

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F A	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
RTE	2019 031 RS	VARIOUS	23	1
VAR				
		ILLINOIS	CONTRACT NO	62J09

D-91-153-19



PROPOSED HIGHWAY PLANS

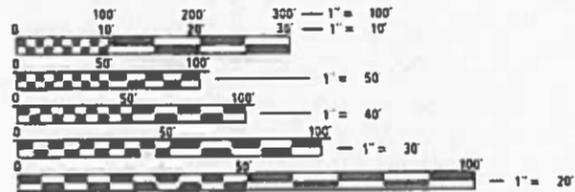
VARIOUS ROUTES
 VARIOUS EXPRESSWAY ROUTES - NORTHERN REGION
 SECTION: 2019-031-RS
 PATCHING (INTERMITTENT RESURFACING)
 COOK AND DUPAGE COUNTIES
 C-91-364-19

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN:
 THE VILLAGE OF ADDISON
 THE CITY OF CHICAGO
 THE VILLAGE OF ELK GROVE
 THE VILLAGE OF ITASCA
 THE VILLAGE OF NORTHBROOK
 THE VILLAGE OF ROLLING MEADOWS
 THE VILLAGE OF SCHAUMBURG
 THE VILLAGE OF SKOKIE
 THE VILLAGE OF WILMETTE

FOR TRAFFIC DATA SEE SHEET NO. 5

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: VESELIN VELICHKOV (847) 705-4432
 PROJECT MANAGER: FAWAD AQUEEL (847) 705-4247

CONTRACT NO. 62J09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED MARCH 29 2019
Anthony J. [Signature]
 REGIONAL ENGINEER

May 10 2019
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

May 10 2019
[Signature]
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET	00001-07	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
3	SUMMARY OF QUANTITIES	701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
4	GENERAL LOCATION MAP	701411-09	MULTI-LANE, TRAFFIC CONTROL AT ENTRANCE OR EXIT RAMP
5	ROUTE INFORMATION	701426-09	MULTI-LANE, INTERMITTENT OR MOVING OPERATION
6	SUMMARY OF INTERMITTENT RESURFACING SCHEDULE	701428-01	TRAFFIC CONTROL SETUP & REMOVAL FREEWAY/EXPRESSWAY
7-13	INTERMITTENT RESURFACING SCHEDULE	701446-09	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
14	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701451-05	RAMP CLOSURE FREEWAY/EXPRESSWAY
15	ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-08)	701456-05	PARTIAL RAMP CLOSURE FREEWAY/EXPRESSWAY
16	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE (TC-09)	701901-08	TRAFFIC CONTROL DEVICES
17-18	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS (TC-12)		
19	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)		
20	FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS (TC-18)		
21	TRAFFIC CONTROL DETAILS FOR FREEWAY CENTER LANE CLOSURE SHOULDER LANE (TC-25)		
22	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)		
23	DETECTOR LOOP INSTALLATION DETAILS 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) 705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER AT (847) 705-4153 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.}	
RESURFACING		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, N80, 2"	3.5% @ 80 GYR	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE(QC/QA); QUALITY CONTROL FOR PERFORMANCE(QCP); PAY FOR PERFORMANCE(PFP)		

THE UNIT WEIGHT USED TO CALCULATE ALL HOT MIX ASPHALT SURFACE MIXTURES 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

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
VARIOUS EXPRESSWAY ROUTES-NORTHERN REGION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2019-031-R5	COOK, DUPAGE	23	2
ILLINOIS			CONTRACT NO. 62J09	
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		100% STATE COOK COUNTY 0005	100% STATE DUPAGE COUNTY 0005			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	5837	3641	2196			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	21	13	8			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	390	243	147			
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SO YD	12969	8090	4879			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	3.6	2.4			
67100100	MOBILIZATION	L SUM	1	0.6	0.4			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	836	567	269			
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	72	36	36			
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8693	6141	2552			
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	493	93	400			
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	746	516	230			
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	25	25				
* SPECIALTY ITEM								

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		100% STATE COOK COUNTY 0005	100% STATE DUPAGE COUNTY 0005			
* 78004355	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - INLAID - LINE 5"	FOOT	8700	6200	2500			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	377	101	276			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	377	101	276			
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	201	147	54			
X4060004	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, N80	TON	1454	907	547			
X7010410	SPEED DISPLAY TRAILER	CAL MO	1	0.6	0.4			
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	0.6	0.4			
700107025	CHANGEABLE MESSAGE SIGN	CAL DA	30	18.7	11.3			
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	373	284	89			

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
VARIOUS EXPRESSWAY ROUTES-NORTHERN REGION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2019-031-R5	COOK, DUPAGE	23	3
ILLINOIS		CONTRACT NO. 62J09		
ILLINOIS		FED. AID PROJECT		

	SUMMARY - NORTHERN EXPRESSWAY ROUTES	COUNTY	CITIES/VILLAGES	TOWNSHIPS	SPEED LIMIT	EXISTING ADT (YEAR)
LOC. 1	Edens SB (Lake entrance ramp)	Cook	Wilmette	New Trier	40 MPH	6,400 (2018)
LOC. 2	Edens SB to EB (Dempster ramp)	Cook	Skokie	Niles	20 MPH	7,100 (2018)
LOC. 3	Edens SB (Old Orchard ramp)	Cook	Skokie	Niles	30 MPH	9,900 (2018)
LOC. 4	Edens SB to WB (Touhy ramp)	Cook	Skokie	Niles	25 MPH	4,400 (2018)
LOC. 5	Edens SB to EB (Touhy ramp)	Cook	Skokie	Niles	20 MPH	11,400 (2018)
LOC. 6	Edens SB (Cicero exit)	Cook	Chicago	Chicago City	30 MPH	12,100 (2018)
LOC. 7	Edens NB (Foster exit ramp)	Cook	Chicago	Chicago City	25 MPH	
LOC. 8	Edens (Foster entrance ramp)	Cook	Chicago	Chicago City	25 MPH	
LOC. 9	Edens (at RR Bridge)	Cook	Chicago	Northfield	55 MPH	57,700 (2017)
LOC. 10	Edens EB to NB (at Peterson)	Cook	Chicago	Chicago City	30 MPH	5,200 (2018)
LOC. 11	Edens NB to EB (Touhy exit point)	Cook	Skokie	Niles	20 MPH	3,700 (2018)
LOC. 12	Edens WB to NB (Dempster)	Cook	Skokie	Niles	20 MPH	9,200 (2018)
LOC. 13	Edens NB (over Golf Road)	Cook	Skokie	Niles	55 MPH	153,900 (2018)
LOC. 14	Edens NB (Old Orchard entrance ramp)	Cook	Skokie	Niles	30 MPH	5,200 (2018)
LOC. 15	Edens NB (at Skokie bike path)	Cook	Skokie	Niles	55 MPH	158,300 (2018)
LOC. 16	Edens SB (Towe Road exit)	Cook	Winnetka	Northfield	35 MPH	6,450 (2018)
LOC. 17	I-290/IL 53 NB & SB Local (Woodfield Road to Kirchoff Road)	Cook	Schaumburg / / Elk Grove Village /Rolling Meadows	Schaumburg / Elk Grove / Palatine	55 MPH	155,300 (2018)
LOC. 18	I-290/IL 53 NB Express (Woodfield Road to Kirchoff Road)	Cook	Schaumburg / / Elk Grove Village /Rolling Meadows	Schaumburg / Elk Grove / Palatine	60 MPH	142,800 (2018)
LOC. 19	Woodfield West Frontage Road (I-290 Woodfield exit ramp to Woodfield Road)	Cook	Schaumburg	Schaumburg	45 MPH	26,200 (2018)
LOC. 20	IL 53 Ramp (Exit Ramp to Kirchoff Road)	Cook	Rolling Meadows	Palatine	35 MPH	6,600 (2018)
LOC. 21	I-290 Ramp (Entrance Ramp from IL 72)	Cook	Schaumburg	Schaumburg	45 MPH	24,600 (2018)
LOC. 22	I-290 (I-355 Merge to IL 390)	DuPage	Itasca	Addison	60 MPH	197,500 (2018)
LOC. 23	I-290 Ramp (Entrance ramp from EB IL-390)	DuPage	Itasca	Addison	45 MPH	22,800 (2018)
LOC. 24	I-355 Ramp (Exit ramp to Army Trail Road)	DuPage	Addison	Bloomingtondale	30 MPH	21,100 (2016)
LOC. 25	I-290 (I-355 to IL 83)	DuPage	Itasca / Addison	Addison	55 MPH	152,600 (2018)
LOC. 26	I-290 (IL 83 to I-355)	DuPage	Itasca / Addison	Addison	55 MPH	152,600 (2018)
LOC. 27	I-355 (Army Trail Road to I-290 Merge)	DuPage	Addison / Itasca	Bloomingtondale / Addison	55 MPH	133,000 (2018)
LOC. 28	I-355 (South of IL-19)	DuPage	Itasca	Addison	60 MPH	223,000 (2018)
LOC. 29	I-290 Ramp (Over I-355)	DuPage	Itasca	Addison	45 MPH	25,100 (2018)

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROUTE INFORMATION
VARIOUS EXPRESSWAY ROUTES-NORTHERN REGION**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2019-031-R5	COOK, DUPAGE	23	5
		ILLINOIS	CONTRACT NO. 62109	
		ILLINOIS	FED. AID PROJECT	

LOCATION NO. 1 TO 16
EDENS EXPRESSWAY- RR BRIDGE, N. OF LAWRANCE AVE. TO EDENS SPUR (TOO ROAD)

LOCATION NO. 1

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)
S/B Lake Entrance Ramp				12	15	180	20
S/B Lake Entrance Ramp				12	10	120	13
TOTALS:						25	33
						FT	SY

LOCATION NO. 2

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)
S/B to E/B Dempster				12	30	360	40
S/B to E/B Dempster				12	5	72	8
S/B to E/B Dempster				3	60	180	20
TOTALS:						96	68
						FT	SY

LOCATION NO. 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)
S/B Old Orchard Entrance				250	6	1500	167

LOCATION NO. 4

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)
S/B to W/B Touhy Exit				12	40	480	53

LOCATION NO. 5

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)
S/B to E/B Touhy				12	30	360	40
S/B to E/B Touhy				12	150	1800	200
TOTALS:						180	240
						FT	SY

LOCATION NO. 6

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)
Cicero exit				12	25	300	33

LOCATION NO. 7

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)
N/B Foster Exit Ramp				12	10	120	13

LOCATION NO. 8

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)
Foster Entrance Ramp (Mid)				12	10	120	13

LOCATION NO. 9

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)
Railroad Bridge (lane 1)				12	10	120	13

LOCATION NO. 10

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)
Peterson E/B to N/B				12	10	120	13

LOCATION NO. 11

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)
N/B to E/B Touhy exit point				15	300	4500	500

LOCATION NO. 12

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)
W/B to N/B Dempster				12	6	72	8

LOCATION NO. 13

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)
N/B mainline over Golf (lane 3)				10	50	500	56

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERMITTENT RESURFACING SCHEDULE
LOCATION 1 TO 16**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2019-031-R5	COOK, DUPAGE	23	7
		ILLINOIS	CONTRACT NO. 62J09	
		ILLINOIS	FED. AID PROJECT	

LOCATION NO. 1 TO 16
EDENS EXPRESSWAY- RR BRIDGE, N. OF LAWRANCE AVE. TO EDENS SPUR (TOO ROAD)

LOCATION NO. 14

CROSS STREET		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT		REPAIR	REPAIR
FROM	TO			PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
N/B Old Orchard entrance ramp				20	1320	26400	2933
N/B Old Orchard entrance ramp				10	60	600	67
TOTALS:					1,380		3,000
					FT		SY

LOCATION NO. 15

CROSS STREET		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT		REPAIR	REPAIR
FROM	TO			PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
N/B Mainline @ Skokie Bike Path (Lane 2)				12	6	72	8

LOCATION NO. 16

CROSS STREET		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT		REPAIR	REPAIR
FROM	TO			PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
S/B Tower Rd exit (top of point)				60	6	360	40

LOCATION NO. 1 TO 16 (MAINLINE)

ROUTE: | Edens NB Mainline |

CROSS STREET		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT		REPAIR	REPAIR
FROM	TO			PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
Edens	Just South of RR Bridge	NB	1	12	30	360	40
RR Bridge	Foster	NB	3	12	6	72	8
Foster	Peterson	NB	1	12	6	72	8
Foster	Peterson	NB	2	12	6	72	8
Foster	Peterson	NB	3	12	6	72	8
Touhy	Dempster	NB	2	12	12	144	16
Touhy	Dempster	NB	1	6	10	60	7
Touhy	Dempster	NB	1	6	6	36	4
Touhy	Dempster	NB	1	6	6	36	4
Dempster	Golf	NB	3	12	6	72	8
Dempster	Golf	NB	1	12	8	96	11
Golf	Old Orchard	NB	1	12	6	72	8
Golf	Old Orchard	NB	3	12	12	144	16
Golf	Old Orchard	NB	3	12	12	144	16
Golf	Old Orchard	NB	1	12	6	72	8
Golf	Old Orchard	NB	1	12	6	72	8
Old Orchard	Willow	NB	1	6	12	72	8
Old Orchard	Willow	NB	1	6	12	72	8
Old Orchard	Willow Rd	NB	2	12	18	216	24
Old Orchard	Willow Rd	NB	2	12	6	72	8
Willow	Tower Rd	NB	1	12	12	144	16

ROUTE: | Edens SB Mainline |

CROSS STREET		DIRECTION (EB/WB) (NB/SB)	LANE NO. (1, 2, 3)	PAVEMENT		REPAIR	REPAIR
FROM	TO			PATCH WIDTH	PATCH LENGTH	AREA (SQ FT)	AREA (SQ YD)
Dundee	Tower Rd	SB	LEOP/S	6	35	210	23
Edens	Just Before Skokie Exit	SB	1	12	6	72	8
Old Orchard	Golf	SB	1	12	6	72	8
Golf	Dempster	SB	1	12	6	72	8
Golf	Dempster	SB	1	12	6	72	8
Golf	Dempster	SB	1	12	6	72	8
Golf	Dempster	SB	1	12	6	72	8
Peterson	Foster	SB	1	12	6	72	8

TOTALS:				281		321	
				FT		SY	

MODEL: Default
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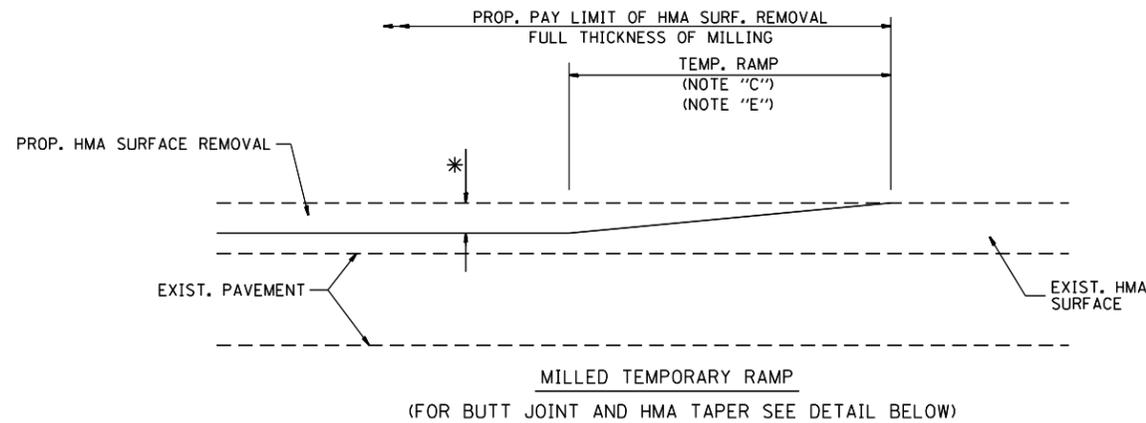
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	DRAWN -	REVISED -
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PLOT DATE = 4/4/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

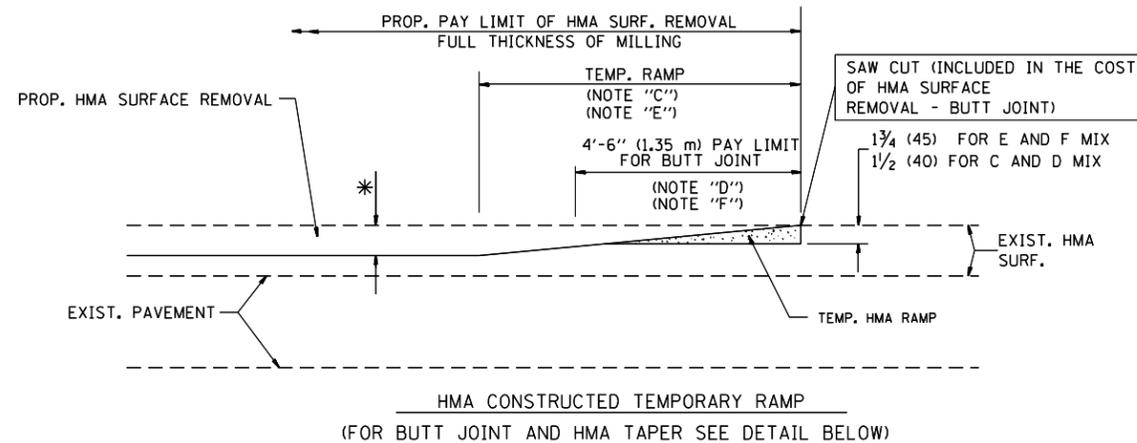
**INTERMITTENT RESURFACING SCHEDULE
LOCATION 1 TO 16**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2019-031-R5	COOK, DUPAGE	23	8
	ILLINOIS	CONTRACT NO. 62109		
	ILLINOIS	FED. AID PROJECT		

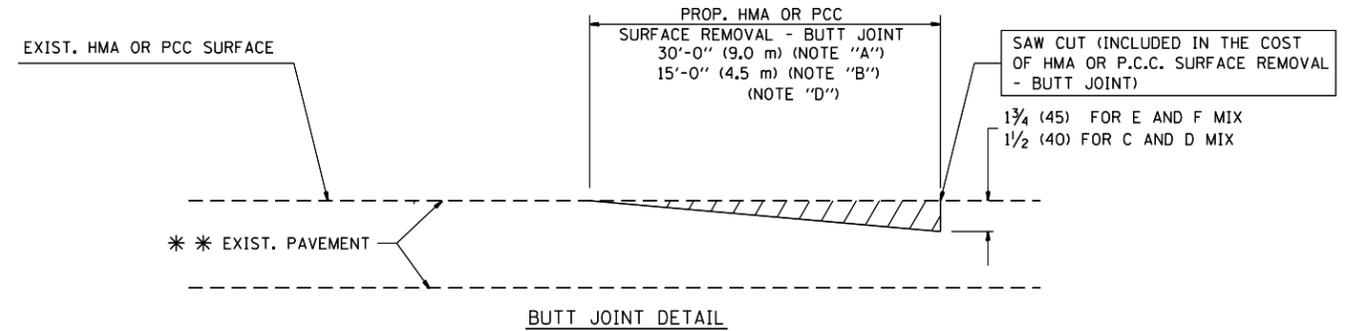


OPTION 1

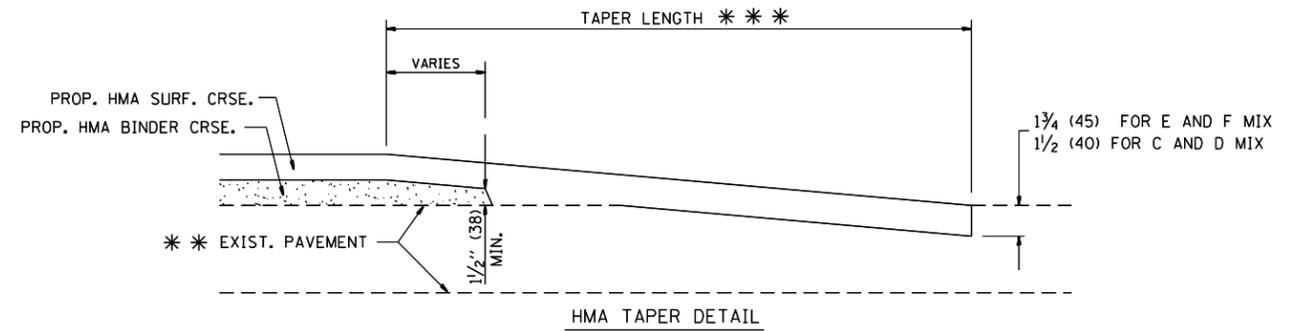


OPTION 2

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.

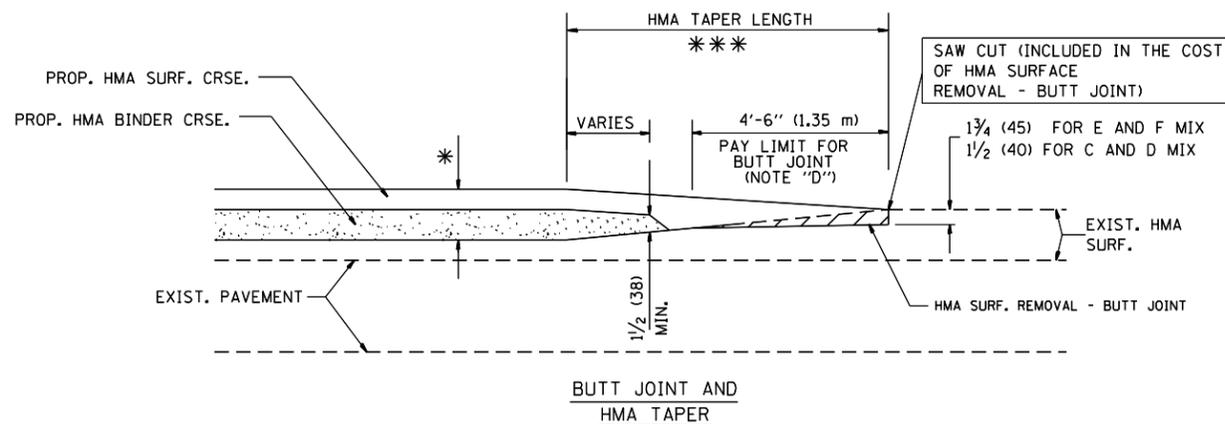
NOTES

- 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

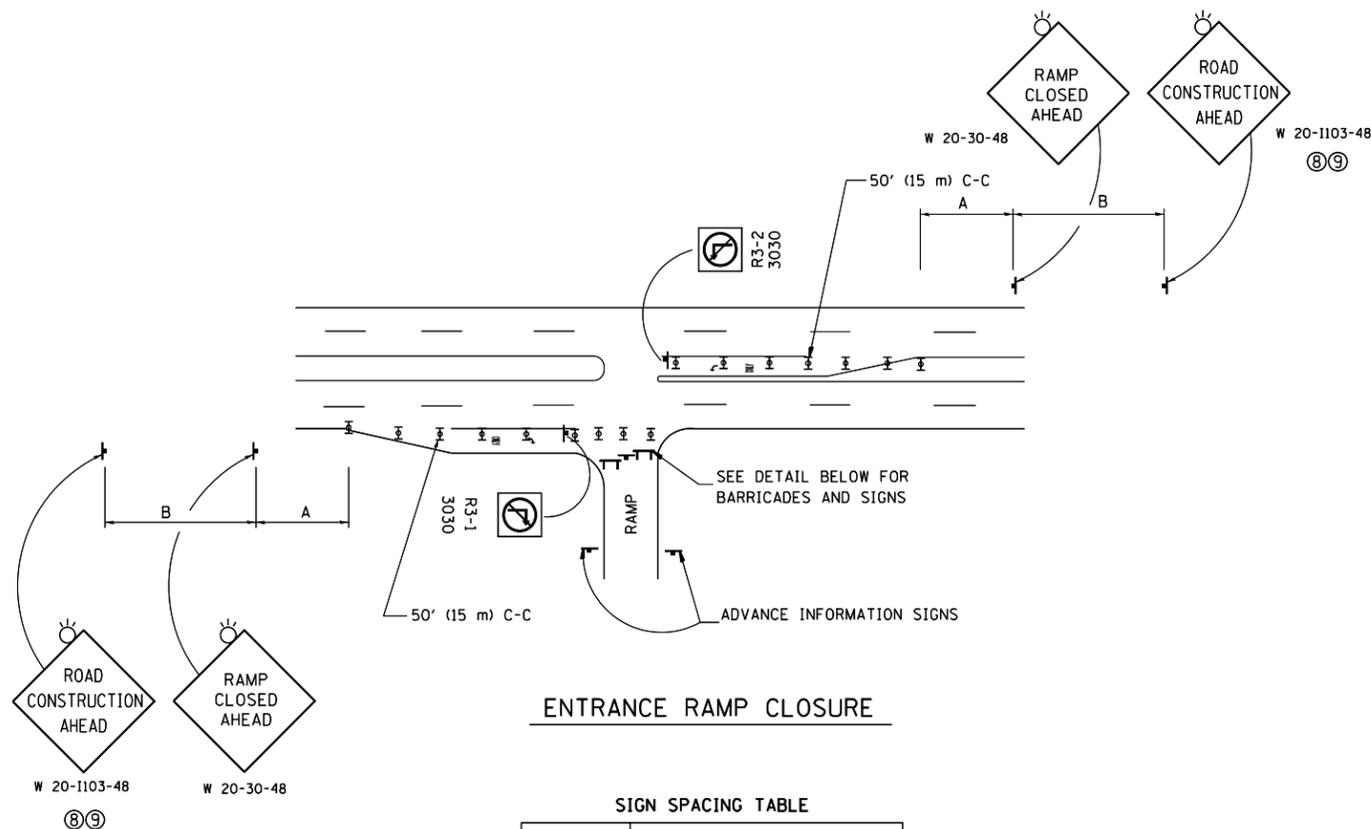
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PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISOR - M. GOMEZ 04-06-01	
PLOT DATE = 4/4/2019	DATE - 06-13-90	REVISED - R. BORO 01-01-07	

**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	2019-031-R5	VARIOUS	23	14
BD400-05 BD32		CONTRACT NO. 62J09		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

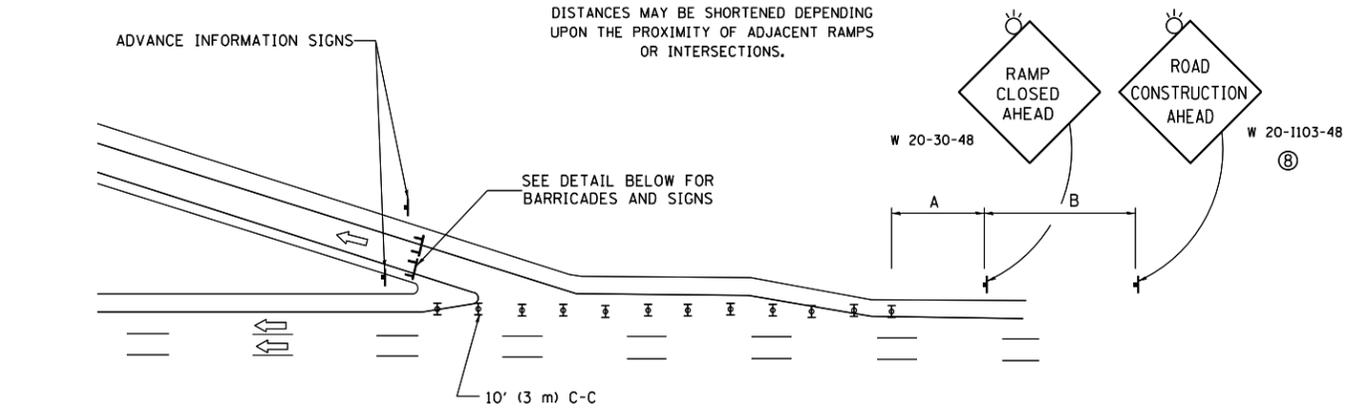


ENTRANCE RAMP CLOSURE

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)

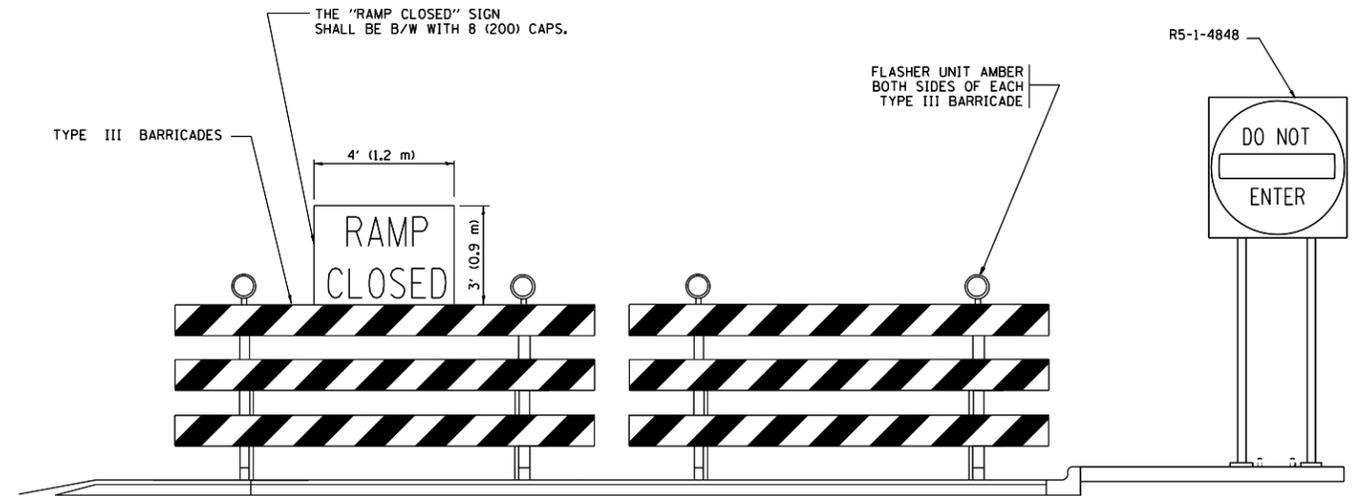
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

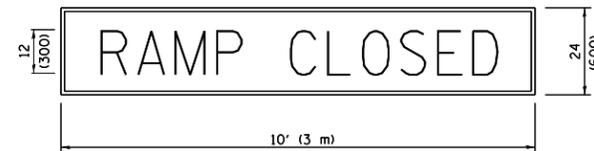
SYMBOLS

- ☐ TYPE II BARRICADE OR DRUM
- ☐ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

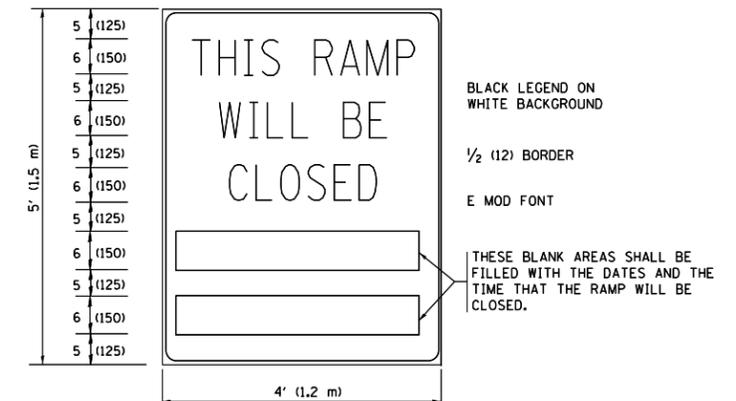
RAMP CLOSURE ADVANCE WARNING SIGN



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



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 VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- 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 = shiranisb	DESIGNED - D.W.S.	REVISED - S.P.B. 01-07
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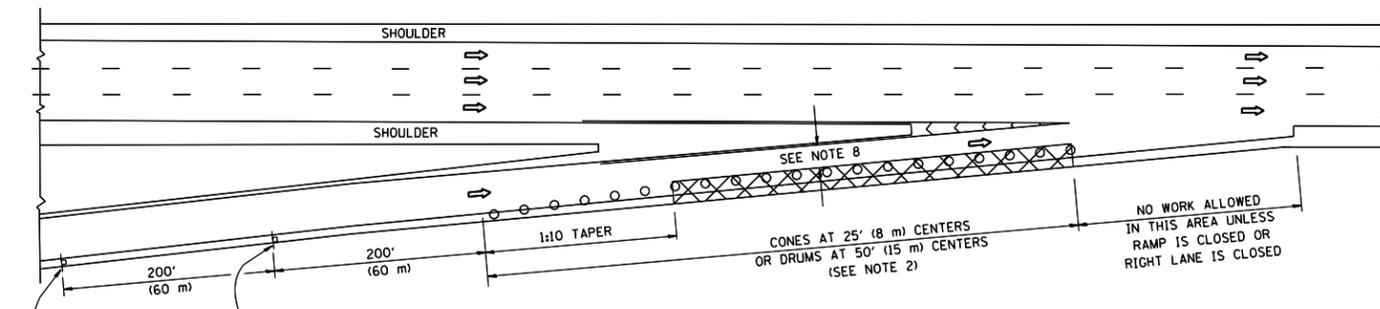
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

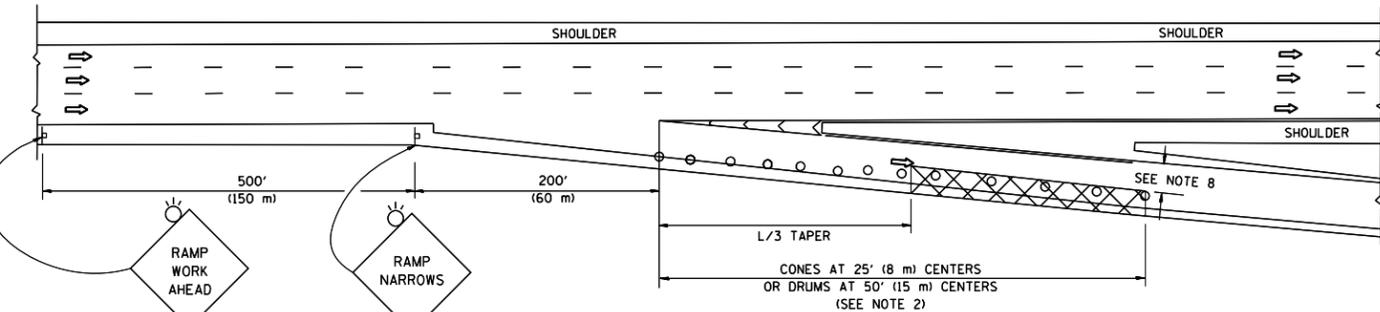
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-08		CONTRACT NO. 62J09		
ILLINOIS FED. AID PROJECT				

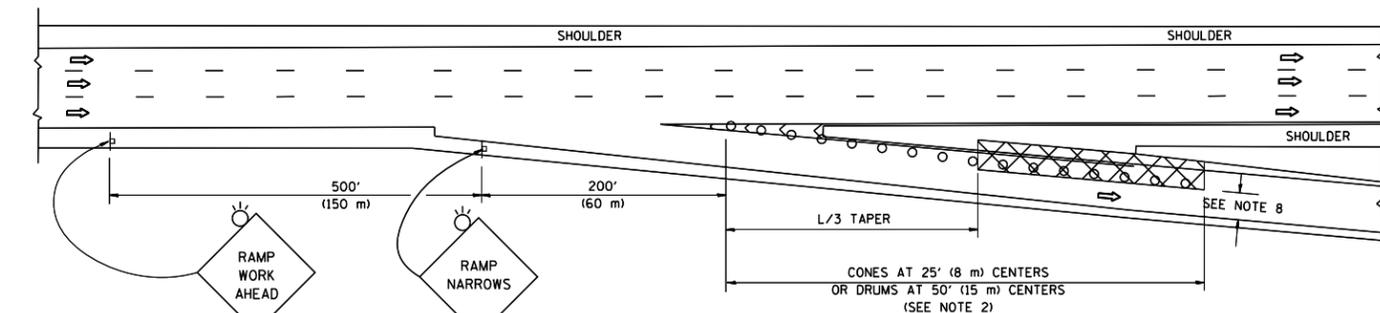
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

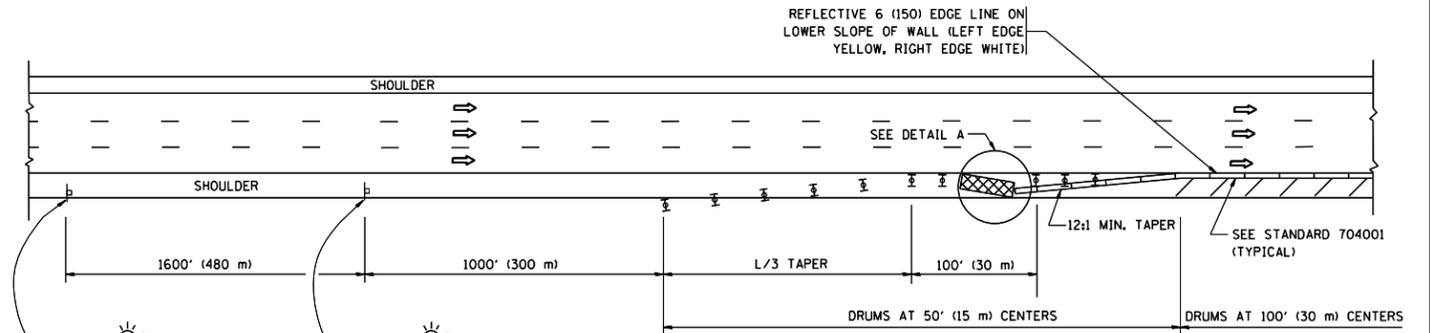
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES

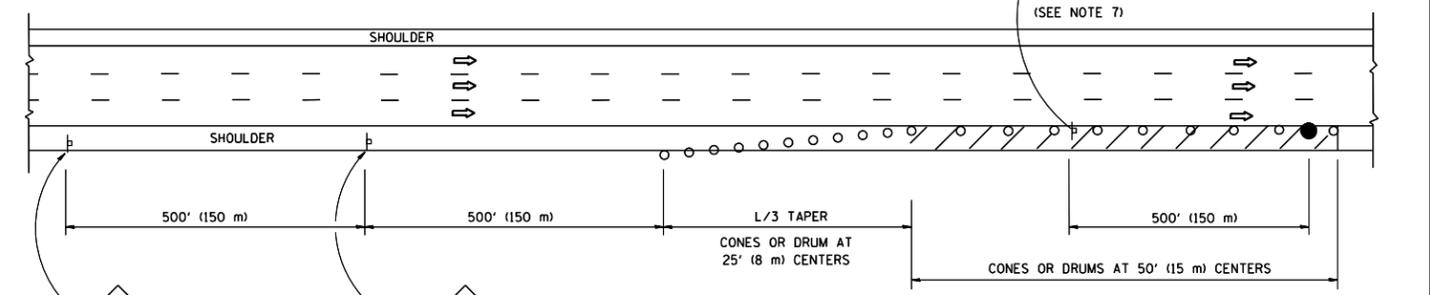
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)	
S = NORMAL POSTED SPEED MPH (KM/H)	
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
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.
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 ACTIVITY REQUIRES FREQUENT ENCROACHMENT 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.

SHOULDER CLOSURE DETAILS

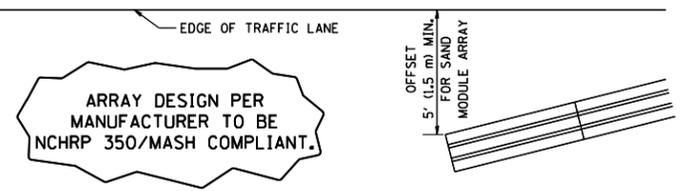


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



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

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

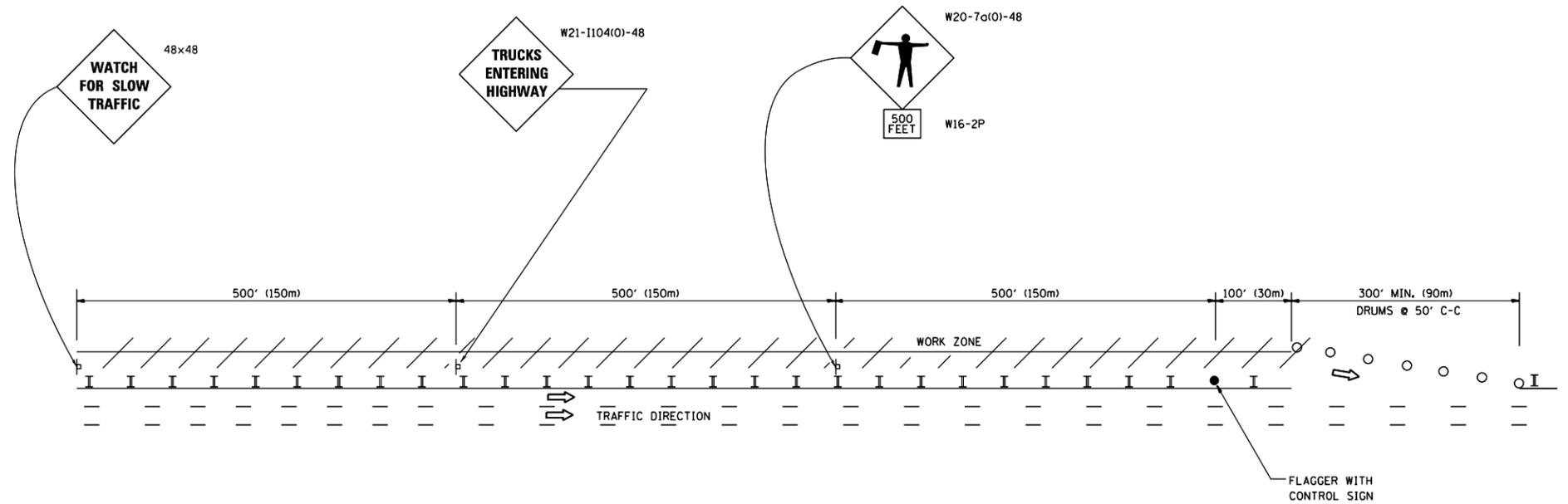
TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

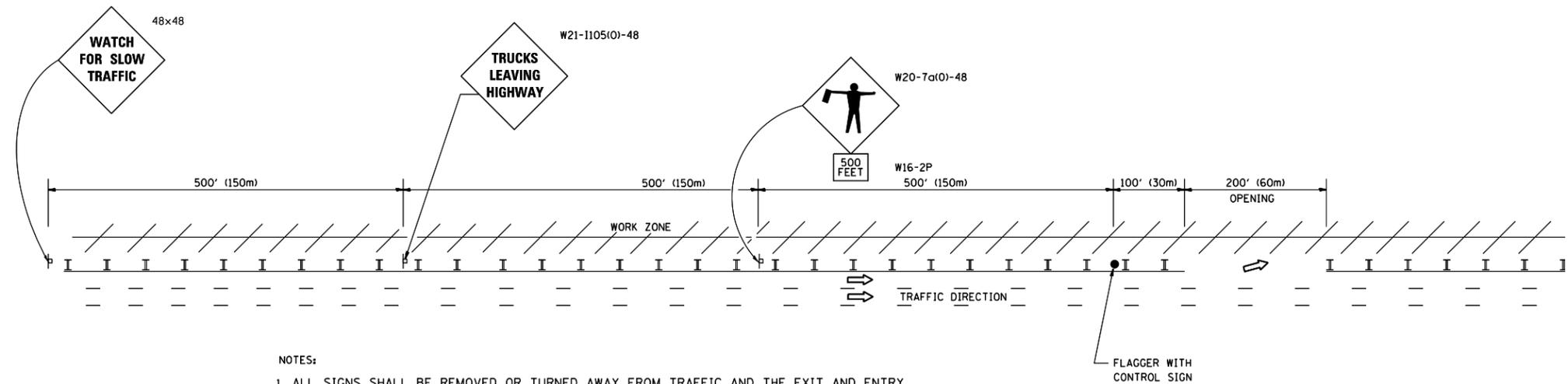
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2019-031-R5	VARIOUS	23	19
TC-17		CONTRACT NO. 62J09		
ILLINOIS FED. AID PROJECT				

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 = shironisb	DESIGNED -	REVISED - J.A.F. 02-06
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		CHECKED -	REVISED - M.D. 06-13
		DATE -	

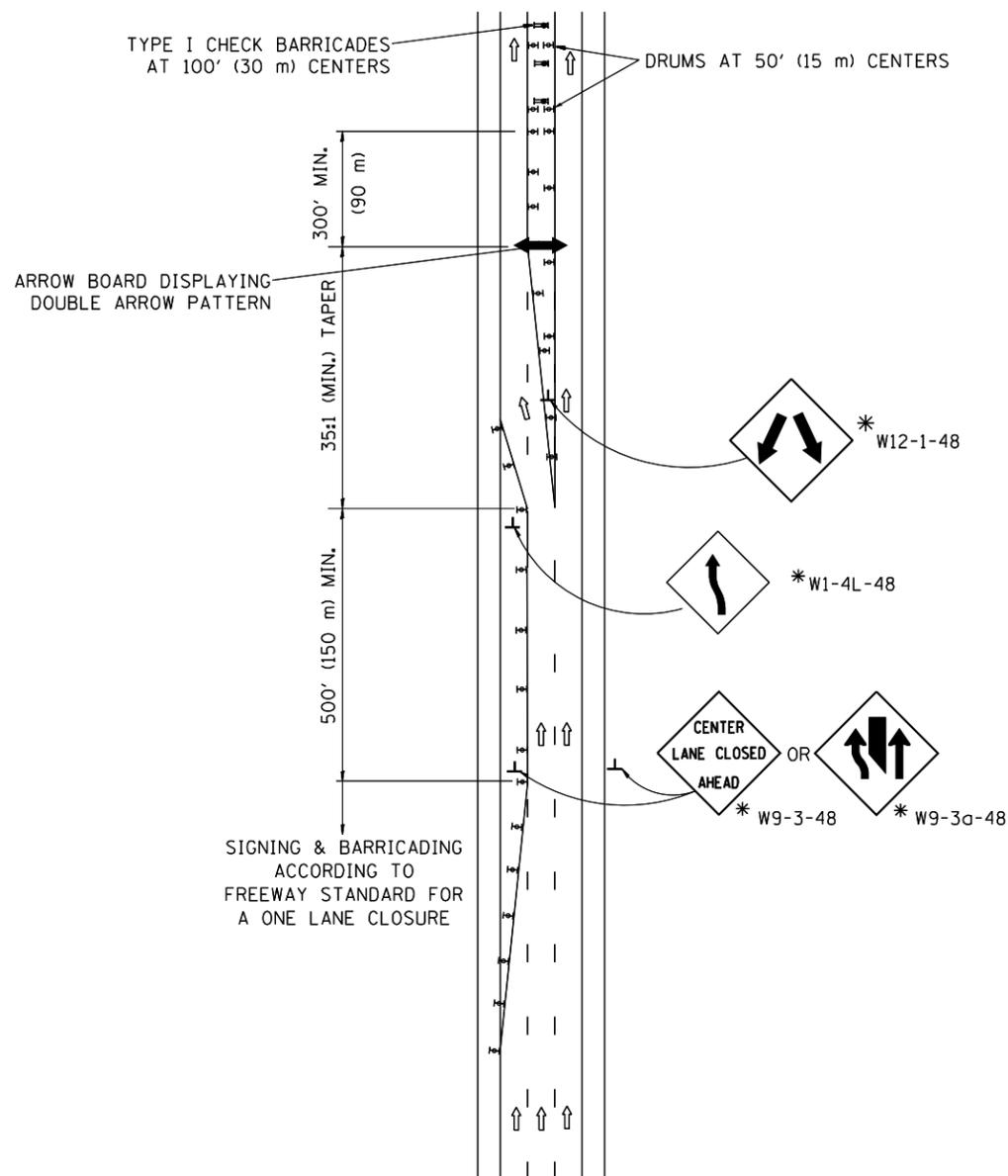
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS

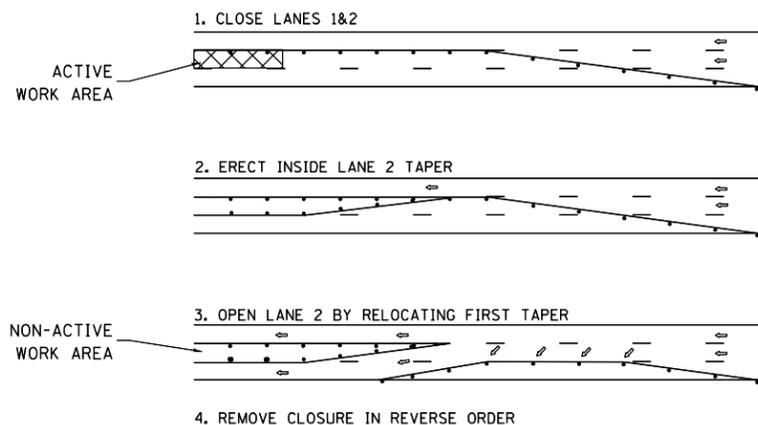
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2019-031-R5	VARIOUS	23	20
TC-18		CONTRACT NO. 62J09		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CENTER LANE CLOSURE



INSTALLATION SEQUENCE

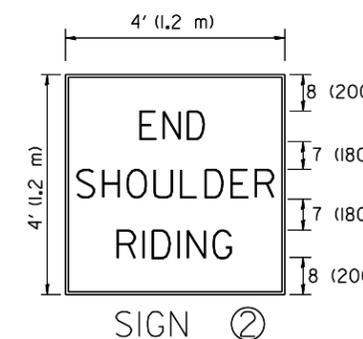
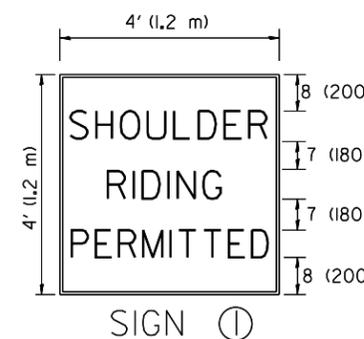
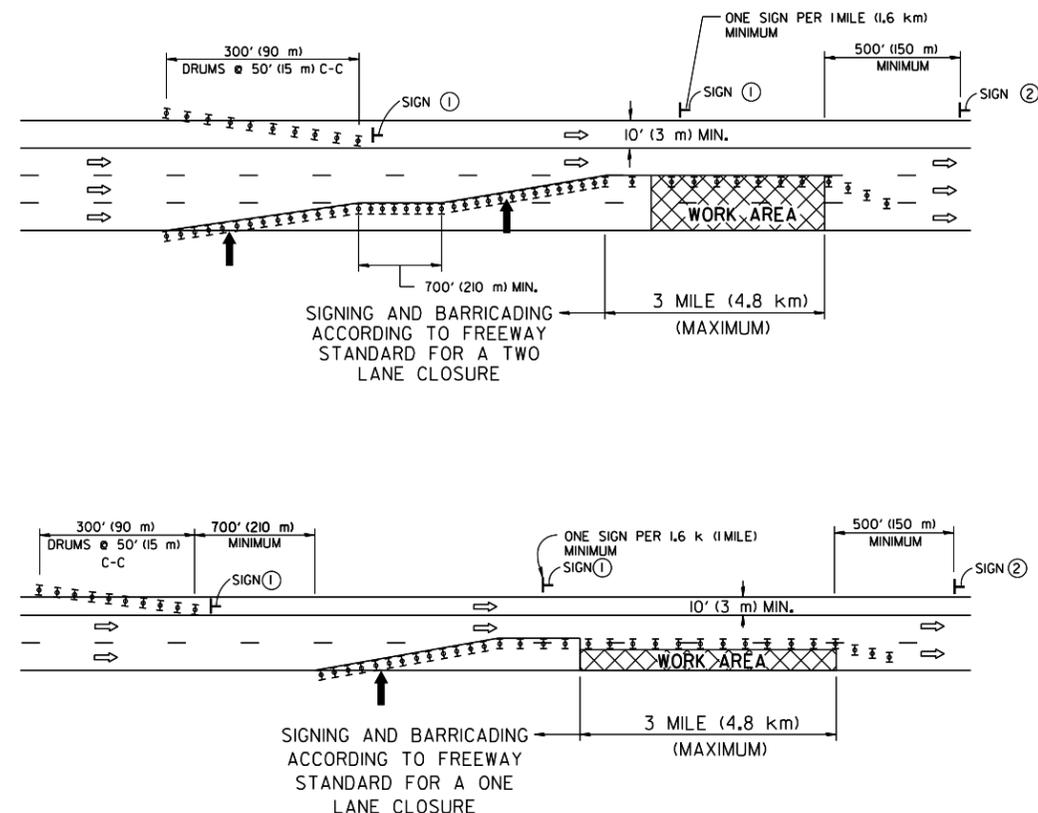


NOTES

1. DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA.
2. CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.
3. CENTER LANE CLOSURE CONFIGURATION IS NOT TO BE USED WITH WORKERS PRESENT.

SHOULDER LANE

NOTE: CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.



6 (150) SERIES "C" LEGEND
BLACK LEGEND
WHITE REFLECT. BACKGROUND
1(25) BORDER

SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ➡ ARROWBOARD
- ▣ ACTIVE WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT *
- ⊥ TYPE II BARRICADE, OR DRUM WITH MONO-DIRECTIONAL STEADY BURN LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

FILE NAME =	USER NAME = shiranisb	DESIGNED -	REVISED - J.A.F. 04-03
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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

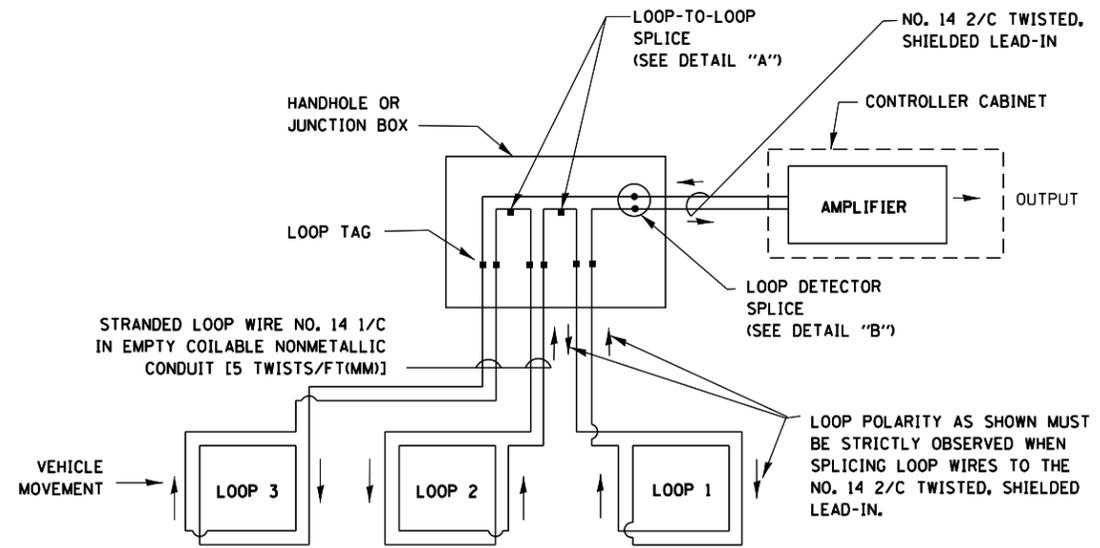
TRAFFIC CONTROL DETAILS FOR FREEWAY
CENTER LANE CLOSURE SHOULDER LANE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2019-031-R5	VARIOUS	23	21
TC-25		CONTRACT NO. 62J09		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

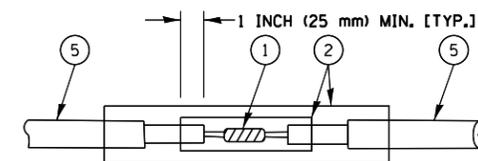
LOOP DETECTOR NOTES

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.

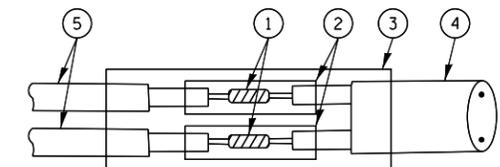


DETECTOR LOOP WIRING SCHEMATIC

- 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.



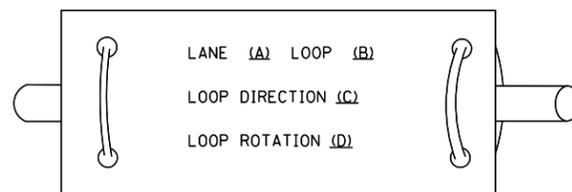
**DETAIL "A"
LOOP-TO-LOOP SPLICE**



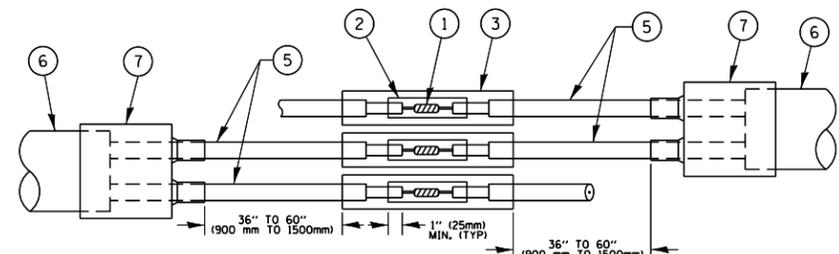
**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP

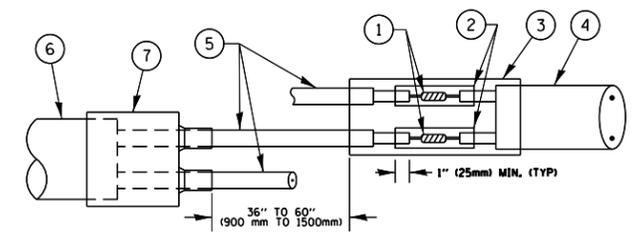
LOOP LEAD-IN CABLE TAG



- 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.



**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

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Default	PLOT DATE = 4/4/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

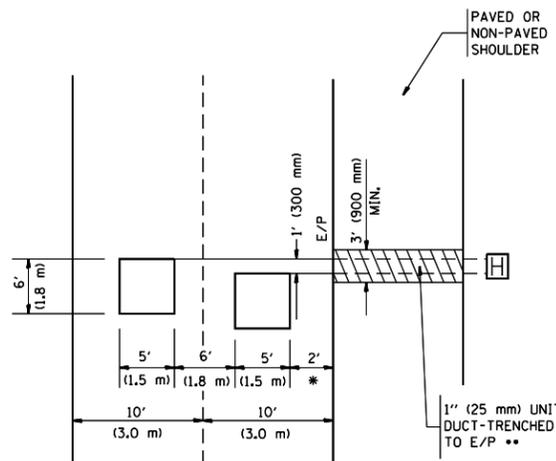
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 2 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2019-031-R5	VARIOUS	23	22
TS-05		CONTRACT NO. 62J09		
ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

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

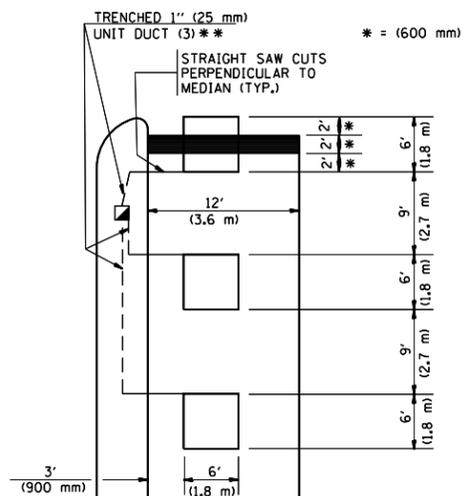


* = (600 mm)

** 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)**

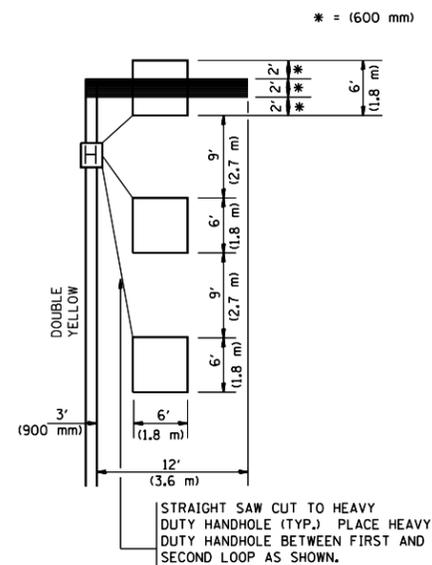
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



** 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)**



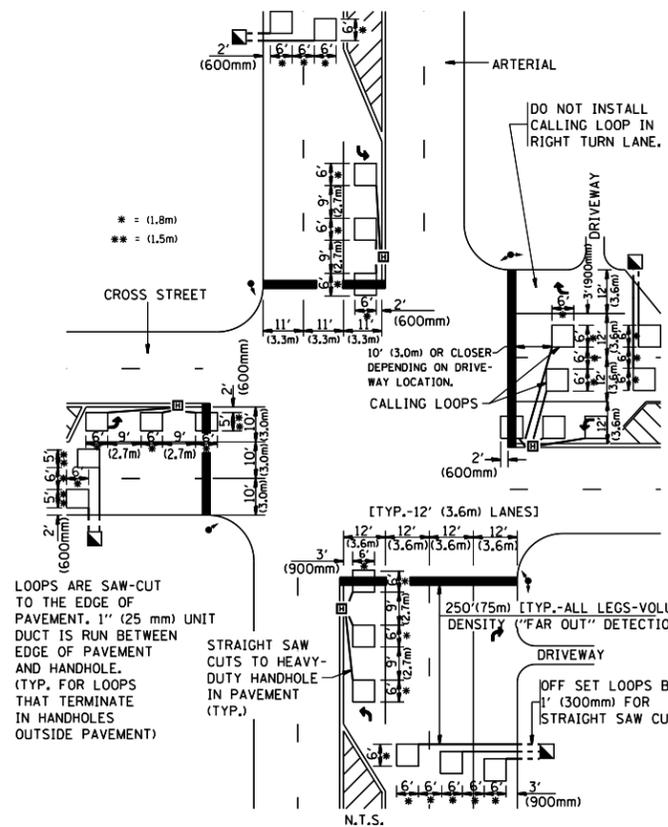
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

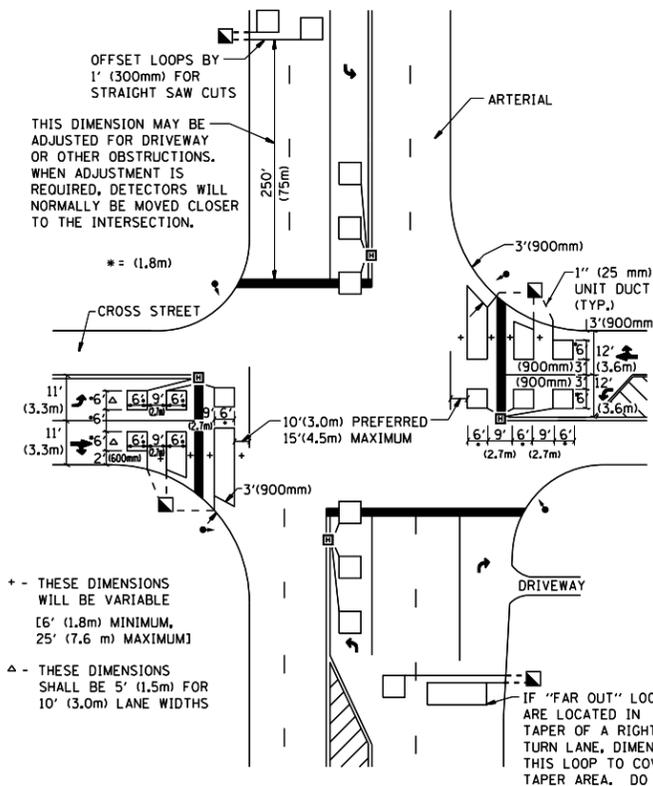
- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST 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.

**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.**

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

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PLOT DATE = 4/4/2019			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2019-031-R5	VARIOUS	23	23
TS-07		CONTRACT NO. 62J09		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				