

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	78	1
ILLINOIS			CONTRACT NO. 60Y17	

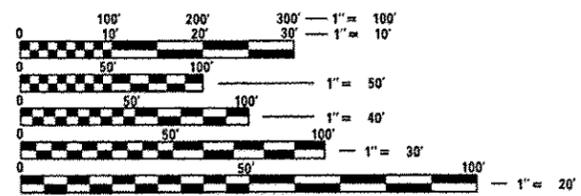
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN:
THE VILLAGE OF CALUMET PARK
THE VILLAGE OF DIXMOOR
THE VILLAGE OF FORD HEIGHTS
THE VILLAGE OF HAZEL CREST
THE VILLAGE OF LANSING
THE VILLAGE OF LYNWOOD
THE VILLAGE OF MATTESON
THE VILLAGE OF RIVERDALE
THE VILLAGE OF SAUK VILLAGE
THE VILLAGE OF SOUTH HOLLAND
THE CITY OF BLUE ISLAND
THE CITY OF CHICAGO

**PROPOSED
HIGHWAY PLANS**

VARIOUS ROUTES
SECTION: 2014-031RS
VARIOUS SOUTH EXPRESSWAY LOCATIONS
INTERMITTENT RESURFACING
COOK COUNTY
C-91-307-14

FOR GENERAL LOCATION MAP, SEE SHEET NO. 4



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: DANIEL WILGREEN (847) 705-4240
PROJECT MANAGER: KEN ENG (847) 705-4247

CONTRACT NO. 60Y17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Apr 10 2014
John F. Tomczak
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9 2014
John D. Baranzelli PE, PE
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 9 2014
Chris Osman PE, PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET	000001-06	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	701400-07	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
3	SUMMARY OF QUANTITIES	701401-08	LANE CLOSURE, FREEWAY/EXPRESSWAY
4	GENERAL LOCATION MAP	701411-08	MULTI-LANE, TRAFFIC CONTROL AT ENTRANCE OR EXIT RAMP
5	ROUTE INFORMATION	701426-06	MULTI-LANE, INTERMITTENT OR MOVING OPERATION
6	SUMMARY OF INTERMITTENT RESURFACING SCHEDULE	701428	TRAFFIC CONTROL SETUP & REMOVAL FREEWAY/EXPRESSWAY
7-9	INTERMITTENT RESURFACING SCHEDULE	701446-05	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
10	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701901-03	TRAFFIC CONTROL DEVICES
11	ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-08)		
12	FREEWAY SINGLE & MULTI-LANE WEAVE (TC-09)		
13-14	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS (TC-12)		
15	FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)		
16	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS (TC-18)		
17	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05, SHEET 2 OF 7)		
18	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS-07)		

NO WORK SHALL BE PERFORMED ON ANY BRIDGES OR ELEVATED STRUCTURES.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE (OR TOLLWAY) PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT (OR ISTHA)

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

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.

ALL INTERMITTENT RESURFACING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT JERNARD PERKINS, AREA TRAFFIC FIELD ENGINEER AT (708) 524-2145 MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THE EXISTING ROADWAY TYPICAL SECTION IS ASSUMED TO HAVE A 3 INCH HOT-MIX ASPHALT OVERLAY ON TOP OF A TEN INCH CONCRETE BASE.

ALL INTERMITTENT RESURFACING LOCATIONS SHOWN IN THE PLANS ARE TWO (2) INCH MILL AND RESURFACE ONLY. THE MINIMUM WIDTH FOR INTERMITTENT RESURFACING SHALL BE THREE (3) FEET.

THE COST OF ANY PARTIAL OR FULL DEPTH PATCHING REQUIRED AFTER THE REMOVAL OF THE EXISTING 2 INCH HOT-MIX ASPHALT SURFACE SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

ANY DETECTOR OR INDUCTION LOOPS DAMAGED BY MILLING SHALL BE REPLACED IN KIND. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO QUANTIFY LOOP REPLACEMENTS NEEDED AND PROVIDE THE RESIDENT ENGINEER THIS INFORMATION PRIOR TO GRINDING OR REMOVAL.

NO PATCHING OR RESURFACING IS TO BE DONE WITHIN FIFTY (50) FEET OF ANY RAILROAD CROSSING.

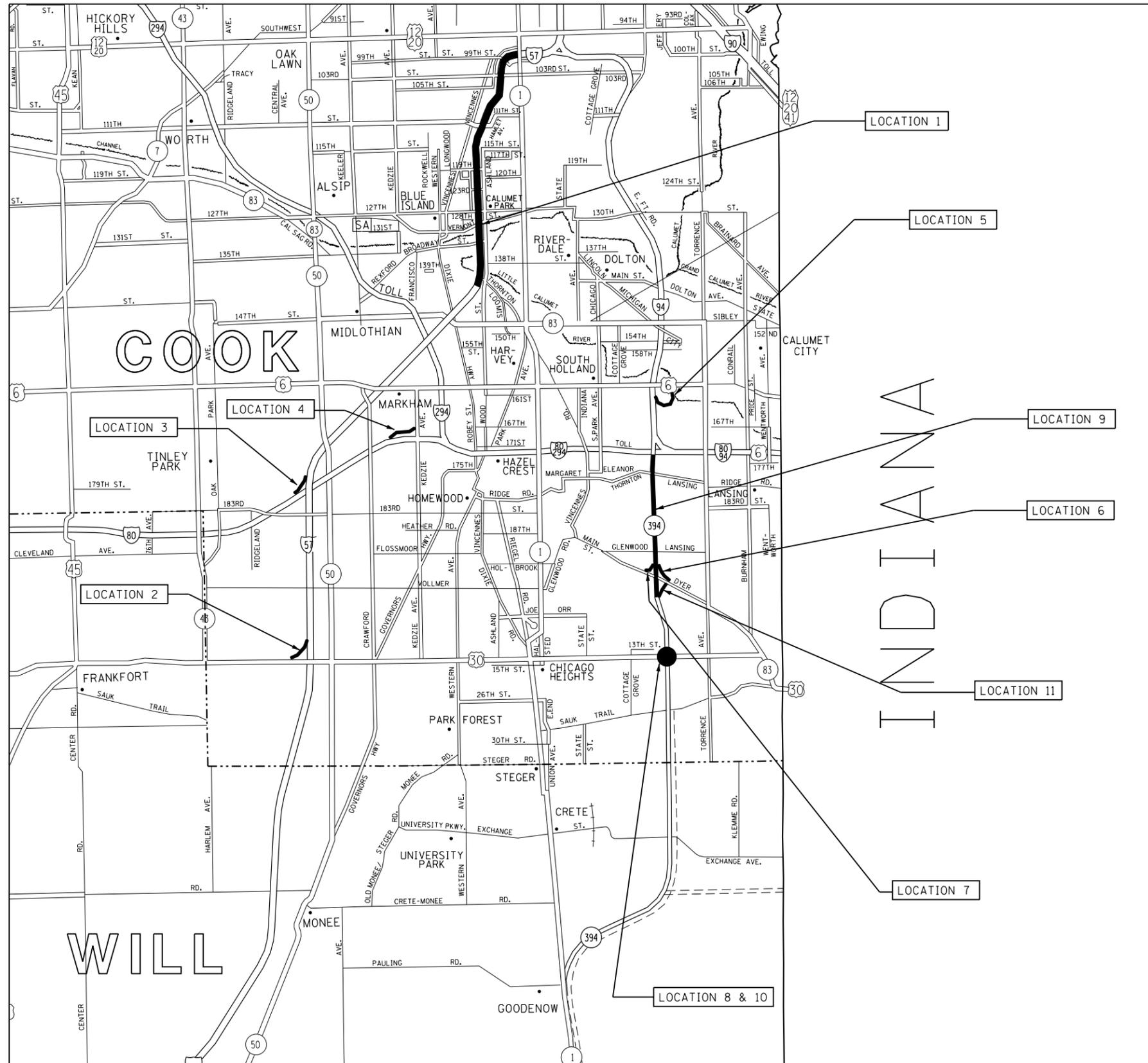
WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE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

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS (%) @ N _{DES.}	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5MM), 2"	4% @ 90 GYR	QC/OA

QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/OA)
 THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS, FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
 QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE

FILE NAME: er:\p\work\p\10dot\sum\0302480\HMA-Exp\FreeWay-South.dgn	USER NAME: sum	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	PLT SCALE: 100.0000' / 1"	DRAWN: -	REVISED: -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	VAR.	2014-031RS	COOK	18	2
	PLT DATE: 4/9/2014	CHECKED: -	REVISED: -												
		DATE: -	REVISED: -												
											CONTRACT NO. 60Y17			ILLINOIS FED. AID PROJECT	



FILE NAME =	USER NAME = aumm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL LOCATION MAP VARIOUS SOUTH EXPRESSWAY LOCATIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	Plot Scale = 100.0000' / in.	DRAWN -	REVISED -			VAR.	2014-031RS	COOK	18	4	
	PLOT DATE = 4/9/2014	CHECKED -	REVISED -			CONTRACT NO. 60Y17					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

	SUMMARY - SOUTHERN EXPRESSWAY ROUTES	COUNTY	CITIES/VILLAGES	TOWNSHIPS	SPEED LIMIT	EXISTING ADT (YEAR)
LOC.1	I-57 (HALSTED ST. TO 144TH ST.)	COOK	BLUE ISLAND, CALUMET PARK, CHICAGO, DIXMOOR, AND RIVERDALE	CALUMET, DIXMOOR, AND LAKE	55 MPH	124,700 (2013)
LOC.2	SB I-57 (TO US 30 WB, SB TO WB EXIT RAMP)	COOK	MATTESON	RICH	N/A	800 (1987)
LOC.3	I 57 SB TO I 80 WB (INTERCHANGE SB TO WB LANE 2,3)	COOK	UNINCORPORATED	BREMEN	N/A	15,000 (2013)
LOC.4	WB I-80 (ENTRANCE RAMP FROM KEDZIE AVE.)	COOK	HAZEL CREST	BREMEN	N/A	7,700 (2013)
LOC.5	I-94(BISHOP FORD) (EB 159TH STREET ENTRANCE RAMP)	COOK	SOUTH HOLLAND	THORNTON	N/A	6,600 (2002)
LOC.6	NB IL 394 (GLENWOOD DYER RD ENTRANCE RAMP)	COOK	LYNWOOD	BLOOM	N/A	3,700 (1984)
LOC.7	SB IL 394 (GLENWOOD DYER RD EXIT RAMP)	COOK	UNINCORPORATED	BLOOM	N/A	4,100 (1984)
LOC.8	IL 394 (US 30 CLOVER RAMPS)	COOK	FORD HEIGHTS, SAUK VILLAGE	BLOOM	N/A	1,100 (1984)
LOC.9	SB IL 394 (I-80 TO JOE ORR ROAD)	COOK	LANSING, LYNWOOD	BLOOM, THORNTON	55 MPH	72,300 (2013)
LOC.10	IL 394 (US 30 LONG ARM RAMPS)	COOK	FORD HEIGHTS, SAUK VILLAGE	BLOOM	N/A	3,200 (1984)
LOC.11	NB IL 394 (GLENWOOD DYER RD EXIT RAMP)	COOK	LYNWOOD	BLOOM, THORNTON	N/A	1,800 (1984)

FILE NAME =	USER NAME = Aumm	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/9/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE INFORMATION			
VARIOUS SOUTH EXPRESSWAY LOCATIONS			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	18	5
CONTRACT NO.			60Y17	
ILLINOIS FED. AID PROJECT				

ROUTE: SB I-57 (To US 30 WB, SB to WB Exit Ramp)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
SB I-57 Ramp		SB	Ramp	12	6	72	8
		SB	Ramp	20	150	3000	333
		SB	Ramp	16	10	160	18
		SB	Ramp	16	40	640	71
	WB US 30	SB	Ramp	10	100	1000	111
TOTALS:						306	541
						FT	SY

ROUTE: I-94 (Bishop Ford) (EB 159th Street Entrance Ramp)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
159th EB Entrance	100' into Ramp	NB	1	15	40	600	67
TOTALS:						40	67
						FT	SY

ROUTE: I-57 SB TO I-80 WB (Interchange SB to WB lane 2, 3)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
I-57		SB	2	12	6	72	8
		SB	2	12	10	120	13
		SB	3	12	6	72	8
		SB	3	12	10	120	13
		SB	3	12	10	120	13
	I-80	SB	3	12	6	72	8
TOTALS:						48	64
						FT	SY

ROUTE: NB IL 394 (Glenwood Dyer Road Entrance Ramp)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
WB Glenwood Dyer Road		Joint	shld/rt	4	150	600	67
			ramp	24	15	360	40
			ramp	20	15	300	33
			ramp	16	10	160	18
			ramp	16	6	96	11
			ramp	6	25	150	17
	NB IL 394		ramp	16	20	320	36
TOTALS:						241	221
						FT	SY

ROUTE: WB I-80 (Entrance Ramp from Kedzie Avenue)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
Kedzie Avenue		WB	Ramp	16	200	3200	356
		WB	Ramp	6	50	300	33
		WB	Ramp	16	28	448	50
		WB	Ramp	16	10	160	18
		WB	Ramp	16	10	160	18
		WB	Ramp	16	20	320	36
		WB	Ramp	16	20	320	36
	I-80	WB	Ramp	16	10	160	18
TOTALS:						348	563
						FT	SY

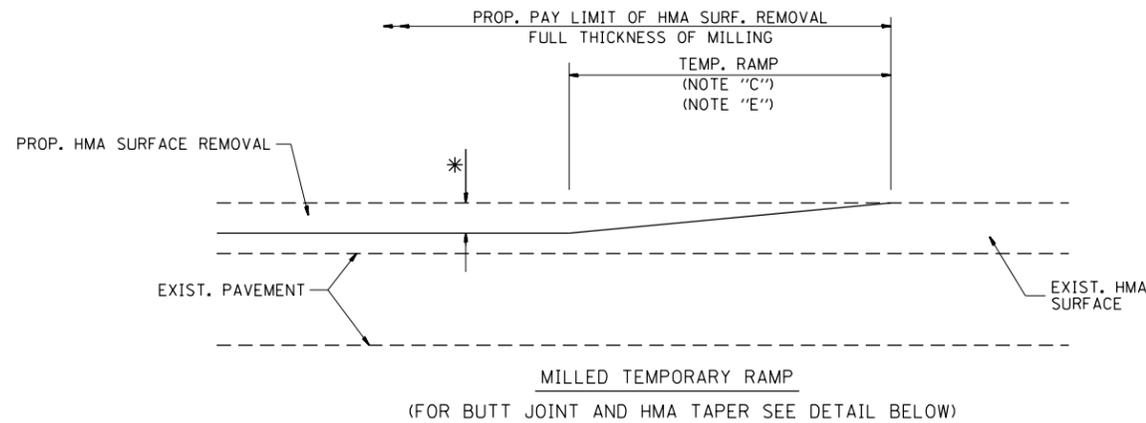
ROUTE: SB IL 394 (Glenwood Dyer Rd Exit Ramp)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB)	NO.	PATCH	PATCH	AREA	AREA
		(NB/SB)	(1, 2, 3)	WIDTH	LENGTH	(SQ FT)	(SQ YD)
SB 394	Glenwood Dyer Exit Ramp	WB	Ramp	18	15	270	30
TOTALS:						15	30
						FT	SY

ROUTE: IL 394 (US 30 Clover Ramps)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB) (NB/SB)	NO. (1, 2, 3)	PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
SB IL 394			ramp	16	20	320	36
			ramp	16	10	160	18
			ramp	16	10	160	18
	EB US 30		shld	6	100	600	67
						0	0
						0	0
EB US 30			shld	6	50	300	33
			shld	6	50	300	33
			shld	6	100	600	67
	NB IL 394		shld	6	25	150	17
			ramp	16	15	240	27
						0	0
NB IL 394			shld	6	25	150	17
			ramp	6	10	60	7
						0	0
WB US 30	SB IL 394		shld	6	100	600	67
						0	0
						0	0
TOTALS:						515	404
						FT	SY

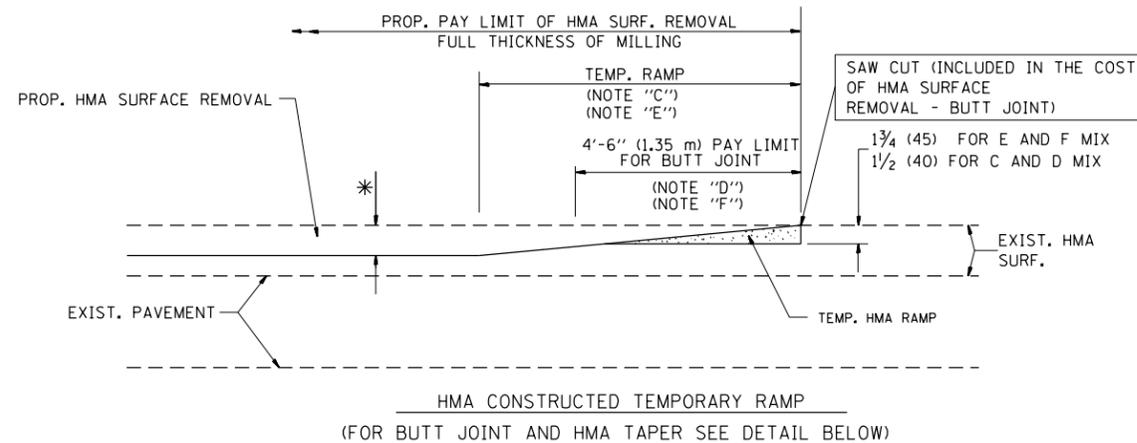
ROUTE: IL 394 (US 30 Long Arm Ramps)								
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR	
FROM	TO	(EB/WB) (NB/SB)	NO. (1, 2, 3)	PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)	
SB IL 394			Rt Shldr	6	200	1200	133	
			Rt Shldr	6	75	450	50	
			Rt Shldr	6	120	720	80	
	WB US 30		Ramp	16	150	2400	267	
						0	0	
						0	0	
EB US 30			Rt Shldr	8	70	560	62	
			Rt Shldr	8	50	400	44	
			Joint	Rt Shldr	6	100	600	67
	SB IL 394					0	0	
						0	0	
						0	0	
NB IL 394			Rt Shldr	8	50	400	44	
			Rt Shldr	8	75	600	67	
			Rt Shldr	8	100	800	89	
	EB US 30		Rt Shldr	8	200	1600	178	
			Rt Shldr	8	45	360	40	
						0	0	
WB US 30			Ramp	20	15	300	33	
			Ramp	20	8	160	18	
			Ramp	20	6	120	13	
			Ramp	20	10	200	22	
			Ramp	16	6	96	11	
			Ramp	16	10	160	18	
			Ramp	16	6	96	11	
NB IL 394			Joint	Rt Shldr	6	175	1050	117
TOTALS:						1471	1364	
						FT	SY	

ROUTE: SB IL 394 (I-80 to Joe Orr Road)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB) (NB/SB)	NO. (1, 2, 3)	PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
I-80	Glenwood Lansing Road	SB	1	12	6	72	8
			1	12	6	72	8
Glenwood Lansing Road	Glenwood Dyer Road						
Glenwood Dyer Road	Joe Orr Road	SB	1	12	25	300	33
			1	12	8	96	11
TOTALS:						45	60
						FT	SY

ROUTE: NB IL 394 (Glenwood Dyer Road Exit Ramp)							
CROSS STREET		DIRECTION	LANE	PAVEMENT	PAVEMENT	REPAIR	REPAIR
FROM	TO	(EB/WB) (NB/SB)	NO. (1, 2, 3)	PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
NB IL 394	EB Glenwood Dyer Road	Joint	Ramp	6	10	60	7
			1,Rt Shldr	6	100	600	67
TOTALS:						110	73
						FT	SY

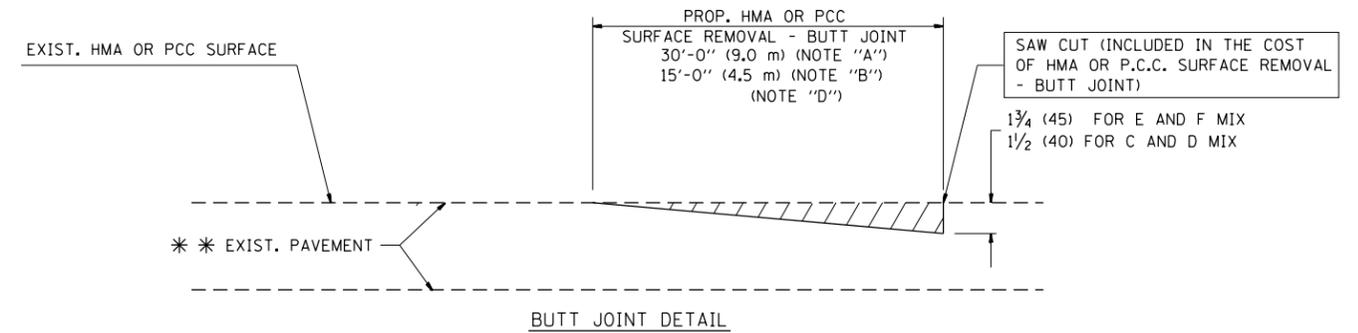


OPTION 1

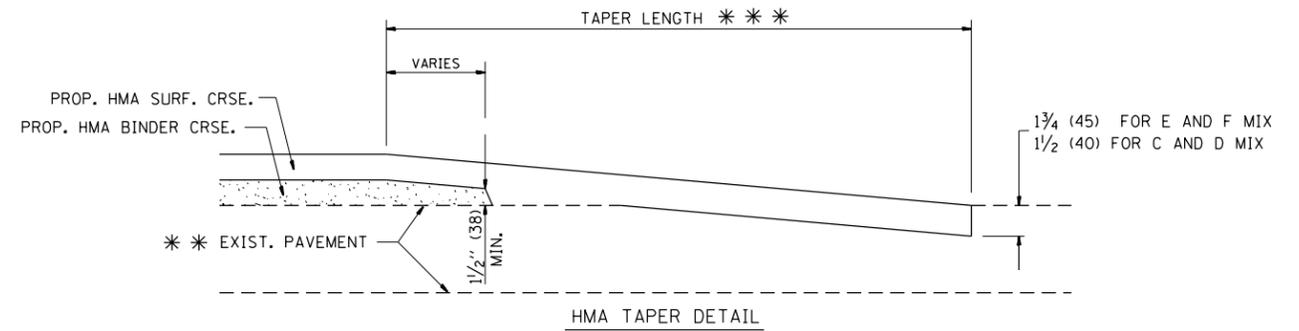


OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

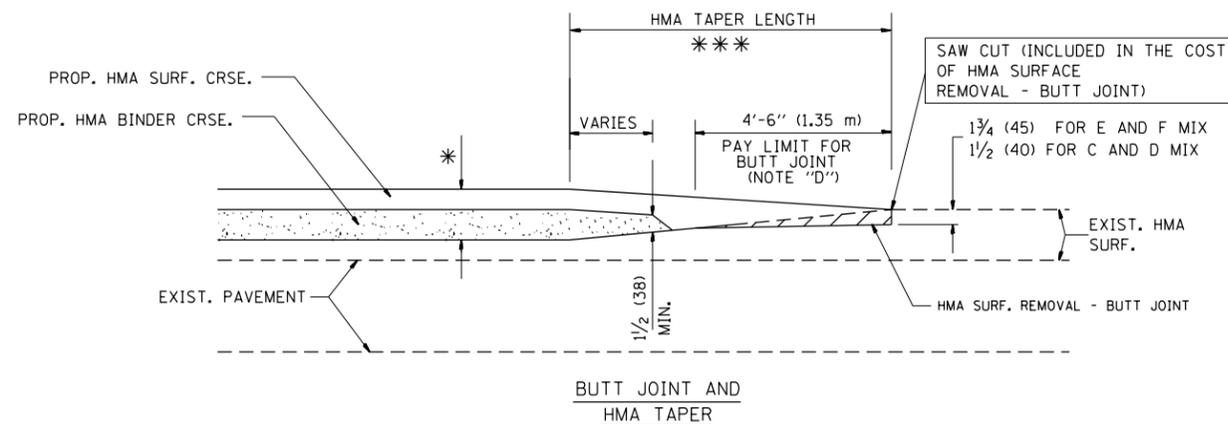
NOTES

- 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".

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



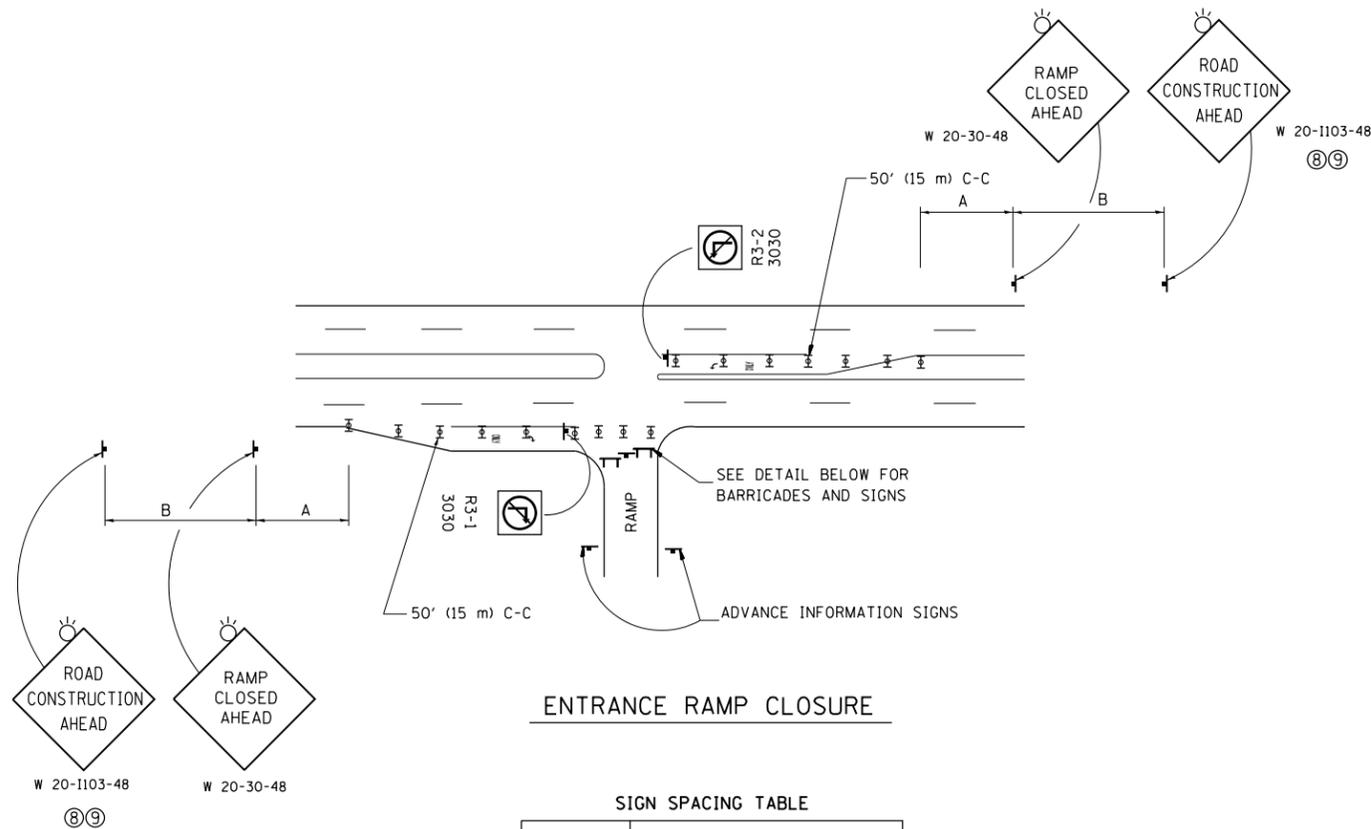
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME =	USER NAME = Aumm	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
et:\pw\work\p1dot\aumm\d0382486\60Y17-D	stStd.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 4/9/2014	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BUTT JOINT AND HMA TAPER DETAILS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	18	10
BD400-05 BD32		CONTRACT NO. 60Y17		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

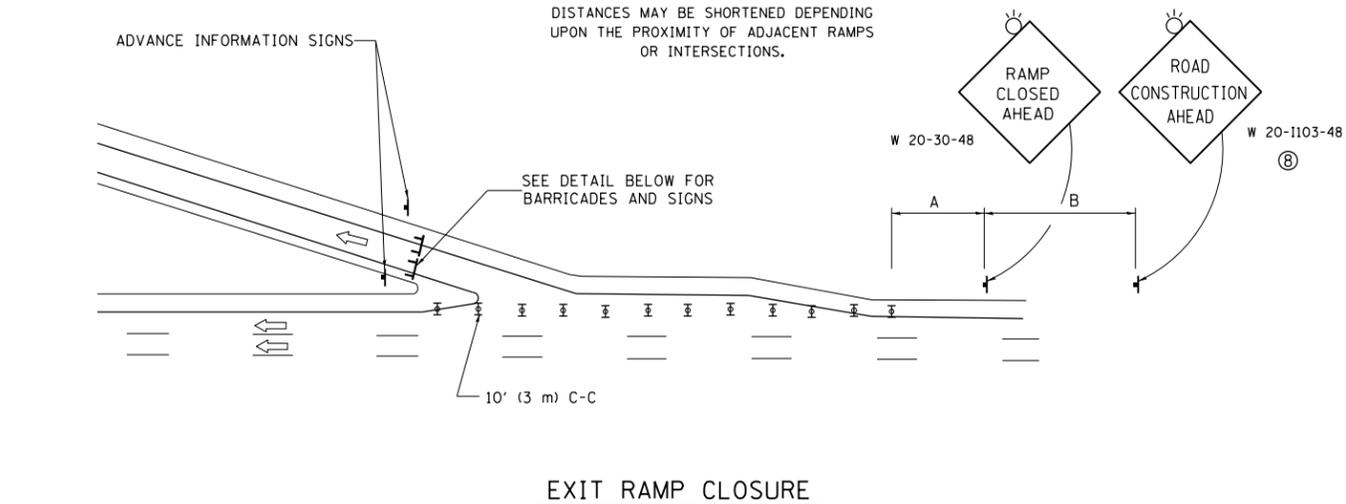


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

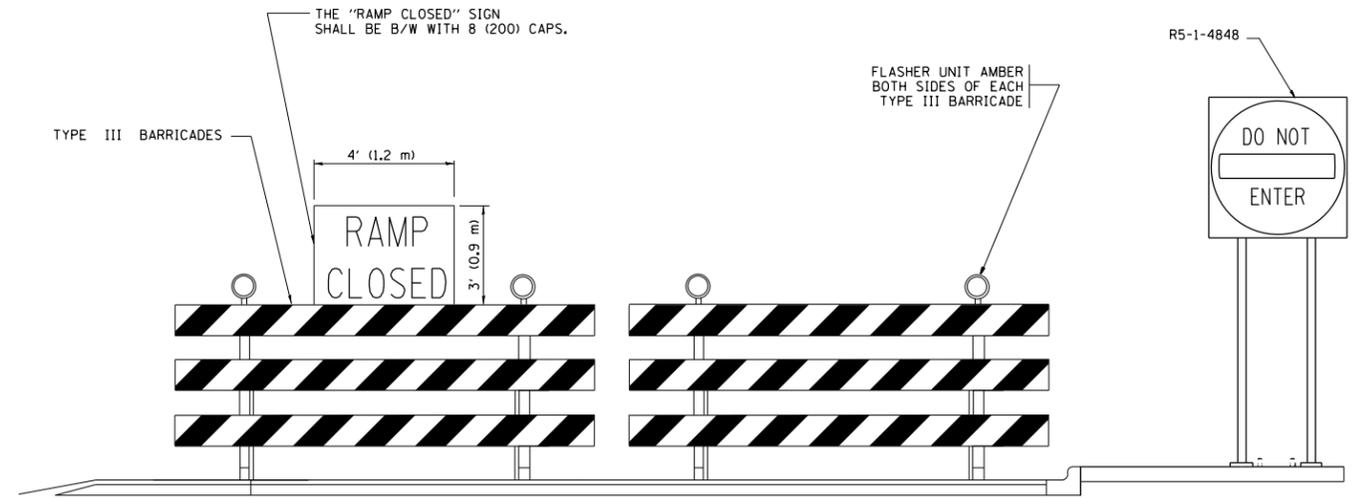
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

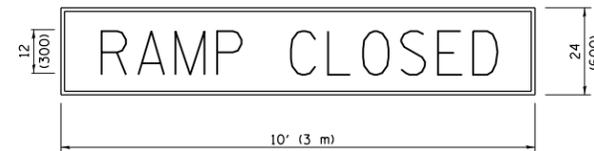
SYMBOLS

- ⊥ TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ⊓ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

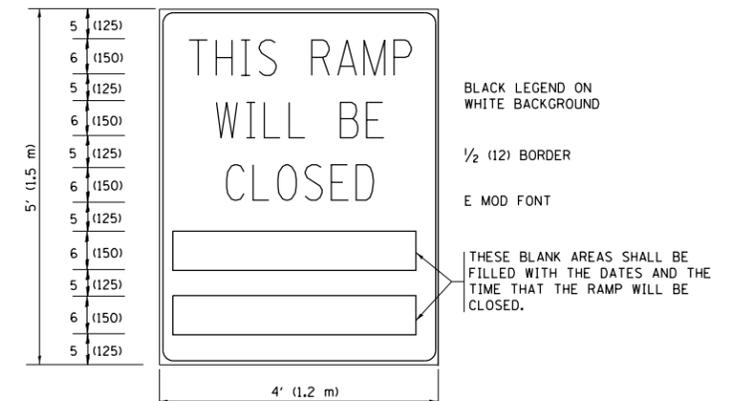
RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND

1/2 (12) BORDER

E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

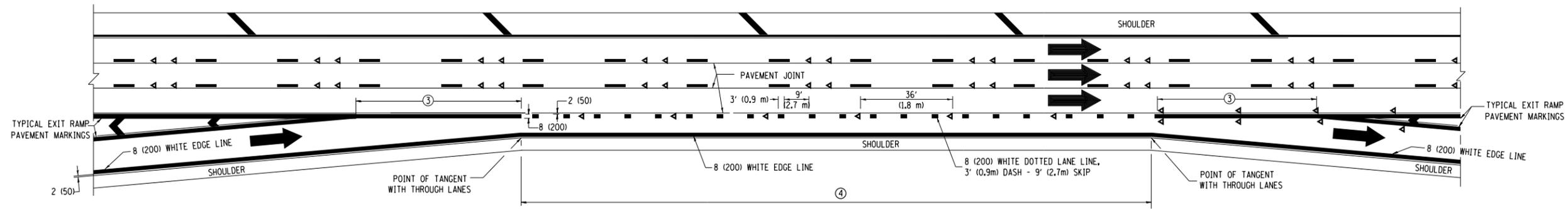
FILE NAME =	USER NAME = Aumm	DESIGNED - DWS	REVISED - JAF 02-06
et:\pw\work\p\dot\vaum\40382486\60Y17-D	stStd.dgn	DRAWN -	REVISED - SPB 01-07
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED - SPB 12-09
	PLOT DATE = 4/9/2014	DATE - 02-83	REVISED - MD 06-13

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

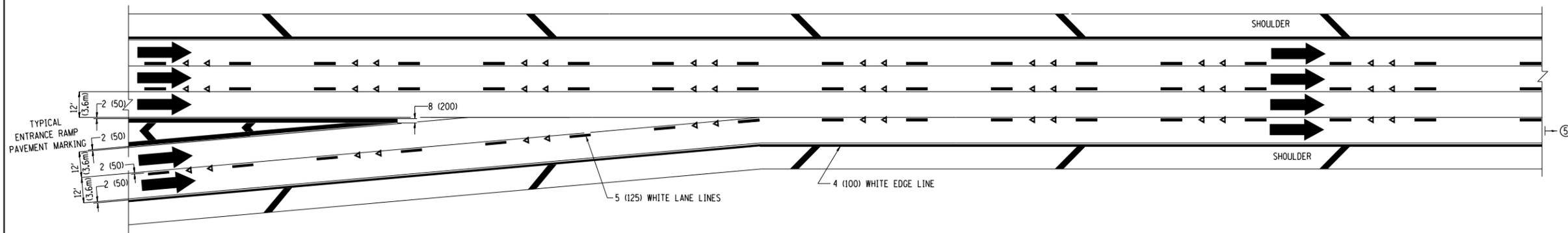
**ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

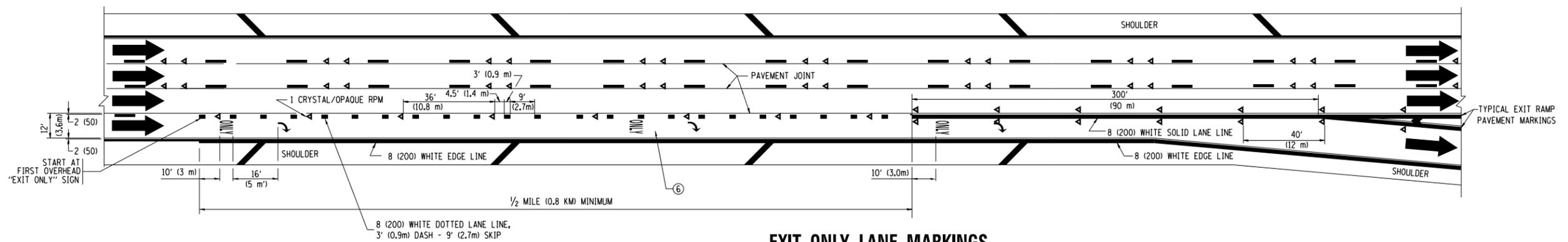
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	18	11
TC-08		CONTRACT NO. 60Y17		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



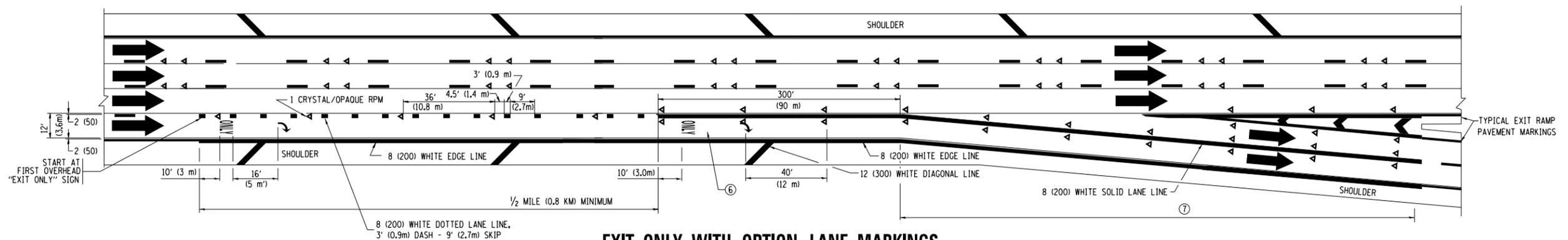
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES**
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
 - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
 - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
 - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
 - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

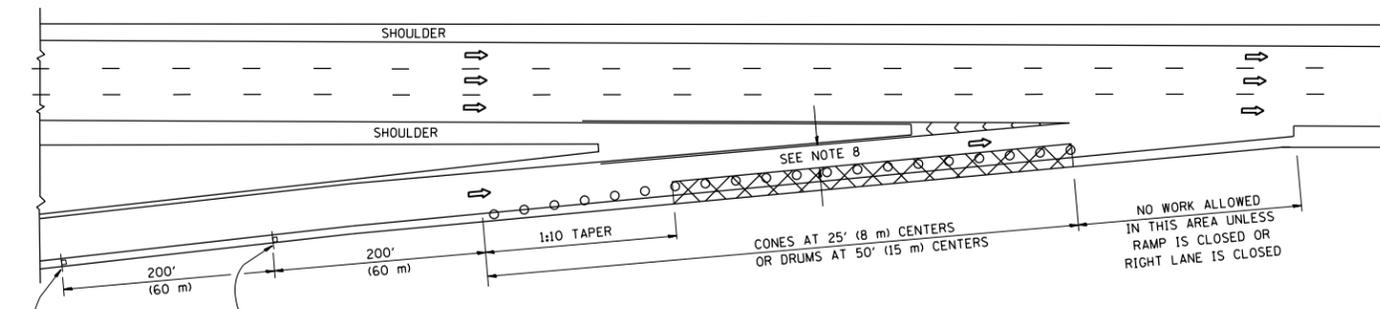
FILE NAME =	USER NAME = Aumm	DESIGNED - D.W.S.	REVISED - D.W.S. 07-96
et:\pw\work\p1dot\Aumm\d0382486\60Y17-D	stStd.dgn	DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 4/9/2014	DATE - 01-90	REVISED - S.P.B. 01-10

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

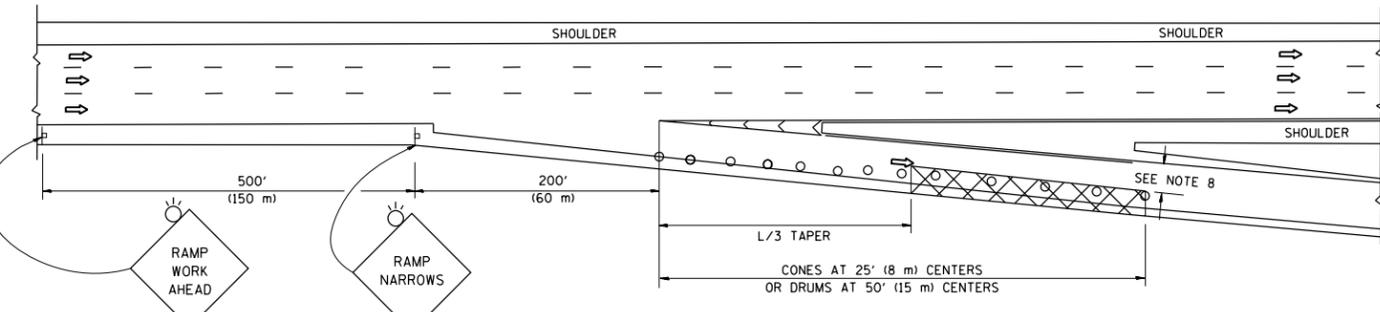
MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	18	14
TC-12		CONTRACT NO. 60Y17		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

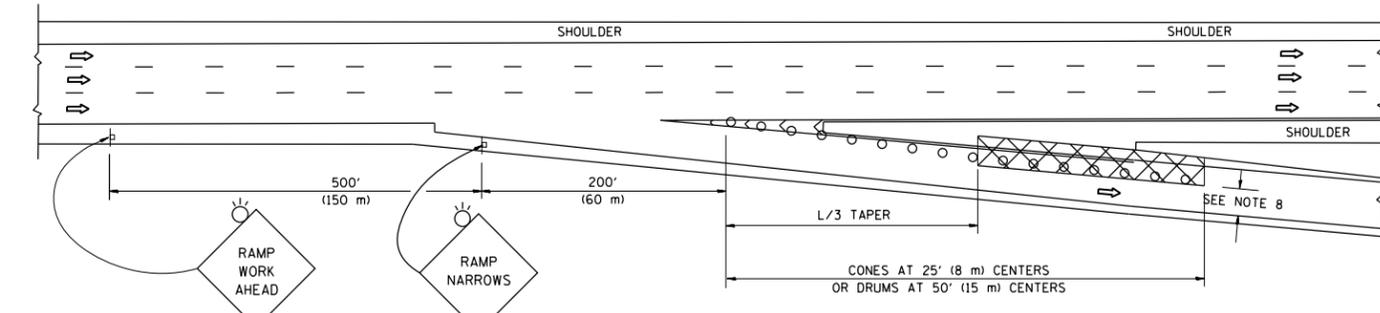
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

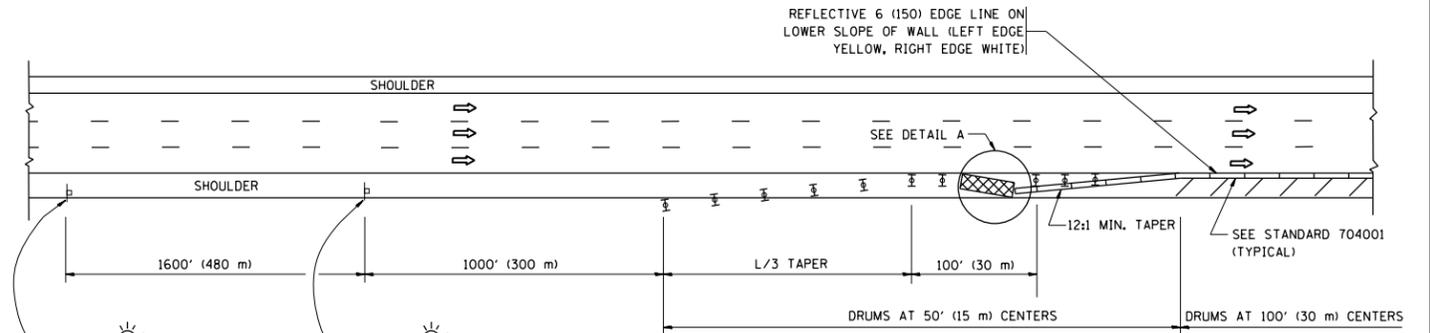
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES

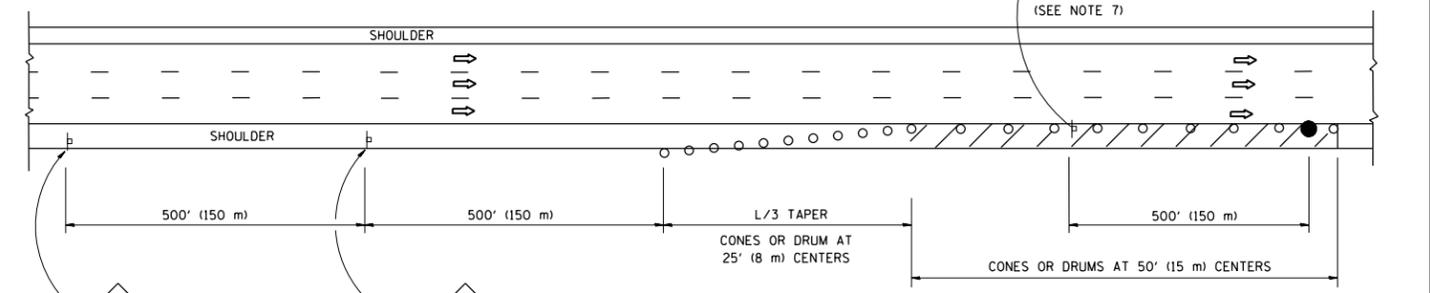
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)
	W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

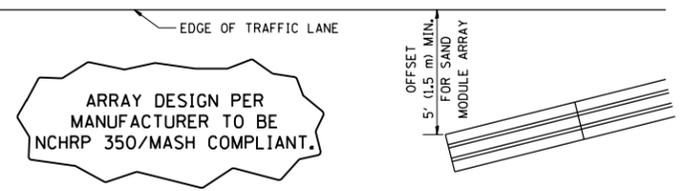
SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12" MIN. WIDTH TANGENT SECTION
16" MIN. WIDTH CURVE SECTION.

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

FILE NAME =	USER NAME = Aumm	DESIGNED -	REVISED - J.A.F. 12-06
ct:\pw\work\p1dot\au\m\d0382486\60Y17-D	stStd.dgn	DRAWN - D.W.S.	REVISED - S.P.B. 01-07
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED - S.P.B. 12-09
	PLOT DATE = 4/9/2014	DATE - 11-96	REVISED - M.D. 06-13

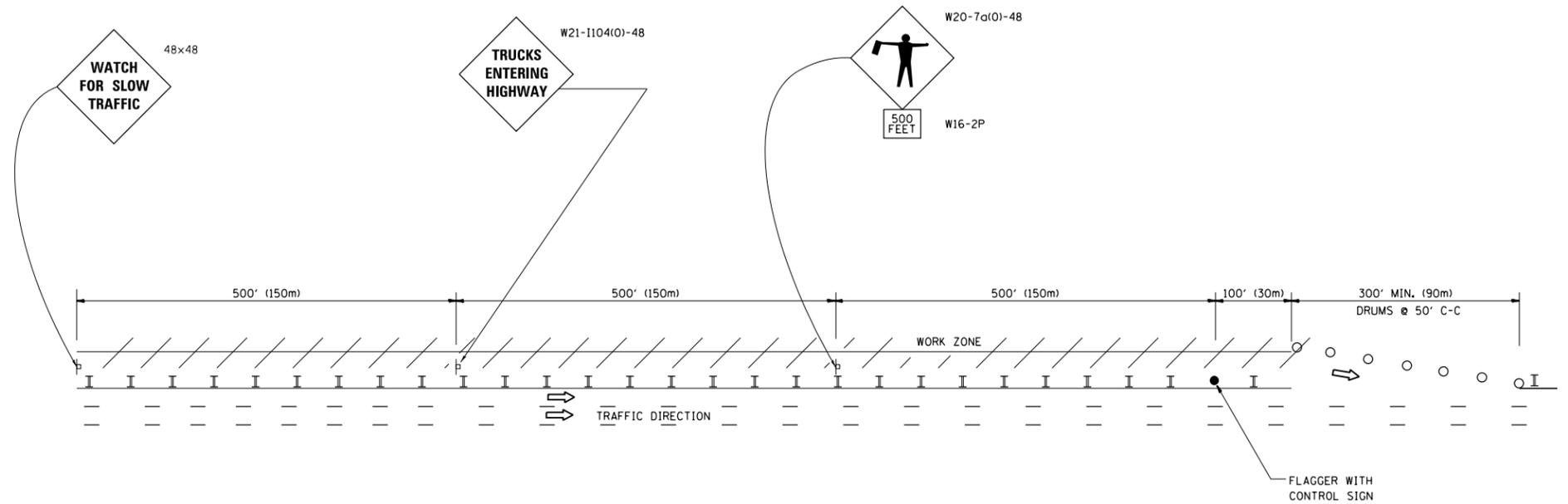
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY			
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

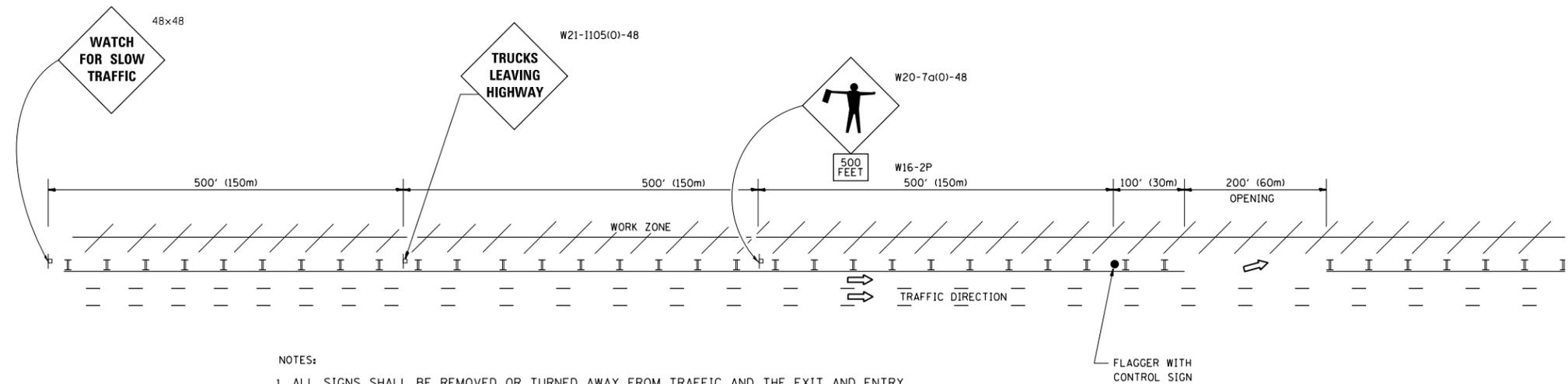
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2014-031RS	COOK	18	15
TC-17		CONTRACT NO. 60Y17		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMP.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

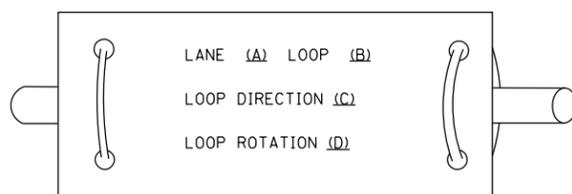
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = Aumm	DESIGNED -	REVISED - J.A.F. 02-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\dot\Aumm\d0382486\60Y17-D	stStd.dgn	DRAWN -	REVISED - S.P.B. 01-07			VAR.	2014-031RS	COOK	18	16
		CHECKED -	REVISED - S.P.B. 12-09			TC-18		CONTRACT NO. 60Y17		
		DATE -	REVISED - M.D. 06-13			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.			

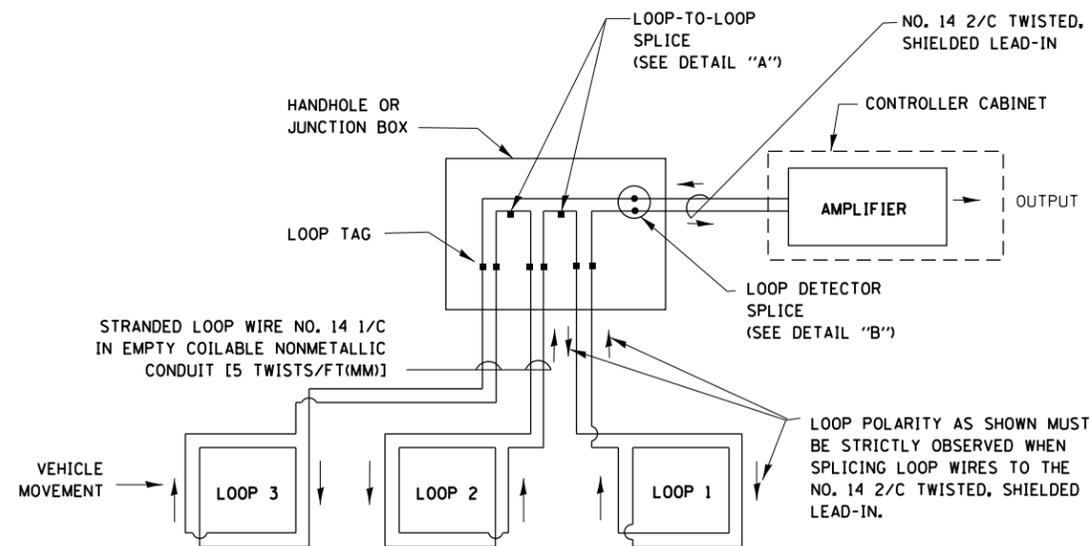
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

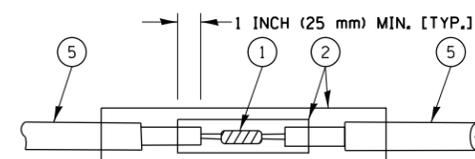


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

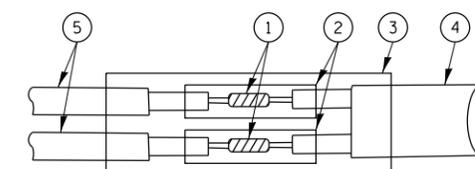


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

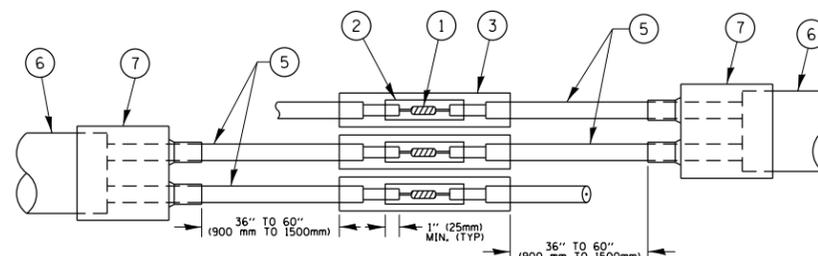


DETAIL "A"
LOOP-TO-LOOP SPLICE

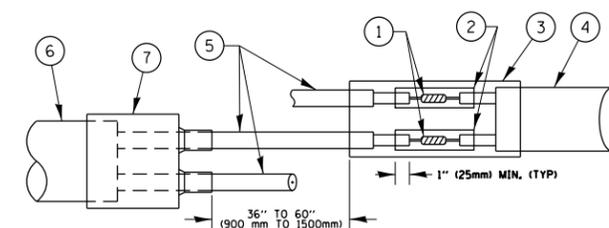


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PRE-FORMED LOOP

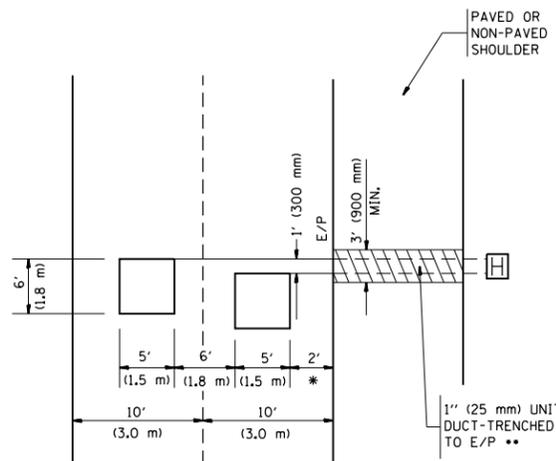
LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = Aumm	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p1dot\Aumm\d0382486\60Y17-DistStd.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	VAR.	2014-031RS	COOK	18	17
		CHECKED - DAD	REVISED -						TS-05		CONTRACT NO. 60Y17		
		DATE - 10-28-09	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

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

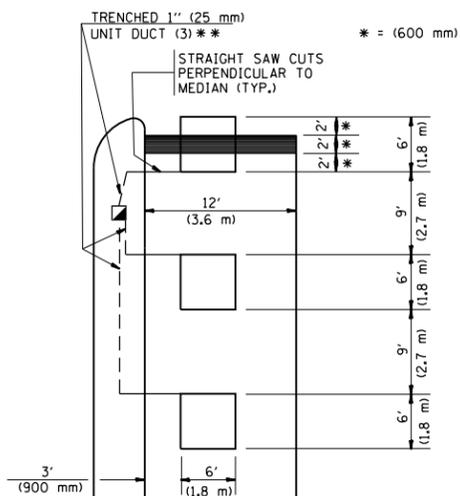


* = (600 mm)

** 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)**

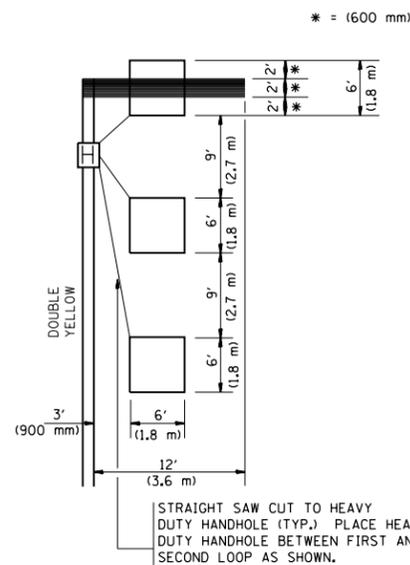
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

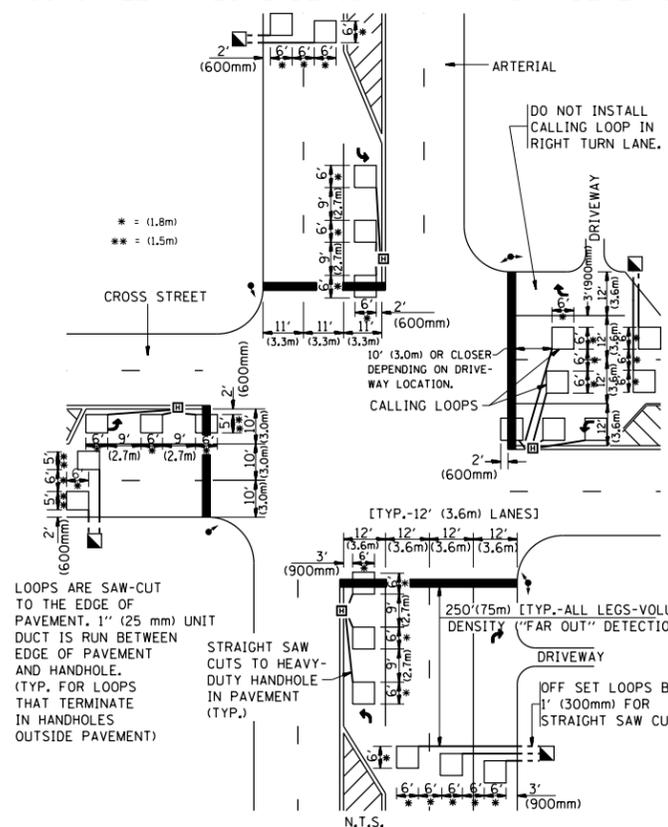
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**



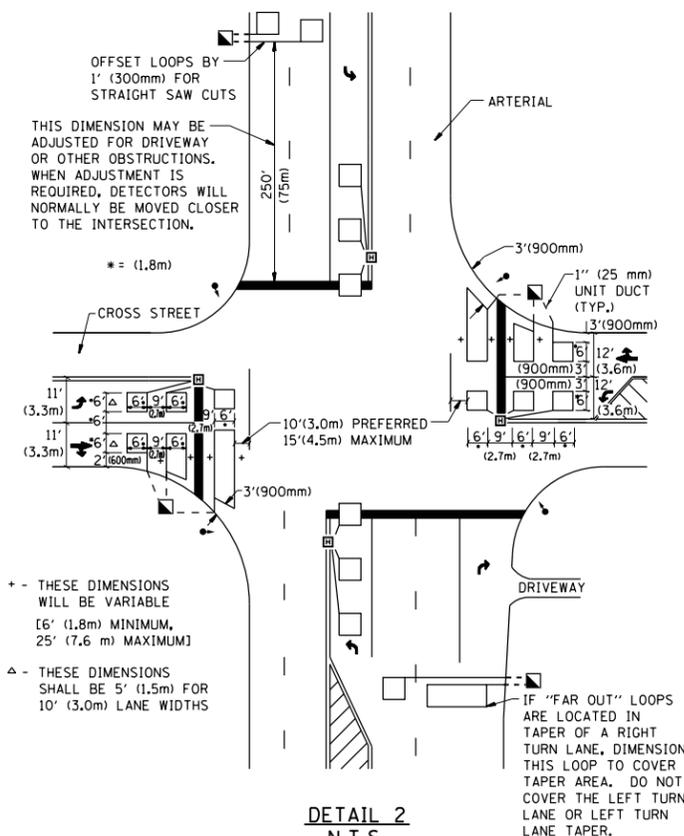
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**DETAIL 1
N.T.S.**

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



**DETAIL 2
N.T.S.**

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 SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

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

NOTE:

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

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

FILE NAME =	USER NAME = Aumm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\dot\au\m\d0382486\60Y17-D	stStd.dgn	DRAWN -	REVISED -			VAR.	2014-031RS	COOK	18	18
	PLOT SCALE = 100.0000' / 1"	CHECKED - R.K.F.	REVISED -			TS-07		CONTRACT NO. 60Y17		
	PLOT DATE = 4/9/2014	DATE -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT