FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE VILLAGE OF GURNEE AND PARK CITY

ADT 46,100 (2007) SPEED LIMIT 45 MPH

0

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OMMISSIONS STA. 462 + 55 TO STA. 464 + 74 AND STA 532+47 TO 535+07

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

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

OR 811

PROJECT ENGINEER: REJENDRA C. SHAH (847) 705-4555 PROJECT MANAGER: CATHERINE KIBBLE (847) 705-4269

CONTRACT NO. 60F28

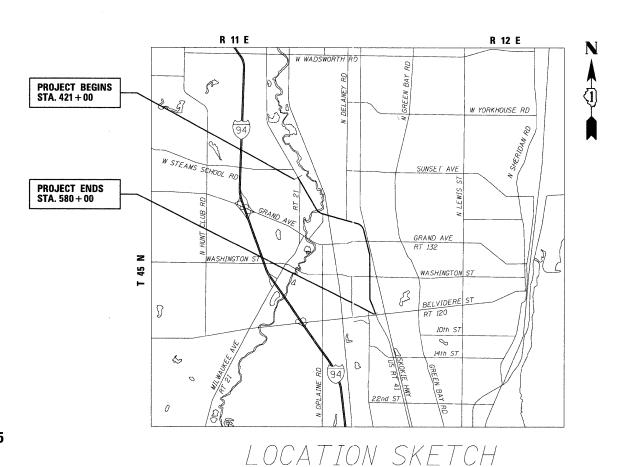
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.P. ROUTE 346 (SKOKIE HWY/US ROUTE 41) **SECTION:** (124 & 125) X-RS-5 WASHINGTON ST. TO IL ROUTE 21 **RESURFACING (3P)** LAKE COUNTY C-91-059-09



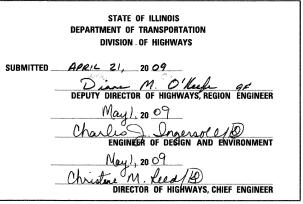
GROSS LENGTH OF PROJECT = 15,900' = 3.011 MI

NET LENGTH OF PROJECT = 15.421' = 2.920 MI

LAKE **25** 1 (124 & 125) X-RS-5 FED. ROAD DIST. NO. | ILLINOIS | CONTRACT NO. 60F28

D-91-059-09





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS





HEET NO.	<u>TITLE</u>
1	TITLE SHEET
2	GENERAL NOTES, INDEX OF SHEETS
3	SUMMARY OF QUANTITIES
4-5	EXISTING AND PROPOSED TYPICAL SECTIONS
6 - 11	ROADWAY AND PAVEMENT MARKING PLANS
12 - 13	DETECTOR LOOP PLANS
14	DETAILS FOR FRAME AND LIDS ADJUTMENT WITH MILLING
15	PAVEMENT PATCHING FOR HA SURFACED PAVEMENT
16	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
17	BUTT JOINT AND HMA TAPER DETAILS
18	TRAFFIC CONTROL AND PROTECTION FOR SIDES ROADS, INTERSECTIONS, AND DRIVEWAYS
19	TRYPICAL APPLICATIONS RAIS3ED REFLECTIVE PAVEMENT MARKIERS (SNOW-PLOW RESISTANT)
20	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
21	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
22	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
23	DRIVEWAY ENTRANCE SIGNING
24	ARTERIAL ROAD INFORMATION SIGN
25	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

STATE STANDARDS

STANDARD	NO. <u>DESCRIPTION</u>
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND UF A FOOT
424001-05	CURB RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
482011-03	HMA SHLD, STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
606306-03	CORRUGATED PC CONCRETE MEDIANS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) TO 24" (600MM) FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-02	OFF-RD OPERATIONS, MULT!LANE, 15' (4.5 M) TO 24" (600MM) FROM PAVEMENT EDGE
701106 - 02	OFF-RD OPERATIONS, MULT!LANE, MORE THAN 15' (4.5 M) AWAY
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS LESS THAN 45 MPH
701206-02	LANE CLOSURE, 2L, 2W, NICHT ONLY, FOR SPEEDS LESS THAN 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306 - 02	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS LESS THAN 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MO'/ING OPERATIONS-DAY ONLY
701336-05	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES, FOR SPEEDS LESS THAN 45 MPH
701426 - 03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS LESS THAN 45 MPH
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-06	URBAN LANE CLOSURE, MUL'ILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE MULTILANE IW OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
814001-02	HANDHOLES
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES WITHIN THE VILLAGES OF MERRIONETTE PARK & AND BLUE ISLAND.

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

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

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 PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL CONTACT THE DISTRICT ONE ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUN OF 72 HOURS PRIOR TO START OF WORK.

10 FEET (3 METERS) TRANSITION SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTERS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OR WORK SPECIFIED.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1'2INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND I INCH (25MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERNTIAL OF 3 INCHES (75MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

ı							
		DESIGNED	-	MJY	REVISED	**	
١			DRAWN	-	ST	REVISED	-
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222		CHECKED	-	MJY	REVISED	**	
l	NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	·	DATE		04/22/2009	REVISED	

STATI	E OI	ILI.INOIS
DEPARTMENT	0F	TRANSPORTATION

US ROUTE 41										
	GENERAL	NOTES, INDE	X OF	SHEETS						
SCALE: NONE	SHEET NO. 2 O	E 25 SHEETS	STA.	421+00 5 TO	STA. 580+00					

F.A.P. RTE.	SE	CTION		COUNTY	TOTAL SHEETS	SHEE NO.
346	(124 &	125) X-RS-5		LAKE	25	2
	D-91-05	9-09		CONTRACT	NO. 6	OF 28
CED DO	AD DIST NO	THE INOTE FED	410	DDAJEAT		

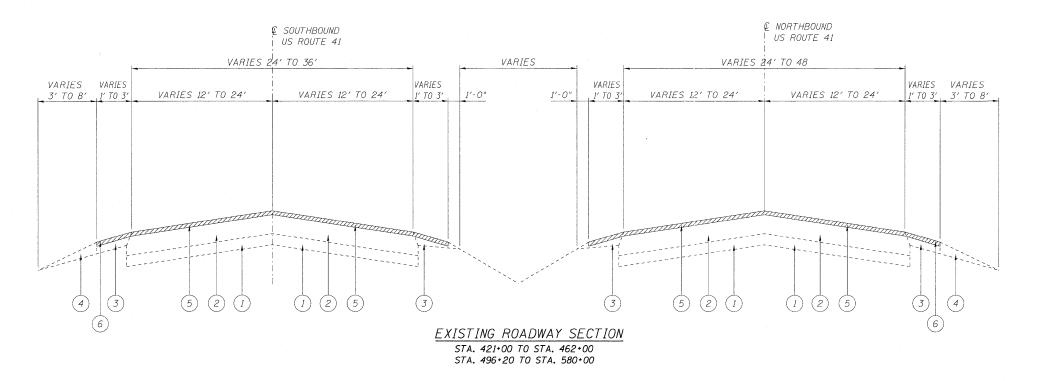
	SUMMARY OF QUANTITIES		<u>URBAN</u>	CONSTRUCTION TYPE CODE		SUMMARY OF QUANTITIES			CONSTRUCTION TYPE (
CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	1000 100% STATE	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	JOOO 100% STATE
0201006	GRADING AND SHAPING SHOULDERS	UNIT	260	260	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1684	1684
0600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	53	53	70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	2804	2804
0600300	AGGREGATE (PRIME COAT)	TON	261	261	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	864	864
600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	445	445	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	264	264
600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	8771	8771	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	39398	39398
601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	1212	1212	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	619	619
001300	PROTECTIVE COAT	SQ YD	1216	1216	78000300		COOT	104004	104004
000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	2734	2734	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	104024	104024
000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	119657	119657	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1684	1684
001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	6840	6840	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	2804	2804
002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	5983	5983	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	864	864
201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	4188	4188	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	264	264
201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	599	599	78100100 78300200	RAISED REFLECTIVE PAVEMENT MARKER RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	764	764
201771	CLASS D PATCHES, TYPE IV, 10 INCH	sa yb	1196	1196	88600600	DETECTOR LOOP REPLACEMENT	EACH FOOT	764 388	764
260100	INLETS TO BE ADJUSTED	EACH	2	2	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	437	388
100305	FRAMES AND LIDS TO BE ADJUSTED	,			X0322729				437
000400	ENGINEER'S FIELD OFFICE, TYPE A	EACH CAL MO	1 6	6		MATERIAL TRANSFER DEVICE	TON	14412	14412
100100	MOBILIZATION	L SUM	1	1	X0324685	TEST STRIP (STONE MATRIX ASPHALT)	EACH	1	1
02620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	X0656100	DRIVEWAY REMOVAL AND REPLACEMENT	SQ YD	468	468
02635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	X4066580	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80	TON	14412	14412
300100	SHORT - TERM PAVEMENT MARKING	FOOT	32955	32955	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	6604	6604
300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	619	619	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1
300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	104024	104024					
			/ - /						

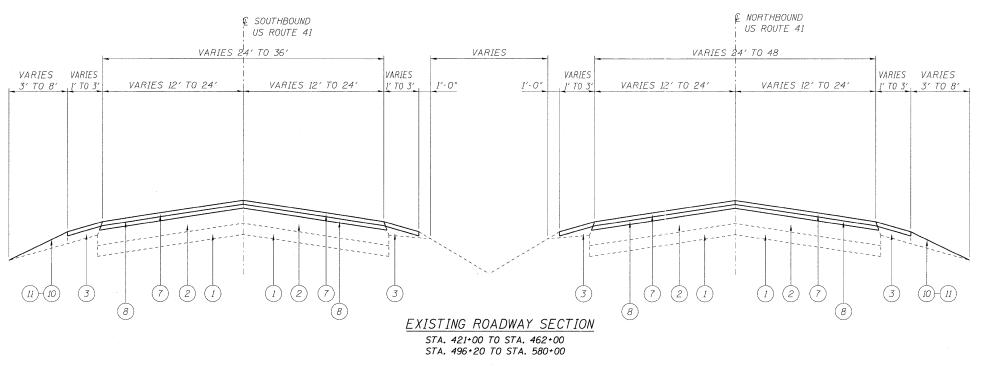
	DESIGNED -	MJY	,
	DRAWN -	ST	REVISED -
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	CHECKED -	MJY	REVISED -
NAPERVILLE, JLLINOIS 60563 PH: (630) 577-9100	DATE ~	04/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 US ROUTE 41 SUMMARY OF QUANTITIES												
SCALE: NONE	SHEET NO. 3 OF 25 SHEETS STA. 421+00 TO STA. 580+00											

F.A.F RTE.	A.P. SECTION					COUNTY	TOTAL SHEETS	SHEET NO.	
346		(124 & 125) X-RS-5					LAKE	25	3
D-91-059-09							CONTRACT	NO. 6	0F28
FED.	ROAD	DIST. N	o. I	LLINOIS	FED.	AID	PROJECT	***************************************	





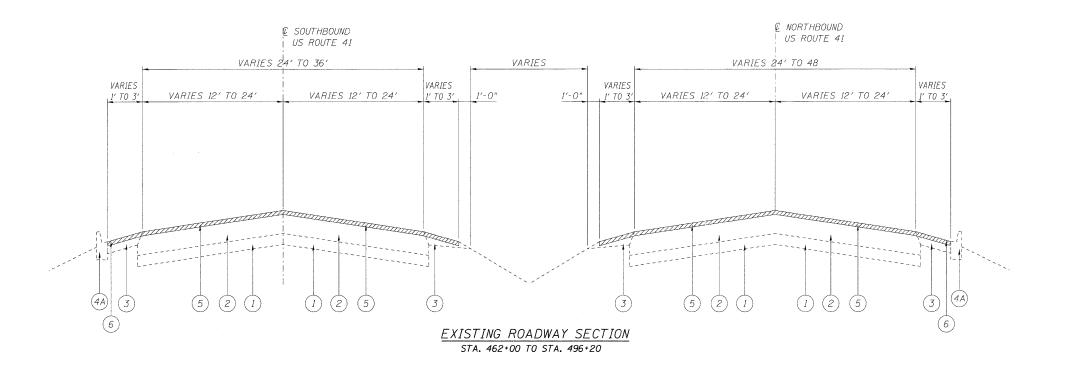
LEGEND

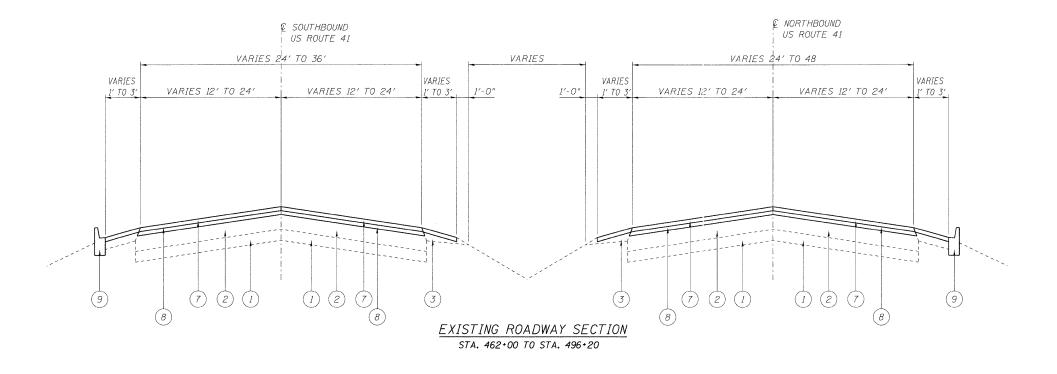
- 1) EXISTING PCC PAVEMENT
- (2) EXISTING HMA SURFACE OVERLAY AFTER MILLING
- (3) EXISTING BITUMINOUS SHOULDERS
- (4) EXISTING AGGREGATE SHOULDER
- (4A) EXISTING COMBINATION CONCRETE CURB AND GUTTER
- (5) PROPOSED HMA SURFACE REMOVAL, 21/2"
- (6) PROPOSED HMA SURFACE REMOVAL, 1/2"
- (7) PROPOSED POLYMERIZED HMA SURFACE COURSE, STONE MATRIX ASPHALT, N80
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD)
- (9) PROPOSED COMBINATION CONCRETE CURB AND GUTTER
- (10) PROPOSED AGGREGATE WEDGE SHOULDER
- 11) PROPOSED GRADING AND SHAPING SHOULDERS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS										
MIXTURE TYPE	AC/PG	DESIGN AIR VOIDS								
PROPOSED POLYMERIZED HMA SURFACE COURSE, STONE MATRIX ASPHALT, N80	SBS PG 76 28/-22	4% @ 80 GYR								
POLYMERIZED LEVELING BINDER (MACHINE METHOD). IL-4.75, N50	SBS-SBR PG 76-28/22	4% © 50 GYR								
CLASS D PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% © 70 GYR								
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% @ 70 GYR								

- NOTE:
 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 135 LBS/SQYD/IN AND LEVELING BINDER IS 112 LSB/SQYD/IN. *WHEN RAP EXCEEDS 20%.
- 2: THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING
- 3: WHEN SHOULDER WIDENS GREATER THAN 4', SURFACE REMOVAL AND REPLACEMENT WILL COVER WIDTH OF SHOULDER

		DESIGNED - MJY DRAWN - ST	REVISED -	STATE OF ILLINOIS	US ROUTE		F.A.P. RTE.	SECTION (124 & 125) X-RS-5	COUNTY	TOTAL SHEET SHEETS NO.
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222		CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			C-91-059-09	CONTRAC	CT NO. 60F28
NAPERVILLE, ILLINOIS 60563 PH: (630)	7-9100	DATE - 04/22/2009	REVISED -		SCALE: NONE SHEET NO. 4 OF 25 SHEETS	STA. 421+00 TO STA. 580+00	FED, ROA	AD DIST. NO. ILLINOIS FED. /	AID PROJECT	

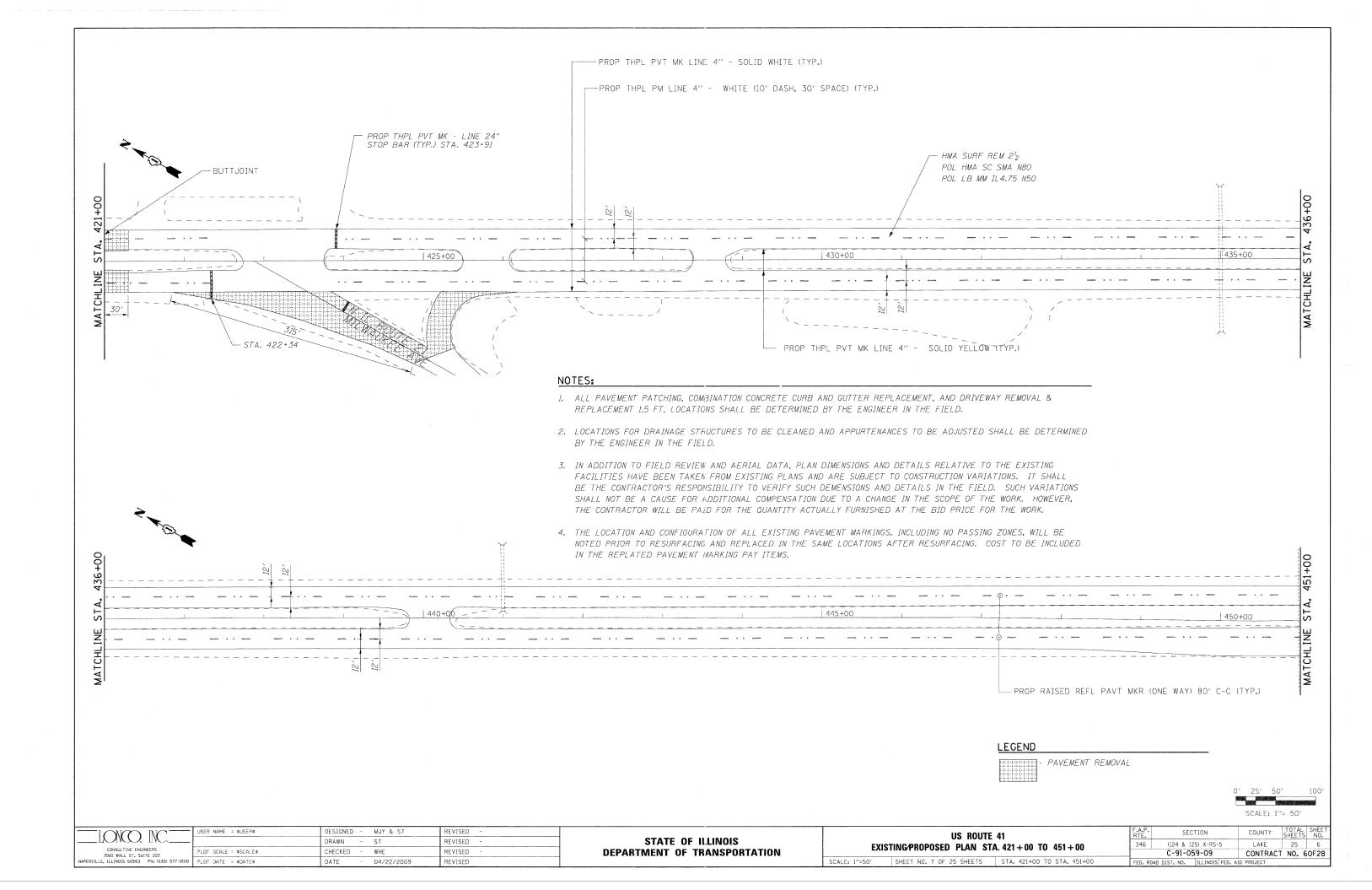


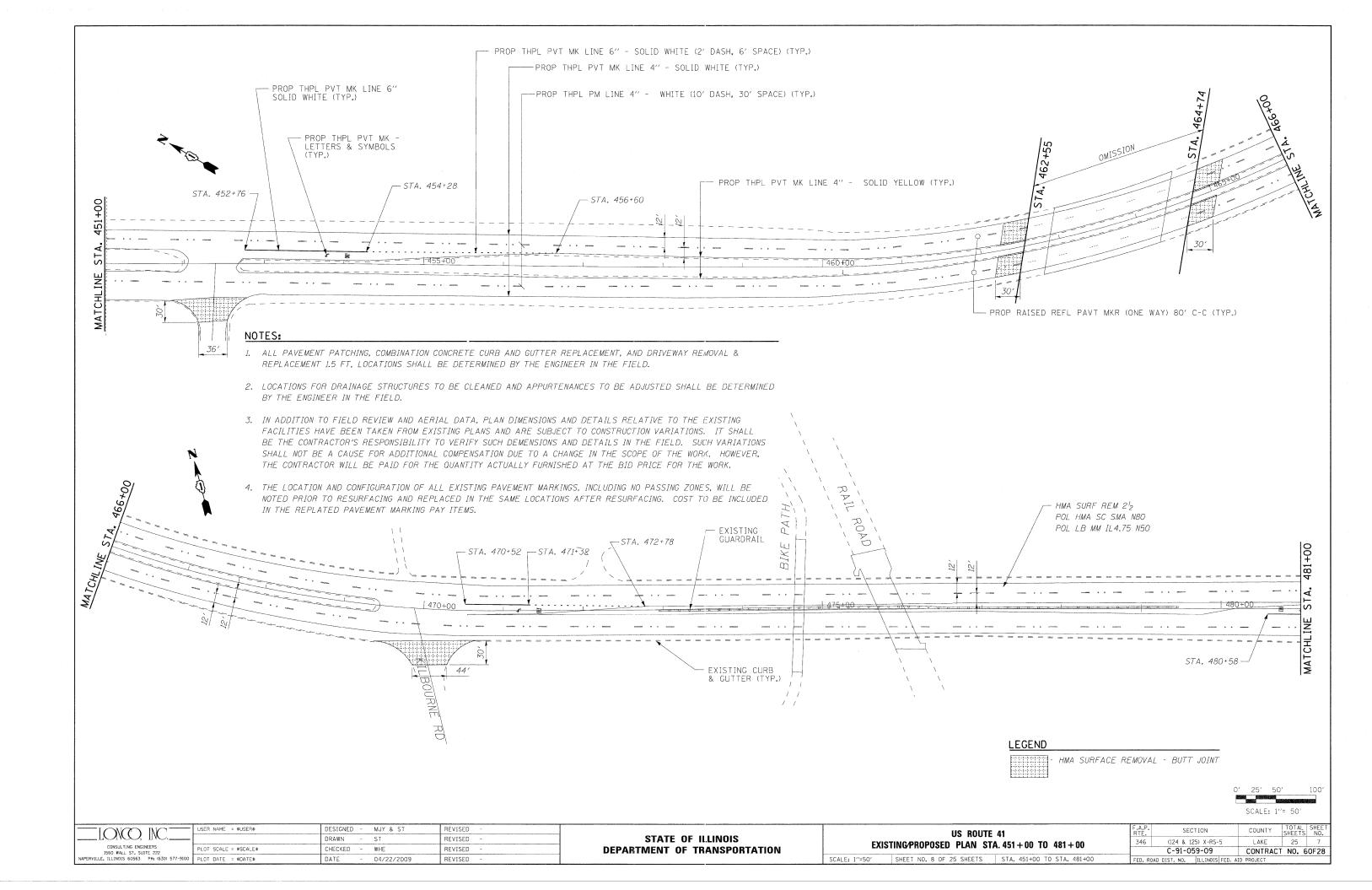


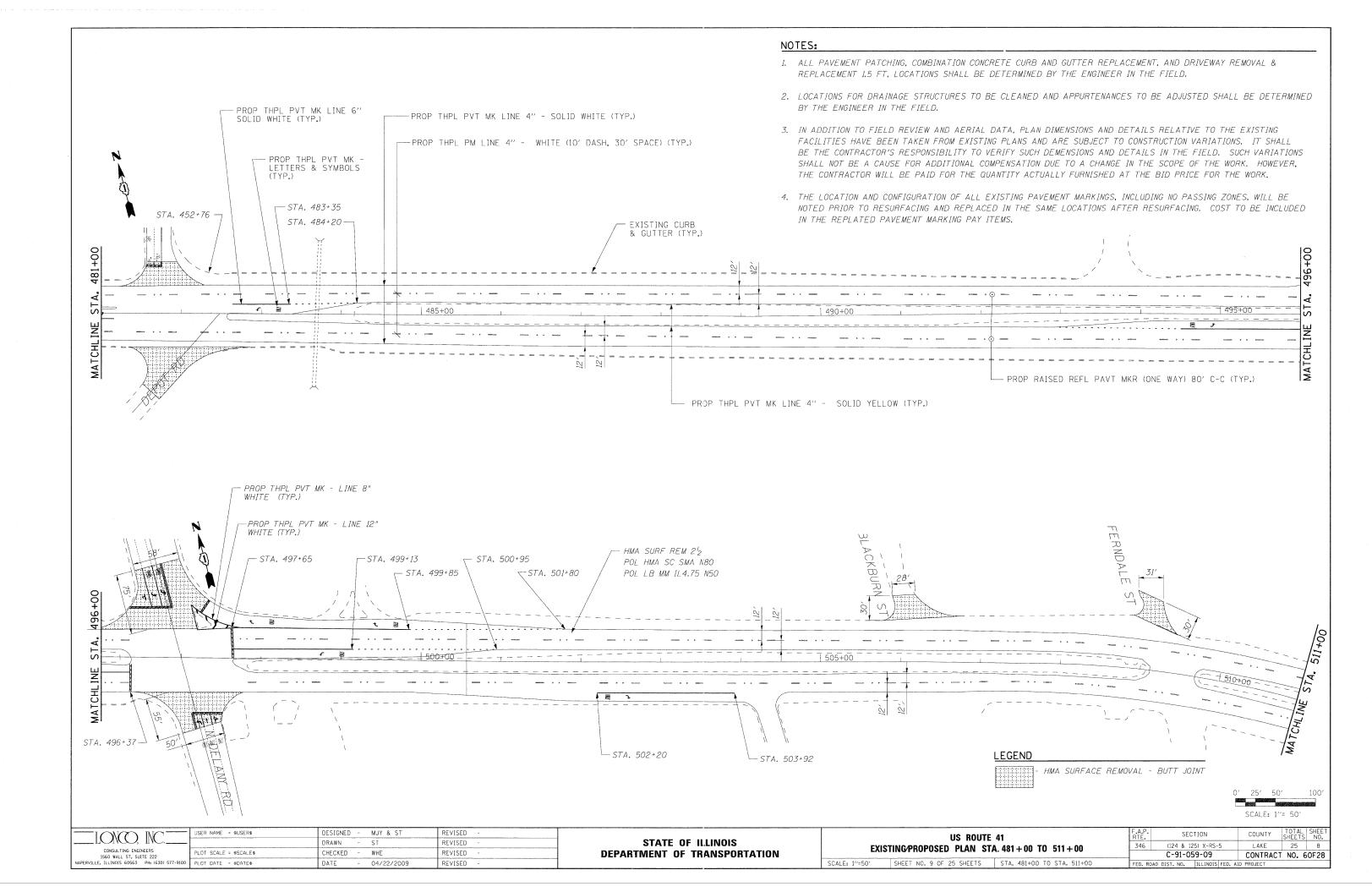
LEGEND

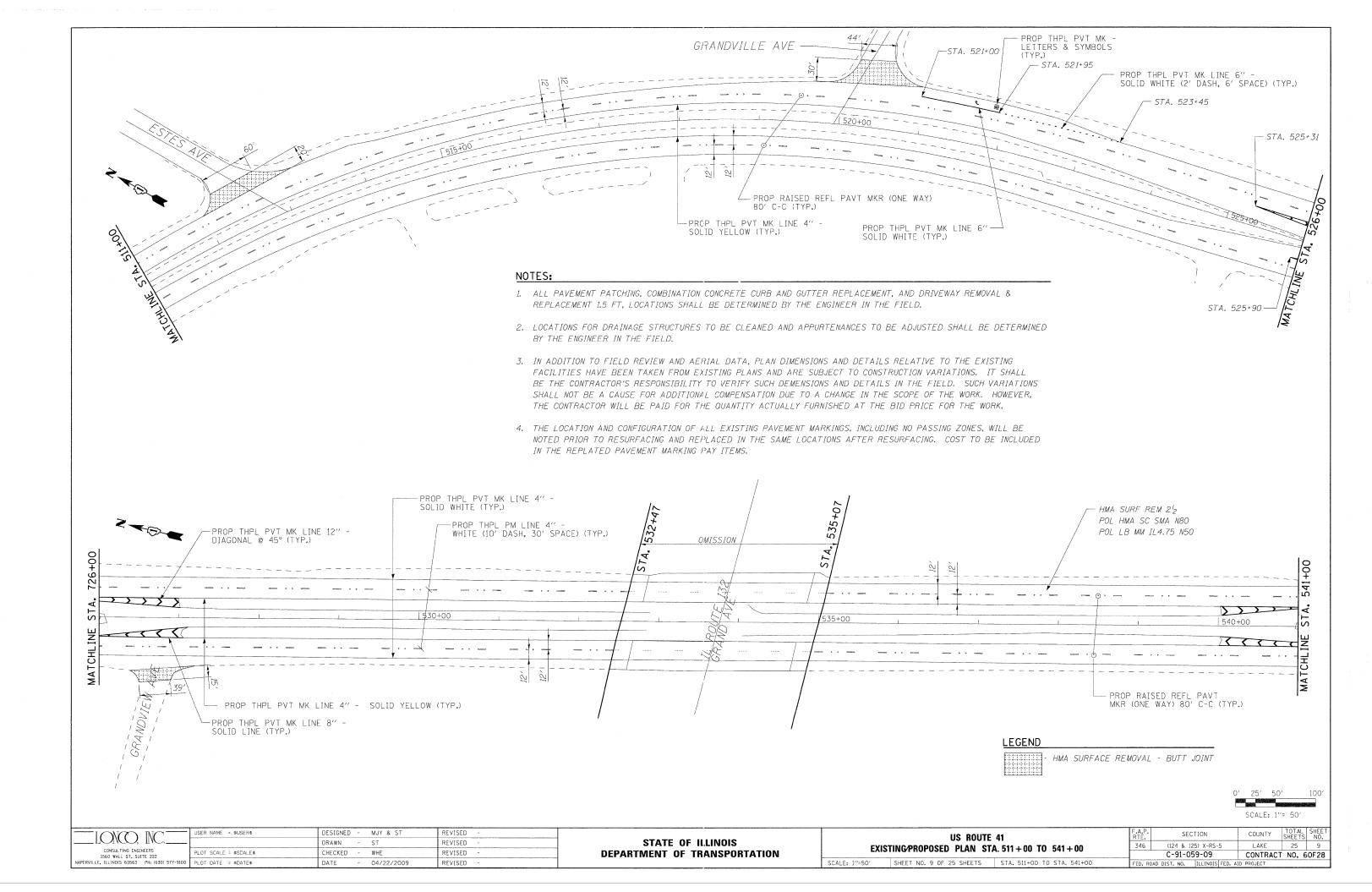
- 1) EXISTING PCC PAVEMENT
- 2 EXISTING HMA SURFACE OVERLAY AFTER MILLING
- (3) EXISTING BITUMINOUS SHOULDERS
- (4) EXISTING AGGREGATE SHOULDER
- (4A) EXISTING COMBINATION CONCRETE CURB AND GUTTER
- 5) PROPOSED HMA SURFACE REMOVAL, 2'2"
- 6 PROPOSED HMA SURFACE REMOVAL, $1_2''$
- 7 PROPOSED POLYMERIZED HMA SURFACE COURSE, STONE
 MATRIX ASPHALT, NBO
- (8) PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD)
 N50, 34"
- (9) PROPOSED COMBINATION CONCRETE CURB AND GUTTER
- 10) PROPOSED AGGREGATE WEDGE SHOULDER
- (11) PROPOSED GRADING AND SHAPING SHOULDERS

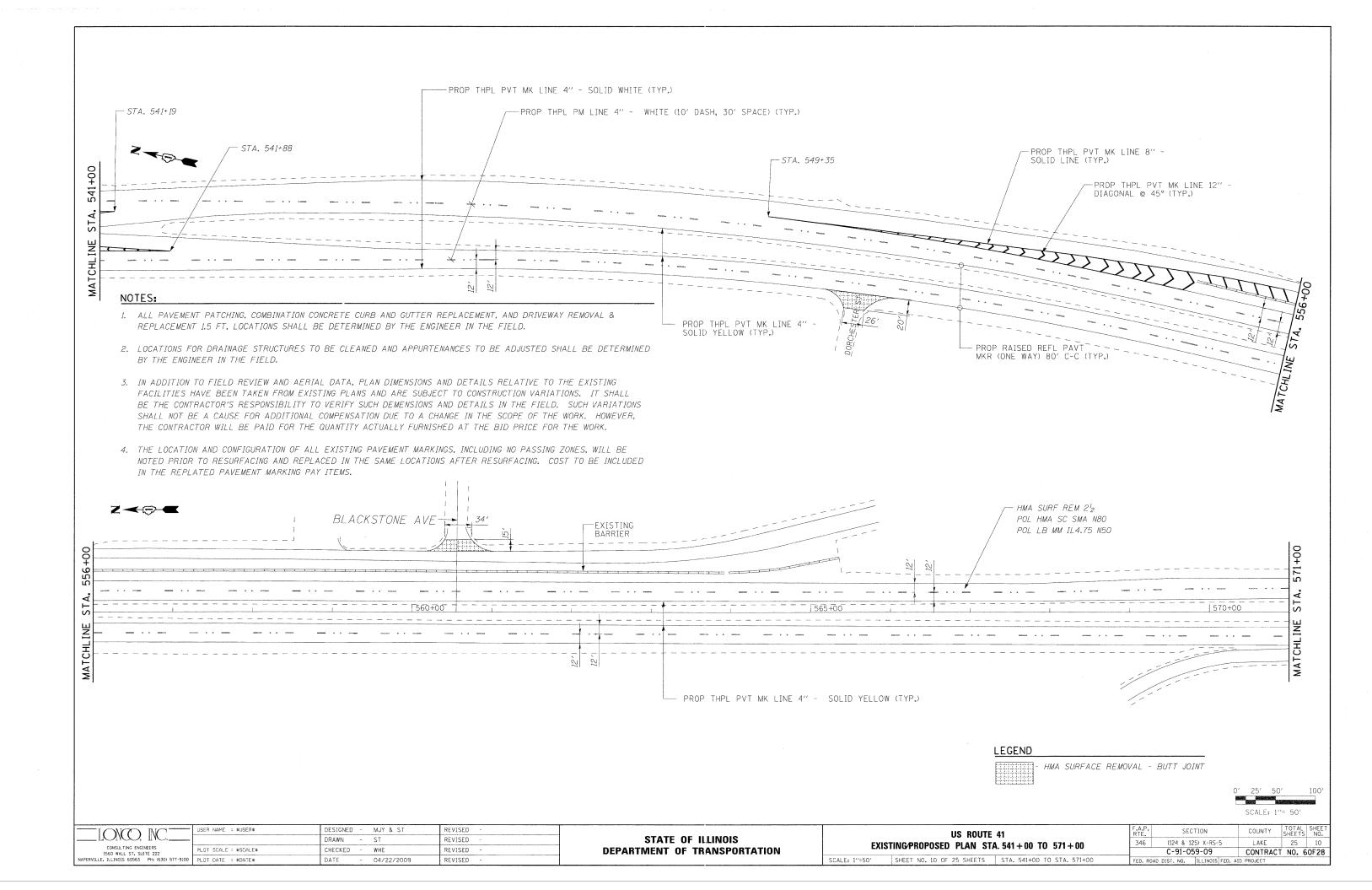
	DESIGNED - MJY			US ROUTE 41	F.A.P. SECTION	COUNTY TOTAL S
	DRAWN - ST	REVISED -	STATE OF ILLINOIS	TYPICAL SECTIONS	346 (124 & 125) X-RS-5	LAKE 25
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	ITPICAL SECTIONS	C-91-059-09	CONTRACT NO. 60
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	DATE - 04/22/2009	REVISED -		SCALE: NONE SHEET NO. 5 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. ROAD DIST. NO. ILLINOIS FED. A	ID PROJECT

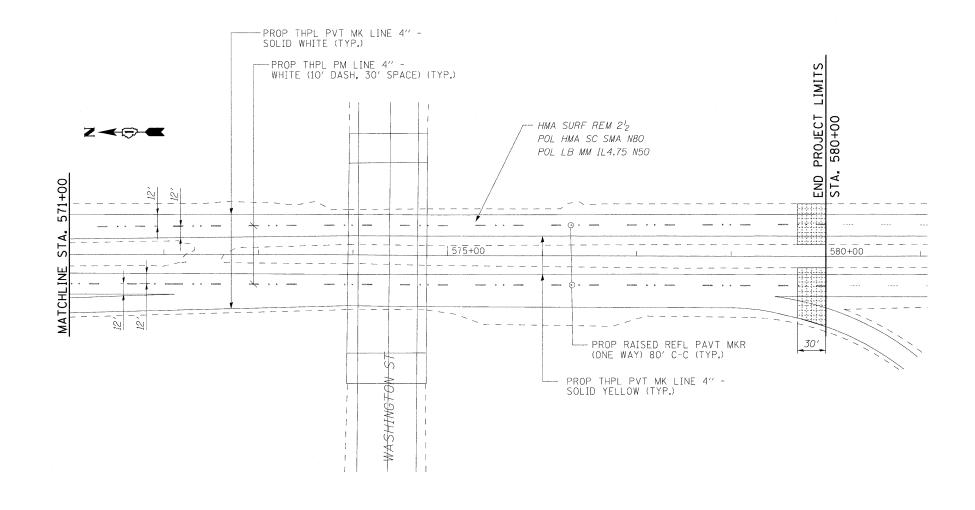












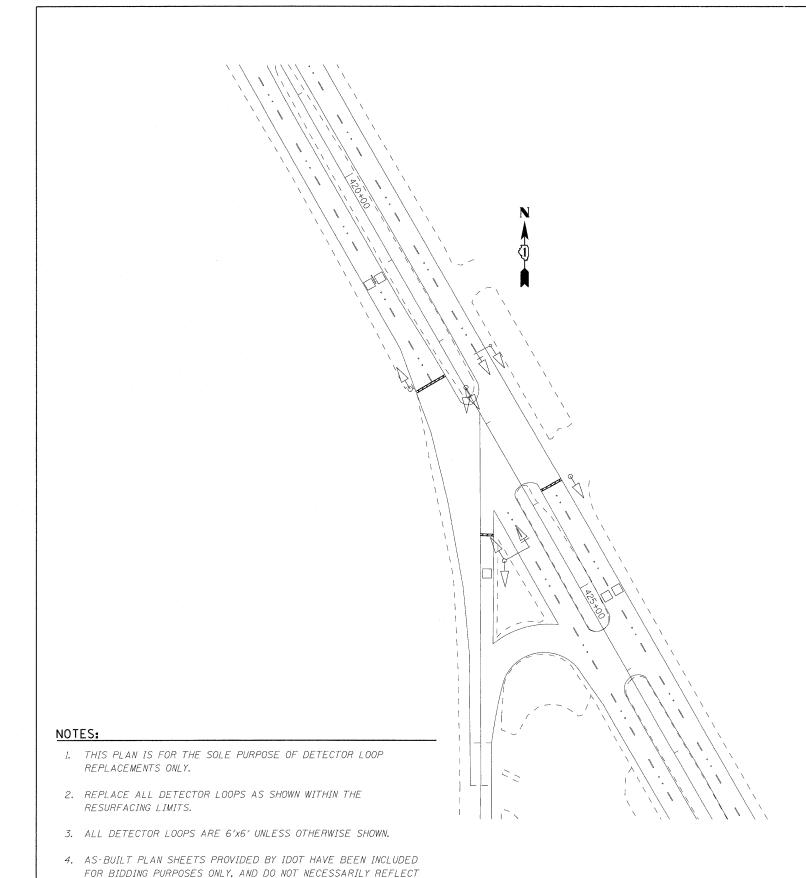
- 1. ALL PAVEMENT PATCHING, COMBINATION CONCRETE CURB AND GUTTER REPLACEMENT, AND DRIVEWAY REMOVAL & REPLACEMENT 1.5 FT, LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 2. LOCATIONS FOR DRAINAGE STRUCTURES TO BE CLEANED AND APPURTENANCES TO BE ADJUSTED SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 3. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DEMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.
- 4. THE LOCATION AND CONFIGURATION OF ALL EXISTING PAVEMENT MARKINGS, INCLUDING NO PASSING ZONES, WILL BE NOTED PRIOR TO RESURFACING AND REPLACED IN THE SAME LOCATIONS AFTER RESURFACING, COST TO BE INCLUDED IN THE REPLATED PAVEMENT MARKING PAY ITEMS.

LEGEND

- HMA SURFACE REMOVAL - BUTT JOINT

0′ 25′ 50′ 100′ SCALE: 1″= 50′

	USER NAME = \$USER\$	DESIGNED - MJY & ST	REVISED -		US ROUTE 41	F.A.P. SECTION	COUNTY TOTAL SHEET NO.
CONSULTING ENGINEERS	DIOT COME ACCOUNT	DRAWN - ST	REVISED -	STATE OF ILLINOIS	EXISTING/PROPOSED PLAN STA. 571 + 00 TO 581 + 00	346 (124 & 125) X~RS~5	LAKE 25 11
1560 WALL ST, SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -	DEPARTMENT OF TRANSPORTATION	SCALE: 1"=50" SHEET NO. 11 OF 25 SHEETS STA. 571+00 TO STA. 581+00	C-91-059-09 FED. ROAD DIST. NO. ILLINOIS FED. A	CONTRACT NO. 60F28 ID PROJECT



TRAFFIC SIGNAL LEGEND

PROPOSED EXISTING

DETECTOR LOOP

SIGNAL HEAD

G.S. CONDUIT IN TRENCH OR PUSHED ---
SIGNAL HEAD WITH BACKPLATE

RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II

WEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE

THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN
(WITHIN THE RESURFACING LIMITS)



USER NAME = SUSERS DESIGNED - MJY & ST REVISED
CONSULTING ENGINEERS PLOT SCALE = SSCALES CHECKED - WHE REVISED
APERVILLE, ILLINGS 60953 PH, 6509 | 577-9100 PLOT DATE = SDATES DATE - 04/22/2009 REVISED -

ACTUAL FIELD CONDITIONS. PROPOSED DETECTOR LOOPS SHALL BE

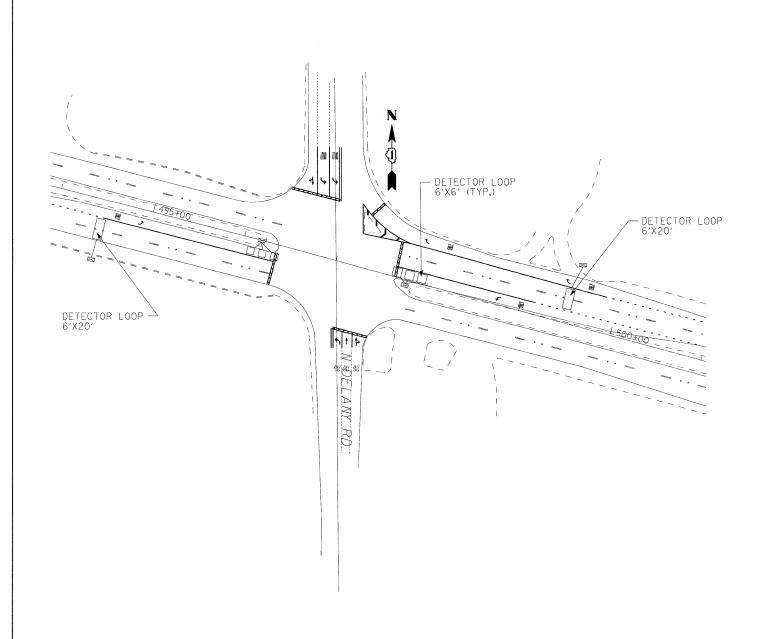
AS DIRECTED BY THE ENGINEER.

REPLACED AT ALL EXISTING LOCATIONS WITHIN THE PROJECT LIMITS, IN ACCORDANCE WITH STANDARD TS-07, SPECIAL PROVISIONS, AND

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US ROUTE 41
DETECTOR LOOP PLAN - MILWAUKEE AVE INTERSECTION

SCALE: 1"=50" SHEET NO. 12 OF 25 SHEETS STA. 421+00 TO STA. 580+00



- 1. THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY.
- 2. REPLACE ALL DETECTOR LOOPS AS SHOWN WITHIN THE RESURFACING LIMITS.
- 3. ALL DETECTOR LOOPS ARE 6'x6' UNLESS OTHERWISE SHOWN.
- 4. AS-BUILT PLAN SHEETS PROVIDED BY IDOT HAVE BEEN INCLUDED FOR BIDDING PURPOSES ONLY, AND DO NOT NECESSARILY REFLECT ACTUAL FIELD CONDITIONS. PROPOSED DETECTOR LOOPS SHALL BE REPLACED AT ALL EXISTING LOCATIONS WITHIN THE PROJECT LIMITS, IN ACCORDANCE WITH STANDARD TS-07, SPECIAL PROVISIONS, AND AS DIRECTED BY THE ENGINEER.

TRAFFIC SIGNAL LEGEND

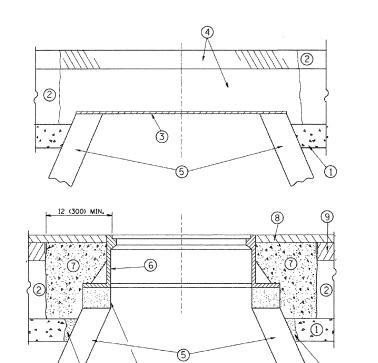
	<u>PROPOSED</u>	<u>EXISTING</u>
DETECTOR LOOP		<u> </u>
SIGNAL HEAD		\longrightarrow
G.S. CONDUIT IN TRENCH OR PUSHED)	
SIGNAL HEAD WITH BACKPLATE		$+\triangleright$
RACEWAY FOR MAGNETIC DETECTOR,	TYPE I OR II	nE n
VEHICLE DETECTOR, NON-COMPENSA	TED MAGNETIC TYPE	-

THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)



	USER NAME = \$USER\$	DESIGNED - MJY & ST	REVISED -		US ROUTE 41	F.A.P. SECTION	COUNTY TOTAL SHEET SHEETS NO.
		DRAWN - ST	REVISED -	STATE OF ILLINOIS	DETECTOR LOOP PLAN - DELANY RD INTERSECTION	346 (124 & 125) X-RS-5	LAKE 25 13
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - WHE	REVISED -	DEPARTMENT OF TRANSPORTATION	DETECTOR FOR LEVIN - DEFENT UP HATERSECTION	C-91-059-09	CONTRACT NO. 60F28
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -		SCALE: 1"=50" SHEET NO. 13 OF 25 SHEETS STA. 451+00 TO STA. 580+00	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT



PROPOSED

BRICK, MORTAR, OR CONC.

NOTES:

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 109.09 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

PROPOSED SAND FILL

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

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

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

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

LEGEND

1 SUB-BASE GRANULAR MATERIAL

PROPOSED SAND FILL

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

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.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS

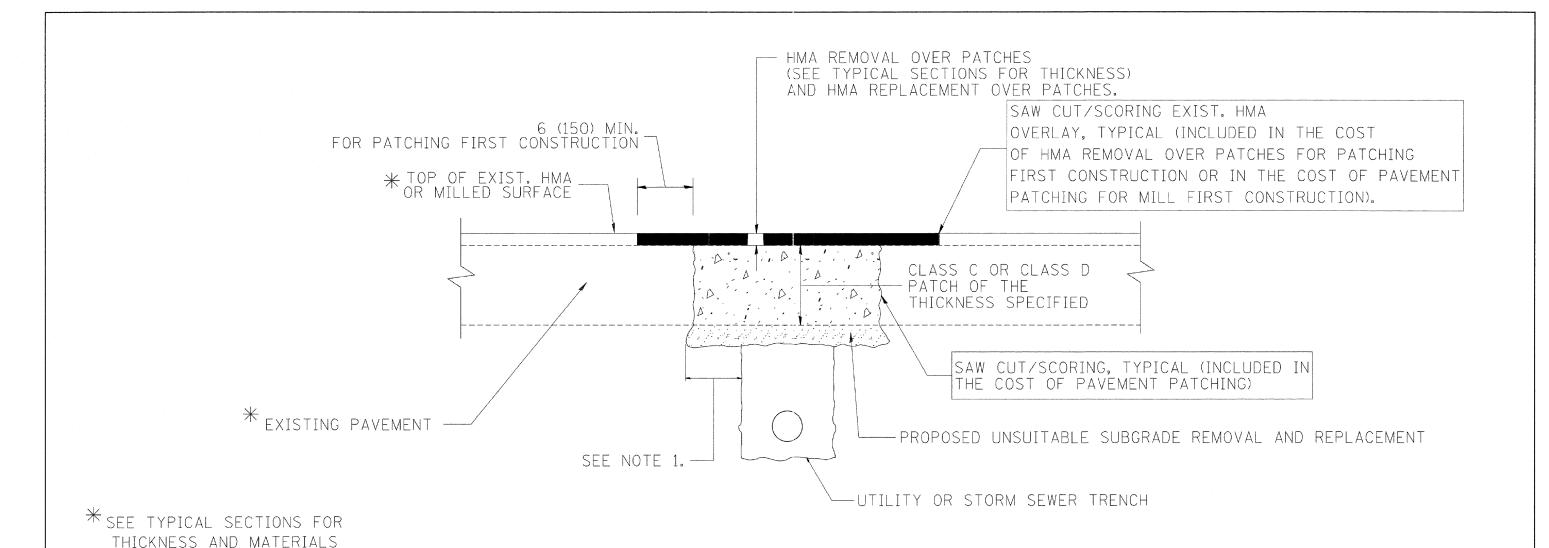
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

	USER NAME = \$USER\$	DESIGNED - MJY	
		DRAWN - RJG	REVISED -
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -
NAPERVILLE, ILLINOIS 60563 PH; (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

US ROUTE 41 DISTRICT ONE DETAILS SHEETS SHEET NO. 14 OF 25 SHEETS STA. 421+00 TO STA. 580+00

SECTION COUNTY TOTAL SHEE C-91-059-09 CONTRACT NO. 60F28



- 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.

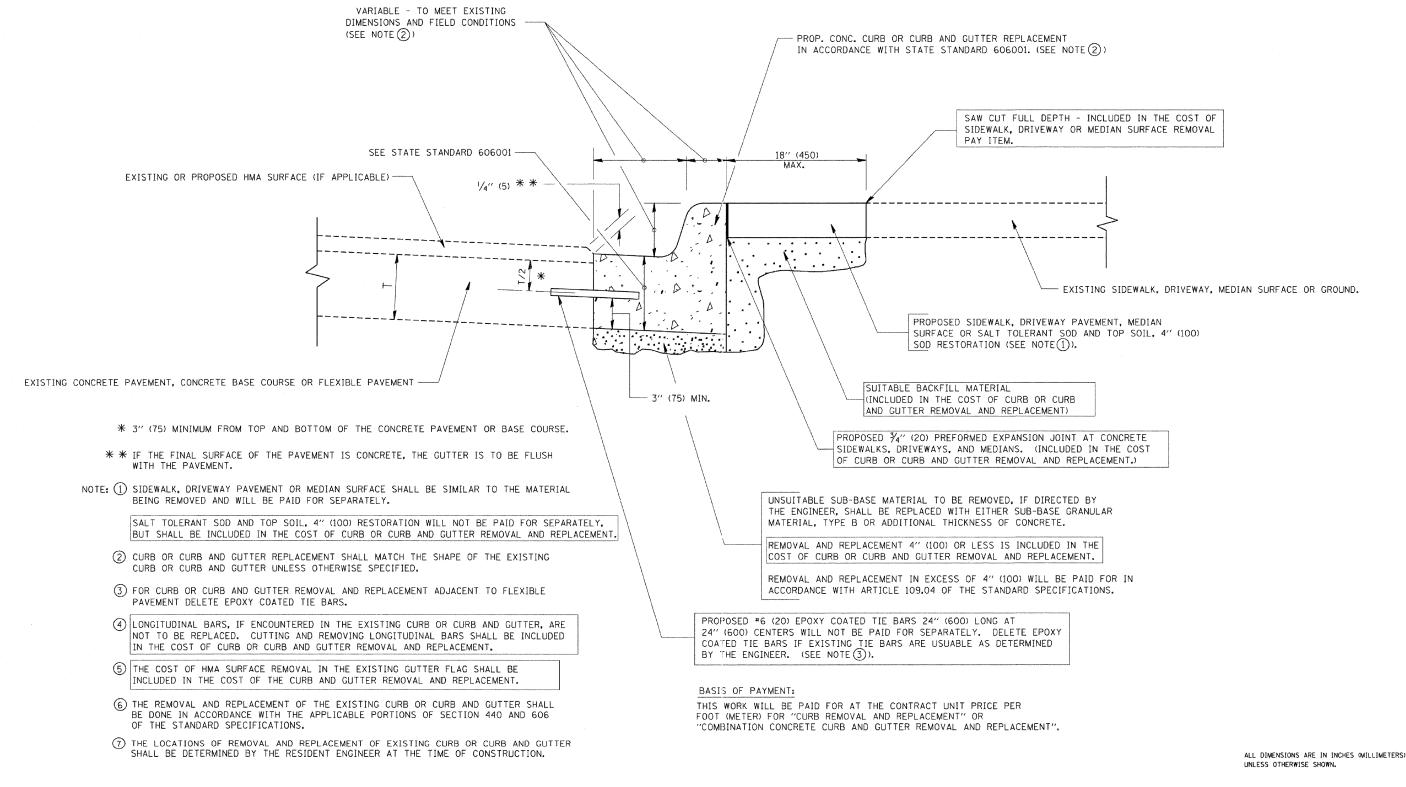
SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 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.

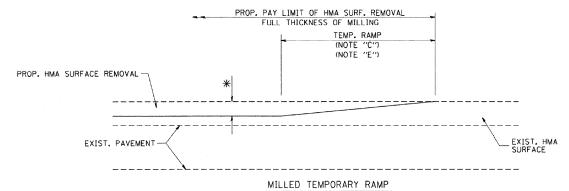
PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

I		USER NAME = \$USER\$	DESIGNED - MJY			US ROUTE 41	F.A.P.	SECTION	COUNTY	TOTAL SHEET
I			DRAWN - RJG	REVISED -	STATE OF ILLINOIS	DISTRICT ONE DETAILS SHEETS	346	(124 & 125) X-RS-5	LAKE	25 15
1	CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED ~ MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	DISTRICT ONE DETAILS SUEETS	1	C-91-059-09	CONTRACT	T NO. 60F28
	NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -		SCALE: NONE SHEET NO. 15 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. ROAD D		AID PROJECT	



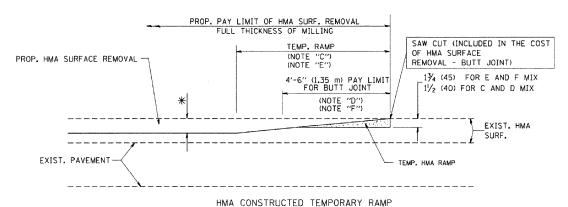
CURB OR CURB AND GUTTER REMOVAL AND REPACEMENT

COUNTY TOTAL SHEE SECTION US ROUTE 41 RJG REVISED STATE OF ILLINOIS ORAWN (124 & 125) X-RS-5 LAKE DISTRICT ONE DETAILS SHEETS CONSULTING ENGINEERS 1560 WALL ST. SUITE 222 ILLINOIS 60563 PH: (630) 577-9100 PLOT SCALE = \$SCALE\$ CHECKED MJY REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 60F28 C-91-059-09 04/22/2009 SHEET NO. 16 OF 25 SHEETS STA. 421+00 TO STA. 580+00 PLOT DATE = \$DATE\$ REVISED DATE FED. ROAD DIST, NO. ILLINOIS FED. AID PROJECT



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

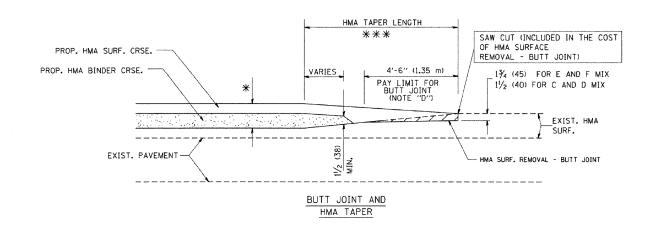
OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

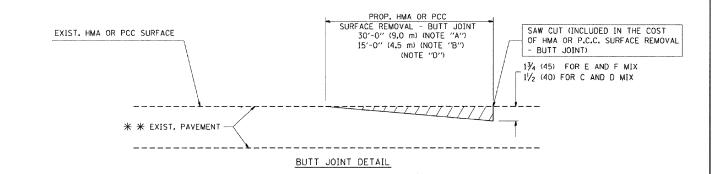
OPTION 2

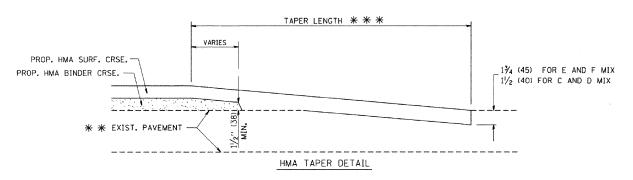
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

BUTT JOINT AND HMA TAPER DETAILS





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")

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

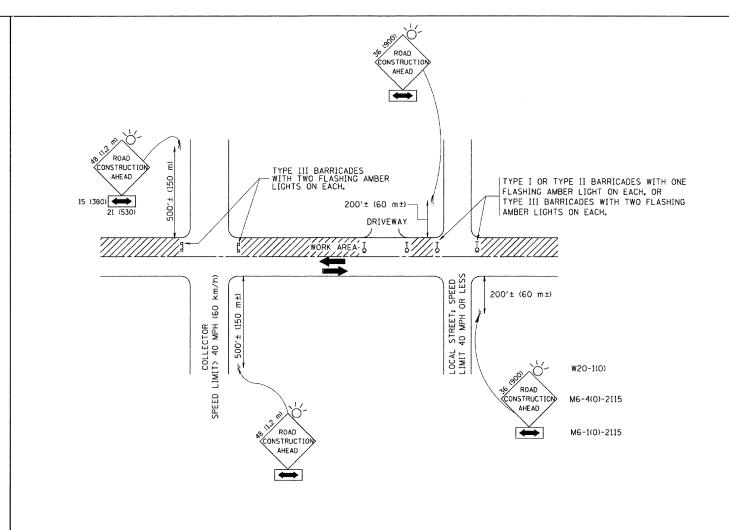
BASIS OF PAYMENT:

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

	USER NAME = \$USER\$	DESIGNED - MJY		
		DRAWN - RJG	REVISED -	
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLDT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEP
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -	

STATE	0F	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

US ROUTE 41	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DISTRICT ONE DETAILS SHEETS	346	(124 & 125) X-RS-5	LAKE	25	17
DIOTHIOT ONE DETAILS SHELTS		C-91-059-09	CONTRACT	NO. 6	OF28
HEET NO. 17 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. RO	AD DIST. NO. ILLINOIS FED. A	ID PROJECT		



- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 × 36 (900×900) 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:
- o) 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.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

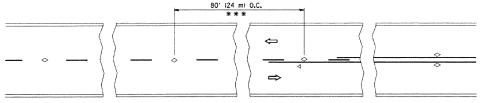
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

	USER NAME = \$USER\$	DESIGNED - MJY	
		DRAWN - RJG	REVISED -
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -
NAPERVILLE, ILLINOIS 60563 PH; (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

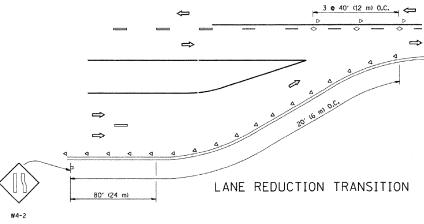
US ROUTE 41
DISTRICT ONE DETAILS SHEETS

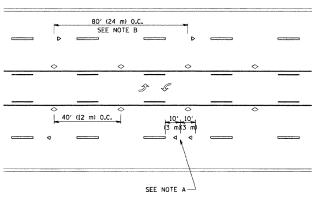
SHEET NO. 18 OF 25 SHEETS STA. 421+00 TO STA. 580+00



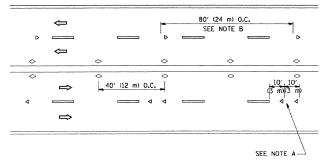
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

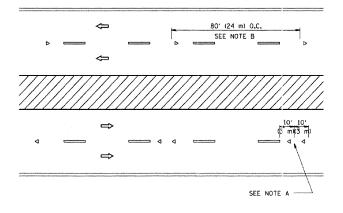




TWO-WAY LEFT TURN



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.
- 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

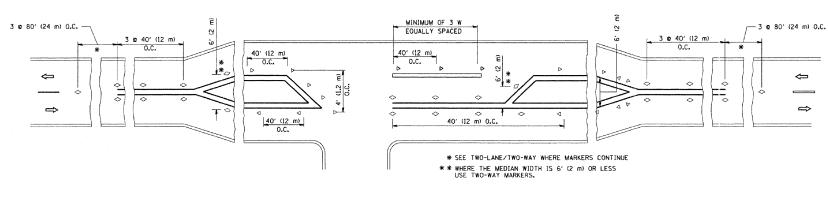
WHITE STRIPE

- 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.

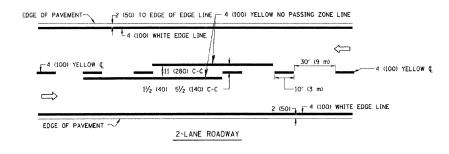
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF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

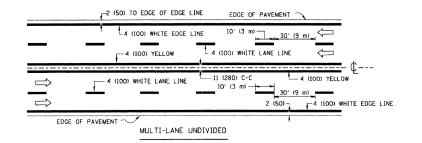


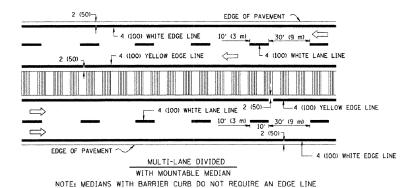
LEFT TURN

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

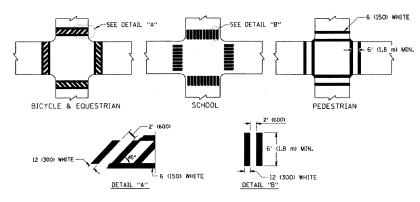
	USER NAME = \$USER\$	DESIGNED - MJY			US ROUTE 41	F.A.P. SECTION	COUNTY TOTAL SHEET SHEETS NO.
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS	DISTRICT ONE DETAILS SHEETS	346 (124 & 125) X-RS-	5 LAKE 25 19
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	DISTRICT ONL DEFAILS SHELTS	C-91-059-09	CONTRACT NO. 60F28
NAPERVILLE, ILLINOIS 60563 PHz (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -		SCALE: NONE SHEET NO. 19 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. ROAD DIST. NO. ILLINOIS	ED. AID PROJECT



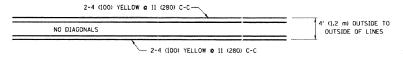




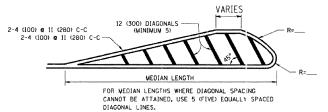
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

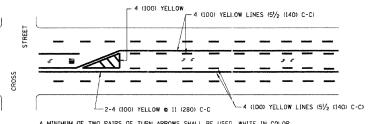


4' (1.2 m) WIDE MEDIANS ONLY

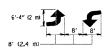


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

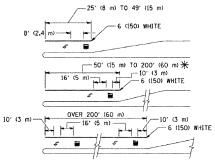


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



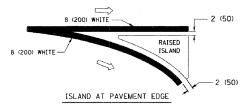
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SO. FT. (1.5 m²)) \P AREA = 20.8 SO. FT. (1.9 m²)

* 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

8 (200) WHITE 12 (300) WHITE DIAGONALS 10 (3 m) OR LESS SPACING ISLAND OFFSET FROM PAVEMENT EDGE



TYPICAL ISLAND MARKING

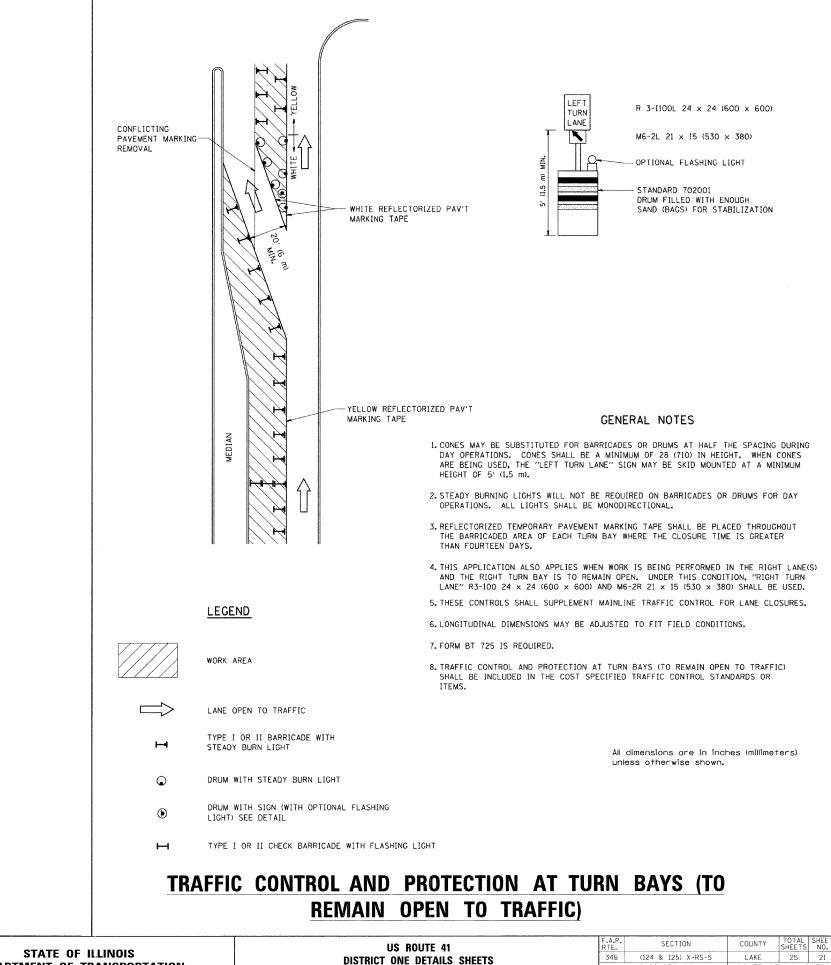
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 2 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' (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	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	o 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 OF: "R"33.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) & 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))

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

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

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

	USER NAME = \$USER\$	DESIGNED -	MJY			US ROUTE 41 DISTRICT ONE DETAILS SHEETS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222 NAPERVILLE, ILLINOIS 60563 PH (630) 577-9100		DRAWN - RJG	RJG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SC.				346	(124 & 125) X-RS-5	LAKE	25 20
	PLOT SCALE = \$SCALE\$	CHECKED -	MJY	REVISED -						C-91-059-09	CONTRAC	CT NO. 60F28
	PLOT DATE = \$DATE\$	DATE -	04/22/2009	REVISED -		SCALE: NONE	SHEET NO. 20 OF 25 SHEETS	STA. 421+00 TO STA. 580+00	FED. RO	AD DIST. NO. ILLINOIS FED. A	ID PROJECT	

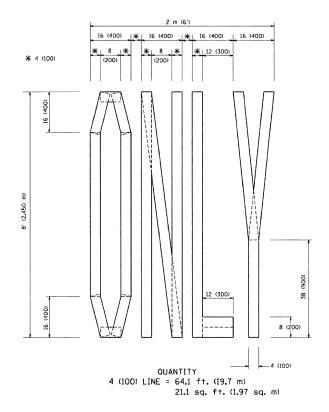


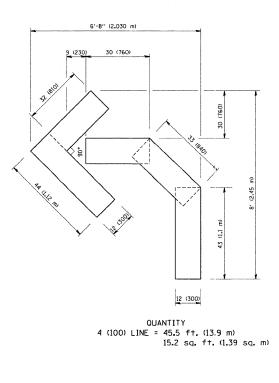
DESIGNED DRAWN REVISED CHECKED - MJY PLOT SCALE = \$SCALE\$ REVISED 04/22/2009 REVISED

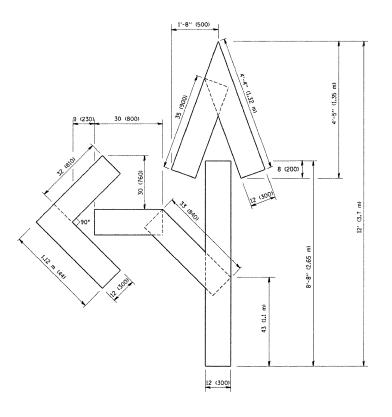
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS SHEETS SHEET NO. 21 OF 25 SHEETS STA. 421+00 TO STA. 580+00

CONTRACT NO. 60F28 C-91-059-09 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT





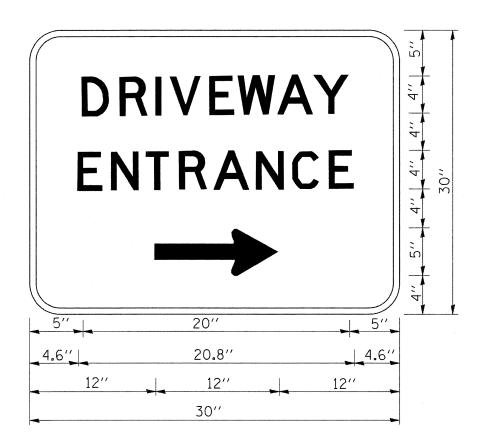


OLIANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

	USER NAME = \$USER\$	DESIGNED - MJY .			US ROUTE 41			SECTION	COUNTY	TOTAL SHEET
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS		DISTRICT ONE DETAILS SHEETS	346	(124 & 125) X-RS-5	LAKE	25 22
CONSULTING ENGINEERS 1960 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	DISTRICT ONE DETAILS SHEETS			C-91-059-09	CONTRACT	T NO. 60F28
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED ~	SCAL	SCALE: NONE	SHEET NO. 22 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. ROA	D DIST. NO. ILLINOIS FED. AI	D PROJECT	



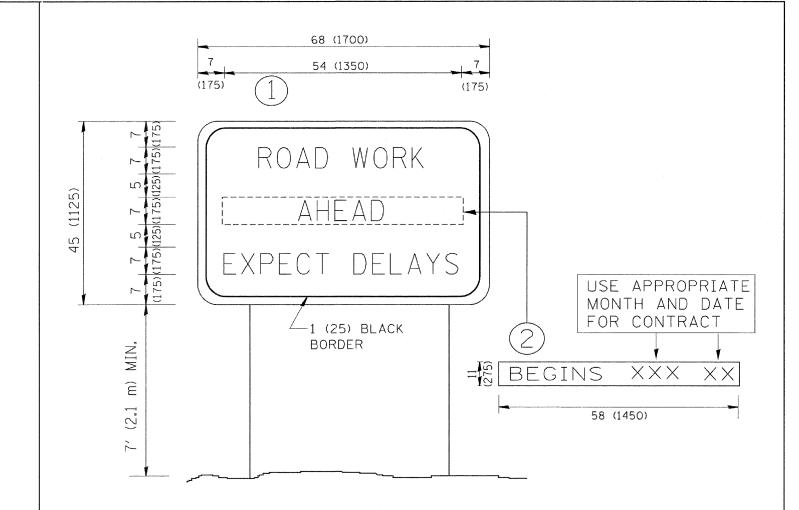
3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

DRIVEWAY ENTRANCE SIGNING

	USER NAME = \$USER\$	DESIGNED - MJY			US ROUTE 41	F.A.P.	SECTION	COUNTY TOTAL	L SHEET
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE DETAILS SHEETS	346 (1	124 & 125) X-RS-5	LAKE 25	23
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -			С	:-91-059-09	CONTRACT NO.	60F28
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -		SCALE: NONE SHEET NO. 23 OF 25 SHEETS STA. 421+00 TO STA. 580+00	FED. ROAD DIS	ST. NO. ILLINOIS FED. AI	D PROJECT	



- 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.

ARTERIAL ROAD INFORMATION SIGN

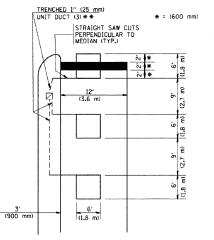
	USER NAME = \$USER\$	DESIGNED - MJY			US ROUTE 41 DISTRICT ONE DETAILS SHEETS			SECTION	COUNTY	TOTAL SHEET SHEETS NO.
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222 NAPERVILLE, ILLINOIS 60563 PH; (630) 577-9100		DRAWN - RJG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				(124 & 125) X-RS-5	LAKE	25 24
	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -					C-91-059-09	CONTRAC	CT NO. 60F28
	PLOT DATE = \$DATE\$	DATE - 04/22/2009	REVISED -		SCALE: NONE	SHEET NO. 23 OF 25 SHEETS STA. 421+00 TO STA. 580+00		AD DIST. NO. ILLINOIS FED. A	ID PROJECT	

PROVIDE A PAYEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) * * UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

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

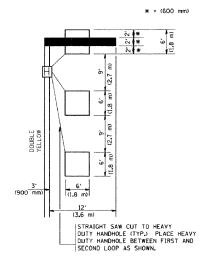


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

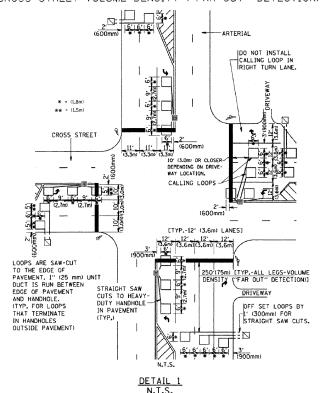
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

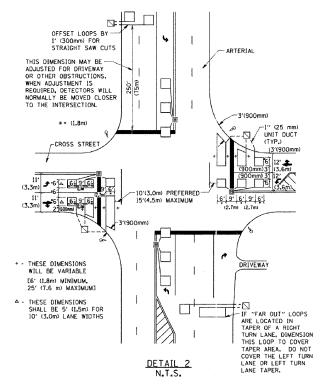


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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)



DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACIN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

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.