STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

# **PROPOSED** HIGHWAY PLANS

FAU ROUTE 1585 (119TH STREET) LONGWOOD DRIVE TO ASHLAND AVENUE

SECTION: 2009-048RS

**RESURFACING (3P)** 

**COOK COUNTY** 

C-91-574-09

NET LENGTH OF PROJECT = 3,668' = 0.695 MI

STA. 96+14 TO STA. 98+46 STA. 61+00 BEGIN PROJECT

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

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT 1600 (2009)

**OMMISSIONS** 

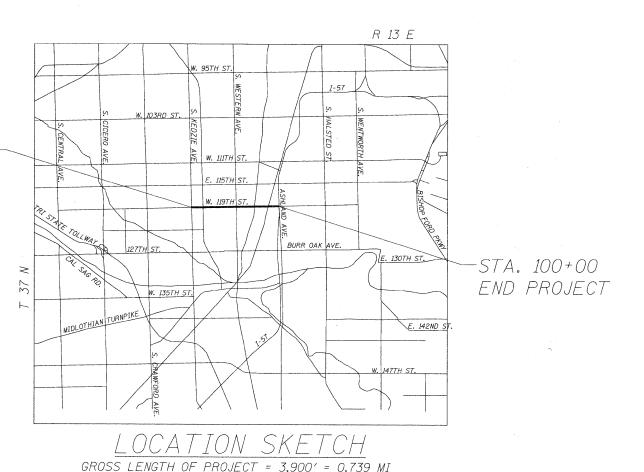
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SPEED LIMIT 35 MPH

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

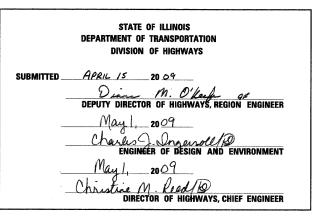
PROJECT ENGINEER: REJENDRA C. SHAH (847) 705-4555 PROJECT MANAGER: CATHERINE KIBBLE (847) 705-4269

CONTRACT NO. 60H18



D-91-574-09





### PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS





### INDEX OF SHEETS

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	3	SUMMARY OF QUANTITIES
	4	EXISTING AND PROPOSED TYPICAL CROSS SECTIONS
	5-6	ROADWAY AND PAVEMENT MARKING PLANS
	7	DETECTOR LOOP PLANS
	8	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD-08)
	9	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)
	10	CURB OR CURB AND GUTTER REMOVAL AND REPACEMENT
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	16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
	17	ARTERIAL ROAD INFORMATION SIGN (TC-22)
	18	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

### STATE STANDARDS

STANDARD	NO. DESCRIPTION
000001 <b>-05</b>	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201 <b>-03</b>	CLASS C AND CLASS D PATCHES
701301 <b>- 03</b>	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311 <b>- 03</b>	LANE CLOSURE, 2L, 2W, MOVING DAY OPERATIONS
701501 <b>- 05</b>	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701 <b>- 04</b>	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901 <b>- 01</b>	TRAFFIC CONTROL DEVICES
886001 <b>-01</b>	DETECTOR LOOP INSTALLATIONS
886006 <b>-0</b> 1	TYPICAL LAYOUT FOR DETECTION LOOPS

### PLAN 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.

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 1½INCHES (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).

_LONO, INC	USER NAME = \$USER\$	DESIGNED - MJY	REVISED -
		DRAWN - ZDA	REVISED -
CONSULTING ENGINEERS 1979 N. MILL ST. SUITE 210	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/15/2009	REVISED -

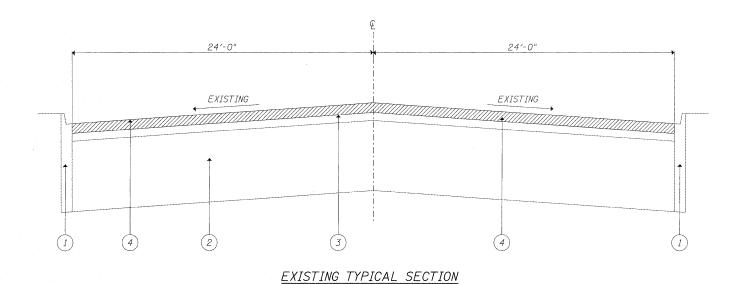
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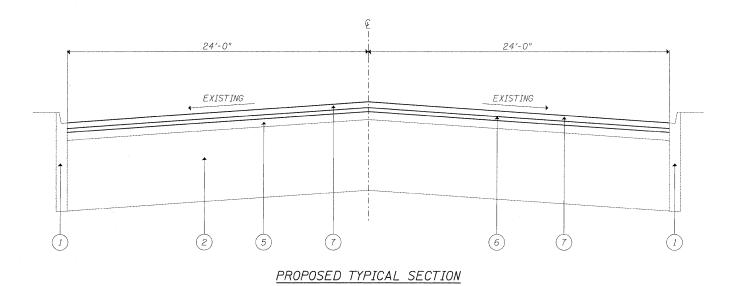
	SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		SUMMARY OF QUANTITIES			CONSTRUCTIO	N TYPE CODE
CODE NO.	. ITEM	UNIT	TOTAL QUANTITIES	1000 100% STATE	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	1000 100% STATE	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	10	10	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	8108	8108	
40600300	AGGREGATE (PRIME COAT)	TON	47	47	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1788	1788	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	8	8	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	92	92	
40600635	LEVELING BINDER (MACHINE METHOD), N70.	TON	983	983	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	612	612	
40600895	CONSTRUCTING TEST STRIP	EACH	1	1	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	5463	5463	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1434	1434	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	550	550	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	1572	1572	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8108	8108	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	2293	2293			FOOT	1788	1788	
44000100	PAVEMENT REMOVAL	SQ YD	335	335	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"				
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	21566	21566	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	92	92	
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	594	594	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	612	612	
	THE THE NET ENGEMENT				78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	298	298	
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	7018	7018	X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SQ YD	283	283	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	468	468	XX006806	HOT-MIX ASPHALT DRIVEWAY PAVEMENT	SQ YD	355	355	
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	82	82	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	34	34	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	1638	1638	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	
55039700	STORM SEWERS TO BE CLEANED	FOOT	1170	1170						
60250200	CATCH BASINS TO BE ADJUSTED	EACH	18	18				-		
60255500	MANHOLES TO BE ADJUSTED	EACH	18	18						
60260100	INLETS TO BE ADJUSTED	EACH	18	18						
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	54	54						
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3						
67100100	MOBILIZATION	L SUM	1	. 1						
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1						
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1						
70300100	SHORT - TERM PAVEMENT MARKING	FOOT	10784	10784						
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	550	550						

	USER NAME = \$USER\$	DESIGNED - MJY	
		DRAWN - RJG	REVISED -
CONSULTING ENGINEERS 1979 N. MILL ST, SUITE 210	PLDT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/15/2009	REVISED -

STATI	E OF	- ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

SUMMARY OF QUANTITIES W 119TH STREET				SEC <sup>2</sup>	TION	COUNTY	TOTAL SHEETS	SHEET NO.
				048	RS	соок	18	3
				D-91-574	1-09	CONTRACT	NO.	60H18
ALE: NONE	SHEET NO. 3 OF SHEETS	STA. 61+00 TO STA. 100+00	FED. RC	DAD DIST. NO.	ILLINOIS FED.	ID PROJECT		





### <u>LEGEND</u>

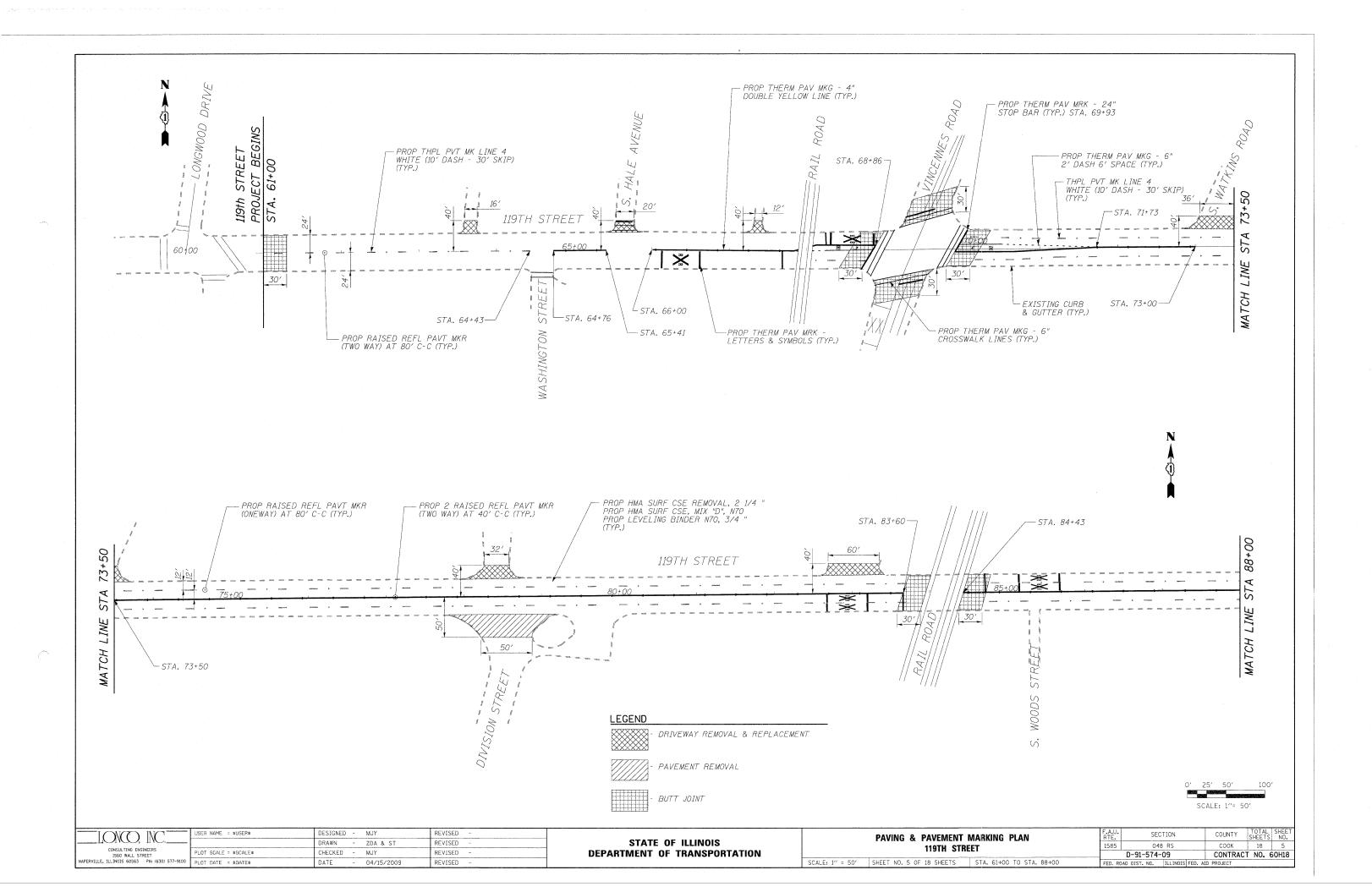
- 1) EXISTING COMBINATION CONCRETE CURB AND GUTTER
- 2) EXISTING P.C. CONCRETE PAVEMENT +/- 9"
- 3) EXISTING HMA SURFACE COURSE +/- 41/2"
- (4) PROPOSED HMA SURFACE REMOVAL (2 1/4")
- (5) PROPOSED HMA SURFACE OVERLAY AFTER MILLING, +/- 2"
- PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD) IL-4.75. N50 (3/4")
- 7) PROPOSED HMA SURFACE COURSE, MIX "D". N70 (134")

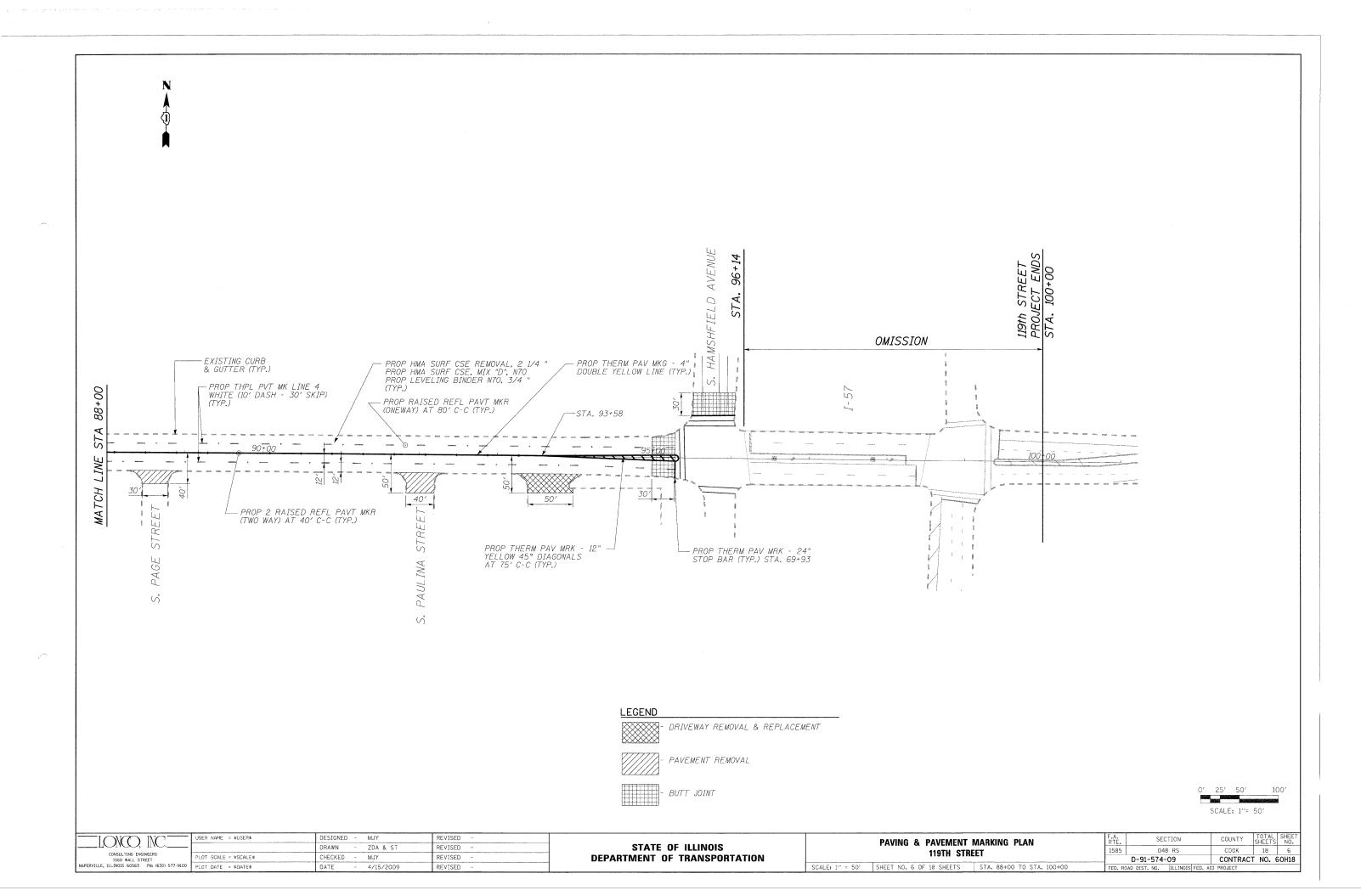
HOT-MIX ASPHALT MIXTURE REQUIREMENTS							
MIXTURE TYPE	AC/PG	DESIGN AIR VOIDS					
HMA SURFACE COURSE, MIX D. N7O. (IL-9.5 mm)	PG 64-22	4% @ 70 GYR					
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS-SBR PG 76-28/22	4% © 50 GYR					
CLASS D PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% @ 70 GYR					
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL 19 mm)	PG 64-22*	4% @ 70 GYR					

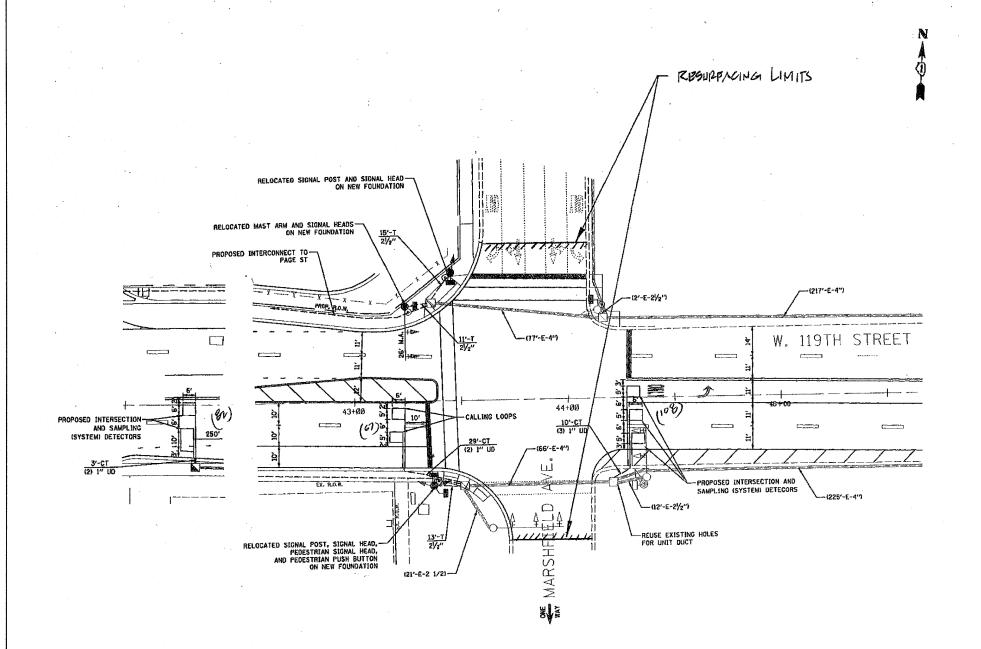
- NOTE:

  I: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LSB/SQYD/IN.
  \*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22
- 2: THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING

	DESIGNED - MJY				TYPICAL SEC	ZIONS	F.A.U.	SECTION	COUNTY	TOTAL SHEET
	DRAWN - ZDA	REVISED -	STATE OF ILLINOIS		119TH STR		1585	048 RS	соок	18 4
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION		IIII SIN	ISEI		0-91-574-09	CONTRAC	CT NO. 60H18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	DATE - 04//2009	REVISED -		SCALE: NONE	SHEET NO. 4 OF 18 SHEETS	STA. 61+00 TO STA. 100+00	FED. ROAD [	DIST. NO.   ILLINOIS FED. A	ID PROJECT	







### TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD	<del></del>	-6>
G.S. CONDUIT IN TRENCH OR PUSHED		-
SIGNAL HEAD WITH BACKPLATE		$+ \triangleright$
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYP	E	

### NOTES:

- 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.

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

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

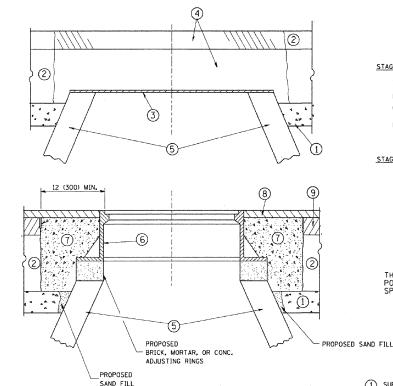
COUNTY

CONTRACT NO. 60H18

	USER NAME = \$USER\$	DESIGNED	-	MJY	REVISED	=
		DRAWN	-	ZDA & ST	REVISED	-
CONSULTING ENGINEERS 1560 WALL STREET	PLOT SCALE = \$SCALE\$	CHECKED		MJY	REVISED	-
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE	-	04/15/2009	REVISED	-

STATE	0F	ILLINOIS
DEPARTMENT C	)F	TRANSPORTATION

DETECTOR	LOOP PLAN -	MARSHFIELD	AVENUE	INTERSECTION	F.A.U. RTE.	SEC	CTION
	1	19TH STREET			1585	04	8 RS
	· · · · · · · · · · · · · · · · · · ·	IIJIII JIIILLI				D-91-574	-09
: 1" = 50"	SHEET NO. 7 OF 1	8 SHEETS ST.	A. 61+00 TO	O STA. 100+00	FED. RO	DAD DIST. NO.	ILLINOIS F



EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109,04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

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

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

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

### CONSTRUCTION PROCEDURES

### STAGE 1 (BEFORE PAVEMENT MILLING)

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

### STAGE 2 (AFTER PAVEMENT MILLING)

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

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

### LEGEND

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

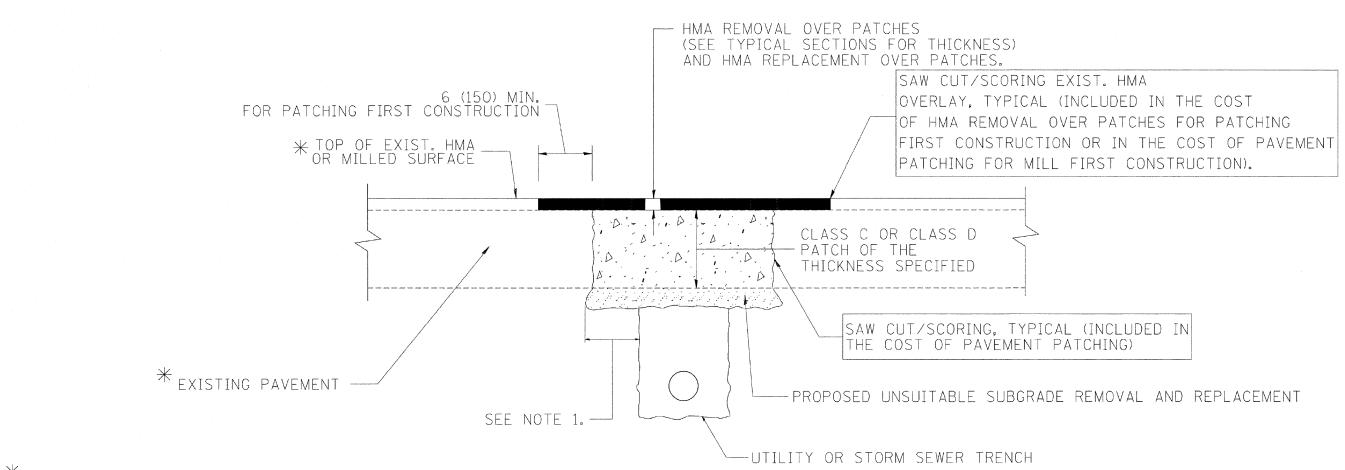
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

DESIGNED - MJY DISTRICT ONE DETAIL SHEETS REVISED STATE OF ILLINOIS W 119TH STREET CHECKED - MJY **DEPARTMENT OF TRANSPORTATION** REVISED D-91-574-09 CONTRACT NO. 60H18 - 04/15/2009 SHEET NO. 8 OF 18 SHEETS STA. 61+00 TO STA. 100+00 DATE PLOT DATE = \$DATE\$ REVISED



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

### 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.

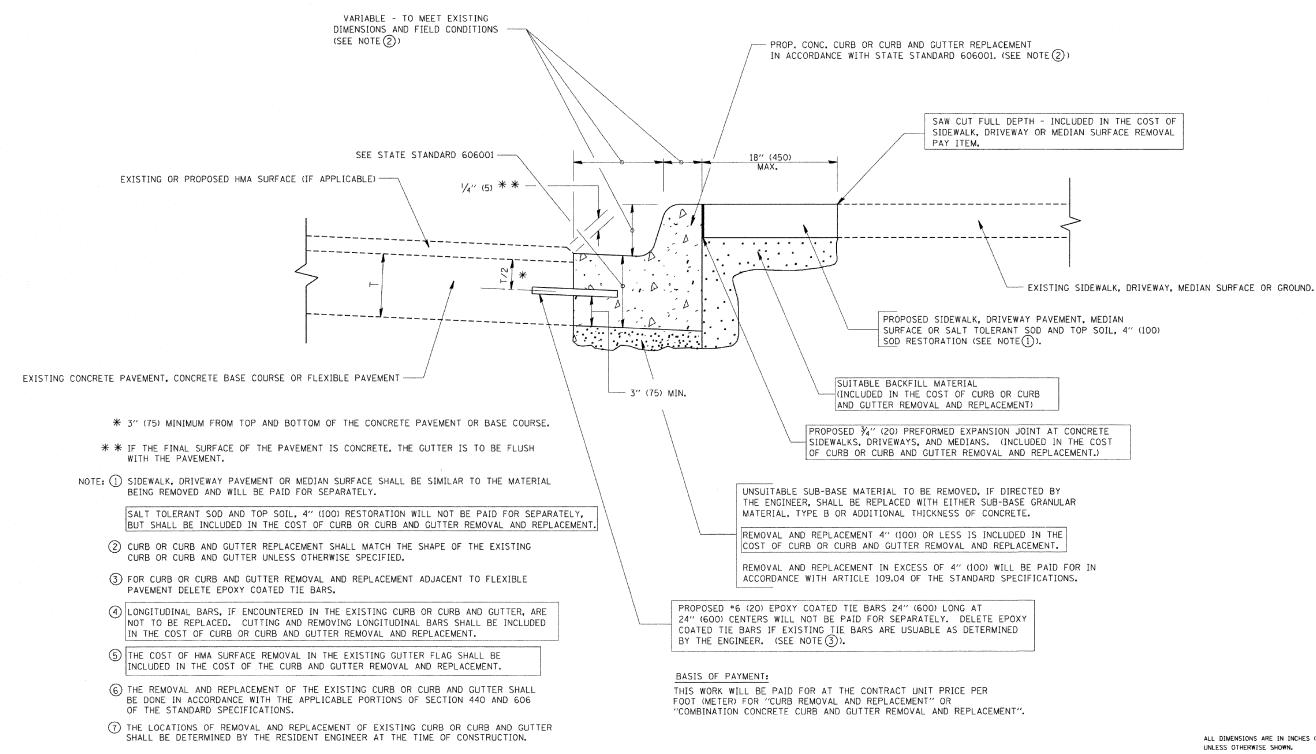
### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 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.

### PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

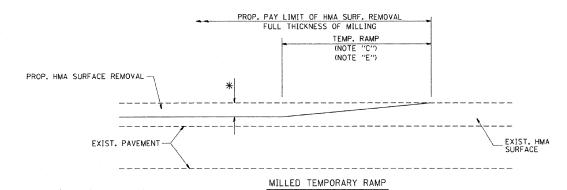
		USER NAME = \$USER\$	DESIGNED	- MJY				DISTRICT ONE DETA	AII SHEETS	F.A.U.	SECTION	COUNTY	TOTAL SHEET
	, IIV		DRAWN	- RJG	REVISED -	STATE OF ILLINOIS		W 119TH ST		1585	048 RS	COOK	18 9
CONSULTING EI 1560 WALL ST,	ENGINEERS SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED	- MJY	REVISED -	DEPARTMENT OF TRANSPORTATION		W Hain 31	INCLI		D-91-574-09	CONTRAC	CT NO. 60H18
NAPERVILLE, ILLINOIS 60563	3 PH: (630) 577-9100	PLOT DATE = *DATE*	DATE	- 04/15/2009	REVISED -		SCALE: NONE	SHEET NO. 9 OF 18 SHEETS	STA. 61+00 TO STA. 100+00	FED. ROAD	DIST. NO.   ILLINOIS FED.	AID PROJECT	



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

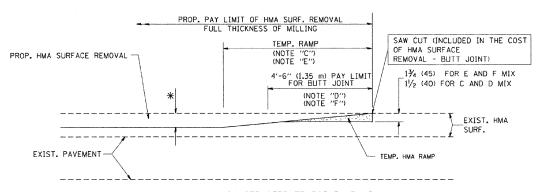
### **CURB OR CURB AND GUTTER REMOVAL AND REPACEMENT**

	USER NAME = \$USER\$	DESIGNED - MJY DRAWN - RJG	REVISED -	STATE OF ILLINOIS		DISTRICT ONE DETAIL SHEETS W 119TH STREET	F.A.U. RTE. 1585	SECTION 048 RS	COUNTY SH	HEETS NO.
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION		W HISHI SHILL		D-91-574-09	CONTRACT N	NO. 60H18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/15/2009	REVISED -		SCALE: NONE	SHEET NO. 10 OF 18 SHEETS STA. 61+00 TO STA. 100+00	FED. ROA	DIST. NO.   ILLINOIS FED. A	AID PROJECT	



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

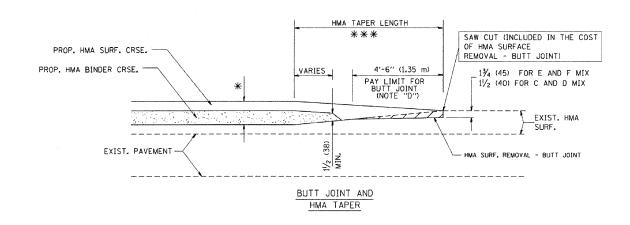
### OPTION 1



\_\_\_\_\_HMA\_CONSTRUCTED\_TEMPORARY\_RAMP\_\_\_\_\_(FOR\_BUTT\_JOINT\_AND\_HMA\_TAPER\_SEE\_DETAIL\_BELOW)

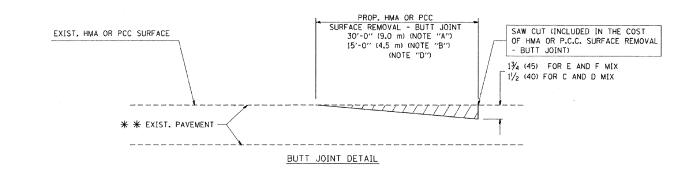
### OPTION 2

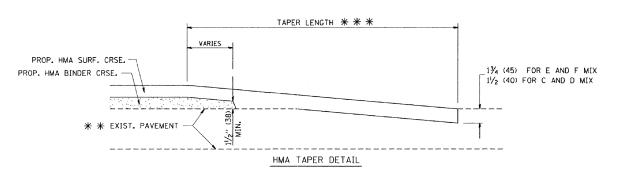
### TYPICAL TEMPORARY RAMP



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.
- $\mbox{\em $\star$}\mbox{\em $\star$}$

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

### BASIS OF PAYMENT:

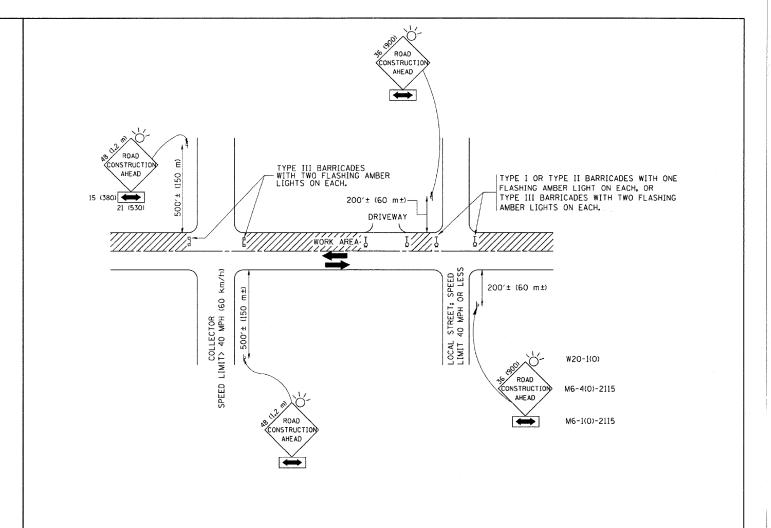
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SOUARE YARD (SOUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

SCALE: NON

	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 - 04/15/2009	REVISED -

STATI	E OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

	DISTRICT ONE I	DETAIL SHEETS	F.A.U. RTE.	SECTIO	Ν .	COUNTY	TOTAL SHEETS	SHEET NO.
	W 119TI	I STREET	1585	048 RS	S	COOK	18	11
	•• 11511	1 Officer		D-91-574-0	9	CONTRACT	NO. (	50H18
NE SHEET NO. 11 OF 18 SHEETS STA. 61+00 TO STA. 100+00 FED. ROAD DIST. NO.   ILLINOIS FED. AI						D PROJECT		



### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O'ONE ROAD CONSTRUCTION AHEAD SIGN 36  $\times$  36 (900×900) WITH A FLASHER AND FLAG MOUNTED ON 1T 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 (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:

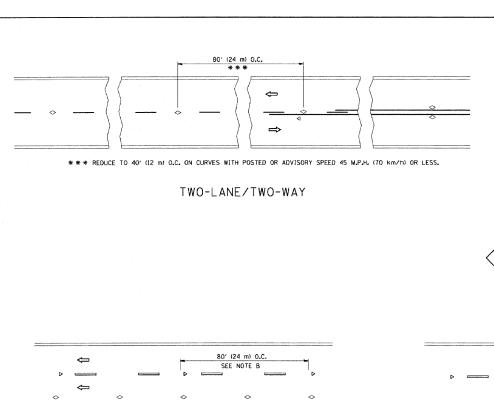
USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

- $\ensuremath{\text{\textbf{C}}}$  . 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				DISTRICT ONE DET	All CHEETC	F.A.U.	SECTION	COUNTY	TOTAL S	HEET NO.	
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS				1585	048 RS	COOK	18	12
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	W 119TH STREET				D-91-574-09	CONTRAC	CT NO. 6/	H18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE ~ 04/15/2009	REVISED -		SCALE: NONE SH	SHEET NO. 12 OF 18 SHEETS	STA. 61+00 TO STA. 100+00	FED. ROAD	DIST. NO. ILLINOIS FED. A	ID PROJECT		



MULTI-LANE/UNDIVIDED

80' (24 m) 0.C.

SEE NOTE B

D

(3 m) 3 m)

4

SEE NOTE A

MULTI-LANE/DIVIDED

### GENERAL NOTES

3 @ 40' (12 m) O.C. \_ <=

LANE REDUCTION TRANSITION

- 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

SEE NOTE A-

TWO-WAY LEFT TURN

80' (24 m) 0.C. SEE NOTE B

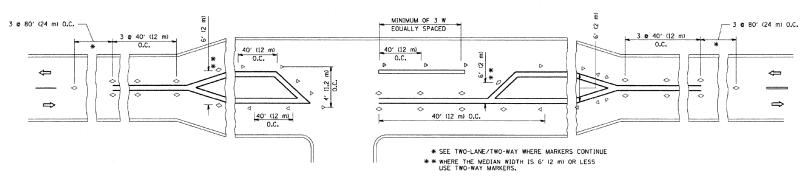
40' (12 m) O.C.

- 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.

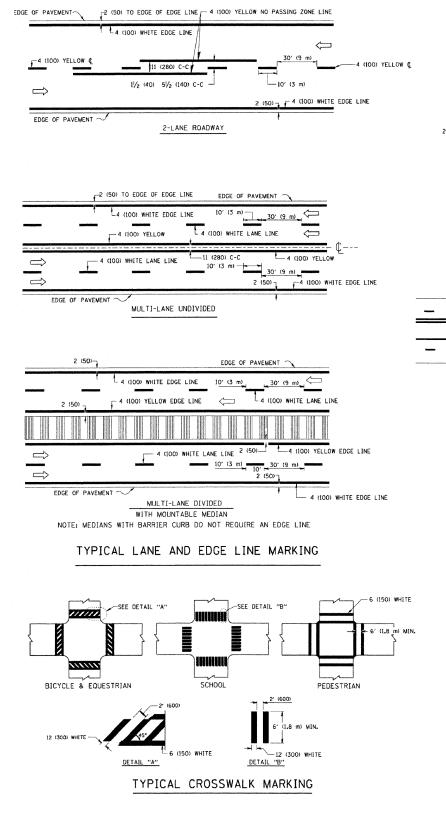


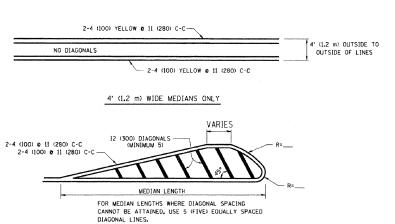
LEFT TURN

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

 $\Rightarrow$ 

USER NAME = \$USER\$	DESIGNED -	MJY					DISTRICT ONE DET	TAIL SHEFTS	F.A.U.	SECTION	COUNTY	SHEETS	HEET NO.
-	DRAWN -	RJG	REVISED	-	STATE OF ILLINOIS				1585	048 RS	COOK	18	13
PLOT SCALE = #SCALE#	CHECKED -	MJY	REVISED	-	DEPARTMENT OF TRANSPORTATION		VV IISIN V	DINEEL		D-91-574-09	CONTRAC	T NO. 60	H18
PLOT DATE = \$DATE\$	DATE -	04/15/2009	REVISED			SCALE: NONE	SHEET NO. 13 OF 18 SHEETS	STA. 61+00 TO STA. 100+00	FED. RO.		. AID PROJECT		
,	PLOT SCALE = \$SCALE\$  PLOT DATE = \$DATE\$	TEST CONTECT TO THE TEST C	Test of the second of the seco	PLOT SCALE = \$SCALE\$ CHECKED - MJY REVISED	PLOT SCALE = \$SCALE\$ CHECKED - MJY REVISED -	PLOT SCALE = *SCALE\$ CHECKED - MJY REVISED - DEPARTMENT OF TRANSPORTATION	PLOT SCALE = \$SCALE\$ CHECKED - MJY REVISED - DEPARTMENT OF TRANSPORTATION	PLOT SCALE = SSCALES CHECKED - MJY REVISED - STATE OF ILLINOIS  PLOT SCALE = SSCALES CHECKED - MJY REVISED - DEPARTMENT OF TRANSPORTATION  W 119TH STATE OF ILLINOIS	PLOT SCALE = \$SCALE\$  CHECKED - MJY  REVISED -  DEPARTMENT OF TRANSPORTATION  W 1191H STREET	PLOT SCALE = \$SCALE\$  CHECKED - MAY  REVISED -  DEPARTMENT OF TRANSPORTATION  STATE OF ILLINOIS  DEPARTMENT OF TRANSPORTATION	DRAWN - RJG REVISED -  PLOT SCALE = \$SCALE\$ CHECKED - MJY REVISED -  STATE OF ILLINOIS  DESTRICT ONE DETAIL SHEETS  W 119TH STREET  DEPARTMENT OF TRANSPORTATION  D-91-574-09	DRAWN - RJG REVISED -  PLOT SCALE = \$SCALE\$ CHECK - MJY REVISED -  DESTRICT ONE DETAIL SHEETS  NTE. SECTION COUNTY  1585 O48 RS COOK  DEPARTMENT OF TRANSPORTATION  DEPARTMENT OF TRANSPORTATION  DISTRICT ONE DETAIL SHEETS  W 119TH STREET  DEPARTMENT OF TRANSPORTATION	DRAWN - RJG REVISED -  PLOT SCALE = \$SCALE\$ CHECK - MJY REVISED -  DESTRICT ONE DETAIL SHEETS  NTE. SECTION COUNTY SHEETS  DISTRICT ONE DETAIL SHEETS  TEST OF ILLINOIS  W 119TH STREET  DEPARTMENT OF TRANSPORTATION  D-91-574-09 CONTRACT NO. 60





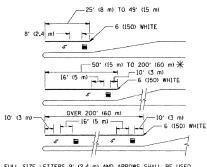
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

# 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

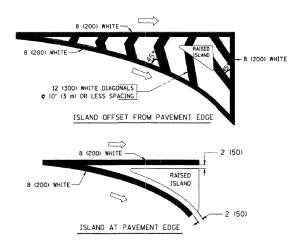


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² ) (1.7 AREA = 20.8 SO. FT. (1.9 m²)

\* 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



### TYPICAL ISLAND MARKING

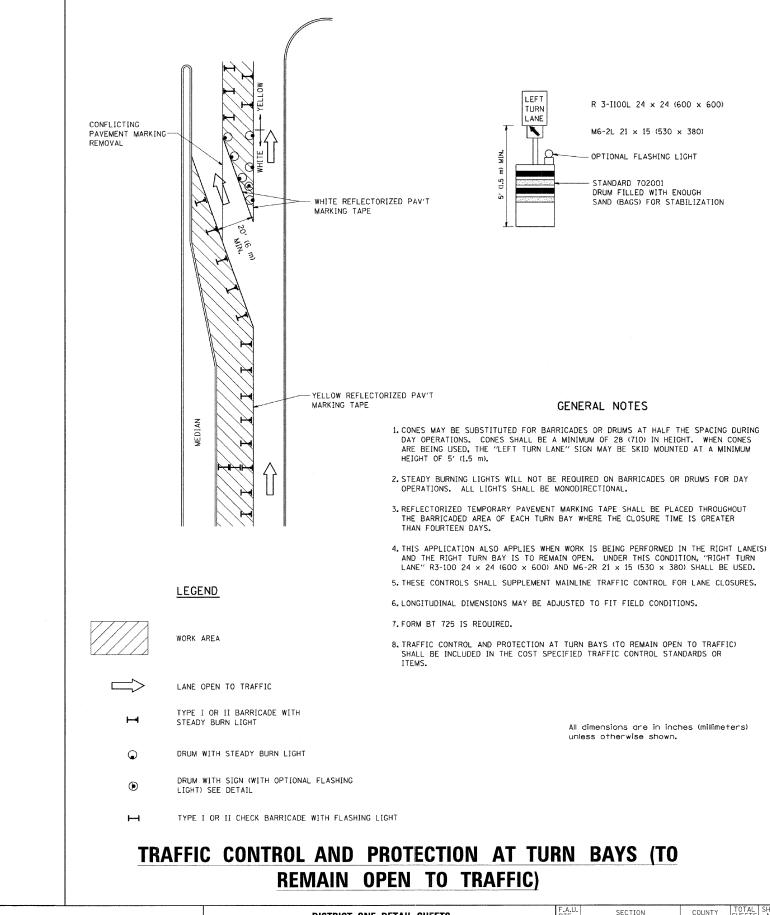
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>6</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2,4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 <b>e</b> 6 (150) 12 (300) <b>e</b> 45° 12 (300) <b>e</b> 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 © 4 (100) WITH 12 (300) DIAGONALS © 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIACONALS: 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 SO. FT. (0.33 m²) EACH "X":54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>e</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 (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

### **DISTRICT ONE TYPICAL PAVEMENT MARKINGS**

	USER NAME = \$USER\$				DISTRICT ONE DETAIL SHEETS	F.A.U. SECTION	COUNTY	TOTAL	SHEET NO.
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS	W 119TH STREET	1585 048 RS	COOK	18	14
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	WY 113111 SINELI	D-91-574-09	CONTRAC	CT NO. 6	OH18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = *DATE*	DATE ~ 04/15/2009	REVISED -		SCALE: NONE   SHEET NO. 14 OF 18 SHEETS   STA. 61+00 TO STA. 100+00	FED. ROAD DIST. NO. ILLINO	IS FED. AID PROJECT		



SER NAME = \$USER\$ CONSULTING ENGINEERS 1560 WALL ST, SUITE 222 ULLE, ILLINOIS 60563 PH: (630) 577-9100 PLOT SCALE = \$SCALE\$

REVISED CHECKED - MJY REVISED 04/15/2009

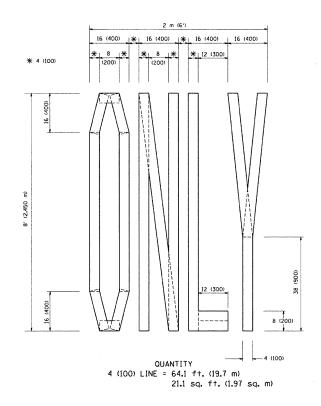
DESIGNED - MJY

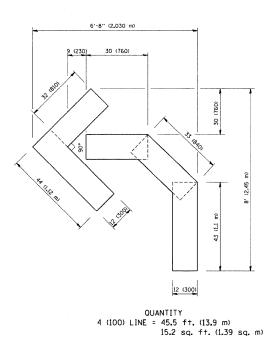
DRAWN

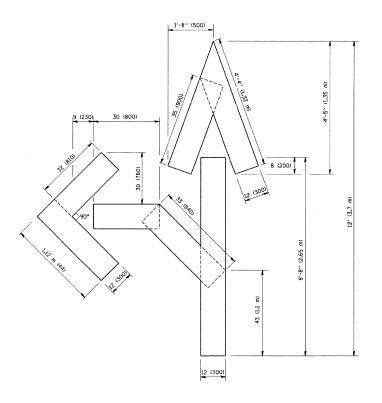
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

DISTRICT ONE DETAIL SHEETS W 119TH STREET SHEET NO. 15 OF 18 SHEETS STA. 61+00 TO STA. 100+00

TOTAL SHEE NO. 048 RS D-91-574-09 CONTRACT NO. 60H18





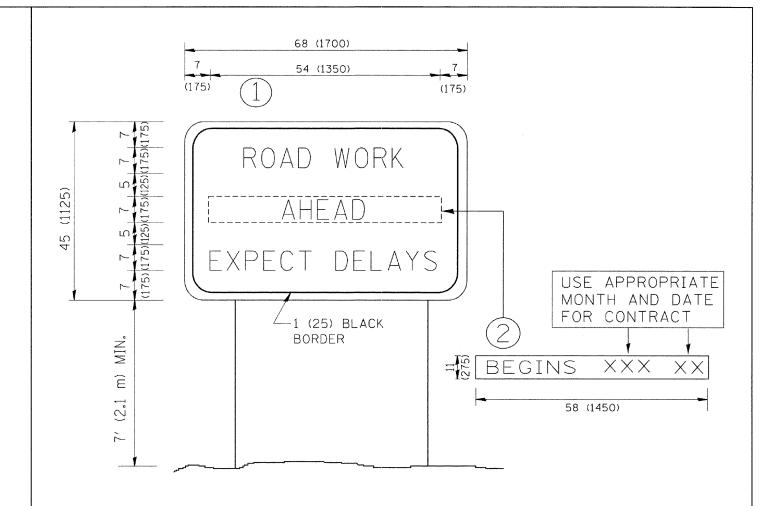


OUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

# PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

	USER NAME = \$USER\$	DESIGNED - MJY				DISTRICT ONE DETAIL SHEETS	F.A.U.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
		DRAWN - RJG	REVISED -	STATE OF ILLINOIS		W 119TH STREET	1585	048 RS	COOK	18 16
CONSULTING ENGINEERS 1560 WALL ST, SUITE 222	PLOT SCALE = \$SCALE\$	CHECKED - MJY	REVISED -	DEPARTMENT OF TRANSPORTATION	W HAIL SIVEEL			D-91-574-09	CONTRACT	T NO. 60H18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE - 04/15/2009	REVISED -		SCALE: NONE	SHEET NO. 16 OF 18 SHEETS STA. 61+00 TO STA. 100+00	FED. ROA	D DIST. NO.   ILLINOIS FED. A	ID PROJECT	



### NOTES:

- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

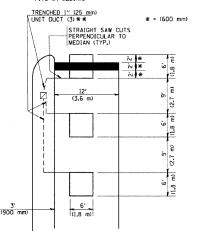
### ARTERIAL ROAD INFORMATION SIGN

	USER NAME = #USER#	DESIGNED	- MJY		CTATE OF HILIDIO		DISTRICT ONE DETAIL SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
CONSULTING ENGINEERS 1560 WALL ST. SUITE 222	PLOT SCALE = \$SCALE\$	DRAWN CHECKED	- RJG - MJY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		W 119TH STREET	1585	048 RS D-91-574-09	CONTRAC	18 17 CT NO. 60H18
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100	PLOT DATE = \$DATE\$	DATE	- 04/15/2009	REVISED -		SCALE: NONE	SHEET NO. 17 OF 18 SHEETS STA. 61+00 TO STA. 100+00	FED. ROA	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	D PROJECT	1100 001120

# LOOPS NEXT TO SHOULDERS PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. $\blacksquare$ (1.5 m) (1.8 m) (1.5 m) 1" (25 mm) UNIT DUCT-TRENCHED TO E/P .. (3.0 m) UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

### <u>LEFT TURN LANES WITH MEDIANS</u> VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING)

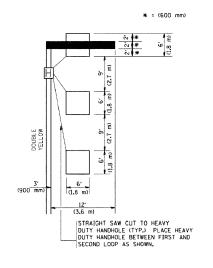
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS, HEAVY-DUITY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN,



\*\* 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

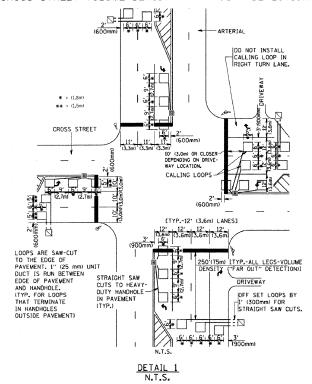
### LEFT TURN LANES WITHOUT MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

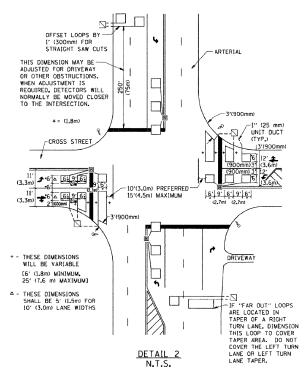


NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

### JSER NAME = \$USER\$ ESIGNED DRAWN REVISED M.IY DATE PLOT DATE = \$DATE\$ REVISED

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

### TOTAL SHEE SHEETS NO. SECTION DISTRICT ONE DETAIL SHEETS 048 RS COOK W 119TH STREET D-91-574-09 CONTRACT NO. 60H18 SHEET NO. 18 OF 18 SHEETS STA. 61+00 TO STA. 100+00 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

### VEHICLES LOOP DETECTORS

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

### PLACEMENT OF DETECTORS

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

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

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

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.