

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 290: (I-290)
SOUTHBOUND EXIT RAMP TO BIESTERFIELD ROAD
SECTION: 0101-311 HBK-I
PROJECT: CMI-290-3(064)071
CHANNELIZATION
COOK COUNTY
C-91-222-10

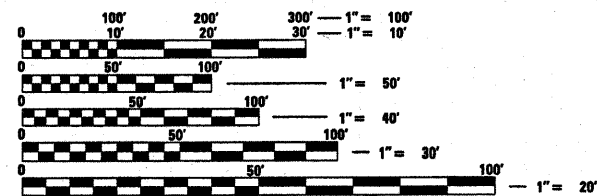
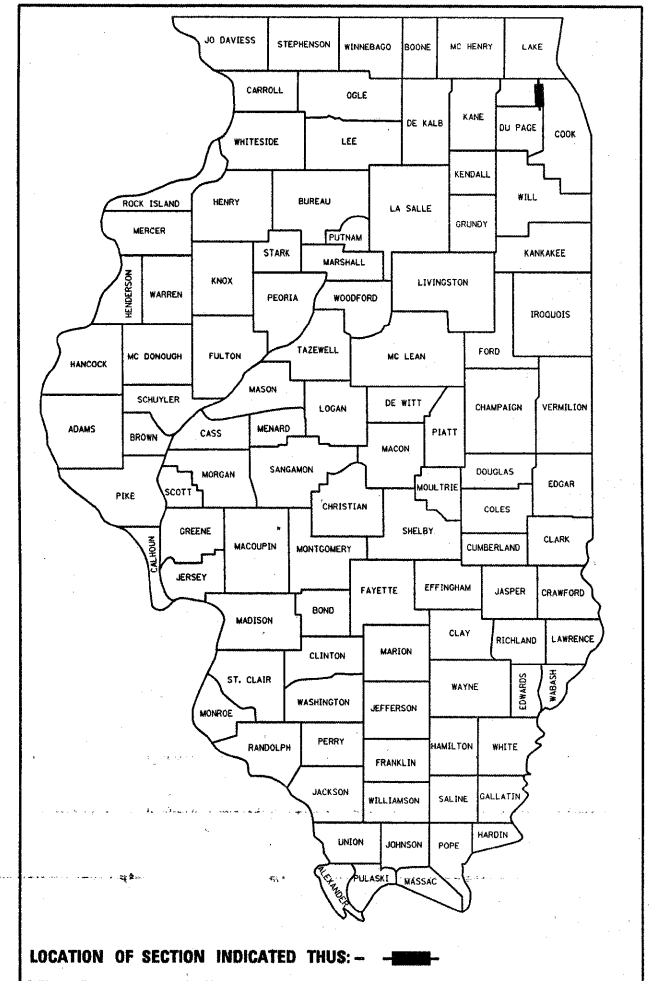
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-I	COOK	44 *	1
ILLINOIS			CONTRACT NO. 60J32	

*44 + 1 = 45

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN
THE VILLAGE OF ELK GROVE.

D-91-222-10

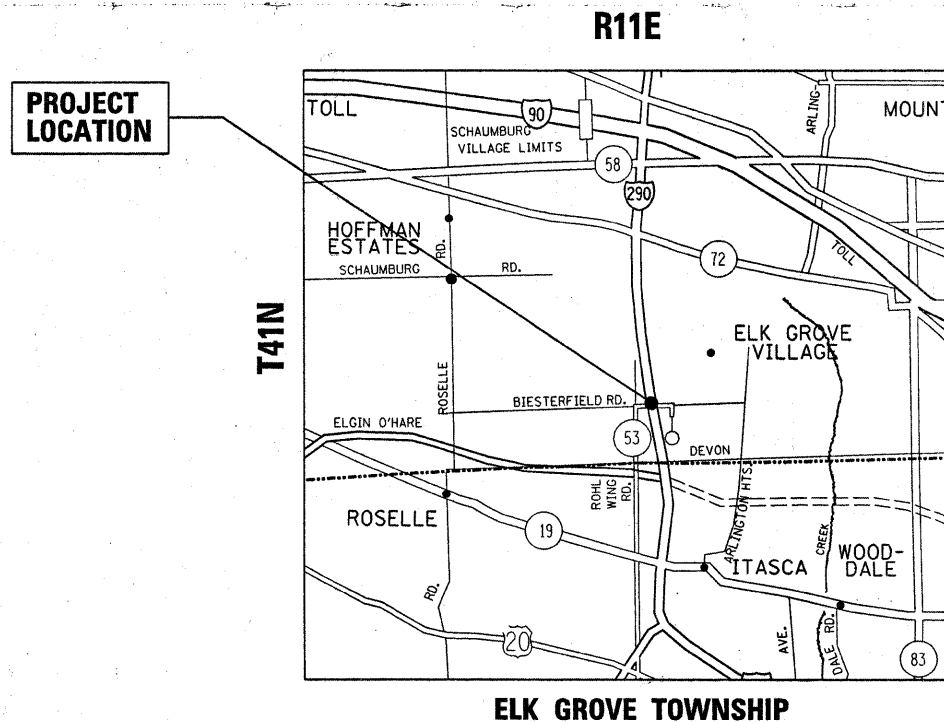


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

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

CONTRACT NO. 60J32



GROSS AND NET LENGTH OF PROJECT = 584 FEET (0.11 MILE)



TRAFFIC DATA
SPEED LIMIT = 35 MPH
2002 ADT = 11,000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 28, 2010

Diane M. O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 25 2010
Scott E. Stitt, P.E. acting ENGINEER OF DESIGN AND ENVIRONMENT

June 25 2010
Christine M. Reed DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET		
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	000001-05	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
3-5	SUMMARY OF QUANTITIES	280001-05	TEMPORARY EROSION CONTROL SYSTEMS
6-7	TYPICAL SECTIONS	420001-07	PAVEMENT JOINTS
8	SCHEDULE OF QUANTITIES (EARTHWORK)	483001-04	PCC SHOULDER
9	EXISTING ROADWAY PLAN	601001-03	SUB-SURFACE DRAINS
10	PROPOSED ROADWAY PLAN	601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
11	STAGING TYPICAL SECTIONS	606001-04	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
12-13	SUGGESTED STAGING AND TRAFFIC CONTROL	606301-04	PC CONCRETE ISLANDS AND MEDIANS
14	RAMP JOINTING PLAN	635001-01	DELINEATORS
15	EROSION CONTROL PLAN	701400-04	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
16	EROSION CONTROL NOTES	701401-05	LANE CLOSURE, FREEWAY/EXPRESSWAY
17-18	DRAINAGE AND UTILITY PLAN	701601-06	URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
19	PAVEMENT MARKING AND LANDSCAPING PLANS	701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
20-24	EXISTING & PROPOSED TRAFFIC SIGNAL PLANS	701901-01	TRAFFIC CONTROL DEVICES
25-26	EXISTING & PROPOSED LIGHTING PLANS	704001-06	TEMPORARY CONCRETE BARRIER
27	BENCHING DETAIL FOR EMBANKMENT WIDENING (BD-51)	720001-01	SIGN PANEL MOUNTING DETAILS
28	LIGHT POLE FOUNDATION 40' TO 47 1/2' M.H. 15" BOLT CIRCLE (BE 301)	720006-02	SIGN PANEL ERECTION DETAILS
29	MISCELLANEOUS ELECTRICAL DETAILS SHEET A (BE 702)	720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
29A	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE (TC-9)	886001-01	DETECTOR LOOP INSTALLATION
30	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)	886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS
31	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)		
32	PAVEMENT MARKING LETTER AND SYMBOLS FOR TRAFFIC STAGING (TC-16)		
33	TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)		
34	ARTERIAL ROAD INFORMATION SIGNING (TC-22)		
35-40	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-5)		
41-44	CROSS-SECTIONS		

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

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF ELK GROVE VILLAGE.

PRIOR TO EMBANKMENT PLACEMENT, ALL VEGETATION, LOOSE MATERIAL, AND UNSTABLE MATERIAL SHOULD BE REMOVED TO DEPTH ENCOUNTERED AND REPLACED WITH SUITABLE EMBANKMENT MATERIAL. ANY EMBANKMENT WIDENING ON EXISTING SLOPES SHOULD BE BENCHED IN ACCORDANCE WITH ARTICLE 205.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

COMED WIRES ARE NOT INSULATED AND EXTRA CAUTION AND VIGILANCE MUST BE ADHERED TO WHEN WORKING AROUND THEM. CONTRACTORS SHOULD ALWAYS USE CAUTION IN OPERATING CRANES AND OR OTHER EQUIPMENT NEAR OVERHEAD ELECTRICAL FACILITIES. THE OCCUPATIONAL HEALTH AND SAFETY ORGANIZATION (OSHA) RULES REQUIRE THAT WORKERS AND EQUIPMENT SHALL NOT APPROACH WITHIN TEN (10) FEET AWAY OF OVERHEAD ELECTRICAL EQUIPMENT WITHOUT APPROPRIATE SUPPLEMENTAL PROTECTION. PLEASE BE CERTAIN THAT ALL WORKERS ON THIS PROJECT HAVE BEEN FULLY TRAINED AND CONFORM TO OSHA RULES AND OTHER APPLICABLE GUIDELINES REGARDING WORKING SAFELY AROUND ELECTRICAL POWER LINES.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISABILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

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.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

THE RESIDENT ENGINEER SHALL CONTACT THE EXPRESSWAYS TRAFFIC CONTROL SUPERVISOR AT (847) 705-4151 A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

THE RESIDENT ENGINEER SHALL CONTACT MR. MICHAEL PALELLO, AREA EXPRESSWAYS TRAFFIC FIELD TECHNICIAN, AT (847) 705-4412 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB EXIT RAMP TO BIESTERFIELD ROAD INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pwork\PIWIDOT\KELLERS\0155790\PI14109-Design.dgn	DRAWN -	REVISED -	290			0101-311 HBK-I	COOK	44	2	
PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED -	CONTRACT NO. 60J32							
PLOT DATE = 5/7/2010	DATE -	REVISED -	SCALE:			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		ROADWAY J000-2A	Y031-1F SIGNAL	Y030-1E LIGHTING	Y031-3D PREEMPTORS	100% VILLAGE OF ELK GROVE	CODE NO	ITEM	UNIT		ROADWAY J000-2A	Y031-1F SIGNAL	Y030-1E LIGHTING	Y031-3D PREEMPTORS	100% VILLAGE OF ELK GROVE
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	330	330					70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10				
20400800	FURNISHED EXCAVATION	CU YD	1281	1281					70400100	TEMPORARY CONCRETE BARRIER	FOOT	1000	1000				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	2351	2351					*72000100	SIGN PANEL - TYPE 1	SO FT	15		15			
25000210	SEEDING, CLASS 2A	ACRE	0.5	0.5					*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	800	800				
25000300	SEEDING, CLASS 3	ACRE	0.5	0.5					*78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	100	100				
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90	90					*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	50	50				
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	90	90					*78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SO FT	610	610				
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90	90					*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1400	1400				
25200200	SUPPLEMENTAL WATERING	UNIT	25	25					*78008220	POLYUREA PAVEMENT MARKING TYPE I - LINE 5"	FOOT	60	60				
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60	60					*78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	1650	1650				
28000305	TEMPORARY DITCH CHECKS	FOOT	200	200					*78008240	POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	150	150				
28000400	PERIMETER EROSION BARRIER	FOOT	800	800					*78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	500	500				
35200600	EARTH EXCAVATION	CU YD	275	275					*78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	150	150				
42000506	PORTLAND CEMENT CONCRETE PAVEMENT 10 1/4" (JOINTED)	SO YD	960	960					*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	20	20				
42001300	PROTECTIVE COAT	SO YD	1460	1460					78300100	PAVEMENT MARKING REMOVAL	SO FT	800	800				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	650	650					*81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	536		536			
44000100	PAVEMENT REMOVAL	SO YD	410	410					*81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	153		153			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	200	200					*81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	10		10			
44000600	SIDEWALK REMOVAL	SO FT	560	560					*81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	36		36			
44003100	MEDIAN REMOVAL	SO FT	2600	2600					*81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	41		41			
44004250	PAVED SHOULDER REMOVAL	SO YD	350	350					*81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	300		300			
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	190	190					*81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	519		519			
48300505	PORTLAND CEMENT CONCRETE SHOULDERS 10 1/4"	SO YD	370	370					*81400100	HANDHOLE	EACH	2		2			
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	3	3					*81400200	HEAVY-DUTY HANDHOLE	EACH	2		2			
60107600	PIPE UNDERDRAINS 4"	FOOT	800	800					*81400300	DOUBLE HANDHOLE	EACH	3		3			
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	100	100					*81603203	UNIT DUCT, 600V, 3-1C NO. 2, 1/C NO. 4 GROUND, (EPR-TYPE RHW), 1 1/2" DIA. POLYETHYLENE	FOOT	1200		1200			
60500090	REMOVING INLETS TO MAINTAIN FLOW	EACH	1	1													
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	200	200													
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SO FT	2600	2600													
63500105	DELINEATORS	EACH	16	16													
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6													
67100100	MOBILIZATION	L SUM	1	1													
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1													

* SPECIALTY ITEMS

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB EXIT RAMP TO BIESTERFIELD ROAD SUMMARY OF QUANTITIES	F.A.T. RTE. 290	SECTION 0101-311 HBK-1	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 3		
g:\p\work\PI\DOT\KELLERS\0155790\PI4\009-Desig.dgn		DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
		CHECKED -	REVISED -			CONTRACT NO. 60J32						
		DATE -	REVISED -									

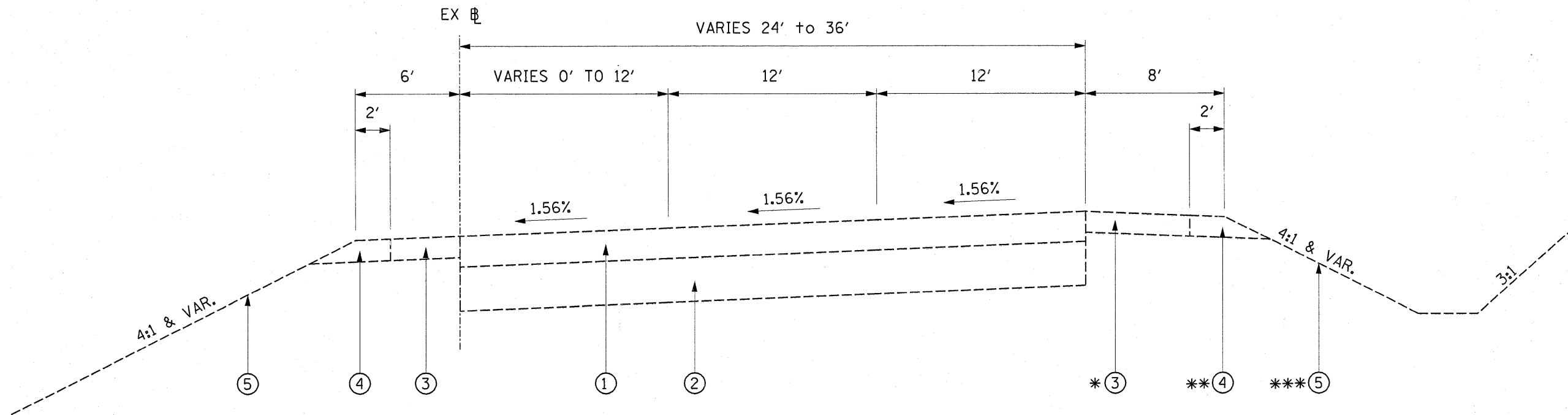
SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		ROADWAY J000-2A	YO31-IF SIGNAL	YO30-1E LIGHTING	YO31-3D PREEMPTORS 100% VILLAGE OF ELK GROVE	CODE NO	ITEM	UNIT	ROADWAY J000-2A		YO31-IF SIGNAL	YO30-1E LIGHTING	YO31-3D PREEMPTORS 100% VILLAGE OF ELK GROVE		
*81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	649		649			*88600100	DETECTOR LOOP, TYPE I	FOOT	983		983				
*83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	30			30		*88700200	LIGHT DETECTOR	EACH	3			3			
*84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	3			3		*88700300	LIGHT DETECTOR AMPLIFIER	EACH	1			1			
*85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		2			*88800100	PEDESTRIAN PUSH-BUTTON	EACH	2		2				
*85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1		1			*89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1				
*87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	527		527			*89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2216		2216				
*87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1621		1621			*89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1				
*87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3492		3492			*89502380	REMOVE EXISTING HANDHOLE	EACH	10		10				
*87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	742		742			*89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8		8				
*87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3632		3632			*X0320873	VIDEO VEHICLE DETECTOR	EACH	1		1				
*87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	346		346			X0322256	TEMPORARY INFORMATION SIGNING	SO FT	104	104					
*87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2		2			*X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	9		9				
*87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1		1			*X0323797	PAINT NEW TRAFFIC SIGNAL POST	EACH	4			4			
*87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1		1			*X0325134	WIRELESS INTERCONNECT (COMPLETE)	EACH	1		1				
*87700404	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.	EACH	1		1			*X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1				
*87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16		16			*X0325742	CONCRETE FOUNDATION, TYPE E (SPECIAL)	FOOT	25		25				
*87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4		4			X7030104	WET TEMPORARY PAVEMENT MARKING TAPE, TYPE III, 4 INCH	FOOT	1200	1200					
*87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21		21			X7030106	WET TEMPORARY PAVEMENT MARKING TAPE TYPE III, 6 INCH	FOOT	300	300					
*88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7		7			X7030124	WET TEMPORARY PAVEMENT MARKING TAPE, TYPE III, 24 INCH	FOOT	50	50					
*88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1		1			X7030120	WET TEMPORARY PAVEMENT MARKING TAPE, TYPE III, LETTERS AND SYMBOLS	SO FT	100	100					
*88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2		2			*X0326616	PAINT NEW MAST ARM AND POLE, 40 FT. AND OVER	EACH	1			1			
*88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1		1			X0712400	TEMPORARY PAVEMENT	SO YD	290	290					
*88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1		1			31200502	STABILIZED SUBBASE - HOT-MIX ASPHALT, 4 1/2"	SO YD	1330	1330					
*88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		2			X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1					
*88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9		9			*X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1		1				
*88500100	INDUCTIVE LOOP DETECTOR	EACH	10		10			*X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1		1				
								*X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1211		1211				
								*X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	1094			1094			
								*XX004913	REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	1984		1984				
								*X006937	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	3			3			

* SPECIALTY ITEMS

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB EXIT RAMP TO BIESTERFIELD ROAD SUMMARY OF QUANTITIES				F.A.I. RTE. 290	SECTION 0101-311 HBK-1	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 4
Plot Scale = 50/2000' = 1/40" = 1" = 40'	PLOT DATE = 5/7/2010	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		CHECKED -	REVISED -		CONTRACT NO. 60J32								
		DATE -	REVISED -										

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	ROADWAY J000-2A	Y031-1F SIGNAL	Y030-1E LIGHTING	Y031-3D PREEMPTORS	100% VILLAGE OF ELK GROVE	CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	ROADWAY J000-2A	Y031-1F SIGNAL	Y030-1E LIGHTING	Y031-3D PREEMPTORS	100% VILLAGE OF ELK GROVE
Z0001050	AGGREGATE SUBGRADE 12"	SO YD	1330	1330													
Z0018400	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	1	1													
Z0018913	DRILL AND GROUT #8 TIE BARS	EACH	400	400													
*87702435	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 28 FT. AND 62 FT.	EACH	1		1												
*X0326970	PAINT NEW DUAL MAST ARMS AND POLE, MAST HEIGHT 40 FT. AND OVER	EACH	1				1										
X0325702	NIGHTTIME WORKZONE LIGHTING	L SUM	1	1													
* SPECIALTY ITEMS																	

Rev.



EXISTING TYPICAL SECTION
I-290
SB EXIT RAMP TO BIESTERFIELD ROAD

STA 102+33 TO STA 108+17

- * TO BE REMOVED
- ** TO BE REMOVED AS UNSUITABLE MATERIAL
- *** TOP 6" LAYER SHALL BE REMOVED AS UNSUITABLE MATERIAL

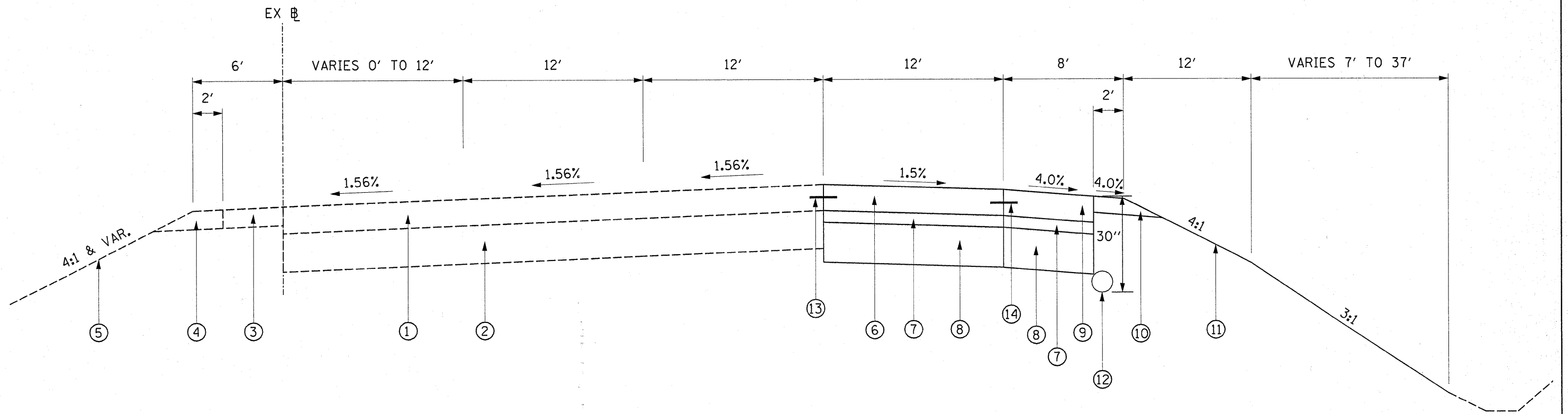
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE TYPE	AIR VOIDS (%)
TEMP PAVEMENT	*TEMP PAVEMENT, (BINDER IL-19.0 MM), 11"	4% @ 50 GYR
STABILIZED SUBBASE	STABILIZED SUBBASE - HMA, 4 1/2"	2% @ 30 GYR

*TEMP PAVEMENT SHALL BE INSTALLED IN (3) LIFTS.
 THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
 FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

LEGEND

- ① EXISTING JOINTED PCC PAVEMENT, 10 1/4"
- ② EXISTING AGGREGATE SUBGRADE, 12"
- ③ EXISTING HOT-MIX ASPHALT SHOULDER, 8"
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING PARKWAY
- ⑥ PROP. JOINTED PCC PAVEMENT WIDENING, 10 1/4"
- ⑦ PROP. STABILIZED SUBBASE - HMA, 4 1/2"
- ⑧ PROP. AGGREGATE SUBGRADE, 12"
- ⑨ PROP. PCC SHOULDER, 10 1/4"
- ⑩ PROP. AGGREGATE SHOULDER, TYPE B, 6"
- ⑪ TOPSOIL AND SEED (CLASS 2A SHALL BE APPLIED TO 4:1 SLOPE AND CLASS 3 SHALL BE APPLIED TO 3:1 SLOPE.)
- ⑫ PROP. PIPE UNDERDRAIN, 4"
- ⑬ PROP. TIE BAR, NO. 8 X 24, 24" SPACING
- ⑭ PROP. TIE BAR, NO. 6 X 24, 24" SPACING



PROPOSED TYPICAL SECTION
I-290
SB EXIT RAMP TO BIESTERFIELD ROAD
STA 102+33 TO STA 108+17

NOTE:

CONTRACTOR SHALL RIP OR ROUGHEN EXIST. SLOPED SURFACE PRIOR TO PLACEMENT OF NEW FILL MATERIAL. IF NEW FILL MATERIAL SLIPS WITHIN 60 DAYS OF PLACEMENT, CONTRACTOR SHALL SUPPLY NEW FILL MATERIAL AT CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL ROUGHEN NEW FILL MATERIAL PRIOR TO PLACEMENT OF TOPSOIL. IF TOPSOIL SLIPS WITHIN 60 DAYS OF PLACEMENT, CONTRACTOR SHALL SUPPLY NEW TOPSOIL AT CONTRACTOR'S EXPENSE.

TIE BARS USED TO TIE PROP. JOINTED PCC PAVEMENT INTO EXIST. PCC PAVEMENT SHALL BE PAID FOR AS DRILL AND GROUT #8 TIE BARS. TIE BARS USED TO TIE PROP. JOINTED PCC PAVEMENT INTO PROP. PCC SHOULDER SHALL BE INCIDENTAL TO COST OF JOINTED PCC PAVEMENT.

LEGEND

- ① EXISTING JOINTED PCC PAVEMENT, 10 1/4"
- ② EXISTING AGGREGATE SUBGRADE, 12"
- ③ EXISTING HOT-MIX ASPHALT SHOULDER, 8"
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING PARKWAY
- ⑥ PROP. JOINTED PCC PAVEMENT WIDENING, 10 1/4"
- ⑦ PROP. STABILIZED SUBBASE - HMA, 4 1/2"
- ⑧ PROP. AGGREGATE SUBGRADE, 12"
- ⑨ PROP. PCC SHOULDER, 10 1/4"
- ⑩ PROP. AGGREGATE SHOULDER, TYPE B, 6"
- ⑪ TOPSOIL AND SEED (CLASS 2A SHALL BE APPLIED TO 4:1 SLOPE AND CLASS 3 SHALL BE APPLIED TO 3:1 SLOPE.)
- ⑫ PROP. PIPE UNDERDRAIN, 4"
- ⑬ PROP. TIE BAR, NO. 8 X 24, 24" SPACING
- ⑭ PROP. TIE BAR, NO. 6 X 24, 24" SPACING

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB EXIT RAMP TO BIESTERFIELD ROAD EXISTING AND PROPOSED TYPICAL SECTIONS	F.A.I. RTE. 290	SECTION 0101-311 HBK-1	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 7		
cd:\pw_work\PW100T\KELLERS\0155798\VP141009-Design.dgn		DRAWN -	REVISED -			SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
		CHECKED -	REVISED -									
		DATE -	REVISED -									

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-I	COOK	44	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

EARTHWORK						
1	2	3	4	5	6	7
	EARTH EXCAVATION (CU YD)	UNSUITABLE MATERIAL (CU YD)	EMBANKMENT (CU YD)	ADJUSTMENT FOR SHRINKAGE (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	TOP SOIL FURNISH AND PLACE (SQ YD)
I-290 SB BIESTERFIELD EXIT RAMP						
I-290 (STA. 102+33 TO STA. 103+00)	14	9	24	11.9	-12.1	63
I-290 (STA. 103+00 TO STA. 104+00)	53	45	186	45.1	-140.9	342
I-290 (STA. 104+00 TO STA. 105+00)	59	65	329	50.2	-278.8	519
I-290 (STA. 105+00 TO STA. 106+00)	52	67	370	44.2	-325.8	544
I-290 (STA. 106+00 TO STA. 107+00)	52	62	342	44.2	-297.8	495
I-290 (STA. 107+00 TO STA. 108+17)	45	50	263	38.3	-224.7	388
TOTAL	275	298	1514	233.9	-1280.1	2351
<p>COLUMN 1: LOCATION FROM PLANS COLUMN 2: CUT QUANTITIES FROM CROSS SECTIONS, WHICH DOES NOT INCLUDE UNSUITABLE MATERIAL COLUMN 3: CUT MATERIAL THAT IS DETERMINED TO BE EITHER UNSTABLE OR UNSUITABLE FOR USE IN EMBANKMENT, ASSUME 6" OF UNSUITABLE MATERIAL COLUMN 4: QUANTITIES FROM CROSS SECTIONS (FILL)</p> <p>COLUMN 5: EARTH EXCAVATION THAT IS TO BE USED AS FILL MATERIAL IN THE EMBANKMENT, SHRINKAGE FACTOR WAS DETERMINED TO BE 15% COLUMN 6: COLUMN 5 - COLUMN 4, POSITIVE QUANTITY= EXTRA EXCAVATION, NEGATIVE QUANTITY= FURNISHED EXCAVATION NEEDED COLUMN 7: TOPSOIL FURNISH AND PLACE= AREA OF SEEDING AND TOPSOIL</p>						

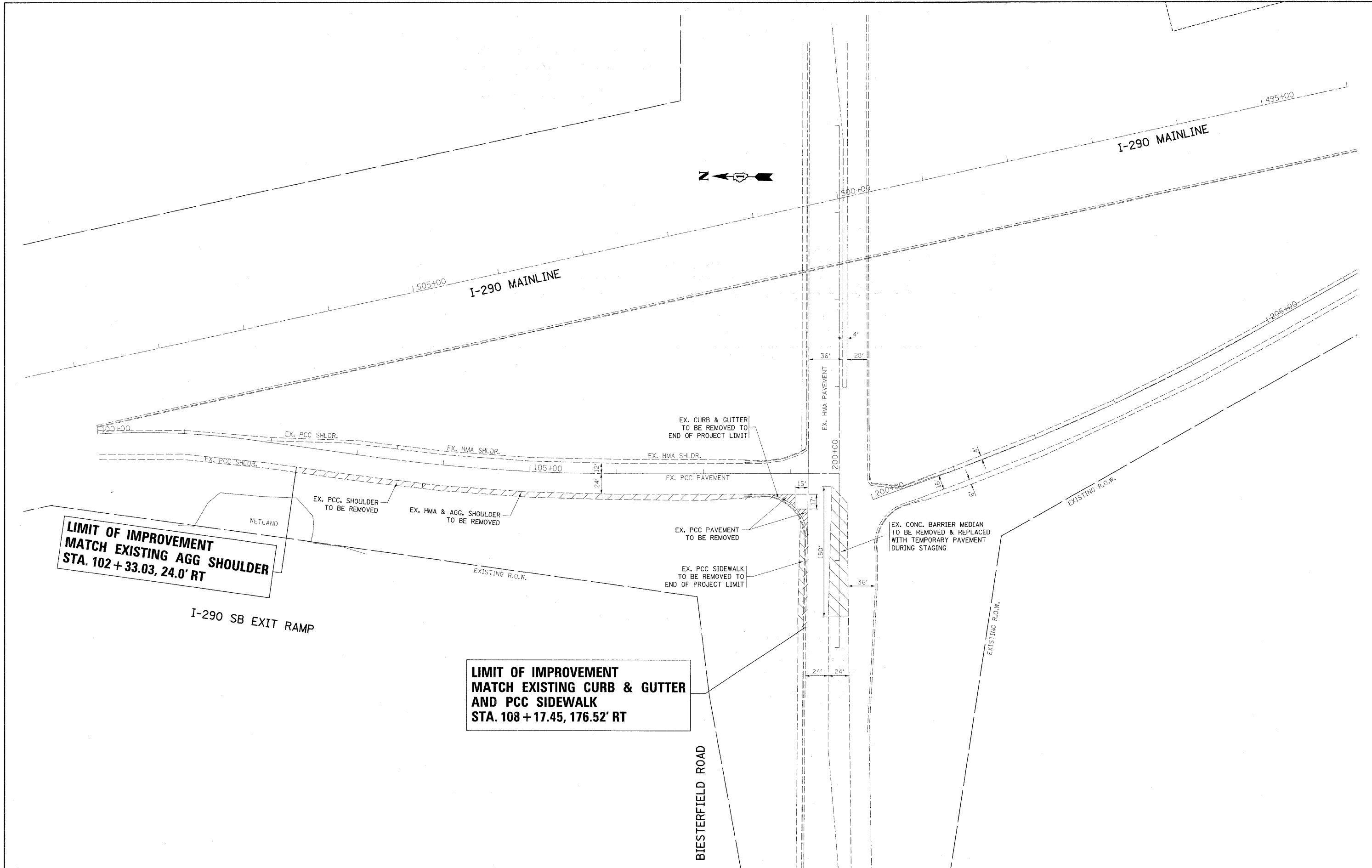
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 USER NAME = rchilz / JN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-290
SB EXIT RAMP TO BIESTERFIELD ROAD
SCHEDULE OF QUANTITIES

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____



**LIMIT OF IMPROVEMENT
MATCH EXISTING AGG SHOULDER
STA. 102 + 33.03, 24.0' RT**

I-290 SB EXIT RAMP

**LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PCC SIDEWALK
STA. 108 + 17.45, 176.52' RT**

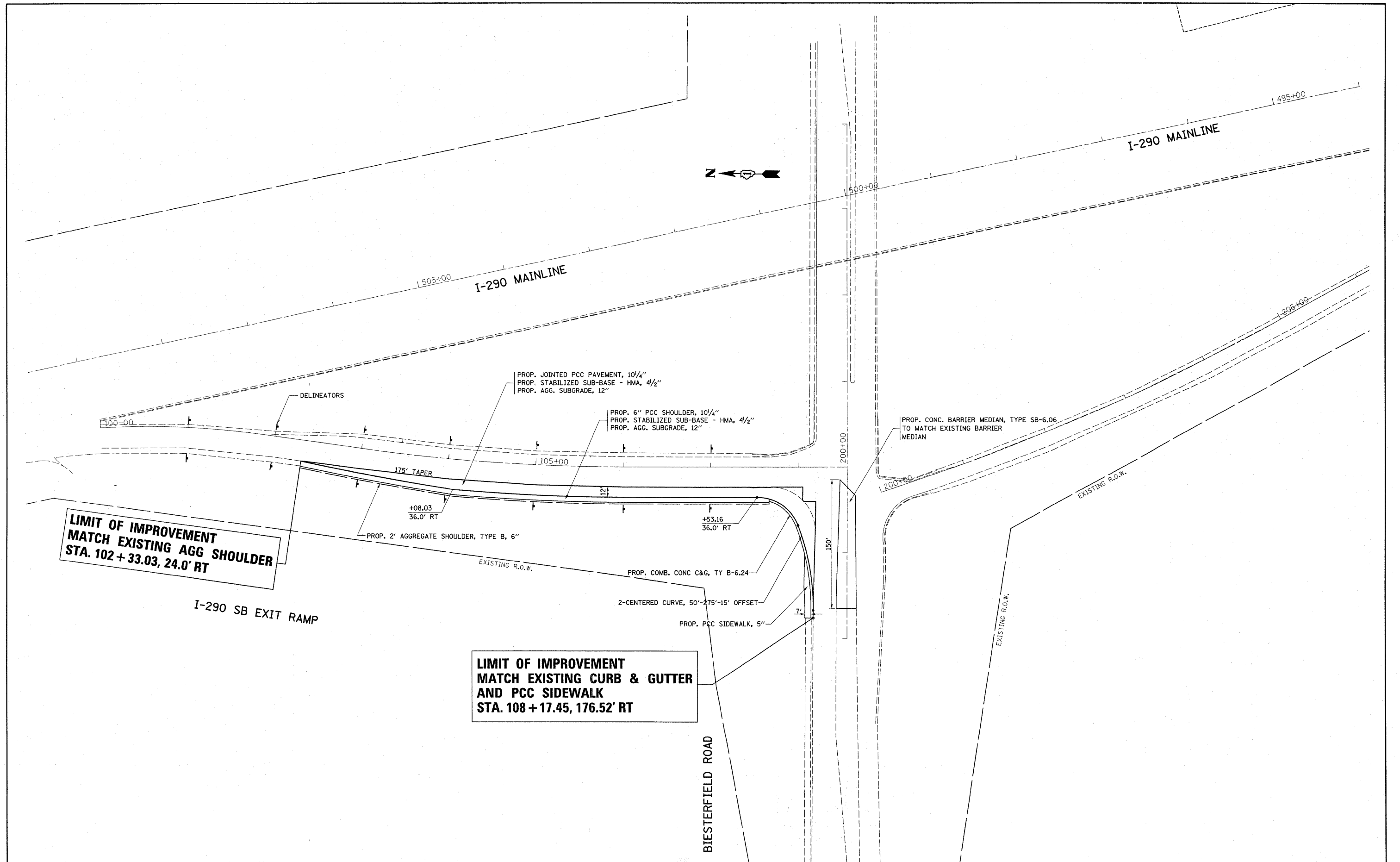
FILE NAME = F141009-shr-P1on.dgn	USER NAME = bauerdl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/5/2010	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
EXISTING ROADWAY PLAN**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE. 290	SECTION 0101-311 HBK-I	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 9
CONTRACT NO. 60J32			ILLINOIS FED. AID PROJECT	



**LIMIT OF IMPROVEMENT
MATCH EXISTING AGG SHOULDER
STA. 102 + 33.03, 24.0' RT**

I-290 SB EXIT RAMP

**LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PCC SIDEWALK
STA. 108 + 17.45, 176.52' RT**

BIESTERFIELD ROAD

FILE NAME = P141009-shr-P1a.dgn

USER NAME = bouerd1
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 5/6/2010

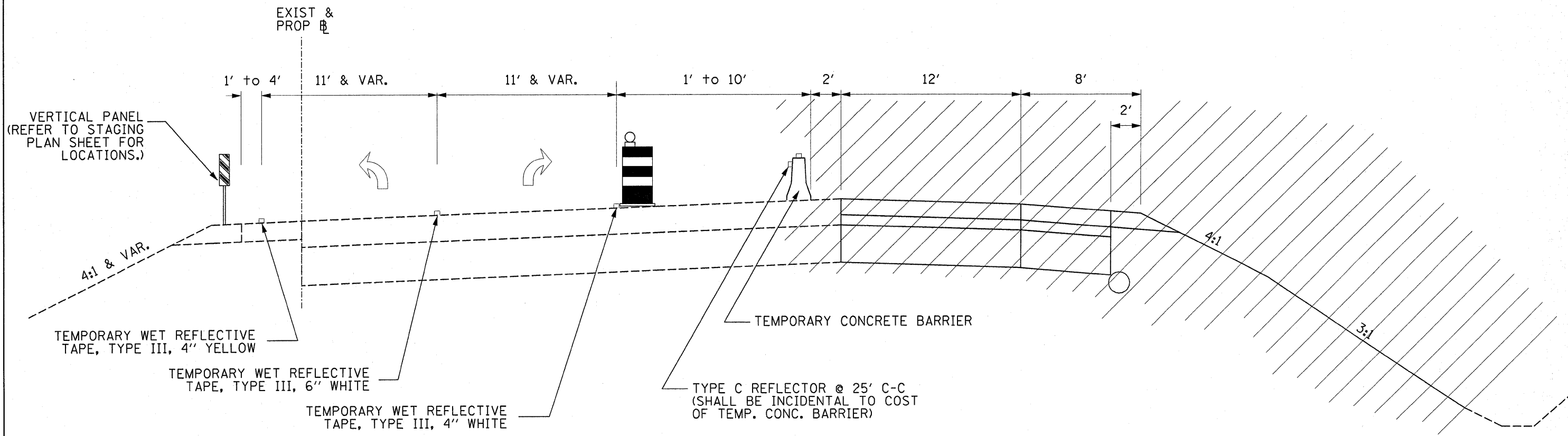
DESIGNED -
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DATE -

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REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
PROPOSED ROADWAY PLAN**
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-I	COOK	44	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J32	



STAGE I TYPICAL SECTION
I-290
SB EXIT RAMP TO BIESTERFIELD ROAD

PRE-STAGE

1. REMOVE 150' OF EXIST. CONC. BARRIER MEDIAN ALONG BIESTERFIELD ROAD AS SHOWN ON EX. ROADWAY PLAN SHEET. REPLACE WITH TEMPORARY PAVEMENT AND STRIPE ACCORDING TO STAGE I CONSTRUCTION PLAN SHEET.
2. THE ABOVE WORK MAY BE DONE USING TEMPORARY DAY TIME LANE CLOSURE AND MUST BE COMPLETED PRIOR TO BEGINNING ANY WORK ON THE RAMP.

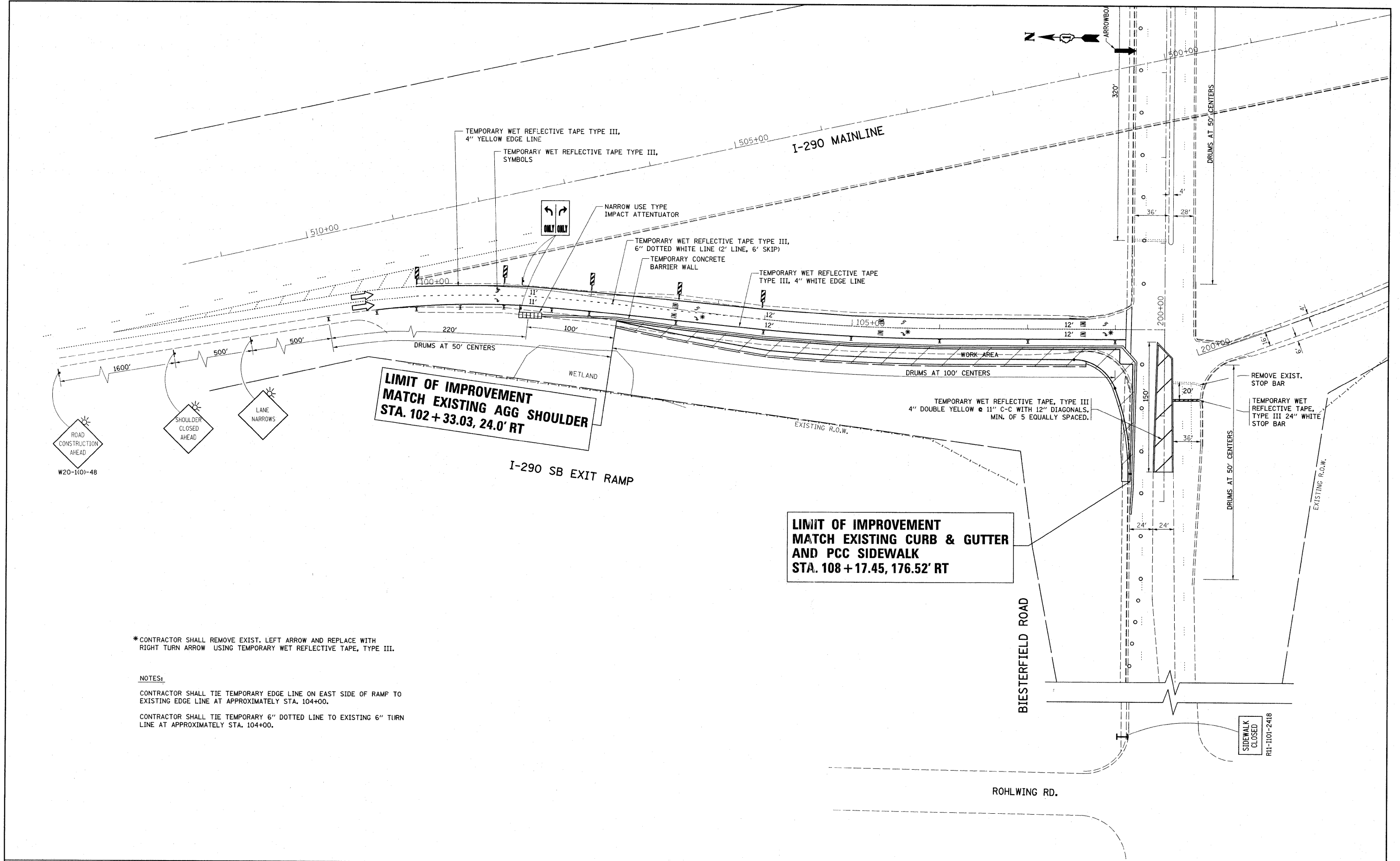
STAGE I

1. TWO 11' MIN. LANES MUST BE MAINTAINED AT ALL TIMES THROUGHOUT ENTIRE LENGTH OF RAMP.
2. AFTER COMPLETION OF ALL RAMP WORK AND ALL LANES ARE OPEN TO TRAFFIC, REMOVE TEMPORARY PAVEMENT IN MEDIAN AND CONSTRUCT CONC. BARRIER MEDIAN TO MATCH EXISTING. THIS WORK MAY BE DONE USING TEMPORARY DAY TIME LANE CLOSURE.

GENERAL NOTES

1. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE SPECIAL PROVISIONS, STATE STANDARDS, STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
2. TYPE II BARRICADES/DRUMS SHALL BE EQUIPPED WITH MONO-DIRECTIONAL STEADY BURN LIGHTS AND SHALL BE PLACED ALONG THE PROPOSED WORK ZONE AND WITHIN TAPER SECTIONS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL.
4. THE FURNISHING, INSTALLING AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE STANDARD SPECIFICATIONS. ALL CONFLICTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
5. ADDITIONAL SIGNS WILL BE PAID UNDER THE ITEM X0322256, TEMPORARY INFORMATION SIGNING.

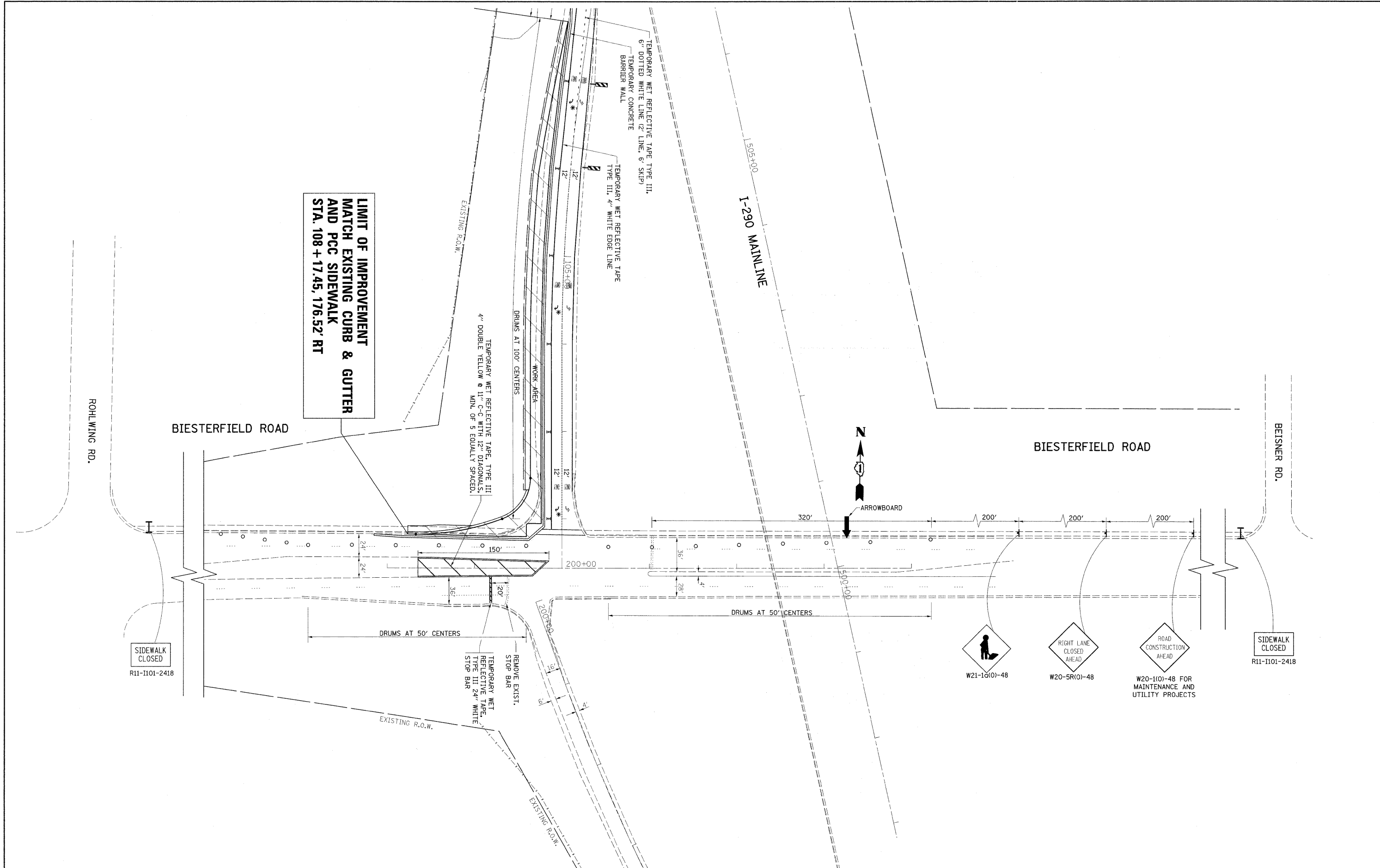
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PLOT SCALE = 50,000 / IN.	CHECKED -	REVISED -									
PLOT DATE = 5/7/2010	DATE -	REVISED -									



* CONTRACTOR SHALL REMOVE EXIST. LEFT ARROW AND REPLACE WITH RIGHT TURN ARROW USING TEMPORARY WET REFLECTIVE TAPE, TYPE III.

NOTES:
 CONTRACTOR SHALL TIE TEMPORARY EDGE LINE ON EAST SIDE OF RAMP TO EXISTING EDGE LINE AT APPROXIMATELY STA. 104+00.
 CONTRACTOR SHALL TIE TEMPORARY 6" DOTTED LINE TO EXISTING 6" TURN LINE AT APPROXIMATELY STA. 104+00.

FILE NAME = P1412029-sh1-staging1.dgn	USER NAME = bauerdl	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP STAGE I CONSTRUCTION PLAN	F.A.I. RTE. 290	SECTION 0101-311 HBK-1	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 12		
PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -	SCALE: 1" = 50'			SHEET NO. OF SHEETS	STA. 100+00.00 TO STA. 108+56.26	CONTRACT NO. 60J32		ILLINOIS FED. AID PROJECT		
PLOT DATE = 5/6/2018	DATE -	REVISED -										



**LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PC SIDEWALK
STA. 108 + 17.45, 176.52' RT**

SIDEWALK
CLOSED
R11-1101-2418

SIDEWALK
CLOSED
R11-1101-2418

FILE NAME = P141029-sh1-staging1.dgn
USER NAME = bouerd1

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

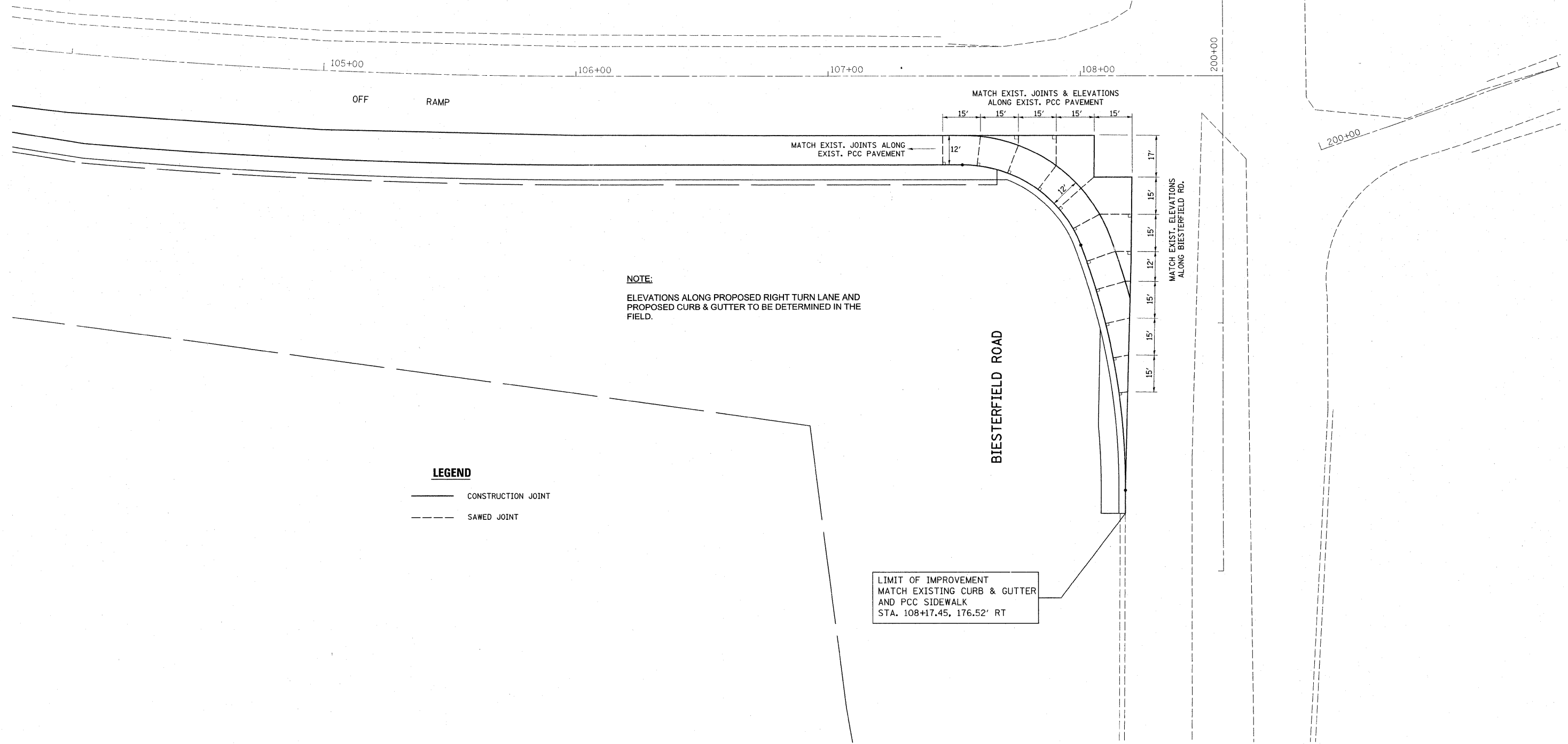
**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
STAGE I CONSTRUCTION PLAN**

SCALE: 1"= 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-I	COOK	44	13
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J32	



I-290 SB EXIT RAMP



NOTE:
ELEVATIONS ALONG PROPOSED RIGHT TURN LANE AND PROPOSED CURB & GUTTER TO BE DETERMINED IN THE FIELD.

LEGEND

- CONSTRUCTION JOINT
- - - SAWED JOINT

LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PCC SIDEWALK
STA. 108+17.45, 176.52' RT

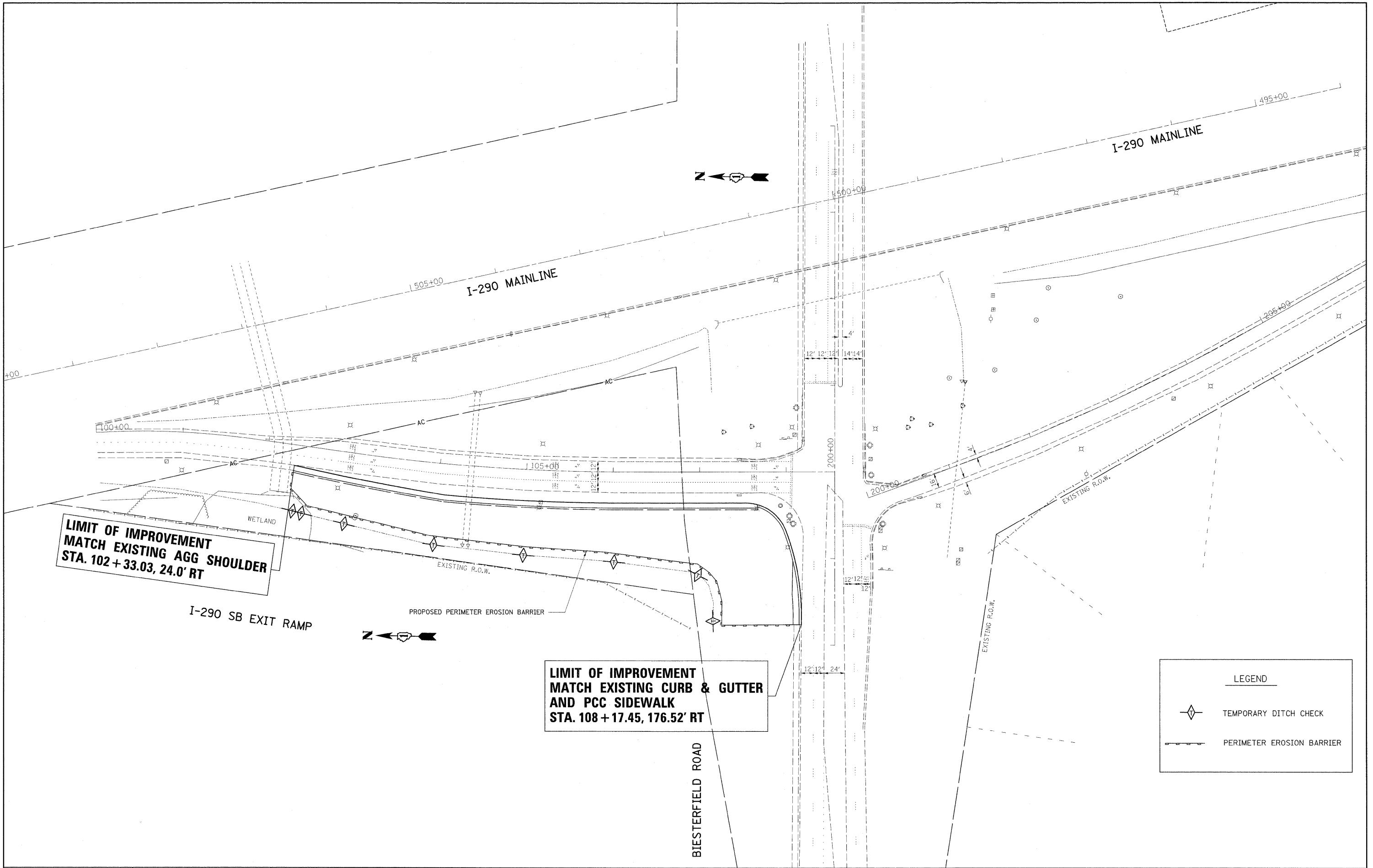
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
JOINT DETAIL**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	14
CONTRACT NO. 60J32			ILLINOIS FED. AID PROJECT	



FILE NAME =
PI41009-shr-eros.dgn

USER NAME = lszehrf
PLOT SCALE = 50,0000' / IN.
PLOT DATE = 3/17/2010

DESIGNED -
DRAWN -
CHECKED -
DATE -

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REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
EROSION CONTROL PLAN**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	15
				CONTRACT NO. 60J32
ILLINOIS FED. AID PROJECT				

THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER STRIPPING OF EXISTING VEGETATION.

NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE SITE OTHER THAN THROUGH SEDIMENTATION/STILLING BASINS. THE CONTRACTOR WILL ADJUST HIS OPERATIONS AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.

THE QUANTITIES SHOWN FOR TEMPORARY DITCH CHECKS ARE MEASURED AS EACH, REGARDLESS OF TYPE OR CONFIGURATION USED.

THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH SILT FENCE AND SHALL BE PAID FOR AS PERIMETER EROSION BARRIER, EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AND ENGINEER WITHIN 24 HOURS OR ANY STORM EXCEEDING 0.5 INCH OF PRECIPITATION.

STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 21 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 95-60.

THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS WITHIN THE CONTRACT LIMITS EACH WEEK, REGARDLESS OF WEATHER CONDITIONS OR PROGRESS OF THE WORK. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ERODIBLE EMBANKMENT AND EXCAVATION AREAS WHERE WORK IS IN PROGRESS SHALL BE INCLUDED ON THE AREAS TO BE SEEDED. SEE SPECIAL PROVISION FOR TEMPORARY EROSION CONTROL SEEDING.

REFER TO LANDSCAPING PLAN FOR AREA TO BE SEEDED.

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.

A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY AND CLEANED WHEN NECESSARY.

ALL EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND AFTER EACH 1/2 " RAIN EVENT.

PRIORITY SHALL BE GIVEN TO THE COMPLETION AND STABILIZATION OF THE DETENTION AREAS. WORK IN THESE AREAS SHALL NOT BE PROLONGED IN ATTEMPT THAT ALL FINAL GRADING AND STABILIZATION CAN TAKE PLACE AT ONE TIME.

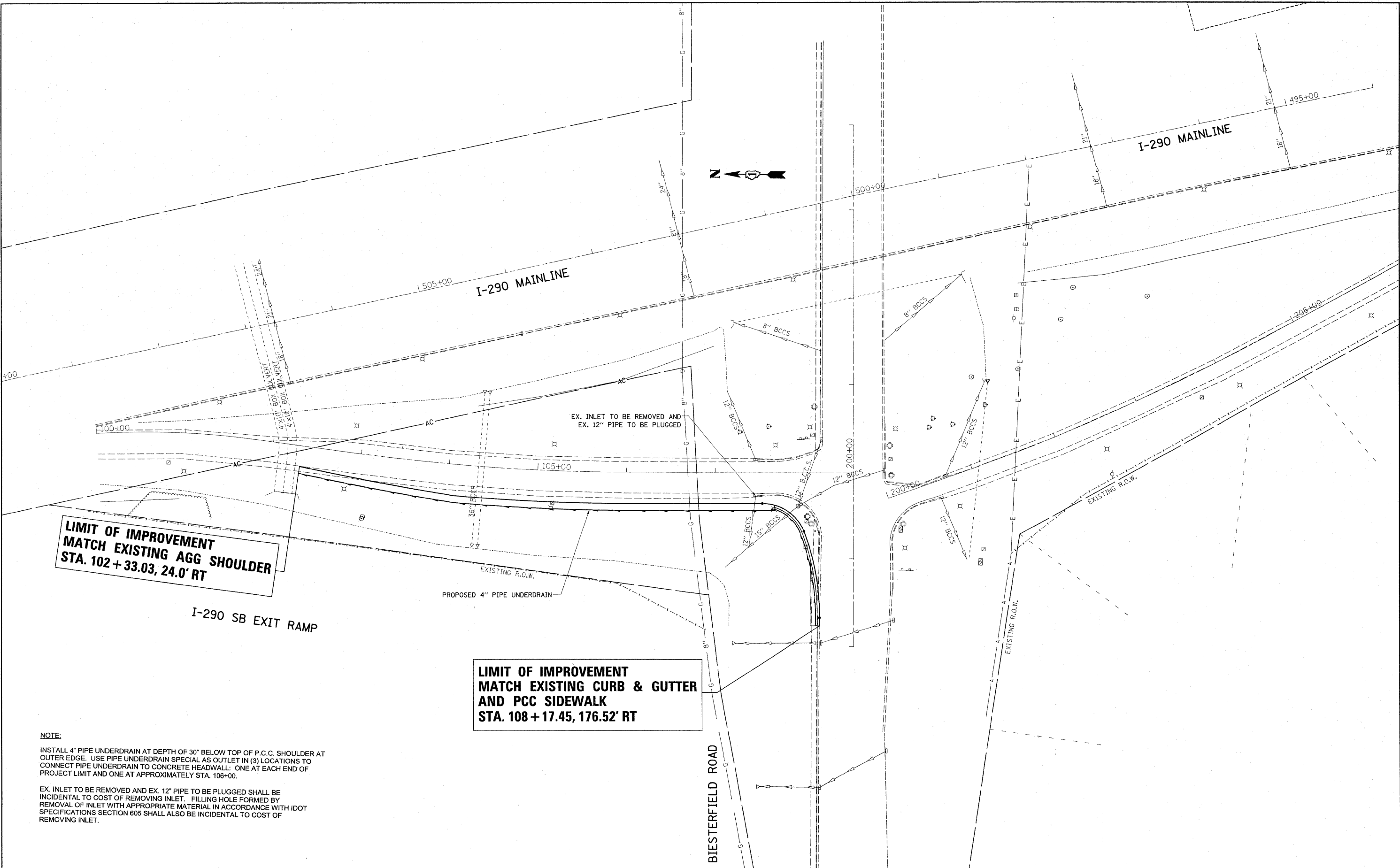
THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL.

SILT FENCE IS TO BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF THE STORM WATER FACILITIES AND IS TO REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.

IN AREAS WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN 7 DAYS OF COMPLETION.

COMPLETED SLOPES SHALL BE SEEDED AND MULCHED (OR BLANKETED, IF APPLICABLE) AS THE EXCAVATION PROCEEDS TO THE EXTENT CONSIDERED DESIRABLE AND PRACTICAL. PERMANENT SEEDING SHALL BE USED WHENEVER POSSIBLE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME. NO WORK SHALL BE PERFORMED IN FLOWING WATER. WATER IN AND NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW. THE STREAM BANKS SHOULD BE STABILIZED AT THE END OF EACH DAY. ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB EXIT RAMP TO BIESTERFIELD ROAD EROSION CONTROL NOTES	F.A.I. RTE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\FWIDOT\KELLERS\0155790\PI1009-Design.dgn	DRAWN -	REVISED -	290			0101-311 HBK-I	COOK	44	16	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 60J32							
PLOT DATE = 5/7/2010	DATE -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
					SCALE:	SHEET NO. OF SHEETS		STA. TO STA.		



**LIMIT OF IMPROVEMENT
MATCH EXISTING AGG SHOULDER
STA. 102 + 33.03, 24.0' RT**

**LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PCC SIDEWALK
STA. 108 + 17.45, 176.52' RT**

NOTE:
INSTALL 4" PIPE UNDERDRAIN AT DEPTH OF 30" BELOW TOP OF P.C.C. SHOULDER AT OUTER EDGE. USE PIPE UNDERDRAIN SPECIAL AS OUTLET IN (3) LOCATIONS TO CONNECT PIPE UNDERDRAIN TO CONCRETE HEADWALL: ONE AT EACH END OF PROJECT LIMIT AND ONE AT APPROXIMATELY STA. 106+00.

EX. INLET TO BE REMOVED AND EX. 12" PIPE TO BE PLUGGED SHALL BE INCIDENTAL TO COST OF REMOVING INLET. FILLING HOLE FORMED BY REMOVAL OF INLET WITH APPROPRIATE MATERIAL IN ACCORDANCE WITH IDOT SPECIFICATIONS SECTION 605 SHALL ALSO BE INCIDENTAL TO COST OF REMOVING INLET.

FILE NAME = P141029-shd-drain.dgn	USER NAME = bwardl	DESIGNED - DRAWN -	REVISED - REVISED -
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/6/2018	DATE -	REVISED -

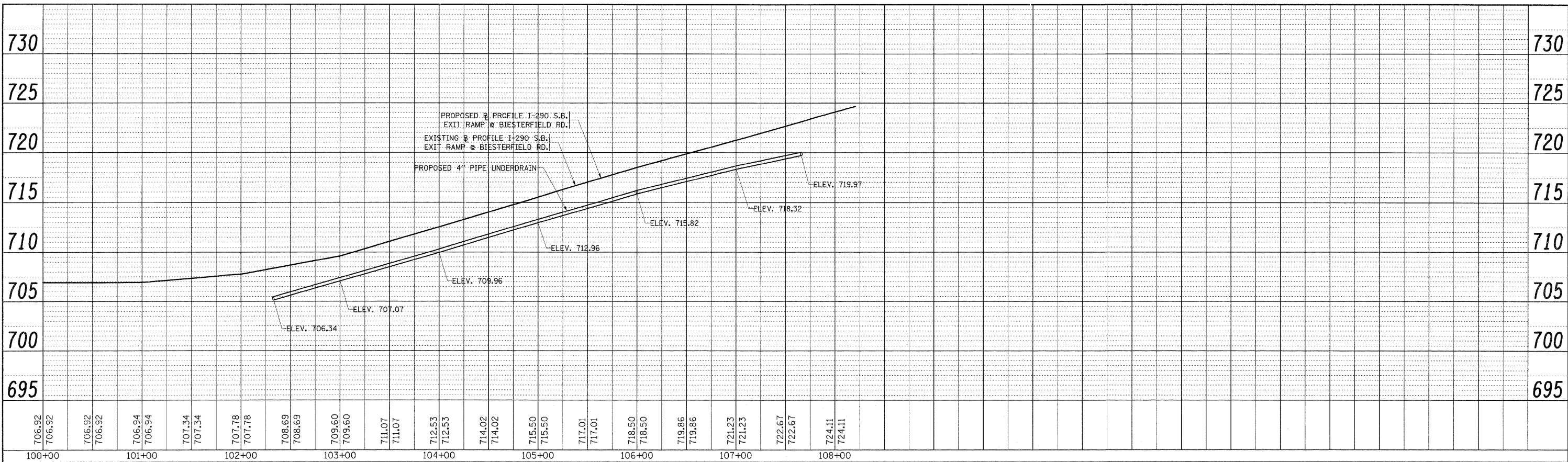
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
DRAINAGE & UTILITY PLAN**

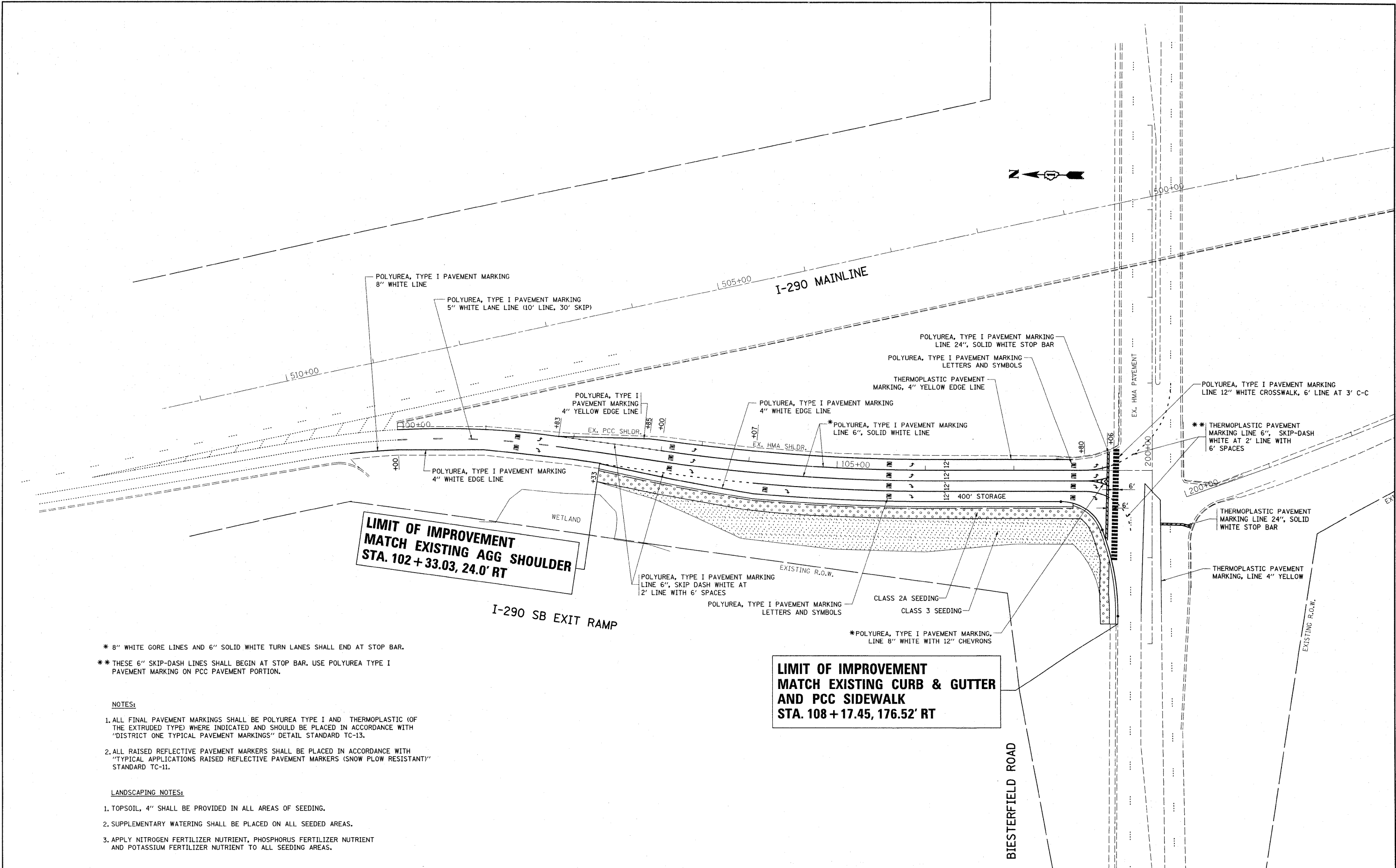
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE. 290	SECTION 0101-311 HBK-I	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 17
				CONTRACT NO. 60J32
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
NO. _____	BY _____	_____
NOTE BOOK	PLOTTED	
NO. _____	DATE _____	
	REVISIONS CHECKED	
	CADD FILE NAME	



PROFILE	SURVEYED	DATE
NO. _____	BY _____	_____
NOTE BOOK	PLOTTED	
NO. _____	DATE _____	
	REVISIONS CHECKED	
	STRUCTURE NOTATIONS CHKD	



**LIMIT OF IMPROVEMENT
MATCH EXISTING AGG SHOULDER
STA. 102 + 33.03, 24.0' RT**

**LIMIT OF IMPROVEMENT
MATCH EXISTING CURB & GUTTER
AND PCC SIDEWALK
STA. 108 + 17.45, 176.52' RT**

* 8" WHITE GORE LINES AND 6" SOLID WHITE TURN LANES SHALL END AT STOP BAR.
** THESE 6" SKIP-DASH LINES SHALL BEGIN AT STOP BAR. USE POLYUREA TYPE I PAVEMENT MARKING ON PCC PAVEMENT PORTION.

NOTES:

1. ALL FINAL PAVEMENT MARKINGS SHALL BE POLYUREA TYPE I AND THERMOPLASTIC (OF THE EXTRUDED TYPE) WHERE INDICATED AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL STANDARD TC-13.
2. ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)" STANDARD TC-11.

LANDSCAPING NOTES:

1. TOPSOIL, 4" SHALL BE PROVIDED IN ALL AREAS OF SEEDING.
2. SUPPLEMENTARY WATERING SHALL BE PLACED ON ALL SEEDED AREAS.
3. APPLY NITROGEN FERTILIZER NUTRIENT, PHOSPHORUS FERTILIZER NUTRIENT AND POTASSIUM FERTILIZER NUTRIENT TO ALL SEEDING AREAS.

FILE NAME =	USER NAME = bauerdl
PL41003-sht-pmk.dgn	

DESIGNED -	REVISED -
DRAWN -	REVISED -
PLOT SCALE = 50.0000' / IN.	REVISED -
PLOT DATE = 5/6/2010	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 @ BIESTERFIELD SOUTHBOUND EXIT RAMP
PAVEMENT MARKING & LANDSCAPING PLAN**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. 100+00.00 TO STA. 108+56.26

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-I	COOK	44	19
			CONTRACT NO. 60J32	
ILLINOIS FED. AID PROJECT				

NOTES FOR TEMPORARY TRAFFIC SIGNALS

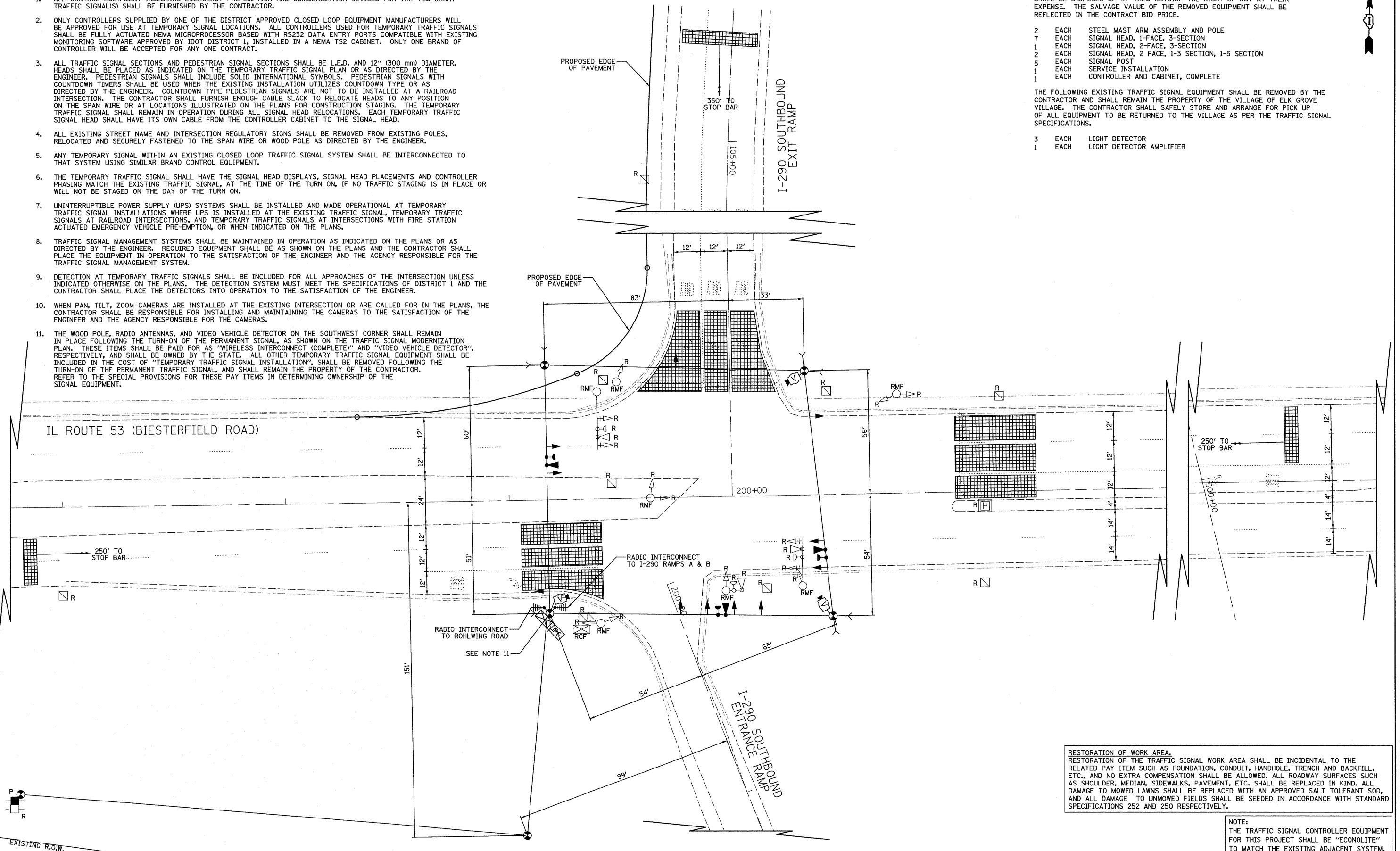
- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE L.E.D. AND 12" (300 mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
- THE WOOD POLE, RADIO ANTENNAS, AND VIDEO VEHICLE DETECTOR ON THE SOUTHWEST CORNER SHALL REMAIN IN PLACE FOLLOWING THE TURN-ON OF THE PERMANENT SIGNAL, AS SHOWN ON THE TRAFFIC SIGNAL MODERNIZATION PLAN. THESE ITEMS SHALL BE PAID FOR AS "WIRELESS INTERCONNECT (COMPLETE)" AND "VIDEO VEHICLE DETECTOR", RESPECTIVELY, AND SHALL BE OWNED BY THE STATE. ALL OTHER TEMPORARY TRAFFIC SIGNAL EQUIPMENT SHALL BE INCLUDED IN THE COST OF "TEMPORARY TRAFFIC SIGNAL INSTALLATION", SHALL BE REMOVED FOLLOWING THE TURN-ON OF THE PERMANENT TRAFFIC SIGNAL, AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR. REFER TO THE SPECIAL PROVISIONS FOR THESE PAY ITEMS IN DETERMINING OWNERSHIP OF THE SIGNAL EQUIPMENT.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- | | | |
|---|------|---|
| 2 | EACH | STEEL MAST ARM ASSEMBLY AND POLE |
| 7 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION |
| 1 | EACH | SIGNAL HEAD, 2-FACE, 3-SECTION |
| 2 | EACH | SIGNAL HEAD, 2 FACE, 1-3 SECTION, 1-5 SECTION |
| 5 | EACH | SIGNAL POST |
| 1 | EACH | SERVICE INSTALLATION |
| 1 | EACH | CONTROLLER AND CABINET, COMPLETE |

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE VILLAGE OF ELK GROVE VILLAGE. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE VILLAGE AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- | | | |
|---|------|--------------------------|
| 3 | EACH | LIGHT DETECTOR |
| 1 | EACH | LIGHT DETECTOR AMPLIFIER |

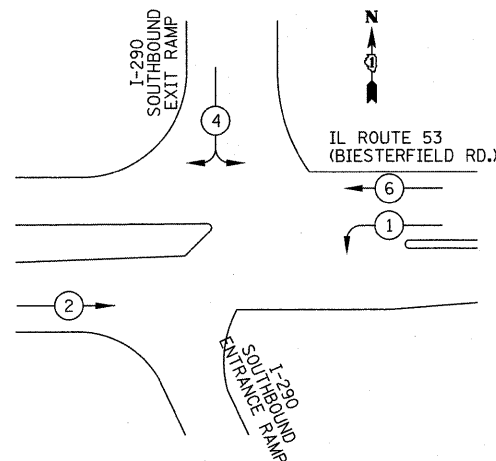


RESTORATION OF WORK AREA.
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDER, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL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

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME = #FILES#	USER NAME = #USER#	DESIGNED - BRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVAL PLAN IL ROUTE 53 (BIESTERFIELD ROAD) AT I-290 SOUTHBOUND RAMPS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = #DATE#	CHECKED - JJE	REVISED -			CONTRACT NO. 60J32					
		DATE - 04/22/2010	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE: 1" = 20'		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		

TEMPORARY CONTROLLER SEQUENCE

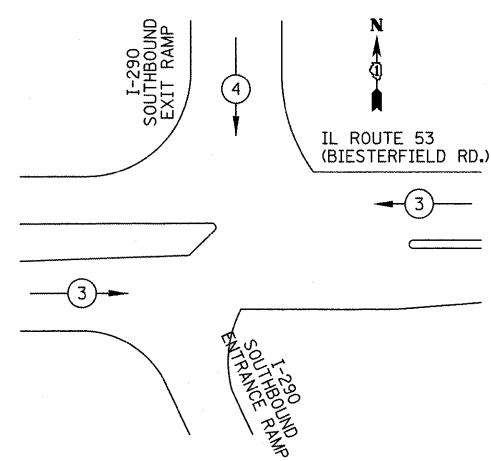


LEGEND

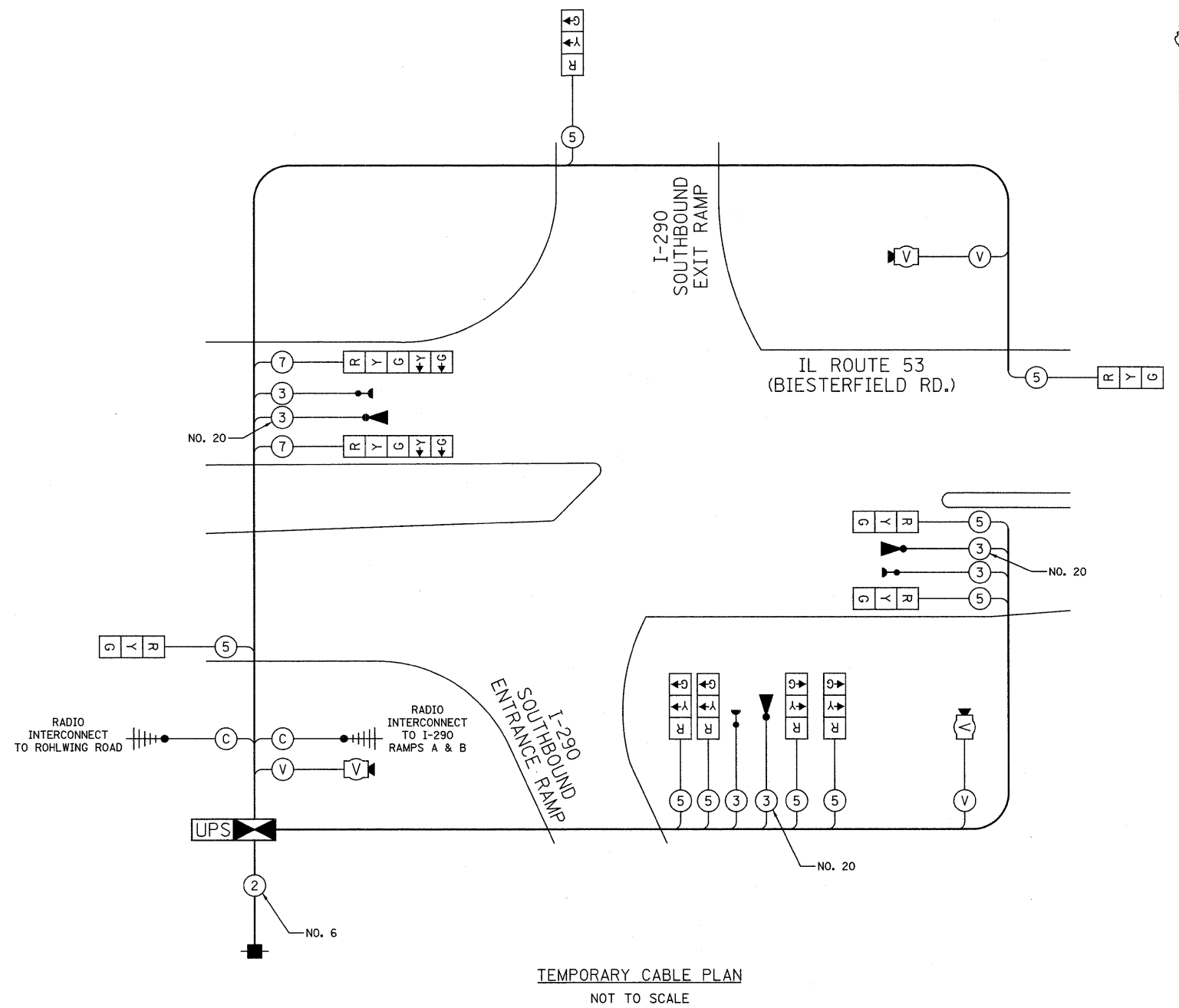
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓



TEMPORARY CABLE PLAN
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS*	WATTAGE		% OPERATION	
SIGNAL (RED)	11	INCAND.	17	0.50	94
(YELLOW)	11		25	0.25	69
(GREEN)	11		15	0.25	42
ARROW	4		12	0.10	5
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		150	1.00	150
FLASHER				0.50	
TOTAL =					460

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096
CONTACT: ELLIE SARALLO
PHONE: (630) 424-5124
COMPANY: COM ED

FILE NAME =	USER NAME = #USER#	DESIGNED - BRD	REVISED -
#FILES#		DRAWN - OJT	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - JJE	REVISED -
	PLOT DATE = #DATE#	DATE - 04/22/2010	REVISED -

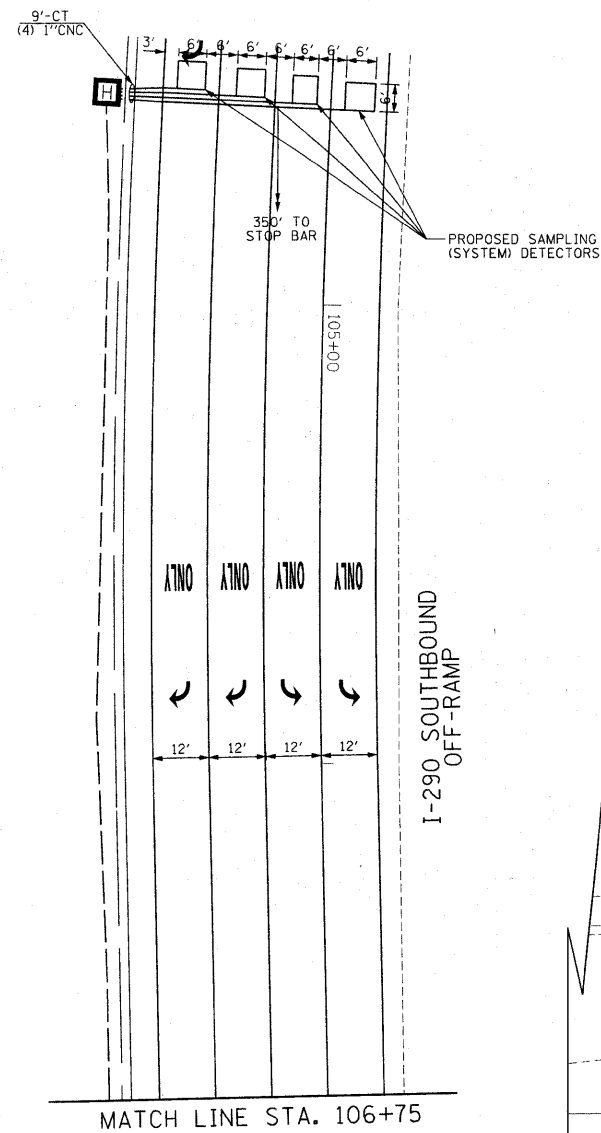
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL ROUTE 53 (BIESTERFIELD ROAD) AT I-290 SOUTHBOUND RAMPS
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	21
CONTRACT NO. 60J32				

ILLINOIS FED. AID PROJECT

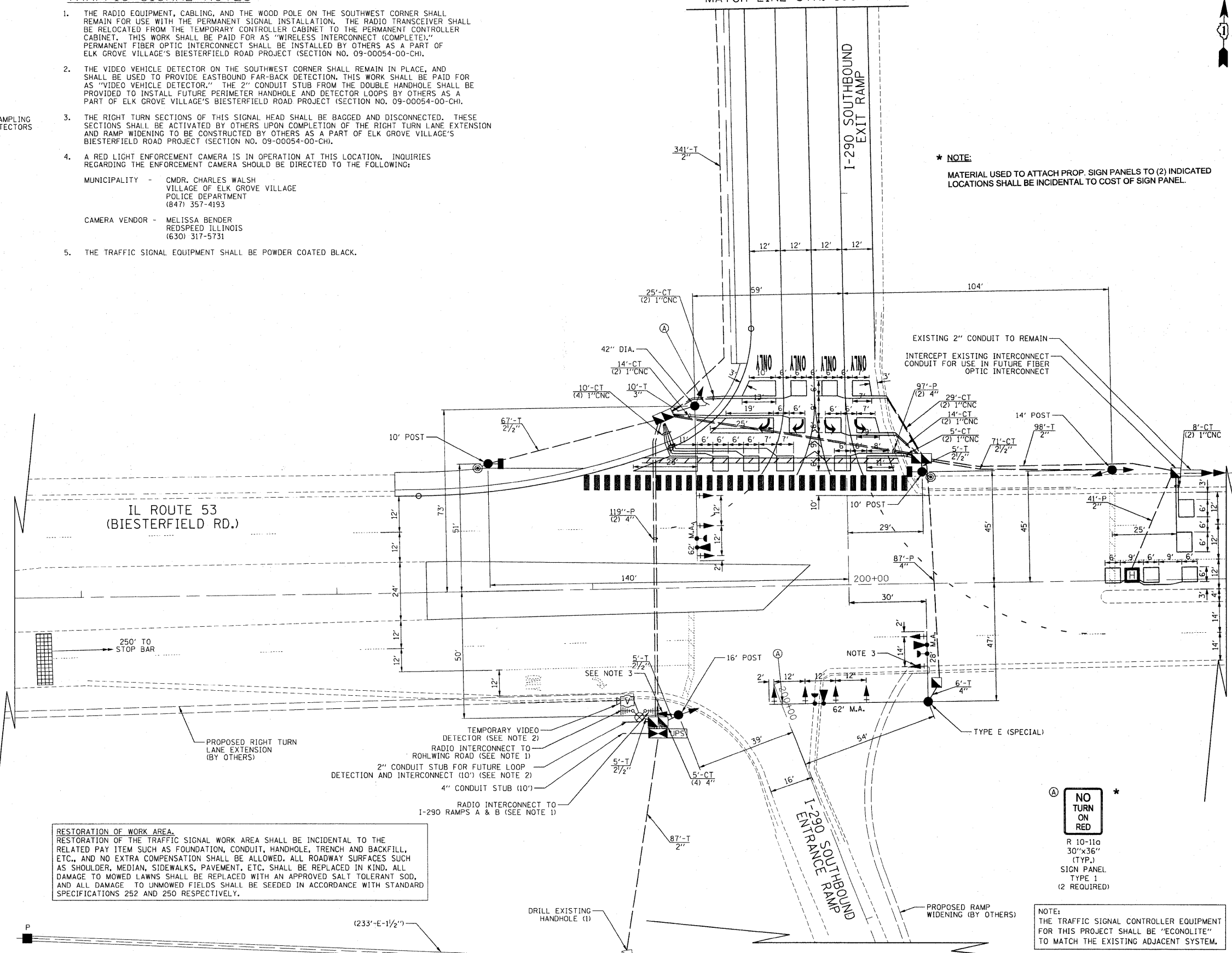
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT
FOR THIS PROJECT SHALL BE "ECONOLITE"
TO MATCH THE EXISTING ADJACENT SYSTEM.



TRAFFIC SIGNAL NOTES

1. THE RADIO EQUIPMENT, CABLING, AND THE WOOD POLE ON THE SOUTHWEST CORNER SHALL REMAIN FOR USE WITH THE PERMANENT SIGNAL INSTALLATION. THE RADIO TRANSCIVER SHALL BE RELOCATED FROM THE TEMPORARY CONTROLLER CABINET TO THE PERMANENT CONTROLLER CABINET. THIS WORK SHALL BE PAID FOR AS "WIRELESS INTERCONNECT (COMPLETE)." PERMANENT FIBER OPTIC INTERCONNECT SHALL BE INSTALLED BY OTHERS AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).
2. THE VIDEO VEHICLE DETECTOR ON THE SOUTHWEST CORNER SHALL REMAIN IN PLACE, AND SHALL BE USED TO PROVIDE EASTBOUND FAR-BACK DETECTION. THIS WORK SHALL BE PAID FOR AS "VIDEO VEHICLE DETECTOR." THE 2" CONDUIT STUB FROM THE DOUBLE HANDHOLE SHALL BE PROVIDED TO INSTALL FUTURE PERIMETER HANDHOLE AND DETECTOR LOOPS BY OTHERS AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).
3. THE RIGHT TURN SECTIONS OF THIS SIGNAL HEAD SHALL BE BAGGED AND DISCONNECTED. THESE SECTIONS SHALL BE ACTIVATED BY OTHERS UPON COMPLETION OF THE RIGHT TURN LANE EXTENSION AND RAMP WIDENING TO BE CONSTRUCTED BY OTHERS AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).
4. A RED LIGHT ENFORCEMENT CAMERA IS IN OPERATION AT THIS LOCATION. INQUIRIES REGARDING THE ENFORCEMENT CAMERA SHOULD BE DIRECTED TO THE FOLLOWING:
MUNICIPALITY - CMDR. CHARLES WALSH
VILLAGE OF ELK GROVE VILLAGE
POLICE DEPARTMENT
(847) 357-4193
CAMERA VENDOR - MELISSA BENDER
REDSPEED ILLINOIS
(630) 317-5731
5. THE TRAFFIC SIGNAL EQUIPMENT SHALL BE POWDER COATED BLACK.

MATCH LINE STA. 106+75



FILE NAME =	USER NAME = #USER#	DESIGNED - BRD	REVISED -
#FILES#		DRAWN - OJT	REVISED -
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	PLOT DATE = #DATE#	DATE - 05/05/2010	REVISED -

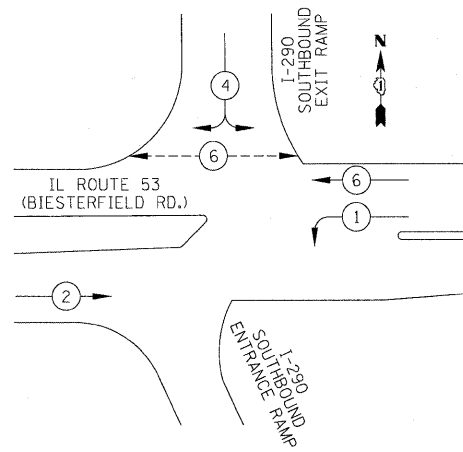
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL ROUTE 53 (BIESTERFIELD RD.) AT I-290 SOUTHBOUND RAMP

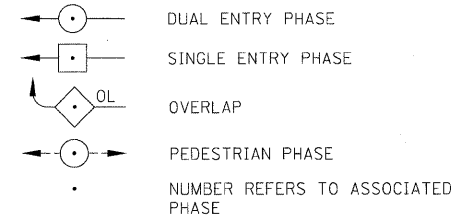
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	22
CONTRACT NO. 60J32			ILLINOIS FED. AID PROJECT	

PROPOSED CONTROLLER SEQUENCE

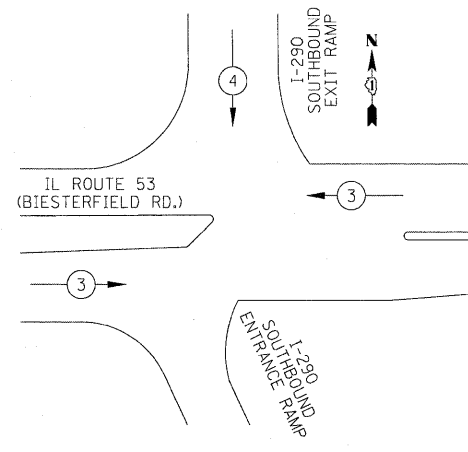


LEGEND



PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



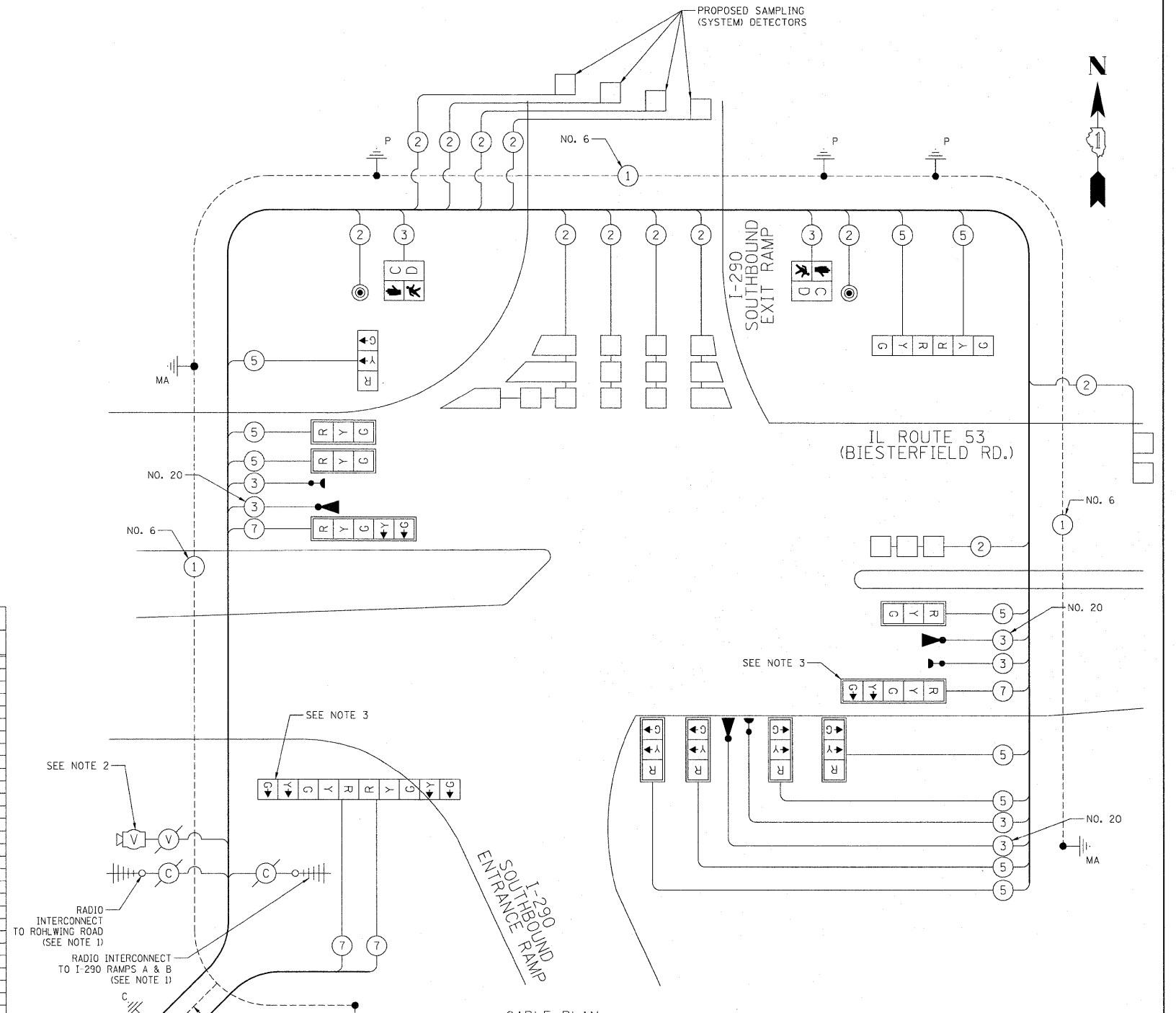
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QTY.
SIGN PANEL - TYPE 1	50 FT	15
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	536
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	153
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	36
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	41
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	519
HANDHOLE	EACH	2
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	3
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	649
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	527
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1621
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3492
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	742
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3632
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	346
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	983
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	255
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1211
ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED	FOOT	1094
VIDEO VEHICLE DETECTOR	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
PAINT NEW MAST ARM AND POLE, 40 FT. AND OVER	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 28 FT. AND 62 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E (SPECIAL)	FOOT	25
PAINT NEW MAST ARM AND POLE WITH DUAL MAST ARMS, 40 FT. AND OVER	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATION		
SIGNAL (RED)	14	17	0.50	119	
	(YELLOW)	14	25	88	
	(GREEN)	14	15	53	
ARROW	4	12	0.10	5	
PED. SIGNAL	2	25	1.00	50	
CONTROLLER	1	100	1.00	100	
TOTAL =				415	

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096
CONTACT: ELLIE SARALLO
PHONE: (630) 424-5124
COMPANY: COM ED



- NOTES:
- THE RADIO EQUIPMENT, CABLING, AND THE WOOD POLE ON THE SOUTHWEST CORNER SHALL REMAIN FOR USE WITH THE PERMANENT SIGNAL INSTALLATION. THE RADIO TRANSCEIVER SHALL BE RELOCATED FROM THE TEMPORARY CONTROLLER CABINET TO THE PERMANENT CONTROLLER CABINET. THIS WORK SHALL BE PAID FOR AS "WIRELESS INTERCONNECT (COMPLETE)." PERMANENT FIBER OPTIC INTERCONNECT SHALL BE INSTALLED BY OTHERS AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).
 - THE VIDEO VEHICLE DETECTOR ON THE SOUTHWEST CORNER SHALL REMAIN IN PLACE, AND SHALL BE USED TO PROVIDE EASTBOUND FAR-BACK DETECTION. THIS WORK SHALL BE PAID FOR AS "VIDEO VEHICLE DETECTOR." THE 2" CONDUIT STUB FROM THE DOUBLE HANDHOLE SHALL BE PROVIDED TO INSTALL FUTURE PERIMETER HANDHOLE AND DETECTOR LOOPS BY OTHERS AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).
 - THE RIGHT TURN SECTIONS OF THIS SIGNAL HEAD SHALL BE BAGGED AND DISCONNECTED. THESE SECTIONS SHALL BE ACTIVATED BY OTHERS UPON COMPLETION OF THE RIGHT TURN LANE EXTENSION AND RAMP WIDENING AS A PART OF ELK GROVE VILLAGE'S BIESTERFIELD ROAD PROJECT (SECTION NO. 09-00054-00-CH).

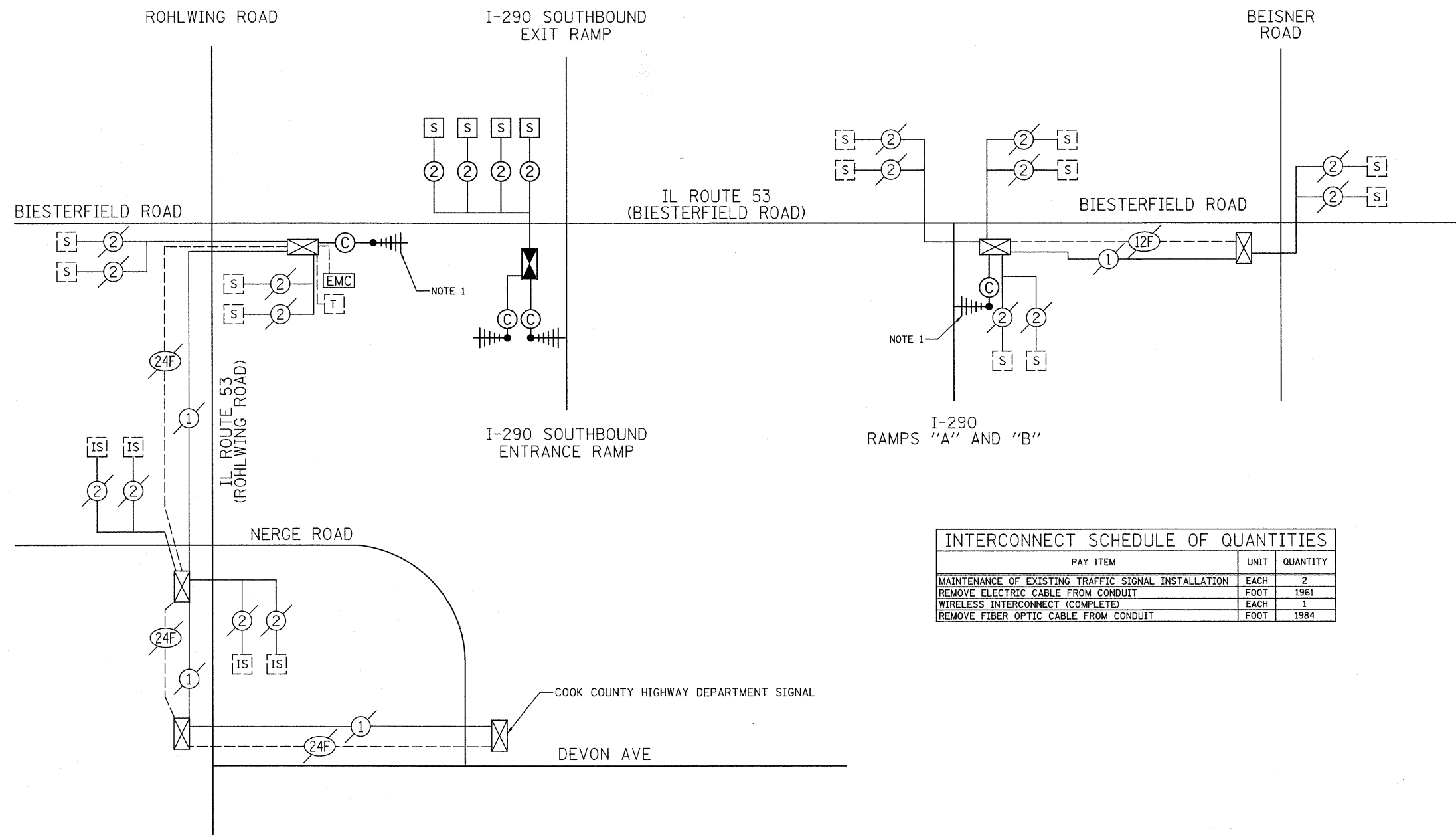
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = #USER#	DESIGNED - BRD	REVISED -
#FILES#		DRAWN - OJT	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - JJE	REVISED -
	PLOT DATE = #DATE#	DATE - 05/05/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE & SCHEDULE OF QUANTITIES
IL ROUTE 53 (BIESTERFIELD ROAD) AT I-290 SOUTHBOUND RAMPS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	23
CONTRACT NO. 60J32				
ILLINOIS FED. AID PROJECT				







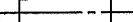

INTERCONNECT SCHEDULE OF QUANTITIES		
PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1961
WIRELESS INTERCONNECT (COMPLETE)	EACH	1
REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	1984

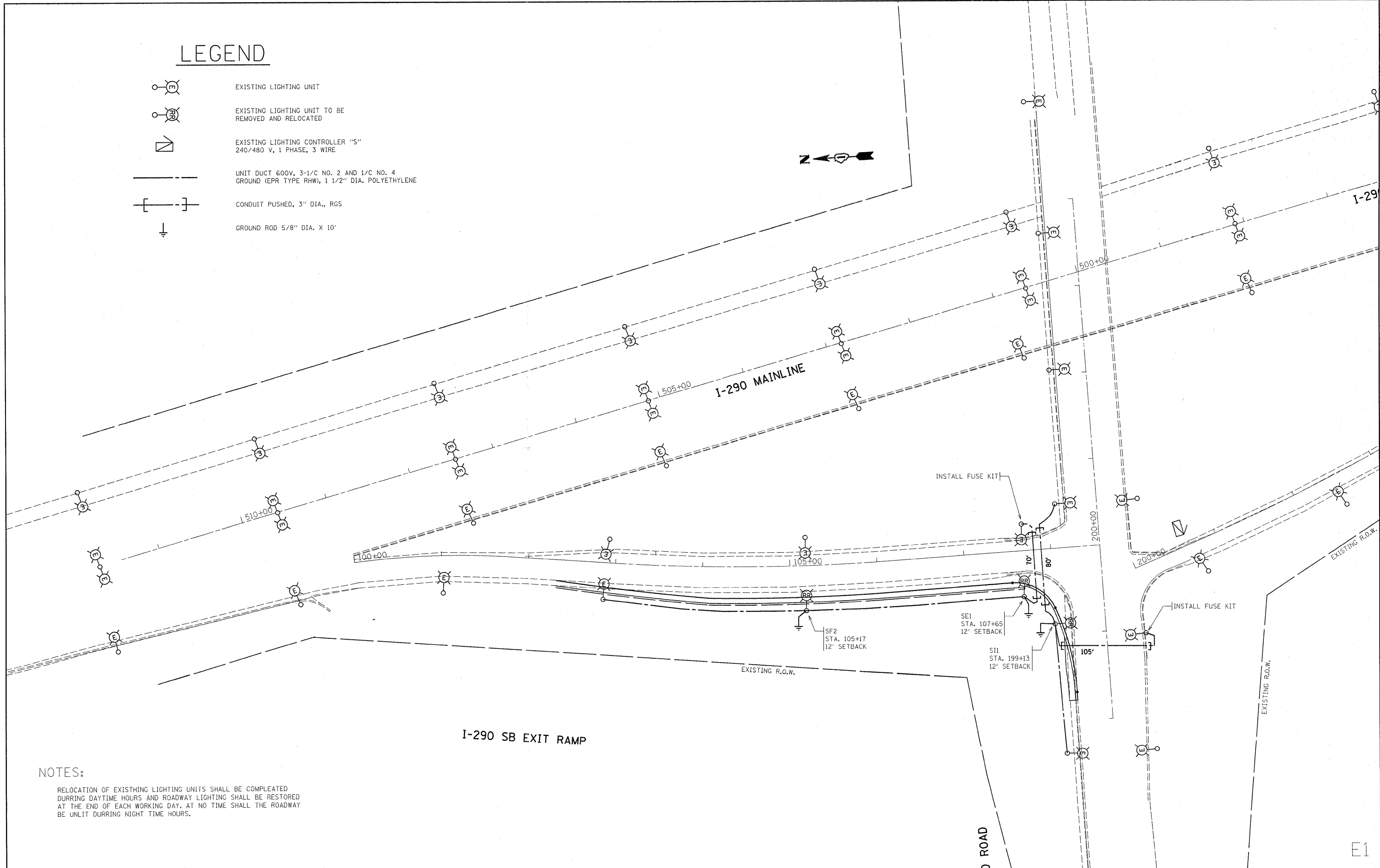
NOTE:
 1. THE PROPOSED RADIO ANTENNA SHALL BE MOUNTED ON THE EXISTING MAST ARM POLE NEAREST TO THE CONTROLLER. THIS WORK SHALL BE PAID FOR AS "WIRELESS INTERCONNECT (COMPLETE)."

NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = #USER#	DESIGNED - BRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC IL ROUTE 53 (BIESTERFIELD RD.)			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILES#		DRAWN - OJT	REVISED -		290	0101-311 HBK-1	COOK	44	24			
	PLOT SCALE = #SCALE#	CHECKED - JJE	REVISED -		NOT TO SCALE SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60J32				
	PLOT DATE = #DATE#	DATE - 04/22/2010	REVISED -		ILLINOIS FED. AID PROJECT							

LEGEND

-  EXISTING LIGHTING UNIT
-  EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
-  EXISTING LIGHTING CONTROLLER "S"
240/480 V, 1 PHASE, 3 WIRE
-  UNIT DUCT 600V, 3-1/C NO. 2 AND 1/C NO. 4
GROUND (EPR TYPE RHW), 1 1/2" DIA. POLYETHYLENE
-  CONDUIT PUSHED, 3" DIA., RGS
-  GROUND ROD 5/8" DIA. X 10'



NOTES:

RELOCATION OF EXISTING LIGHTING UNITS SHALL BE COMPLETED DURING DAYTIME HOURS AND ROADWAY LIGHTING SHALL BE RESTORED AT THE END OF EACH WORKING DAY. AT NO TIME SHALL THE ROADWAY BE UNLIT DURING NIGHT TIME HOURS.

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -
cs:\pw_work\pwidot\kellers\d0189143\p141023-light.dgn		DRAWN - MP	REVISED -
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 5/7/2010		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AND BIESTERFIELD ROAD
LIGHTING PLANS**

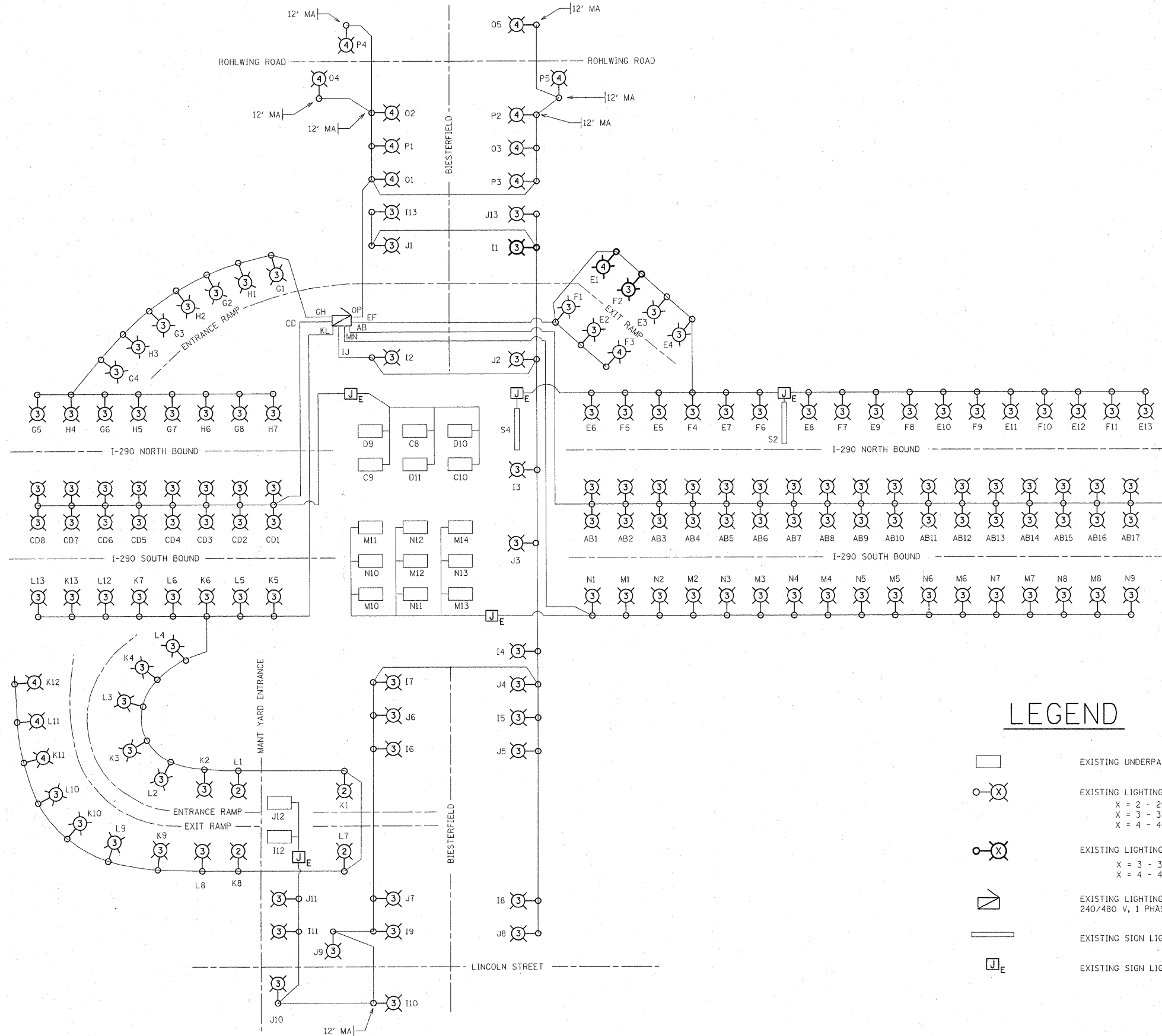
SCALE: 1" = 50' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	25
CONTRACT NO. 60J32				
ILLINOIS FED. AID PROJECT				

E1

NOTES:

ALL LIGHTING UNITS ON I-290 HAVE 8' MAST ARMS
 ALL LIGHTING UNITS ON RAMP AND SIDE ROADS
 HAVE 15' MAST ARMS UNLESS OTHERWISE NOTED

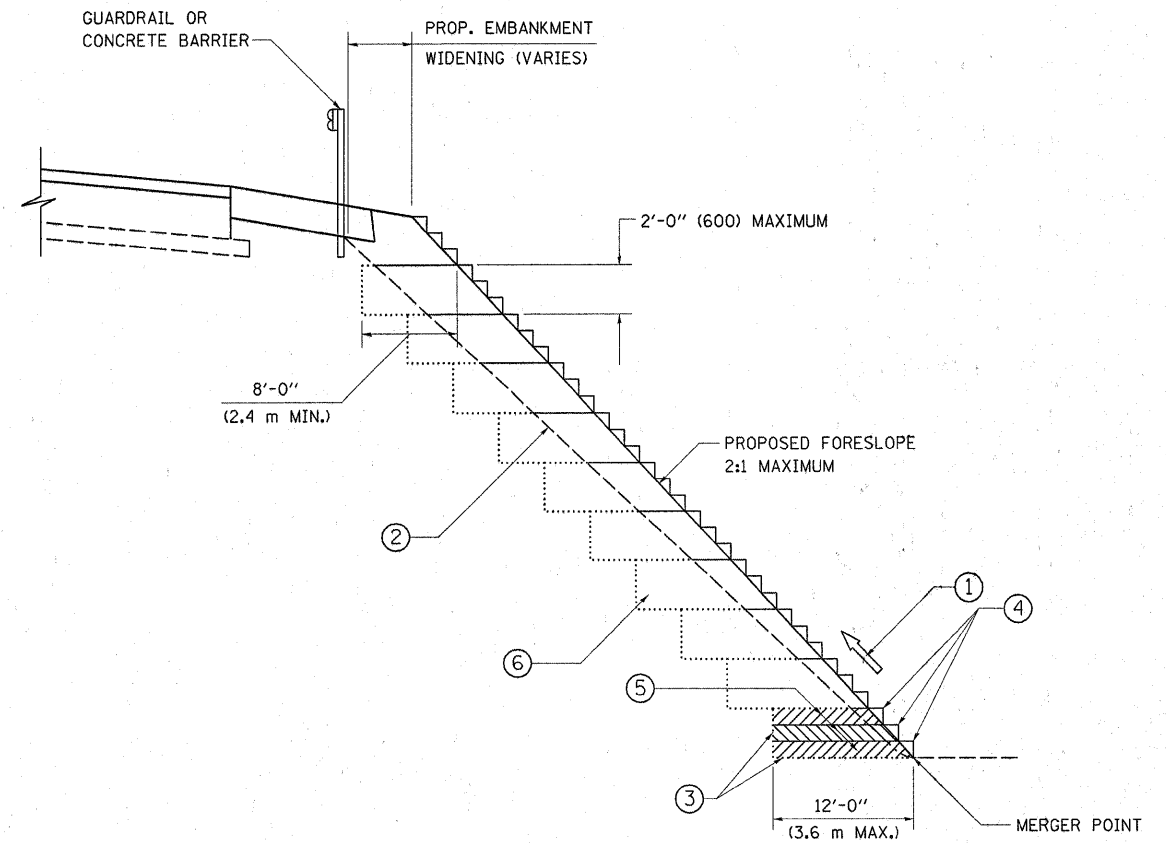


LEGEND

- EXISTING UNDERPASS LIGHTING UNIT 55 WATT
- EXISTING LIGHTING UNIT
 X = 2 - 250 WATT LUMINAIRE
 X = 3 - 310 WATT LUMINAIRE
 X = 4 - 400 WATT LUMINAIRE
- EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
 X = 3 - 310 WATT LUMINAIRE
 X = 4 - 400 WATT LUMINAIRE
- EXISTING LIGHTING CONTROLLER "S"
 240/480 V, 1 PHASE, 3 WIRE
- EXISTING SIGN LIGHTING
- EXISTING SIGN LIGHTING

E2

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 AND BIESTERFIELD ROAD ONE-LINE DIAGRAM CONTROLLER "S"	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cd:\pwork\p\10DOT\KELLERS\0169143\PL141099-light.dgn	PLOT SCALE = 50,0000' / IN.	DRAWN -	REVISED -			290	0101-311 HBK-1	COOK	44	26	
PLOT DATE = 4/1/2010	DATE -	CHECKED -	REVISED -			SCALE: NTS		SHEET NO. 2 OF 2 SHEETS		STA. TO STA.	
						CONTRACT NO. 60J32					
						ILLINOIS FED. AID PROJECT					



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

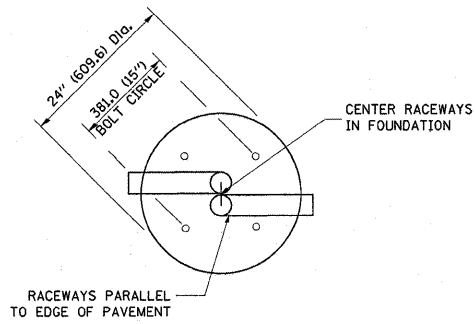
- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 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.
- ⑦ 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.

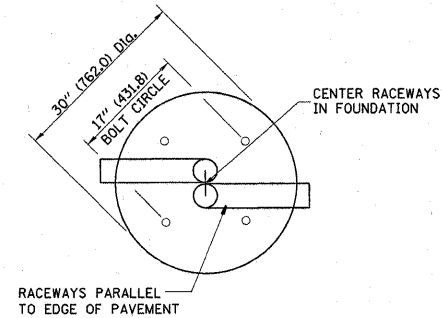
FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BENCHING DETAIL FOR EMBANKMENT WIDENING			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\PW100T\KELLERS\0155790\Dist	td.dgn	DRAWN - CADD	REVISED -		290	0101-311 HBK-1	COOK	44	27			
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PLOT DATE = 4/1/2010	DATE - 06-16-04	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA.		TO STA.		

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

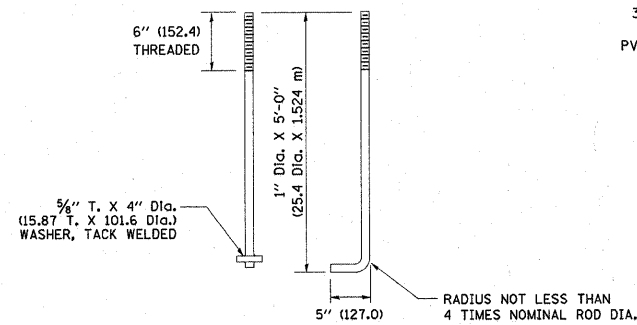
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.99 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



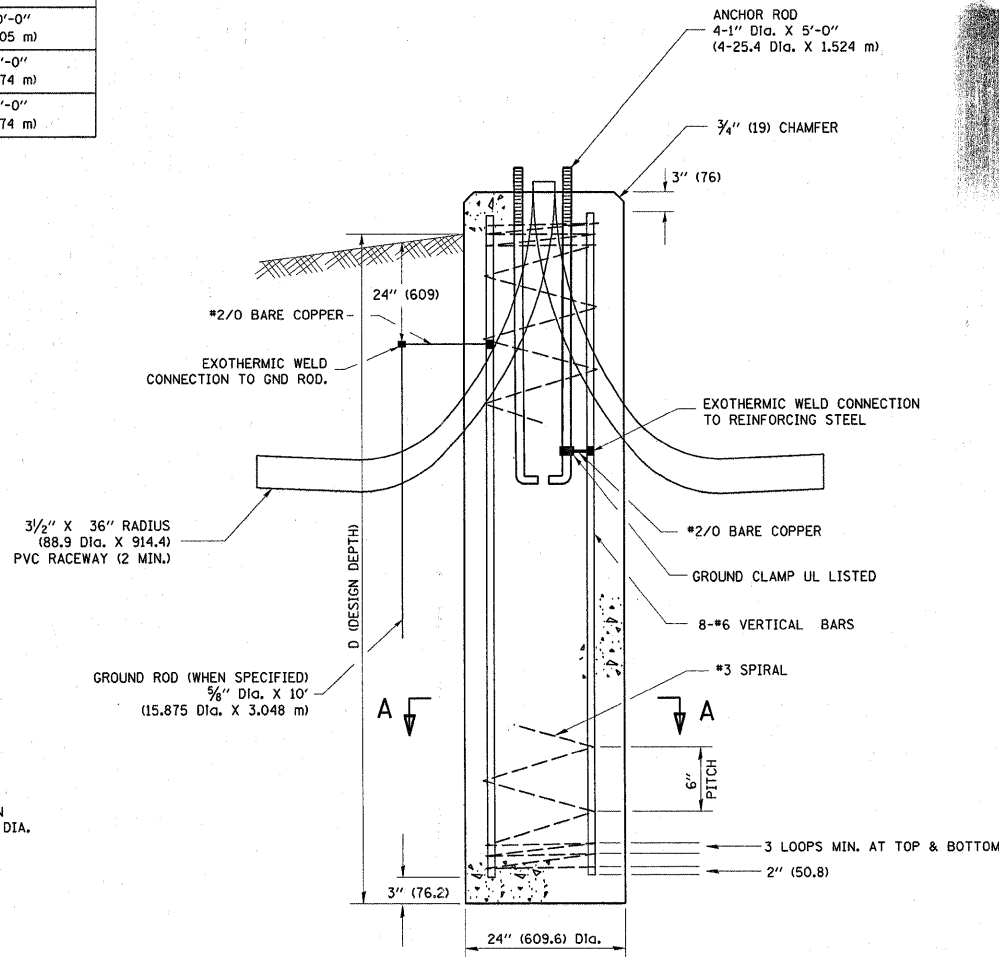
TOP VIEW



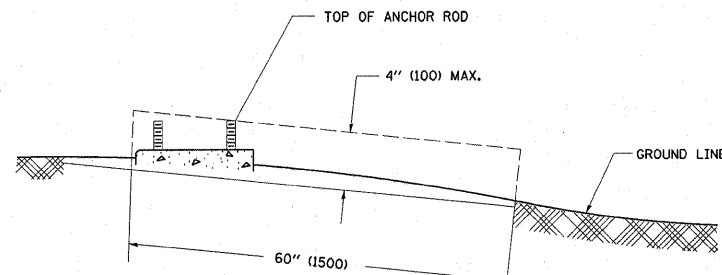
TOP VIEW



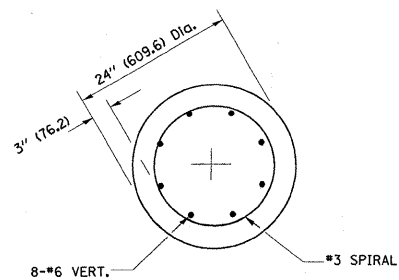
ANCHOR ROD DETAIL



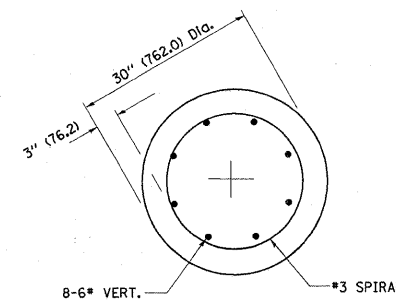
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



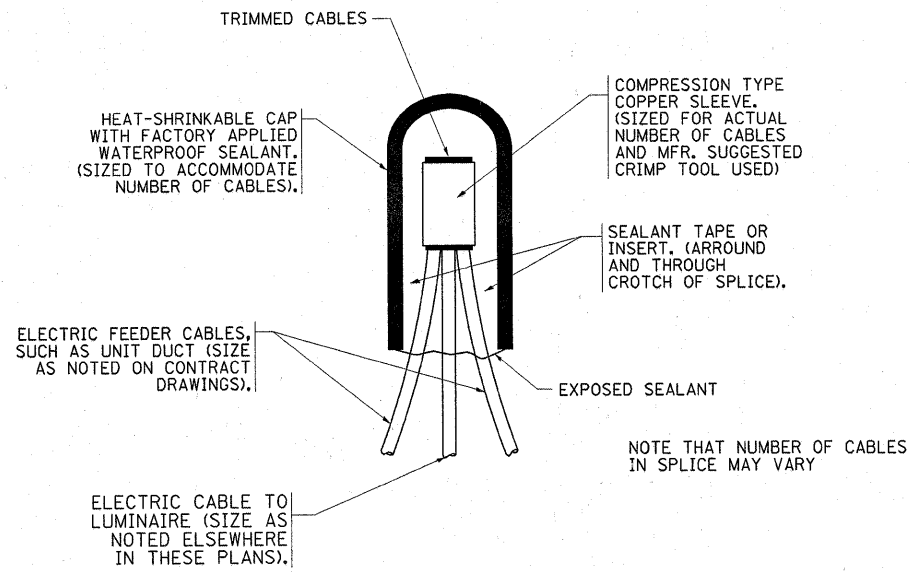
SECTION A-A



SECTION A-A

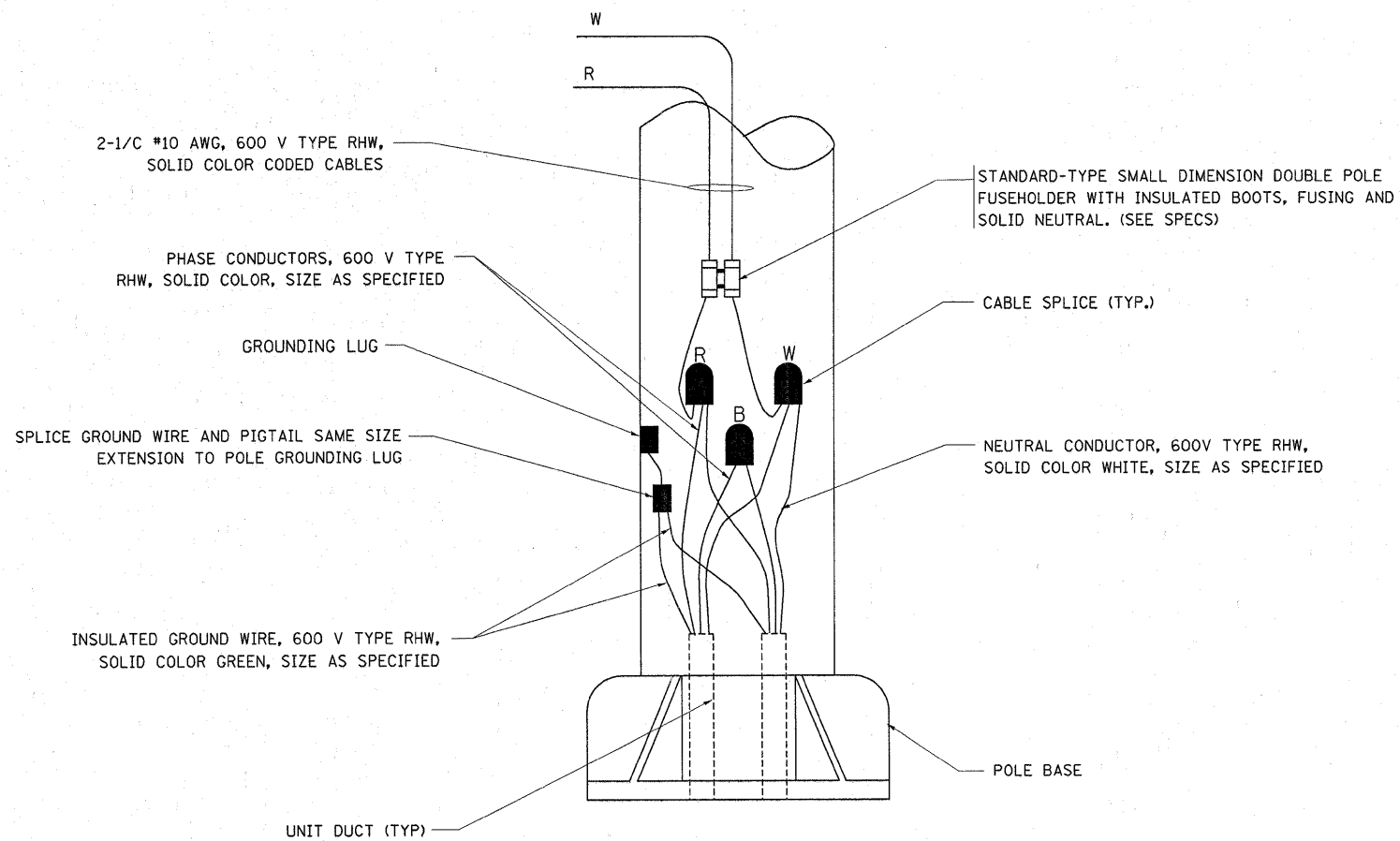
NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- 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.
- 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 CHAMFERED 3/4-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.
- 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.
- 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.
- ANCHOR RODS SHALL PROJECT 2 3/4" (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.
- 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.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



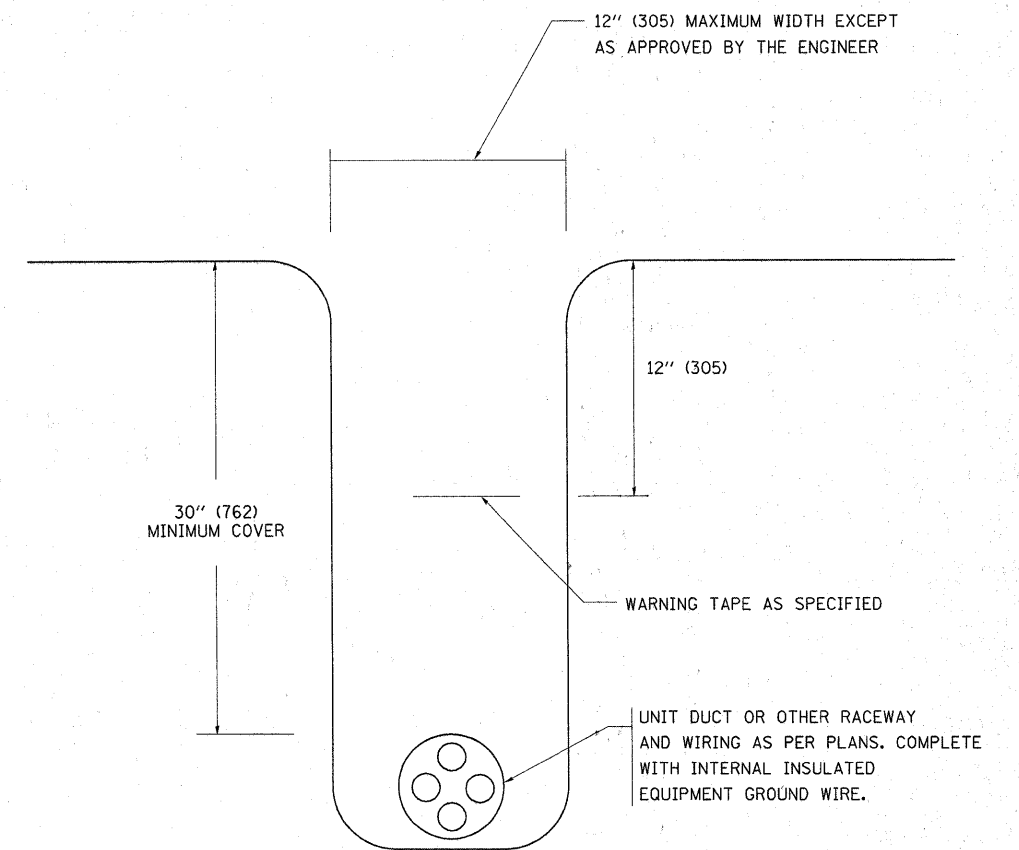
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.

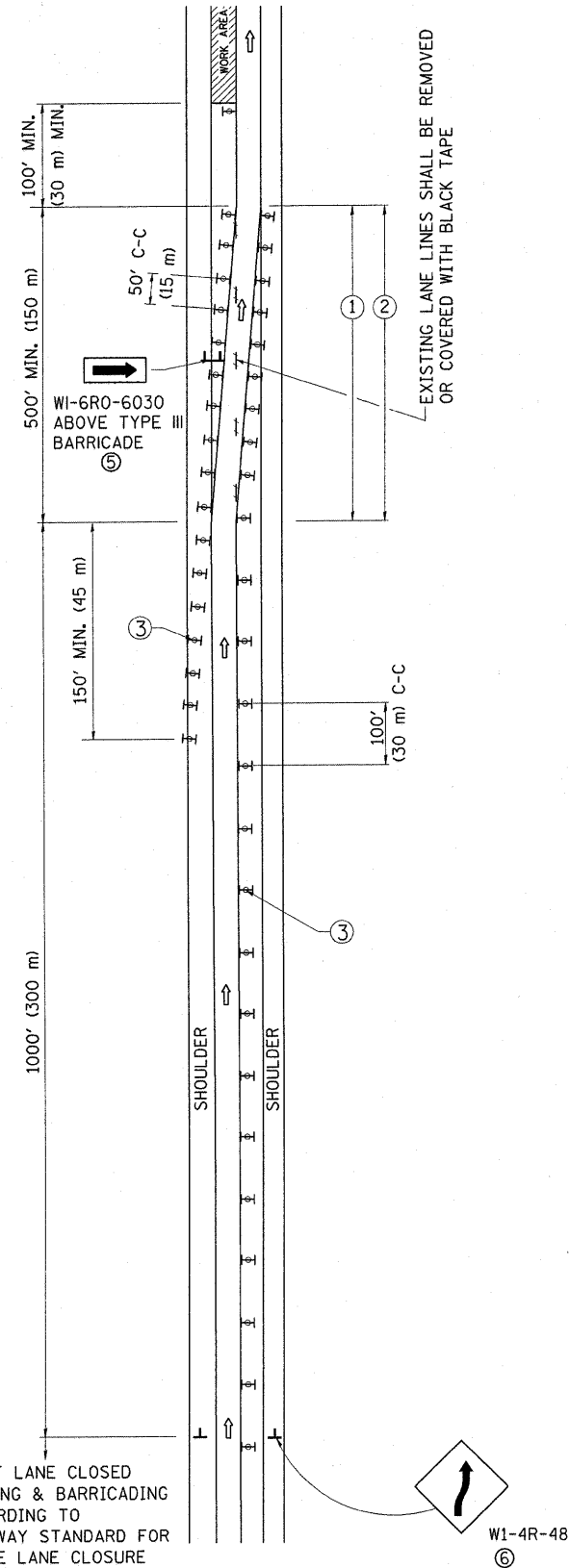


TYPICAL WIRING IN TRENCH DETAIL

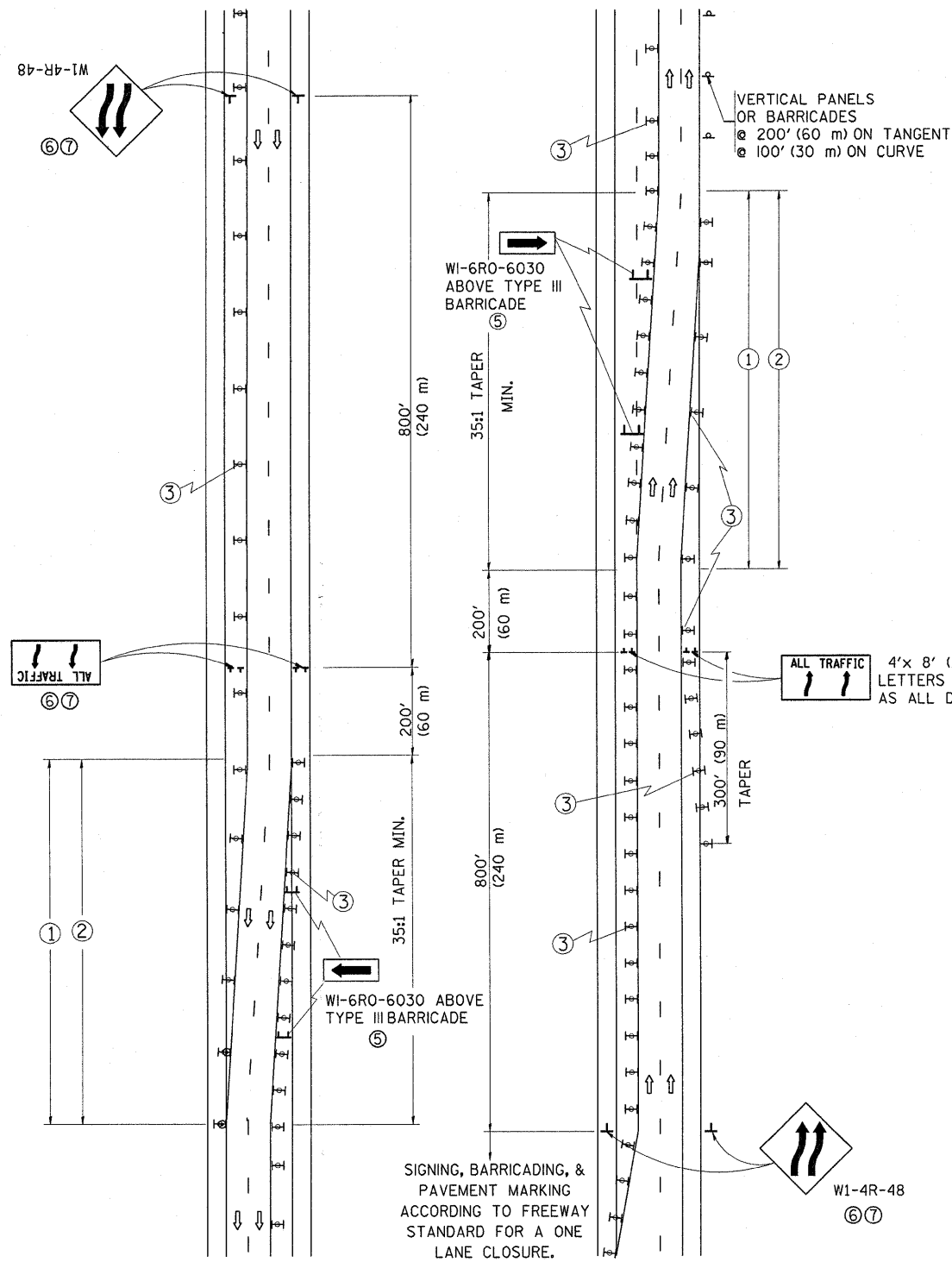
N.T.S.

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISC. ELECTRICAL DETAILS SHEET A				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\PWEDDT\KELLERS\0155790\Dist	td.dgn	DRAWN -	REVISED -		290	0101-311 HBK-1	COOK	44	29				
PLOT SCALE = 50,0000 / IN.	CHECKED -	REVISED -	REVISED -		BE-702		CONTRACT NO. 60J32						
PLOT DATE = 4/1/2010	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.						

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

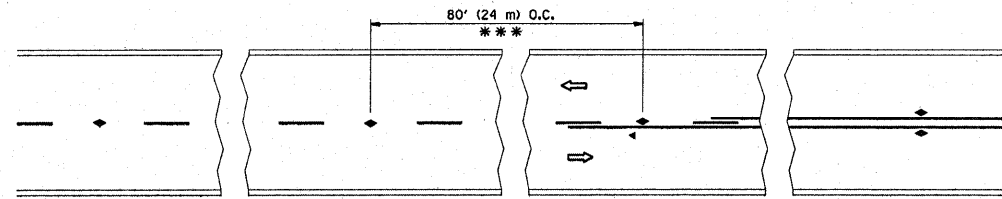
- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- W24-1-48

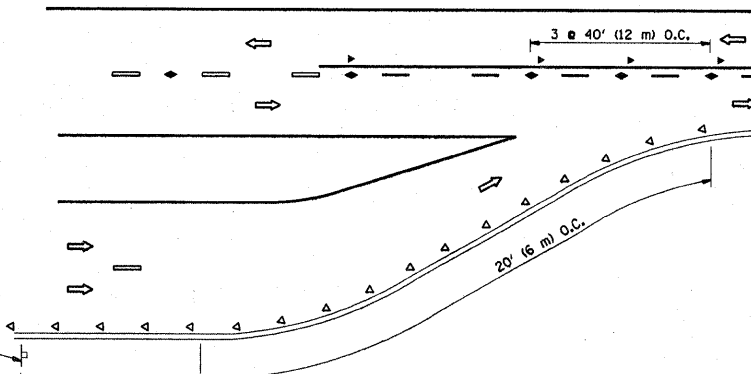
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = kellers	DESIGNED - DWS	REVISED - JAF 01-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cd\pw_work\PWIDOT\KELLERS\08155790\Dist\td.dgn		DRAWN -	REVISED - JAF 02-06		290	0101-311 HBK-1	COOK	44	29A		
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED - SPB 01-07		TC-09		CONTRACT NO. 60J32				
PLOT DATE = 5/6/2010		DATE - 02-87	REVISED - SPB 12-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			

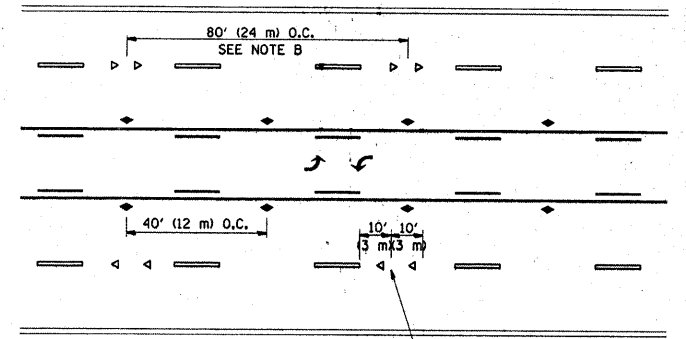


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

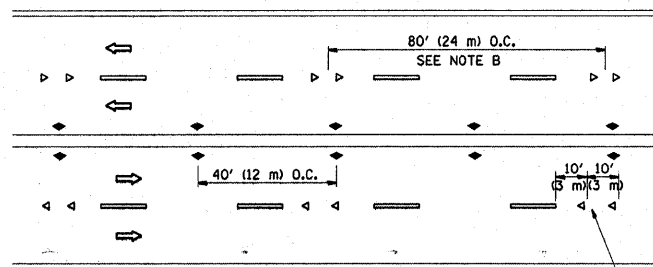
TWO-LANE/TWO-WAY



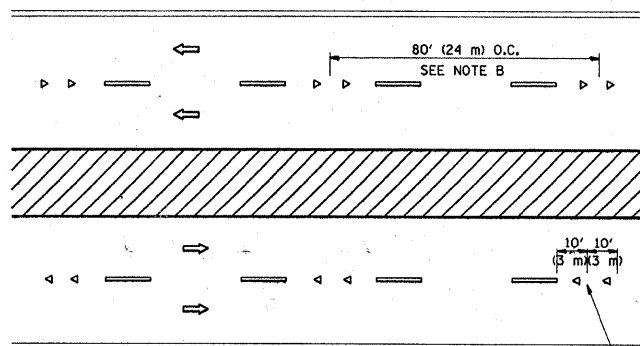
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

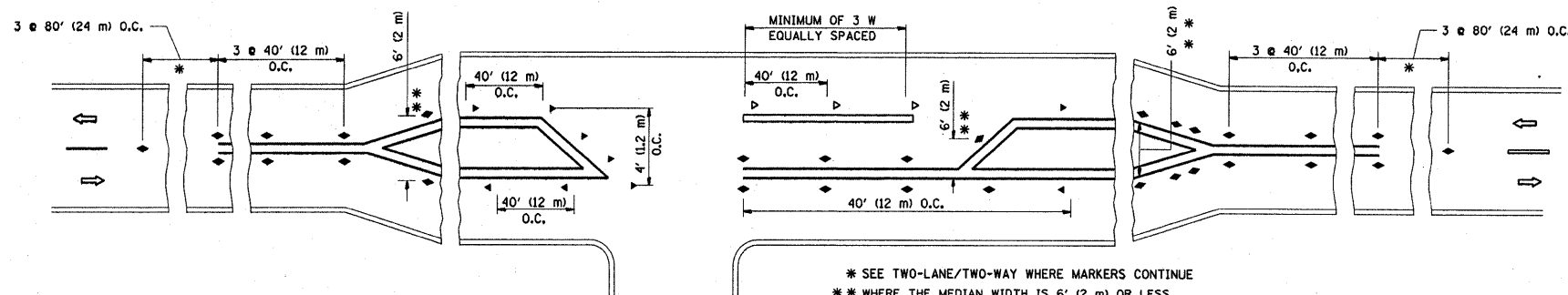
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.



LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

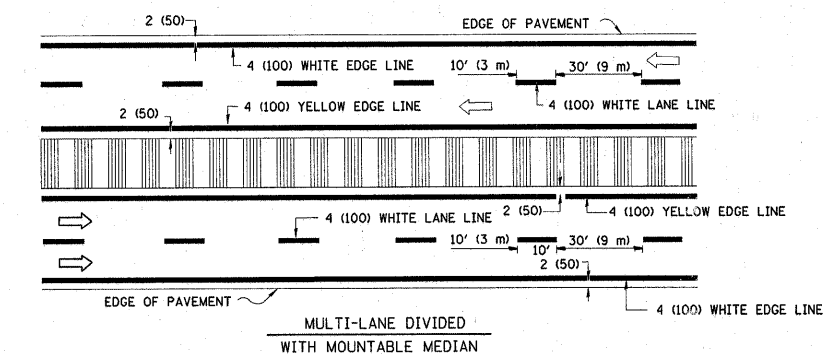
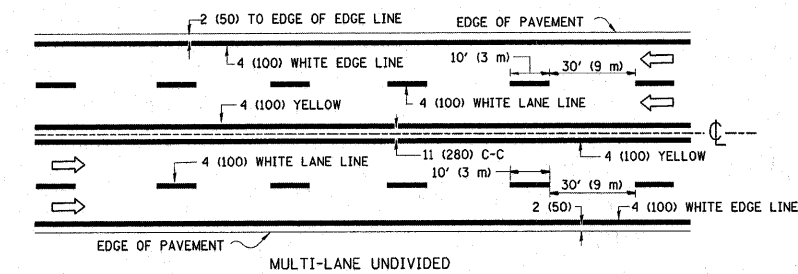
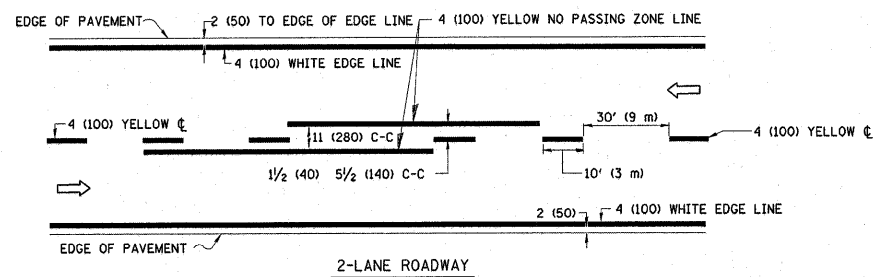
FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 4/1/2010	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

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

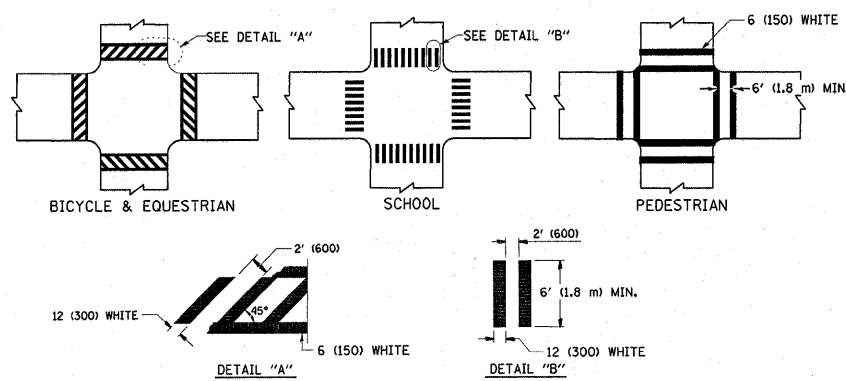
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	30
TC-11			CONTRACT NO. 60J32	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

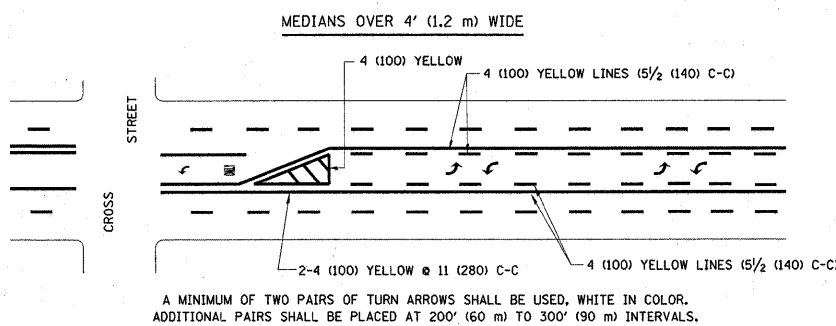
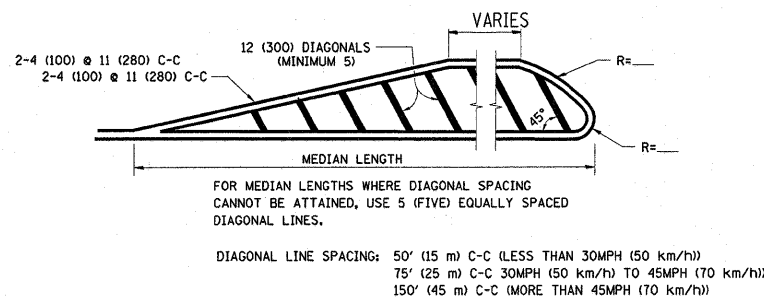
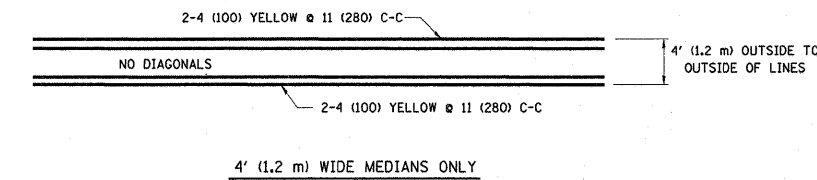


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

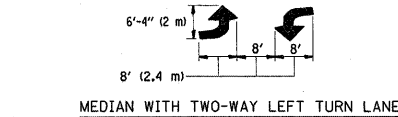
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

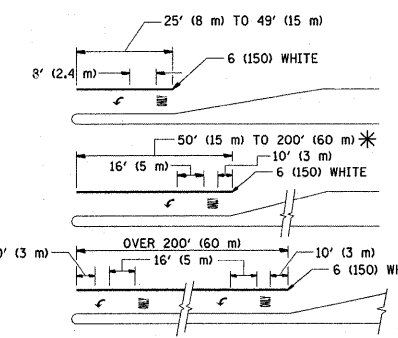


TYPICAL PAINTED MEDIAN MARKING



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

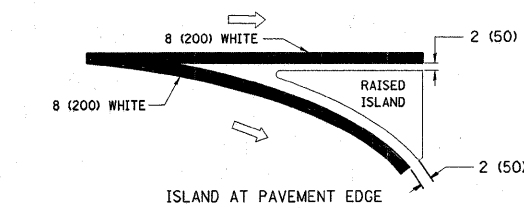
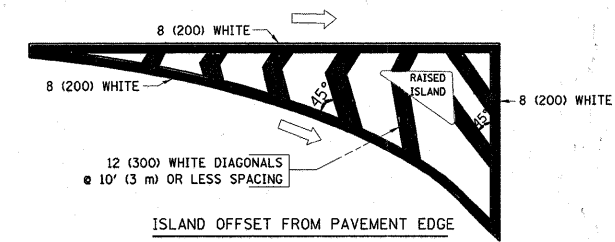


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE 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 WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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 SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	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: "RR"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
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.

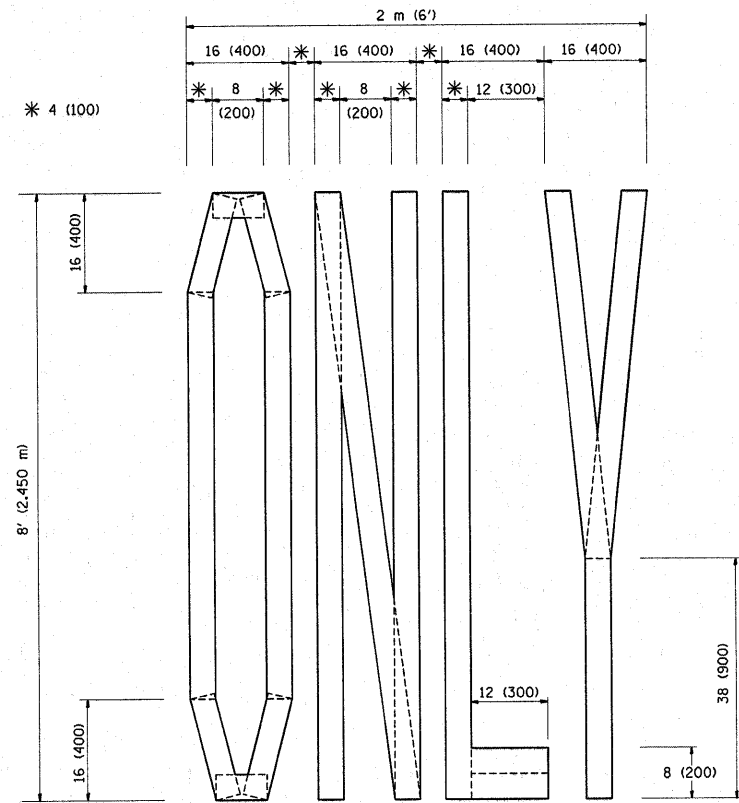
FILE NAME =	USER NAME = kellers	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
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PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 4/1/2010		DATE - 03-19-90	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

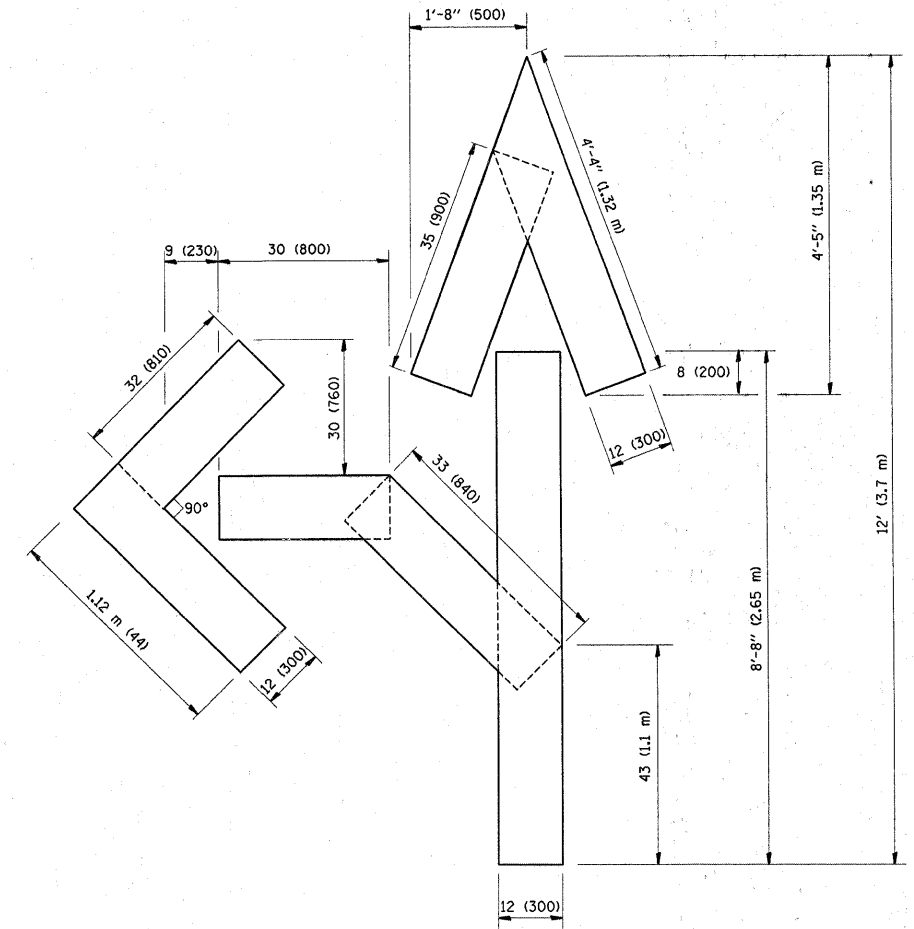
**DISTRICT ONE
TYPICAL PAVEMENT MARKINGS**

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

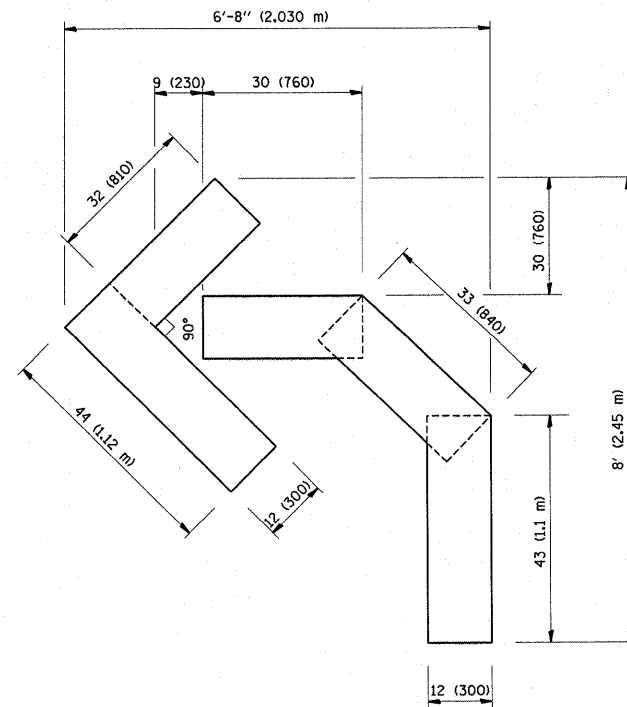
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	31
TC-13			CONTRACT NO. 60J32	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



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



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

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

FILE NAME =	USER NAME = Kellers	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
ct:\pwork\FWIDOT\KELLERS\0155798\Dist\std.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
PLOT SCALE = 50.0000 "/ IN.		CHECKED -	REVISED -T. RAMMACHER 03-02-98
PLOT DATE = 4/1/2010		DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

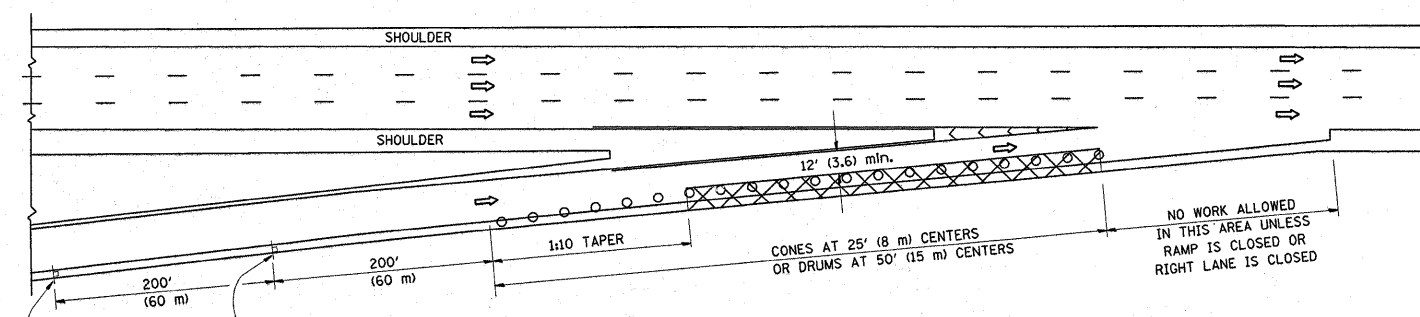
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

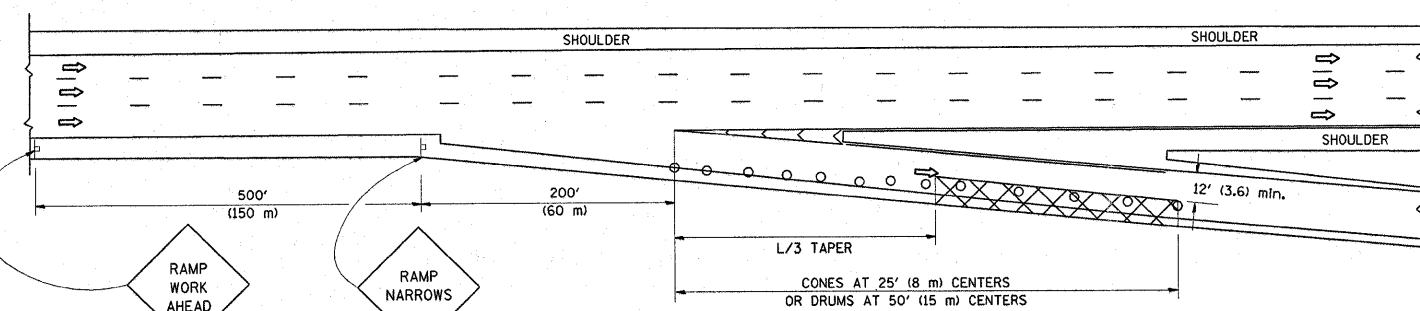
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-16			CONTRACT NO. 60J32	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

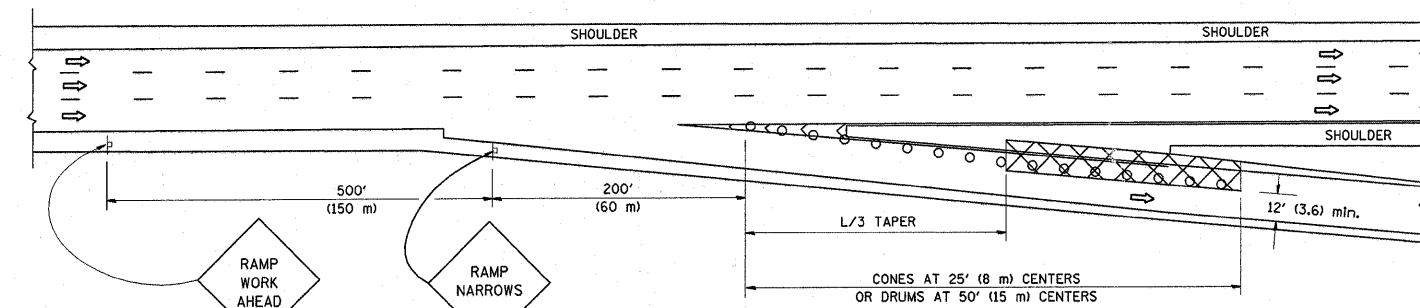
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP

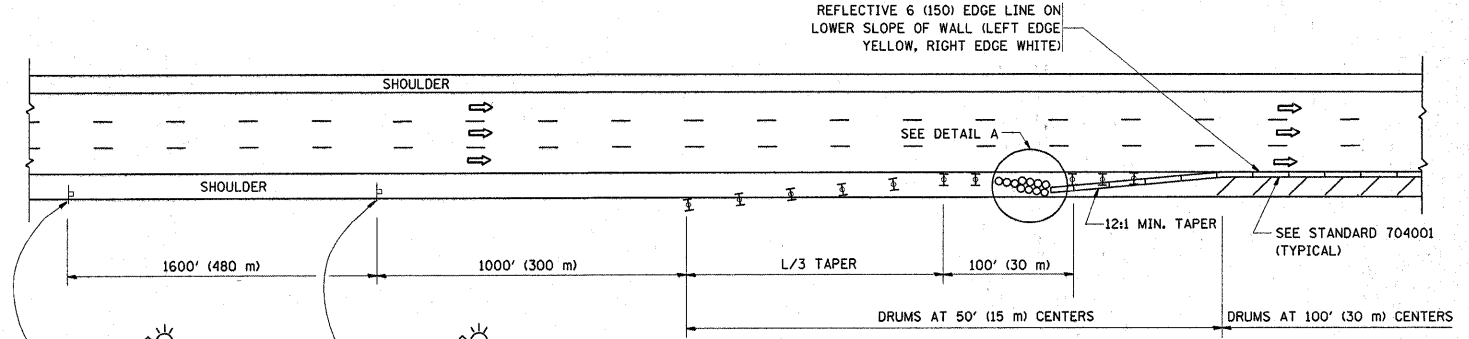


TYPICAL EXIT RAMP

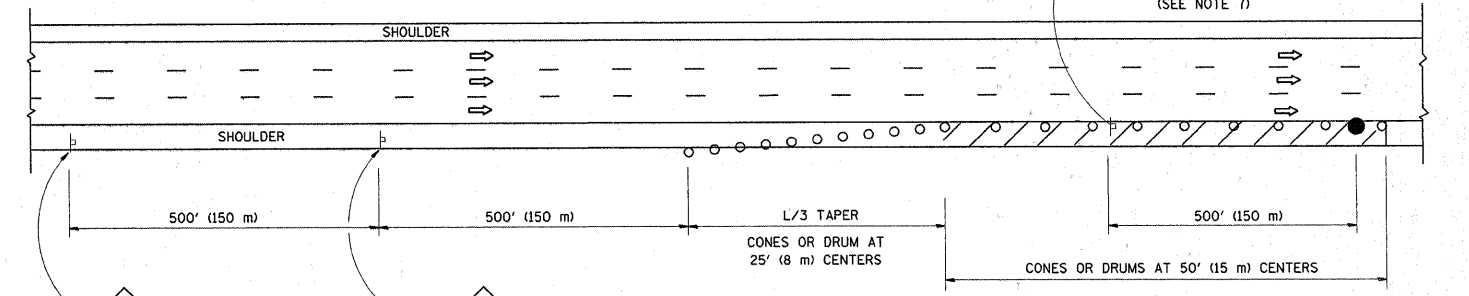


TYPICAL EXIT RAMP

SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:

- VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

SYMBOLS

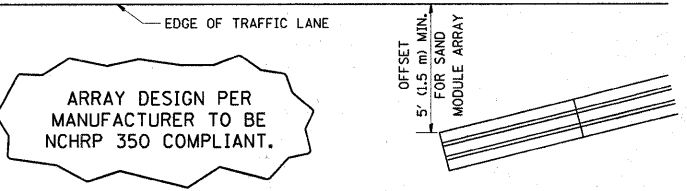
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

- THE "L" DISTANCE EQUALS:

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

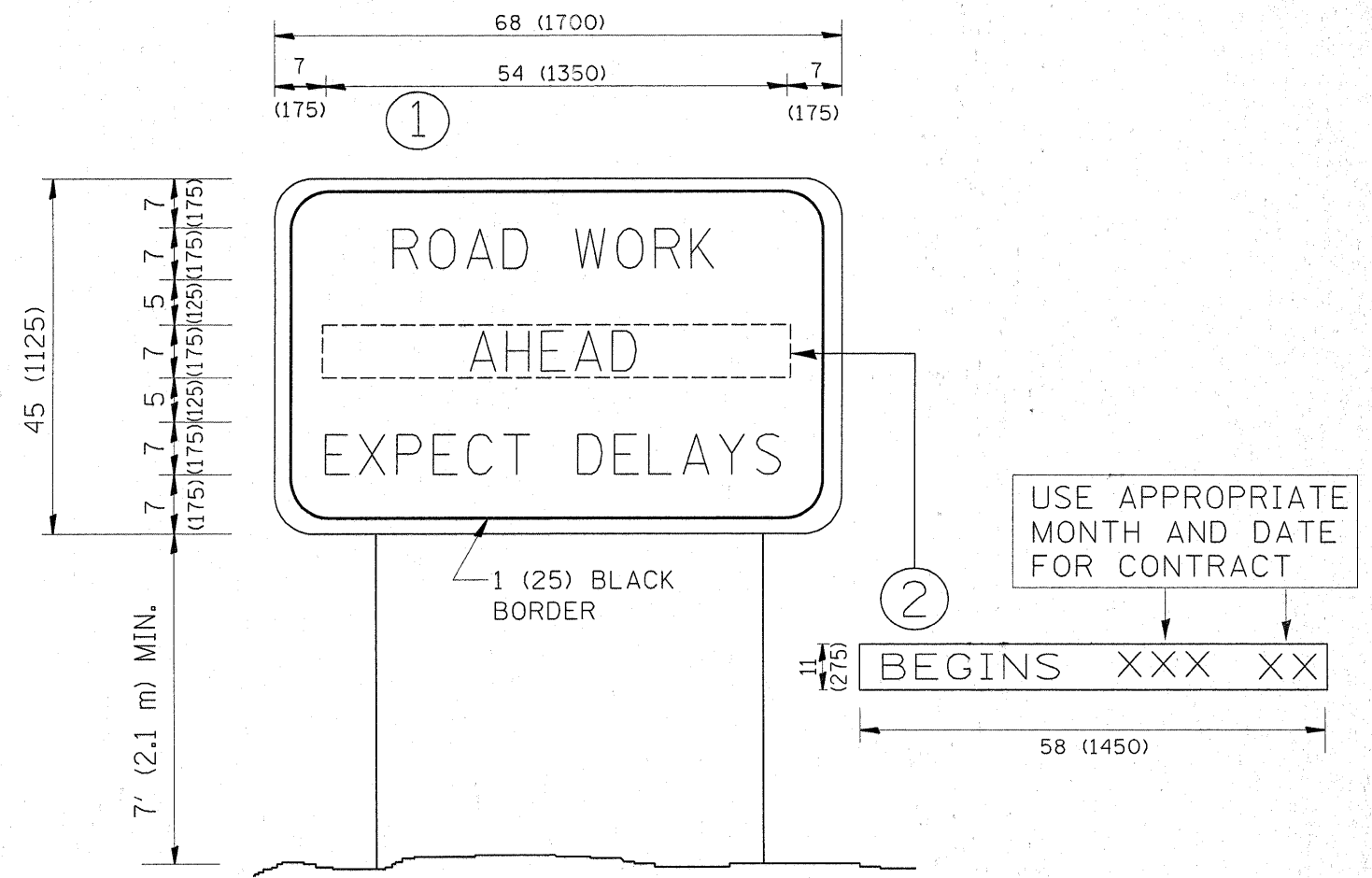
- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY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



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

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

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\PWIDOT\KELLERS\d0155790\Dist\td.dgn	DRAWN - D.W.S.	REVISED - J.A.F. 12-06	REVISED - S.P.B. 01-07		290	0101-311 HBK-1	COOK	44	33			
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - S.P.B. 12-09			TC-17			CONTRACT NO. 60J32				
PLOT DATE = 4/1/2010	DATE - 11-96				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

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

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

FILE NAME =	USER NAME = kellers	DESIGNED -	REVISED - R. MIRS 09-15-97
c:\pwork\pwidot\kellers\0155790\Dis\std.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 50.0000 // IN.		CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 4/1/2010		DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

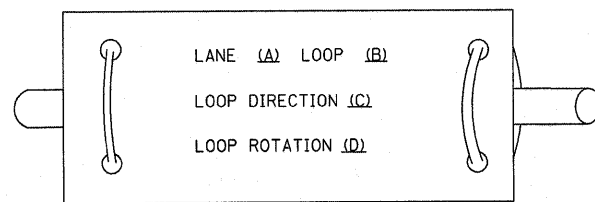
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-22			CONTRACT NO. 60J32	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

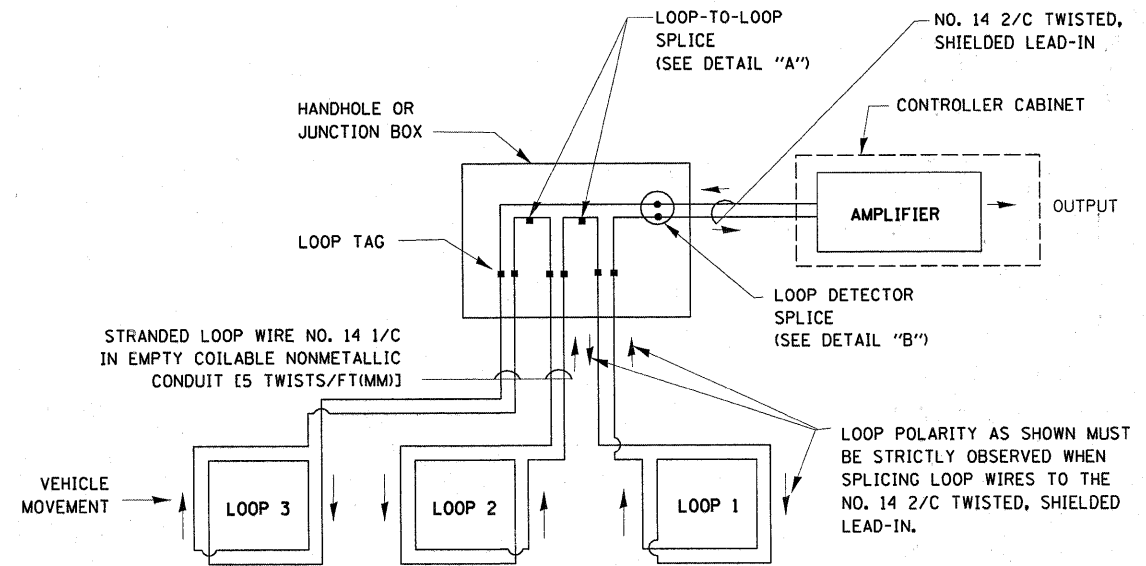
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

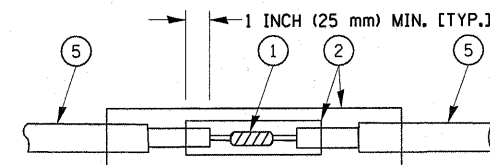


- A. LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

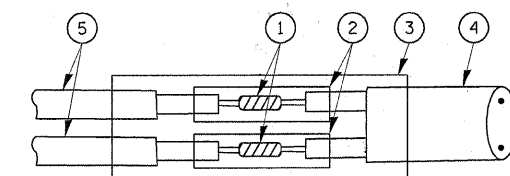


DETECTOR LOOP WIRING SCHEMATIC

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

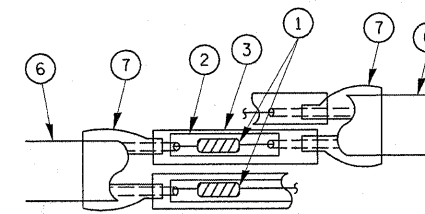


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

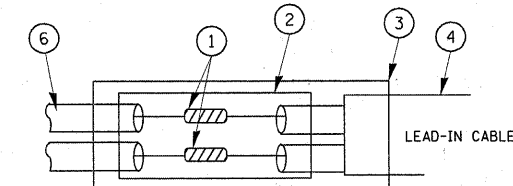


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE 1 LOOP



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



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

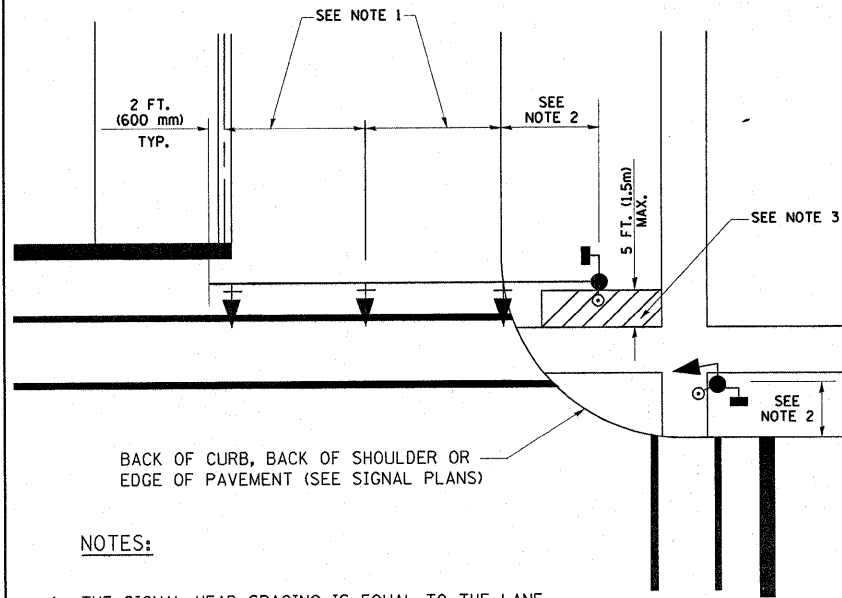
LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = kellers	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS				F.A.I. RTE. 290	SECTION 0101-311 HBK-1	COUNTY COOK	TOTAL SHEETS 44	SHEET NO. 35
c:\pw_work\PWIDOT\KELLERS\d0155790\Dist	std.dgn	DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	TS-05		CONTRACT NO. 60J32		
	PLOT SCALE = 50,0000' / IN.	CHECKED - DAD	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	PLOT DATE = 4/1/2010	DATE - 10-28-09	REVISED -										

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

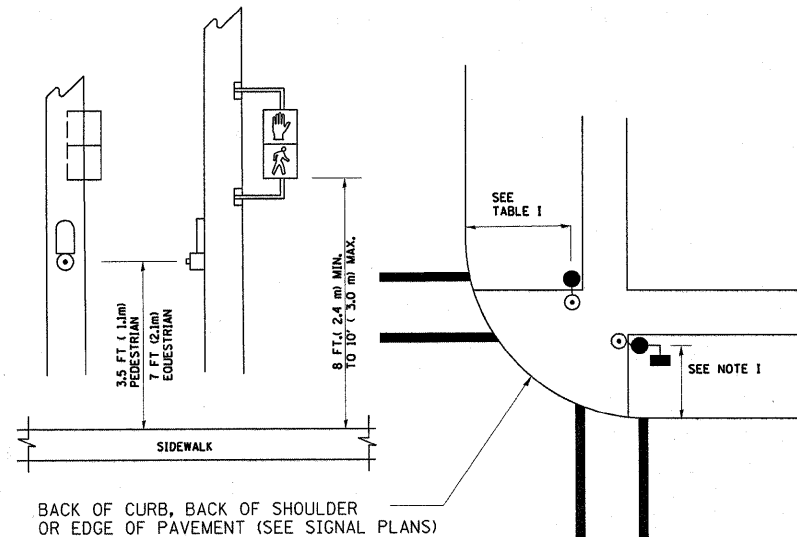
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
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."

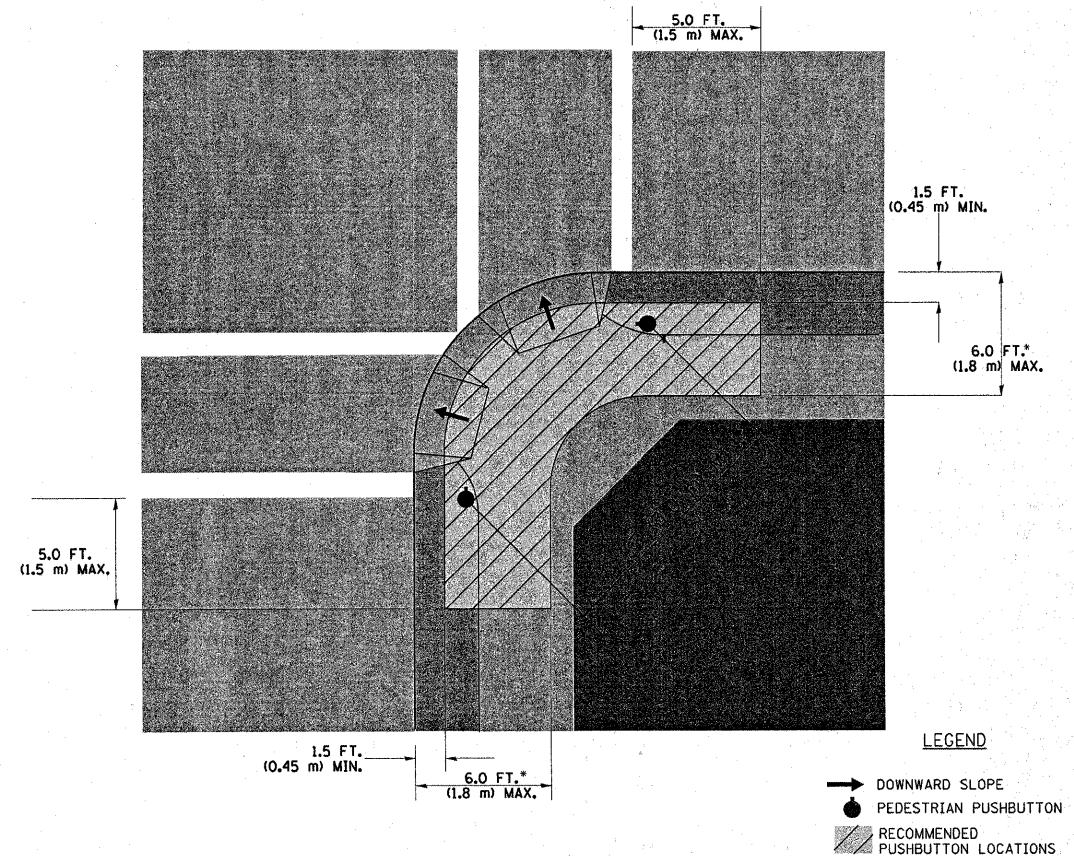
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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."

RECOMMENDED PUSHBUTTON LOCATIONS



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

NOTES:

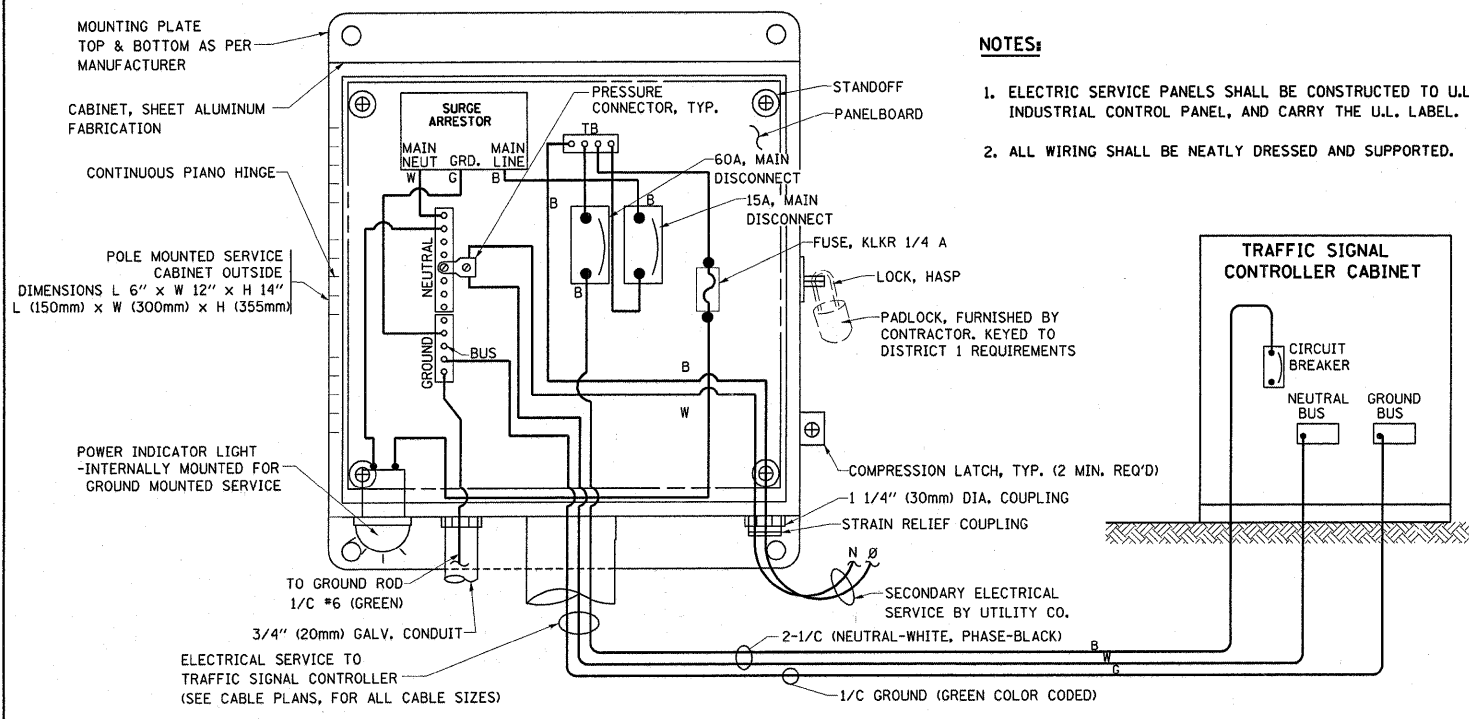
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

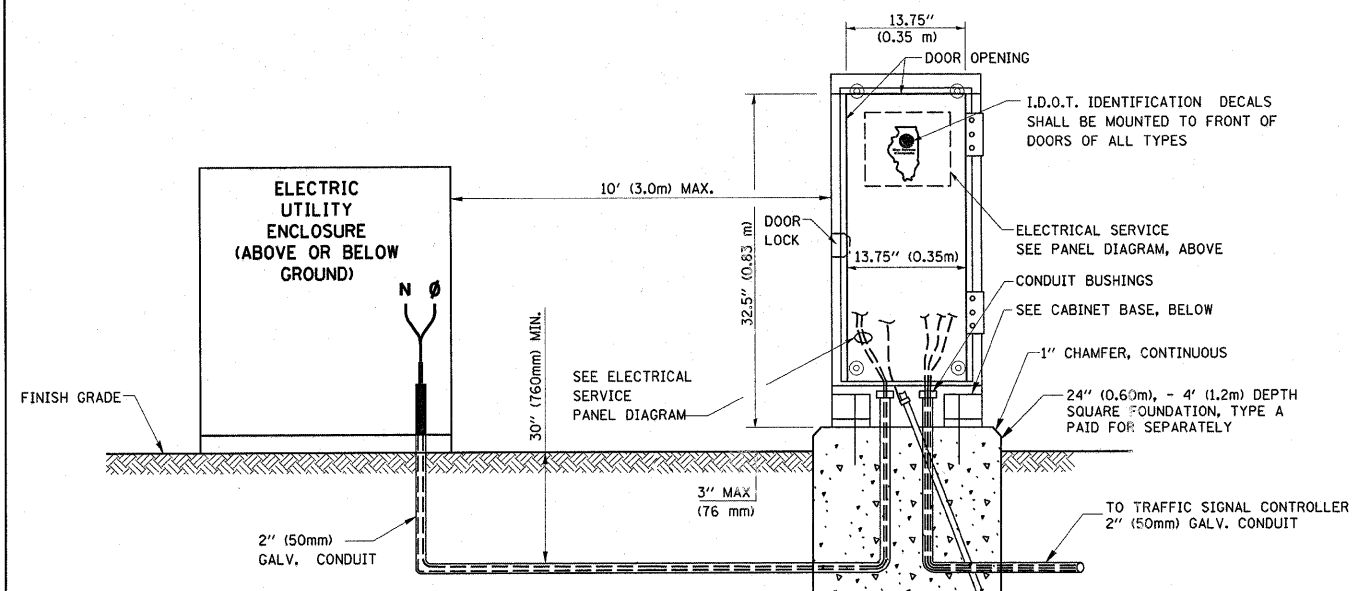
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

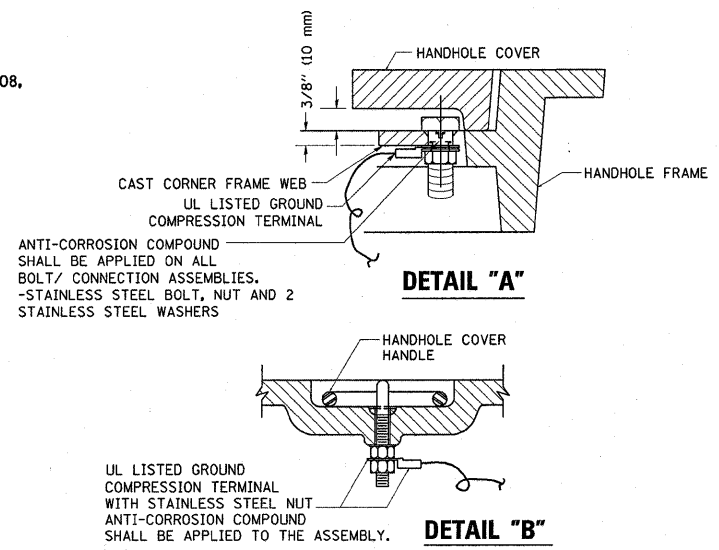
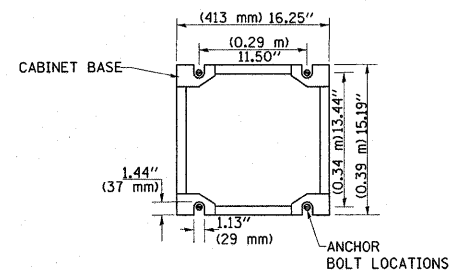


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

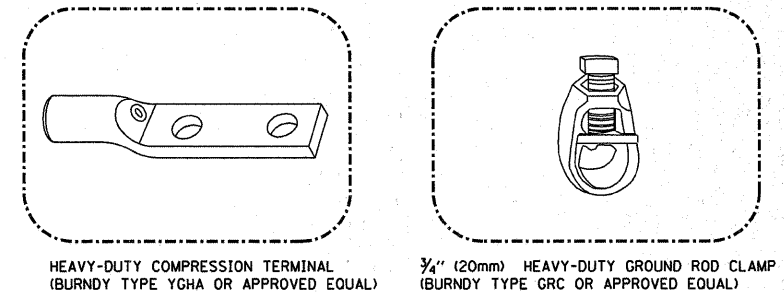
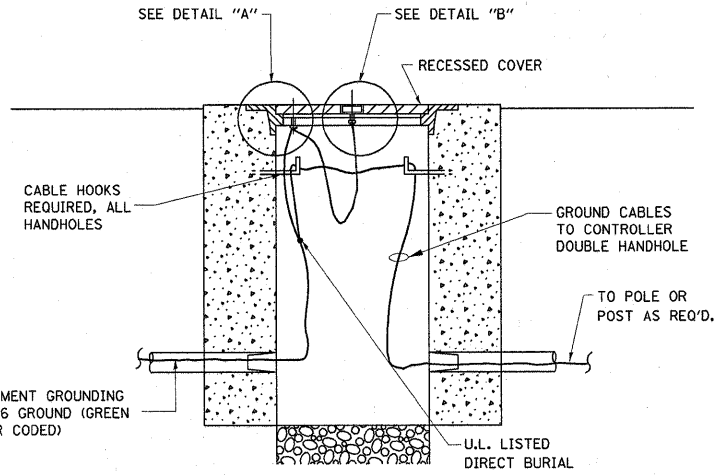


SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

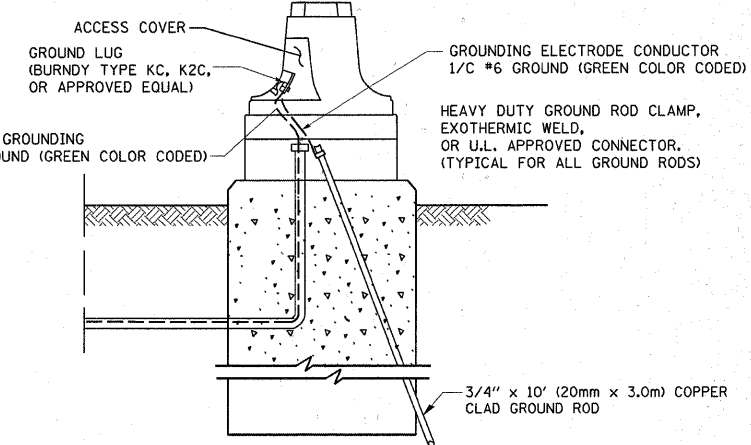
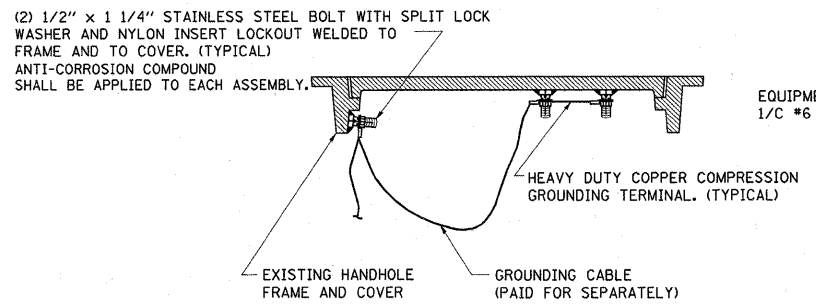
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



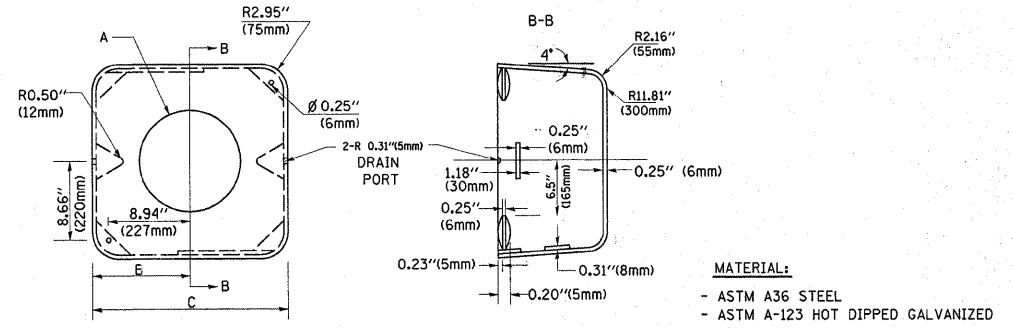
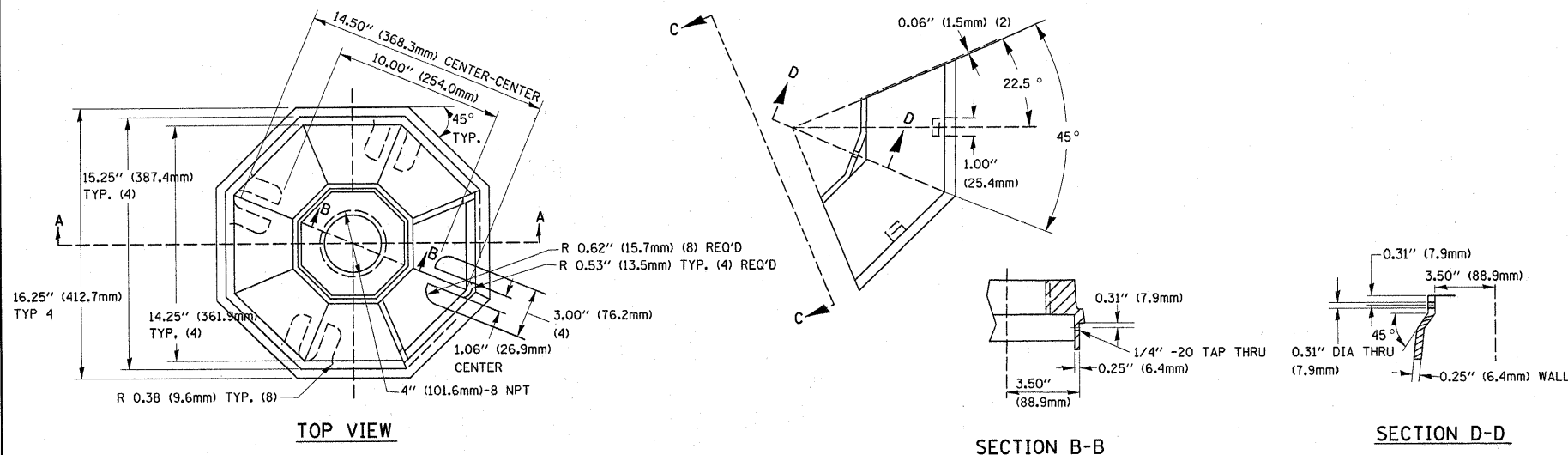
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		CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

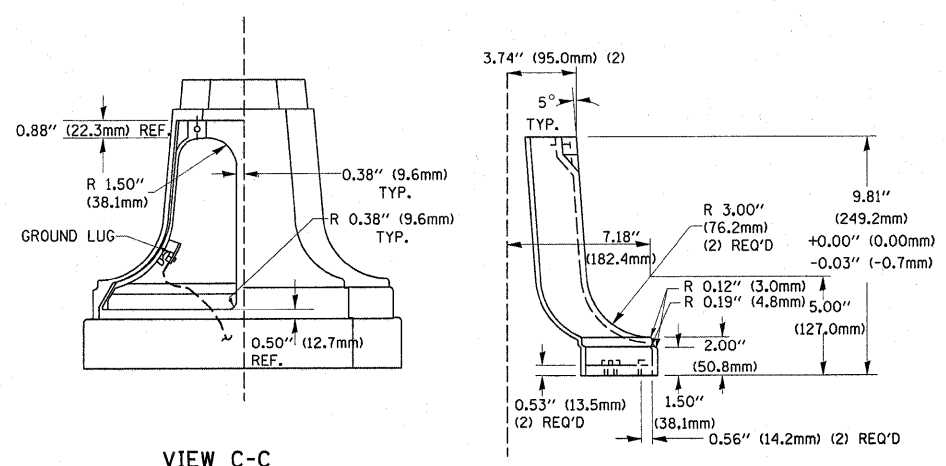
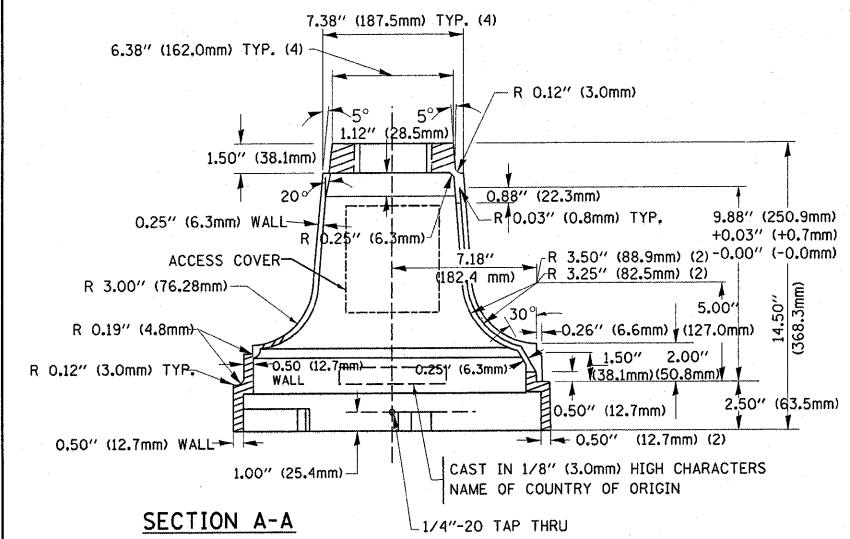
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	37
TS-05		CONTRACT NO. 60J32		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



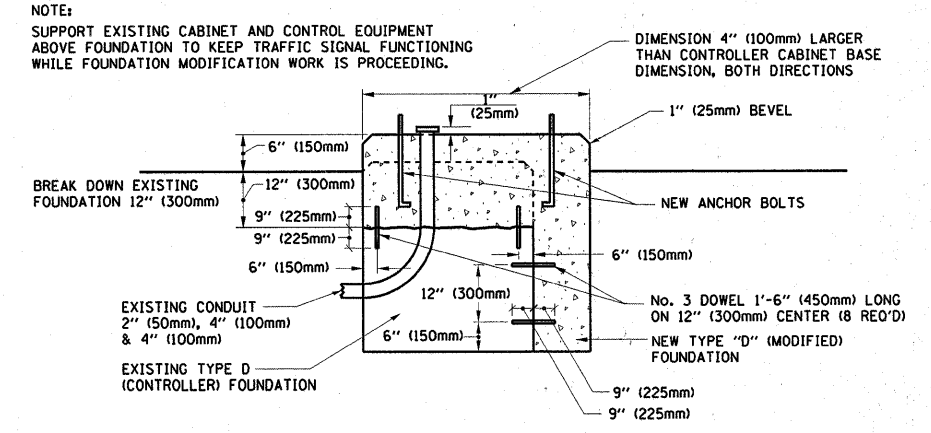
A	B	C	HEIGHT	WEIGHT
VARIES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126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

SHROUD

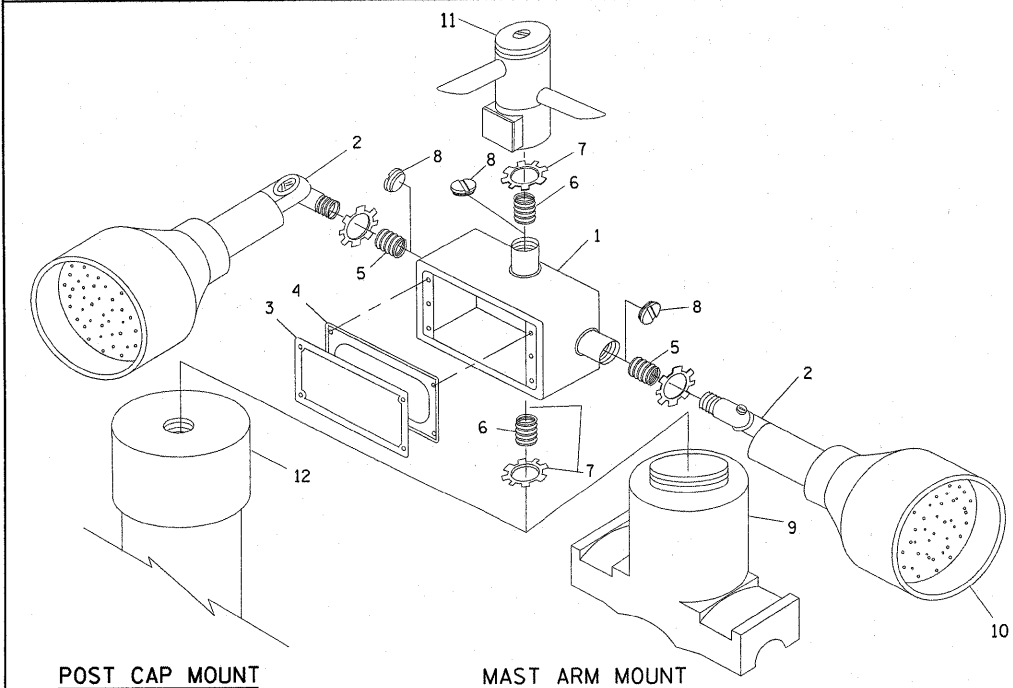
- NOTES:**
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST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



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

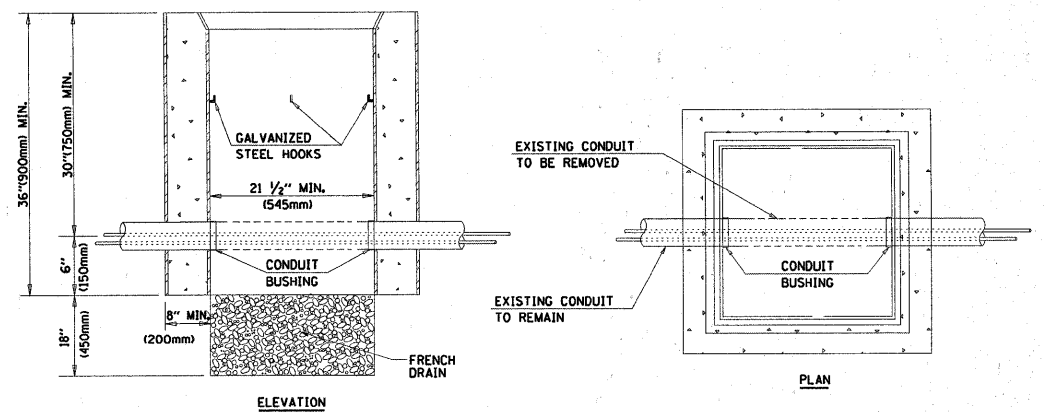


MODIFY EXISTING TYPE "D" FOUNDATION



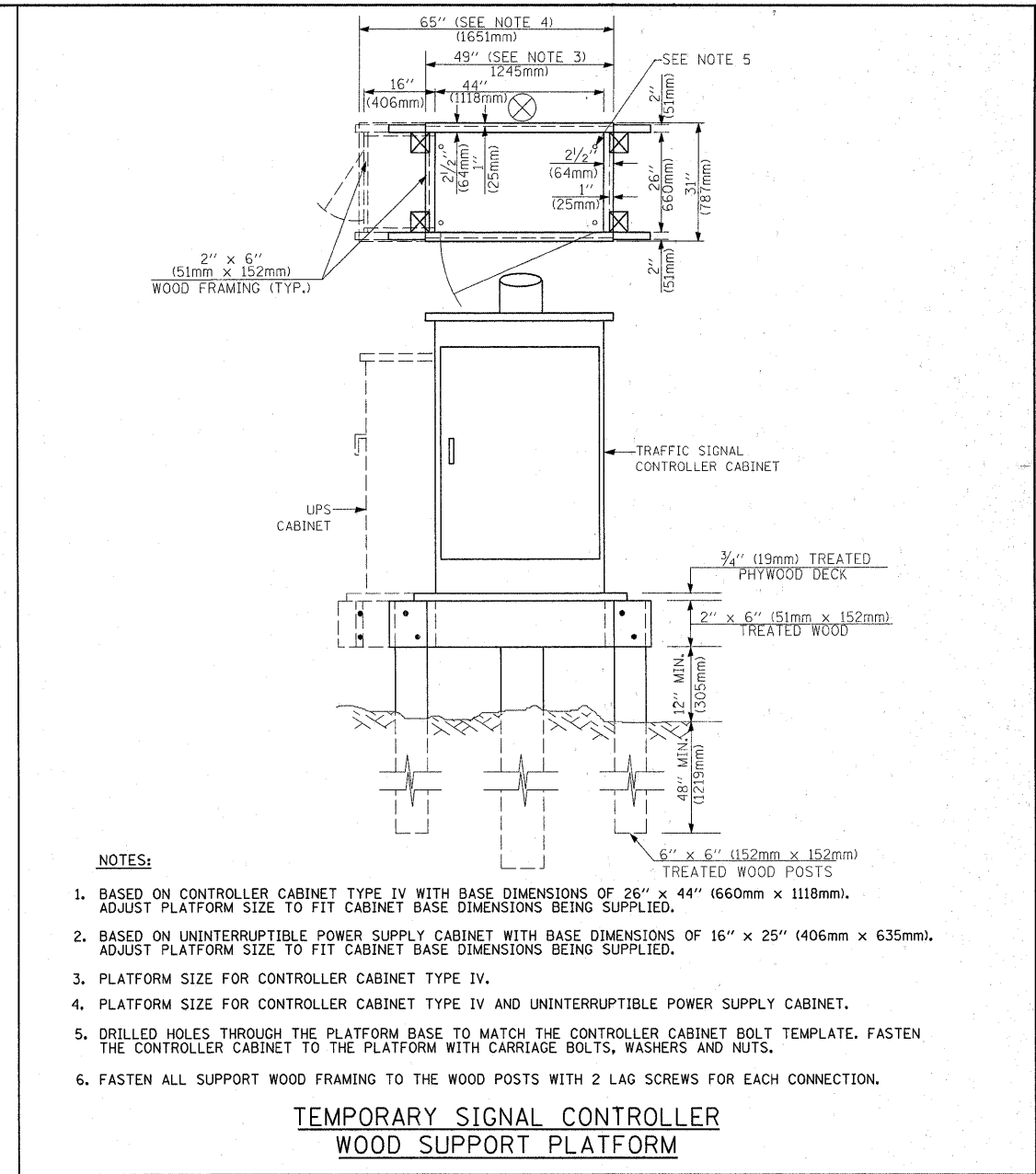
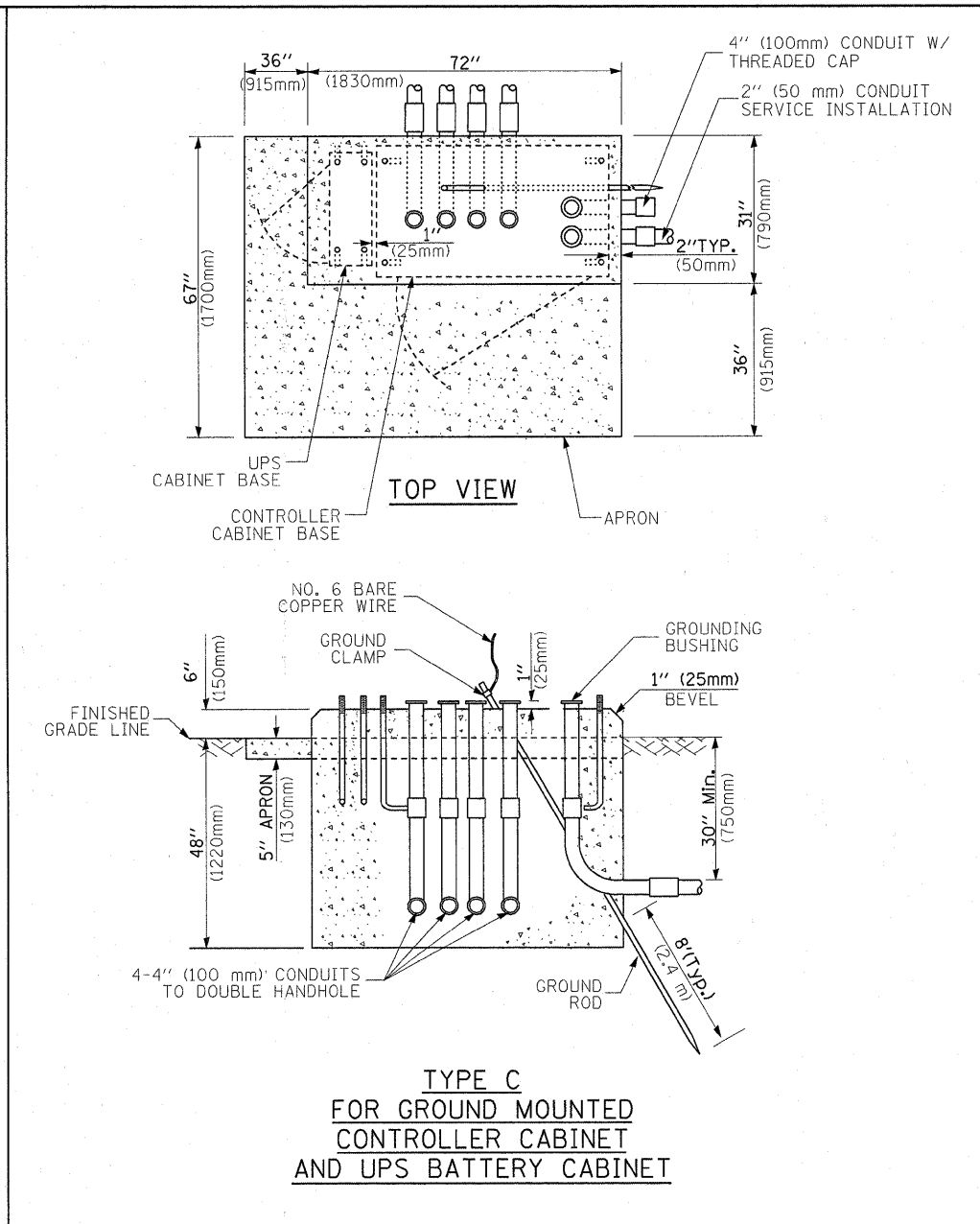
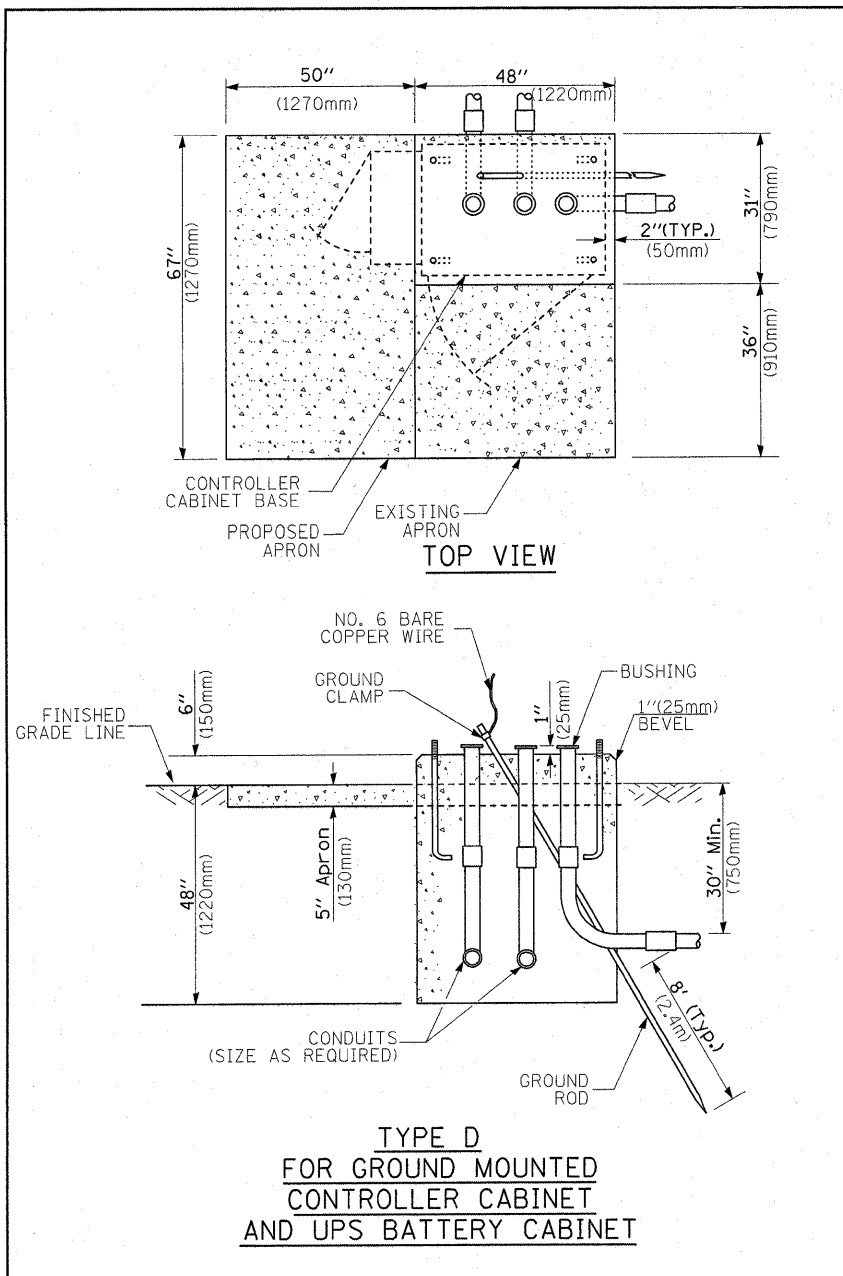
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT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

- NOTES:**
1. 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:**
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 INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:**
1. 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.

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

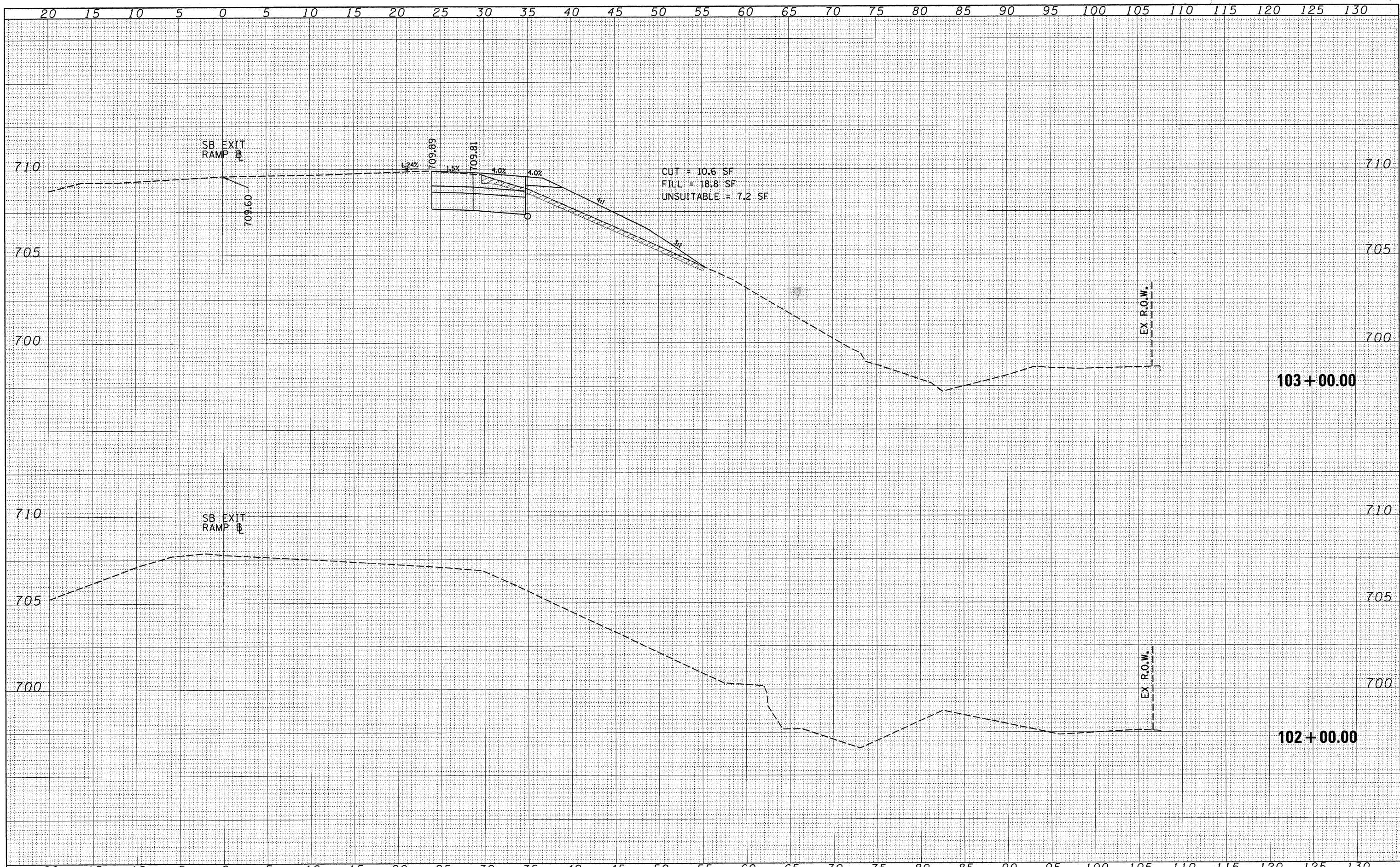
FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

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 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	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 (qu) > 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.

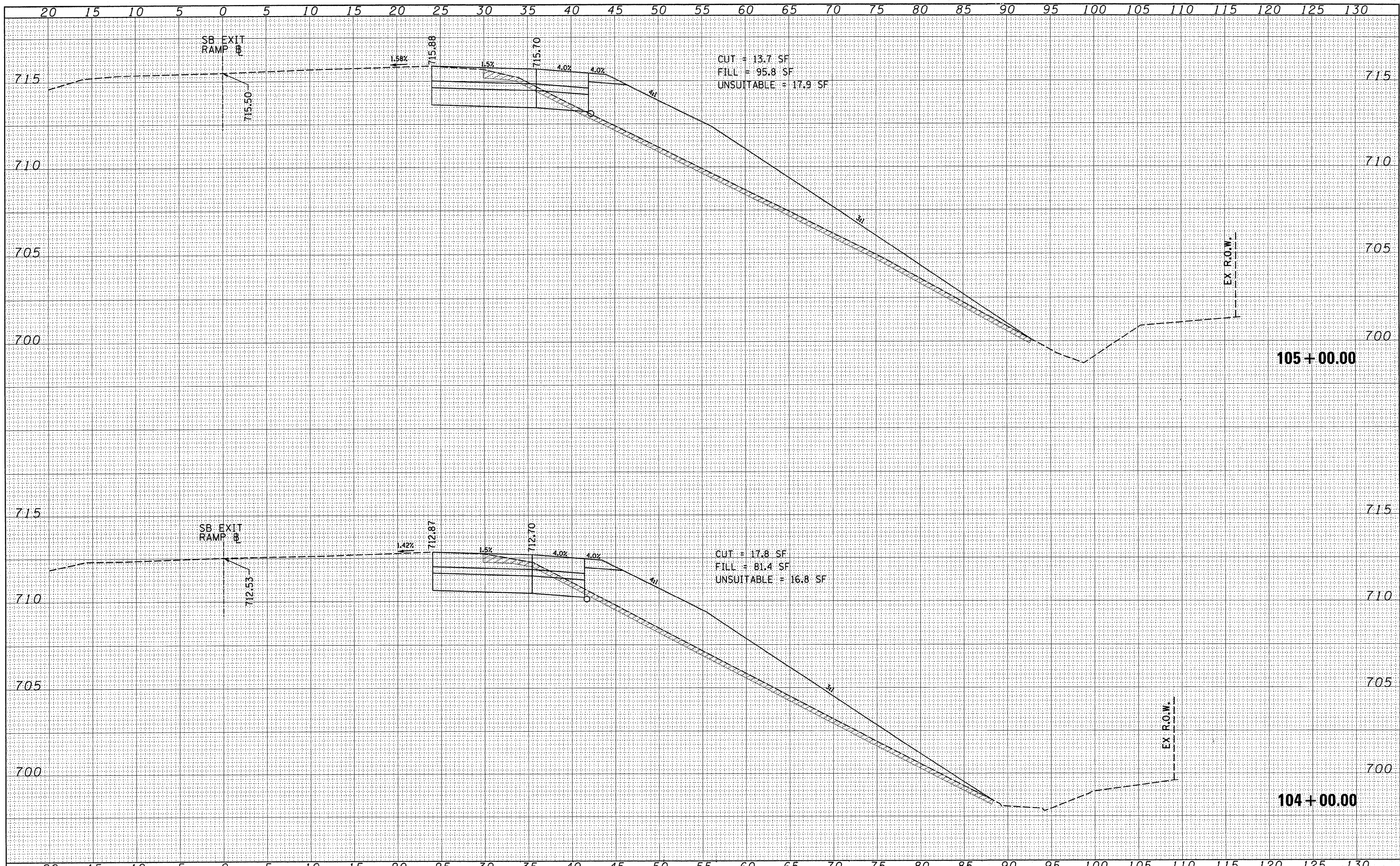
DEPTH OF MAST ARM FOUNDATIONS, TYPE E



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BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

FILE NAME =	USER NAME = kellers	DESIGNED - JAB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB BIESTERFIELD ROAD EXIT RAMP CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pw_work\PWIDOT\KELLERS\d0155790\P141009-shs	xshst-SBRamp.dgn	DRAWN - JAB	REVISED -		290	0101-311 HBK-1	COOK	44	41			
	PLOT SCALE = 5.0000' / IN.	CHECKED - JMT	REVISED -		SCALE: 2:1			SHEET NO. 1 OF 4 SHEETS	STA. 102+00.00 TO STA. 103+00.00	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	CONTRACT NO. 60J32	
	PLOT DATE = 4/1/2010	DATE - 09/18/09	REVISED -									



CUT = 13.7 SF
 FILL = 95.8 SF
 UNSUITABLE = 17.9 SF

CUT = 17.8 SF
 FILL = 81.4 SF
 UNSUITABLE = 16.8 SF

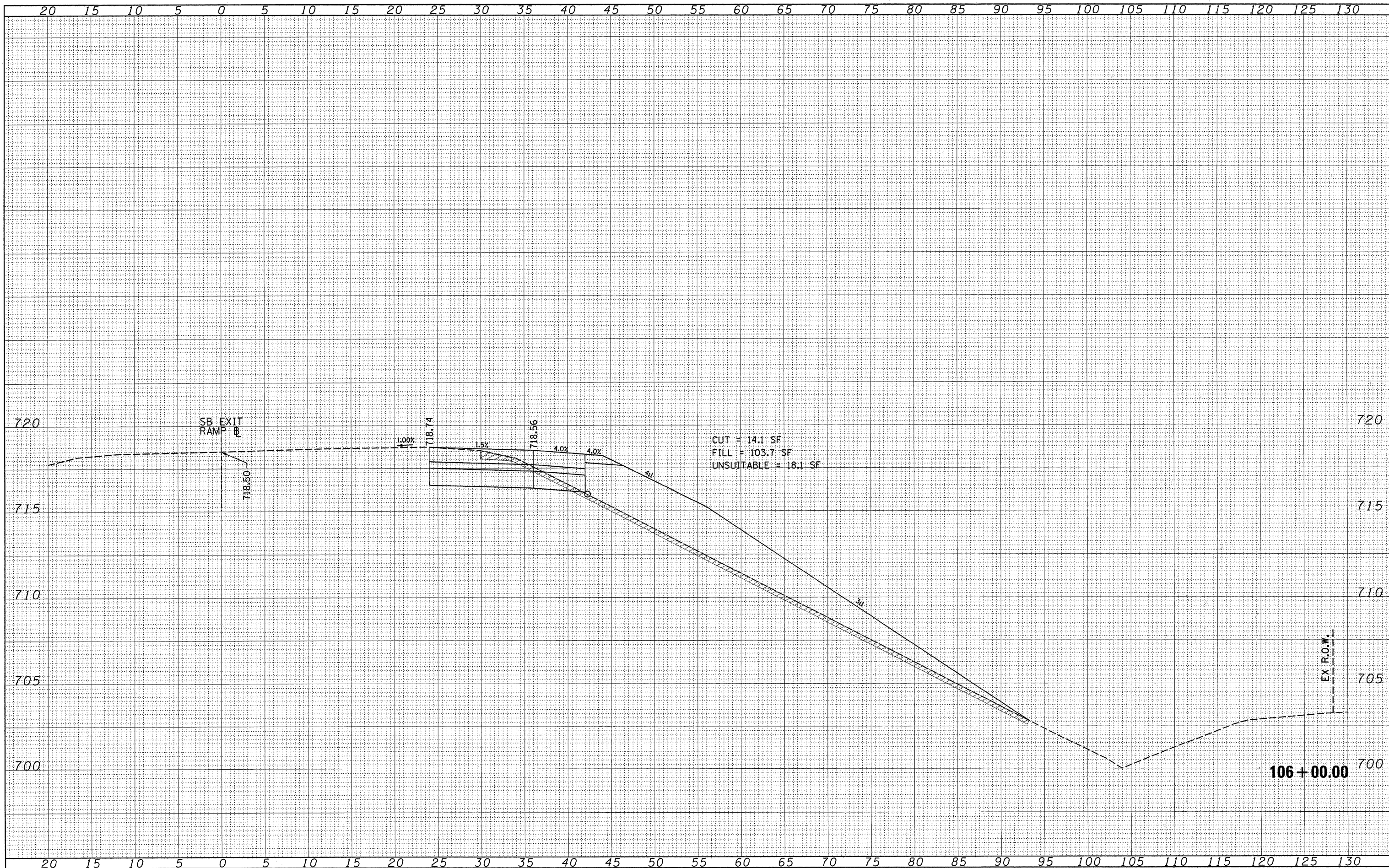
105 + 00.00

104 + 00.00

FINAL SURVEY	DATE
PLotted	
NOTE BOOK	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
PLotted	
NOTE BOOK	
AREAS CHECKED	

FILE NAME =	USER NAME = kellers	DESIGNED - JAB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB BIESTERFIELD ROAD EXIT RAMP CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 4/1/2010	DATE - 09/18/09	REVISED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO. _____	
AREAS CHECKED	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO. _____	
AREAS CHECKED	
AREAS CHECKED	

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 PLOT DATE = 4/1/2010

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 DATE - 09/18/09

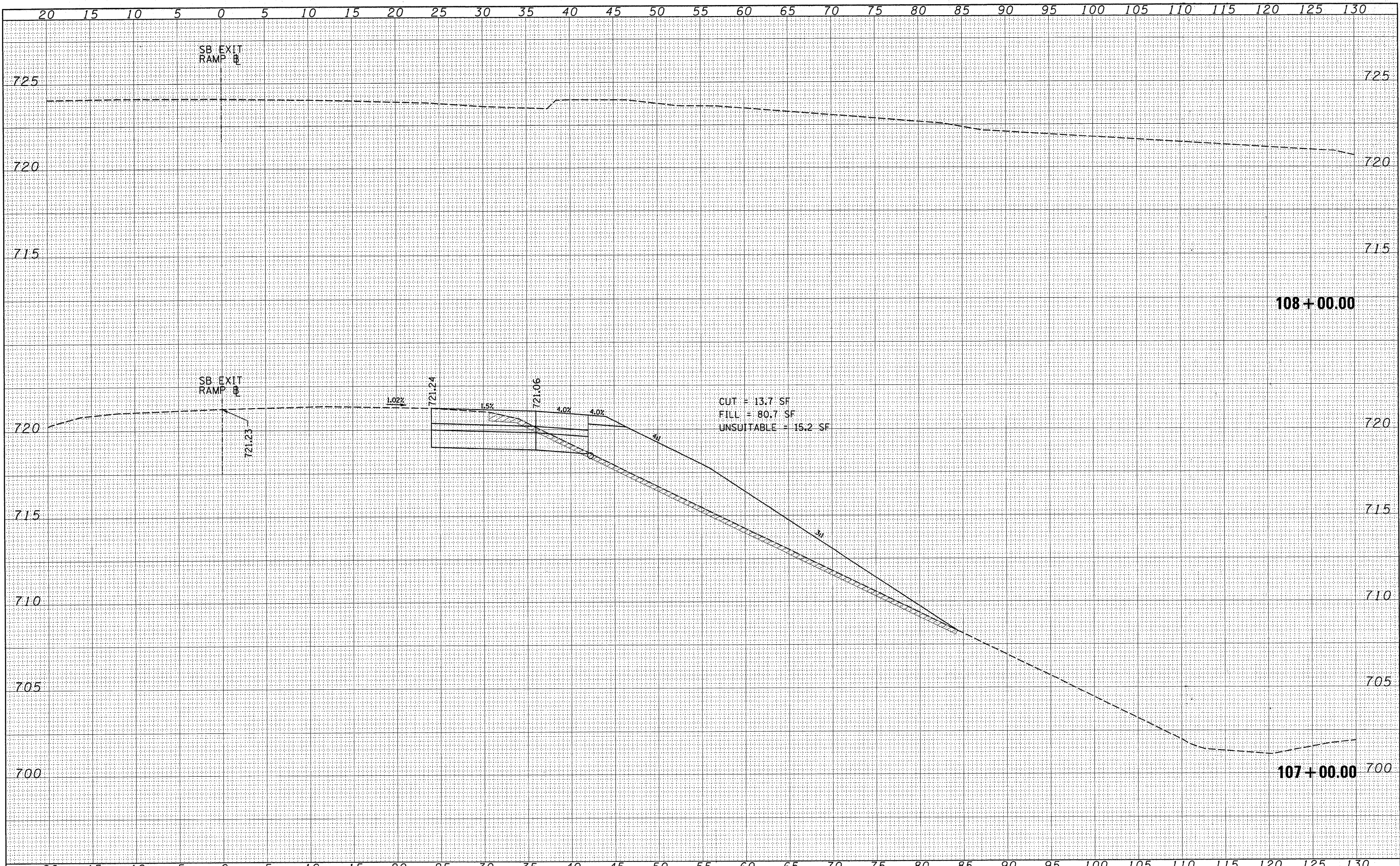
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-290 SB BIESTERFIELD ROAD EXIT RAMP
 CROSS SECTIONS**

SCALE: 2:1 SHEET NO. 3 OF 4 SHEETS STA. 106+00.00 TO STA. 106+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0101-311 HBK-1	COOK	44	43
CONTRACT NO. 60J32			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
NO.	

FILE NAME =	USER NAME = kellers	DESIGNED - JAB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 SB BIESTERFIELD ROAD EXIT RAMP CROSS SECTIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 5.0000" / IN.		CHECKED - JMT	REVISED -		SCALE: 2:1	SHEET NO. 4 OF 4 SHEETS	STA. 107+00.00 TO STA. 108+00.00	CONTRACT NO. 60J32				
PLOT DATE = 4/1/2010		DATE - 09/18/09	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							