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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

FAP 0880 23 SMART LAKE

D-91-036-24



FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN THE CITY OF ZION

TRAFFIC DATA

2023 ADT (IL-173 TO 9TH ST) = 13,100 VPD 2023 ADT (9TH ST TO RUSSELL RD) = 12,800 VPD POSTED SPEED LIMIT = 45 MPH - 55 MPH PRINCIPAL ARTERIAL

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.

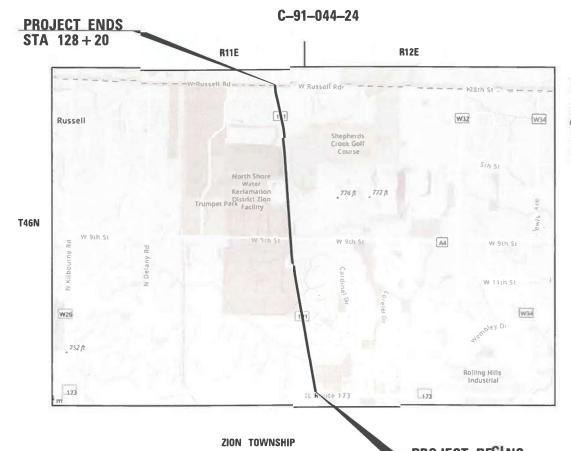
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255 PROJECT MANAGER: VESELIN VELICHKOV

CONTRACT NO. 62V58

PROPOSED HIGHWAY PLANS

FAP ROUTE 880 : IL 131 (GREEN BAY ROAD) RUSSELL ROAD TO IL 173 (ROSECRANS ROAD) SECTION: FAP 0880 23 SMART **SMART OVERLAY AND SHOULDER WIDENING** LAKE COUNTY



GROSS LENGTH = 10,702 FT. = 2.03 MILE

NET LENGTH = 10.702 FT. = 2.03 MILE

PROJECT BEGINS STA 21 + 08

> **INFRASTRUCTURE** ENGINEERING | THEORPORATED 1 South Wacker | Suite 2650 | Chicago, IL 60606

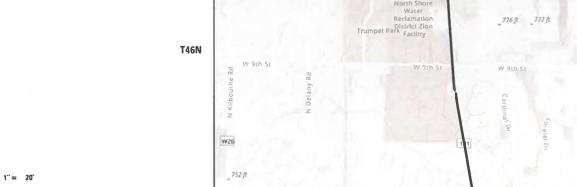
CONTACT: ALEXANDER LANE (312) 477-0620

STATE OF ILLINOIS

LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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1	COVER SHEET
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6	TYPICAL SECTIONS
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37	TC-26: DRIVEWAYENTRANCE SIGNING
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HIGHWAY STANDARDS

STANDARD NO	DRAWING NAME
B.L.R 23-4	TRAFFIC BARRIER TERMINAL, TYPE 1
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
642001-03	SHOULDER RUMBLE STRIPS, 16 IN.
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701101-05	OFF-RD OPERATI●NS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE 2L, 2W, SLOW MOVING OPERATIONS, DAY ONLY
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER, FOR SPEEDS ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UND VIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BID RECTIONAL LEFT TURN LANE
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-10	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RASIED REFELCTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

GENERAL NOTES

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

- 1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION AND ORDERING MATERIALS.
- 3. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA, KANNAN-HOSADURGA@ILLINOIS, GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 4. TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN.
- 5. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 6. LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT [OR COMBINATION CURB AND GUTTER (THE TYPE SPECIFIED ON THE PLANS)], WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 7. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 8. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- 9. THE CONTRACTOR SHALL 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 SHALL DELIVER THE RECORD TO THE ENGINEER.
- 10. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- 11. THE RESIDENT ENGINEER SHALL CONTACT BRANDY KENNEDY, AREA TRAFFIC FIELD ENGINEER, VIA EMAIL AT BRANDY.KENNEDY@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PACEMENT MARKINGS.
- 12. SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER.
- 13. 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. EXCAT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- 14. OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITAION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHINGINLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE RESIDENT ENGINEER OR AS PROVIDED IN THE CONTRACT SPECIFICATIONS.
- 15. ALL MILLED SURFACES SHALL BE A UNIFORM CROSS SLOPE PER LANE AND FREE OF RIDGES BETWEEN PASSES. ANY DEVIATIONS SHALL BE CORRECTED AT NO COST TO THE DEPARTMENT.
- 16. THE AGGREGATE GRADATION FOR THE AGGREGATE SUBGARDE IMPROVEMENT 12" LOWER LIFT SHALL BE CS1 OR RR1.
- 17. GEOTECHNICAL FABRIC FOR GROUND STABILIZATION AND/OR AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAVE BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ABOVE ITEM WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301,04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
- 18. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECT BY THE ENGINEER AT CONTRACTOR EXPENSE
- 19. ANY EXCAVATED SHOULDER WORK FOR SHOULDER WIDENING MUST HAVE 12" AGGREGATE SUBGRADE IMPROVEMENT INSTALLED BY THE END OF EACH WORK SHIFT.

ENGINEERING 1 South Wacker Suite 2650		USER NAME = ALane	DESIGNED KEK	REVISED =
	INFRASTRUCTURE		DRAWN KEK	REVISED -
	1 South Wacker Suite 2650 Chicago, IL 60606		CHECKED ACL	REVISED -
	P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com		DATE 03/18/2025	

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				CONSTRU		JCTION CODE	
			URBAN	0005 ROADW	AY	0021 TRAFFIC SIGNAL	
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	100% STATE	100% ATA II		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	68	68			
20200100	EARTH EXCAVATION	CUYD	4,974	4,974			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CUYD	498	498			
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQYD	701	701			
21400100	GRADING AND SHAPING DITCHES	FOOT	625	625			
2 1400 100	Growing And Gillaring Bit Clies	1001	■ 23	025	- 1		
25100630	EROSION CONTROL BLANKET	SQYD	695	695			
25200110	SODDING, SALT TOLERANT	SQ YD	701	701			
25200200	SUPPLEMENTAL WATERING	UNIT	35.1	35.1			
23200200	SOFT ELIVERY CONTENTS	ONT	1.55.1	55.1			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	196.1	196.1			
28000510	INLET FILTERS	EACH	2	2			
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	541	541			
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQYD	9,877	9,877	-	es es	
35101400	AGGREGATE CASE COURSE, TYPE B	TON	2	2			
35600709	HOT-MIX ASPHALT BASE COURSE WIDENING, 8 1/4"	SQYD	8,115	8,115			
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	18,257	18,257			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	24,564	24,564		-	
		Vierze					
40600370	LONGITUDINAL JOINT SEALANT	FOOT	19,033	19,033	1		
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	24	24		5.	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQYD	319	319			
40605026	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX	TON	5,748	5,748			
	ASPHALT 9.5 MIX "F" NRO						
42001300	PROTECTIVE COAT	SQYD	147	147			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	180	180		-1	
42400800	DETECTABLE WARNINGS	SQ FT	20	20	2.0		

			URBAN	0005 ROA DW		0021 TRAFFIC SIGN
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	100% AA X STA TE	100% STATE	300% IA 30STA TE
44000100	PAVEMENT REMOVAL	SQ YD	3,173	3,173		
					2	
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	50,530	50,530	3	
44000600	SIDEWALK REMOVAL	SQ FT	180	180	N	
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	50	50	3	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	250	250		2
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	250	250	7	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	250	250		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1,570	1,570	13	
60255500	MANHOLES TO BE ADJUSTED	EACH	2	2	9	
60266600	VALVE B●XES TO BE ADJUSTED	EACH	1	1		
60920012	PIPE CULVERTS TO BE CLEANED 12"	FOOT	600	600	(302)	
60920015	PIPE CULVERTS TO BE CLEANED 15"	FOOT	700	700	310	
00320013	THE GOLVENTO TO BE SED WED TO	1001	700	700		
60920018	PIPE CULVERTS TO BE CLEANED 18"	FOOT	700	700	7031	
63301990	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1	EACH	1	1		
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	11,563	11,563	3	
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	4,974	4,974	30	
66900530	SOIL DISPOSAL ANALYSIS	EACH	20	20	.0	
66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1		
66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	0	
66901006	REGULATED SUBSTANCES MONITORING	CAL DA	20	20	3	
67100100	MOBILIZATION	L SUM	1	1	20	L
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	8	
AUTUU45U	TICALLE CONTROL AND PROTECTION, STANDARD 101201	L SUIVI	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		

* = SPECIALTY ITEM

USER NAME = ALane	DESIGNED KEK	REVISED =
INFRASTRUCTURE	DRAWN KEK	REVISED -
1 South Wacker Suite 2650 Chicago, IL 60606 PLOT SCALE = 20.0000 ' / in.	CHECKED ACL	REVISED -
P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com	DATE 03/18/2025	

CONSTRUCTION CODE

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			URBAN	0005 ROADW	AY	0021 TRAFFIC SIGNAL
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	100% STATE	100% ATS II.	100% STATE
70400000	TRACTIC CONTROL AND PROTECTION CTANDARD 704/04	L CUMA			+	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	-1		
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	1		
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	.1		
70102634	TRAFFIC CONTROL AND PROTECTION, STANDARD 701611	L SUM	1	11		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	113,602	113,602		- 1
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	58,600	58,600		
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	613	613		
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	52,853	52,853		
70000221	TEM STORY TAXABLE TO BUT AND A COLOR OF THE ATTEMPT	1001	32,030	52,000	1	
70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	2,413	2,413		
70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	262	262		
70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	1,048	1,048		
70300281	TEMPORARY PAVEMENT MARKING - LINE 24"- PAINT	FOOT	226	226		
70307120	TEMPORARY PAVEMENT MARKING - LINE 4"- TYPE IV. TAPE	FOOT	56,801	56,801		
72400735	REMOVE AND RELOCATE SIGN PANEL - TYPE 1	SQ FT	9	9		
			las)			
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	13	13	-	
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	613	613		
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	45,313	45,313		
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,413	2,413		
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	620	620		
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,048	1,048		
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	226	226		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	426	426		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	426	426		
				,20		

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			URBAN	0005 ROA DW/	AY	0021 TRAFFIC SIGNAL	
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	30% 100% RA	100% A.B.II.	2005, 100%, RA 2005, TA TE	
(ILAKO)	INVERTIGATION OF THE PROPERTY	111%	(150)	21±00	Vi		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		č.	2	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	800			800	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	55		3	55	
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR,	FOOT			3		
	NO 6 1C		55			55	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8			8	
88500100	INDUCTIVE LOOP DETECTOR	EACH	2			2	
88600100	DETECTOR LOOP, TYPE I	FOOT	1,620		28	1,620	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2		3	2	
89502376	REBUILD EXISTING HANDHOLE	EACH	2		2	2	
X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1	2		
X1400150	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	2			2	
X2010100	TREE LIMB REMOVAL (4 TO 10 INCHES DIAMETER)	EACH	5	5			
X2010200	TREE LIMB REMOVAL (OVER 10 INCHES DIAMETER)	EACH	1	1	0		
X2010350	TREE REMOVAL, ACRES (SPECIAL)	ACRE	0.1	0.1			
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	5.5	5.5	9		
X4400501	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS	FOOT	225	225	0		
X4400503	THAN OR FOLIAL TO 10 FFET COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	220	220			
	GREATER THAN 10 FEFT				90		
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	90	90			
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2	2	3		
X6420114	CENTER LINE - RUMBLE STRIP - 16"	FOOT	3,771	3,771			
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12	5		
X7200061	TEMP®RARY INFORMATION SIGNING	SQ FT	177	177	5		

* =	SPECIALTY	ITEM
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	USER NAME = ALane	DESIGNED KEK	REVISED =
INFRASTRUCTURE ENGINEERING I INCORPORATES		DRAWN KEK	REVISED _
1 South Wacker Suite 2650 Chicago, IL 60606		CHECKED ACL	REVISED -
P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com		DATE 03/18/2025	***

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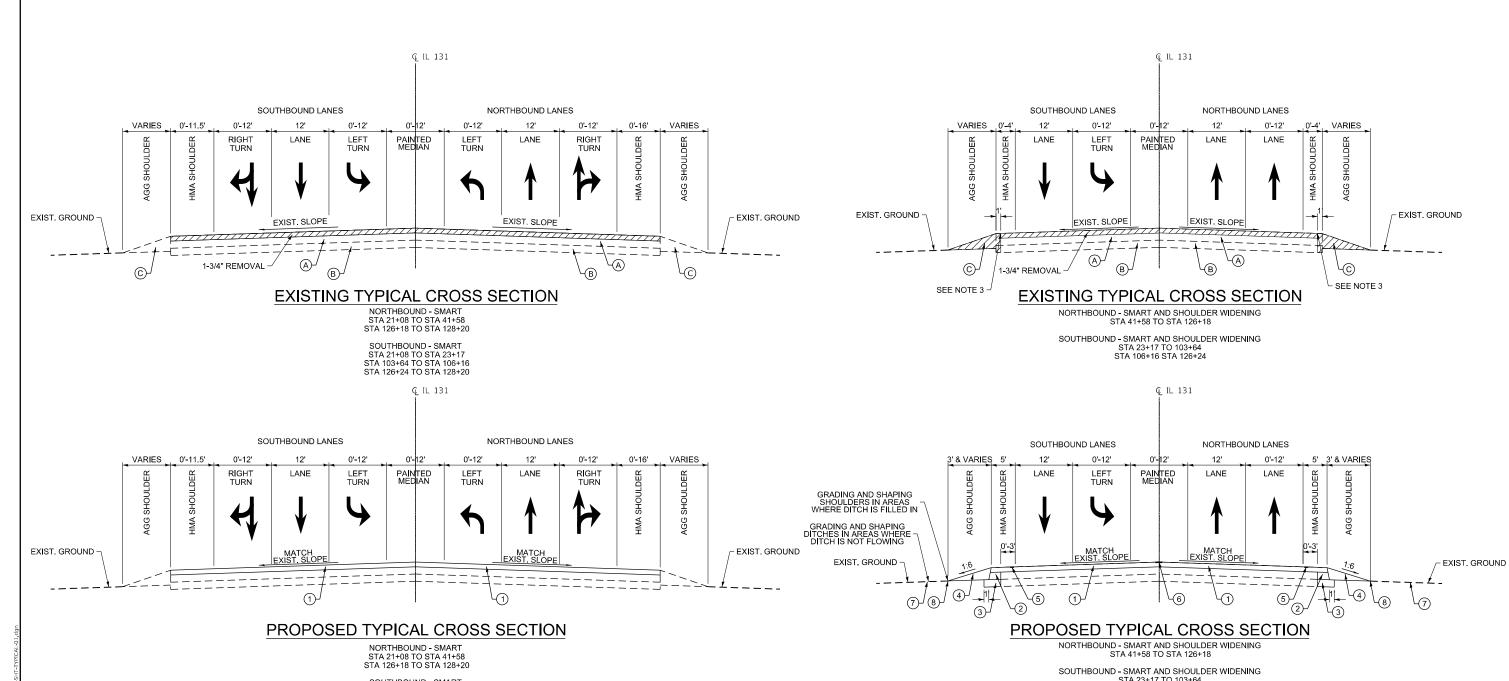
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			URBAN	0005 ROADW	¥Υ	0021 TRAFFIC SIGNAL
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	100% AA STATE	100% 418 II.	3774 100% 24 3 STA TE
X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4 INCH	FOOT	7,541	7,541		
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	G	6	26	
20010000	DRAINAGE STRUCTURES TO BE CLEANED	EACH	•	•	- 8	
X2010516	SELECTIVE CLEARING	UNIT	3.3	3.3		
		9		3 5		
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				72		
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* = SPECIALTY ITEM

l	USER NAME = ALane	DESIGNED KEK	REVISED =
INFRASTRUCTURE ENGINEERING LINCORPORATES		DRAWN KEK	REVISED _
1 South Wacker Suite 2650 Chicago, IL 60606		CHECKED ACL	REVISED -
P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com		DATE 02/19/2025	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	SUMMARY OF QU	ANTITIES	
IL-131	[RUSSELL ROAD TO IL-17	73 (ROSECRANS	ROAD)]
SCALE: NTS		STA.	TO STA.



SOUTHBOUND - SMART STA 21+08 TO STA 23+17 STA 103+64 TO STA 106+16 STA 126+24 TO STA 128+20

LEGEND:

- A EXISTING HOT-MIX ASPHALT, +/- 11-1/2"
- B EXISTING PCC PAVEMENT (7")
- © EXISTING AGGREGATE SHOULDER
- POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1 3/4" 1
- 2 HOT-MIX ASPHALT BASE COURSE WIDENING, 8 1/4"
- AGGREGATE SUBGRADE IMPROVEMENT, 12"
- 4 AGGREGATE WEDGE SHOULDER, TYPE B
- 5 SHOULDER RUMBLE STRIPS, 8" (6) CENTERLINE RUMBLE STRIPS, 16"
- 7 GRADING AND SHAPING DITCHES IN AREAS WHERE DITCH IS NOT FLOWING
- GRADING AND SHAPING SHOULDERS IN AREAS WHERE EXISTING GROUND HIGHER THAN WIDENED SHOULDER

REMOVAL ITEM

- 1. THE CONTRACTOR SHALL MILL FIRST THEN PATCH.
- 2. THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE MILLED SURFACE.
- 3. SAWCUT THE EXISTING HMA SHOULDER 1' FROM THE OUTSIDE EDGE FOR A CLEAN LINE FOR THE HMA SHOULDER WIDENING. WHERE THE EXISTING HMA SHOULDER IS 1' OR LESS, SAWCUT ON THE 12' LANE LINE.

STA 23+17 TO 103+64 STA 106+16 STA 126+24

HOT-MIX ASPHALT MIXTURE REQUIREMENTS				
TIOT-WILK AGI FIACT MILKTONE REQUIREMENTS	1	QUALITY MANAGEMENT		
MIXTURE TYPE	AIR VOIDS @ Ndes	PROGRAM (QMP)		
SMART OVERLAY AND SHOULDER WIDENING	•			
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 9.5, MIX "F", N80, 1 3/4"	3.5% @ 80 GYR	QCP		
HOT-MIX ASPHALT BASE COURSE WIDENING (HMA BINDER IL-19.0), 8 1/4"	4.0% @ 70 GYR	QC/QA		
PATCHING				
CLASS D PATCH (HMA BINDER IL-19.0)	QC/QA			
QMP DESIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (QC/QA): QUALITY CONTROL FOR PERFORMANCE (QCP): PAY FOR PERFORMANCE (PFP)				

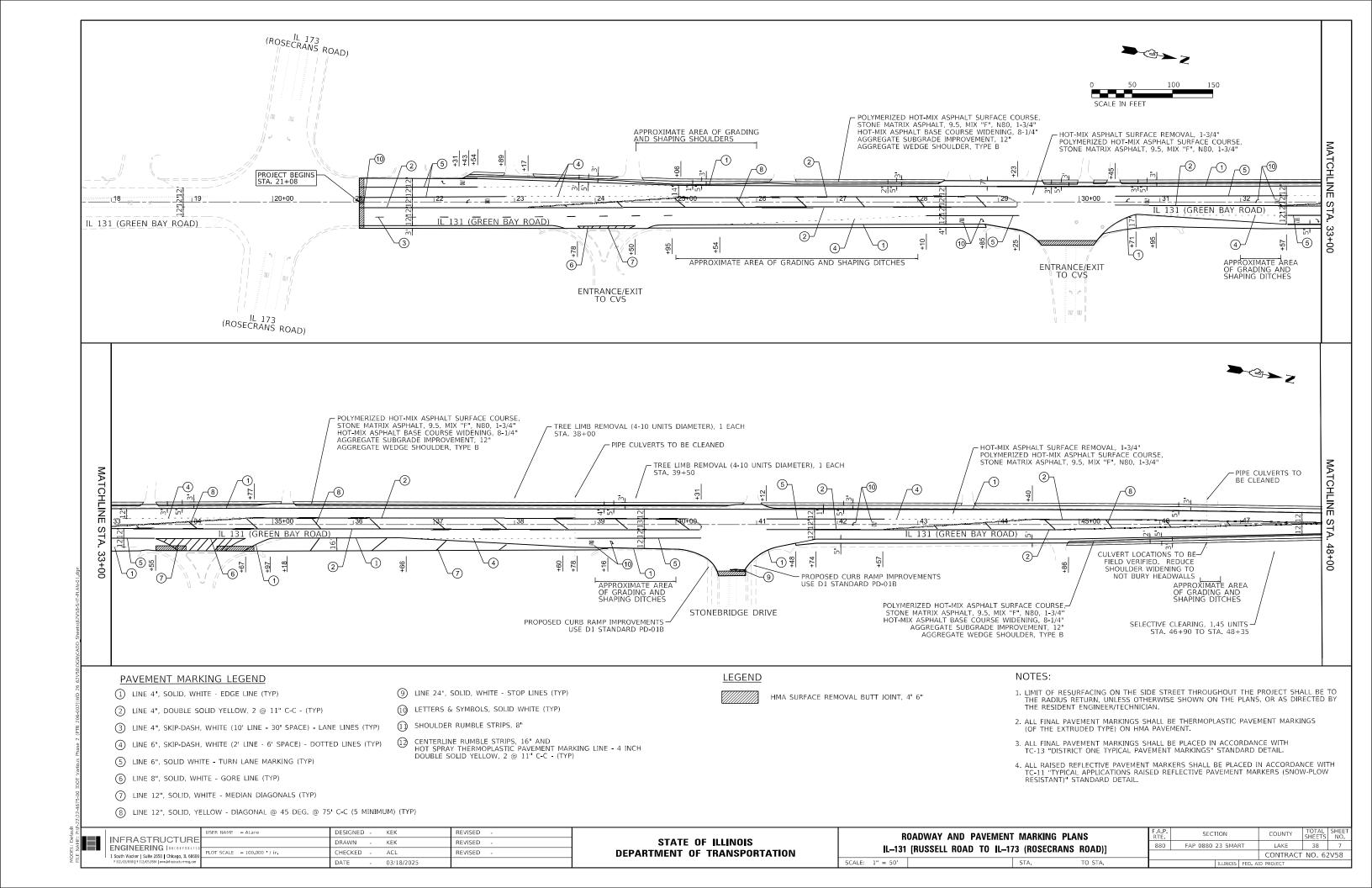
MIXTURE REQUIREMENT NOTES:

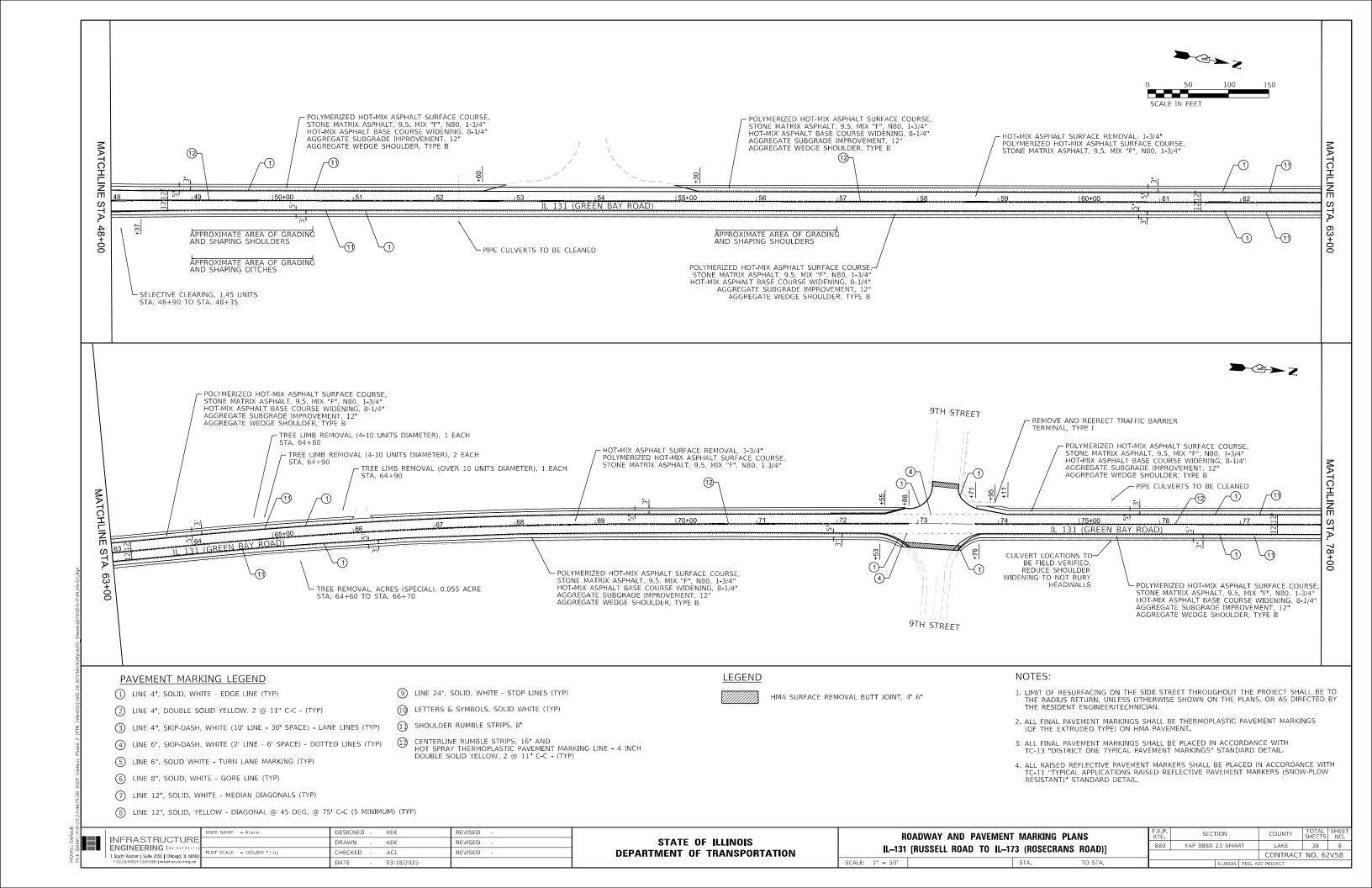
- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

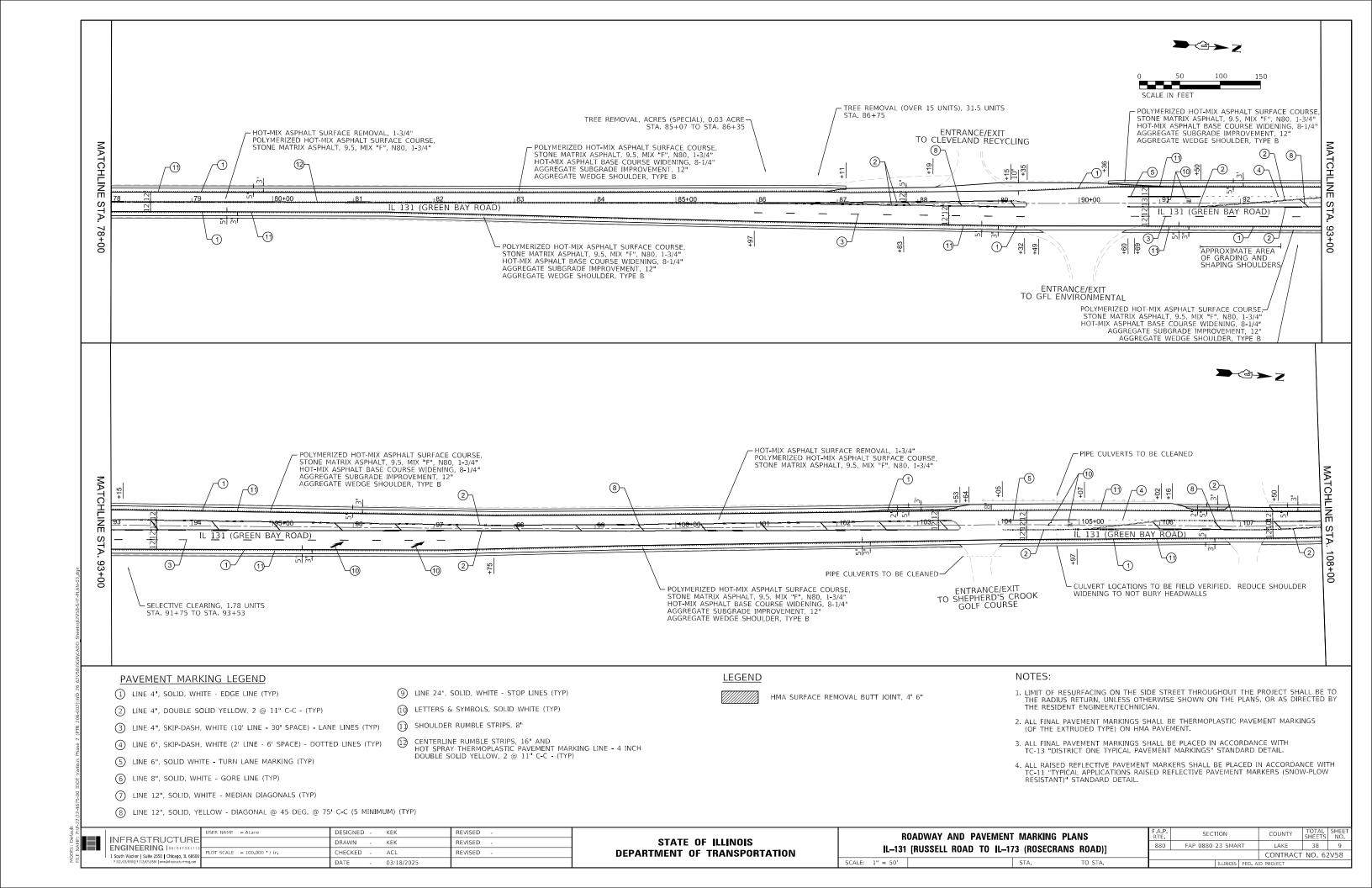
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F 312-02-5959 F 312-03-5954 www.lefnatoretror-engages	

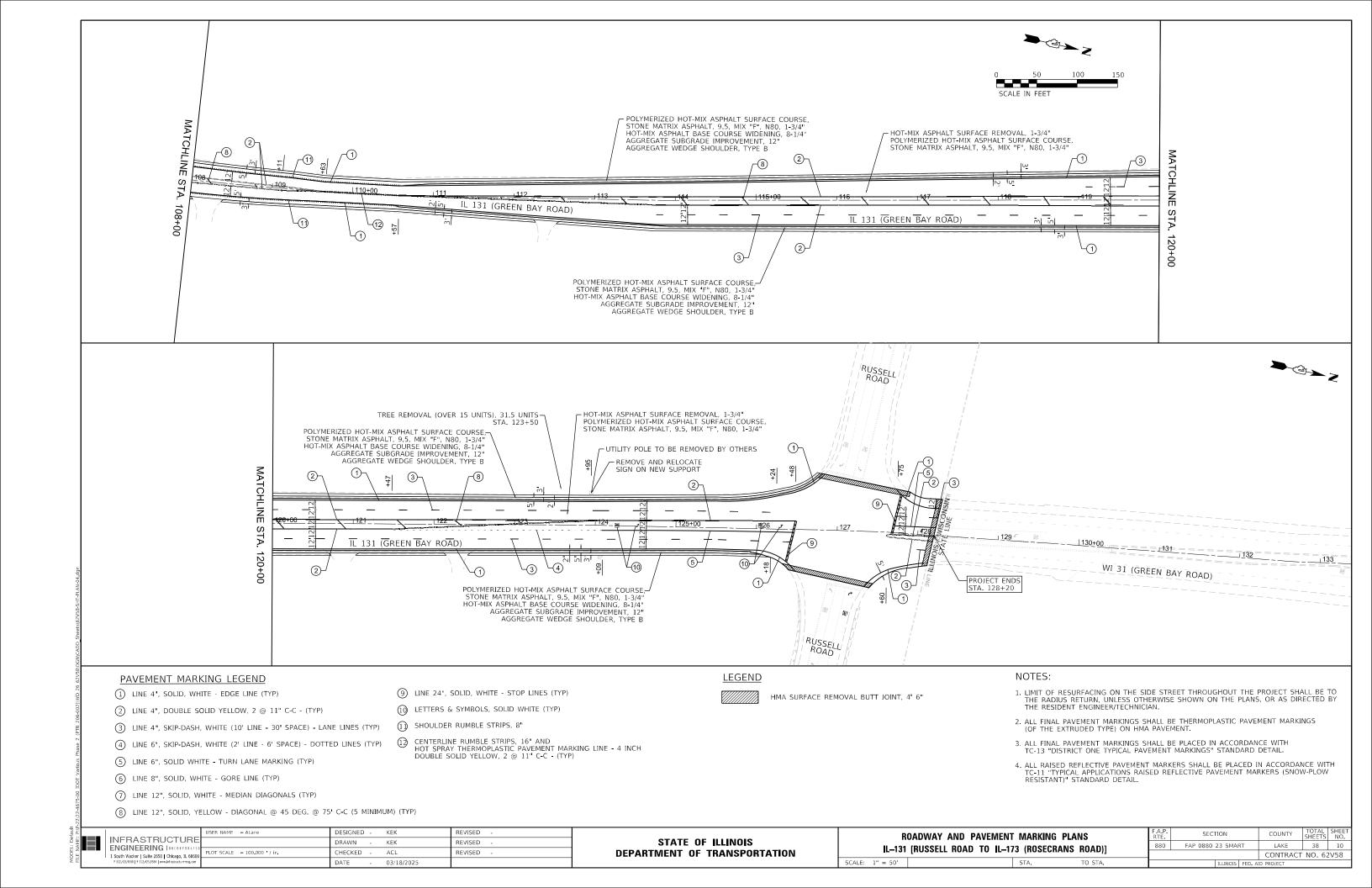
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	TYPICAL SECT	TIONS		F.A.P. RTE	SEC ⁻	LION		COUNTY	TOTAL SHEETS	
II _131	[RUSSELL ROAD TO IL-1]	73 /ROSECE	ANS BOADI	880	FAP 0880	23 SMAI	RT	LAKE	38	6
IL-131	INOSSEE NOAD TO IE-T	73 (1103201	IANS NOAD/J					CONTRAC*	T NO. 62	2V58
" = 10"		STA.	TO STA.			ILLINOIS	FED. A	ID PROJECT		









TRAFFIC SIGNAL LEGEND

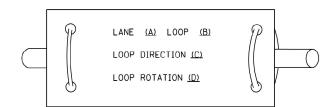
(NOT TO SCALE)

				(NOT TO SCALL)				
<u>ITEM</u>	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ІТЕМ	<u>EXISTING</u>	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R	R R Y
COMMUNICATION CABINET	ECC	CC	-ROUND HEAVY DUTY HANDHOLE					G G G
MASTER CONTROLLER	EMC	MC	-SQUARE -ROUND		□ •		P P	→ G → G
MASTER MASTER CONTROLLER	EMMC	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE		
UNINTERRUPTABLE POWER SUPPLY	4	•	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		Y Y Y
SERVICE INSTALLATION -(P) POLE MOUNTED	- <u>-</u> -	- ■ -P	RAILROAD CANTILEVER MAST ARM	$X \longrightarrow X \longrightarrow X$	X CX X			G
SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	∑⊙ ∑	¥⊕¥		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\bowtie^{G} \bowtie^{GM}$	⊠ ^G ⊠ ^{GM}	RAILROAD CROSSING GATE	202 >	X+X-	PEDESTRIAN SIGNAL HEAD		V
TELEPHONE CONNECTION	ET	T	RAILROAD CROSSBUCK	₩	★	AT RAILROAD INTERSECTIONS	(v) (x)	*
STEEL MAST ARM ASSEMBLY AND POLE	0	•	RAILROAD CONTROLLER CABINET		▶-€	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	(v) c (x) D	♥ C ☆ D
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL					·
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	o-;¤—	•*	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY	0	● ● BM	SYSTEM ITEM INTERSECTION ITEM	S I	SP IP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		(5)
WOOD POLE	\otimes	•	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
GUY WIRE	>-	>-	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER		
SIGNAL HEAD		-	ABANDON ITEM		Α	NO. 14 1/C		
SIGNAL HEAD WITH BACKPLATE	+t>	+ ► D D	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	<u> </u>	—c—
SIGNAL HEAD OPTICALLY PROGRAMMED	-t> ^P +t> ^P	- P + P	MAST ARM POLE AND		RMF	VENDOR CABLE		(v)
FLASHER INSTALLATION -(FS) SOLAR POWERED	FS FS FS	• → ^F • → ^{FS} ■ → ^F ■ → ^{FS}	FOUNDATION TO BE REMOVED SIGNAL POST AND			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	(6#18)
		-	FOUNDATION TO BE REMOVED		RPF	FIBER OPTIC CABLE	(12F)	(12F)
PEDESTRIAN SIGNAL HEAD PEDESTRIAN PUSH BUTTON	-0	-1	DETECTOR LOOP, TYPE I			-NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F		
-(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	⊚ ⊗ APS		PREFORMED DETECTOR LOOP	РР	РР	-NO. 62.5/125, MM12F SM24F		
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	s s	s s			
VIDEO DETECTION CAMERA		[ŷ] (INTERSECTION AND SAMPLING (SYSIEM) DETECTOR	IS (IS)	IS (IS)	GROUND ROD	C M P S	C M D S
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS QS	QS QS	-(C) CONTROLLER -(M) MAST ARM	<u> C </u>	Ť Ť Ť Ť
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ	WIRELESS DETECTOR SENSOR	®	®	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	\bowtie	◄	WIRELESS ACCESS POINT					
CONFIMATION BEACON	○ -(1	⊷						
WIRELESS INTERCONNECT	0+1}	•						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						
USER NAME = footenj	DESIGNED -					DISTRICT ONE	F.A. P. SECTION	N COUNTY TOTAL SHE
PLOT SCALE - 50.0000	DRAWN - ' / in. CHECKED -	IP REVISED LP REVISED		STATE OF ILLINOIS IENT OF TRANSPORTATION	ST	ANDARD TRAFFIC SIGNAL DESIGN DETAILS	0880 NHPP-X5F6	
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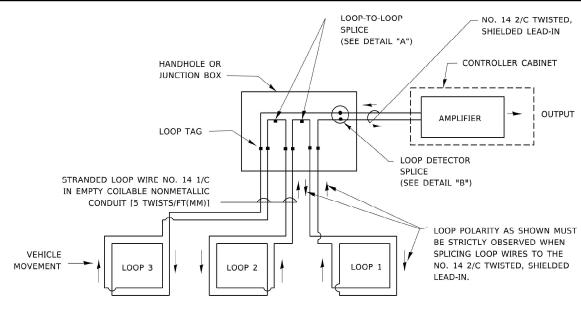
LOOP DETECTOR NOTES

- 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.
- 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.
- 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

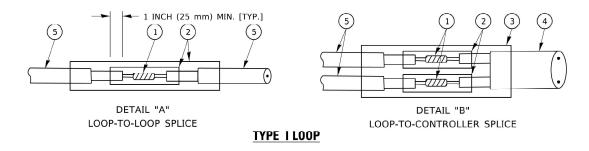


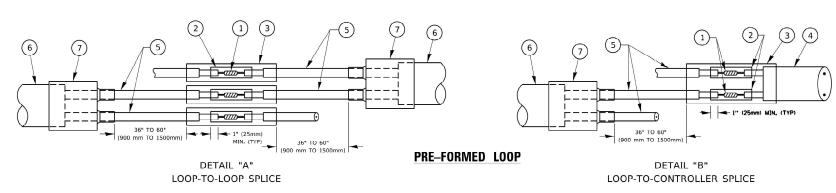
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



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.





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 LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.

- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PRE-FORMED LOOP
- (6) XL POLYOLEFIN 2 CONDUCTOR
- (7) BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

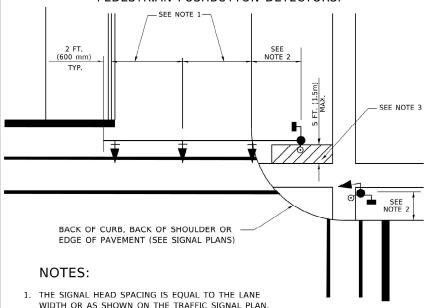
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

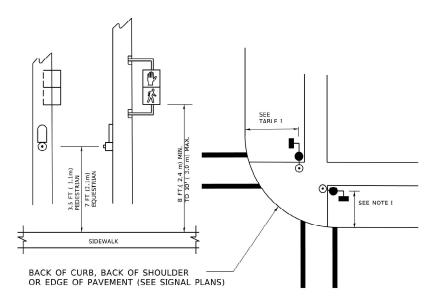
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND

PEDESTRIAN PUSHBUTTON DETECTORS.



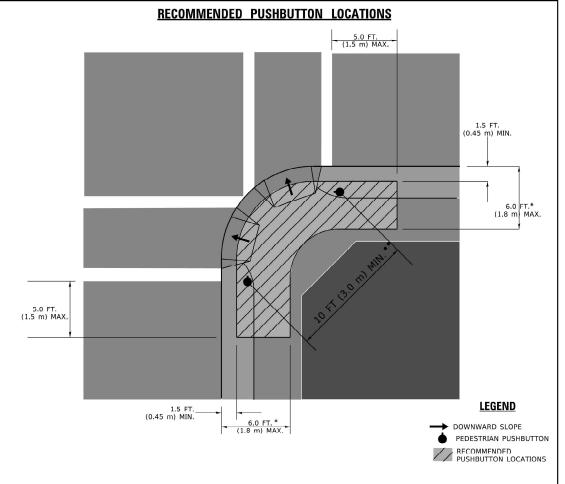
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."



- * WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- *** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

- PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
- THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
- 3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
- THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAYEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

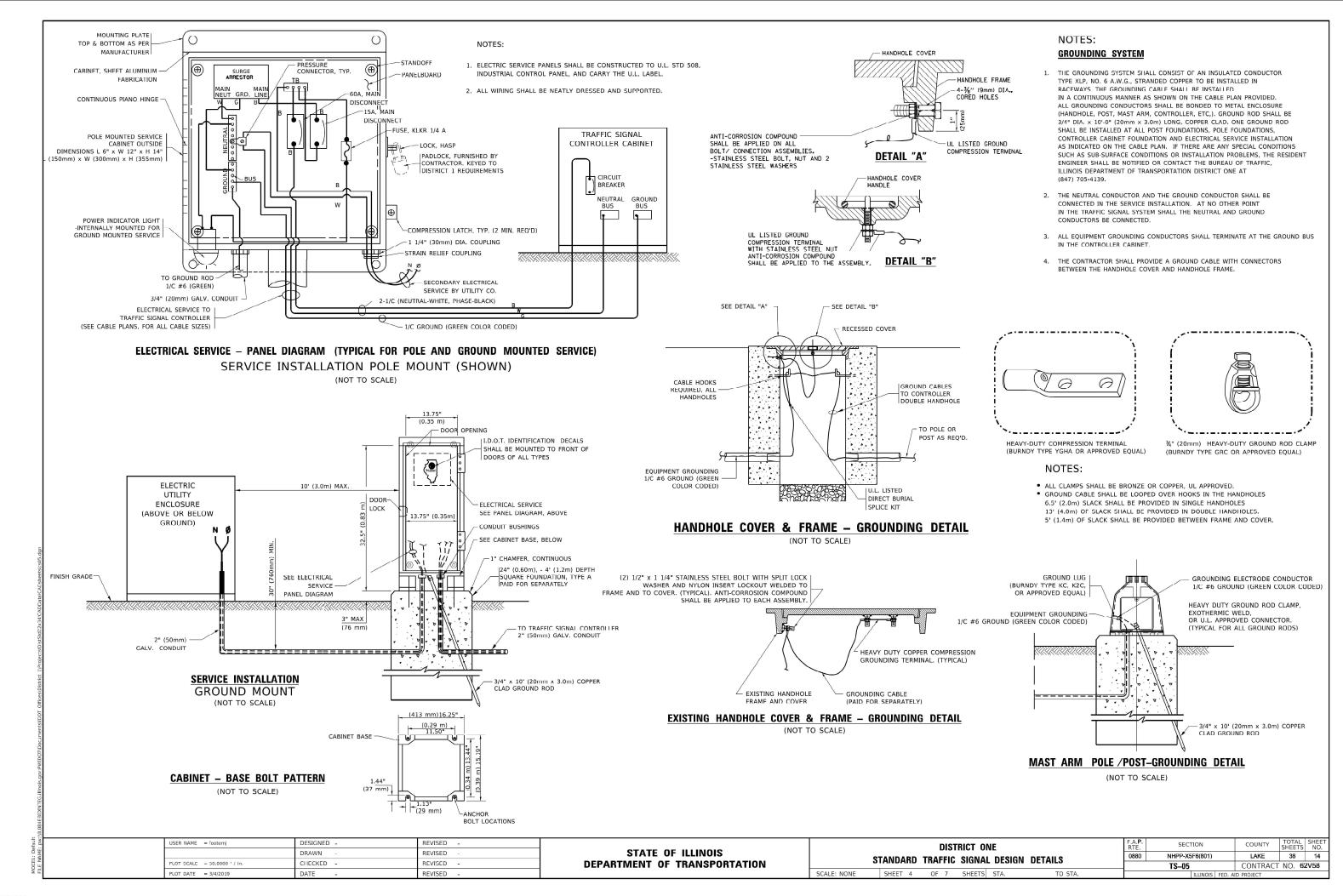
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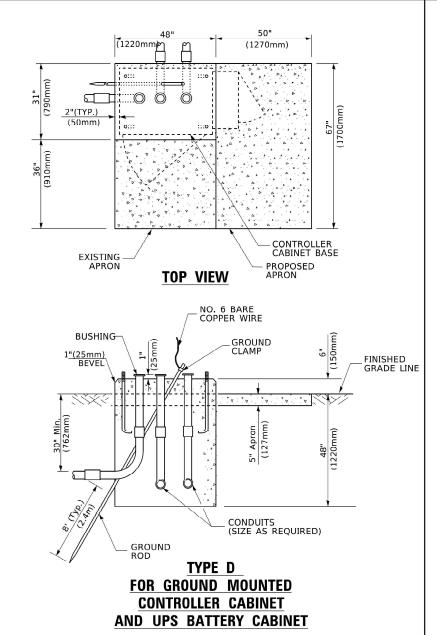
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PLOT DATE = 3/4/2019	DATE -	REVISED -	

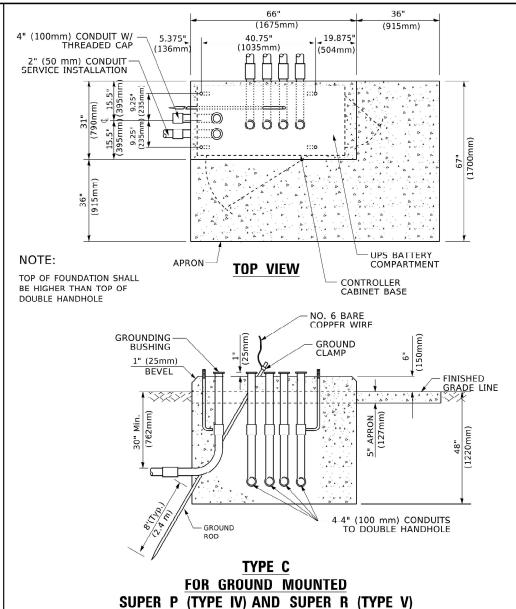
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DEPARTMENT	OF 1	TRANSPORTATION

								F.A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G.	STANDARD TRAFFIC SIGNAL DESIGN DETAILS					0880	NHPP-X5F6(801)	LAKE	38	13		
STANDARD TRAITIC SIGNAL DESIGN DETAILS					TS-05	CONTRACT	F NO. 6	2V58				
	SHEET	3	OF	7	SHEETS	STA.	TO STA.		ILLINOIS FED. A	AID PROJECT		

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CONTROLLER CABINETS

2" x 6" (51mm x 152mm) WOOD FRAMING (TYP.) CONTROLLER CABINET ¾" (19mm) TREATED PHYWOOD DECK 2<u>" x 6" (51mm x 152mm)</u> TREATED WOOD 6" x 6" (152mm x 152mm), NOTES: TREATED WOOD POSTS 1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" \times 44" (660mm \times 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm).
 ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED. 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.

65" (SEE NOTE 4) (1651mm)

44" 16" (406mm)

49" (SEE NOTE 3) (1245mm)

SEE NOTE 5-

- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET
- 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER **WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FFFT	METER
CABLE SEACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

CABLE SLACK

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

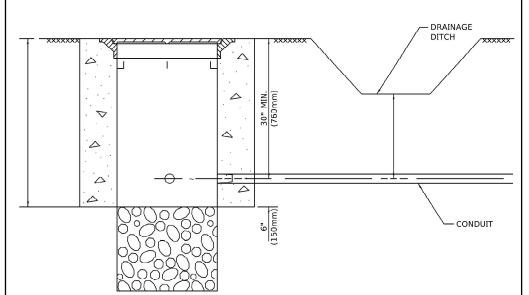
DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4 _• 0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4 . 6 m)	36" (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42'' (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42'' (1060mm)	36" (900mm)	16	8(25)

- These foundation depths are for sites which have cohesive soils (clayey siit, sandy clay, etc.) along
 the length of the shaft, with an average Unconfined Compressive Strength (0u) > 1.0 tsf (100 kpa).
 This strength shall be verified by boring data prior to construction or with testing by the Engineer
 during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised
 design if other conditions are encountered.
- 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter toundations
- 4. For most arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

								4
USER NAME = footemj	DESIGNED -	REVISED -		DISTRICT ONE	F.A. P .	SECTION	COUNTY TOTAL SHEET SHEETS NO.	1
	DRAWN -	REVISED -	STATE OF ILLINOIS			NHPP-X5F6(801)	LAKE 38 15	1
PLOT SCALE - 50.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	STANDARD TRAFFIC SIGNAL DESIGN DETAILS		TS-05	CONTRACT NO. 62V58	1
PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE SHEET 5 OF 7 SHEETS STA. TO STA.		ILLINOIS FED.	. AID PROJECT	1



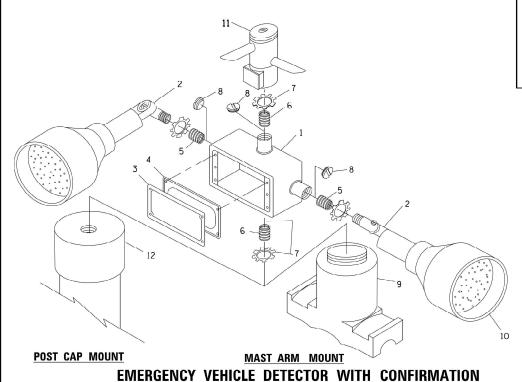
NOTES:

- 1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

USER NAME = footem

LOT SCALE - 50.0000 ' / in.

HANDHOLE WITH MINIMUM CONDUIT DEPTH



BEACON MOUNTING DETAIL

DESIGNED -

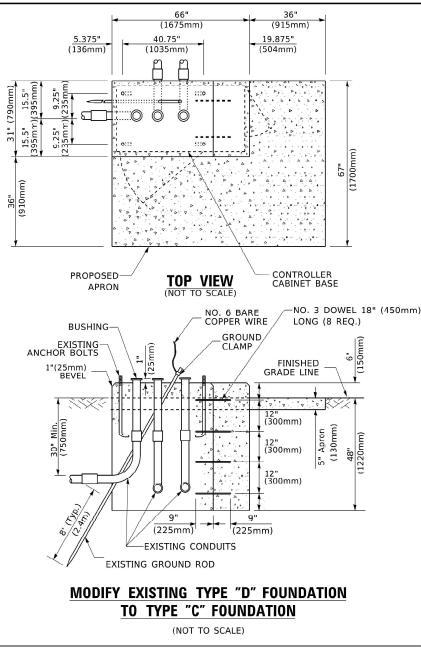
CHECKED

DRAWN

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REVISED

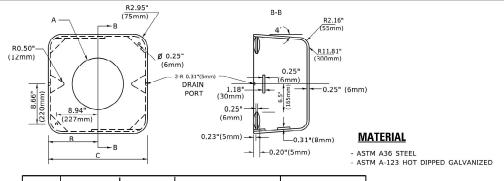
REVISED



ITEM NO. IDENTIFICATION 1 OUTLET BOX GALV. 21 CU.IN. (0.000344 CU M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET 5 REDUCING BUSHING 6 ¾"(19 mm) CLOSE NIPPLE 7 ¾"(19 mm) LOCKNUT 8 ¾"(19 mm) HOLE PLUG 9 SADDLE BRACKET - GALV. 10 6 WATT PAR 38 LED FLOOD LAMP 11 DETECTOR UNIT 12 POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHAIL RE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

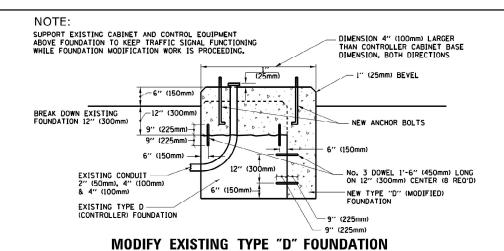


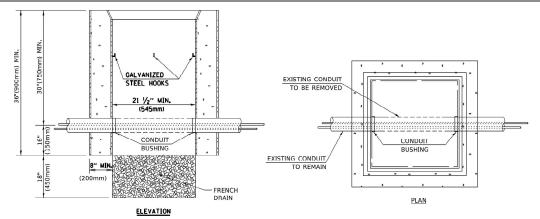
А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
 THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



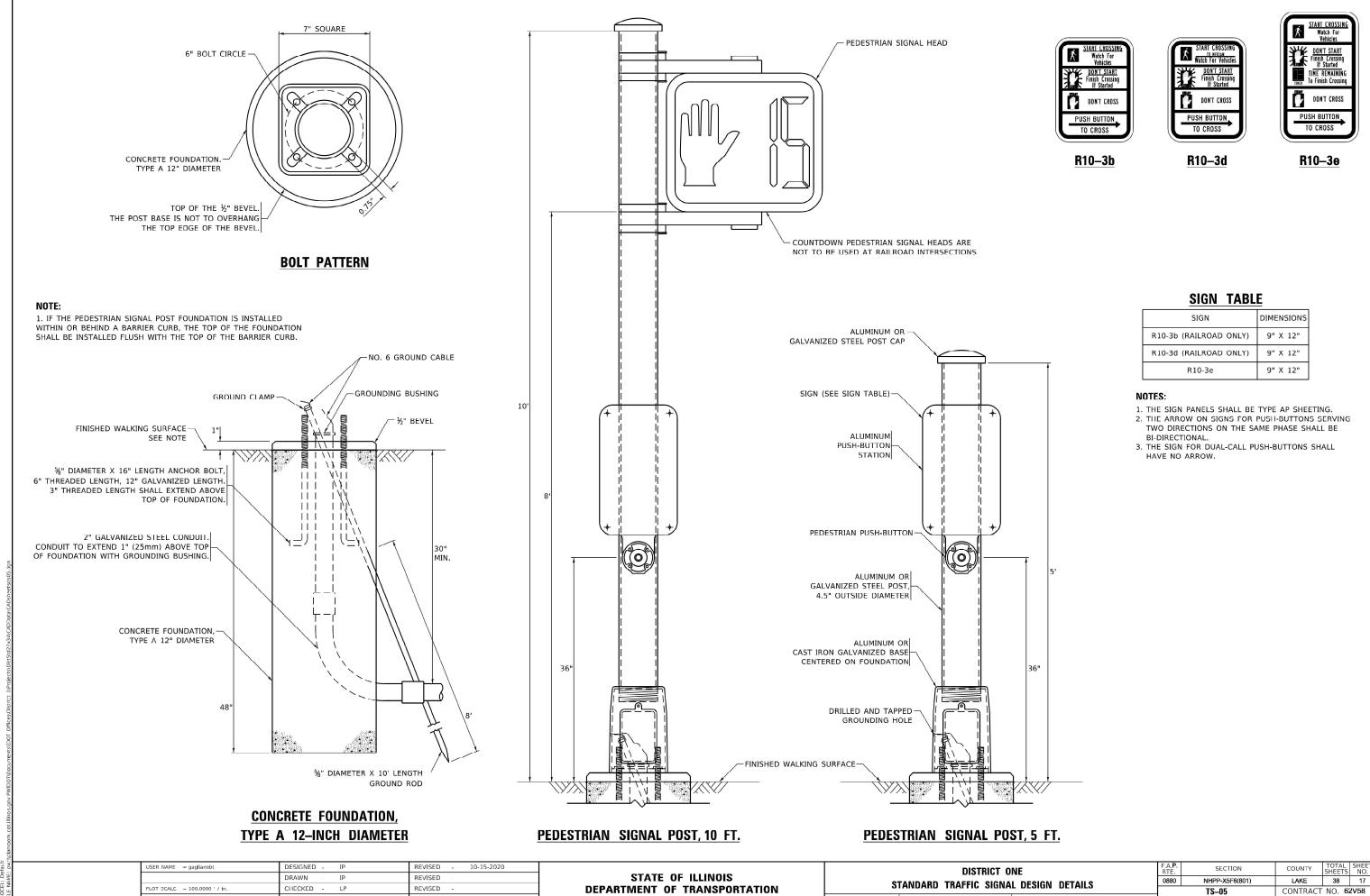


NOTES:

- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

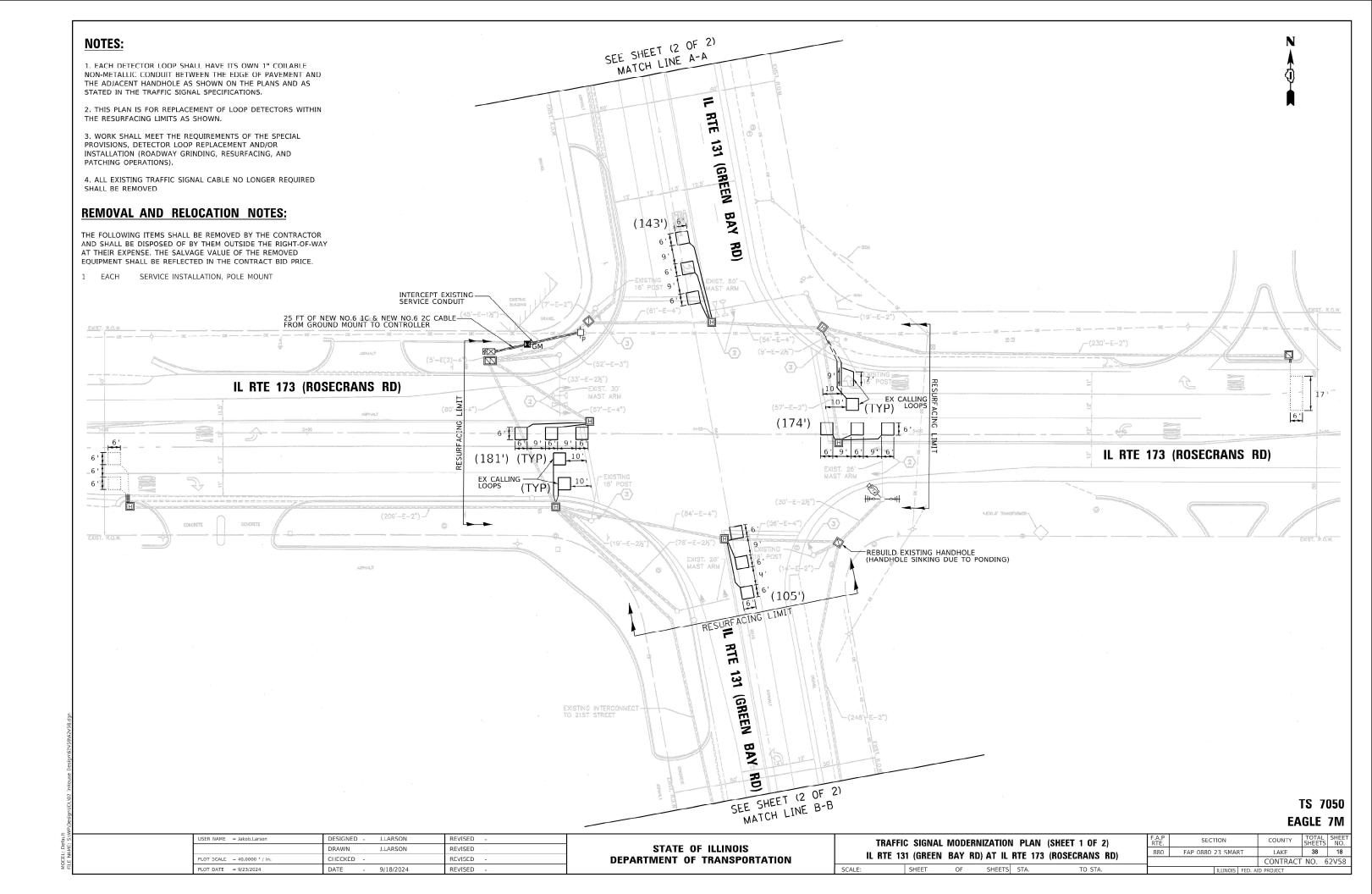


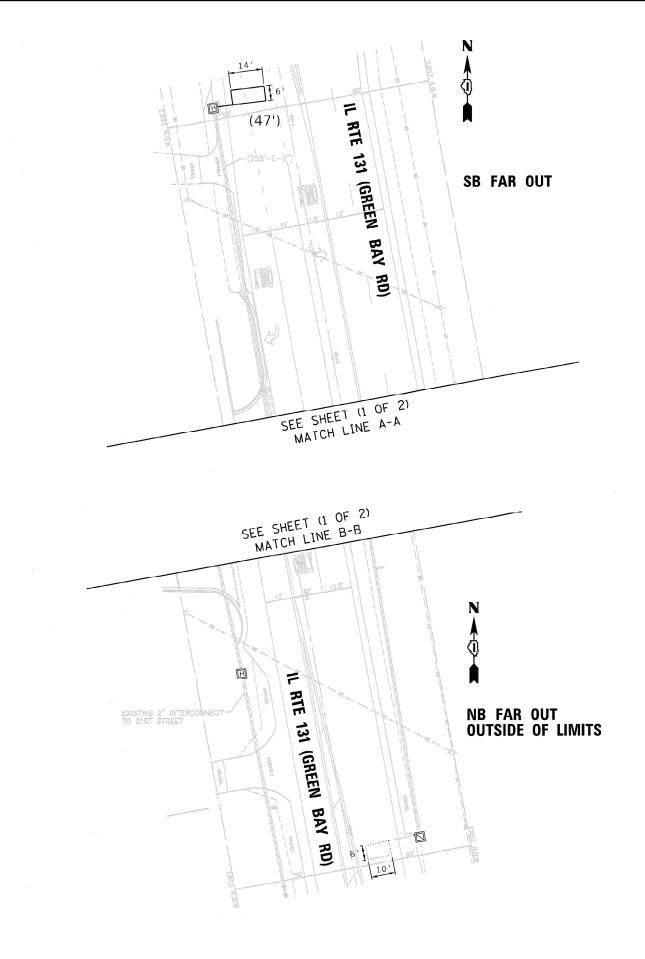
REVISED

SHEET 7 OF 7 SHEETS STA.

SCALE: NONE

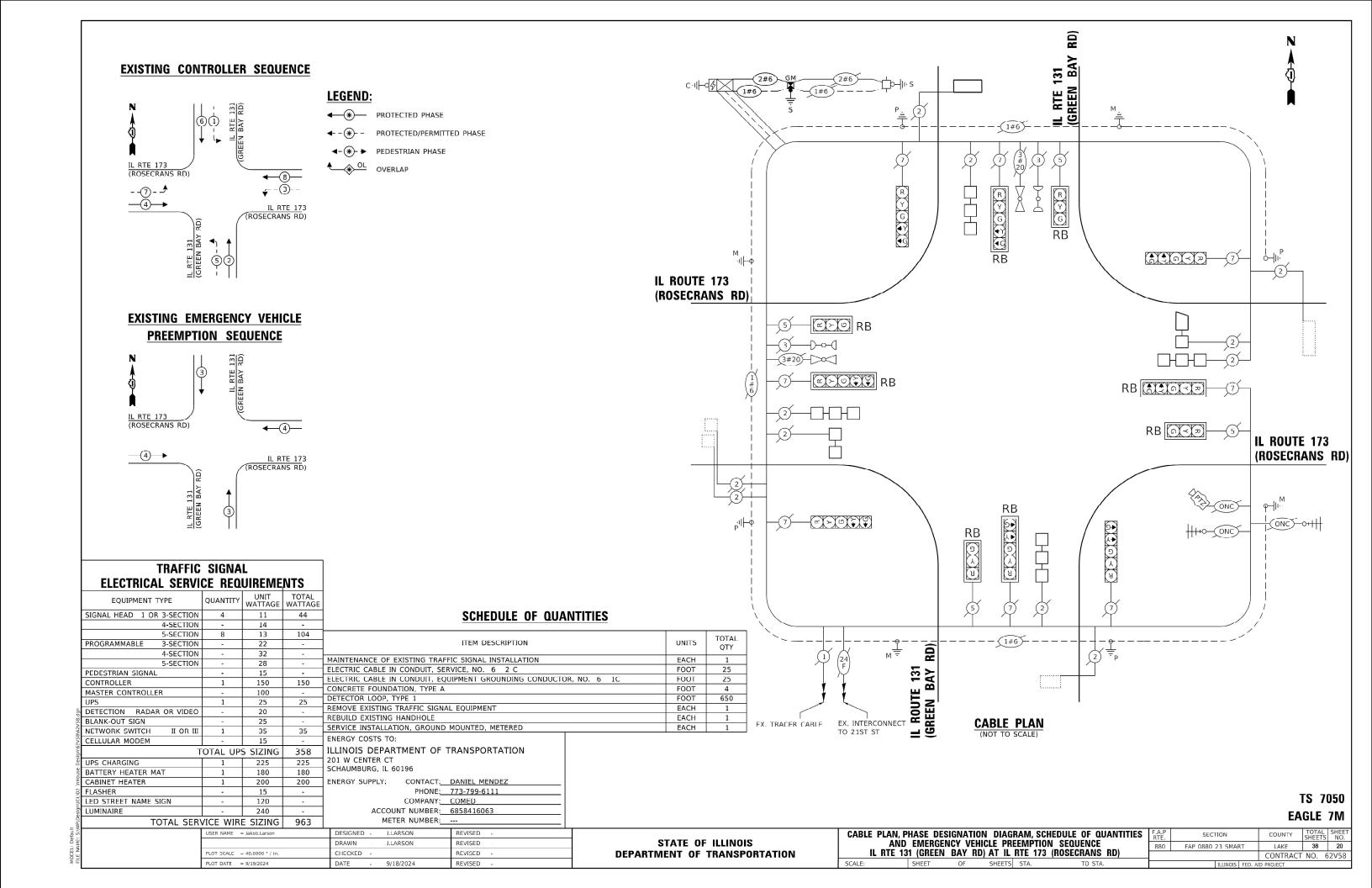
MOCEL Default

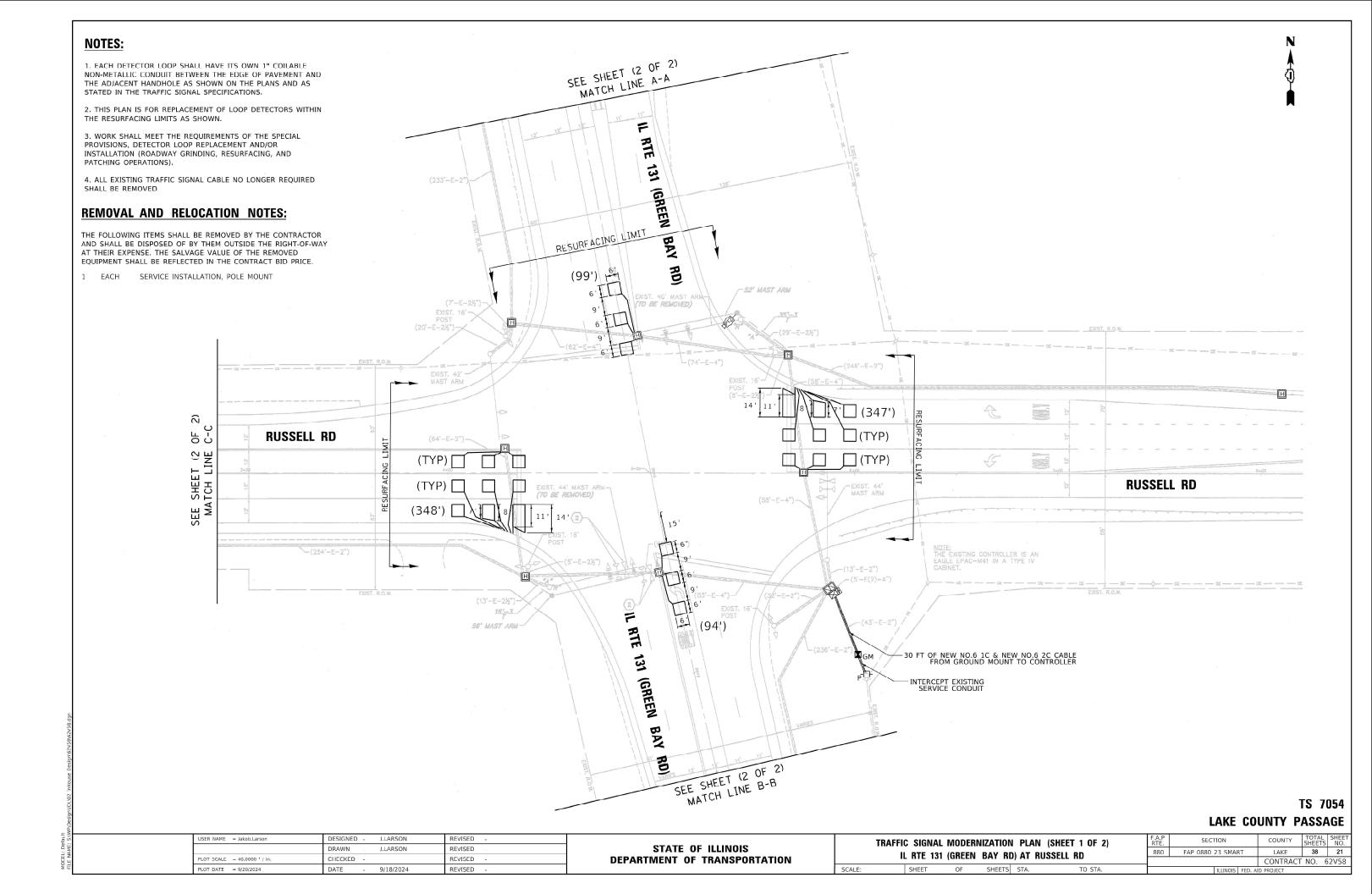


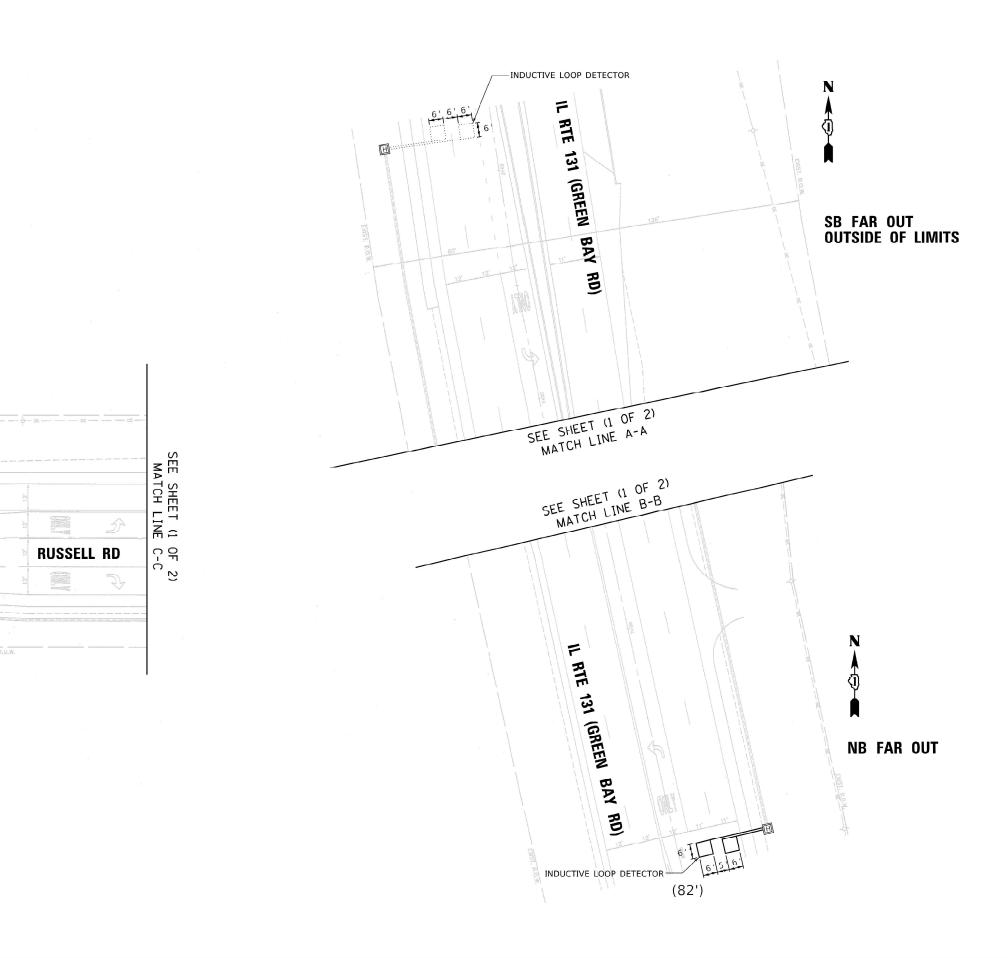


TS 7050 EAGLE 7M

USER NAME = Jakob.Larson	DESIGNED - J.LARSON	REVISED -		TRAFFI	C SIGNAL	MODERI	NIZATION PLAN	(SHEET 2 OF 2)	F.A.P RTF.	SECTION	COUNTY	TOTAL SHEE
	DRAWN - J.LARSON	REVISED -	STATE OF ILLINOIS	II RTE 13					880	FAP 0880 23 SMART	LAKE	38 19
PLOT SCALE - 40.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	12 12 12 12 12 12 12 12 12 12 12 12 12 1			(CONTRAC	T NO. 62V58	
PLOT DATE = 9/19/2024	DATE - 9/18/2024	REVISED -		SCALE:	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	

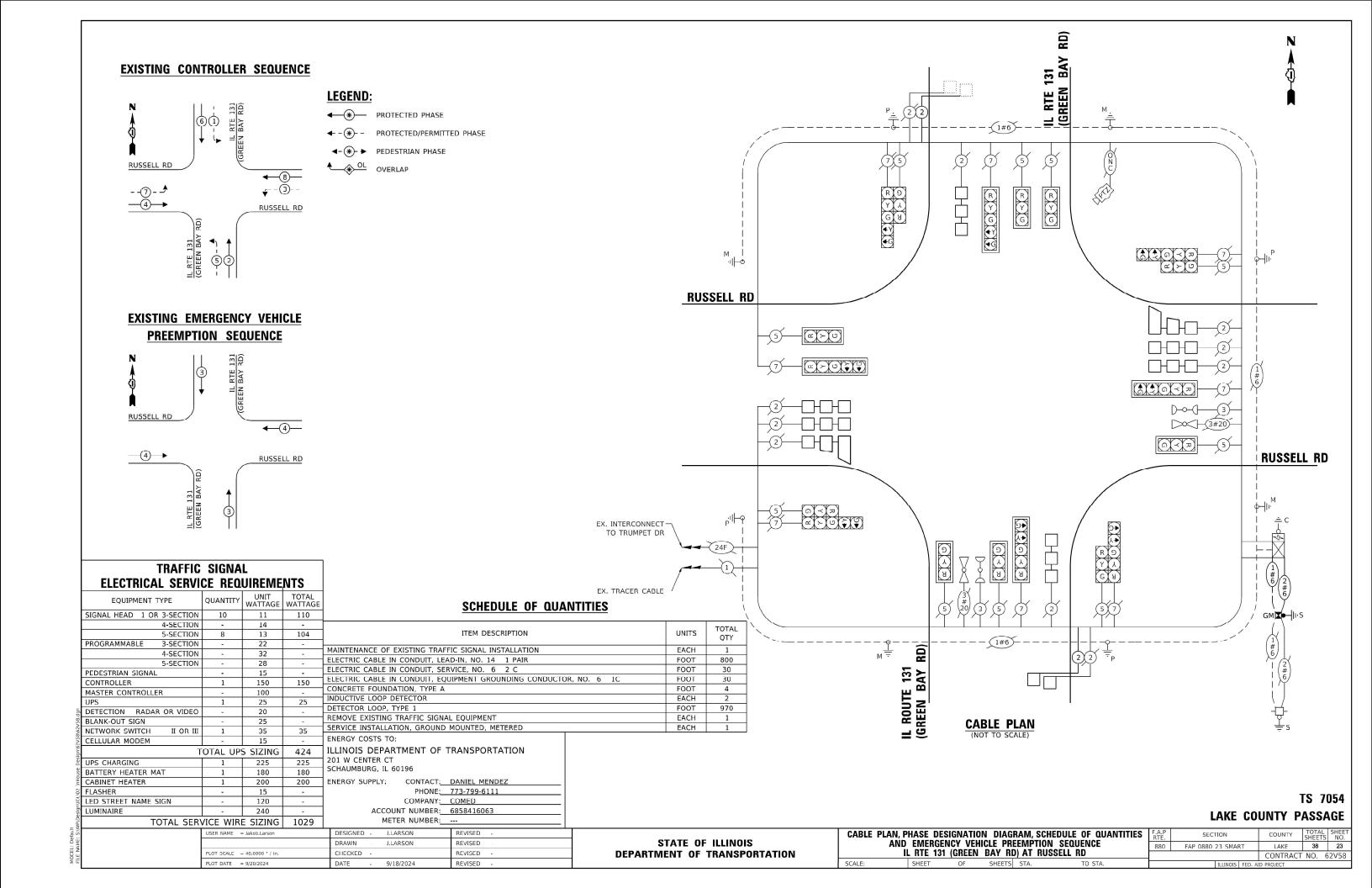


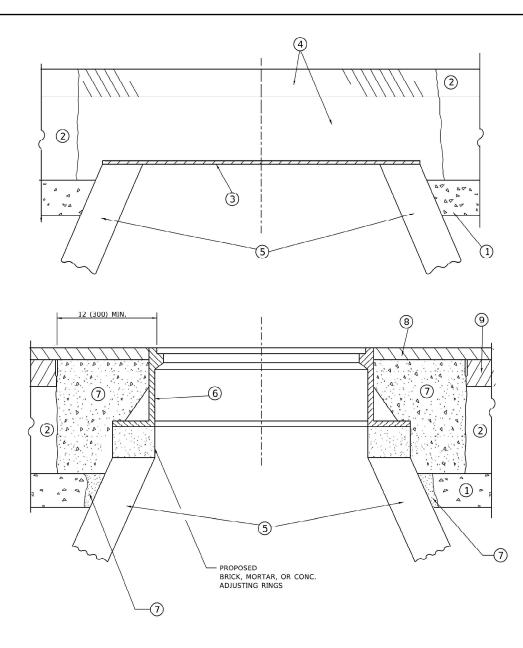




TS 7054 LAKE COUNTY PASSAGE

USER NAME = Jakob.Larson	DESIGNED - J.LARSON	REVISED -		TI	RAFFIC SIGNAL	MODER	NIZATION PLA	N (SHEET 2 OF 2)	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN J.LARSON	REVISED	STATE OF ILLINOIS				I BAY RD) AT		880	FAP 0880 23 SMART	LAKE	38 22
PLOT SCALE - 40,0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	CCALE:	CUEST	OF	CUSETS STA	TO STA	_		CONTRAC	T NO. 62V58
PLOT DATE = 9/20/2024	DATE - 9/18/2024	KEVISED -		SCALE:	SHEET	UF	SHEETS STA.	TO STA.		ILLINOIS FED. A	D PROJECT	





DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

<u>NOTES</u>

- 1. 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.
- 4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

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 HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

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 PP-2* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- *UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1 SUB-BASE GRANULAR MATERIAL

(6) FRAME AND LID (SEE NOTES)

(2) EXISTING PAVEMENT

(7) CLASS PP-2* CONCRETE

3 36 (900) DIAMETER METAL PLATE

8 PROPOSED HMA SURFACE COURSE

(4) PROPOSED CRUSHED STONE AND HMA SURFACE MIX

(9) PROPOSED HMA BINDER COURSE

(5) EXISTING STRUCTURE

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

- 1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
- THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- 3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- 4. 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.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

LAKE

CONTRACT NO. 62V58

38 24

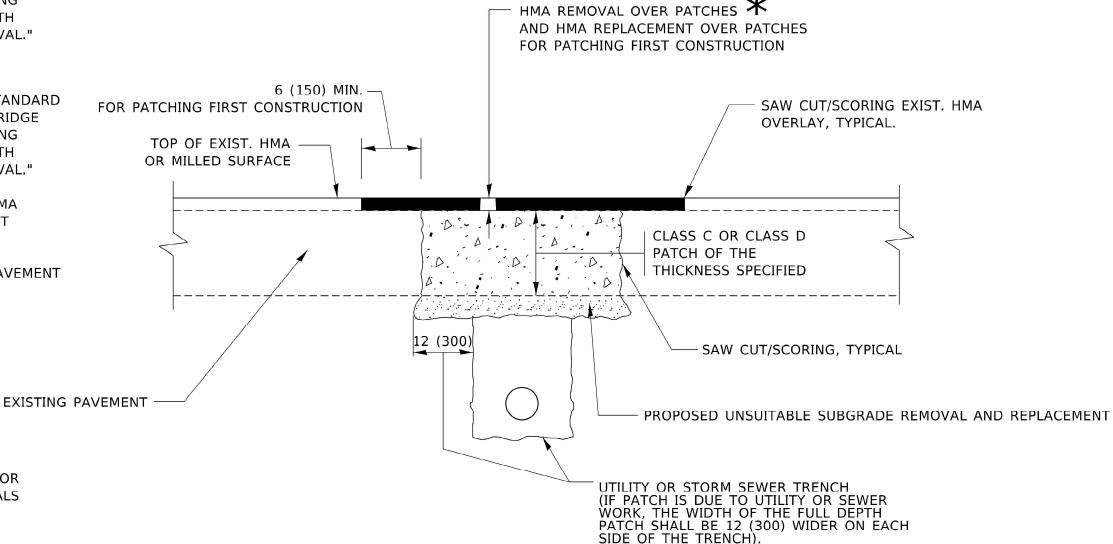
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

BASIS OF PAYMENT

- 1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
- SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
- 3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEE TYPICAL SECTIONS FOR

THICKNESS AND MATERIALS

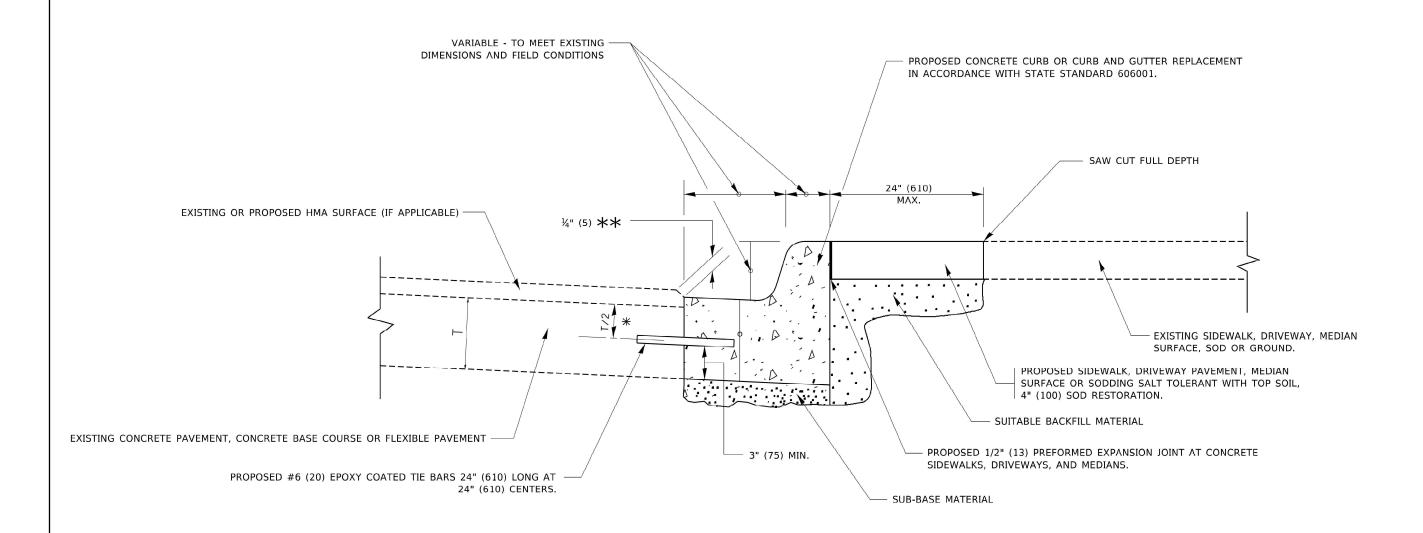
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ 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.

USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07			PAVEMENT PATC	HING FOR		RTE.	SECTION	COUNTY	SHEETS	NO.
	DRAWN -	REVISED R. BORO 09-04-07	STATE OF ILLINOIS		HMA SURFACED I			0880	NHPP-X5F6(801)	LAKE	38	25
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION		HIVIA SUNFACED I	PAVEIVICIVI		<u> </u>	BD400-04 (BD-22)	CONTRA	ACT NO. 6	2V58
PLOT DATE = 11/18/2022	DATE - 10-25-94	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA.	TO STA.		ILLINOIS	FED. AID PROJECT		

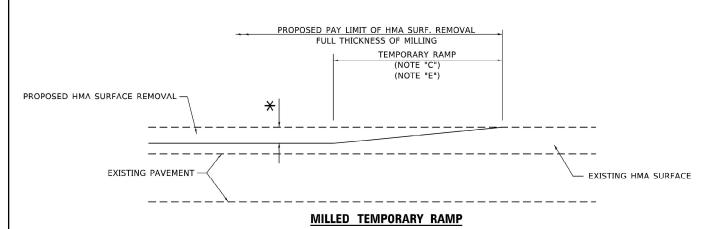


- \divideontimes 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- $\star\star$ IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

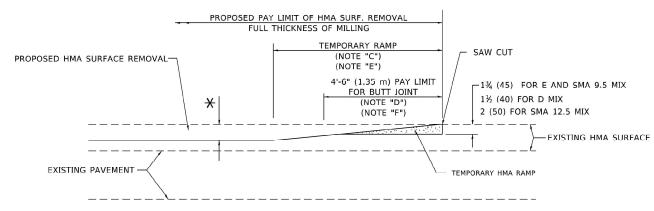
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemi DESIGNED - A. HOUSEH REVISED - A. ABBAS 03-21-97 **CURB OR CURB AND GUTTER** DRAWN M. GOMEZ 01-22-01 STATE OF ILLINOIS NHPP-X5F6(801) LAKE REMOVAL AND REPLACEMENT CHECKED REVISED - R. BORO 12-15-09 **DEPARTMENT OF TRANSPORTATION** PLOT SCALE - 50.0000 ' / in. CONTRACT NO. 62V58 BD600-06 (BD-24) SHEET 1 OF 1 SHEETS STA. SCALE: NONE DATE REVISED - K. SMITH 07-11-19



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

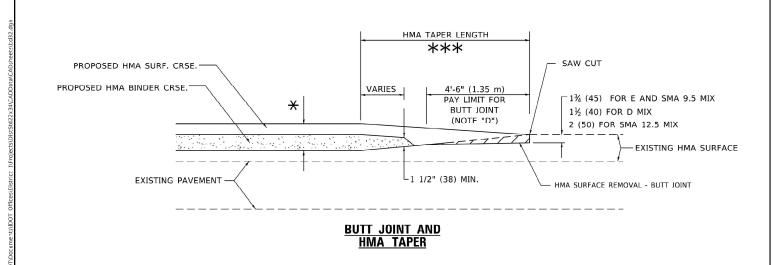


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

TYPICAL TEMPORARY RAMP



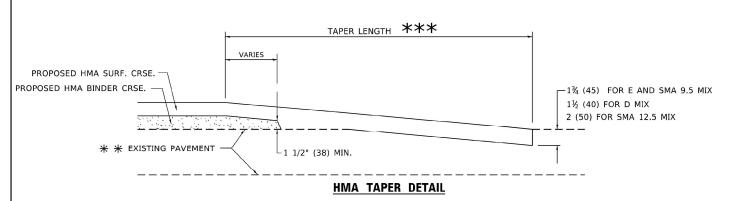
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

USER NAME = Lawrence.DeManche DESIGNED -M. DE YONG REVISED -DRAWN REVISED M. GOMEZ 04-06-01 CHECKED REVISED R. BORO 01-01-07 PLOT SCALE - 100.0000 ' / in. DATE REVISED K. SMITH 11-18-22

DEPARTMENT OF TRANSPORTATION

SECTION **BUTT JOINT AND** NHPP-X5F6(801) HMA TAPER DETAILS BD400-05 BD-32 OF 1 SHEETS STA. SHEET 1 TO STA

PROPOSED HMA OR PCC SURFACE REMOVAL - BUTT JOINT 30'-0" (9.0 m) (NOTE "A") EXISTING HMA OR PCC SURFACE SAW CUT 15'-0" (4.5 m) (NOTE "B") (NOTE "D") 40'-0" (12.0M) (NOTE "A1") $-1\frac{3}{4}$ (45) FOR E AND SMA 9.5 MIX 1½ (40) FOR D MIX 2 (50) FOR SMA 12.5 MIX * * EXISTING PAVEMENT **BUTT JOINT DETAIL**



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

GENERAL NOTES

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- 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' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- F. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- *** 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

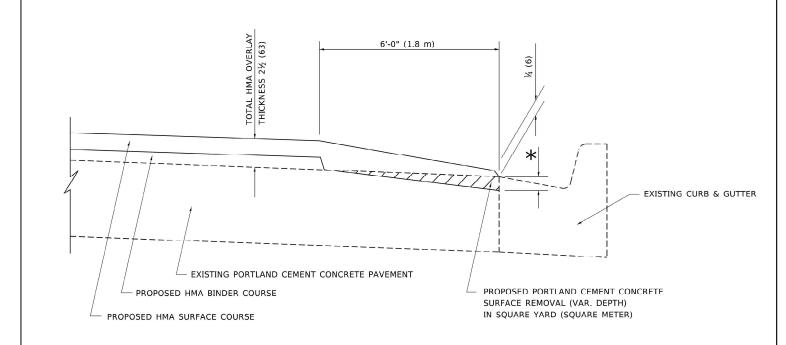
- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
 FOR "HOI-MIX ASPHALI SURFACE REMOVAL BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
- 2. THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT

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

LAKE 38 27

CONTRACT NO. 62V58

STATE OF ILLINOIS SCALE: NONE



HMA TAPER AT EDGE OF PCC PAVEMENT

HMA SURFACE COURSE		HMA BINDER COURSE	
MIX	THICKNESS	THICKNESS	* MILLING AT GUTTER FLAG
D	1½ (38)	1 (25)	1¼ (33)
E OR SMA 9.5	1¾ (44)	¾ (19)	1½ (38)

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

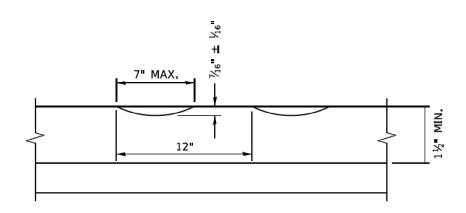
USER NAME = Shawn.Ley	DESIGNED	-	R. SHAH	REVISED	-	E. GOMEZ 12-21-00
	DRAWN	Е	JIS	REVISED	-	R. BORO 01-01-07
PLOT SCALE - 50.0000 ' / in.	CHECKED	-	A. ADDAS	REVISED	-	JP CHANG 07-08-16
PLOT DATE = 1/23/2023	DATE	_	09-10-94	REVISED	_	K SMITH 11-18-22

STATI	E OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

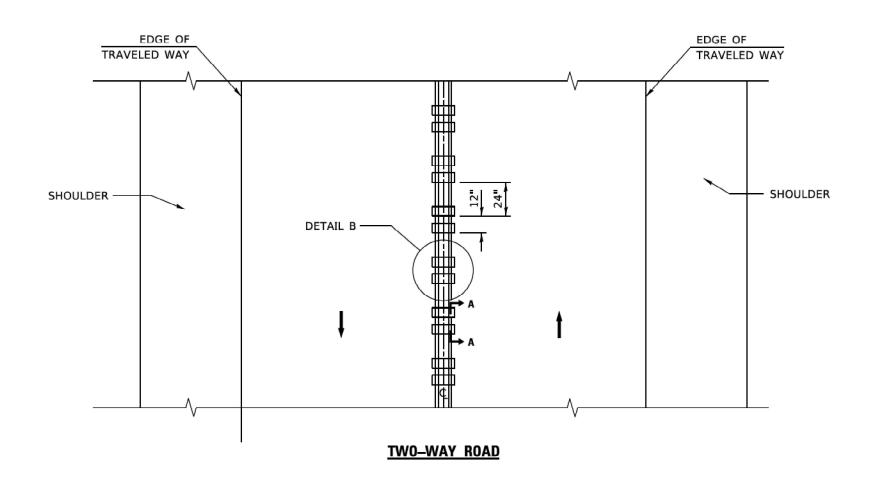
		HIV	IA TAPER		
	ED	GE O	F P.C.C. PA	VEMEN.	Г
SHEET	1	OF	1 SHEETS	STA	TO STA

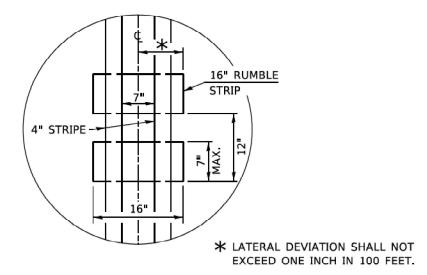
SCALE: NONE

		ILLINOIS	ID PROJECT			
BD400-06 BD-33				CONTRACT	NO. 6	2V58
0880	NHPP-X	5F6(801)		LAKE	38	28
RTE.	SEC	TION	COUNTY	SHEETS	SHEE	



SECTION A-A





DETAIL B

GENERAL NOTES

- 1. CENTERLINE RUMBLE STRIPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 642 ALONG THE CENTERLINE OF PAVEMENT.
- 2. SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS.
- 3. RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES.
- 4. ALL RUMBLE STRIPS SHALL BE MILLED.
- 5. CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.
- 6. DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.
- 7. AFTER RUMBLE STRIPS ARE INSTALLED, THE PAVEMENT SURFACE SHALL BE SWEPT CLEAN PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT MARKINGS.
- 8. WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

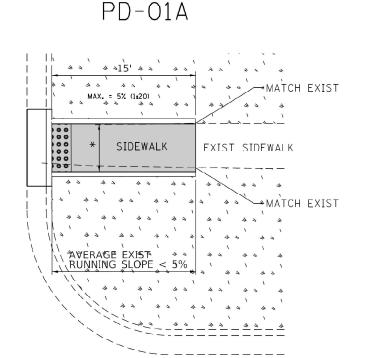
BASIS OF PAYMENT

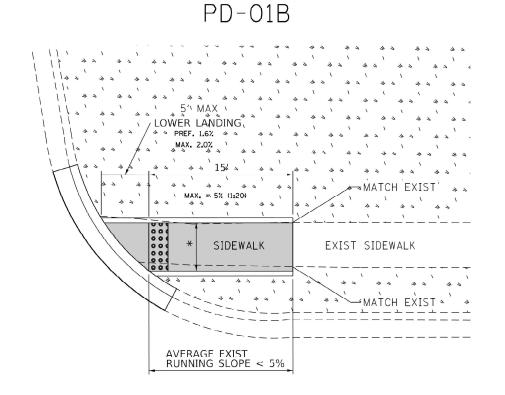
- 1. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CENTERLINE-RUMBLE STRIP OF THE WIDTH SPECIFIED.
- 2. HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPS, AND WILL BE PAID FOR SEPARATELY.

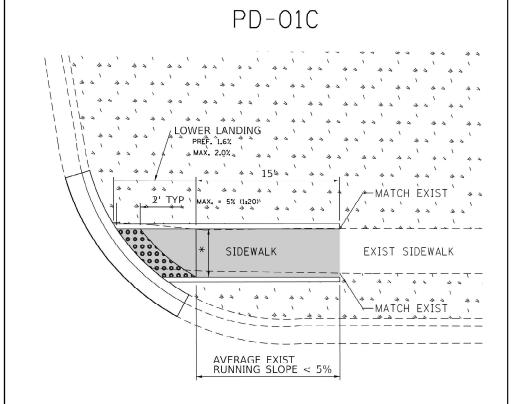
CONTRACT NO. 62V58

USER NAME - Lawrence.DeManche	DESIGNED - R. BORO	REVISED - K, SMITH 11-18-22
	DRAWN -	REVISED -
PLOT SCALE = 100,0000 ' / In.	CHECKED -	REVISED -
PLOT DATE = 11/18/2022	DATE - 08-06-2012	REVISED -

ADA DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS W/ EXIST. 5% OR LESS RUN. SLOPE







DESIGNER NOTES:

- 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50).
- 2) SIDEWALK REALIGNMENT WILL REQUIRE DETAILED DESIGN.
- 3) AREAS SURROUNDED BY PCC/ASPHALT, BUILDINGS, OR ARE NEAR TO DRIVEWAYS, REALIGNED SIDEWALK, UTILITY AND SIGNAL POLES, OR WHEN PRIVATE SIDEWALK TIES IN, WILL REQUIRE DETAILED SURVEY AND DESIGN.
- 4) ALL BRICK CORNERS WILL REQUIRE SUPERVISOR APPROVAL BEFORE USING PROJECT DETAILS

LEGEND

PROPOSED SIDE CURB



EXIST. GRASS



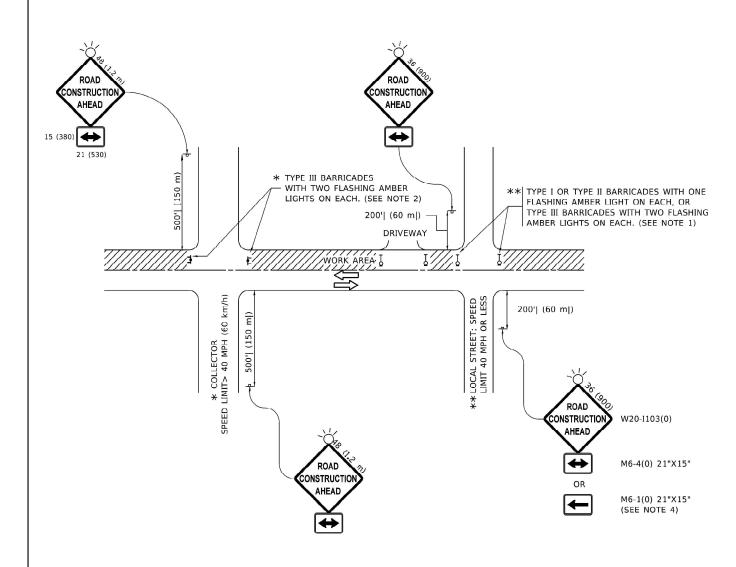
PROPOSED SIDEWALK



DETECTABLE WARNINGS

- CONSTRUCTION NOTES:
- 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50) EXCEPT WHEN TRANSITIONING TO EXISTING SIDEWALK
- * MATCH EXISTING SIDEWALK WIDTH

FILE NAME =	USER NAME = ledezmarm	DESIGNED/	REVISED -		PROJECT D	TETALL FOR	s sint	GLE PERPENDICIII	AR CURR RAMPS	F.A.P.	SECTION		TOTAL SH
S:\WP\PLANPREP\SQUAD_1\Des_RL\Typical AD	A details\Typical-ADA-sht-plan.dgn	DRAWN - RL 11/12/2019	REVISED -	STATE OF ILLINOIS	PROJECT DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS (PD-01)		0880	NHPP-X5F6(801)	LAKE	38			
	PLOT SCALE = 10.0000 '/ m.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				PD-01	CONTRACT	NO. 62V5			
Default	PLOT DATE = 12/17/2019	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	



NOTES:

- 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:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN $48 \times 48 \ (1.2 \ m \times 1.2 \ m)$ WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
 b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
 OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
 4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
 BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

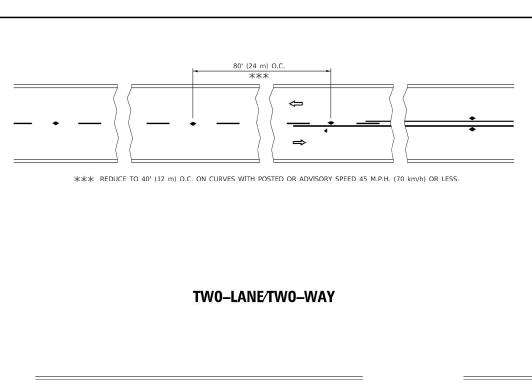
- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

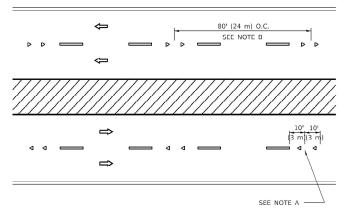
All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = Lawrence.DeManche	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-00
	DRAWN -	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE - 100.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = 5/3/2024	DATE - 06-89	REVISED - D. SENDERAK 05-03-24

					TION FOR DRIVEWAYS
SHEET	1	OF 1	SHEETS	STA.	TO STA.

Ρ.	SECTION	ı	COUNTY	TOTAL SHEETS	SHEE NO.
0	NHPP-X5F6(8	301)	LAKE	38	31
	TC-10		CONTRACT	NO. 6	2V58
	ILLI	NOIS FED.	AID PROJECT		



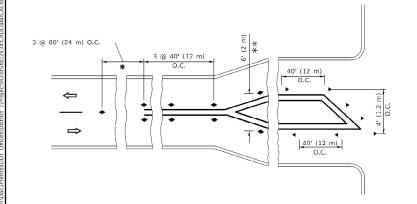


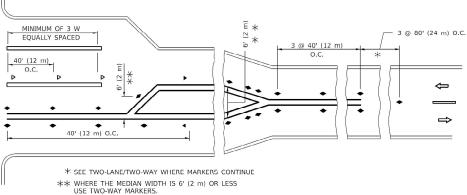
MULTI-LANE/DIVIDED

MULTI-LANE/UNDIVIDED

 \Rightarrow

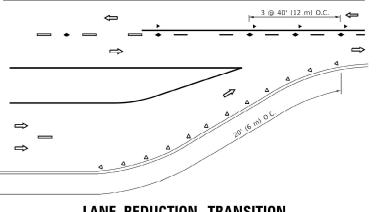
 \Rightarrow



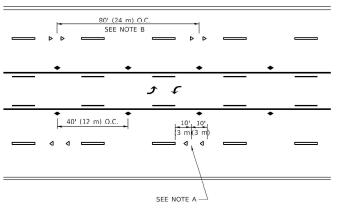


TURN LANES

SEE FIGURE 3B-14 MUTCD



LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN

GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
- 4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

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.
- THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY INVOLVED.

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

REVISED - T. RAMMACHER 03-12-99 DESIGNED -USER NAME = footemi DRAWN REVISED - T. RAMMACHER 01-06-00 CHECKED REVISED - C. JUCIUS 09-09-09 LOT SCALE - 50.0000 ' / in. C. JUCIUS 07-01-13 DATE REVISED -

SEE NOTE A

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHEET 1 OF 1 SHEETS STA.

SECTION NHPP-X5F6(801) LAKE 38 32 TC-11 CONTRACT NO. 62V58

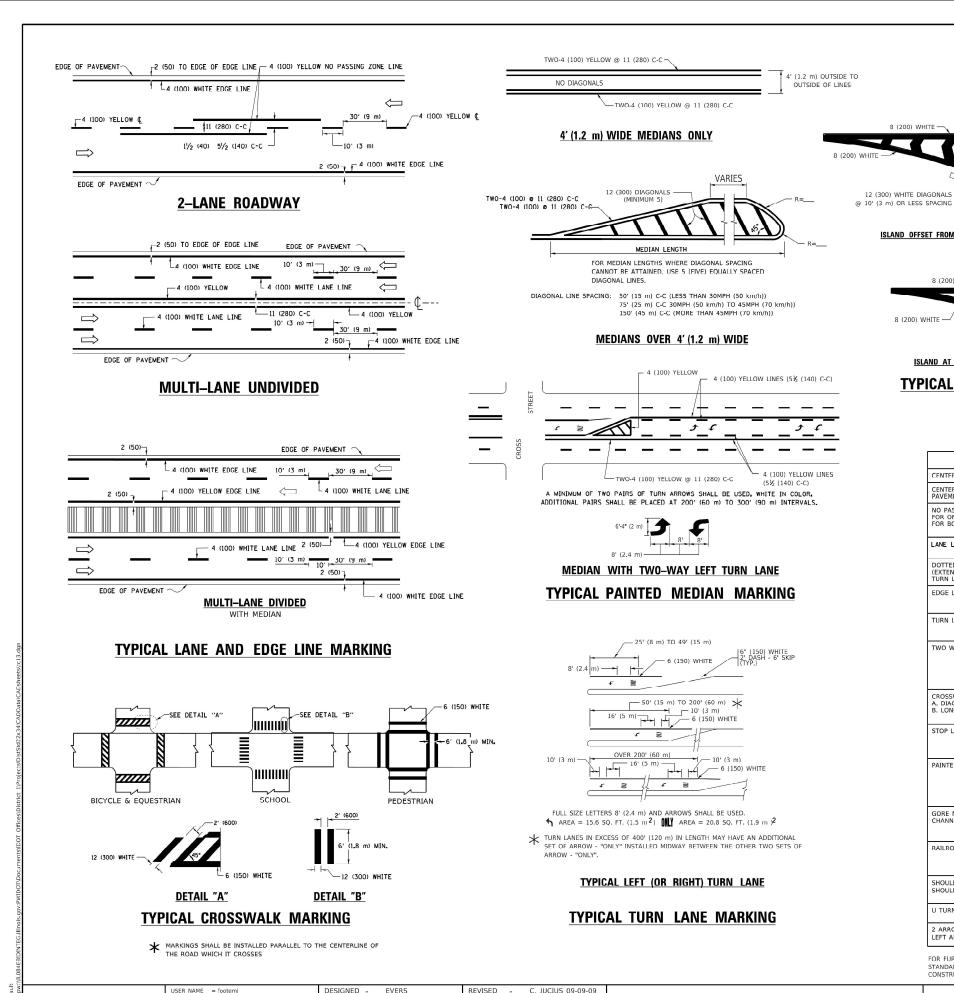
SYMBOLS

ONE-WAY CRYSTAL MARKER (W/O)

TWO-WAY AMBER MARKER

- YELLOW STRIPE

WHITE STRIPE

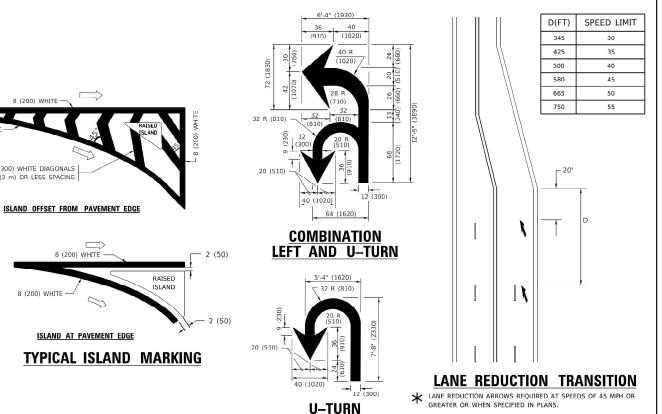


DRAWN

DATE

LOT SCALE - 50.0000 ' / in.

CHECKED



TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YFLLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 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 MEDIANS IN YELLOW
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 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART 5EE 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 PUINI. PARALLEL IO 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	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 iii) 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 SQ. FT. (0.33 m) FACH *X"-54.0 SQ. FT. (5.0 m)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

SCALE: NONE

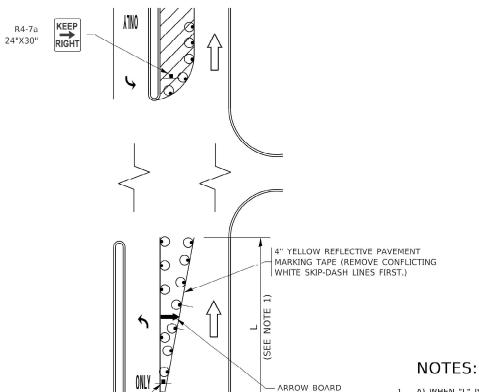
All dimensions are in inches (millimeters unless otherwise shown.

C. JUCIUS 07-01-13 REVISED -C. JUCIUS 12-21-15

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

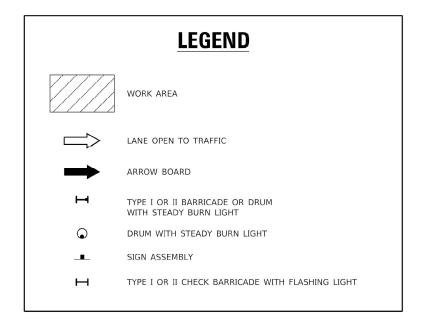
SECTION DISTRICT ONE NHPP-X5F6(801) LAKE 38 33 TYPICAL PAVEMENT MARKINGS TC-13 CONTRACT NO. 62V58 SHEET 1 OF 2 SHEETS STA.

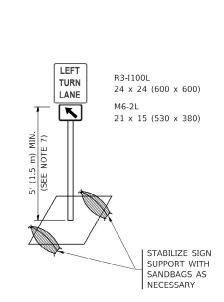
TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

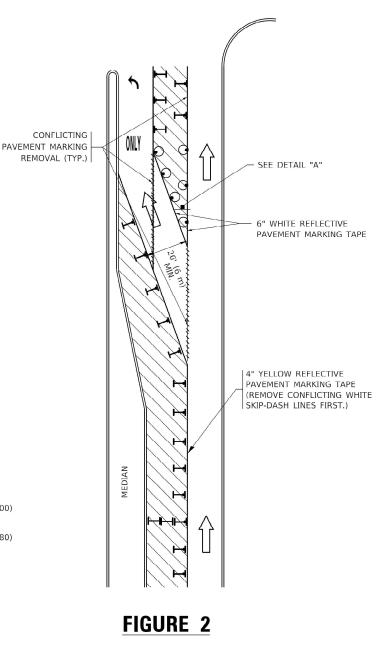


- 1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
 - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE WITHIN A LANE CLOSURE







DETAIL A

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

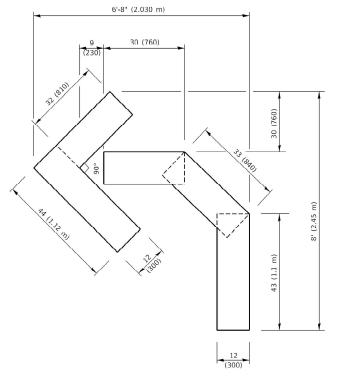
DESIGNED - T. RAMMACHER 09-08-94 REVISED - R. BORO 09-14-09 USER NAME = footemi CHECKED -A. HOUSEH 10-12-96 LOT SCALE - 50.0000 ' / in. DATE -T. RAMMACHER 01-06-00 REVISED

FIGURE 1

SECTION TRAFFIC CONTROL AND PROTECTION AT TURN BAYS 0880 NHPP-X5F6(801) (TO REMAIN OPEN TO TRAFFIC) TC-14

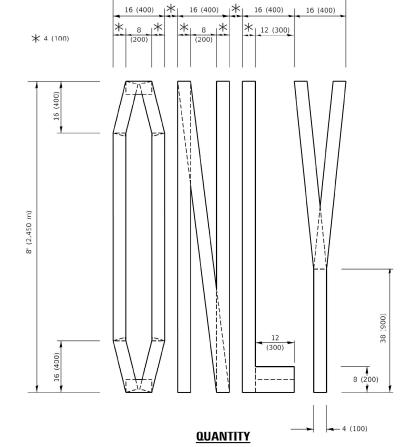
SEE DETAIL "A"

A. HOUSEH 11-07-95 REVISED - A. SCHUETZE 07-01-13 STATE OF ILLINOIS LAKE 38 34 REVISED - A. SCHUETZE 09-15-16 **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 62V58 SHEET 1 OF 1 SHEETS STA.

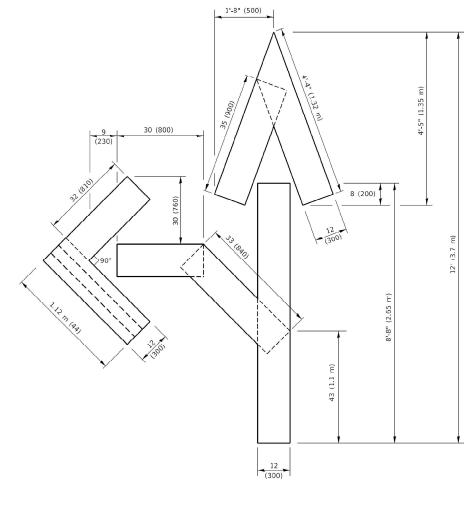


QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m)21.4 sq. ft. (1.99 sq. m)

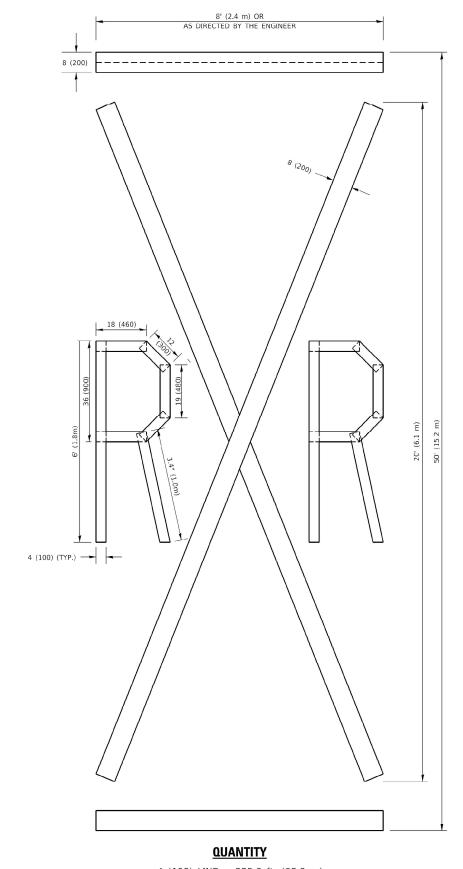


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m)75.3 sq. ft. (6.99 sq. m)

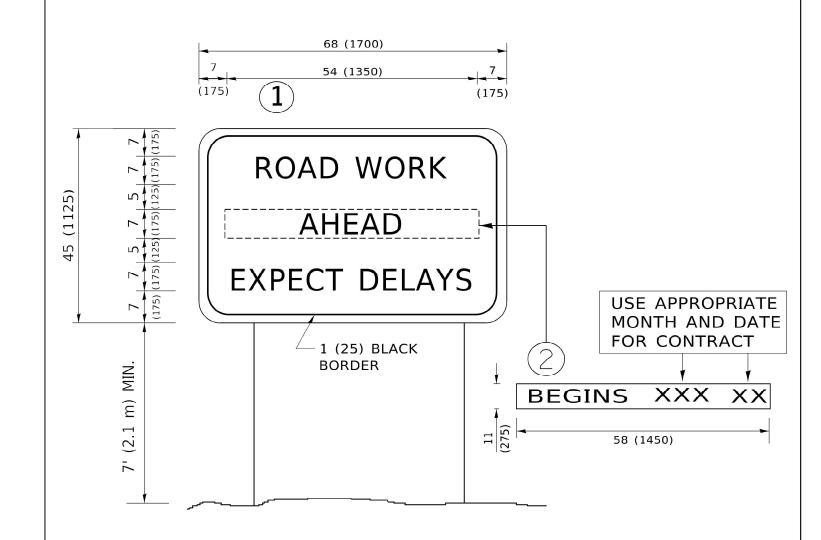
> All dimensions are in inches (millimeters) unless otherwise shown.

USER NAME = footemj DESIGNED -REVISED - T. RAMMACHER 03-02-98 DRAWN REVISED - E. GOMEZ 08-28-00 CHECKED -REVISED - E. GOMEZ 08-28-00 DATE REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

SECTION NHPP-X5F6(801)

0880 LAKE 38 35 TC-16 CONTRACT NO. 62V58 SHEET 1 OF 1 SHEETS STA.



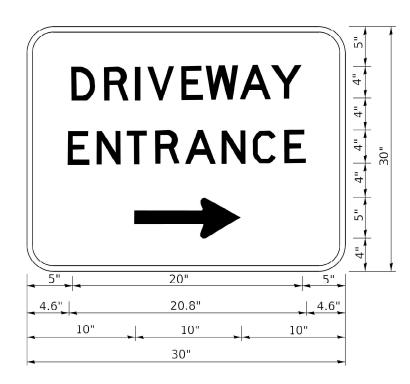
NOTES:

- 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.

USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL	ROAD		F.A. P . RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS		INFORMATIO			0880	NHPP-X5F6(801)	LAKE	38	36
PLOT SCALE - 50.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFONIVIATIO	IN SIGN			TC-22	CONTRAC	T NO. 6	2V58
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET 1 OF 1 SHEE	TS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

MODEL: Default



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

NOTES:

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

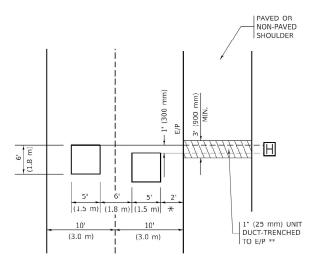
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

LOOPS NEXT TO SHOULDERS

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

* = (600 mm)



 \star \star unit duct is to be shown on plan sheets

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

JSER NAME = footemi

PLOT DATE = 3/4/2019

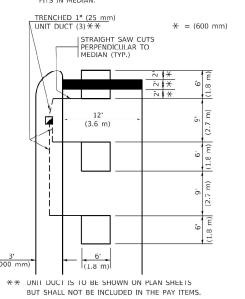
LOT SCALE - 50.0000 ' / in

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.



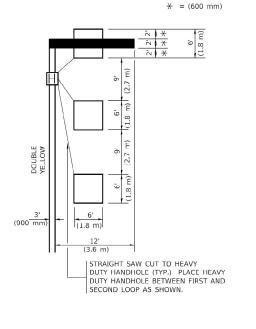
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO

PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS

VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH

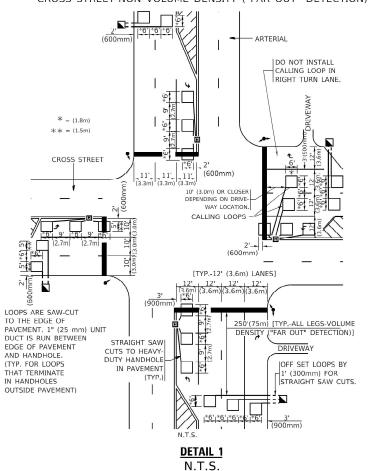
(PROTECTED / PERMITTED LEFT TURN PHASING)



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

SCALE: NONE

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



DESIGNED

CHECKED -

R.K.F

DRAWN

DATE

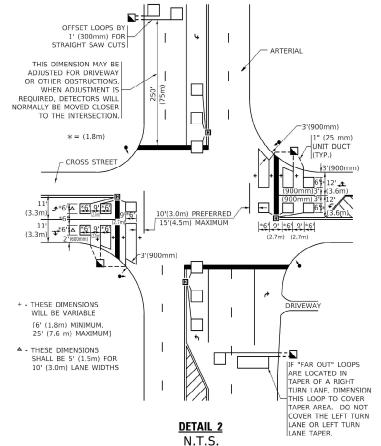
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ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



NOTES

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIFLDED
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, <u>MORE</u> THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (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 LITHIZFD. 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.

COUNTY

LAKE

CONTRACT NO. 62V58

38 38

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

0.000		13-07
DETAILS TOIL HOADWAT HESONI ACING		TS-07
DETAILS FOR ROADWAY RESURFACING	0880	NHPP-X5F6
DISTRICT 1 - DETECTOR LOOP INSTALLATION	F.A. P. RTE.	SECTIO