.	RAMMACHER	10-27-94	
DRAWN	~		REVISED	- A_	HOUSEH 10-0	19-96	

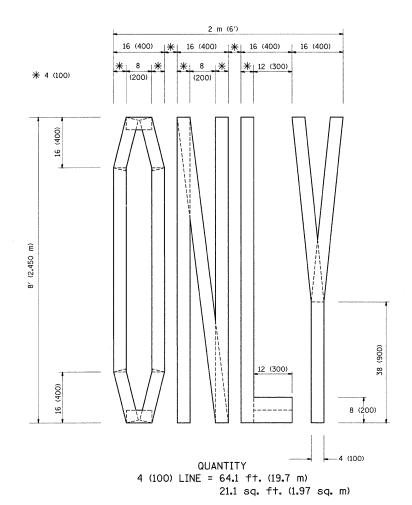
REVISED -A. HOUSEH 10-17-96

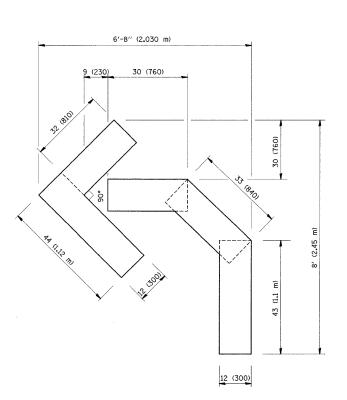
REVISED -T. RAMMACHER 01-06-00

STATE	: OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

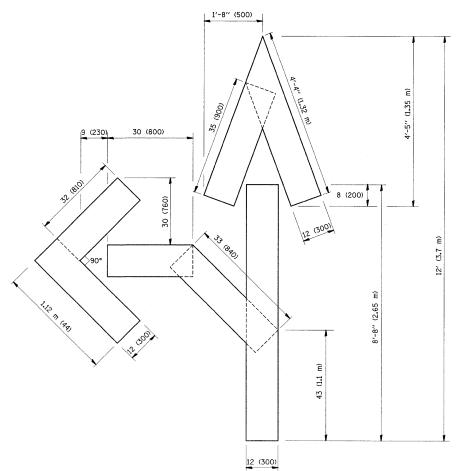
			DISTRICT OF	F.A.U. RTE.	SECTION	COUNTY TOTAL SHEETS		SHEET NO.		
-		TVDICAL	PAVEMENT	1376	3059A-RS-1	соок	20	16		
		TIFICAL	LWAFIAIFIAI	MARKINGS			TC-13	CONTRACT	NO. 6	0G90
_	SCALE: NONE	SHEET NO. 1 OF	1 SHEETS	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT			







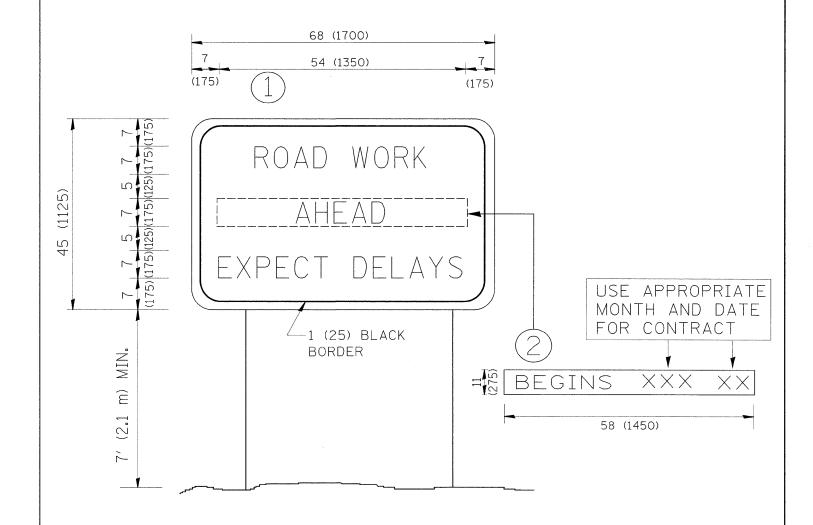
QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



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.

Г	FILE NAME =	USER NAME = ansarıs	DESIGNED -	REVISED	-T. RAMMACHER 06-05-96			PAVEMENT MARKING LETTERS AND SYMBOLS	F.	A.U. SECTION	CO	OUNTY TO	OTAL SHEE	
- 1	c:\pw_work\pwidot\ansaris\d0137611\DistSt	d.dgn	DRAWN -	REVISED	-T. RAMMACHER 11-04-97	STATE OF ILLINOIS			STATE OF ILLINOIS		376 3059A-RS-1		COOK	20 18
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED	-T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FOR TRAFFIC STAGING			TC-16		NTRACT N	10. 60G90	
L		PLOT DATE = 4/16/2009	DATE - 09-18-94	REVISED	-E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FI		FED. AID PROJE			



### 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.

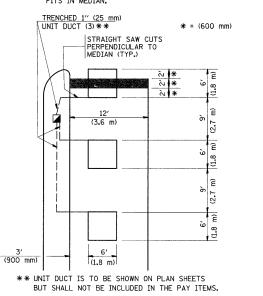
FILE NAME =	USER NAME = ansarıs	DESIGNED -	REVISED - R. MIRS 09-15-97	<u> </u>	ARTERIAL ROAD	F.A.U. SECTION	COUNTY TOTAL SHEET SHEETS NO.	
c:\pw_work\pwidot\ansaris\d0137611\DistS	dgn	gn DRAWN -	Divini	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	INFORMATION SIGN	1376 3059A-RS-1	COOK 20 19
	PLOT SCALE = 50,0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		TC-22	CONTRACT NO. 60G90	
	PLOT DATE = 4/16/2009	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE   SHEET NO. 1 OF 1 SHEETS   STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT	

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# 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-OUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.

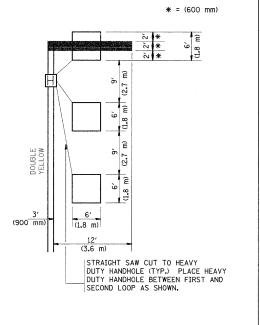


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

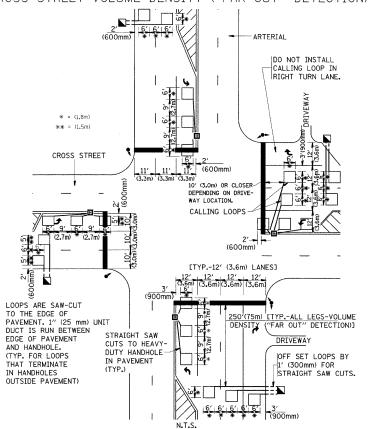


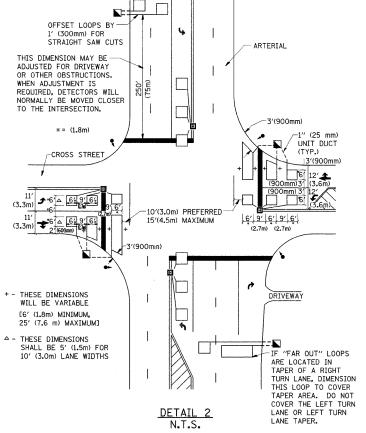
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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





#### NOTES:

#### VEHICLES LOOP DETECTORS

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

#### PLACEMENT OF DETECTORS

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

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

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

#### NOTE:

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

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

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DETAIL 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
DETAILS FOR ROADWAY RESURFACING				PEACING	1376	3059A-RS-1	соок	20	20
				TS-07		CONTRACT NO. 60G90			
	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST, NO. 1 ILLINOIS FED. AID PROJECT				