03-04-2016 LETTING ITEM 006

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

PROJECT IS LOCATED IN WILL COUNTY

0

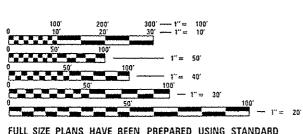
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FAI 80 I-80 AT BRIGGS ST.
WESTBOUND EXIT RAMP "C" AND WESTBOUND ENTRANCE RAMP "D"
SECTION 99-4-1-N
PROJECT: ACNHPP - 0080 (410)
RESURFACING, TRAFFIC SIGNAL INSTALLATION
AND CHANNELIZATION
WILL COUNTY

C-91-402-13



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.

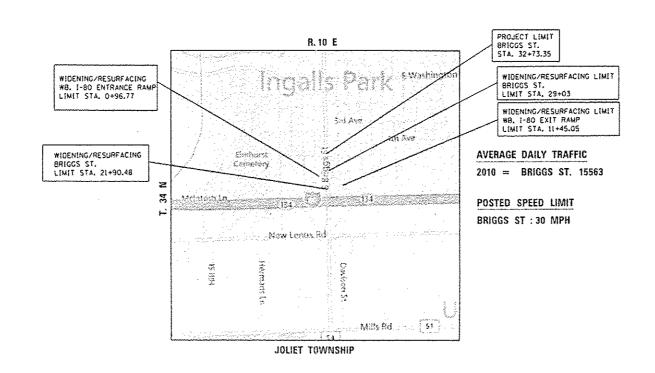
J.U.L.I.E.

1-800-892-0123 OR 811

PROJECT ENGINEER: JENPAI CHANG 847-705-4432

PROJECT MANAGER: KEN ENG

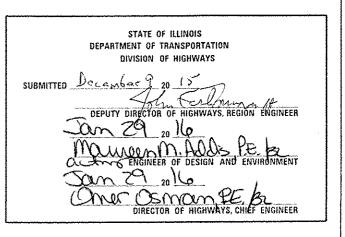
CONTRACT NO. 60W93



GROSS & NET LENGTH = 1083.00 FT. = 0.205 MILE

0-91-402-13





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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STANDARDS

DESCRIPTION STD. NO.

000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

442201-03 CLASS C & D PATCHES

606001-06 CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER

TOUIDI-ON OFF-ROAD OPERATIONS, MULTILANE. 15' (4.5M) TO 24" (600MM) FROM PAVEMENT

701201-04 LANE CLOSURE, 2L. 2W. DAY ONLY, FOR SPEEDS 2 45 MPH

STANDARDS CONTINUED

STD. NO. DESCRIPTION

701426-07 LANE CLOSURE. MULTILANE, INTERMITTANT OR MOVING OPERATIONS. FOR SPEEDS 245 MPH

701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

701306-03 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS, DAY ONLY FOR SPEED 245 MPH

701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS. DAY ONLY

701326-04 LANE CLOSURE, 2L. 2W, PAVEMENT WIDENING, FOR SPEED 245 MPH

701336-06 LANE CLOSURE, ZL. ZW. WORK AREAS IN SERIES FOR SPEEDS 2 45 MPH

701456-03 PARTIAL EXIT RAMP CLOSURE, FREEWAY / EXPRESSWAY

701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION

701901-04 TRAFFIC CONTROL DEVICES

720001-01 SIGN-PANEL MOUNTING DETAILS

812001 RACEWAY EMBEDDED IN STRUCTURE

814001-03 HANDHOLES

814006-02 DOUBLE HANDHOLES

857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)

873001-02 TRAFFIC SIGNAL GROUNDING & BONDING

877001-05 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'

877011-05 STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'

878001-10 CONCRETE FOUNDATION DETAILS

880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

886001-01 DETECTOR LOOP INSTALLATIONS

PLAN NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

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. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND WILL COUNTY.

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

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 PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT, WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

DRAINAGE STRUCTURE ADJUSTMENT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER,

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

ALLE PIPE UNDERDRAINS SHALL BE PLACED AT A DEPTH OF 30" BELOW THE TOP OF PROPOSED PAYEMENT, OR AS DEEP AS POSSIBLE AND IN ACCORDANCE WITH CHECK SHEET *19 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. THE COST OF MAKING PIPE UNERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF PIPE UNDERDRAINS ITEM.

PLAN NOTES (cont.)

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF CONSTRUCTION.

THE THICKNESS OF THE HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS, DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

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 ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

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

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

ACCESS TO ALL COMMERCIAL & PRIVATE ENTRANCES WILL BE MAINTAINED AT ALL TIMES EXCEPT DURING THE SHORT DURATION WHEN CONSTRUCTION ACTIVITIES ARE UNDERWAY AT THIS ENTRANCE.

THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING

THE CONTRACTOR SHALL CHECK ALL ESC MEASURES WEEKLY AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOWMELT.

ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION:

HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/ENVIRONMENT/EROSION-AND-SEDIMENT-CONTROL

THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW. WASTE, USE (BWU) AREAS, PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR 5/32 S RESPONSIBILITY TO SECURE THE PROPER PERMITS, IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW(BDE 2290) SUBMITTALS. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IT SHALL BE THE CONTRCTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATION OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES. MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123

OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICE OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIESPRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REDUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTAINANCE CONTRACTOR PRIOR TO THE START OF ANY WORK, ADDITIONAL REDUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT. HANDHOLE, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN. SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TO STA.

REY.

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STATE OF ILLINOIS RTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS AND GENERAL NOTES BRIGGS STREET AT INTERSTATE 80 (WEST RAMP "C") SCALE: NONE SHEET SHEETS STA.

OF

TOTAL SHEE SECTION COUNTY 80 99-4-1-N 70 2 CONTRACT NO. 60W93

I	SUMMARY OF QUANTITIES	· · · · · · · · · · · · · · · · · · ·	T	1	C	ONSTRUCT	ION TYPE	CODE			SUMMARY OF QUANTITIES			<u> </u>	C	ONSTRUCT	ION TYPE	CODE	**********
CODE NO	[TEM	UNIT	TOTAL	ROADWAY FED 90% STATE 10%	90% FED	TRAFFIC	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT 0021	TRAFFIC INTER CONNECT FED 90% STATE 10% 0021		CODE NO	ITEM	UNIT	TOTAL	FED 90%	T		TRAFFIC	TRAFFIC INTER CONNECT FED 90% STATE 10% OO21	
	-GRATING-FOR-CONCRETE-FLARED-END-SECTION-	EACH	2	2					and the state of t	35600711	HOT-MIX ASPHALT BASE COURSE WIDENING, 8	SQ YD	624	624					
	-12"-										3/4"								
хічооічч	LUMINAIRE, LEO, HORIZONTAL MOUNT, TYPE C	EACH	444			11				40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2121	2121					
20400800	FURNISHED EXCAVATION	Cu YD	348	348	And the state of t		na dzienie w dzi			40600400	MIXTURE FOR CRACKS, JOINTS, AND	TON	6.5	6.5				- Auto-	
											FLANGEWAYS								ļ
20800150	TRENCH BACKFILL	CU YO	4	4															
										40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT	SO YO	60	60					
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CH ÁĎ	387	387					posterior de service d		TNJOL								
									arken desident desident										-
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	8010.4	8010.4					archamer pompone	40603565	POLYMERIZED HOT-MIX ASPHALT SURFACE	TON	543	543			•		ļ
									amendare (arthres e annua		COURSE, MIX "E", N70								-
25000210	SEEDING, CLASS 2A	ACRE	1.66	1.66					NA A COMPANY OF PROPERTY.										-
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	149	149						42001300	PROTECTIVE COAT	SO YD	3	3					-
23000100	METHODEN TENTETEEN HOTMEN	1 00110	17,	177						42300400	PORTLAND CEMENT CONCRETE DRIVEWAY	SO YD	7	7					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUNO	149	149		······································				7230	PAVEMENT. 8 INCH	53 ,5	*						<u> </u>

25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	149	149						44000157	HOT-MIX ASPHALT SURFACE REMOVAL. 2"	50 YD	4245	4245					
25100630	EROSION CONTROL BLANKET	SQ YO	8010.4	8010.4						44000200	DRIVEWAY PAVEMENT REMOVAL	SO YO	7	7					
an massaca																			
28000400	PERIMETER EROSION BARRIER	FDOT	1616, 85	1616.85						44004250	PAVED SHOULDER REMOVAL	SO YO	1002	1002		······································			
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	5382	5382				Annual Annua		44201798	CLASS D PATCHES, TYPE I. 13 INCH	SO YO	.4	4					
35300315	PORTLAND CEMENT CONCRETE BASE COURSE 8 3/4"	SO YO	88	88			·		eineinefelerm (merekanderfee	44201809	CLASS D PATCHES. TYPE IV. 13 INCH	SQ YD	55	55					- Anna Anna Anna Anna Anna Anna Anna Ann
Tribute to the state of the sta								Man Annual Annua		12									
35501319	HOT-MIX ASPHALT BASE COURSE, 8 3/4"	SQ YD	458	458									-						
		-						deren de	The state of the s		* SPECIALTY ITEMS								
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443	00200	STRIP REFLECTIVE CRACK CONTROL	FOOT	1196	1196	0021	0021	0021	0021		70300240	TEMPORARY PA	AVEMENT MARKING - LINE 6"	FOOT	233	233	0021	0021	0021	0021	
											10300240	1 LWH ONAIL I A	AACMEN MANAGE - LINE B	1 001	233	433				-	
		TREATMENT									-	udra variation and the same of			and the same of th		-				
								the state of the s			70300260	TEMPORARY PA	AVEMENT MARKING - LINE 12"	FOOT	70	70					
482	03029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	936	936																
											70300280	TEMPORARY PA	AVEMENT MARKING - LINE 24"	FOOT	78	78					
542	13657	PRECAST REINFORCED CONCRETE FLARED END	EACH	2	2											and a few section of the section of					
		SECTIONS 12"	And the second s								* 72000100	SIGN PANEL -	- TYPE 1	SO FT	6. 75			6. 75			
											and the state of t									-	
542	A0217	PIPE CULVERTS, CLASS A, TYPE 1 12"	FOOT	16	16						* 78000100	THERMOPLAST	IC PAVEMENT MARKING -	SO FT	110	110				august and a second	
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k 630	10000	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6	FOOT	137.5	137.5	Arthur Area administrative		Anapparapa a manapa													
		FOOT POSTS						-			米 78000200	THERMOPLASTI	IC PAVEMENT MARKING - LINE 4"	F00T	3226	3226					
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* 631	00167	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	***	**	A second					* 78000400	THERMOPLAST	IC PAVEMENT MARKING - LINE 6"	FOOT	233	233					
		(SPECIAL) TANGENT																			
				141411 THE STATE OF THE STATE O																	
632	00310	GUARDRAIL REMOVAL	FOOT	137.5	137.5						* 78000600	THERMOPLAST	IC PAVEMENT MARKING - LINE 12"	FOOT	70	70					
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670	00400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6						444						***************************************				
										-	* 78000650	THERMOPLAST	IC PAVEMENT MARKING - LINE 24"	FOOT	78	78					
671	00100	MOBIL(ZATION	LSUM	1	1													-			
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701	06800	CHANGEABLE MESSAGE SIGN	CAL MO	2			2		And the second of the second o		* 78008210	POLYUREA PAY	VEMENT MARKING TYPE I - LINE 41	FOOT	276	276					
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703	00100	SHORT TERM PAVEMENT MARKING	FOOT	236	236									***************************************					1		
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7030	00210	TEMPORARY PAVEMENT MARKING LETTERS AND	SO FT	110	110				The state of the s										***************************************		
		SYMBOLS							The state of the s								***************************************		the state of the s		
											* 78100100	RAISED REFLE	ECTIVE PAVEMENT MARKER	EACH	53	53					
7030	00220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3226	3226						12							-			
(⁰)	- Arrivater and marketing	* SPECIALTY ITEMS							-	and and a second											
FILE N		USER NAME = PazeAFF DE USER N	SIGNED - ANOLIGN -		REVISED			•	2	TATE OF	ILLINOIS		SUMMARY				F.A.I. RTE.		TION	COUNTY SH	OTAL SHEET EETS NO. 70 4
		PLOT SCALE : NOODOOO ' / /A CHE	ECKED -		REVISED	-		£			TRANSPORT	ATION	BRIGGS STREET AT INTER				80			CONTRACT N	
		PLOI DATE • 12/9/2015 DA	TE -	······································	REVISED						 		SCALE: NONE SHEET NO. OF	SHEETS STA	. Te	STA,	FED. RC	DAD DIST, NO. 1	ILLINOIS FED. AID	T23L089	

	SUMMARY OF QUANTITIES					TRAFFIC	ION TYPE	CODE TRAFFIC			SUMMARY OF QUANTITIES					ONSTRUCT TRAFFIC	ION TYPE	
CODE NO	ITEM	UNIT	TOTAL	ROADWAY FED 90% STATE 10%		SIGNALS FED 90% STATE 10%	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT 0021	INTER CONNECT FED 90% STATE 10%	economica de constante de const	CODE NO	ITEM	UNIT	TOTAL	FED 90%	90% FED 10% STATE LIGHTING 0021	SIGNALS FED 90% STATE 10%	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT 0021	TRAFFIC INTER CONNECT FED 90% STATE 10% OO21
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT	EACH	53	53					*	★ 81400300	DOUBLE HANDHOLE	EACH	1			ı		
	MARKER																	
									*	₭ 81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6	F00T	2700		2700			
78300200	RAISED REFLECTIVE PAVEMENT MARKER	EACH	53	53							GROUND, (XLP-TYPE USE), 1 1/4" DIA.							
in the state of th	REMOVAL										POLYETHYLENE					**************************************		
80400100	ELECTRIC SERVICE INSTALLATION	EACH	444		1			**************************************	 *	★ 81702110	ELECTRIC CABLE IN CONDUIT, 600V	FOOT	550		550	<u> </u>		
and the state of t											(XLP-TYPE USE) 1/C NO. 10							
80400200	ELECTRIC UTILITY SERVICE CONNECTION	LSUM	1		1													
a branch and an									K	81702220	ELECTRIC CABLE IN CONDUIT, 600V	FOOT	300		300			
81028200	UNDERGROUND CONDUIT. GALVANIZED STEEL.	FOOT	1952			1112		840			(XLP-TYPE USE) 1/C 350MCM							
	2" DIA.								an i wasan and dispersion of						· · · · · · · · · · · · · · · · · · ·			
									K	k 82500420	LIGHTING CONTROLLER. BASE MOUNTED.	EACH	1		1			
810,28210	UNDERGROUND CONDUCT, GALVANIZED STEEL,	FOOT	45			45	-				480VOLT, 200AMP (DUAL)							
	2 1/2" DIA.			to seem of the control of the service of the servic					mrrtet									
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL,	FOOT	41	200		41				83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15	EACH	4		4			
81028220	3" Ola.	FOOT	41	ALL AND		41					FT. MAST ARM	<u> </u>						
AATTITATA									· · · · · · · · · · · · · · · · · · ·	K 83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	50		50			
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL.	F00T	272			272										·		
	4" DIA.			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					*	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15	EACH	4		4			
											INCH BOLT CIRCLE							
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA.,	FOOT	210					210										
manuscontraction of the contraction of the contract	GALVANIZED STEEL	and the second s	an and a second an	Territoria de la composición del composición de la composición de la composición del composición de la composición del composición de la composición del c			77		k	84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	3		3	-		
81400100	HANDHOLE	EACH	2	And the state of t		2			*	84200804	REMOVAL OF POLE FOUNDATION	EACH	3		3			
0140000	UTANY DUTY HANDYOY						Annual Annua	,		V 04500	DELINATION OF STREET	and the same of th		····	***************************************			
81400200	HEAVY-DUTY HANDHOLE	EACH	7			4		3		84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	44		1			
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	f	ITE ^		REVISED			L	LI ARIIVIC	ivi UF IN	MINUTURIA	SCALES NONE SHEET NO. OF			STA.	FED. A	DAD DIST. NO. 1	ILLINOIS FEO. AI	CONTRACT NO.

	SUMMARY OF QUANTITIES	·····				ONSTRUCT	ION TYPE	CODE			SUMMARY OF QUANTITIES				1	70.000	ION TYPE (
CODE NO	ITEM	UNIT	TOTAL	ROADWAY FED 90% STATE 10%	90% FED 10% STATE LIGHTING 0021	SIGNALS FED 90% STATE 10% OO21	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT 0021	INTER CONNECT FED 90% STATE 10% OO21	And with the control of the control	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY FED 90% STATE 10%	90% FED 10% STATE LIGHTING 0021	SIGNALS	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT OO21	TRAFFIC INTER CONNECT FED 90% STATE 10% OO21
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL	EACH	ı					4		* 87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND	EACH				1		
	INSTALLATION					The state of the s					POLE 30 FT.		en e					
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* 86400100	TRANSCEIVER - FIBER OPTIC	EACH	ı					1		* 87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND	EACH	2			2		
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¥ 87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO.	FOOT	1475					1475				4						
	14 10		<u> </u>	***************************************			55-54-54-54-54-54-54-54-54-54-54-54-54-5			★ 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16		-	16		
				verbannen verban			The same and the s									And the state of t	***************************************	
¥ 87301225		FOOT	265				265			* 87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4			4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
	14 3C						A service serv		n.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a.a	97000415	CONCRETE FOUNDATION, TYPE E 36-INCH	COOT	77			27		
₩ 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	1415		-	1415				* 87800415	DIAMETER	FOOT	33	······································		33		
	14 5C	7 001	1 113						The state of the s									
										* 88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	5			5		
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	239			239			chuneturi-trates feet feeters		MAST-ARM MOUNTED							
	14 7C								Angeleanperior					:				
									2	* 88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	3	···		3		
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.	FOOT	1540			1540				The second secon	BRACKET MOUNTEO							
	14 1 PAIR																	
										★ 88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION.	EACH	1			1		
87301805		FOOT	120			120		***************************************		***************************************	BRACKET MOUNTED							
	6 2 C								Annual Maria									
₩ 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT	EDOT	600			600			***************************************	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,	EACH	1			1		
0.301300	GROUNDING CONDUCTOR, ND. 6 1C	FOOT	2000			600			aberskerdingerkerskers	1	MAST-ARM MOUNTED							
	2.2500 Straubertag Res V 10							a a a a a a a a a a a a a a a a a a a		* 88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED.	EACH	6			6		
₩ 87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	3			3		anni anni anni anni anni anni anni anni	echarly manchemens	10	FORMED PLASTIC							-
	14 FT.			A Company of the Comp				Added	tabenteen en	-								
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€ 87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH				ŧ												
	16 FT.							The state of the s			* SPECIALTY ITEMS							
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	1	SUMMARY OF QUANTITIES		1 1																
				TOTAL	ROADWAY	901. FED	TRAFFIC SIGNALS	TRAFFIC EVP. 100% FIRE PROTECTION DISTRICT	TRAFFIC INTER				SUMMARY OF QUANTITIES		TOTAL	RDADWAY FED 90%	90% FED	TRAFFIC SIGNALS	TRAFFIC EVP. 100% FIRE PROTECTION	TRAFFIC INTER
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* 8	18500100	INDUCTIVE LOOP DETECTOR	EACH	6		and the state of t	6				Zo	0018400	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	2	2				
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* 8	18600100	DETECTOR LOOP. TYPE (FOOT	350		u distribution de la constantina della constanti	350	and the state of t			20	0030850	TEMPORARY INFORMATION SIGNING	SQ FT	77	77.				verer-drevider

		LIANT OFFICE OF	5400								70	0027020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	11		11			
* 8	18700200	LIGHT DETECTOR	EACH	2				2			* ZO	0033020	LUMINAINE SAFETT CABLE ASSEMBLE	EACH	11		11	···		
*						edinium eres edinium designation designati						****								
* 8	18700300	LIGHT DETECTOR AMPLIFIER	EACH	1		resource and a second control of the second		1			* Z0	0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6		6			
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-								- Anna ana			 									
* 8	19502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2700		2700					* ZO	0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1					1
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* x	0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE	FOOT	265				265			* 114	400150	SERVICE INSTALLATION -	EACH	1			t t		
	may Area	55N500 CARLS NO 20 7/C											GROUND MOUNTED, METERED							
	***	SENSOR CABLE, NO. 20 3/C											GROUND MOUNTED, METERED							
-	-																			
x	(7010216	TRAFFIC CONTROL AND PROTECTION. (SPECIAL)	LSUM		1		a de la companya de l				* 66	6900200	NON-SPECIAL WASTE DISPOSAL	CU YD	350	350	Arabaha		V	
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ļ. -											* 66	6900450	SPECAIL WASTE PLANS AND REPORTS	L SUM	1	1				
Į x	(7011015	TRAFFIC CONTROL AND PROTECTION. (EXPRESSWAY)	LSUM	1	1	***************************************		i paga ang ang ang ang ang ang ang ang ang				***************************************								
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* x		CULL ACTUATED CONTROLLED AND TYPE SUPER	EACH										· · · · · · · · · · · · · · · · · · ·							
* -	(1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER	EALN				l .				G,									
		P CABINET (SPECIAL)				***************************************														
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* ×	8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH																	
- L											-									
_																				
* ×	8710024	FIBER OPTIC CABLE IN CONDUIT, NO.	FOOT	1630				and the same	1630											**************************************
<u> </u>		62.5/125. MM12F SM24F	7							·	and									
<u> </u> -					- Indiana		***************************************				1				· · · · · · · · · · · · · · · · · · ·					
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Z	0004562	COMBINATION CONCRETE CURB AND GUTTER	FOOT	10	10		A Paragraphic Control of the Control													
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jur;	AVA.0846BIDINTEGJII	IndisquirMIDDT Decuments/IDDT Of FreeDathier NProjects/P43709/CADDataDatgn/P43709/ASD PLDT SCALE < NO.0000 */ In CHEC	KEO -		REVISED			_		TATE OF			DDIAGO OTDETT AT INTE			"C"	80	99-4	-I-N	WILL 70 7
1			-		REVISED			U	FLAVIMI	NT OF T	DMINO	OF URIA!	SCALE: NONE SHEET NO. OF			STA.	FED. 5	0A0 DIST. NO. 1	ILLINOIS FED. AID	CONTRACT NO. 60W9

EARTHWORK SCHEDULE												
1	2	3	4	5	6							
BRIGGS ST. AT WEST I-80 (RAMP, "C" & "D")	EARTH EXCAVATION (CU YD)	EMBANKMENT (CU YD)	ADJUSTMENT FOR SHRINKAGE (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	TOPSOIL EXCAVATION AND PLACEMENT (CU YD)							
BRIGGS ST. (STA. 22+50 TO STA. 27+00)	358	759	304	-455	318							
RAMP "C" (STA. 11+50 TO STA. 15+50)	204	67	174	+107	69							
TOTAL	562	826	478	-348	387							

COLUMN 1: LOCATION FROM PLANS

COLUMN 2: CUT QUANTITIES FROM CROSS SECTIONS

COLUMN 3: QUANTITIES FROM CROSS SECTIONS (FILL)

COLUMN 4: EARTH EXCAVATION THAT IS TO BE USED AS FILL MATERIAL IN THE EMBANKMENT, SHRINKAGE FACTOR IS 15%

COLUMN 5: COLUMN 4 - COLUMN 3

POSITIVE QUANTITY = EXTRA EXCAVATION

NEGATIVE QUANTITY = FURNISHED EXCAVATION NEEDED

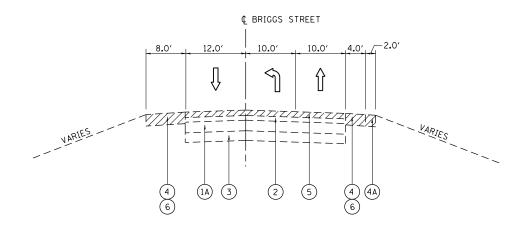
COLUMN 6: TOPSOIL FURNISH AND PLACE

20400800 FURNISHED EXCAVATION = 348 CU. YD.

NOTES:

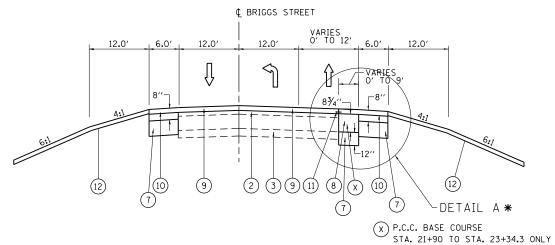
- 1. TOPSOIL SHALL BE EXCAVATED TO A DEPTH OF 12" THROUGHOUT THE PROJECT LIMITS.
- 2. EXCAVATED TOPSOIL REQUIRED AT LOCATIONS OF NEW SEEDING AREA AS SHOWN ON THE LANDSCAPING PLAN SHALL BE PLACED AT A DEPTH OF 4" AND PAID FOR AS TOPSOIL FURNISH AND PLACE.

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	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	BRIGGS STREET AT INTERSTATE 80 (WEST KAMP C)				OI NAIVIF C			CONTRAC	ACT NO. 6	60
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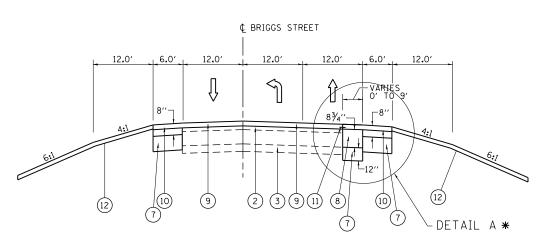


Existing Typical Cross Section Briggs Street

STA. 21+90 To STA. 28+34



Proposed Typical Cross Section Briggs Street STA. 21+90 To STA. 24+90.2



Proposed Typical Cross Section Briggs Street

STA. 24+90.2 To STA. 28+34

LEGEND

- 1) EXISTING P.C.C. PAVEMENT, 10±
- (1A) EXISTING P.C.C. PAVEMENT, 11±
- (2) EXISTING HMA SURFACE REMAINING AFTER MILLING, 2"±
- (3) EXISTING SUB BASE GRANULAR MATERIAL
- (4) EXISTING HMA SHOULDER
- (4A) EXISTING AGGREGATE SHOULDER
- (5) PROPOSED HMA SURFACE REMOVAL, 2"
- (6) PROPOSED PAVED SHOULDER REMOVAL
- (7) PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12"
- 8) PROPOSED HMA BASE COURSE, 834" (HMA BINDER IL-19)
- (9) PROPOSED POLYMERIZED HMA SURFACE COURSE MIX "E", N70, 2"
- (10) PROPOSED HMA SHOULDER, 8"
- (11) PROPOSED STRIP REFLECTIVE CRACK CONTROL TREATMENT
- (12) PROPOSED SOIL FURNISH AND PLACE, 4"

NOTE: THE CONTRACTOR SHALL MILL FIRST, BEFORE PATCH

HOT MIX ASPHALT MIXTURE	REQUIREMENTS	
MIXTURE USES	DESIGN AND VOIDS	ΩМР
POLYMERIZED SURFACE COURSE MIX "E", N70, IL-9,5mm, 2"	4% @ 70 GYR.	QC/QA
HMA BASE COURSE, 8¾" (HMA BINDER IL-19.0)	4% @ 70 GYR.	QC/QA
CLASS "D" PATCHES, 13" (HMA BINDER IL-19mm)	4% @ 70 GYR.	QC/QA
HMA SHOULDER, 8" POLYMERIZED HMA SURFACE COURSE MIX "E" N70, IL-9.5mm, 2"	4% @ 70 GYR.	QC/QA
(HMA BINDER, IL-19.0), 6"	4% @ 70 GYR.	QC/QA

QMP DESIGNATION QUALITY CONTROL / QUALITY ASSURANCE (QC/QA)

NOTES

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANT. IS 112 LBS/SO. YD/IN.

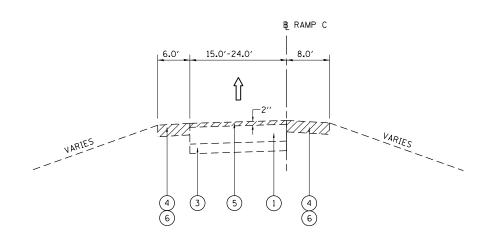
AC TYPE NOTE

"THE AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE S8S/S8R PG 76-22".
AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-28" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS."

FOR USE OF RECYCLED MATERIALS, SEE DISTRICT ONE SPECIAL PROVISION.

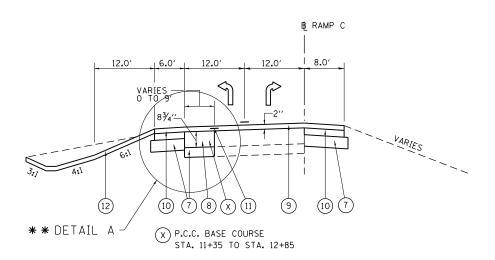
QMP NOTE

QUALITY MANAGEMENT PROGRAM (OMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE"



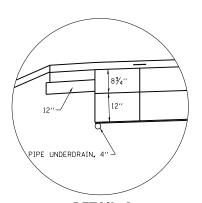
Existing Typical Cross Section I–80 West, Ramp "C" to Briggs St.

STA. 11+45 To STA. 16+97



Proposed Typical Cross Section I–80 West, Ramp "C" to Briggs St.

STA. 11+45 To STA. 16+97



DETAIL A

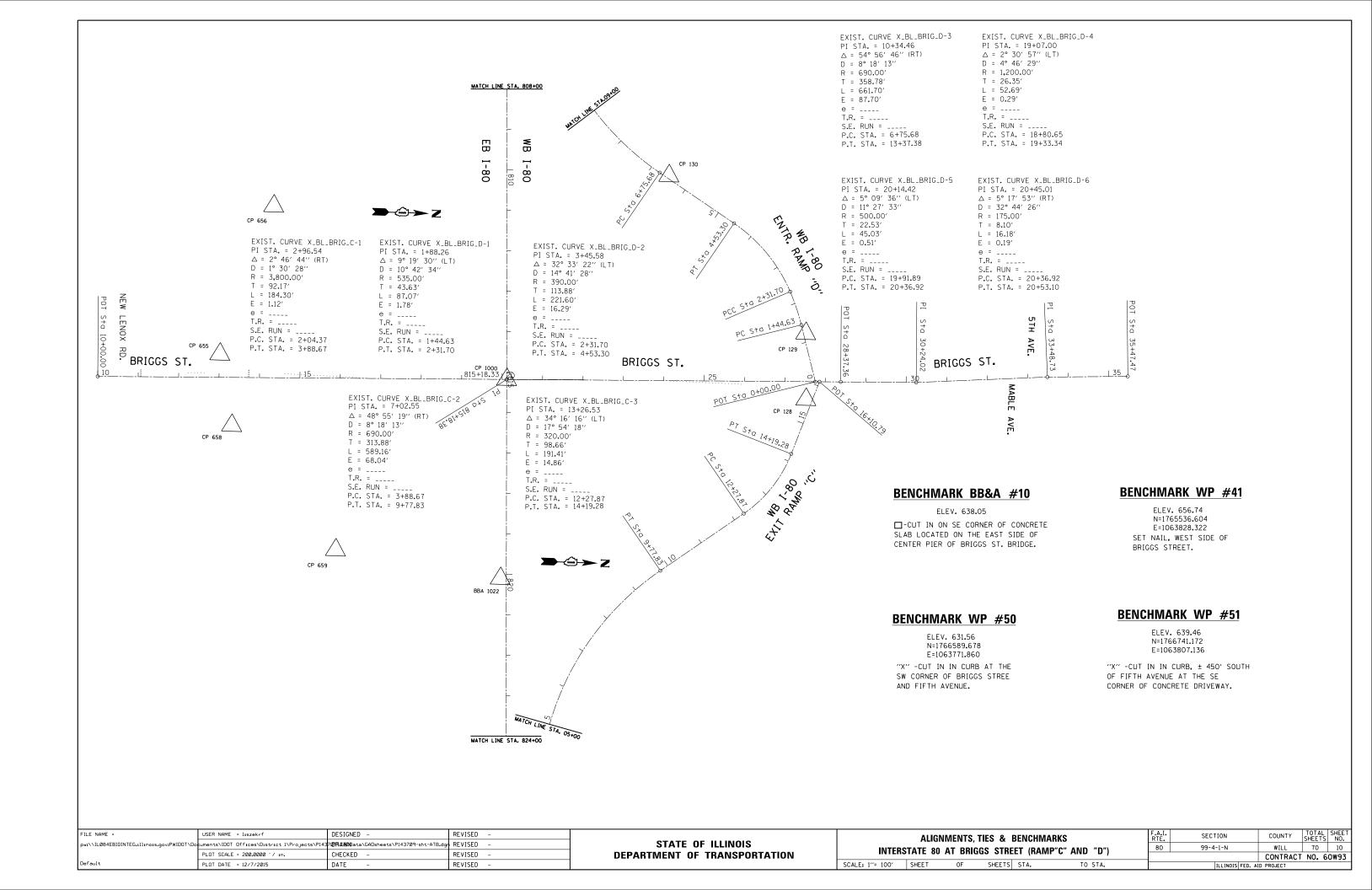
- * PIPE UNDERDRAIN FROM STA. 23+00 TO STA. 25+50 ONLY
- * * PIPE UNDERDRAIN FROM STA. 12+00 TO STA. 15+00

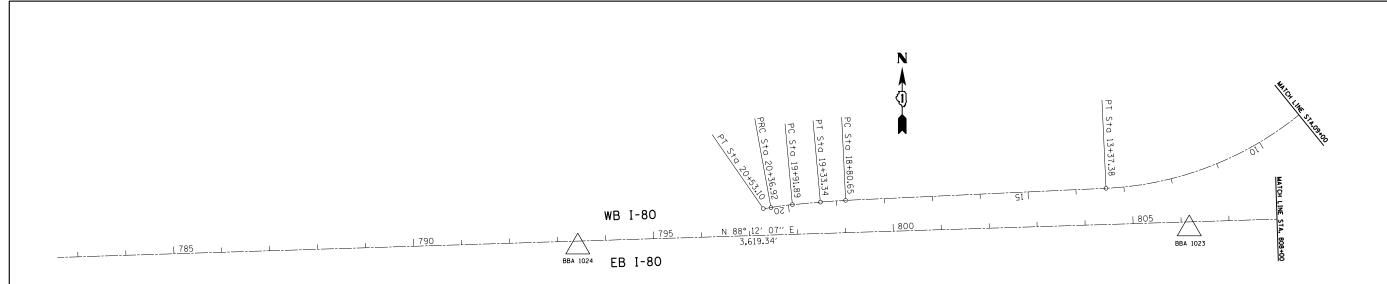
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	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/9/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING & PROPOSED TYPICAL SECTIONS
BRIGGS STREET AT INTERSTATE 80 (WEST RAMP "C")

SCALE: NONE SHEET OF SHEETS STA. TO STA.





THERE IS NO TIE-DOWN INFORMATION AVAILABLE FOR THE CONTROL POINTS.

CP #128

FOUND PK NAIL STA. 15+57.85 N=1766057.308 E=1063877.044 ELEV.=641.68

CP #129 FOUND PK NAIL

N=1766051.567 E=1063714.212 ELEV.=640.99

CP #656 FOUND PK NAIL STA. 14+32.40 N=1764726.511 E=1063442.642 ELEV.=641.83

STA. 01+21.41

CP #658

FOUND PK NAIL STA. 13+32.30 N=1764640.344 E=1063988.159 ELEV.=642.125

CP # 130

FOUND PK NAIL STA 06+52.31 N=1765700.486 E=1063335.737 ELEV.=640.93

CP #659

FOUND PK NAIL STA. 15+91.48 N=1764907.270 E=1064287.438 ELEV.=639.980

E=1063812.961 ELEV.=643.980

CP #655

FOUND PK NAIL

STA. 13+1.71

N=1764605.264

CP #1000 "X" CUT ON TOP OF BRIDGE STA. 20+11.22 N=1765316.094 E=1063852.275

BBA #1022

SET 5/8" IR, 30" LONG, W/IDOT YELLOW CAP IN MEDIAN, ± .10 MILE E/BRIGGS ST. NEAR MILE MARKER #135 STA 820+10.40 N=1765316.767 E=1064344.567 ELEV.=637.002

BBA #1023

SET 5/8" IR, 30" LONG, W/IDOT YELLOW CAP IN MEDIAN, ± .10 MILE W/BRIGGS ST. STA. 806+16.66 N=1765273.292 E=1062951.509 ELEV.=640.682

BBA #1024

SET 5/8" IR, 30" LONG, W/IDOT YELLOW CAP IN MEDIAN, ± .40 MILE W/BRIGGS ST. STA. 793+41.88 N=1765235.338 E=1061677.290 ELEV.=647.774

ROUTE	POINT	NORTHING	EASTING	STATION
	BRIGGS1000	1764305.11	1063877.86	10+00.00
BRIGGS ST.	BRIGGS1001	1766141.86	1063830.84	28+37.36
CHAIN X_BL_BRIG_C	BRIGGS1002	1766328.47	1063826.07	30+24.02
	BRIGGS1003	1766652.29	1063802.01	33+48.73
	BRIGGS1004	1766850.86	1063793.80	35+47.47
BRIGGS ST. RAMP "C"	PE200	1765413.80	1065198.72	0+00.00
CHAIN X_BL_BRIG_C	PE201	1766089.26	1063832.19	16+10.79
BRIGGS ST.	PC	1765421.04	1064994.48	02+04.37
RAMP "C" CURVE	PI	1765424.31	1064902.37	02+96.54
X_BL_BRIG_C_1	PT	1765432.04	1064810.52	03+88.67
BRIGGS ST.	PC	1765432.04	1064810.52	03+88.67
RAMP "C" CURVE	PI	1765458.36	1064497.74	07+02.55
X_BL_BRIG_C_2	PT	1765711.44	1064312.06	09+77.83
BRIGGS ST.	PC	1765913.04	1064164.15	12+27.87
RAMP "C" CURVE	PI	1765992.59	1064105.79	13+26.53
X_BL_BRIG_C_3	PT	1766025.46	1064012.76	14+19.28
BRIGGS ST. RAMP "D" CHAIN X_BL_BRIG_D	PE202	1766079.01	1063832.62	0+00.00

ROUTE	POINT	NORTHING	EASTING	STATION
BRIGGS ST.	PC	1766039.82	1063693.40	01+44.63
RAMP "D" CURVE	ΡI	1766027.99	1063651.40	01+88.26
X_BL_BRIG_D_1	PT	1766009.52	1063611.87	02+31.70
BRIGGS ST.	PC	1766009.52	1063611.87	02+31.70
RAMP "D" CURVE	ΡI	1765961.30	1063508.70	03+45.58
X_BL_BRIG_D_2	PT	1765865.14	1063447.69	04+53.30
BRIGGS ST.	PC	1765677.37	1063328.55	06+75.68
RAMP "D" CURVE	ΡI	1765374.43	1063136.33	10+34.46
X_BL_BRIG_D_3	PT	1765357.79	1062777.94	13+37.38
BRIGGS ST.	PC	1765332.59	1062235.25	18+80.65
RAMP "D" CURVE	ΡI	1765331.36	1062208.93	19+07.00
X_BL_BRIG_D_4	PT	1765328.99	1062182.69	19+33.34
BRIGGS ST.	PC	1765323.71	1062124.39	19+91.89
RAMP "D" CURVE	ΡI	1765321.68	1062101.95	20+14.42
X_BL_BRIG_D_5	PT	1765317.63	1062079.78	20+36.92
BRIGGS ST.	PC	1765317.63	1062079.78	20+36.92
RAMP "D" CURVE	ΡI	1765316.18	1062071.82	20+45.01
X_BL_BRIG_D_6	PT	1765315.47	1062063.75	20+53.10

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NE STA. 824+					

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	ALIGNI	MENTS,	TIES & I	BENCHMA	RKS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
INTERS	TATE 80	AT BRIC	CC STRE	ET /RAME	C" AND "D"	80	99-4-1-N	WILL	70	11
INTLIIS	IAIL OU A	AI DINK	IGS STILL	LI (IIAIVII	C AND D			CONTRACT	NO. 6	OW93
SCALE: 1"= 100"	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

TRAFFIC CONTROL AND MAINTAINENCE PLAN

TRAFFIC SHALL BE MAINTAINED DURING THE WIDENING AND RESURFACING OPERATIONS WITH THE FOLLOWING IDOT STANDARDS:

STD. NO. DESCRIPTION

701201 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45MPH

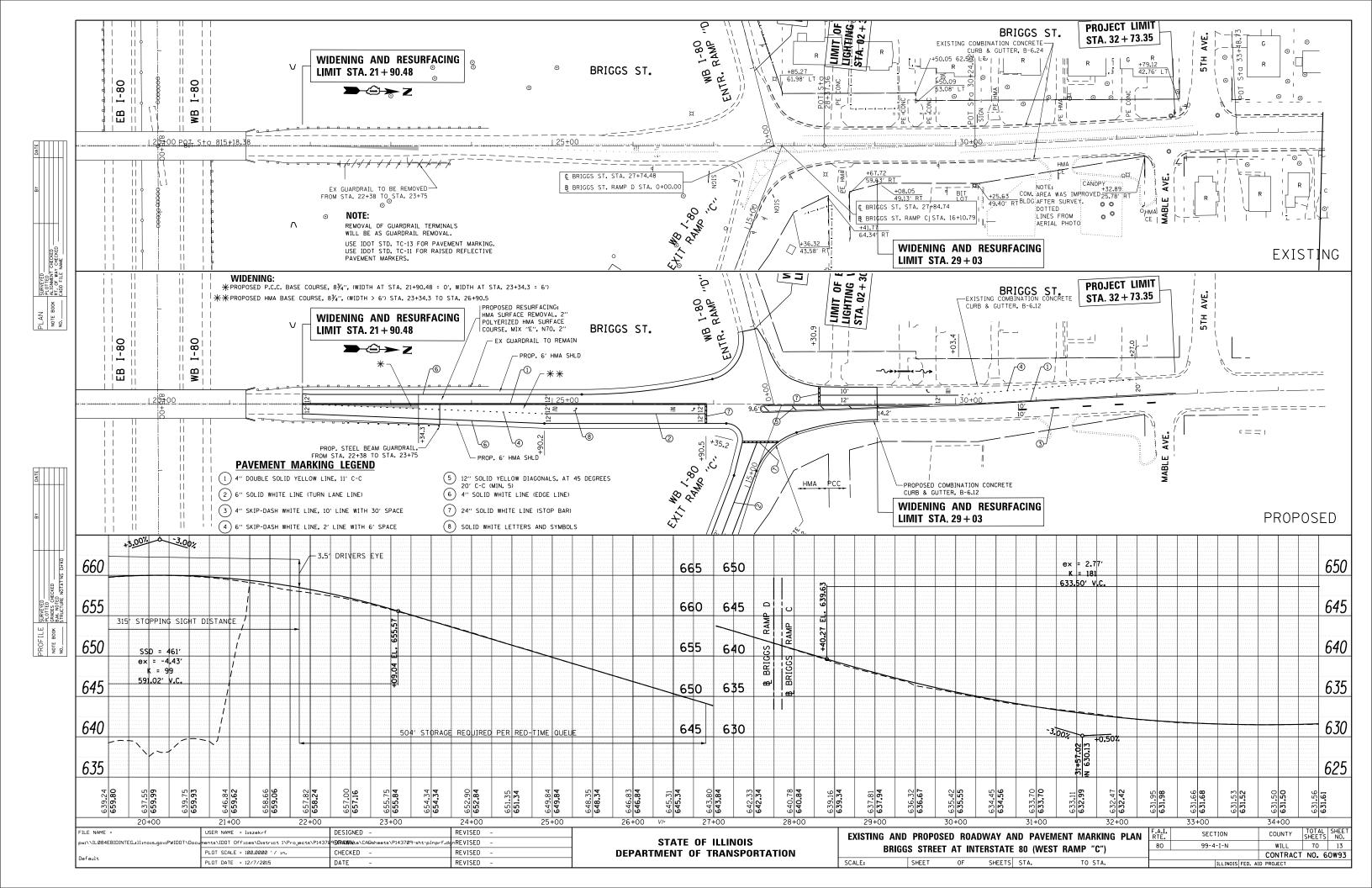
701306 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45MPH

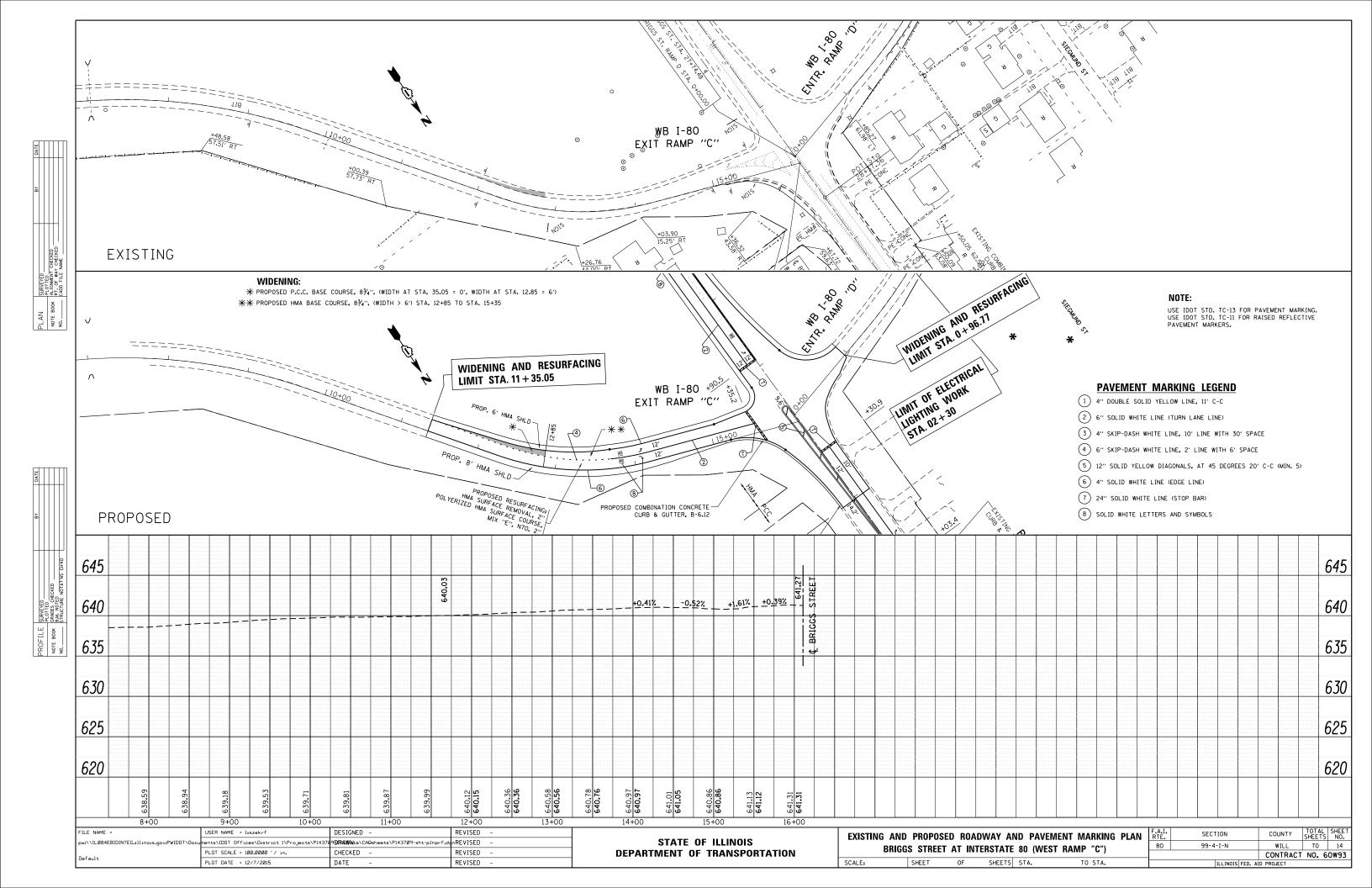
701326 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45MPH

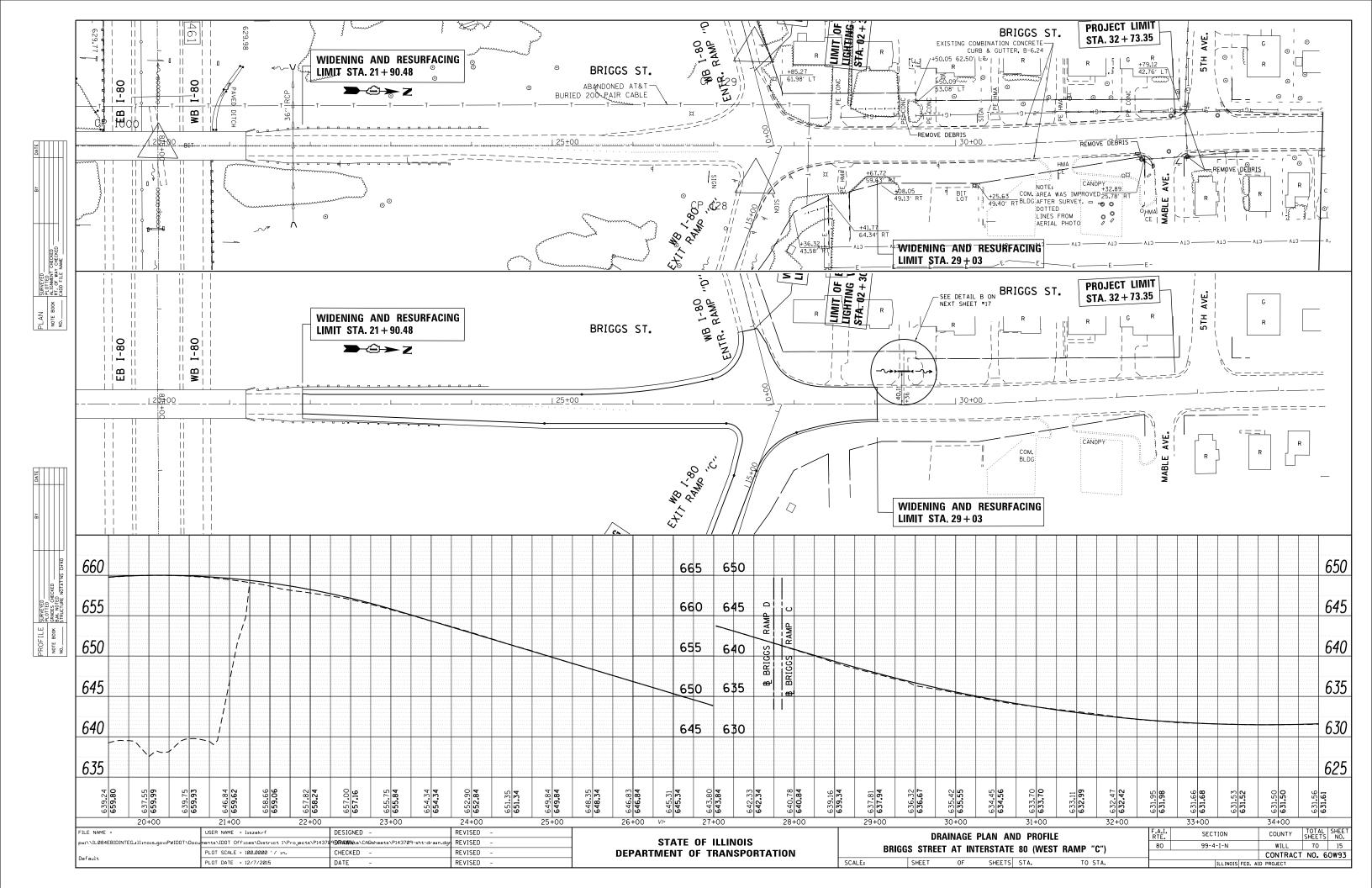
THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AND ENTRANCES.

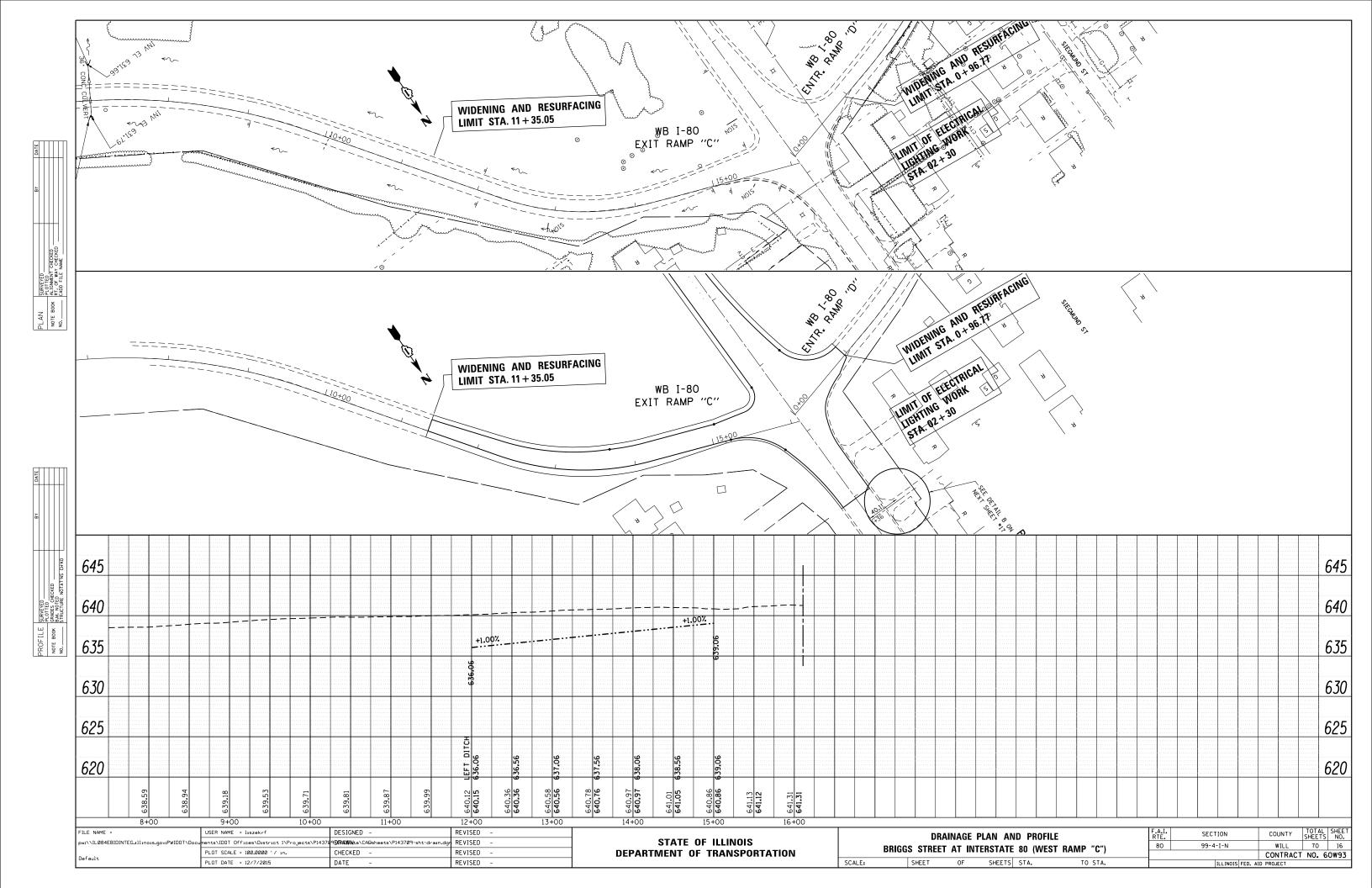
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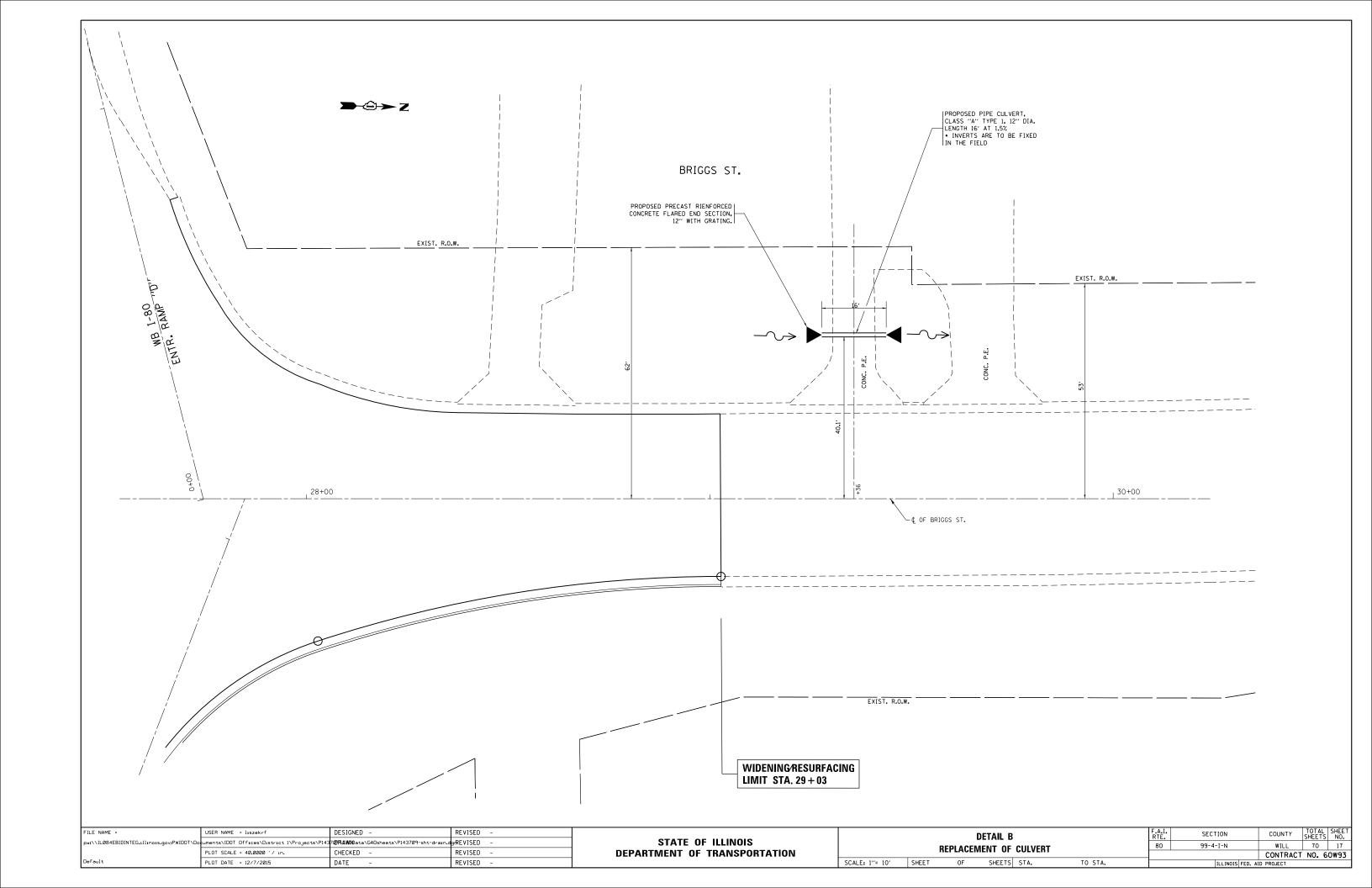
TRAFFIC CONTROL AND MAINTAINENCE NOTES					
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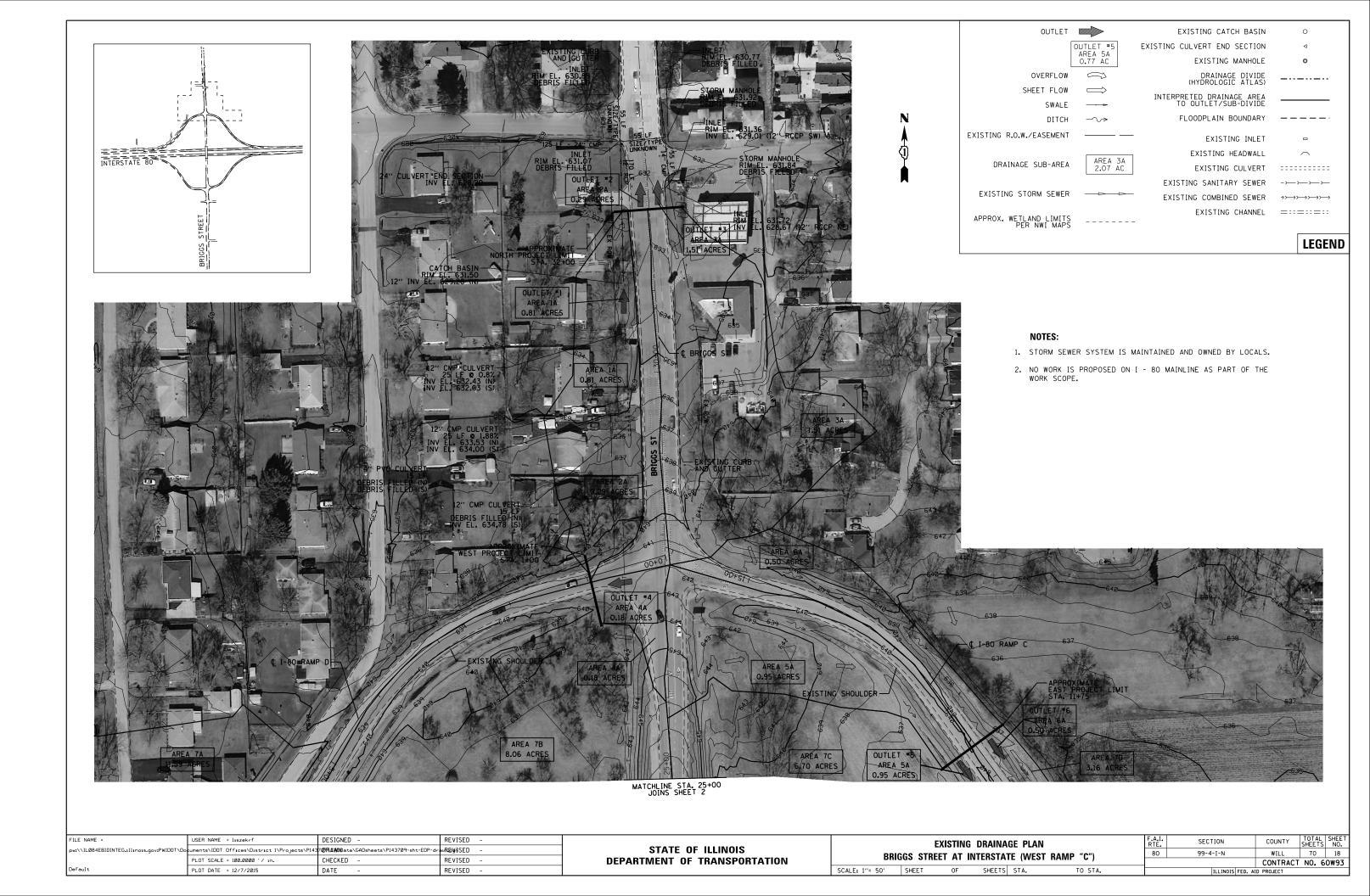


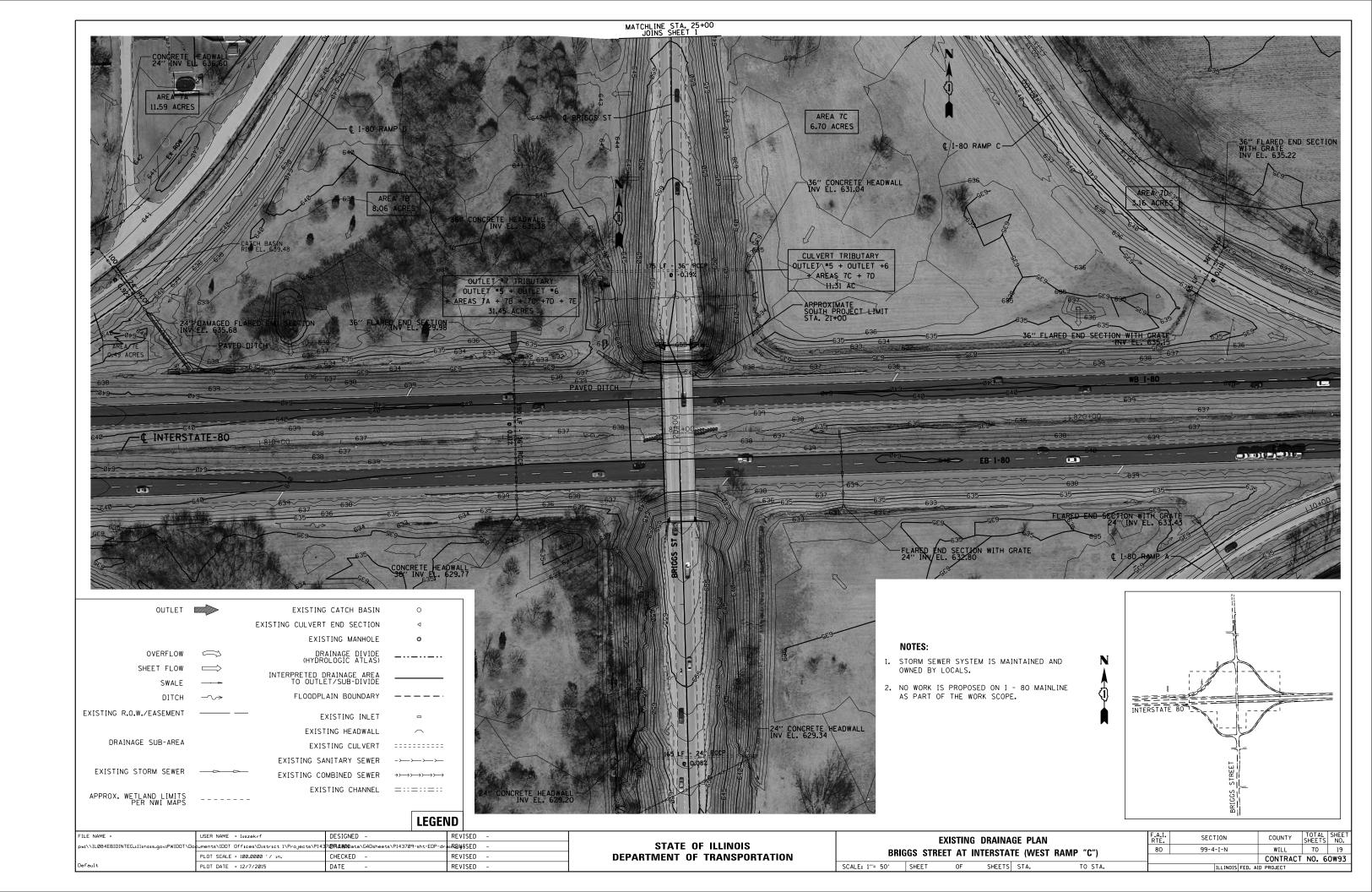


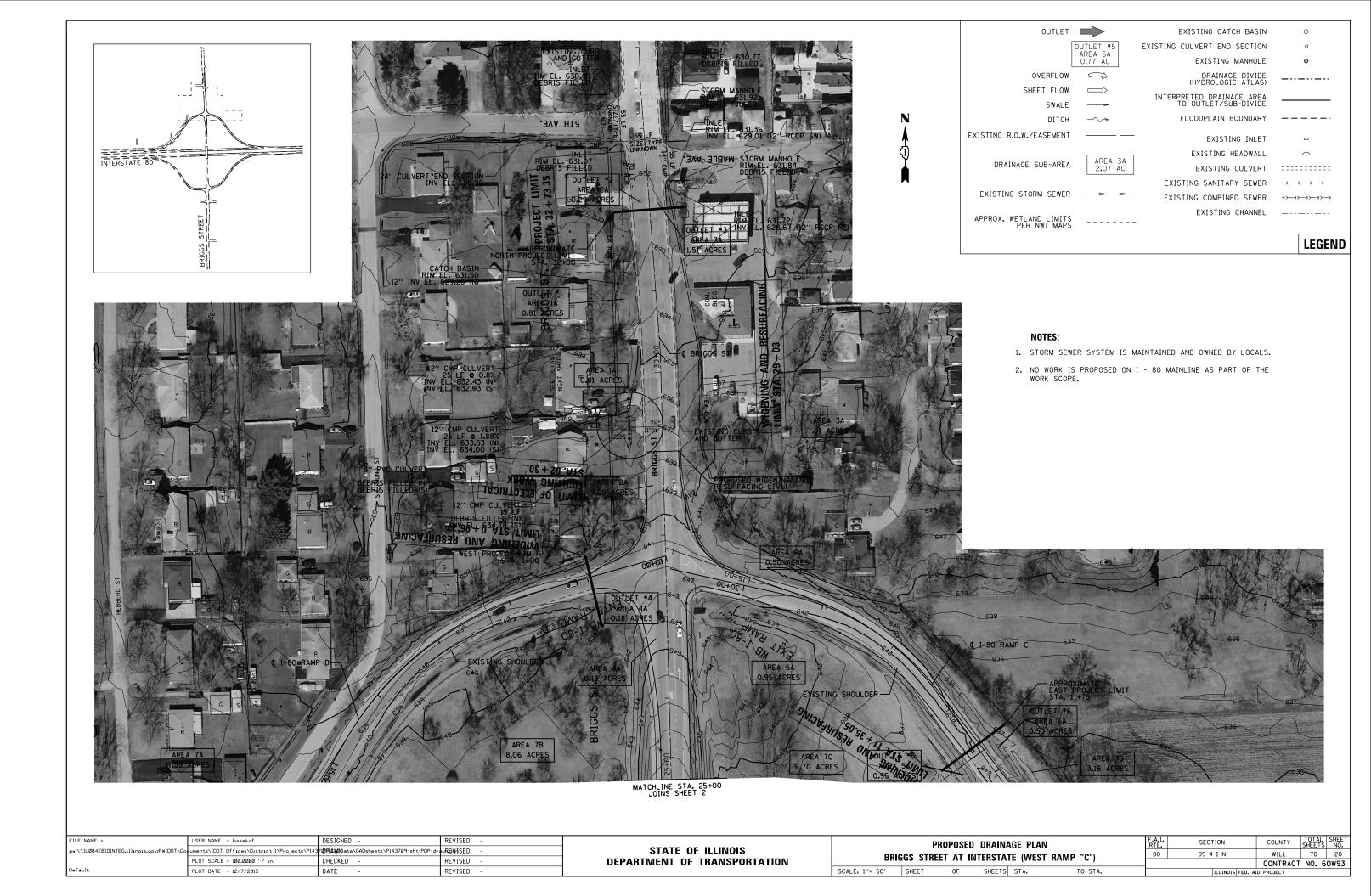


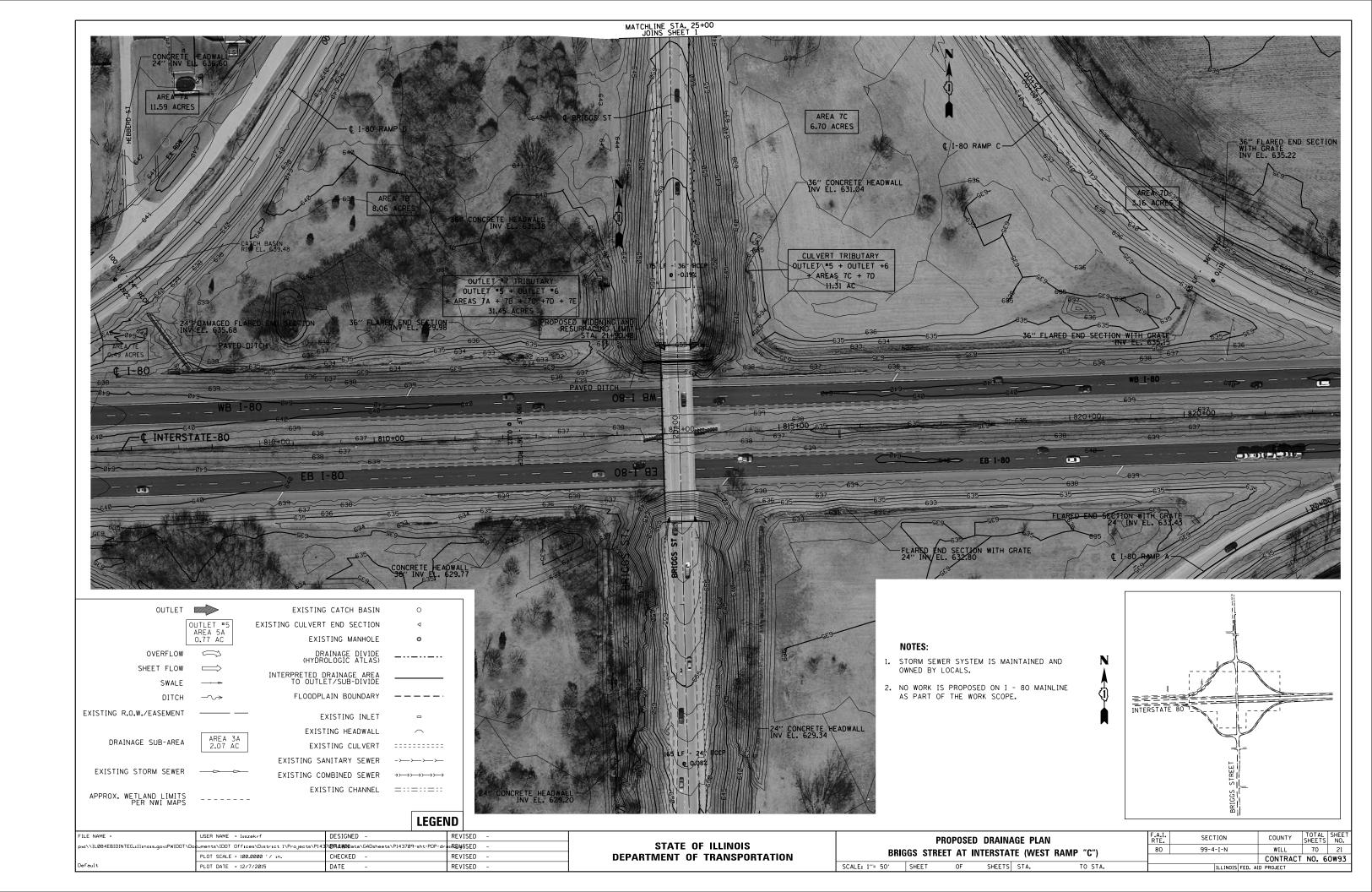


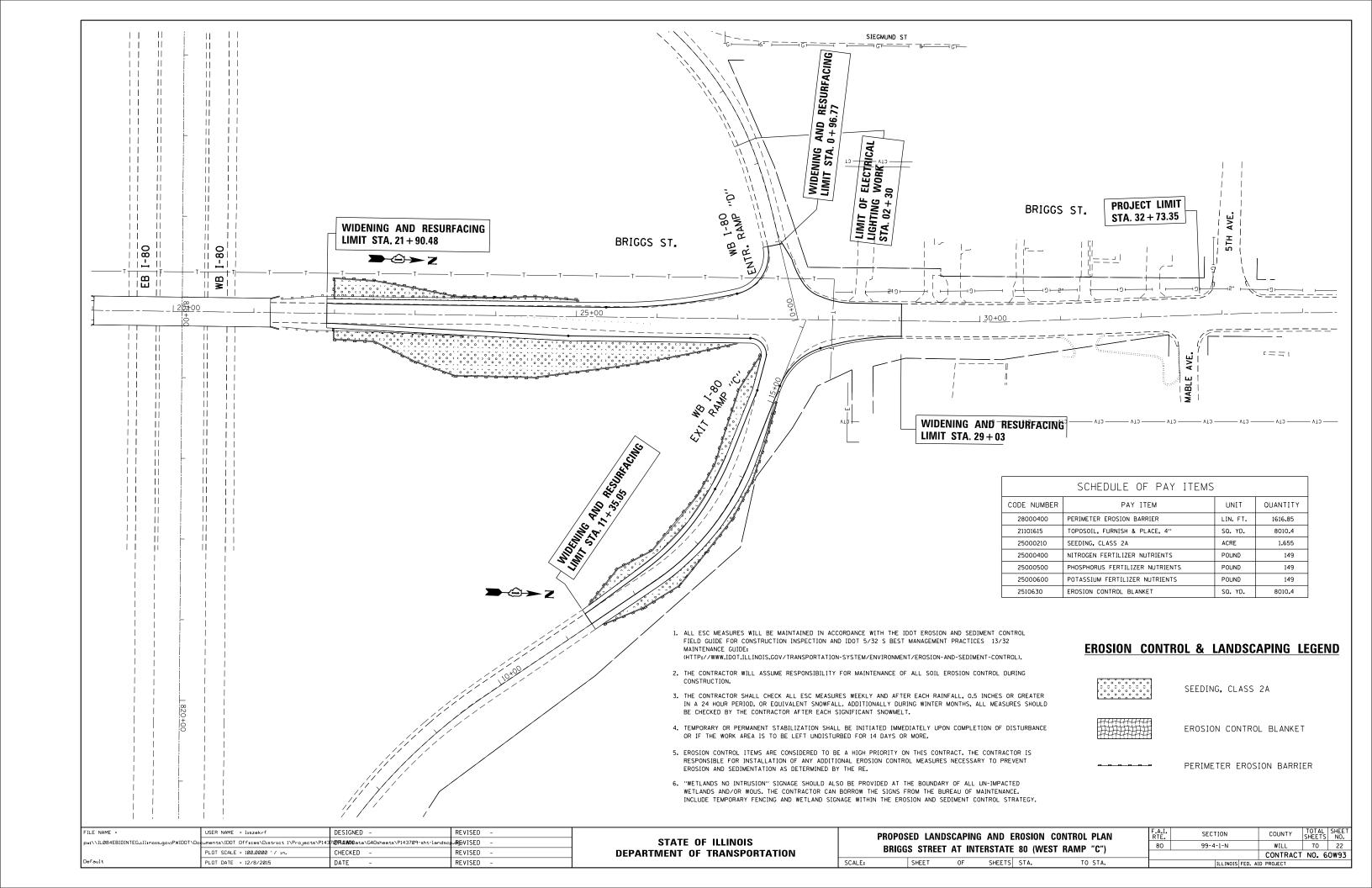












TRAFFIC SIGNAL LEGEND EXISTING REMOVAL PROPOSED ITEM REMOVAL EXISTING PROPOSED ITEM REMOVAL EXISTING PROPOSED ITEM $R \ll 1$ ELECTRIC CABLE IN CONDUIT, TRACER, \propto CONTROLLER CABINET \boxtimes^R \boxtimes EMERGENCY VEHICLE LIGHT DETECTOR • ightharpoonsNO. 14 1/C, UNLESS NOTED OTHERWISE R_{o-0} ₽ CONFIRMATION BEACON 0—(] RAILROAD CONTROL CABINET R►≺R • COAXIAL CABLE E C C СС COMMUNICATIONS CABINET СС \mathbb{R}_{\square} HANDHOLE MASTER CONTROLLER EMC MC VENDOR CABLE FOR CAMERA Н Н HEAVY DUTY HANDHOLE MASTER MASTER CONTROLLER EMMC MMC $^{\mathsf{R}}$ COPPER INTERCONNECT CABLE, EUPS UPS UPS Δ UNINTERRUPTABLE POWER SUPPLY DOUBLE HANDHOLE (6) NO. 18 3 PAIR TWISTED, SHIELDED 0 0 JUNCTION BOX SERVICE INSTALLATION. -□-^R -P FIBER OPTIC CABLE ---(P) POLE OR (G) GROUND MOUNT UNDERGROUND CONDUIT, NO. 62.5/125, MM12F GALVANIZED STEEL (UC) TELEPHONE CONNECTION P Ī FIBER OPTIC CABLE (P) POLE OR (G) GROUND MOUNT -24F)-TEMPORARY SPAN WIRE, TETHER WIRE, NO. 62.5/125, MM12F SM12F STEEL MAST ARM ASSEMBLY AND POLE AND CABLE FIBER OPTIC CABLE ALUMINUM MAST ARM ASSEMBLY AND POLE CT COMMON TRENCH --36F)--NO. 62.5/125, MM12F SM24F COILABLE NONMETALLIC CONDUIT (EMPTY) CNC STEEL COMBINATION MAST ARM 0-X-ASSEMBLY AND POLE WITH LUMINAIRE GROUND ROD AT (C) CONTROLLER, SYSTEM ITEM S (H) HANDHOLE, (P) POST, (M) MAST ARM, STEEL COMBINATION MAST ARM OR (S) SERVICE INTERSECTION ITEM PTZI PTZ**₫** ASSEMBLY AND POLE WITH PTZ CAMERA CONTROLLER CABINET AND REMOVE ITEM 0 SIGNAL POST \bowtie FOUNDATION TO BE REMOVED RELOCATE ITEM TEMPORARY WOOD POLE (CLASS 5 OR \otimes $\stackrel{\mathsf{R}}{\otimes}$ BETTER) 45 FOOT (13.7m) MINIMUM STEEL MAST ARM POLE AND ABANDON ITEM FOUNDATION TO BE REMOVED R >-- \mathbb{R} GUY WIRE 12" (300mm) TRAFFIC SIGNAL SECTION ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED SIGNAL HEAD \rightarrow -RY 12" (300mm) RED WITH 8" (200mm) SIGNAL HEAD CONSTRUCTION STAGES YELLOW AND GREEN TRAFFIC SIGNAL FACE STEEL COMBINATION MAST ARM ASSEMBLY (NUMBERS INDICATE THE CONSTRUCTION STAGE) AND POLE WITH LUMINAIRE AND -xR Y G ←Y ←G FOUNDATION TO BE REMOVED SIGNAL HEAD WITH BACKPLATE $+\triangleright$ + SIGNAL POST AND FOUNDATION SIGNAL HEAD OPTICALLY PROGRAMMED -|>′′P′ SIGNAL FACE TO BE REMOVED FLASHER INSTALLATION O-'⊳''F'' **●**►"F" INTERSECTION & SAMPLING O-Ö-''F' (S DENOTES SOLAR POWER) LIS ! IS (SYSTEM) DETECTOR R Y G ←Y ←G PEDESTRIAN SIGNAL HEAD $-\Box$ -S SAMPLING (SYSTEM) DETECTOR SIGNAL FACE WITH BACKPLATE. PEDESTRIAN PUSHBUTTON DETECTOR (O) 0 **(19)** "P" INDICATES PROGRAMMED HEAD QUEUE DETECTOR Q ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR Ö APS (©) APS APS "RB" INDICATES REFLECTIVE BACKPLATE PREFORMED QUEUE DETECTOR ILLUMINATED SIGN (5) 9 "NO LEFT TURN" OW W 12" (300mm) PEDESTRIAN SIGNAL HEAD PREFORMED INTERSECTION AND SAMPLING PIS WALK/DON'T WALK SYMBOL (SYSTEM) DETECTOR ILLUMINATED SIGN 1 8 \bigcirc "NO RIGHT TURN" 12" (300mm) PEDESTRIAN SIGNAL HEAD PS PREFORMED SAMPLING (SYSTEM) DETECTOR INTERNATIONAL SYMBOL, OUTLINED DETECTOR LOOP, TYPE I 12" (300mm) PEDESTRIAN SIGNAL HEAD **RAILROAD SYMBOLS** Р INTERNATIONAL SYMBOL, SOLID PREFORMED DETECTOR LOOP PEDESTRIAN SIGNAL HEAD, INTERNATIONAL K M)1 MICROWAVE VEHICLE SENSOR [M][M]¶ SYMBOL, WITH COUNTDOWN TIMER **EXISTING** PROPOSED VIDEO DETECTION CAMERA [V] V• ₽<mark></mark> RAILROAD CONTROL CABINET ### RADIO INTERCONNECT VIDEO DETECTION ZONE $X \circ \overline{X} = \overline{X} \cdot X$ RAILROAD CANTILEVER MAST ARM XXXX RERR ERR RR RADIO REPEATER FLASHING SIGNAL $\times \circ \times$ XOX PTZ[1] DENOTES NUMBER OF CONDUCTORS, FLECTRIC PAN, TILT, ZOOM CAMERA PTZ|1 **PTZ**◀ CABLE NO. 14, UNLESS NOTED OTHERWISE, CROSSING GATE X0X> XOX-ALL DETECTOR LOOP CABLE TO BE SHIELDED R(W)(W) (W)WIRELESS DETECTOR SENSOR CROSSBUCK \rightarrow \rightarrow GROUND CABLE IN CONDUIT WIRELESS ACCESS POINT NO. 6 SOLID COPPER (GREEN)

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SECTION

99-4-I-N

TS-05

80

DISTRICT ONE

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SHEET 1 OF 7 SHEETS STA.

SCALE: NONE

COUNTY

WILL

70 23

CONTRACT NO. 60W93

TS SHT NO.1

DESIGNED - DAG/BCK

10-28-09

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REVISED - DAG 1-1-14

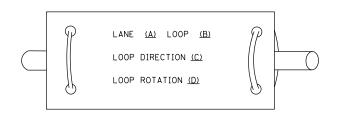
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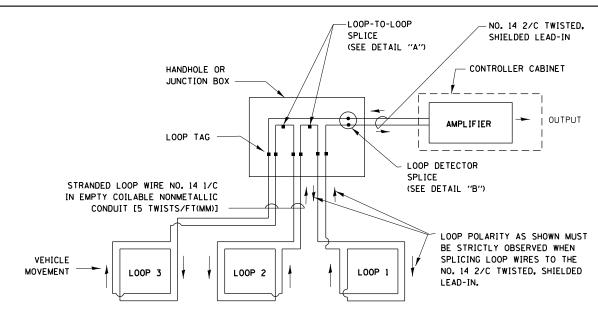
REVISED

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

LOOP LEAD-IN CABLE TAG

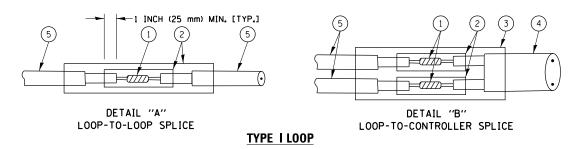


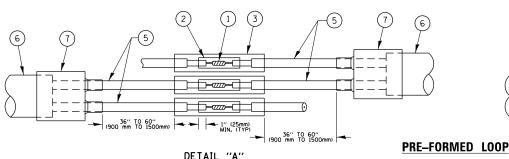
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP *1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

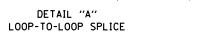


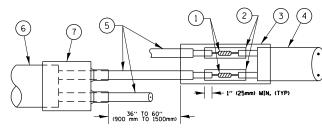
DETECTOR LOOP WIRING SCHEMATIC

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









DETAIL "B" LOOP-TO-CONTROLLER SPLICE

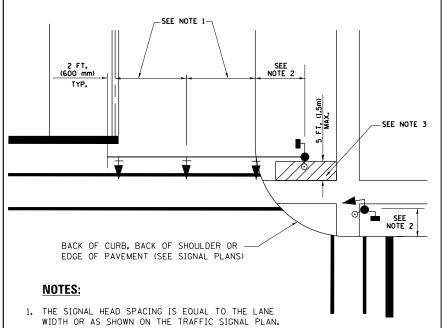
LOOP DETECTOR SPLICE

- (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.
- 6 PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR The BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

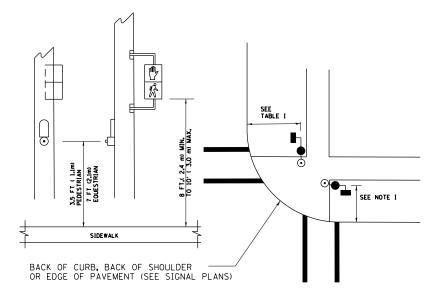
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TRAFFIC SIGNAL MAST ARM AND SIGNAL POST MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALKBICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



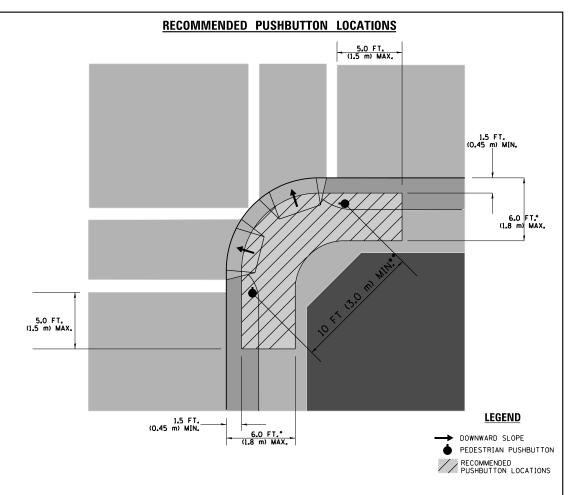
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO 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.
- 2. 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.

SECTION

99-4-I-N

TS-05

COUNTY

WILL

ILLINOIS FED. AID PROJECT

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CONTRACT NO. 60W93

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.
- 2. 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.
- 5. 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 PAVEMENT.

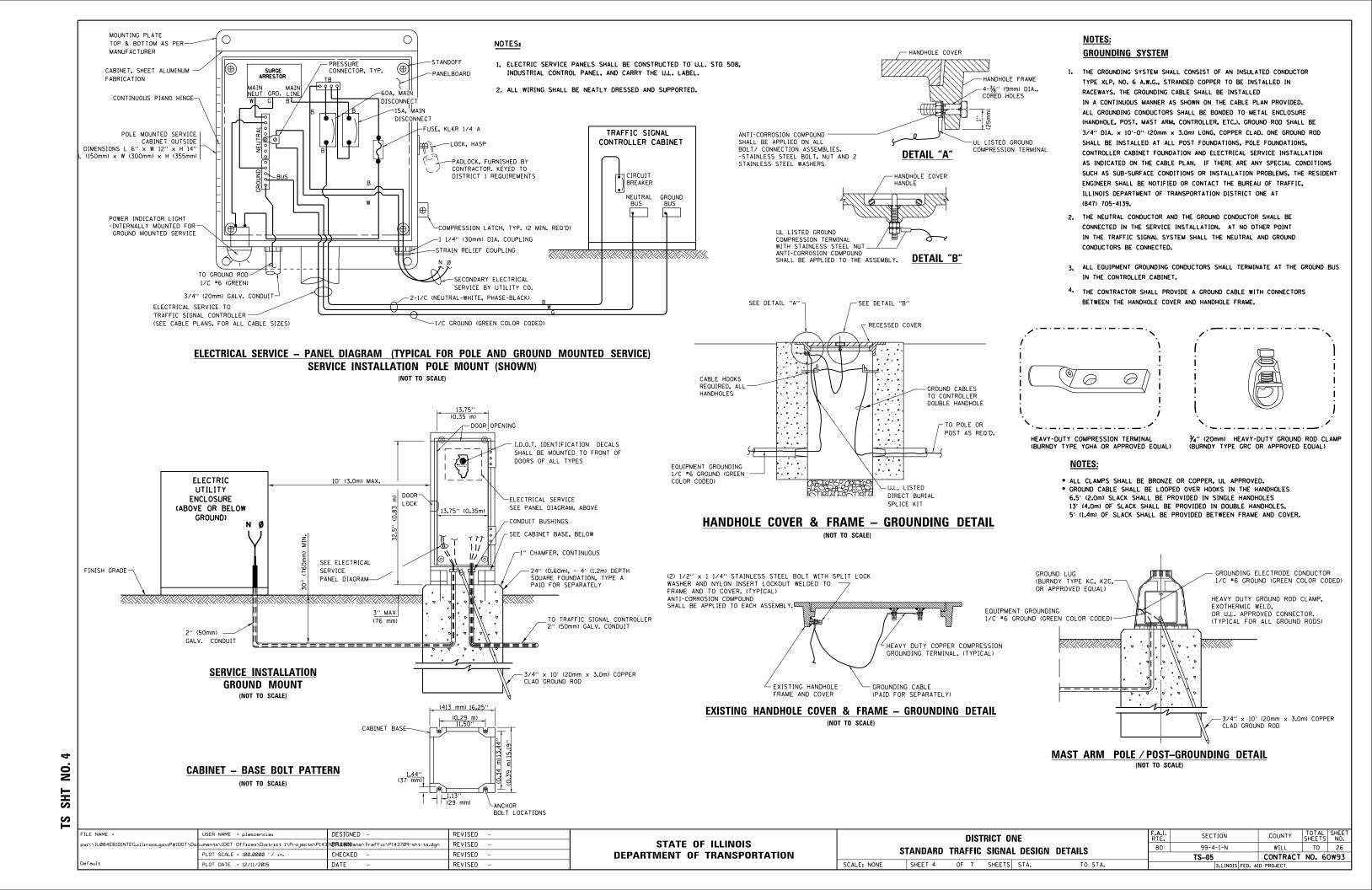
TRAFFIC SIGNAL EQUIPMENT OFFSET

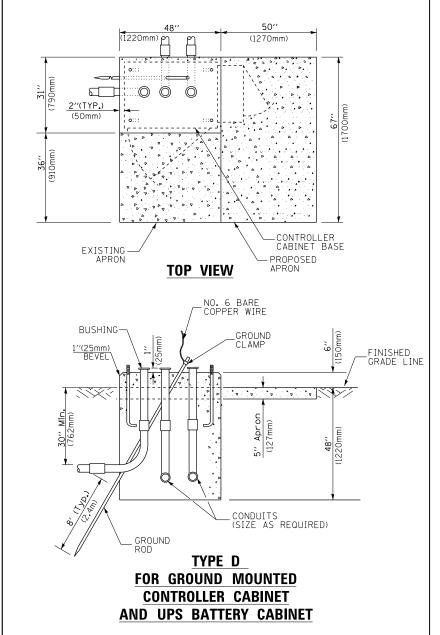
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.

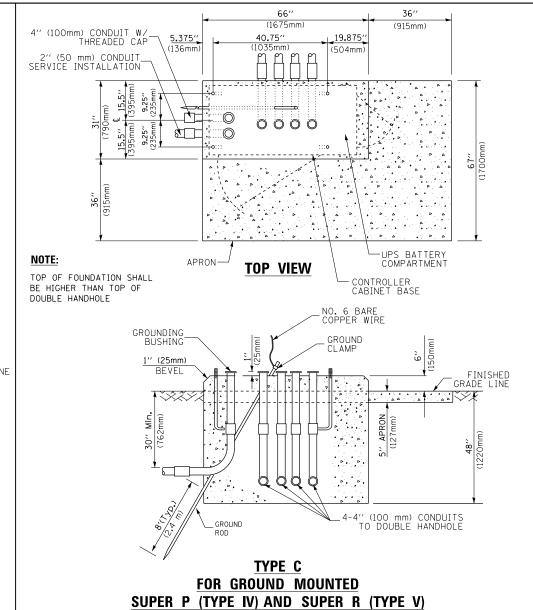
NOTES:

- 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.

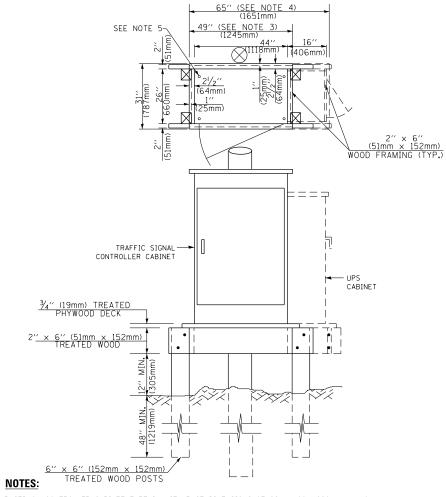
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PLOT SCALE = 100.00000 // In. CHECKED - REVISED - DEPARTMENT OF TRANSPORTATION STANDARD TRAFFIC SIGNA	TAL DESIGN DETAILS	
Default PLOT DATE = 12/11/2015 DATE - REVISED - SCALE: NONE SHEET 3 OF 7 SHEET	TS STA. TO STA.	







CONTROLLER CABINETS



- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
 ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- 2. 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.
- 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	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

CABLE SLACK

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

 CARLE	LENGTH		

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

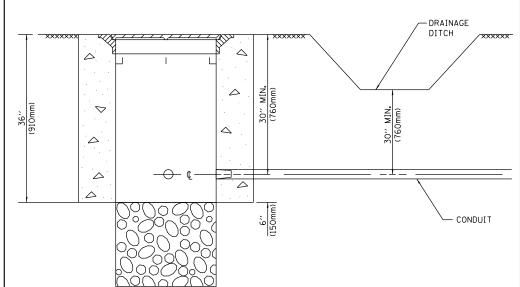
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30′ (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4.1 m)	30'' (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0'' (3.4 m)	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)

NOTES:

- 1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Ou) > 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 foundations
- 4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

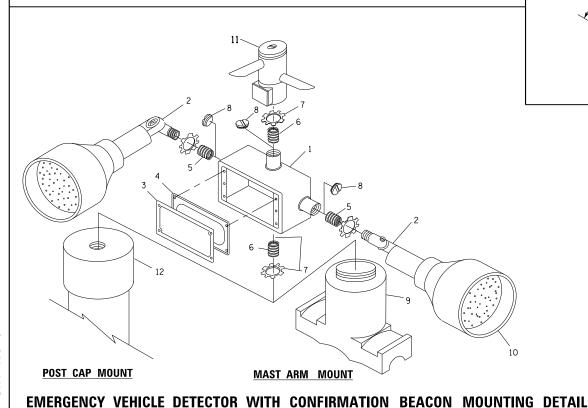
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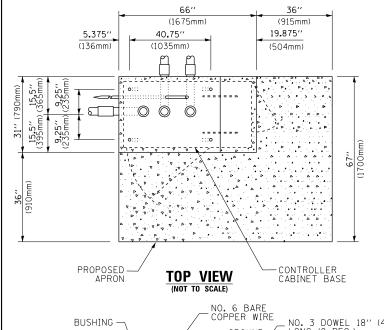


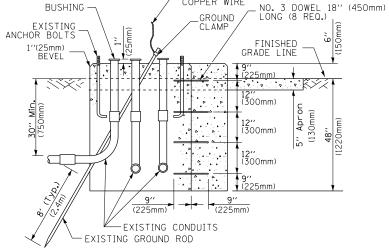
NOTES

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

HANDHOLE WITH MINIMUM CONDUIT DEPTH (NOT TO SCALE)







MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)

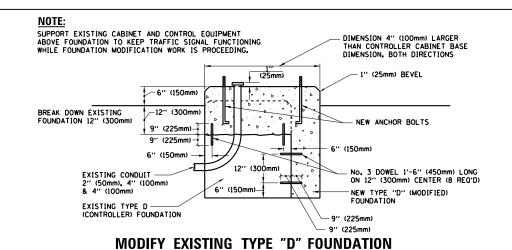
R0.50" (12mm) R11.81" (300mm) (300mm) (300mm) R11.81" (300mm) R2.16" (55mm) R2.16" (55mm) R2.16" (55mm) R2.16" (55mm) R1.18" (300mm) R1.18"

A	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

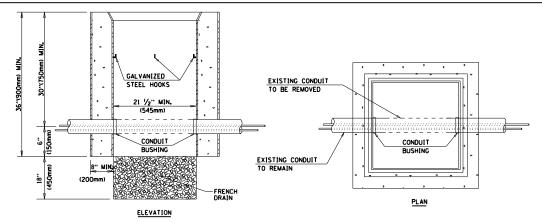
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
 THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM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



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 1/4"(19 mm) CLOSE NIPPLE 7 1/4"(19 mm) LOCKNUT 8 1/4"(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 SHALL BE 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.



NOTES:

SCALE: NONE

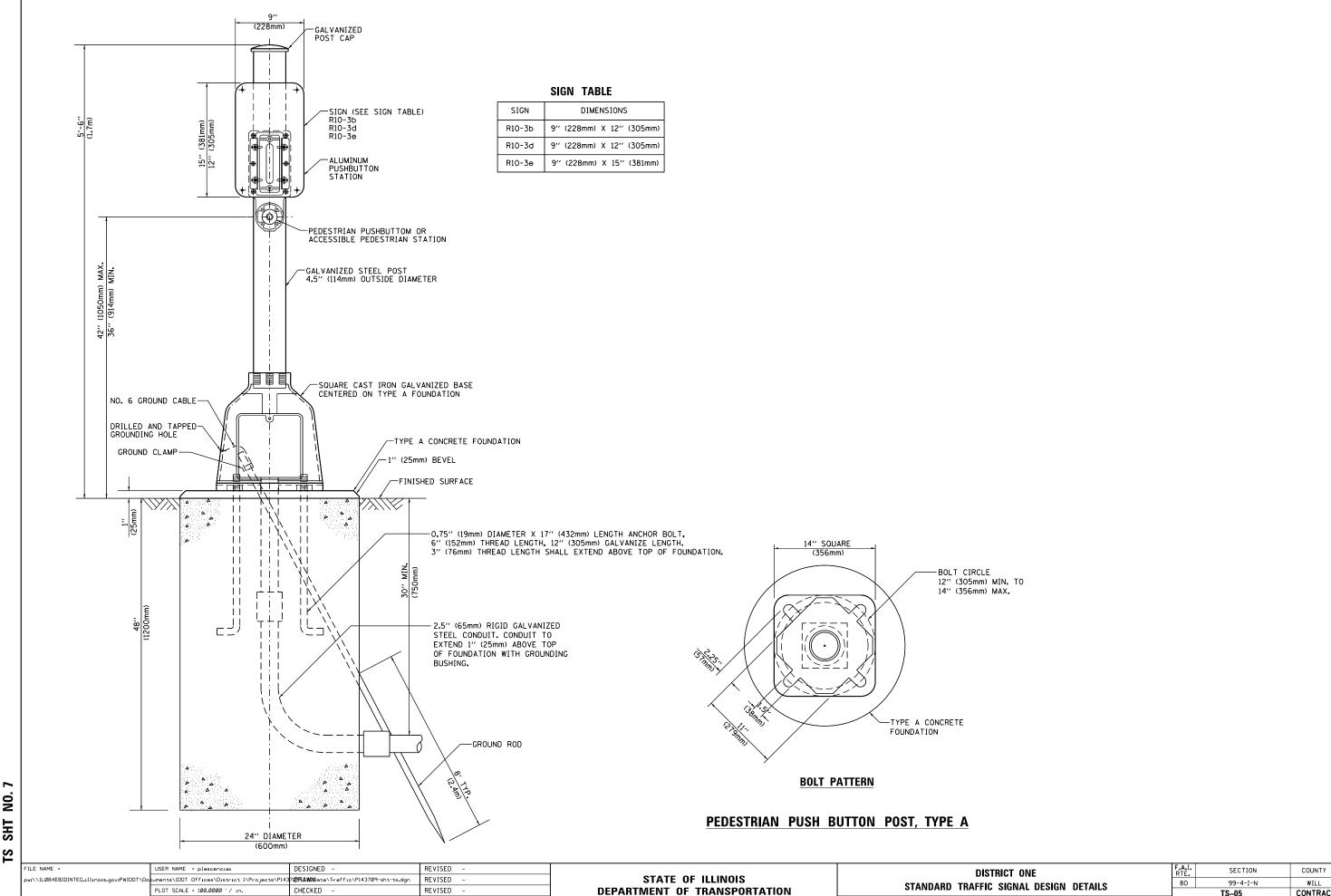
- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

		DIST	RICT O	NE		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS					80	99-4-I-N	WILL	70	28	
						TS-05 CONTRACT NO.				
	SHEET 6	OF 7	SHEETS	STA.	TO STA.		ILLINOIS F	ED. AID PROJECT		



REVISED

SCALE: NONE

SHEET 7 OF 7 SHEETS STA.

70 29

CONTRACT NO. 60W93

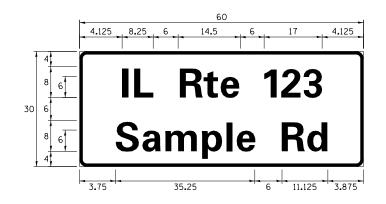
TS-05

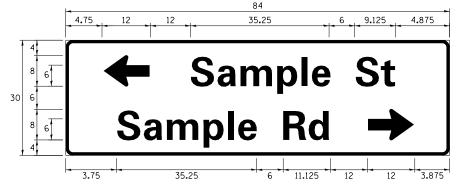
PLOT DATE = 12/11/2015

DATE

SIGN PANEL – TYPE 1 OR TYPE 2

3.75 11.125 3.875 Sample





DESIGN	_			QTY.
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH	(INCH)		
NAME	ADDREVATION	SERIES "C"	SERIES "D"		
AVENUE	Ave	15.000	18.250		
BOULEVARD	Blvd	17.125	20.000		
CIRCLE	Cir	11.125	13.000		
COURT	C†	8. 250	9.625		
DRIVE	Dr	8.625	10.125		
HIGHWAY	Hwy	18.375	22.000		
ILLINOIS	ΙL	7.000	8.250		
LANE	Ln	9.125	10.750		
PARKWAY	Pkwy	23.375	27.375		
PLACE	PΙ	7. 125	7. 750		
ROAD	Rd	9.625	11.125		
ROUTE	Rte	12.625	14.500		
STREET	S†	8.000	9.125		
TERRACE	Ter	12.625	14.625		
TRAIL	Tr	7. 750	9.125		
UNITED STATES	US	10.375	12.250		

GENERAL NOTES

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- 2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-O". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6". IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-O" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-O" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-O" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND

LOCAL SUPPLIERS: PARTS LISTING:

- J.O. HERBERT COMPANY, INC SIGN CHANNEL MIDLOTHIAN, VA SIGN SCREWS - WESTERN REMAC, INC.

WOODRIDGE, IL

BRACKETS

PART #HPN053 (MED. CHANNEL) 1/4" \times 14 \times 1" H_•W_•H_• #3 SELF TAPPING WITH NEOPRENE WASHER PART #HPN034 (UNIVERSAL)

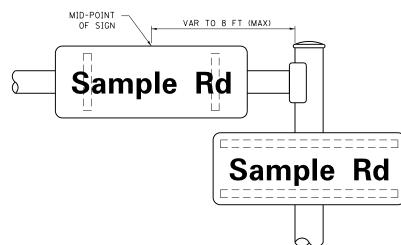
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

SCALE:

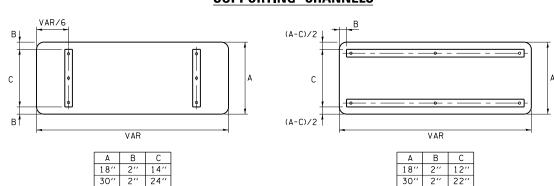
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

ARM OR POLE MOUNTED



SUPPORTING CHANNELS



STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

	FHWA SEF	RIES "C"		FHWA SERIES "D"					
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)		
А	0.240	5.122	0.240	Α	0.240	6.804	0.240		
В	0.880	4.482	0.480	В	0.960	5.446	0.400		
С	0.720	4.482	0.720	C	0.800	5.446	0.800		
D	0.880	4.482	0.720	D	0.960	5.446	0.800		
E F	0.880	4.082	0.480	E	0.960	4.962 4.962	0.400		
G	0.880 0.720	4. 082 4. 482	0.240	F G	0.960 0.800	5.446	0.240		
Н	0.120	4.482	0.880	Н	0.960	5.446	0.960		
I	0.880	1.120	0.880	I	0.960	1. 280	0.960		
J	0.240	4.082	0.880	J	0.240	5.122	0.960		
K	0.880	4.482	0.480	K	0.960	5.604	0.400		
L	0.880	4.082	0.240	L	0.960	4.962	0.240		
М	0.880	5.284	0.880	М	0.960	6. 244	0.960		
N	0.880	4.482	0.880	N	0.960	5.446	0.960		
0	0.720	4.722	0.720	0	0.800	5.684	0.800		
Р	0.880	4.482	0.720	Р	0.960	5.446	0.240		
Q	0.720	4. 722	0.720	Q	0.800	5.684	0.800		
R	0.880	4.482	0.480	R	0.960	5.446	0.400		
S T	0.480	4.482	0.480	S	0.400	5.446	0.400		
U	0.240 0.880	4. 082 4. 482	0.240	T U	0.240 0.960	4.962 5.446	0.240		
V	0.880	4.962	0.240	V	0.380	6.084	0. 240		
w	0.240	6.084	0.240	w	0.240	7. 124	0.240		
X	0.240	4. 722	0.240	X X	0.400	5. 446	0.400		
Y	0.240	5.122	0.240	Y	0.240	6. 884	0.240		
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400		
а	0.320	3.842	0.640	а	0.400	4.562	0.720		
Ь	0.720	4.082	0.480	Ь	0.800	4.802	0.480		
С	0.480	4.002	0.240	С	0.480	4.722	0.240		
d	0.480	4.082	0.720	d	0.480	4.802	0.800		
е	0.480	4.082	0.320	e	0.480	4.722	0.320		
f	0.320	2.480	0.160	f	0.320	2.882	0.160		
g	0.480	4.082	0.720	g	0.480	4.802	0.800		
h i	0.720 0.720	4.082 1.120	0.640	h i	0.800	4.722 1.280	0.720		
i	0.720	2. 320	0.720	i	0.800	2.642	0.800		
k	0.720	4. 322	0.160	k	0.800	5. 122	0.160		
ı	0.720	1.120	0.720	ı	0.800	1. 280	0.800		
m	0.720	6.724	0.640	m	0.800	7. 926	0.720		
n	0.720	4.082	0.640	n	0.800	4.722	0.720		
0	0.480	4.082	0.480	0	0.480	4.882	0.480		
Р	0.720	4.082	0.480	Р	0.800	4.802	0.480		
q	0.480	4.082	0.720	q	0.480	4.802	0.800		
r	0.720	2.642	0.160	r	0.800	3.042	0.160		
S	0.320	3. 362	0.240	S	0.320	3. 762	0.240		
†	0.080	2.882	0.080	+	0.080	3. 202	0.080		
u	0.640	4.082	0.720	u	0.720	4.722	0.800		
V	0.160 0.160	4. 722 7. 524	0.160	V	0.160 0.160	5.684 9.046	0.160		
w ×	0.160	7.524 5.202	0.000	×	0.000	6. 244	0. 160		
y	0.160	4. 962	0.160	У	0.160	6.004	0.160		
Z	0.240	3. 362	0.240	Z	0.240	4.002	0.240		
1	0.720	1.680	0.880	1	0.800	2.000	0.960		
2	0.480	4.482	0.480	2	0.800	5.446	0.800		
3	0.480	4.482	0.480	3	1.440	5.446	0.800		
4	0.240	4.962	0.720	4	0.160	6.004	0.960		
5	0.480	4.482	0.480	5	0.800	5.446	0.800		
6	0.720	4.482	0.720	6	0.800	5.446	0.800		
7	0.240	4.482	0.720	7	0.560	5.446	0.560		
8	0.480	4.482	0.480	8	0.800	5.446	0.800		
9	0.480	4.482	0.480	9	0.800	5.446	0.800		
0 -	0.720 0.240	4. 722 2. 802	0.720	0 -	0.800 0.240	5.684 2.802	0.800		
-	0.240	2.002	0.240		0.240	2.002	0.240		

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION COUNTY DISTRICT ONE 80 99-4-I-N WILL 70 30 MAST ARM MOUNTED STREET NAME SIGNS CONTRACT NO. 60W93 TS-02 SHEETS STA. SHEET

DEPARTMENT OF TRANSPORTATION

CHECKED - LP

- 10/15/2014

DATE

PLOT DATE = 12/11/2015

REVISED

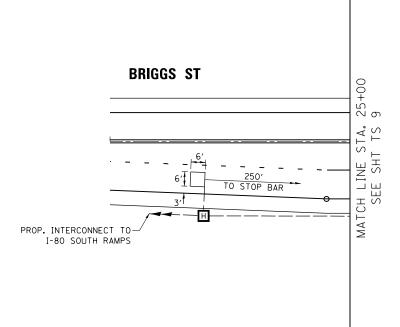
REVISED

I-80 NORTH RAMPS AND BRIGGS ST

SHEETS STA.

SCALE:

CONTRACT NO. 60W93



PROP. QUEUE DETECTOR—

1-80 WB

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1" CNC (TYP.) (SEE NOTE)-

NOTES:

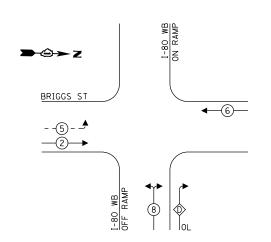
1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

TS 7394 ECON 134

MATCH LINE STA. 14+50

FILE NAME =	USER NAME = plascenciai	DESIGNED - IP	REVISED -		TRAFFIC SIGNAL INSTALLATION PLAN (SHEET 2 OF 2)		F.A.I.	SECTION	COUNTY	TOTAL SHEET			
		DRAWN - IP	REVISED -	STATE OF ILLINOIS					,	80	99-4-I-N	WILL	70 32
	PLOT SCALE = 40.0000 '/ in.	CHECKED - LP	REVISED -	DEPARTMENT OF TRANSPORTATION		I–8U IV	IUKIH KA	AMPS AND	BRIGGS ST			CONTRACT	NO. 60W93
Default	PLOT DATE = 12/11/2015	DATE - 10/15/2014	REVISED -		SCALE:	SHEET	OF	SHEETS ST.	A. TO STA.		ILLINOIS FED. A	ID PROJECT	

PROPOSED CONTROLLER SEQUENCE



LEGEND:

←(*)— PROTECTED PHASE

← -(*)- - PROTECTED/PERMITTED PHASE

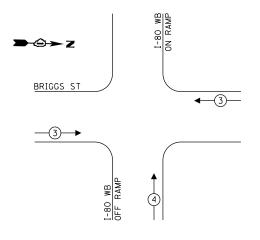
√-(*)- ► PEDESTRIAN PHASE

* OL OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP PERMISSIVE PROTECTED LETTER PHASE PHASE
D = 8 + 1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL **ELECTRICAL SERVICE REQUIREMENTS**

	NO. OF	LED	7	TOTAL
TYPE	LAMPS	WATTAGE	OPERATION	WATTAGE
SIGNAL (RE	D) 10	11	50	55.0
(YELLO	W) 10	20	5	10.0
(GREE	N) 10	12	45	54.0
PERMISSIVE ARRO	W 4	10	10	4.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIG	GN -	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	248.0

ENERGY COSTS TO:

NO. 11

SHT

TS

ILLINOIS DEPARTMENT OF TRANSPORTATION 201 W CENTER CT

SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: DAVE SCHACHT

PHONE: (630) 437-2129 COMPANY: COMMONWEALTH EDISON

ACCOUNT NUMBER:__

(5) М.пЬ ਨੂੰ ੈ ਨ ≺ ਲ PROP. INTERSECTION AND SAMPLING (SYSTEM) DETECTOR **BRIGGS ST** \$ \$ 0 ≺ z PROP. INTERSECTION AND— SAMPLING (SYSTEM) DETECTOR ດ ≺ z _ a ≻ o PROP. TRACER CABLE -PROP. INTERCONNECT TO-I-80 SOUTH RAMPS 1#6 1-80 WB OFF RAIMP

CABLE PLAN (NOT TO SCALE)

-PROP. QUEUE DETECTOR AND SAMPLING (SYSTEM) DETECTOR

> TS 7394 **ECON 134**

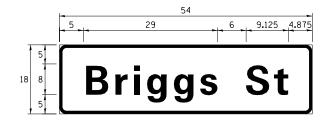
SUPER P CABINET

-GROUND MOUNTED METERED SERVICE

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE DESIGNED - IP REVISED USER NAME = plascencia: SECTION COUNTY STATE OF ILLINOIS DRAWN - IP REVISED 70 33 99-4-I-N WILL I-80 NORTH RAMPS AND BRIGGS ST CHECKED - LP REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 60W93 PLOT DATE = 12/11/2015 SCALE: OF SHEETS STA. DATE - 10/15/2014 REVISED

SIGN PANEL - TYPE 1

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN	AREA	SIGN PANEL	SHEETING	QTY.
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D	6.75	1	ZZ	

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

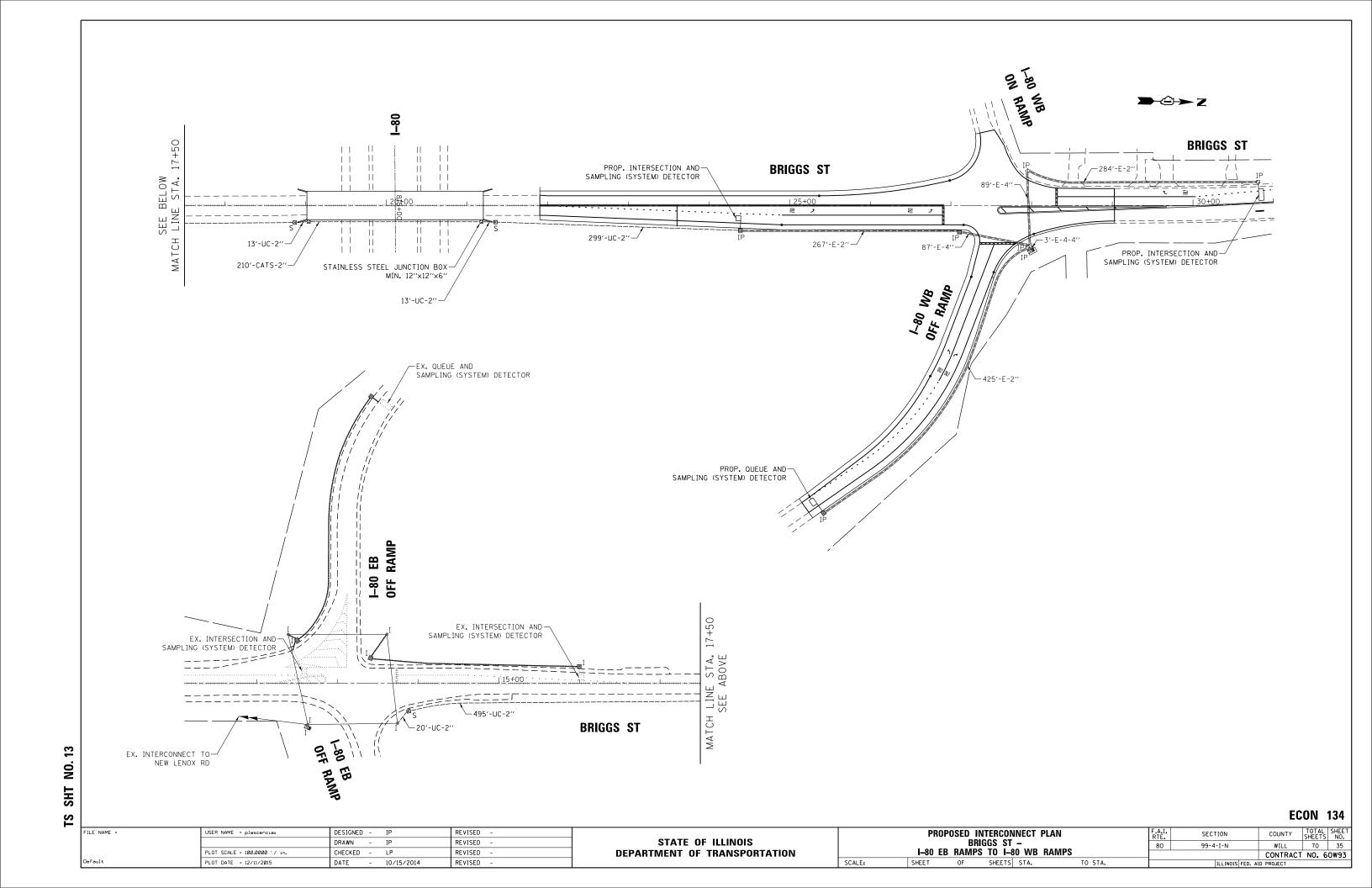
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA. UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA. FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. FOOT HANDHOLE HEAVY-DUTY HANDHOLE DOUBLE HANDHOLE BEACH ** ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C FOOT ELECTRIC CABLE IN CONDUIT, EAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, EOUIPMENT GROUNDING CONDUCTOR, NO. 6 1C FOOT TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE,	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA, UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA. UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. FOOT HANDHOLE HEAVY-DUTY HANDHOLE EACH HEAVY-DUTY HANDHOLE ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C FOOT TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR ELECTRIC DETECTOR LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT	2
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA. UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA. FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. FOOT HANDHOLE HEAVY-DUTY HANDHOLE DUBLE HANDHOLE ** ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C FOOT ELECTRIC CABLE IN CONDUIT, EAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, EAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, EAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE B 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH INDUCTIVE LOOP DETECTOR EACH LIGHT DETECTOR LEACH EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	6.75
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA. UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. FOOT HANDHOLE HEAVY-DUTY HANDHOLE DOUBLE HANDHOLE ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH DETECTOR LOOP, TYPE I FOOT LIGHT DETECTOR # LIGHT DETECTOR # LIGHT DETECTOR # LIGHT DETECTOR # LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOUT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	1,112
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA. HANDHOLE HEAVY-DUTY HANDHOLE DOUBLE HANDHOLE ** ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EOUIFMENT GROUNDING CONDUCTOR, NO. 6 1C FOOT TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED TRAFFIC SIONAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH THAFFIC SIONAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH EACH THATTORY THATTORY THATTORY THATTORY TH	45
HANDHOLE HEAVY-DUTY HANDHOLE DOUBLE HANDHOLE ** ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH INDUCTIVE LOOP DETECTOR LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	41
HEAVY-DUTY HANDHOLE DOUBLE HANDHOLE EACH ** ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH INDUCTIVE LOOP DETECTOR EACH LIGHT DETECTOR EACH LIGHT DETECTOR EACH ELIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	272
# ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH INDUCTIVE LOOP DETECTOR EACH LIGHT DETECTOR EACH LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	2
* ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C FOOT ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE B 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACRPLATE, LOUVERED, FORMED PLASTIC LIGHT DETECTOR BEACH LIGHT DETECTOR EACH LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. EACH CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC EACH INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR EACH ** LIGHT DETECTOR AMPLIFIER ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 TC ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EOUIPMENT GROUNDING CONDUCTOR, NO. 6 1C FOOT TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC LIGHT DETECTOR # LIGHT DETECTOR # LIGHT DETECTOR # LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	265
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EOUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I **LIGHT DETECTOR** **LIGHT DETECTOR AMPLIFIER** **EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOUT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	1,415
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR EACH EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	239
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR AMPLIFIER * EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	1,540
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	120
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR EACH ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	600
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I ** LIGHT DETECTOR LIGHT DETECTOR EACH ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I ** LIGHT DETECTOR LIGHT DETECTOR EACH EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	1
CONCRETE FOUNDATION, TYPE A CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	1
CONCRETE FOUNDATION, TYPE C CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	2
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR LIGHT DETECTOR MAPLIFIER EACH ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	16
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR ** LIGHT DETECTOR AMPLIFIER EACH ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I LIGHT DETECTOR ** LIGHT DETECTOR AMPLIFIER EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	33
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I ** LIGHT DETECTOR #* LIGHT DETECTOR AMPLIFIER EACH ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I **LIGHT DETECTOR **LIGHT DETECTOR AMPLIFIER **EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I ** LIGHT DETECTOR ** LIGHT DETECTOR AMPLIFIER ** EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	1
INDUCTIVE LOOP DETECTOR DETECTOR LOOP, TYPE I FOOT * LIGHT DETECTOR * LIGHT DETECTOR AMPLIFIER * EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	1
DETECTOR LOOP, TYPE I FOOT * LIGHT DETECTOR * LIGHT DETECTOR AMPLIFIER * EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	6
* LIGHT DETECTOR EACH * LIGHT DETECTOR AMPLIFIER EACH * EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	6
* LIGHT DETECTOR AMPLIFIER * EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	350
* EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C FOOT FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	2
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL) EACH	1
	265
THE TRANSPORT OF THE PROPERTY	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL EACH	1
SERVICE INSTALLATION - GROUND MOUNTED, METERED EACH	1

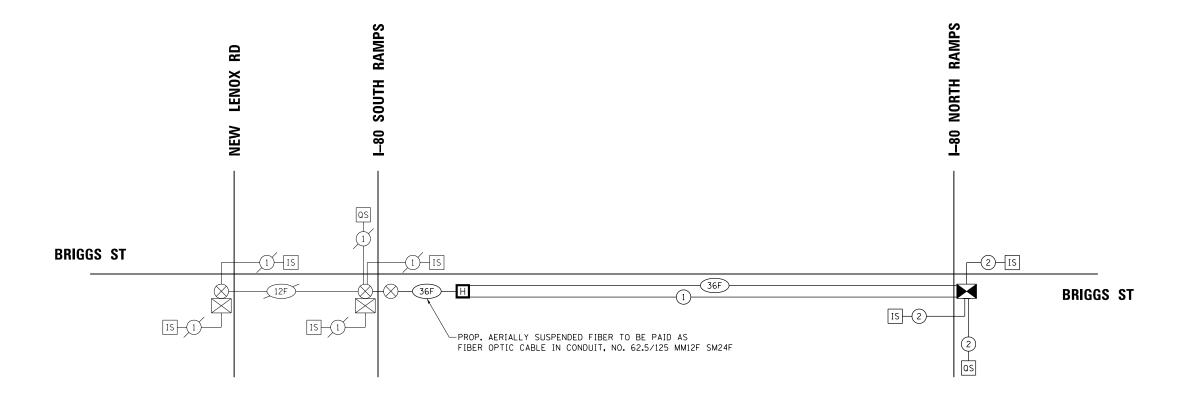
* 100% COST TO THE EAST JOLIET FIRE PROTECTION DISTRICT

TS SHT NO. 12

TS 7394 ECON 134

- L																	
FI	LE NAME =	USER NAME = plascenciai	DESIGNED - IP	REVISED -		MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES I–80 NORTH RAMPS AND BRIGGS ST				F.A.F	P.	SECTION	COUNTY	SHEETS	SHEET		
			DRAWN - IP	REVISED -	STATE OF ILLINOIS					80	•	99-4-I-N	WILL	70	34		
		PLOT SCALE = 40.0000 '/ in.	CHECKED - LP	REVISED -	DEPARTMENT OF TRANSPORTATION						_		CONTRAC	T NO. 60	OW93		
De	efault	PLOT DATE = 12/11/2015	DATE - 10/15/2014	REVISED -		SCALE:	SHEET	OF	SHEETS	S STA.	TO STA.		ILLINOIS FED. AID PROJECT				

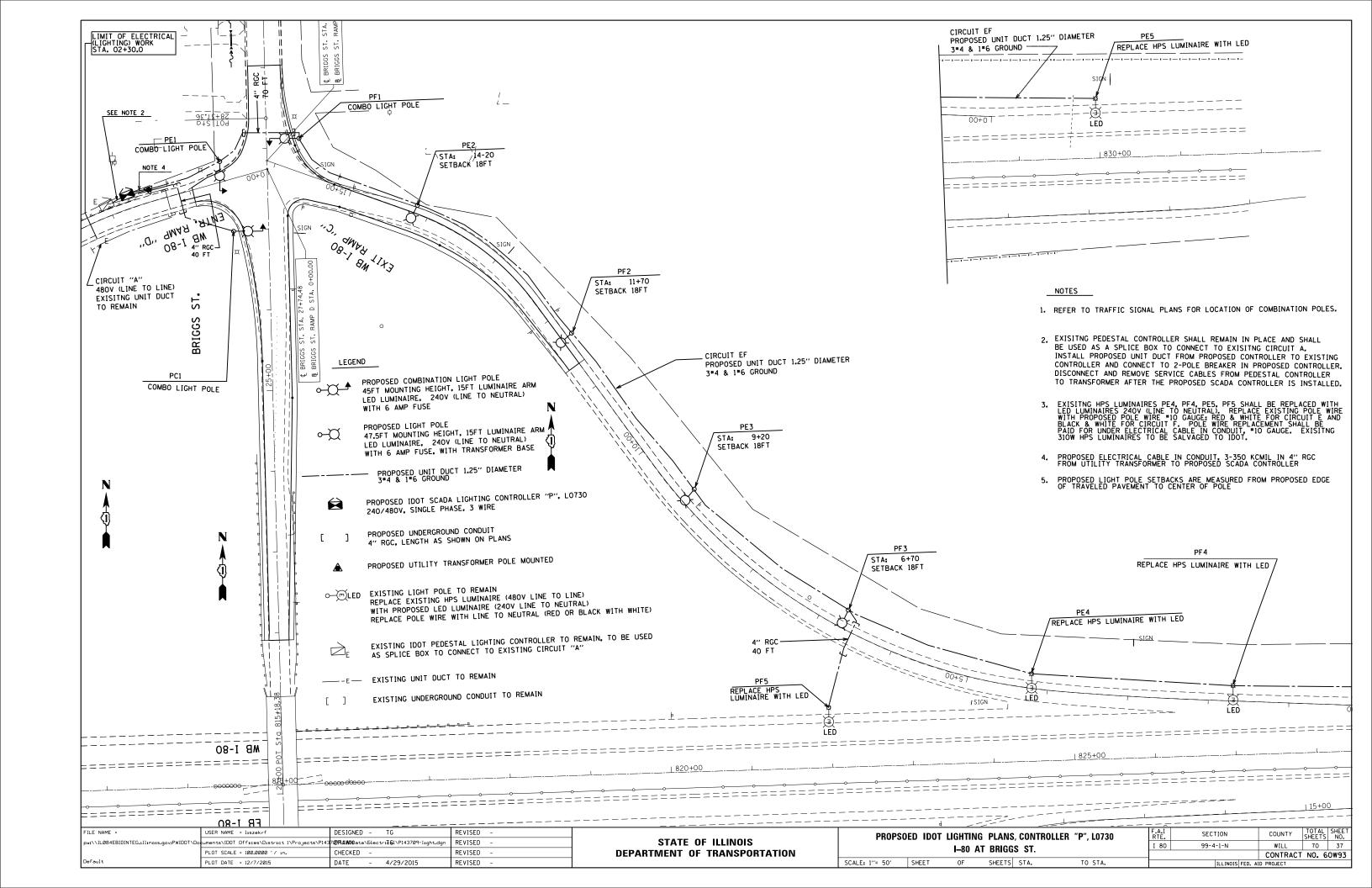


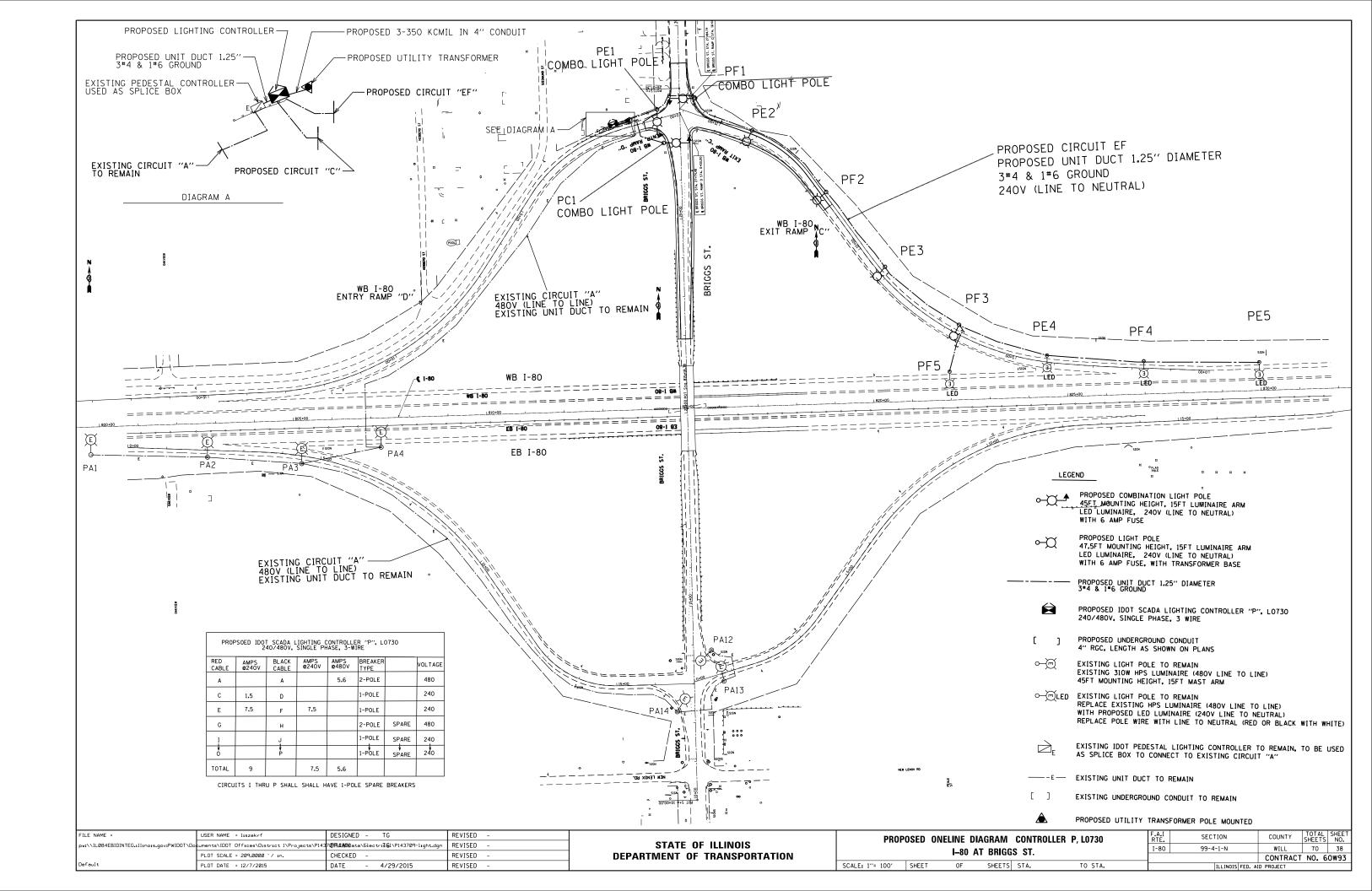


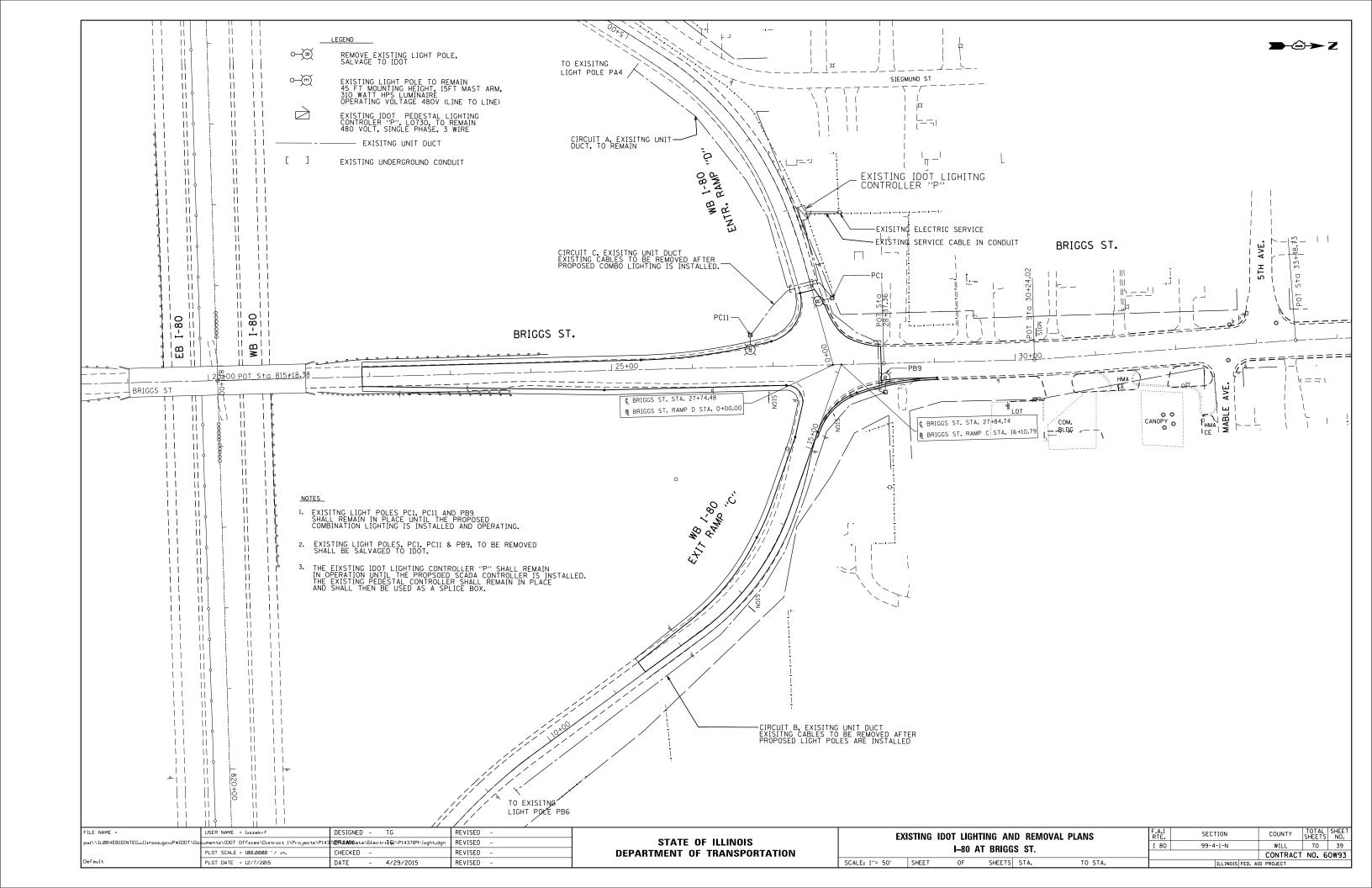
SCHEDULE OF QUANTITIES

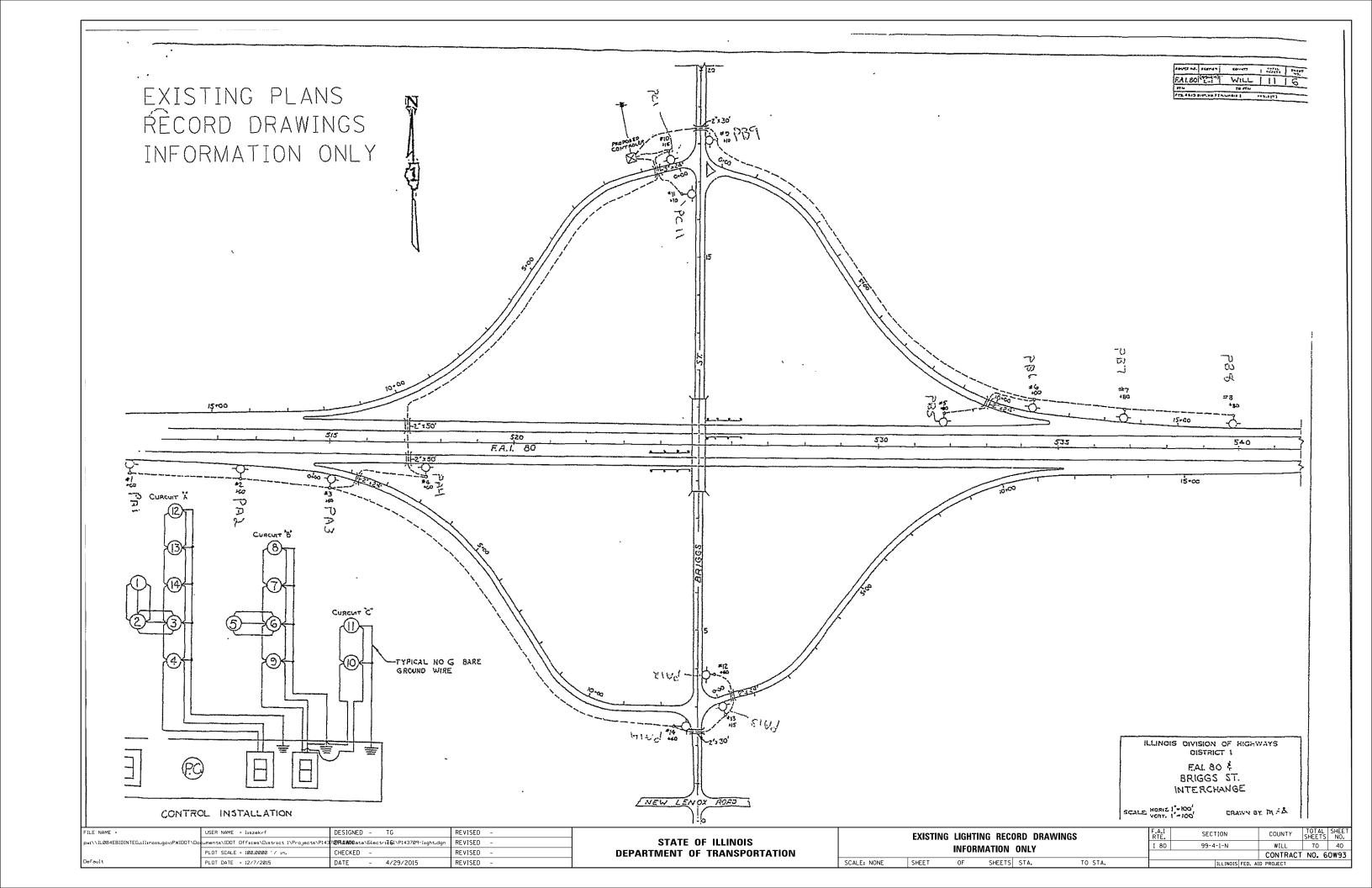
ITEM DESCRIPTION	UNITS	TOTAL QTY.	
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	840	
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	210	
HEAVY-DUTY HANDHOLE	EACH	3	
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
TRANSCEIVER - FIBER OPTIC	EACH	1	
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,475	
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	1,630	
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1	

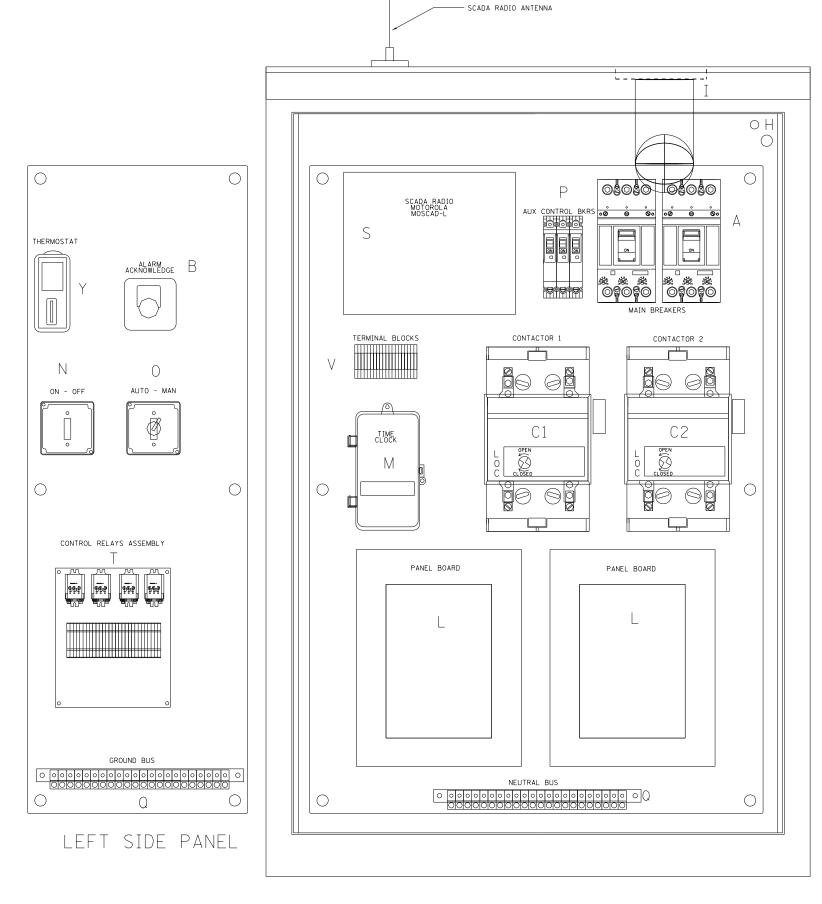
T NO. 14		RAFFIC SIGNAL SYSTEM L		SM24F		ACH 1				
TS SH1										ECON 134
	FILE NAME =	USER NAME = plascencia:	DESIGNED -		REVISED -			PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES	F.A.I. SECTION	COUNTY TOTAL SHEET SHEETS NO.
			DRAWN -	IP	REVISED -		STATE OF ILLINOIS	BRIGGS ST -	80 99-4-I-N	WILL 70 36
		PLOT SCALE = 100.0000 '/ in.	CHECKED -	LP	REVISED -		DEPARTMENT OF TRANSPORTATION	NEW LENOX RD TO I-80 WB RAMPS	'	CONTRACT NO. 60W93
	Default	PLOT DATE = 12/11/2015	DATE -	10/15/2014	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.	ILLINOIS FED.	AID PROJECT

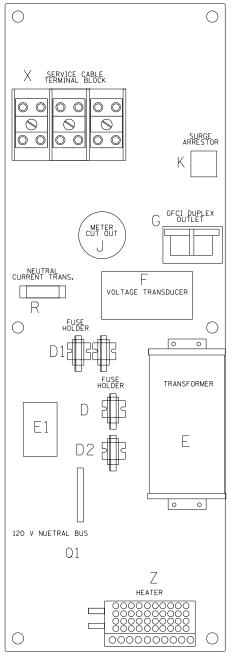












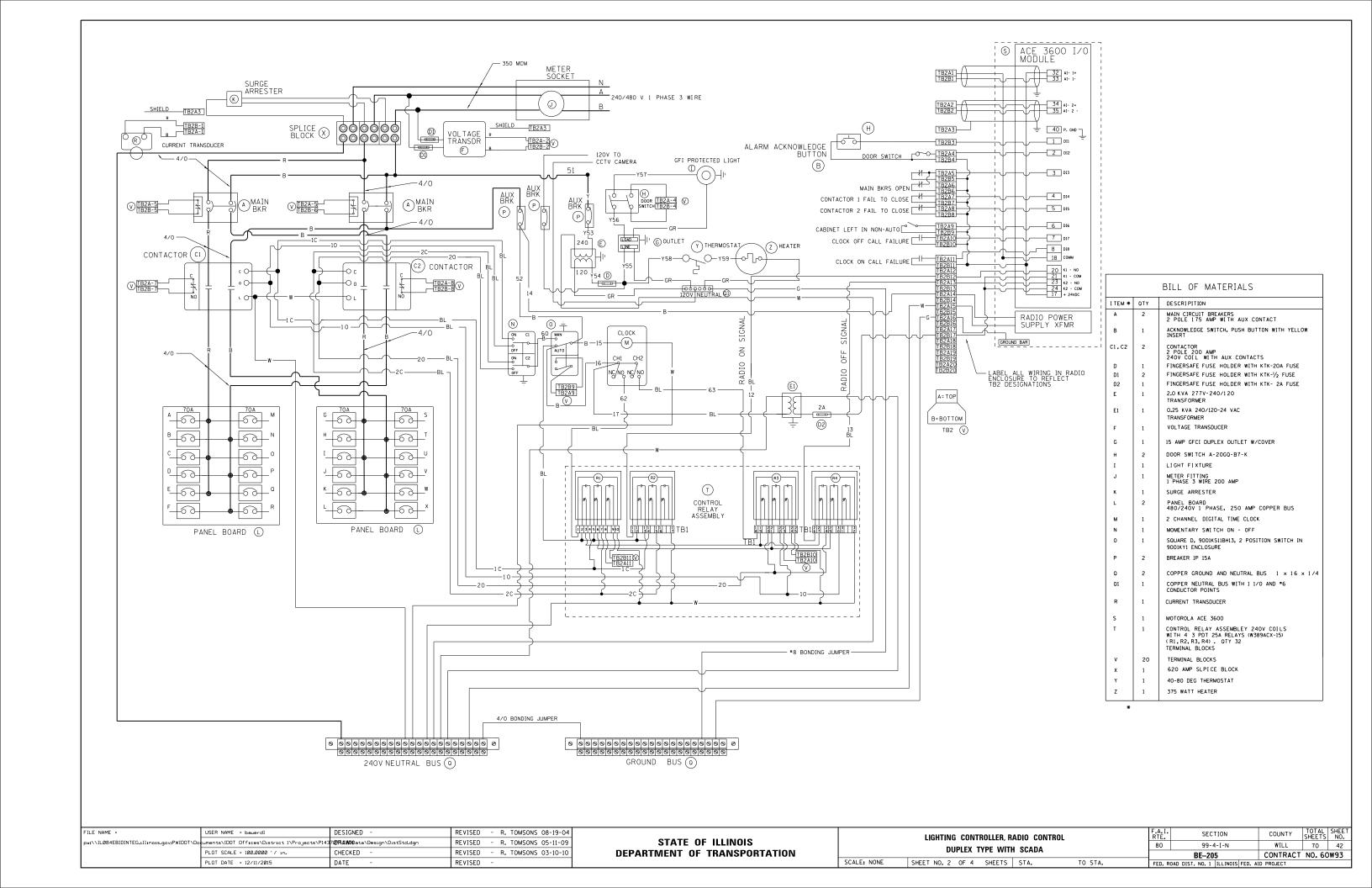
RIGHT SIDE PANEL

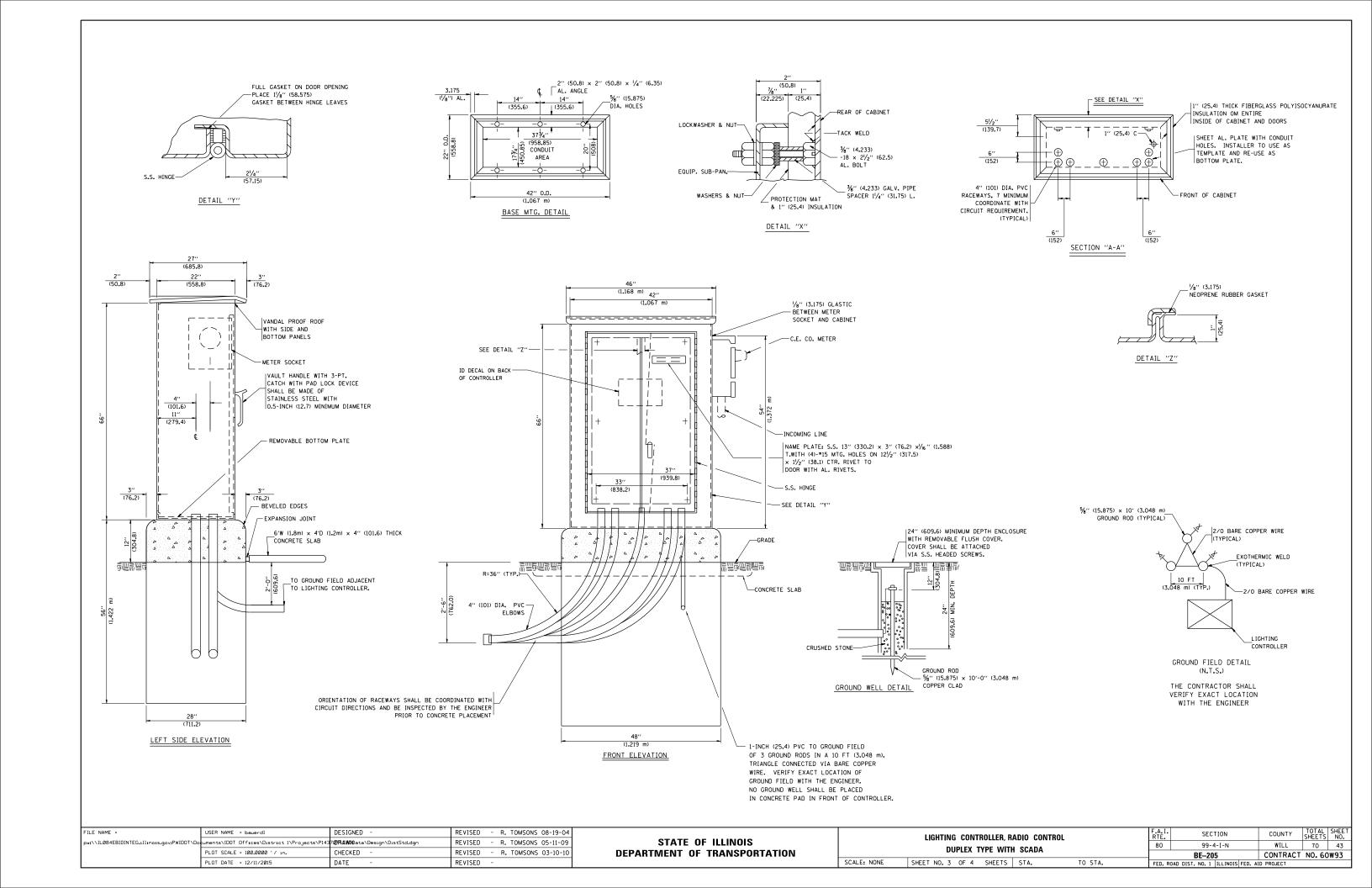
		BILL OF MATERIALS
ITEM	QTY	DESCRI PITION
А	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
В	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK-2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
н	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
К	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
М	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
0	1	SQUARE D, 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
Р	2	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 × 16 × 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T *	1	CONTROL RELAY ASSEMBLEY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1,R2,R3,R4). OTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
x *	1	620 AMP SLPICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED - R. TOMSONS 08-19-04
ow:\\ILØ84EBIDINTEG.:1ll:no1s.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 @RAWN Data\Design\DistStd.dgn	REVISED - R. TOMSONS 05-11-09
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - R. TOMSONS 03-10-10
	PLOT DATE = 12/11/2015	DATE -	REVISED -

	LIGHTING CONTROLLER, RA	F.A.I. RTE.	SECTION	COUNTY	COUNTY TOTAL SHI SHEETS N			
	DIIDIEV TVDE WITL	80	70	41				
	DUPLEX TYPE WITH SCADA					CONTRACT NO. 60W93		
SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.	FED. RO	BE-205 CONTRACT NO. 60WS FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			





NOTES

- 1. CABINET SHALL BE FABRICATED FROM 0.125-INCH (3.175) SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED.
- 2. ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- 3. NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH (19.05) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- 4. ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- 5. CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- 6. ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- 7. THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- 8. METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- 9. CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH (3.175) THICK GLASTIC INSULATION BACK PANEL.
- 10. ALL DEVICES SHALL BE FRONT REMOVABLE.
- 11. TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- 12. SET LATITUDE TO 42 DEGREES. SET CH.1 TO 23 MINUTES AFTER ASTRONOMICAL SUNSET,

 50 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL

 SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +28 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH

 A SIGNAL LENGTH OF 7 SECONDS.)
- 13. BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- 14. ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- 15. ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- 16. ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW, SCADA WIRING SHALL BE #18.
- 17. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- 18. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

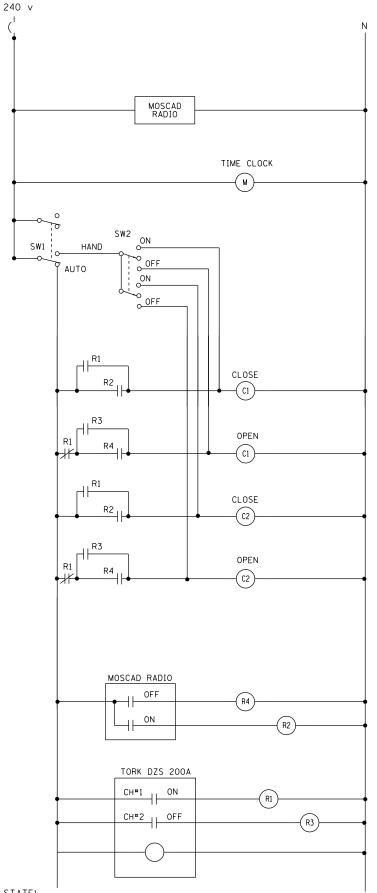
19. MOSCAD I/O WIRING SHALL BE:

DIGITAL INPUT (DI) WIRING SHALL BE #18 MTW PURPLE.

ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.

AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.

- 20. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- 21. SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- 22. A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

SCALE: NONE

	MOSCAD I/O ASS	IGNMENTS
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	DIGITAL INPUT 1	ALARM KNOWLEDGE
2	DIGITAL INPUT 2	DOOR OPEN
3	DIGITAL INPUT 3	MAIN(S) BREAKER OPEN
4	DIGITAL INPUT 4	CONTACTOR 1 OPEN
5	DIGITAL INPUT 5	CONTACTOR 2 OPEN
6	DIGITAL INPUT 6	CABINET IN NON-AUTO
7	DIGITAL INPUT 7	BACK-UP CLOCK OFF CALL
8	DIGITAL INPUT 8	BACK-UP CLOCK ON CALL
17	24 V+	24+VDC
18	DI COMMON	СОММОЙ
21	K1 C	K1 COMMON
22	K1 NO	LIGHTS ON CALL
24	K2 C	K2 COMMON
25	K2 NO	LIGHTS OFF CALL
32	ANALOG INPUT 1 (+)	CABINET NEUTRAL CURRENT
33	ANALOG INPUT 1 (-)	CABINET NEUTRAL CURRENT
34	ANALOG INPUT 2 (+)	CABINET SERVICE VOLTAGE
35	ANALOG INPUT 2 (-)	CABINET SERVICE VOLTAGE
40	P. GROUND	GROUND

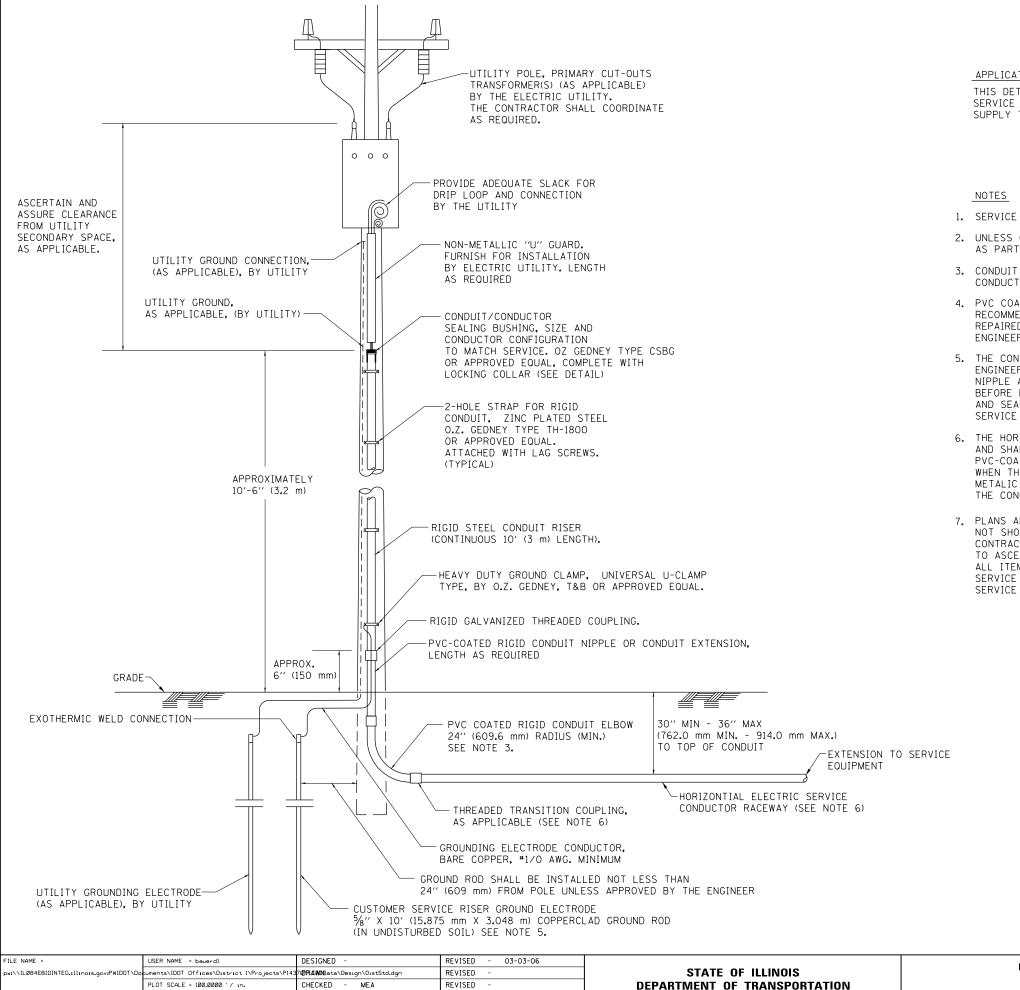
ALL ANALOG INPUTS WILL BE 4-20 MA ONLY. DIGITAL OUTPUT RELAYS WILL BE ELECTRICALLY ENERGIZED AND MOMENTARILY HELD

MIXED I/O MODULE MODEL NUMBER V436

FILE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED	- R. TOMSONS 08-19-04
pw:\\IL084EBIDINTEG.:111:no:s.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 0RAWD ata\Design\DistStd.dgn	REVISED	- R. TOMSONS 05-11-09
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED	- R. TOMSONS 03-10-10
	DLOT DATE - 12/11/2015	DATE -	DEVISED	_

STATE	: OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

LIGHTING CONTRO	LLER, RA	ADIO CONTRO	DL		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
·			80	99-4-I-N	WILL	70	44		
DUPLEX TYPE WITH SCADA					BE-205	CONTRACT NO. 60W9			
SHEET NO. 4 OF 4 SI	HEETS	STA.	TO STA.	l	FED RO	DAD DIST NO 1 THE INDIS FED AT	ID PROJECT		



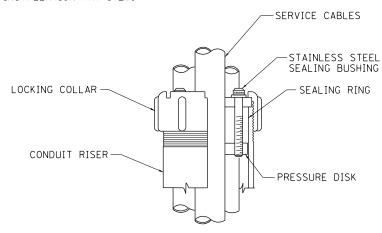
REVISED

APPLICATION

SCALE: NONE

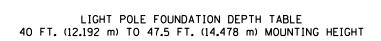
THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

- 1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- 2. UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- 3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- 4. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- 5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- 6. THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- 7. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.

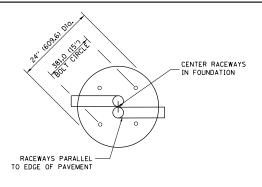


SEALING BUSHING DETAIL

COUNTY **ELECTRIC SERVICE INSTALLATION** 80 99-4-I-N WILL 70 45 **AERIAL, REMOTE DISCONNECT** BE-220 CONTRACT NO. 60W93 SHEET NO. 1 OF 1 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT



SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION				
201F CONDITION2	SINGLE ARM POLE	TWIN ARM POLE			
SOFT CLAY	13'-0''	15′-0′′			
Ou = 0.375 TON/SO. FT.	(3.96 m)	(4 . 57 m)			
MEDIUM CLAY	9'-6''	10'-9''			
Qu = 0.75 TON/SQ.FT	(2.09 m)	(3.23 m)			
STIFF CLAY Ou = 1.50 TON/SO. FT.	7'-0'' (2.13 m)	8'-0'' (2.44 m)			
LOOSE SAND	9'-0''	10'-0''			
Ø = 34°	(2.74 m)	(3.05 m)			
MEDIUM SAND	8'-3''	9'-0''			
Ø = 37.5°	(2.52 m)	(2.74 m)			
DENSE SAND	7'-9''	9'-0''			
Ø = 40°	(2.36 m)	(2.74 m)			



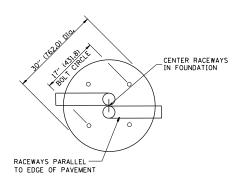
TOP VIEW

FOUNDATION DETAIL

SECTION A-A

ANCHOR ROD 4-1" Dig. X 5'-0"

(4-25.4 Dia. X 1.524 m)

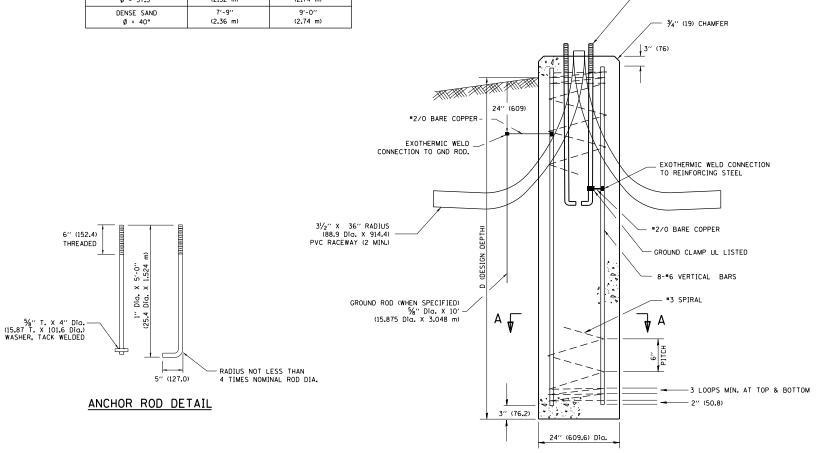


TOP VIEW

<u>EW</u>

NOTES

- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
- 3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- 4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- . THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMPERED 3/-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE, COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- 8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- 10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- 11. ANCHOR RODS SHALL PROJECT 2¾," (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- 12. THE CONTRACTOR SHALL USE A *3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE *3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



TOP OF ANCHOR ROD

60" (1500)

FOUNDATION EXTENSION DETAIL

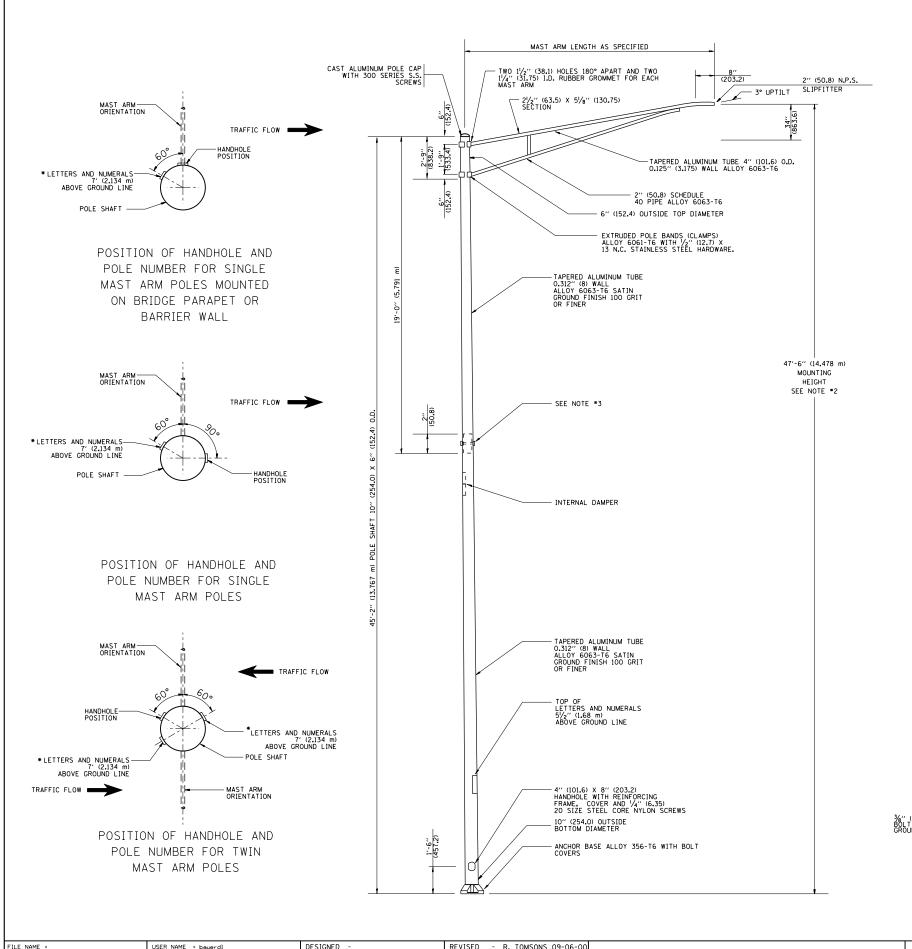
- 4" (100) MAX.

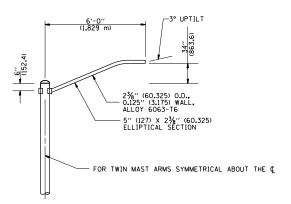
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

8-6* VERT.

SECTION A-A







6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
- 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
- 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.

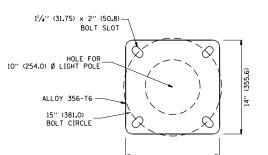
- CRITERIA AS SPECIFIED.

 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.

 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.

 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.

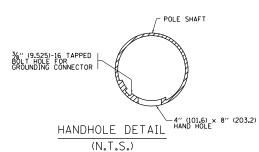
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL

14" (355.6)

15 INCH (381.0) BOLT CIRCLE

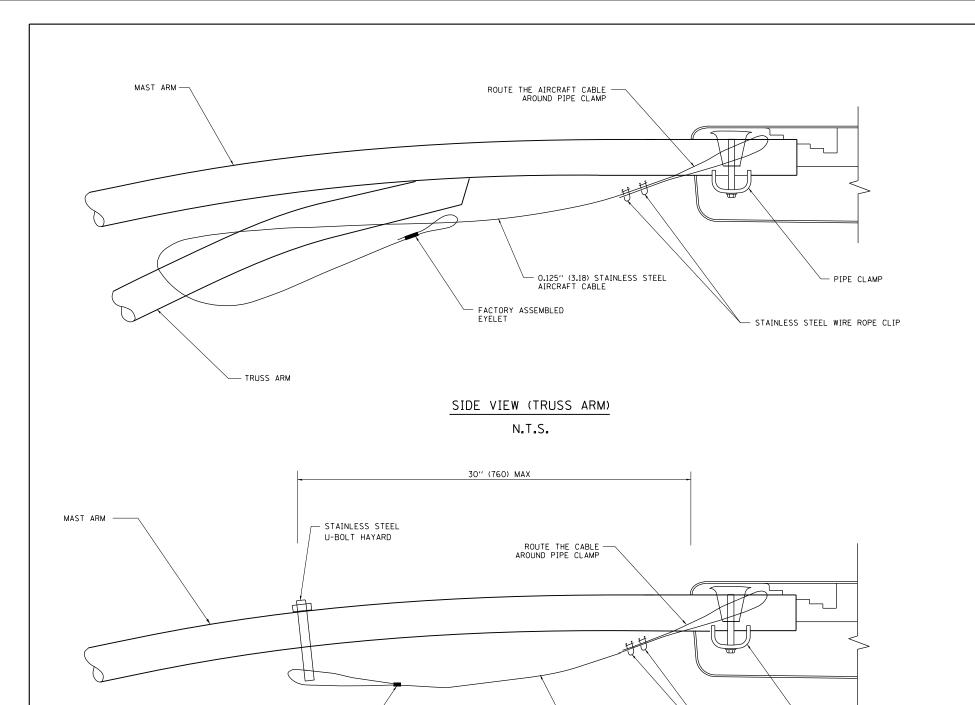


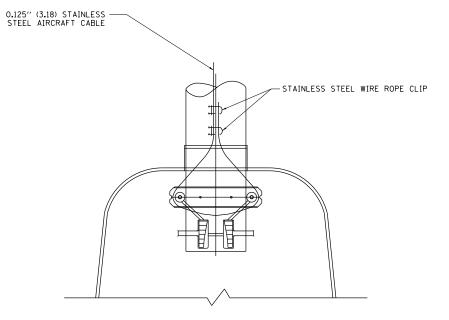
SCALE:

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pw:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 ©RAWN Data\Design\DistStd.dgn	REVISED	- R. TOMSONS 09-03-03
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED	- R. TOMSONS 01-18-13
	PLOT DATE = 12/11/2015	DATE -	REVISED	-

STATE OF	ILLINOIS
DEPARTMENT OF	TRANSPORTATION

ALUMINUM LIGHT POLE				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	47'-6" (14,478 m) MOUNTING HEIGHT					99-4-I-N	WILL	70	47
47-0 (14.476 III) INIOUNTING NEIGHT						BE-400	CONTRACT	NO. 60	W93
NONE	SHEET NO. 1 OF 1 SHE	EETS	STA.	TO STA.	FED. F	OAD DIST, NO. 1 ILLINOIS FED. A	ID PROJECT		





BOTTOM VIEW N.T.S.

NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
- 3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
- 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)

O.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE

FACTORY ASSEMBLED

MAST ARM

-S.S. NUT &

STAINLESS STEEL U-BOLT HAYARD LOCK WASHER

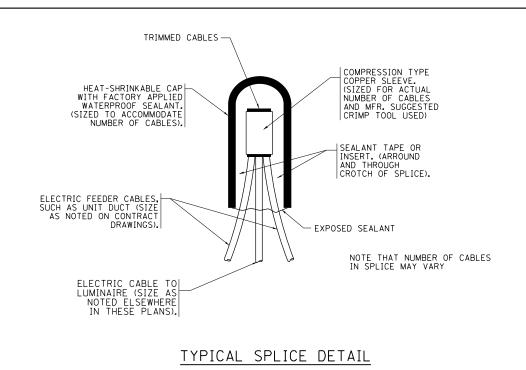
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N.T.S.

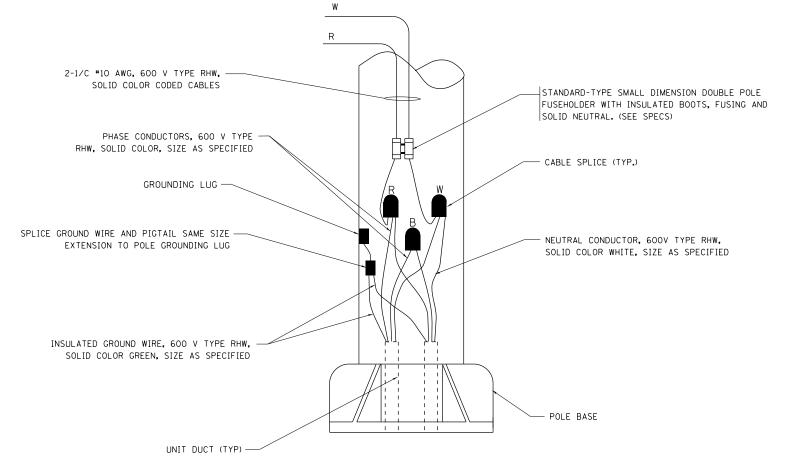
FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED - 08-08-03			LUMINAIRE SAFETY CABLE ASSEMBLY		F.A.I.	SECTION	COUNTY	TOTAL S SHEETS	SHEET
pw:\\IL084EBIDINTEG.:ll:no:s.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 @RAWN Data\Design\DistStd.dgn	REVISED -	STATE OF ILLINOIS		LUMINAINE SAFETT CABLE ASSEMBLY		80	99-4-I-N	WILL	70	48
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					BE-701	CONTRACT	T NO. 60	w93
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- STAINLESS STEEL WIRE ROPE CLIP

— PIPE CLAMP



N.T.S.



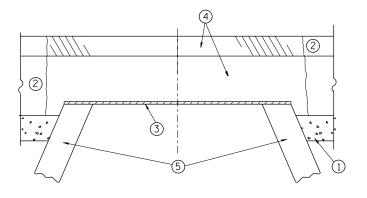
POLE WIRING DETAIL

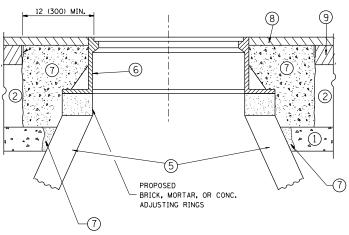
N.T.S.

FILE	NAME =	USER NAME = liszekrf	DESIGNED -	REVISED - 08-08-03		MISC, ELECTRICAL DETAILS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
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		PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BE-702	CONTRACT	NO. 60W93
		PLOT DATE = 12/8/2015	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. AI	PROJECT	

	12" (305) MAXIMUM WIDTH EXCEPT AS APPROVED BY THE ENGINEER
30" (762) MINIMUM COVER	WARNING TAPE AS SPECIFIED UNIT DUCT OR OTHER RACEWAY AND WIRING AS PER PLANS, COMPLETE
	AND WIRING AS PER PLANS. COMPLETE WITH INTERNAL INSULATED EQUIPMENT GROUND WIRE.

TYPICAL WIRING IN TRENCH DETAIL N.T.S.





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.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

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.

SCALE: NONE

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM
- AROUND THE STRUCTURE.

 B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE. D) BACKFILL WITH CRUSHED STONE AND A MINIMUM $1\frac{1}{2}$ (40)
- THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* 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

LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- (6) FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT

(5) EXISTING STRUCTURE

- (7) CLASS PP-1* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- (8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- (9) PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK. THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT:

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

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

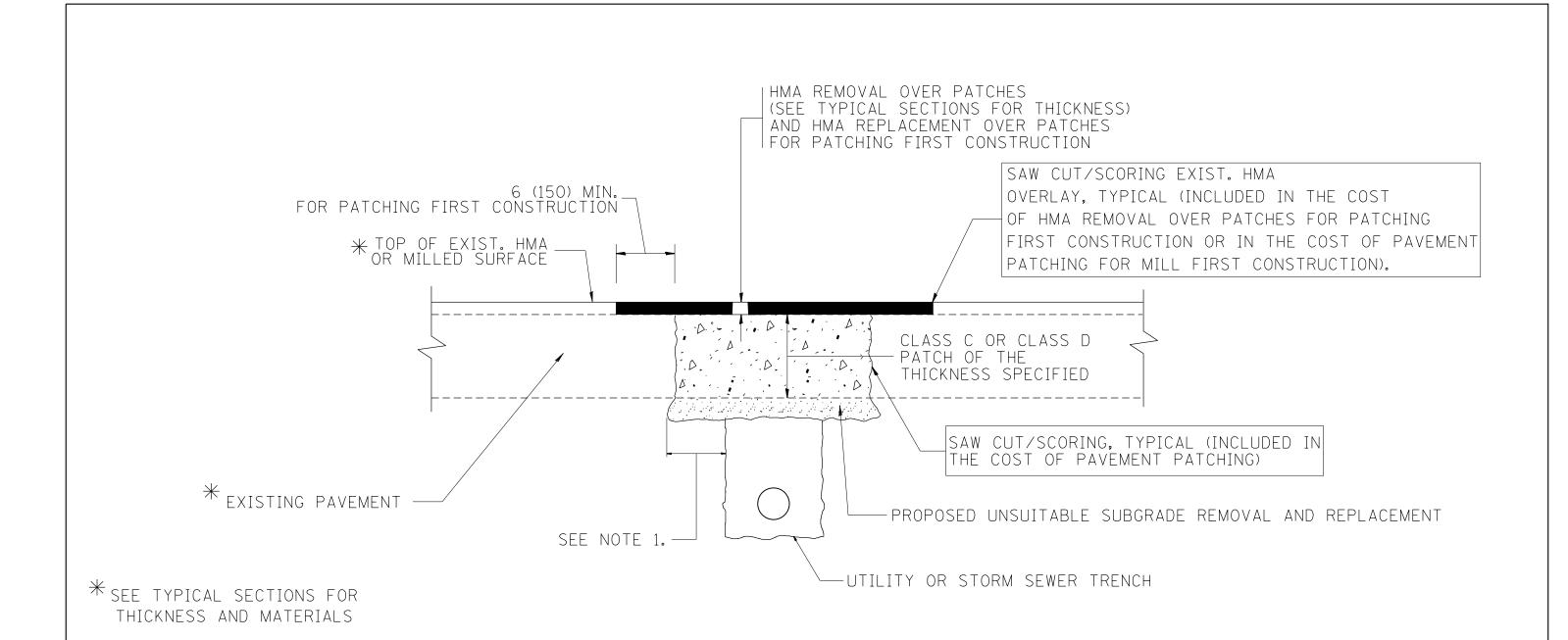
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 12/8/2015	DATE - 10-25-94	REVISED - R. BORO 12-06-11

	DETAILS FOR					SECTION	COUNTY	TOTAL SHEETS	SHE
	FRAMES AND LIDS ADJUSTMENT WITH MILLING				80	99-4-I-N	WILL	70	50
						BD600-03 (BD-8)	CONTRACT	NO. 6	SOW9
	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		



NOTES:

- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

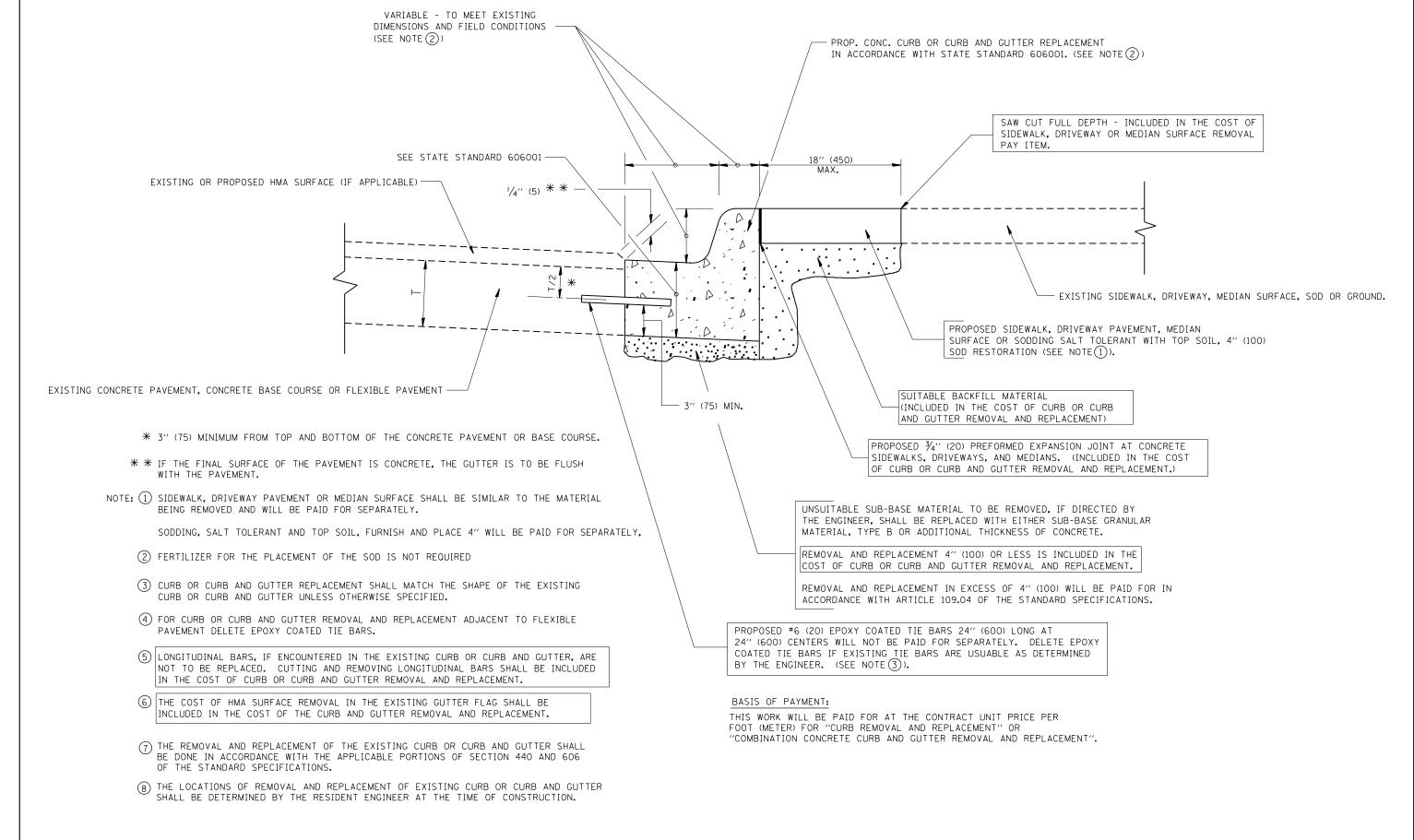
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

·		CHECKED - DATE - 10-25-94	REVISED -	R. BORO 09-04-07 K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	BE BOAD	D400-04 (BD-22) DIST, NO. 1 ILLINOIS FED. AII	CONTRACT	NO. 60W93	4
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FILE NAME =	USER NAME = liszekrf		REVISED -	A. ABBAS 04-27-98			PAVEMENT PATCHING FOR	RTE.	SECTION	COUNTY	SHEETS NO.	1



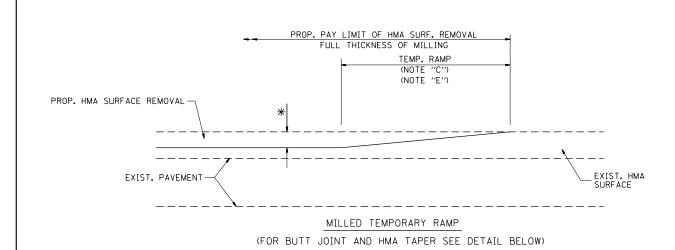
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE

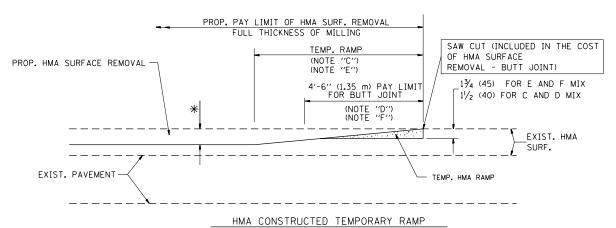
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT DATE = 12/8/2015	DATE - 03-11-94	REVISED -	R. BORO 12-15-09

CURB OR CURB AND GUTTER		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REMOVAL AND REPLACEMENT		80	99-4-I-N	WILL	70	52
NEWOVAL AND NEFEAGEWENT			BD600-06 (BD-24)	CONTRACT	NO. 6	OW93
SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. R	OAD DIST, NO. 1 ILLINOIS FED. A	D PROJECT		

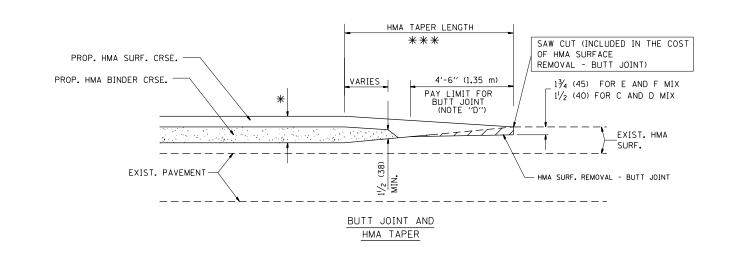


OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2 TYPICAL TEMPORARY RAMP

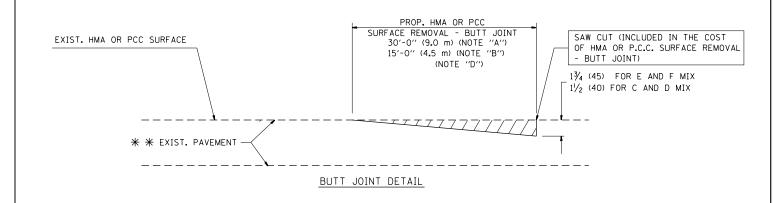


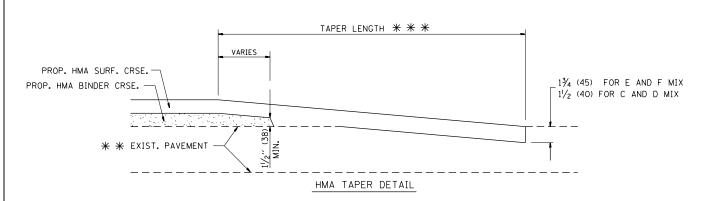
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS

OTHERWISE SHOWN.





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

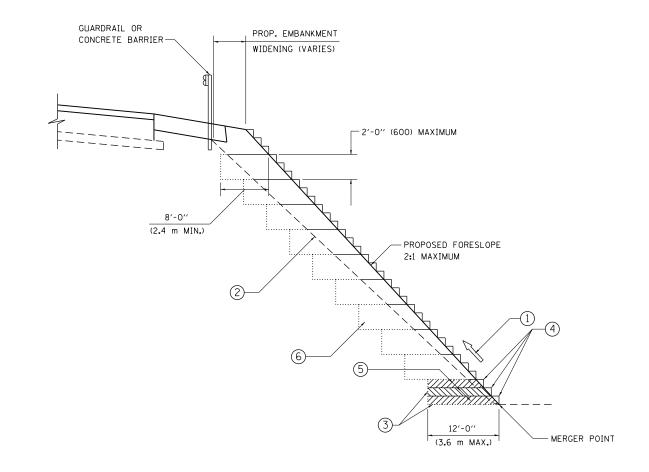
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- : 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 "HOTT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

SCALE: NONE



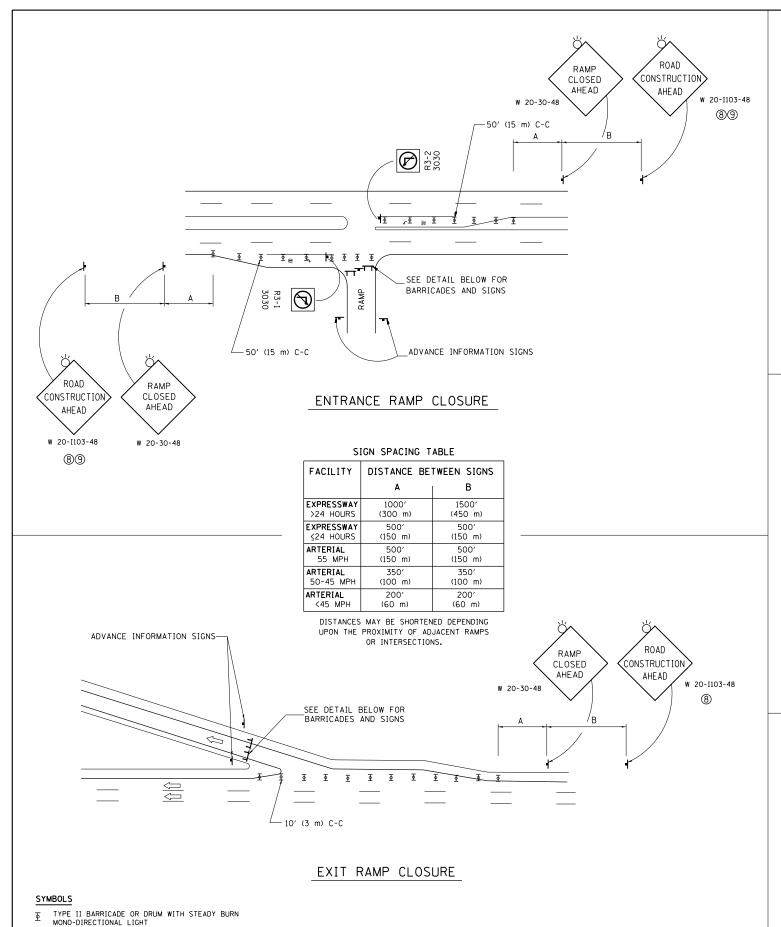
TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

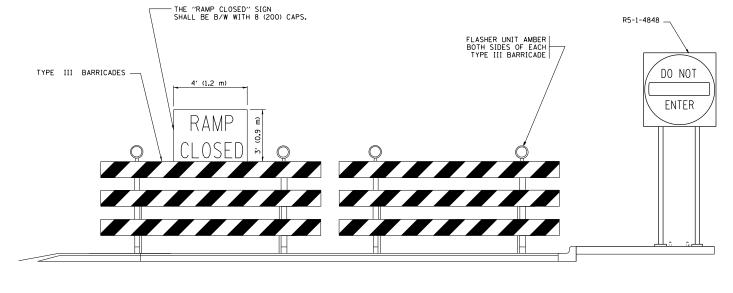
- CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03
 OF THE STANDARD SPECIFICATIONS.
- (3) BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- (4) TRIM TO FINAL SLOPE.
- 5 EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- 6 EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED -				DEN	ICHING DETAIL		F.A.I	SECTION	COUNTY	TOTAL SHEET
pw:\\IL084EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P	437 ©RAWD Data\Design CAD:B Std.dgn	REVISED -	STATE OF ILLINOIS						80	99-4-I-N	WILL	70 54
	PLOT SCALE = 100.0000 ' / in.	CHECKED - S.E.B.	REVISED -	DEPARTMENT OF TRANSPORTATION			FOR EMBA	ANKMENT WIDENING			BD-51		NO. 60W93
Default	PLOT DATE = 12/8/2015	DATE - 06-16-04	REVISED -		SCALE:	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS F	ED. AID PROJECT	



TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

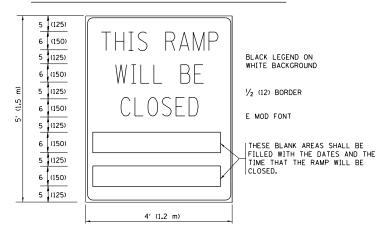
RAMP CLOSURE ADVANCE INFORMATION SIGN

EN BOY CLOSED TO SED TO

RAMP CLOSURE ADVANCE WARNING SIGN

BLACK LEGEND ON ORANGE
BACKGROUND MOUNTED
DIAGONALLY
E MOD FONT
1 (25) BORDER
IGNS ARE REQUIRED ON ALL THE EXIT

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



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

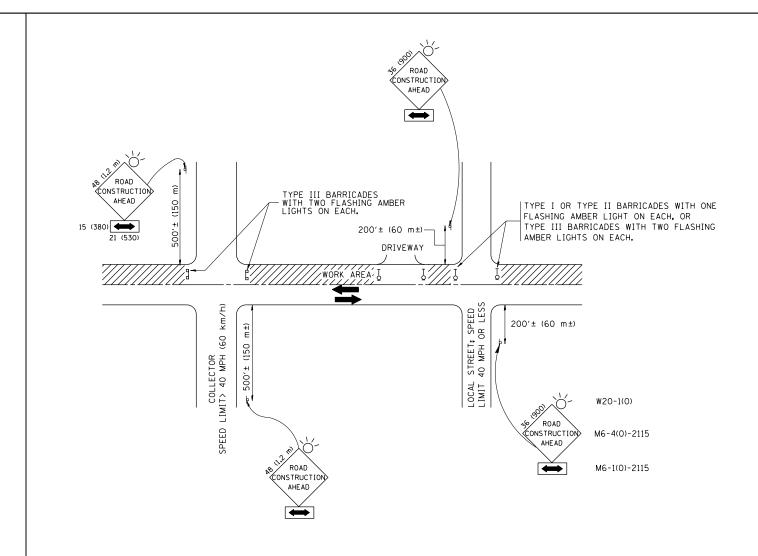
GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II
 BARRICADES DURING DAY OPERATIONS. CONES SHALL BE
 A MINIMUM OF 28 (700) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- (3) A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED 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).

- 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.
- 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 = bauerdl	DESIGNED - DWS	REVISED - JAF 02-06		ENTRANCE AND EXIT RAMP	F.A.I.	SECTION	COUNTY	TOTAL	SHEET
pw:\\IL084EBIDINTEG.1ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	37 ©RAMM ota\Design\DistStd.dgn	REVISED - SPB 01-07	STATE OF ILLINOIS		80	99-4-I-N	WILL	70	55
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - SPB 12-09	DEPARTMENT OF TRANSPORTATION	CLOSURE DETAILS		TC-08	CONTRACT	NO. 6	OW93
	PLOT DATE = 12/11/2015	DATE - 02-83	REVISED - MD 06-13		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED ROAD		AID PROJECT		



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 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 ROLLTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

SCALE: NONE

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

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

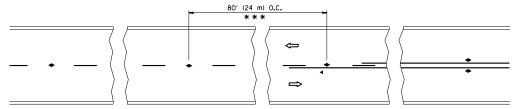
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = liszekrf	DESIGNED - LHA	REVISED	- J. OBERLE 10-18-95
pw:\\IL084EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 ©RAWN Data\Design\DistStd.dgn	REVISED	- A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED	- A. HOUSEH 10-15-96
	PLOT DATE = 12/8/2015	DATE - 06-89	REVISED	-T. RAMMACHER 01-06-00

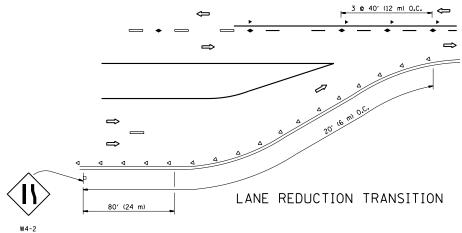
STATE	OF	ILLINOIS
DEPARTMENT ()F T	RANSPORTATION

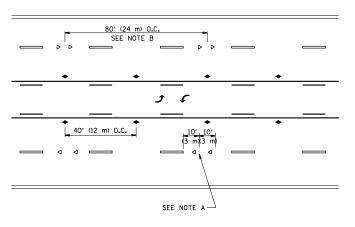
TRAFFIC CONTR	OL AND P	ROTECT	ION FOR	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS				80	99-4-I-N	WILL	70	56
SIDE NUADS, INTENSECTIONS, AND DRIVEWAYS					TC-10	CONTRACT	NO. 6	50W93
SHEET NO. 1 OF 1 SHEETS STA. TO STA.				FED. R	DAD DIST, NO. 1 ILLINOIS FED. AI	D PROJECT		



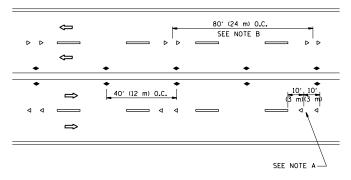
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

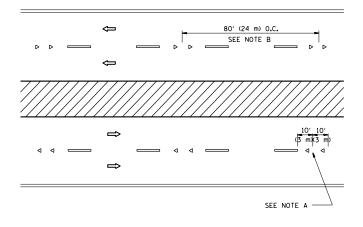




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

LANE MARKER NOTES

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.

SYMBOLS

---- YELLOW STRIPE

WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

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

MINIMUM OF 3 W
EQUALLY SPACED 3 @ 80' (24 m) O.C. — ___ 3 @ 80' (24 m) O.C. 3 @ 40' (12 m) 3 @ 40' (12 m) 40' (12 m) 0.C. 40' (12 m) 0.C. ⇔ \Rightarrow ◆ 40′ (12 m) 0.C. 40' (12 m) 0.C. * SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

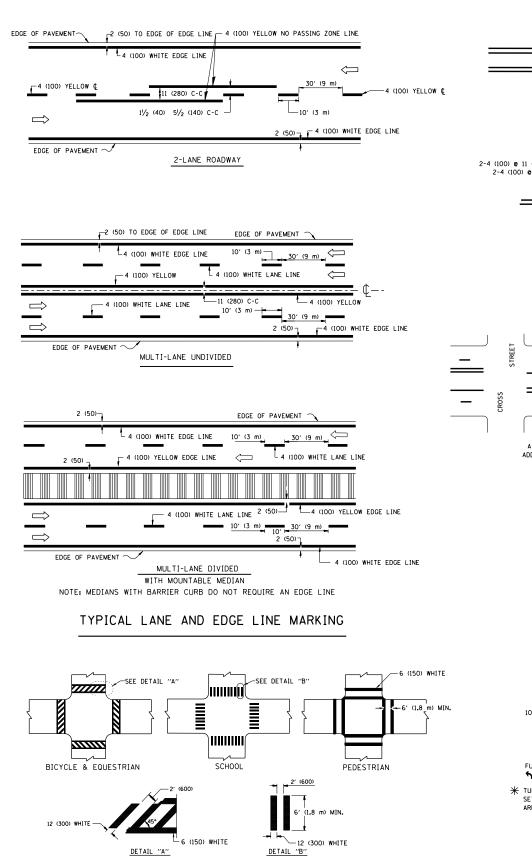
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED	-T. RAMMACHER (09-19-94	
pw:\\IL084EBIDINTEG.:111:no:s.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P14	37 @RAWN Data\Design\DistStd.dgn	REVISED	-T. RAMMACHER (03-12-99	
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED	-T. RAMMACHER (01-06-00	
	PLOT DATE = 12/8/2015	DATE -	REVISED	- C. JUCIUS (09-09-09	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

		TYPICAL APPLICATIONS								COUNTY
	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)						80 99-4-I-N			
							TC-11			
	SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1	ILLINOIS FE	ED. AI	D PROJECT

SECTION COUNTY 70 57 80 99-4-I-N WILL CONTRACT NO. 60W93 TC-11



TYPICAL CROSSWALK MARKING

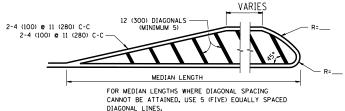
2-4 (100) YELLOW • 11 (280) C-C

NO DIAGONALS

4' (1.2 m) OUTSIDE TO OUTSIDE OF LINES

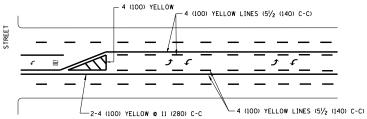
2-4 (100) YELLOW • 11 (280) C-C

4' (1.2 m) WIDE MEDIANS ONLY

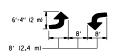


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

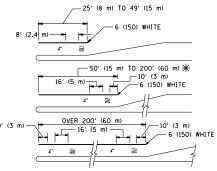


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

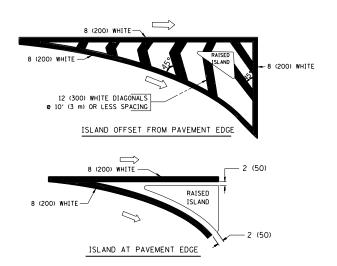


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SO. FT. (1.5 m²) \P AREA = 20.8 SO. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

	T		T	
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE 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	5/ ₂ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 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 5' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF FRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m²) EACH "X"=54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

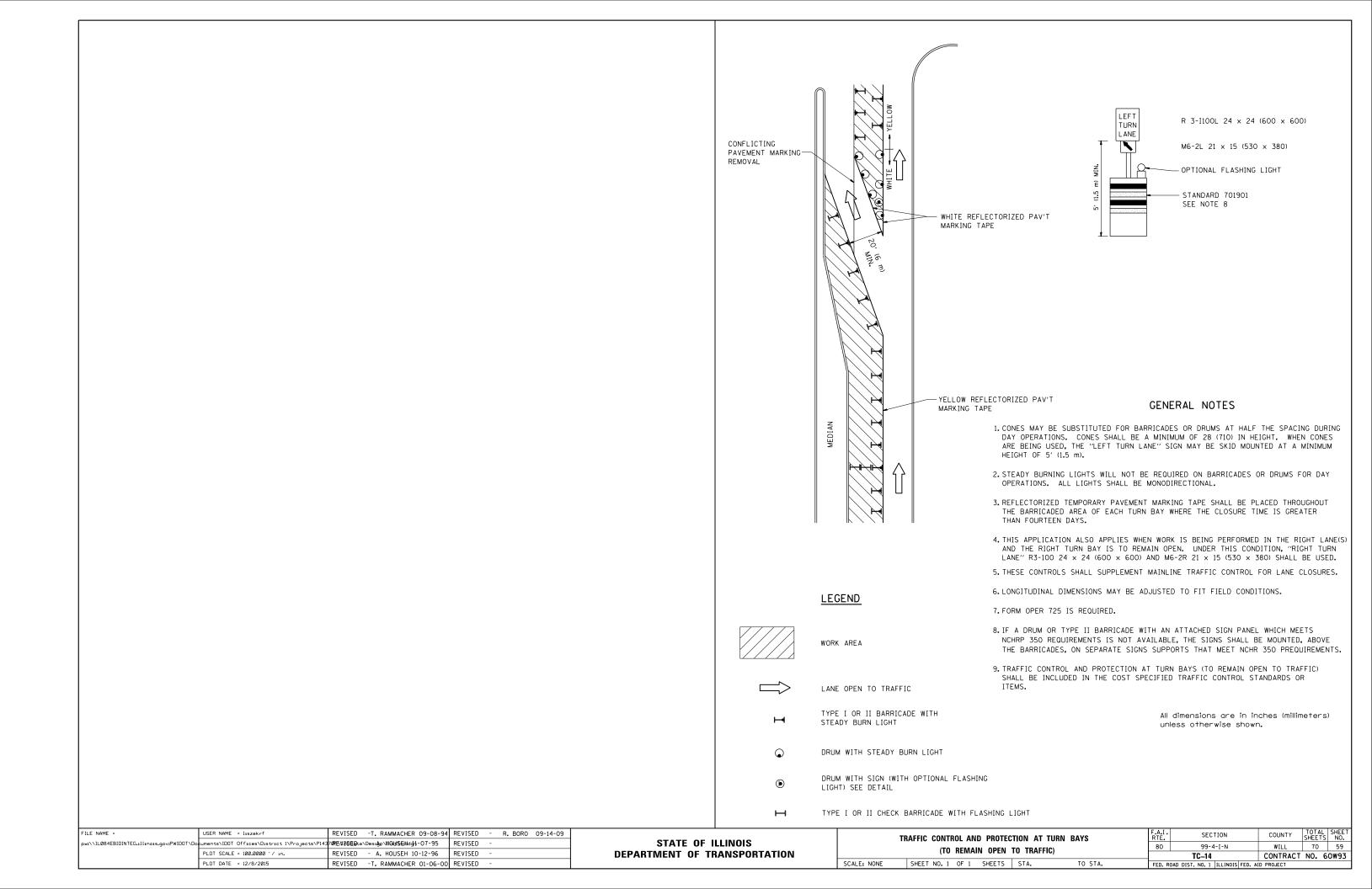
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

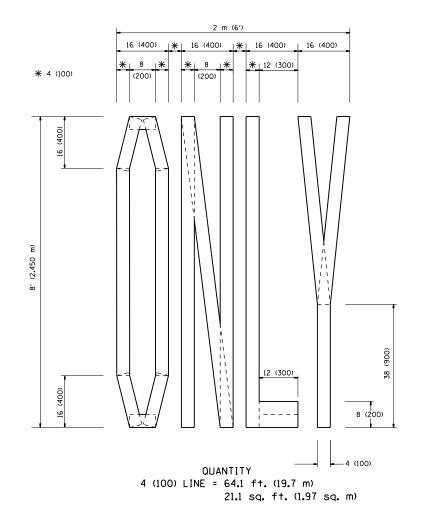
All dimensions are in inches (millimeters) unless otherwise shown.

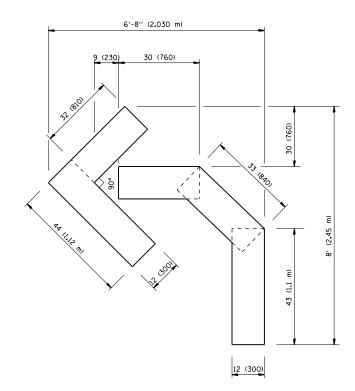
FILE NAME =	USER NAME = liszekrf	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	
pw:\\IL084EBIDINTEG.:1ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 @RAWN Data\Design\DistStd.dgn	REVISED -C. JUCIUS 09-09-09	STATE OF ILLINOIS
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION
	PLOT DATE = 12/8/2015	DATE - 03-19-90	REVISED -	

STATE OF ILLINOIS			DISTRICT OF	٧E
PARTMENT OF TRANSPORTATION		TYPICAL	PAVEMENT	MA
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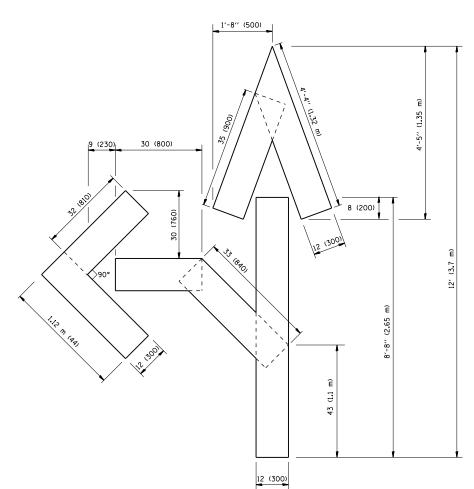
DISTRICT ONE						F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.	
	TYPICAL PAVEMENT MARKINGS					80	99-4-I-N	WILL	70	58	
		ITTIC	AL FA	VLIVILIVI	WANKINGS			TC-13	CONTRACT NO. 60W93		
	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.						FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		







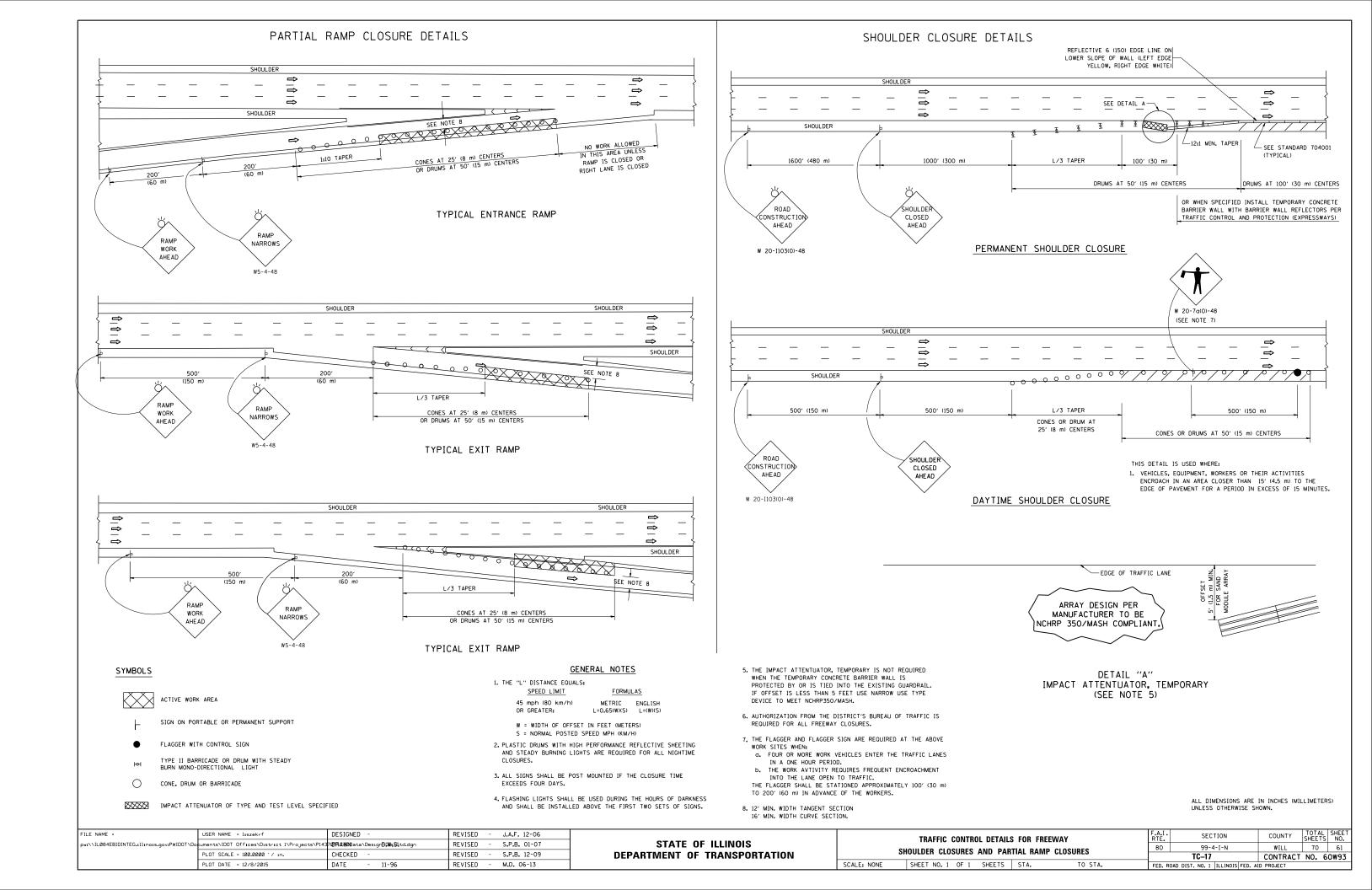
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

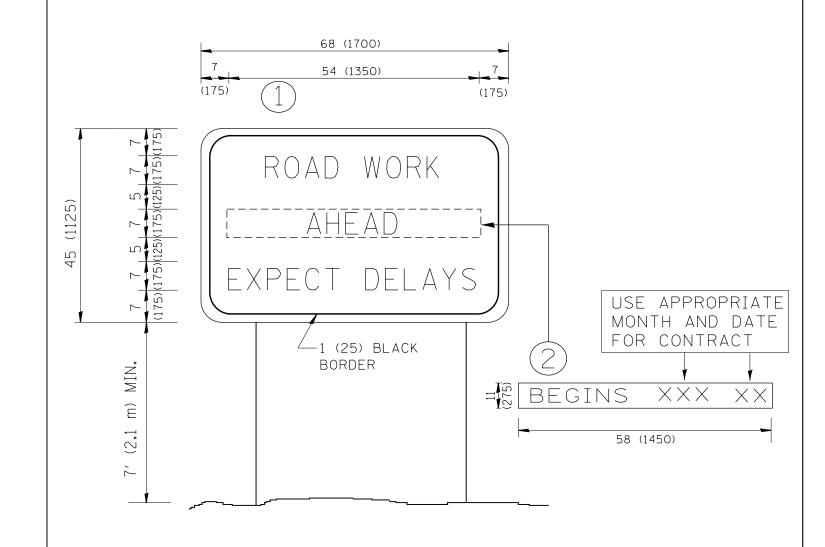


QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED	-T. RAMMACHER 06-05-96			PAVEMENT MARKING LETTE	RS AND SYMR	ni s	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
pw:\\IL084EBIDINTEG.:Ill:nois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\P1437@RAWDota\Design\DistStd.dgn			REVISED -T. RAMMACHER 11-04-97		STATE OF ILLINOIS	FOR TRAFFIC STAGING			80	99-4-I-N	WILL	70 60	
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED	-T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION					TC-16	CONTRAC	T NO. 60W93	
	PLOT DATE = 12/8/2015	DATE - 09-18-94	REVISED	-E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		TO STA.	FED. ROAD	FED. ROAD DIST. NO. 1 ILLINOIS FED. A			





NOTES:

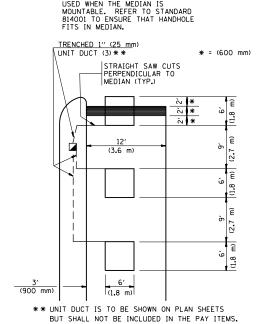
- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START 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.

Γ	FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.I. RTF.	SECTION	COUNTY S	TOTAL S	IEET NO.
	pw:\\ L084EBIDINTEG.illinois.gov:PWIDOT\Documents\ DOT\ Offices\District \Projects\P14370RAWD0ata\Design\DistStd.dgn		REVISED - R. MIRS 12-11-97			INFORMATION SIGN			99-4-I-N	WILL	70	62	
		PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION SIGN			TC-22	CONTRACT N	NO. 601	193
		PLOT DATE = 12/8/2015	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	D PROJECT			

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER. PAVED SHOULDER. PAVED OR NON-PAVED SHOULDER ** = (600 mm) ** ** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

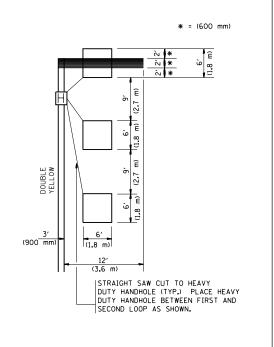
LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH (PROTECTED / PERMITTED LEFT TURN PHASING) HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD HONOLT ENERGIES THAT HANDHOLES



PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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

(PROTECTED / PERMITTED LEFT TURN PHASING)



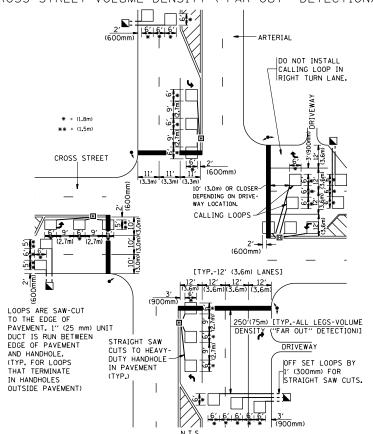
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

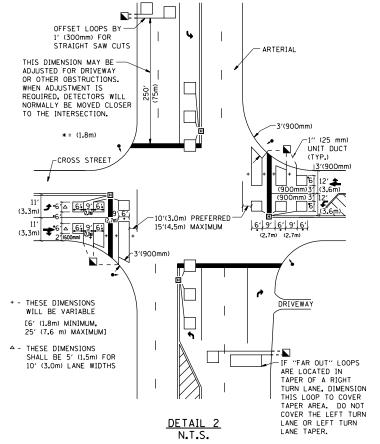
SCALE: NONE

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

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

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

PLACEMENT OF DETECTORS

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

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

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

JOTE.

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

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

FILE NAME =	USER NAME = liszekrf	DESIGNED -	REVISED -
pw:\\IL084EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 1\Projects\P143	7 @RAWN Data\Design\DistStd.dgn	REVISED -
	PLOT SCALE = 100.0000 '/ in.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 12/8/2015	DATE -	REVISED -

DETAIL

N.T.S.

DISTRICT 1 - DETECTOR L	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
DETAILS FOR ROADW	80	99-4-I-N	WILL	70	63		
DETAILS TON NOADW		TS-07	CONTRACT	NO. 6	50W93		
SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED RO				

