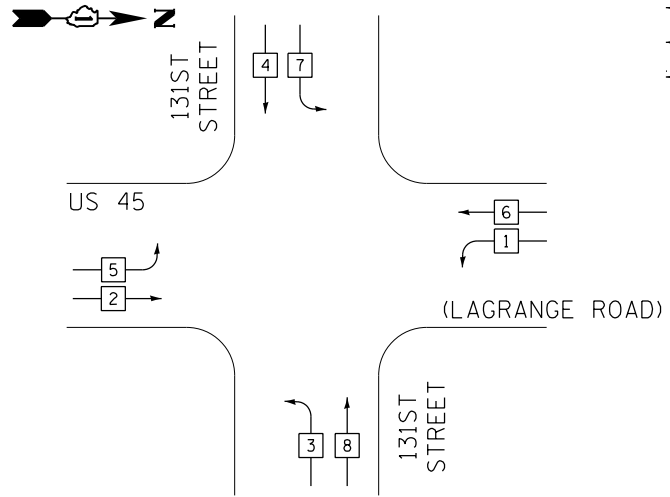
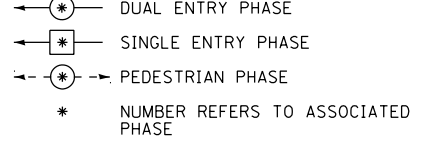


TEMPORARY CONTROLLER SEQUENCE

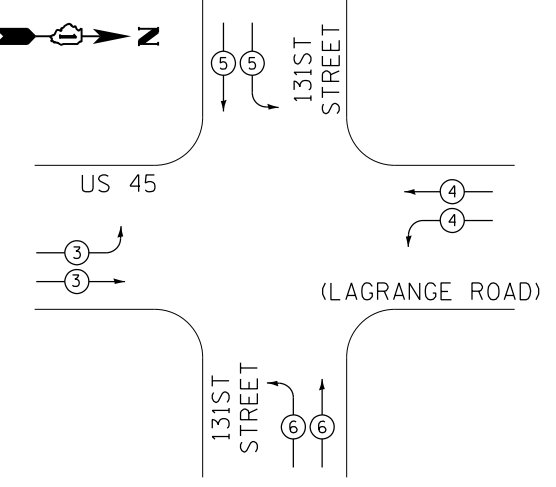


PHASE DESIGNATION DIAGRAM LEGEND



TEMPORARY PHASE DESIGNATION DIAGRAM

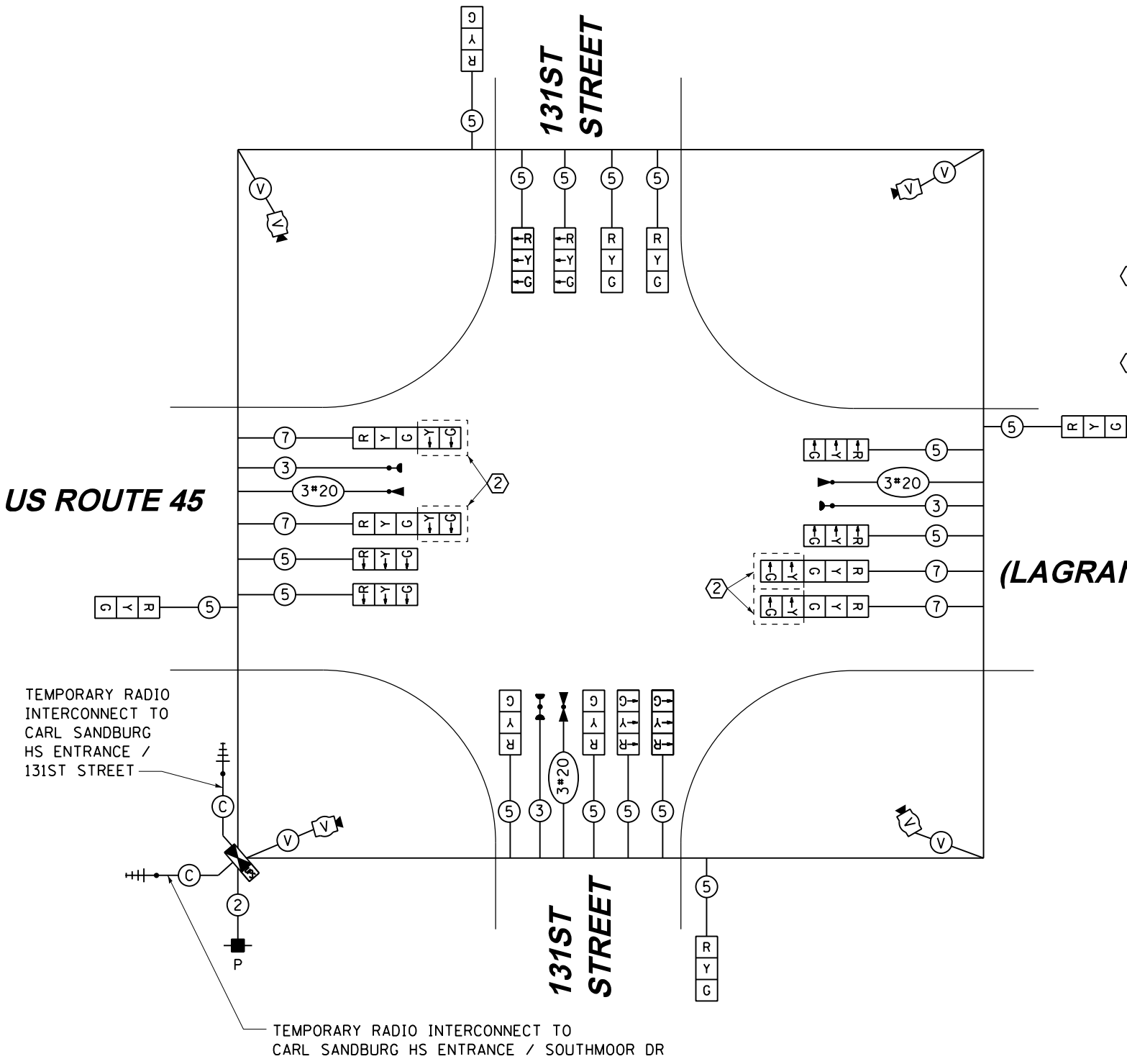
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



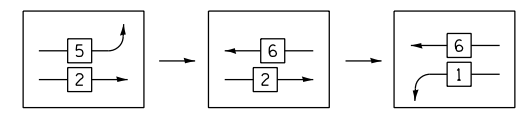
TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTORS	3	4	5	6
MOVEMENT	↔	↔	↕	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION		
SIGNAL (RED)	20		17	0.50		170.0
(YELLOW)	20		25	0.25		125.0
(GREEN)	20		15	0.25		75.0
ARROW	--		12	0.10		0.0
PED. SIGNAL	--		25	1.00		0.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	--		25	0.05		0.0
VIDEO SYSTEM	1		150	1.00		150.0
FLASHER			25	0.50		
ENERGY COST TO:					TOTAL =	620.0

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
 PHONE: (708) 235-2337  
 COMPANY: COMMONWEALTH EDISON



FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT THE LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGES 2 AND 4:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO HS ENTRANCE/SOUTHMOOR DRIVE AND HS ENTRANCE/131ST STREET ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4 AND FINAL GEOMETRICS.

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

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TEMPORARY CABLE PLAN  
 STAGE 2, 3, 4 & FINAL GEOMETRICS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 US 45 (LAGRANGE ROAD) AND 131ST STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
 SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	301
<b>TD-30</b>			<b>CONTRACT NO. 60M62</b>	
ILLINOIS FED. AID PROJECT				

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =  
 D160M62-SHT-TD30.dgn  
 SHT.PLAN

USER NAME = Anthony.Plutz  
 DESIGNED - MRF  
 DRAWN - MRF  
 PLOT SCALE = 40.0000' / in.  
 PLOT DATE = 3/13/2013

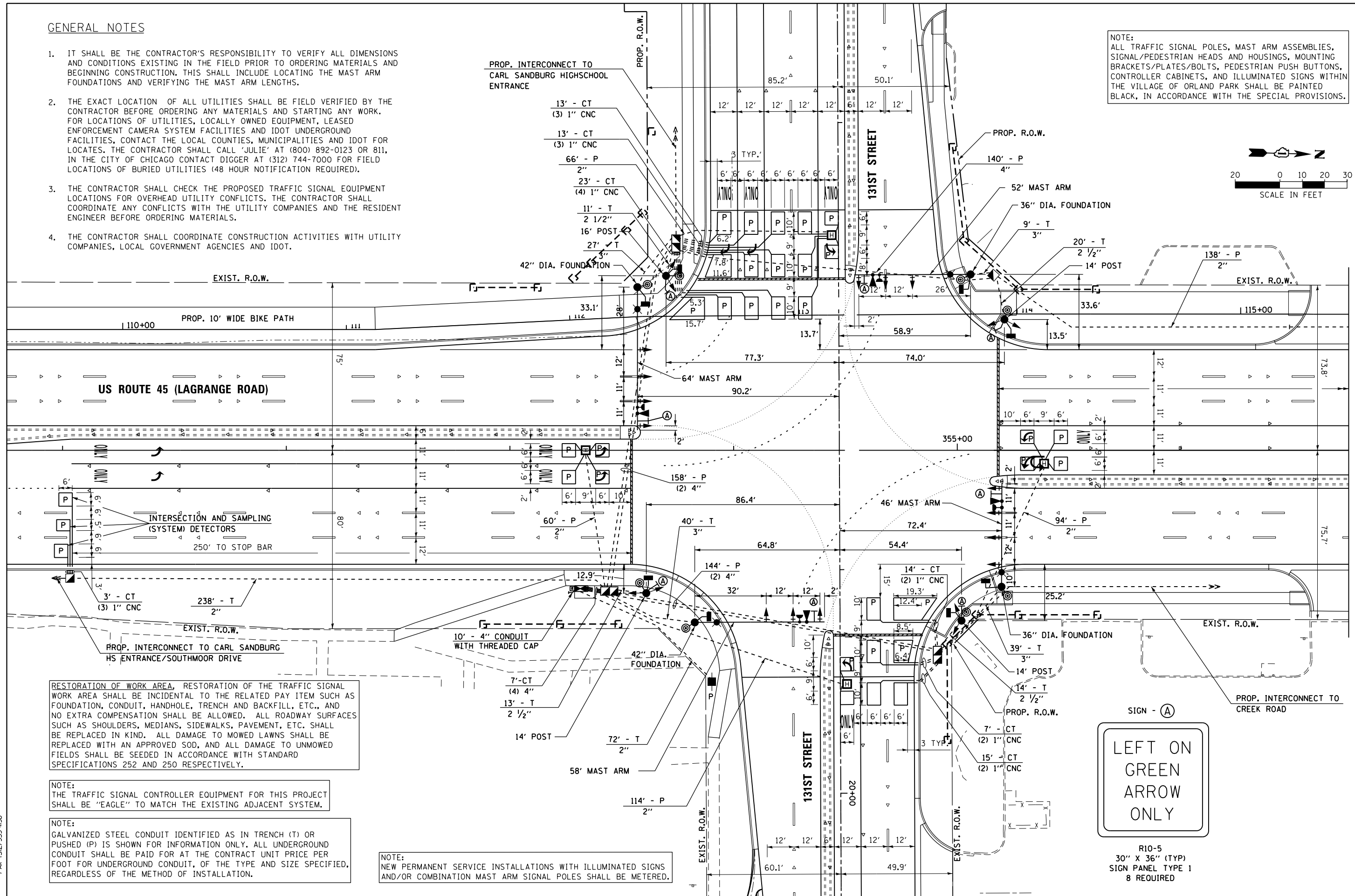
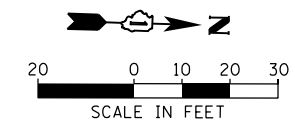
REVISOR -  
 REVISION -  
 CHECKED - MJL  
 DATE - 03/13/13

REVISOR -  
 REVISION -  
 REVISOR -  
 REVISION -

**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



R10-5  
30" X 36" (TYP)  
SIGN PANEL TYPE 1  
8 REQUIRED

100 S. WACKER DR.  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998



FILE NAME = D160M62-SHT-TD31.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
	PLOT SCALE = 48.000000' / in.	CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

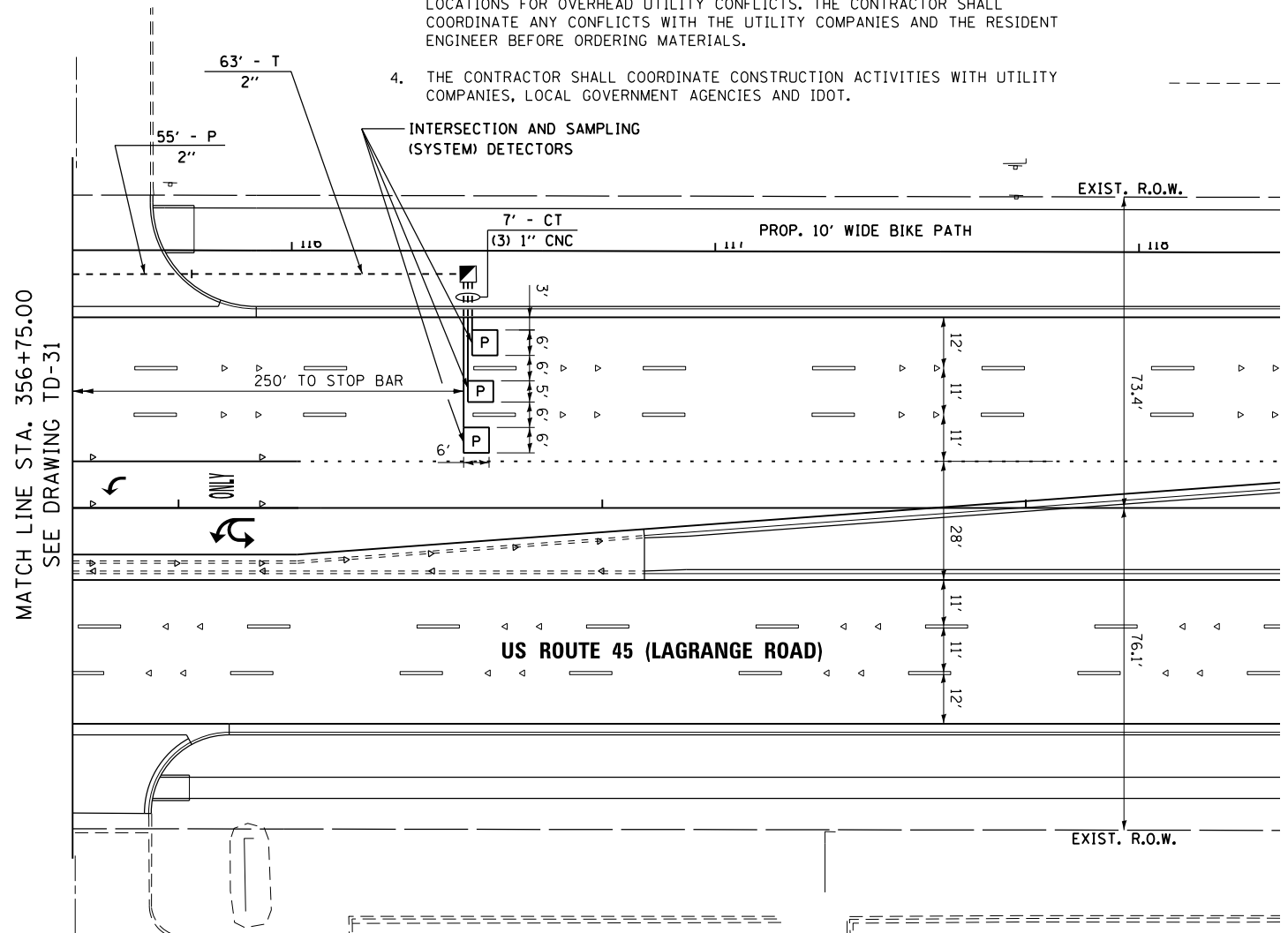
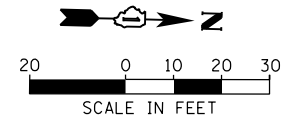
<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 131ST STREET</b>	
SCALE: 1"=20'	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RFE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 302
TD-31		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

MATCH LINE STA. 356+75.00  
 SEE SHEET TD-32

**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTE:  
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100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD32.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

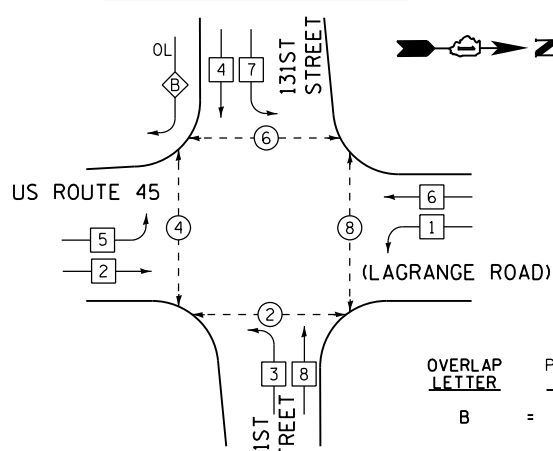
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 131ST STREET**

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. TO STA.

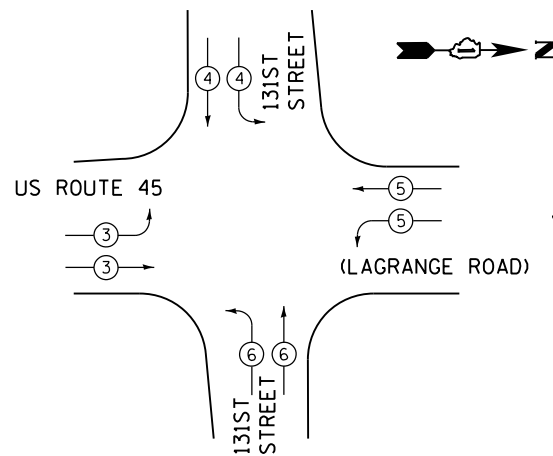
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	303
<b>TD-32</b>			<b>CONTRACT NO. 60M62</b>	
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTORS	3	4	5	6
MOVEMENT				

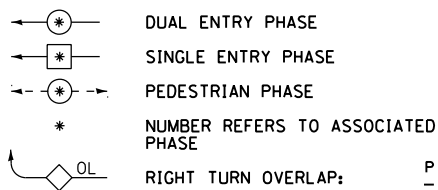
PROP. INTERCONNECT TO CARL SANDBURG HIGH SCHOOL ENTRANCE/SOUTHMOOR DRIVE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION		
SIGNAL (RED)	22	17	0.50		187.0	
(YELLOW)	22	25	0.25		137.5	
(GREEN)	22	15	0.25		82.5	
ARROW	4	12	0.10		4.8	
PED. SIGNAL	8	25	1.00		200.0	
CONTROLLER	1	100	1.00		100.0	
ILLUM. SIGN	4	25	0.05		5.0	
FLASHER						25
ENERGY COST TO:						TOTAL = 716.8

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

**PHASE DESIGNATION DIAGRAM LEGEND**



PROP. INTERCONNECT TO CARL SANDBURG HIGH SCHOOL ENTRANCE

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

PROP. INTERSECTION AND (SAMPLING) SYSTEM DETECTORS

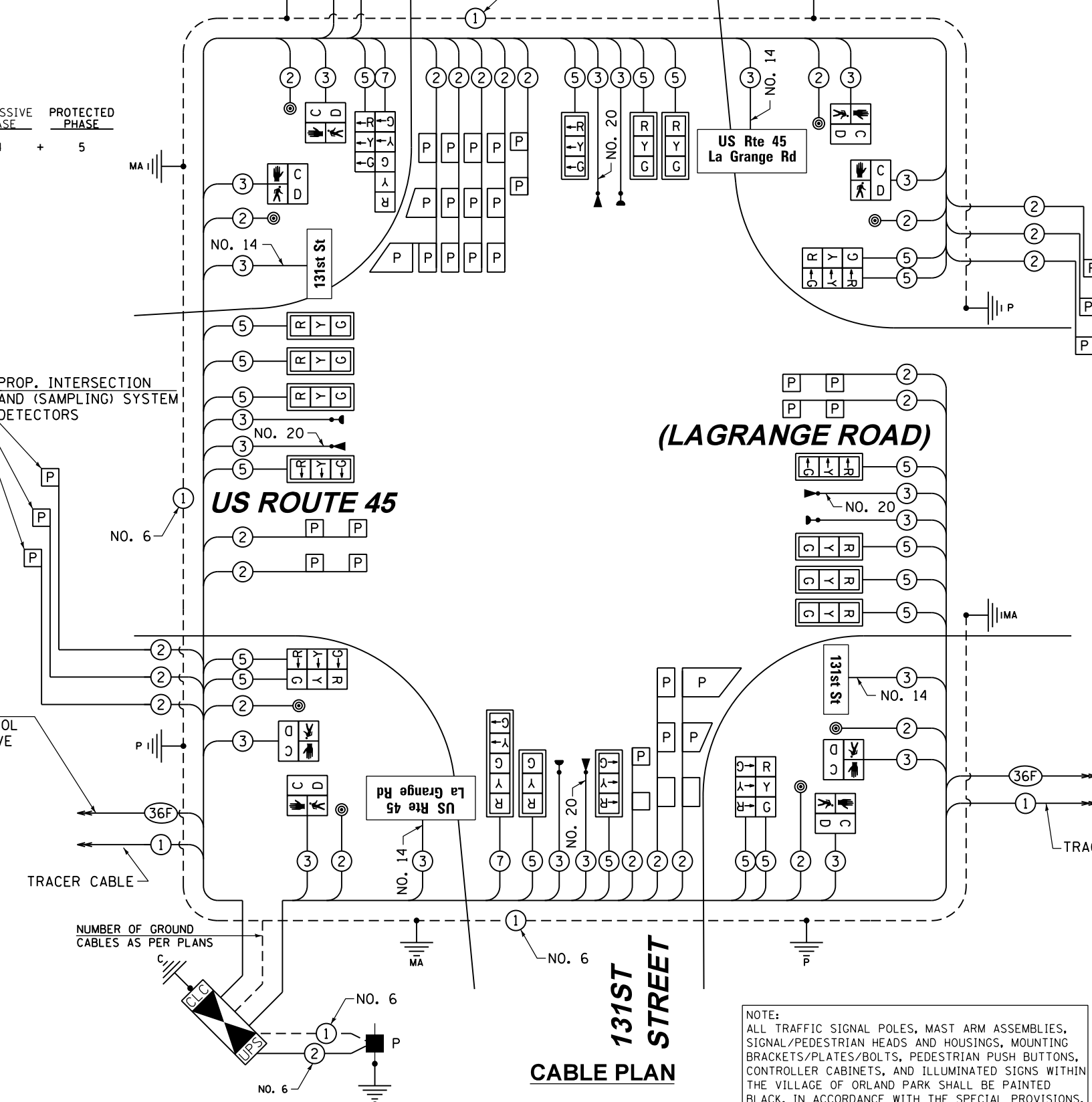
TRACER CABLE

NUMBER OF GROUND CABLES AS PER PLANS

**US ROUTE 45**

**(LAGRANGE ROAD)**

**CABLE PLAN**



**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	60
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	900
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	58
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	115
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	785
HANDHOLE	EACH	3
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1748
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2967
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	5306
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	346
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4810
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	90
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1 C	FOOT	891
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 64 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	13
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	18
DETECTOR LOOP, TYPE I	FOOT	109
PERFORMED DETECTOR LOOP	FOOT	1325
* LIGHT DETECTOR	EACH	4
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	15
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	1163
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

\* 100% COST TO PALOS FIRE PROTECTION DISTRICT  
\*\* 100% COST TO VILLAGE OF PALOS PARK

PROP. INTERCONNECT TO CREEK ROAD

TRACER CABLE

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

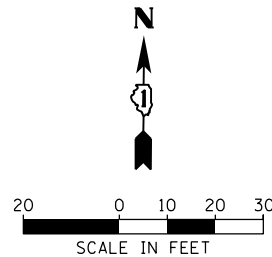
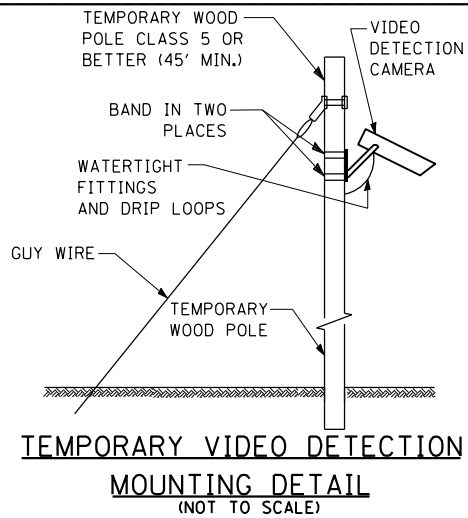
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NOTE: NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



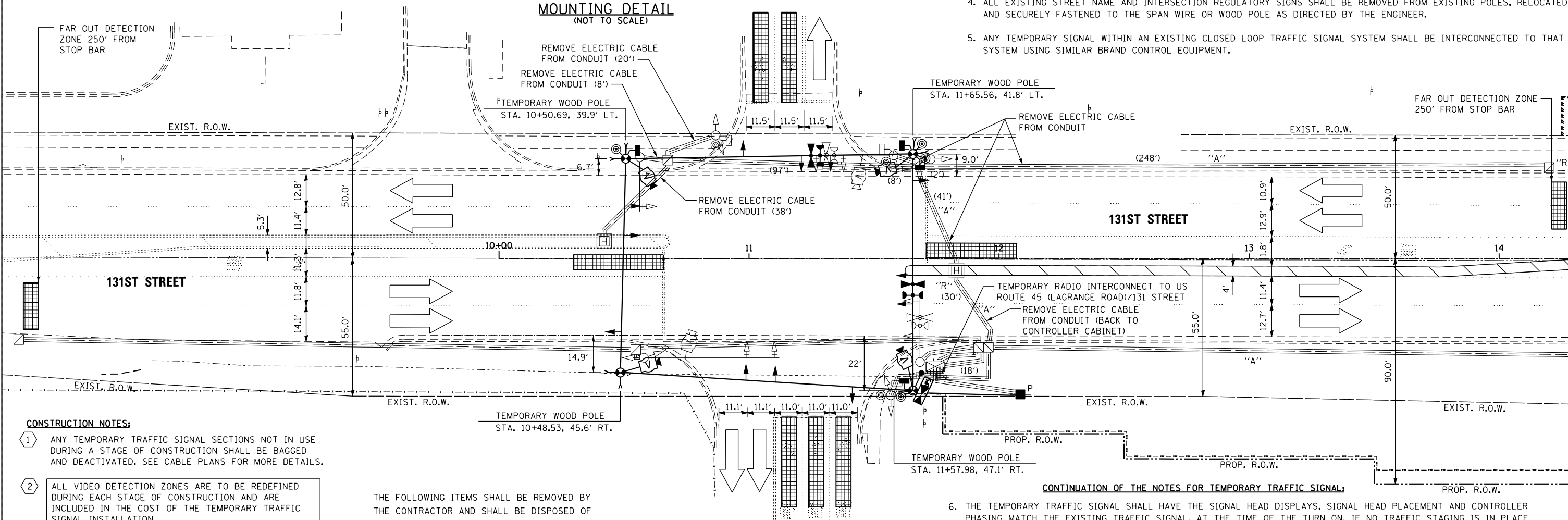
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NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. 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.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) 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.
4. 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.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD)/ 131 STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

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.

AGENCY: VILLAGE OF ORLAND PARK

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT 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.
7. 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.
8. 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.
9. 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.
10. 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.

100 S. WACKER DR.  
10TH FLOOR  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

**URS**

FILE NAME = D160M62-SHT-TD34.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

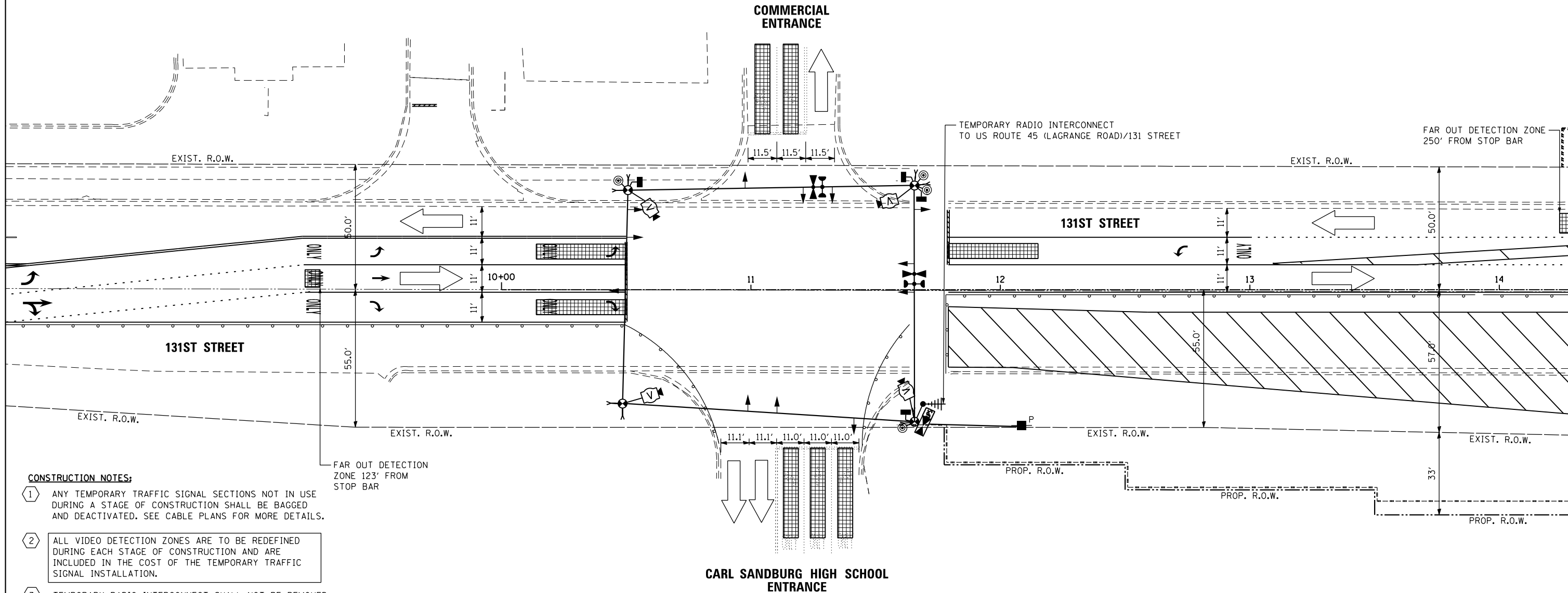
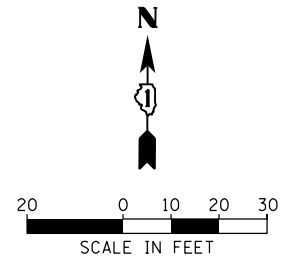
TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE  
131ST STREET AND HS ENTRANCE/COMMERCIAL ENTRANCE

SCALE: 1"=20' SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 305
TD-34		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD)/ 131 STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD35.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

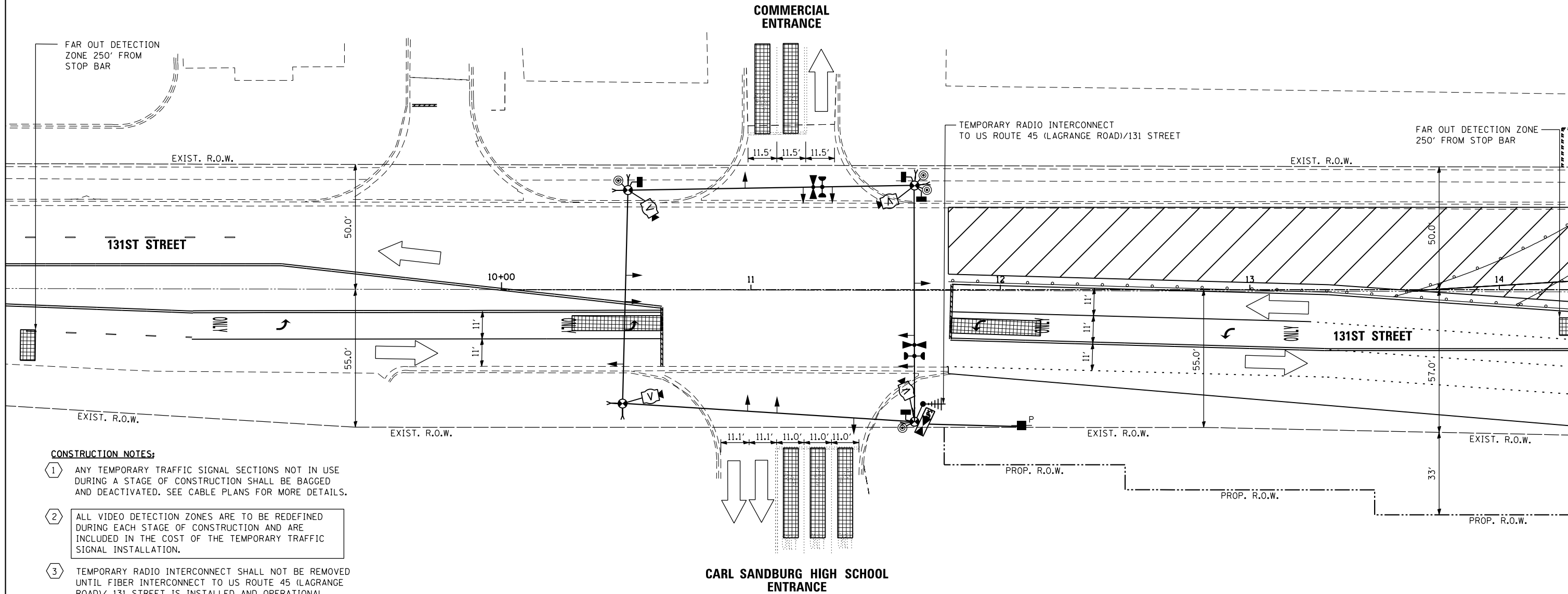
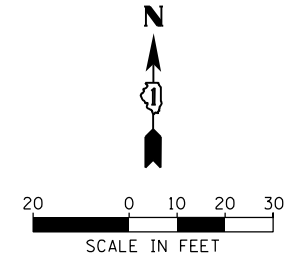
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1A  
131ST STREET AND CARL SANDBURG HIGH SCHOOL ENTRANCE /  
COMMERCIAL ENTRANCE**

SCALE: 1"=20' SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 306
<b>TD-35</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD)/ 131 STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD36.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

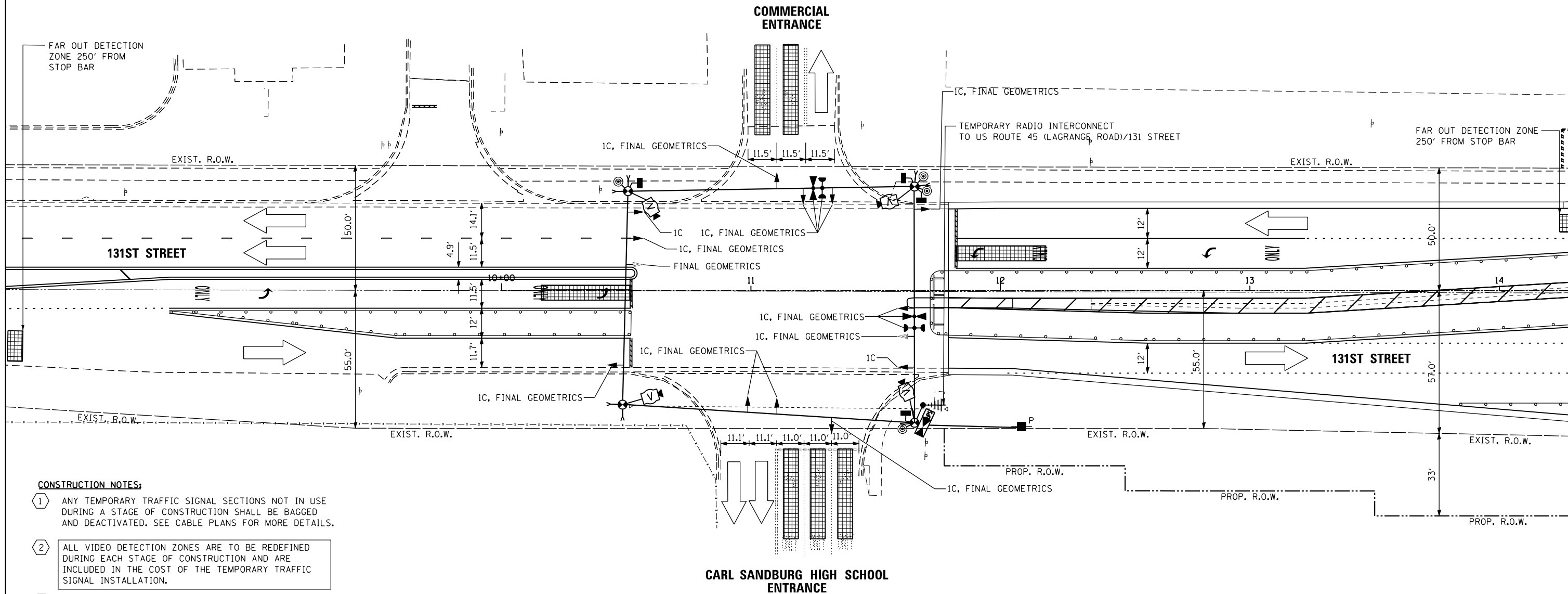
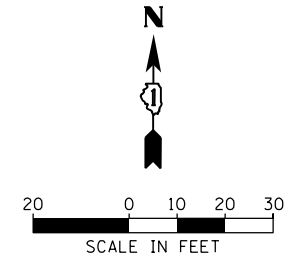
**TEMPORARY TRAFFIC SIGNAL INSTALLATION STAGE 1B  
131ST STREET AND CARL SANDBURG HIGH SCHOOL ENTRANCE /  
COMMERCIAL ENTRANCE**

SCALE: 1"=20' SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 307
<b>TD-36</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD)/ 131 STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

100 S. WACKER DR.  
 15TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

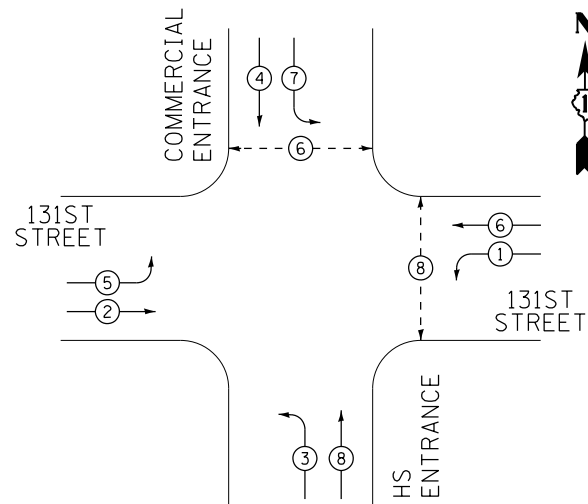
FILE NAME = D160M62-SHT-TD37.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION STAGE 1C &amp; FINAL GEOMETRICS 131ST STREET AND CARL SANDBURG HIGH SCHOOL ENTRANCE / COMMERCIAL ENTRANCE</b>			
SCALE: 1"=20'	SHEET 4 OF 4 SHEETS	STA.	TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 308
TD-37			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE

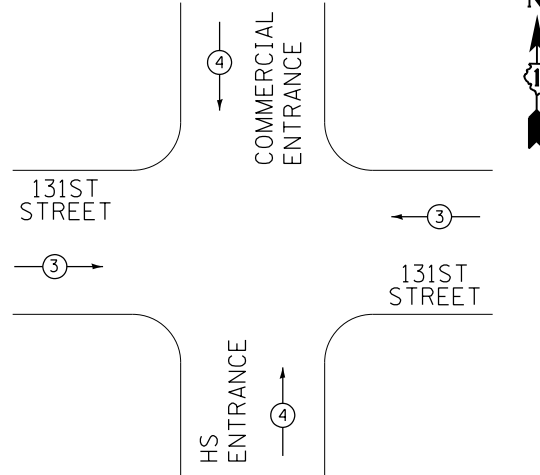


PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊛ SINGLE ENTRY PHASE
- ⊚ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION		
SIGNAL (RED)	12		17	0.50		102.0
(YELLOW)	12		25	0.25		75.0
(GREEN)	12		15	0.25		45.0
ARROW	16		12	0.10		19.2
PED. SIGNAL	4		25	1.00		100.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	--		25	0.05		0.0
VIDEO SYSTEM	1		150	1.00		150.0
FLASHER			25	0.50		
ENERGY COST TO:					TOTAL =	591.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

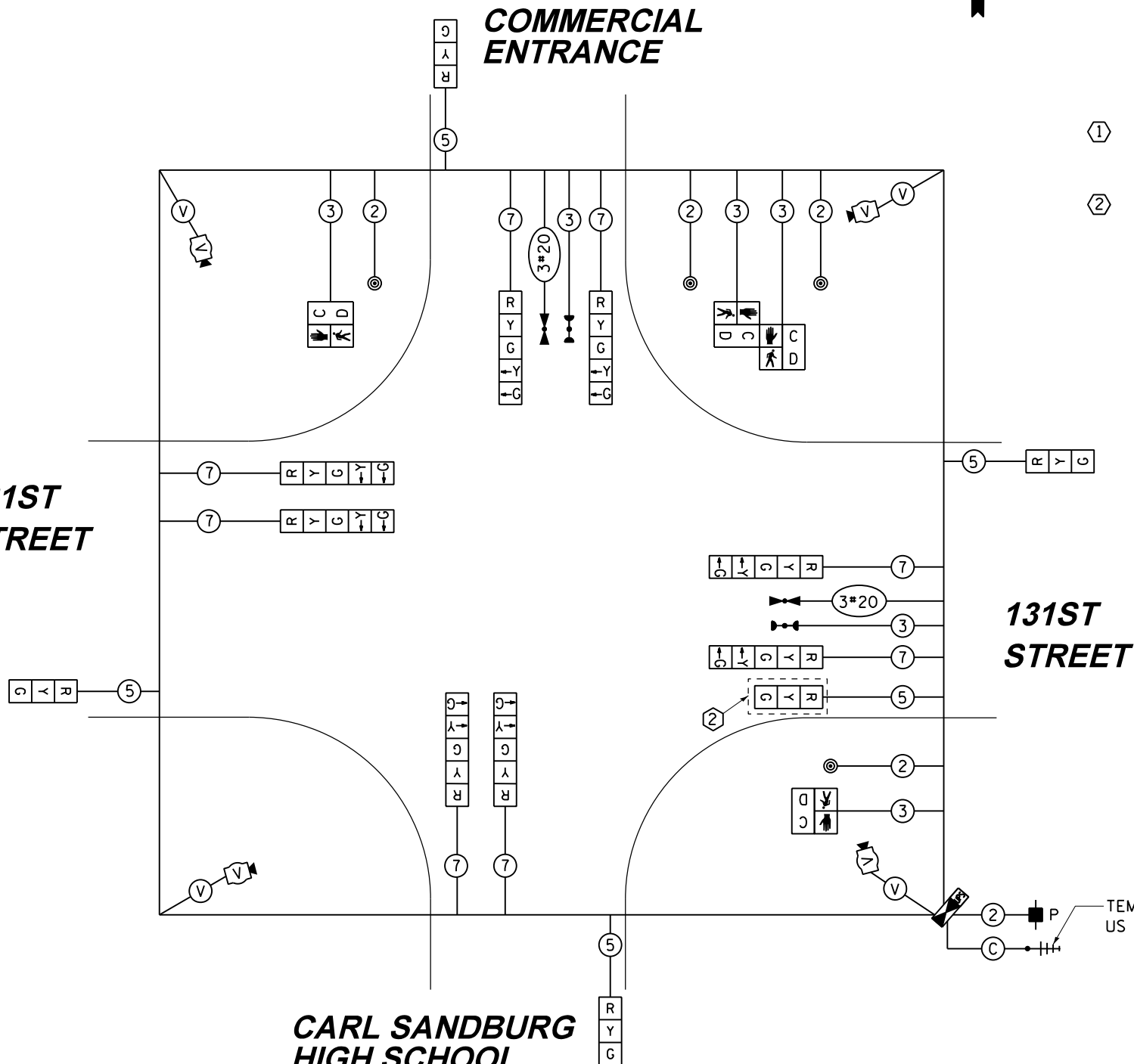
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4998

**URS**

FILE NAME = D:\60M62-SHT-TD38.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

**CARL SANDBURG HIGH SCHOOL ENTRANCE**

**TEMPORARY CABLE PLAN  
PRE-STAGE, STAGE 1A, 1B, 1C & FINAL GEOMETRICS**



CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD) / 131ST STREET INTERSECTION IS INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL HEAD DURING PRE-STAGE AND STAGES 1A, 1B, AND FINAL GEOMETRICS.

TEMPORARY RADIO INTERCONNECT TO US ROUTE 45 (LAGRANGE ROAD) / 131ST STREET

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

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

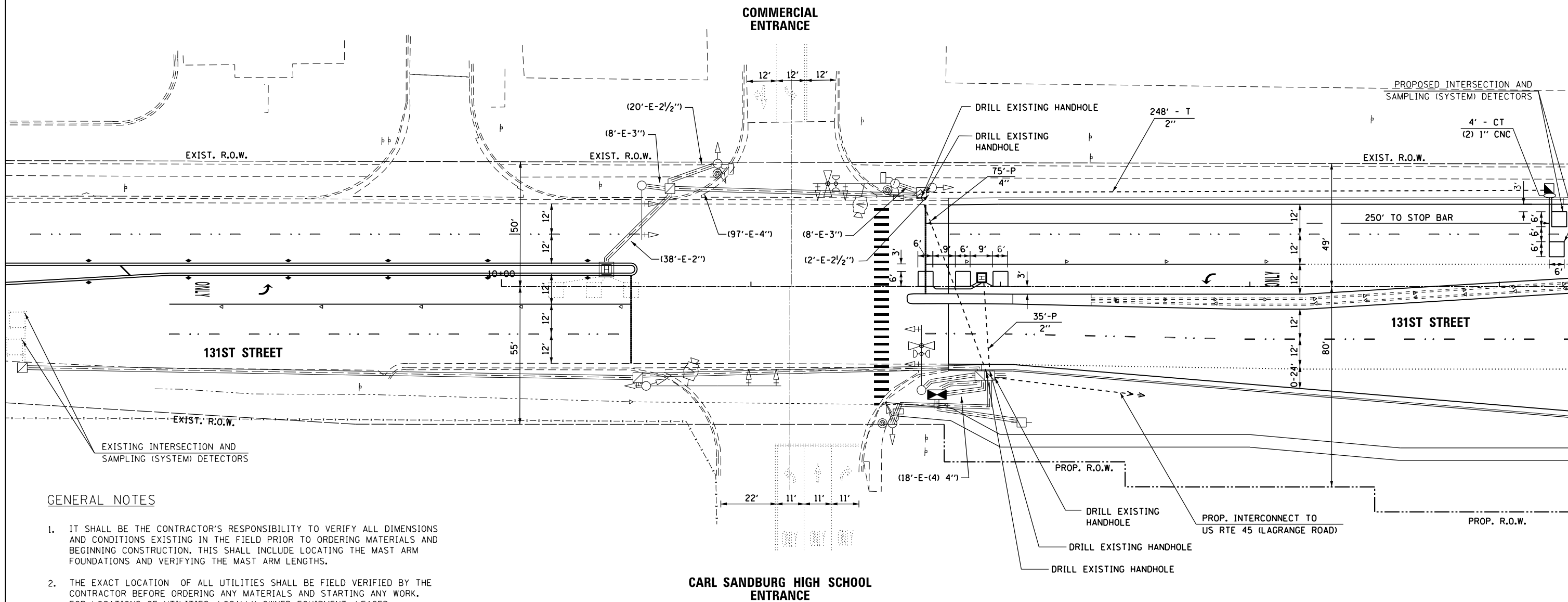
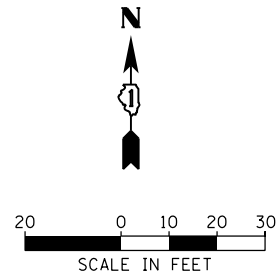
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE 131ST STREET AND HS ENTRANCE/COMMERCIAL ENTRANCE - PRE-STAGE, STAGE 1A, 1B, 1C & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 309
TD-38			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**GENERAL NOTES**

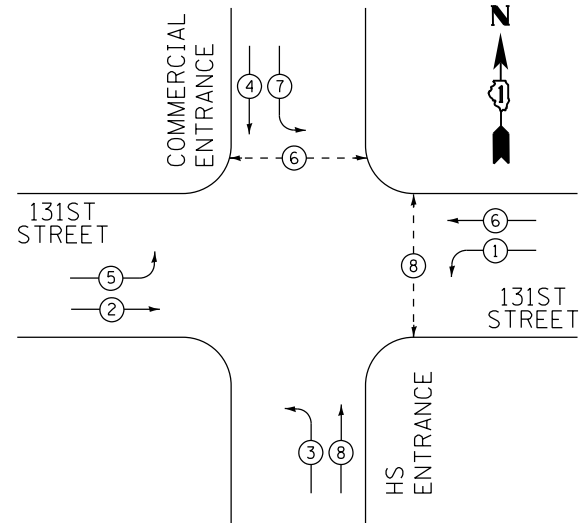
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

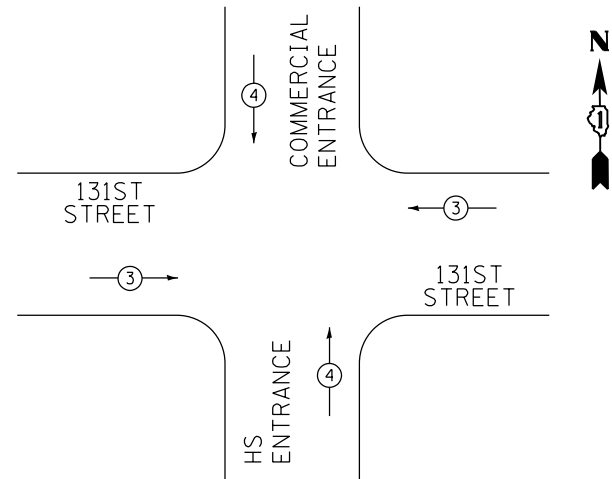
FILE NAME = D160M62-SHT-TD39.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODIFICATION PLAN 131ST STREET AND CARL SANDBURG HIGH SCHOOL ENTRANCE / COMMERCIAL ENTRANCE</b>			F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 310
SHT.PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -		SCALE: 1"=20'	SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>TD-39</b>		CONTRACT NO. 60M62		
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -		ILLINOIS FED. AID PROJECT							

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

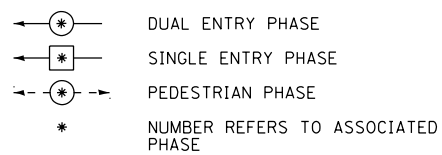


PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.0
(YELLOW)	16		25	0.25	100.0
(GREEN)	16		15	0.25	60.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	4		25	1.00	100.0
CONTROLLER	1		100	1.00	100.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:					TOTAL= 665.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

**PHASE DESIGNATION DIAGRAM LEGEND**

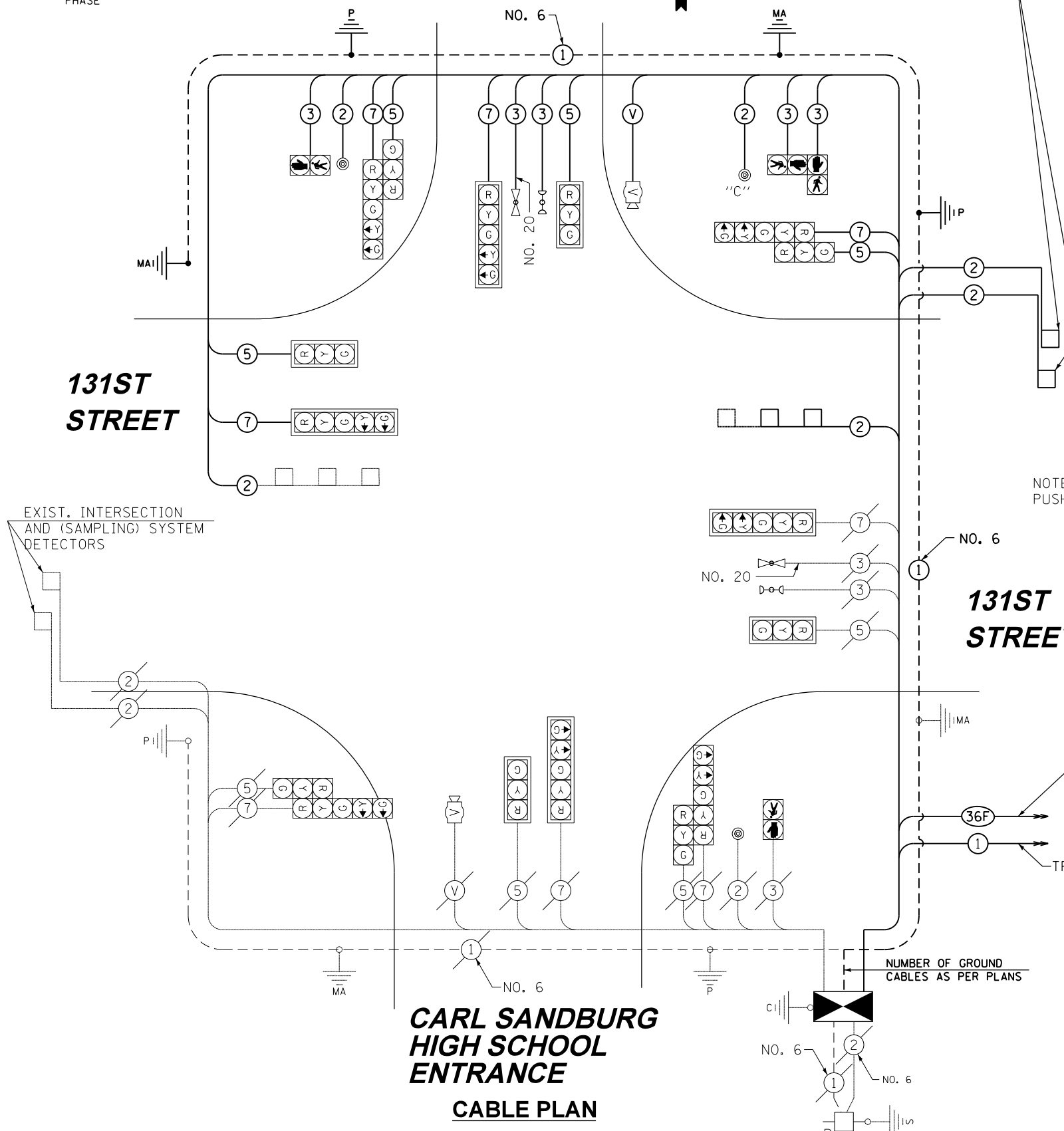


**COMMERCIAL ENTRANCE**

**131ST STREET**

**CARL SANDBURG HIGH SCHOOL ENTRANCE**

**CABLE PLAN**



**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	283
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	75
HANDHOLE	EACH	1
HEAVY DUTY HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	524
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	722
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	823
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	846
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	811
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR NO. 6 1 C	FOOT	306
DRILL EXISTING HANDHOLE	EACH	5
DETECTOR LOOP, TYPE I	FOOT	164
INDUCTIVE LOOP DETECTOR	EACH	3
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3687
REMOVE EXISTING HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	177
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	170

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

NOTE: PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PROP. INTERCONNECT TO US 45 (LAGRANGE ROAD)

TRACER CABLE

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME = D160M62-SHT-TD40.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
131ST STREET AND HS ENTRANCE/COMMERCIAL ENTRANCE

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 311
TD-40		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

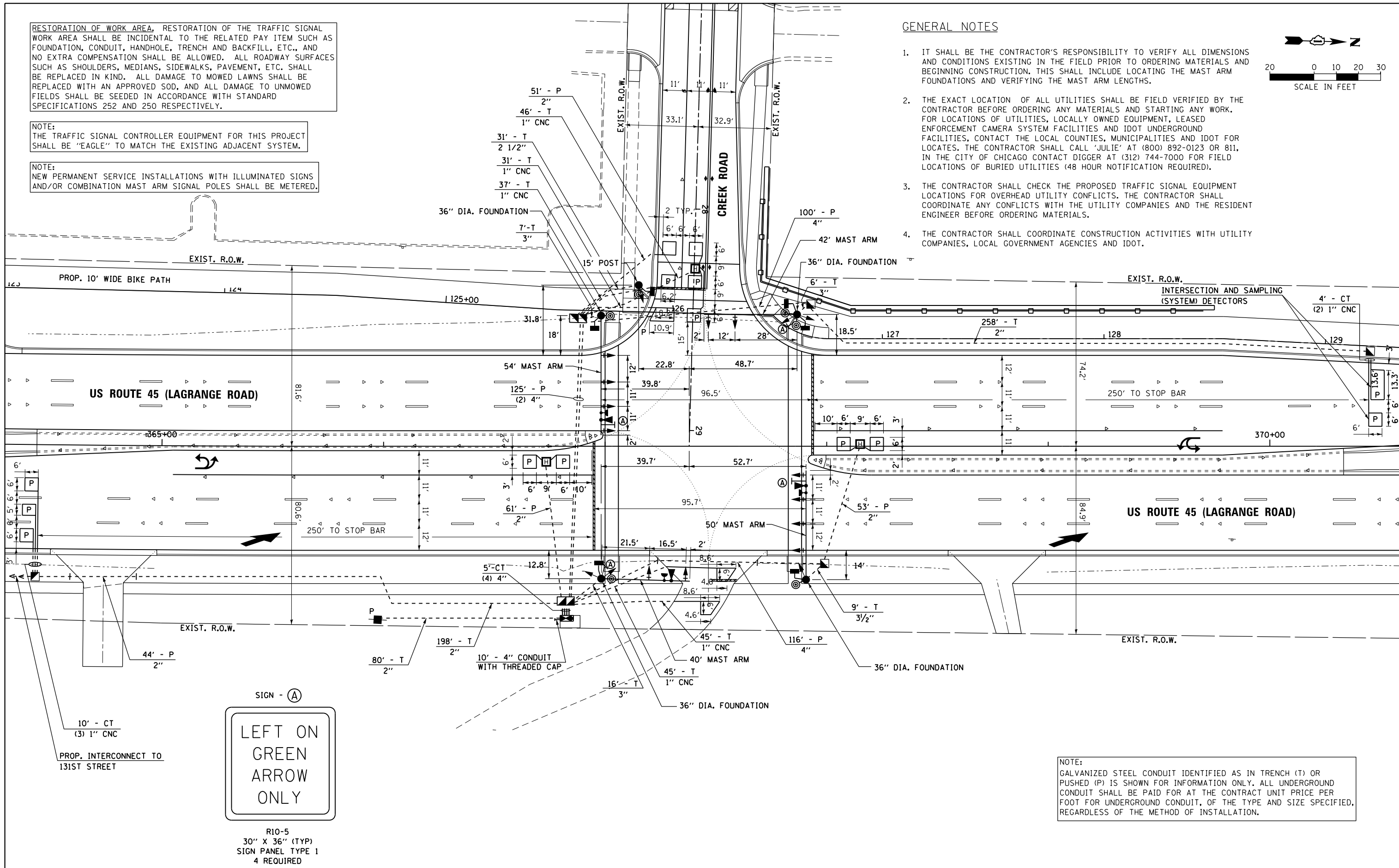
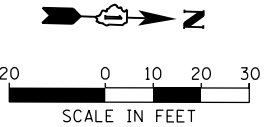
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

GENERAL NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



R10-5  
30" X 36" (TYP)  
SIGN PANEL TYPE 1  
4 REQUIRED

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998



FILE NAME = D160M62-SHT-TD41.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

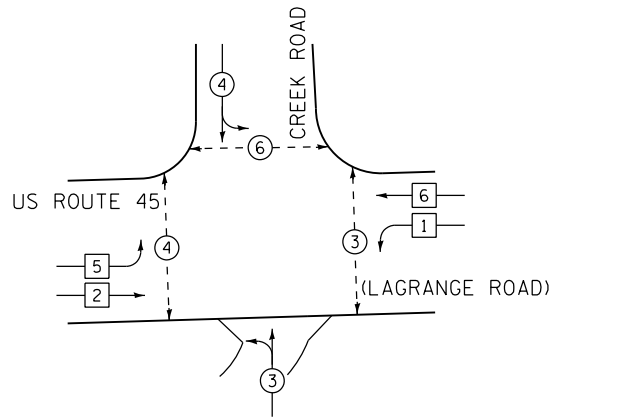
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND CREEK ROAD  
SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	312
TD-41		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



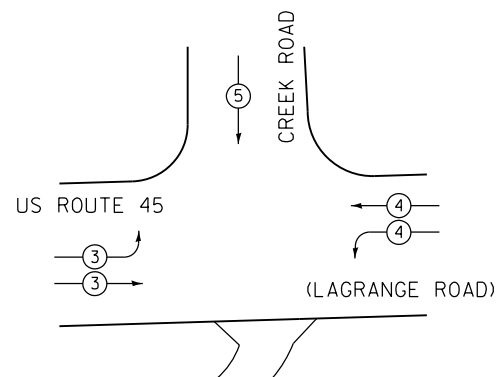
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE



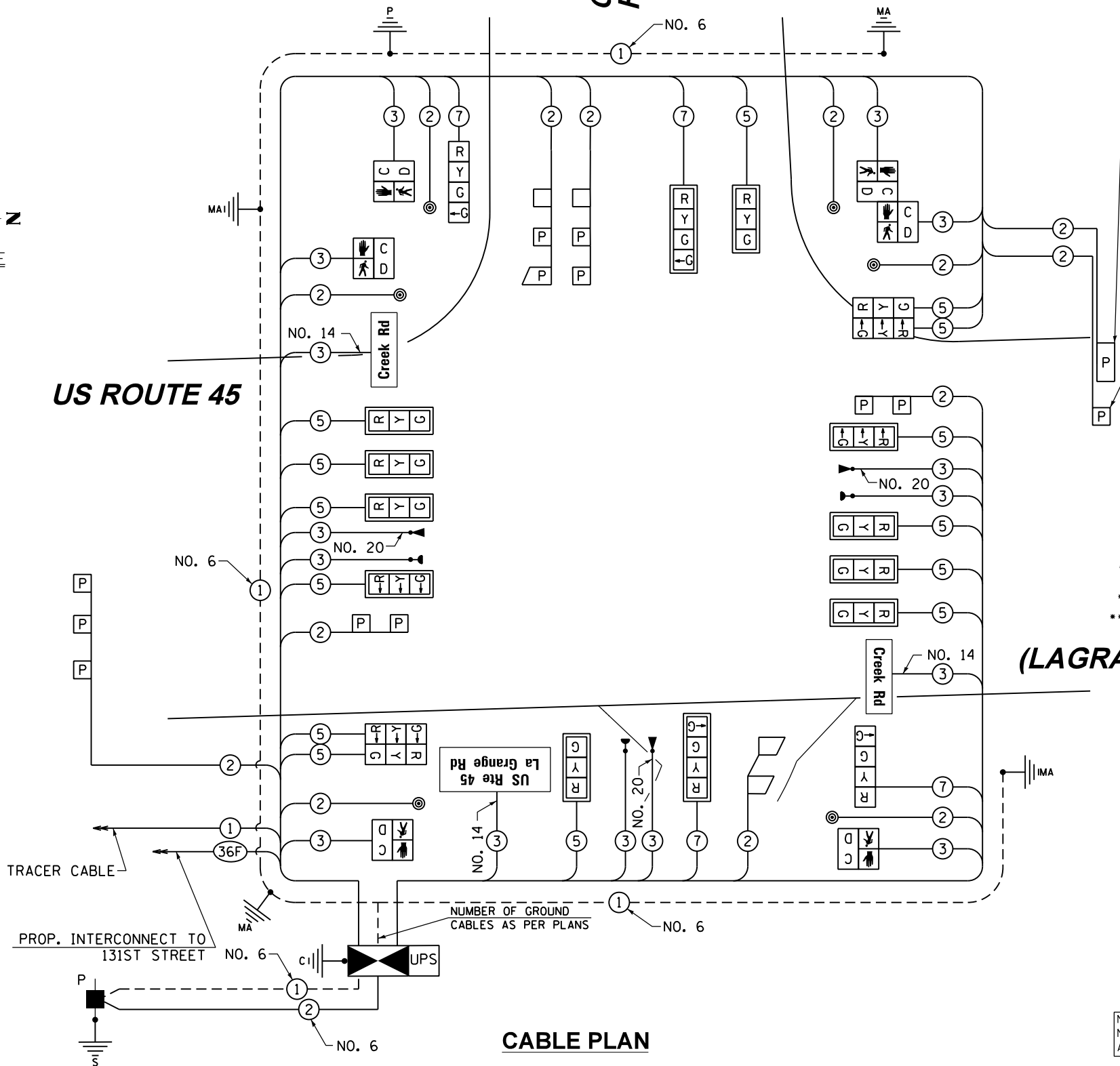
PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	18		17	0.50	153.0
(YELLOW)	18		25	0.25	112.5
(GREEN)	22		15	0.25	82.5
ARROW	--		12	0.10	0.0
PED. SIGNAL	6		25	1.00	150.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	3		25	0.05	3.8
FLASHER			25	0.50	
ENERGY COST TO:					TOTAL= 601.8

VILLAGE OF PALOS PARK  
 8999 WEST 123RD STREET  
 PALOS PARK, ILLINOIS 60464  
 ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
 PHONE: (708) 235-2337  
 COMPANY: COMMONWEALTH EDISON

PHASE DESIGNATION DIAGRAM LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- PEDESTRIAN PHASE
- RIGHT TURN OVERLAP:
- NUMBER REFERS TO ASSOCIATED PHASE



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SO FT	30
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	745
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	31
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	29
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	9
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	776
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1164
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1773
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2858
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	821
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1981
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	98
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR NO. 6 1 C	FOOT	644
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	56
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE I	FOOT	141
PREFORMED DETECTOR LOOP	FOOT	444
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	6
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	567
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	3

- \* 100% COST TO PALOS FIRE PROTECTION DISTRICT
- \*\* 100% COST TO VILLAGE OF PALOS PARK

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

NOTE: NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



FILE NAME = D160M62-SHT-TD42.dgn  
 SHT.PLAN

USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
	DRAWN - MRF	REVISED -
PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -
PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 US 45 (LAGRANGE ROAD) AND CREEK ROAD

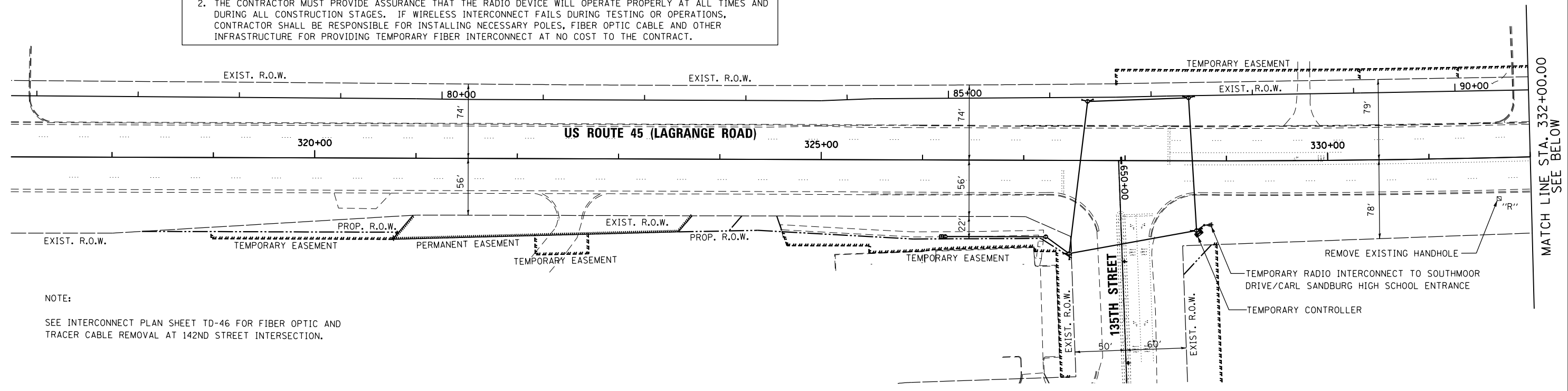
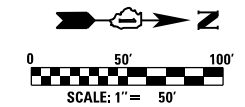
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	313
TD-42		CONTRACT NO. 60M62	ILLINOIS FED. AID PROJECT	

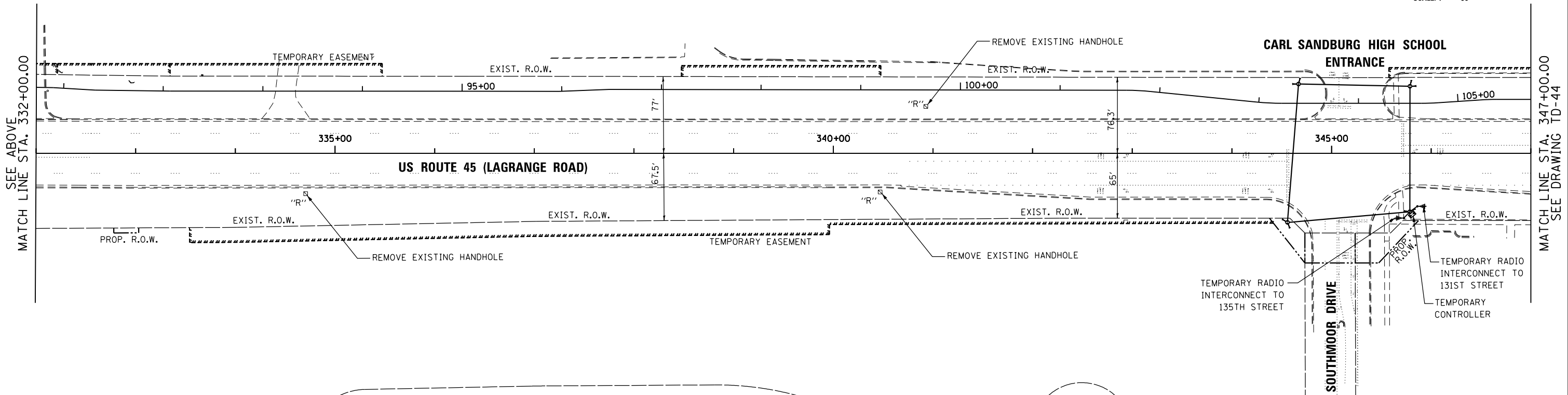
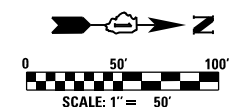
CONSTRUCTION NOTES:

1. TEMPORARY RADIO INTERCONNECT MAY BE USED ON THIS PROJECT AS SHOWN IN THE PLANS. RADIO ANTENNAS SHOULD BE INSTALLED ON THE WOOD POLES ADJACENT TO THE TEMPORARY CONTROLLER OR ON EXISTING MAST ARM TRAFFIC SIGNAL POLES. ALL WORK RELATED TO INSTALLATION AND ENSURING PROPER OPERATION OF THE TEMPORARY INTERCONNECT SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR EACH INTERSECTION.
2. THE CONTRACTOR MUST PROVIDE ASSURANCE THAT THE RADIO DEVICE WILL OPERATE PROPERLY AT ALL TIMES AND DURING ALL CONSTRUCTION STAGES. IF WIRELESS INTERCONNECT FAILS DURING TESTING OR OPERATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NECESSARY POLES, FIBER OPTIC CABLE AND OTHER INFRASTRUCTURE FOR PROVIDING TEMPORARY FIBER INTERCONNECT AT NO COST TO THE CONTRACT.

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



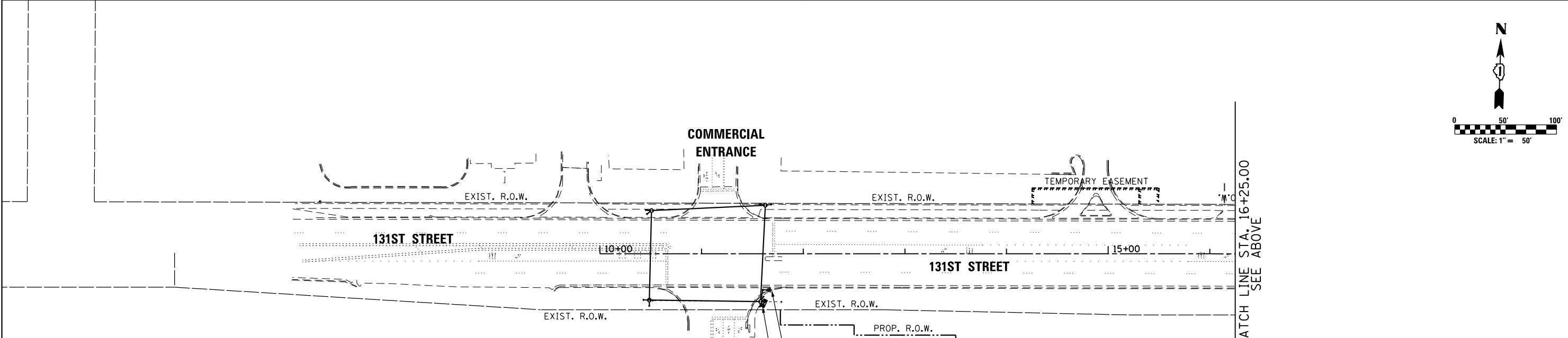
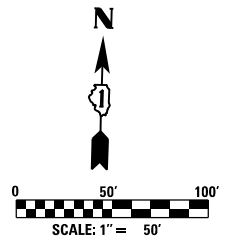
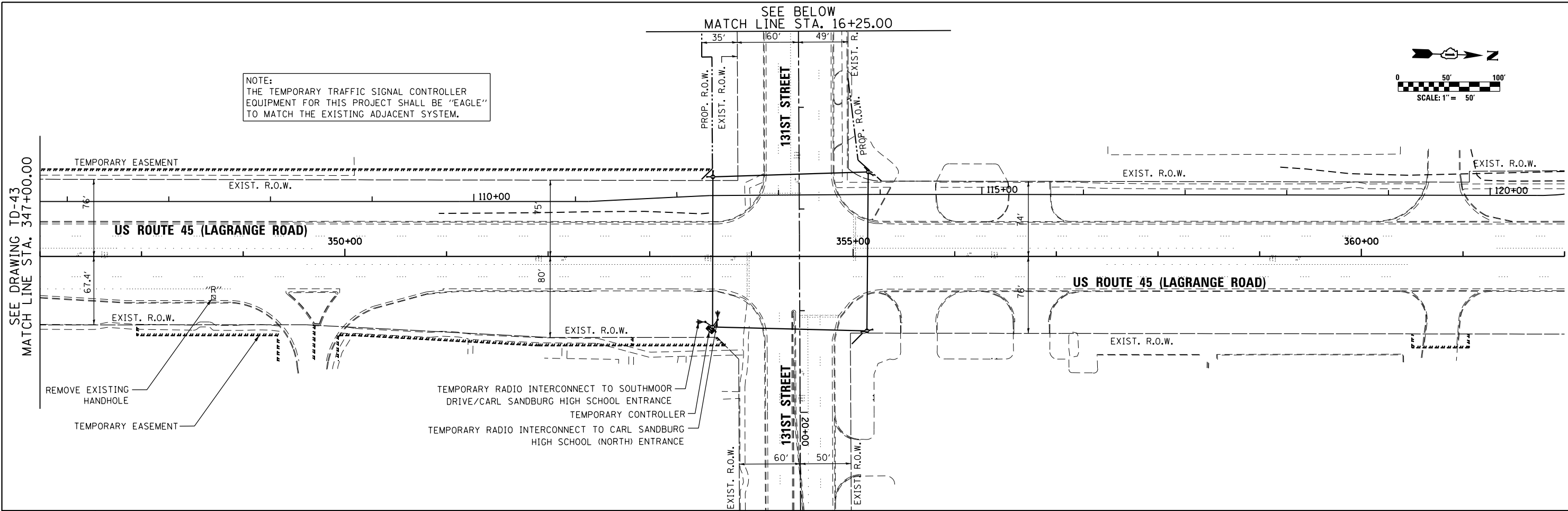
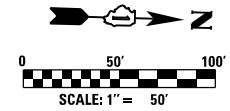
NOTE:  
SEE INTERCONNECT PLAN SHEET TD-46 FOR FIBER OPTIC AND TRACER CABLE REMOVAL AT 142ND STREET INTERSECTION.



100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD43.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY INTERCONNECT PLAN US 45 (LAGRANGE RD) FROM 135TH STREET TO 131ST STREET</b>			F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 314
PLOT SCALE = 100.000000' / 1" =	CHECKED - MJL	REVISOR -	REVISOR -		SCALE: 1"=50'	SHEET 1 OF 2 SHEETS	STA. TO STA.	<b>TD-43</b>		CONTRACT NO. 60M62	ILLINOIS FED. AID PROJECT	
SHT.DOUBLE PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISOR -									

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



CONSTRUCTION NOTES:

1. TEMPORARY RADIO INTERCONNECT MAY BE USED ON THIS PROJECT AS SHOWN IN THE PLANS. RADIO ANTENNAS SHOULD BE INSTALLED ON THE WOOD POLES ADJACENT TO THE TEMPORARY CONTROLLER OR ON EXISTING MAST ARM TRAFFIC SIGNAL POLES. ALL WORK RELATED TO INSTALLATION AND ENSURING PROPER OPERATION OF THE TEMPORARY INTERCONNECT SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR EACH INTERSECTION.
2. THE CONTRACTOR MUST PROVIDE ASSURANCE THAT THE RADIO DEVICE WILL OPERATE PROPERLY AT ALL TIMES AND DURING ALL CONSTRUCTION STAGES. IF WIRELESS INTERCONNECT FAILS DURING TESTING OR OPERATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NECESSARY POLES, FIBER OPTIC CABLE AND OTHER INFRASTRUCTURE FOR PROVIDING TEMPORARY FIBER INTERCONNECT AT NO COST TO THE CONTRACT.

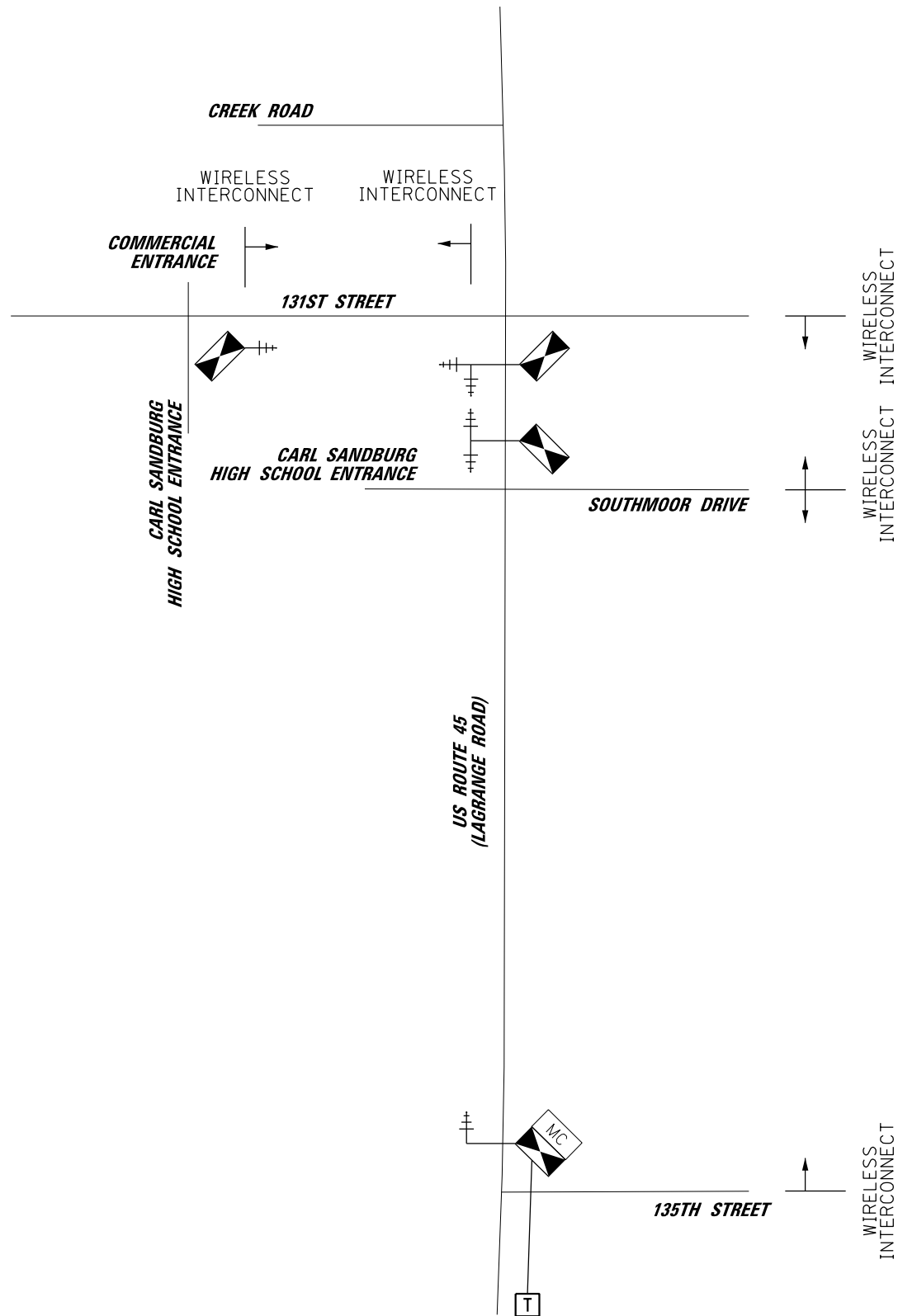
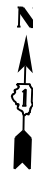
100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD44.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
	PLOT SCALE = 100.000000' / in.	CHECKED - MJL	REVISED -
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TEMPORARY INTERCONNECT PLAN US 45 (LAGRANGE RD) FROM 135TH STREET TO 131ST STREET</b>			
SCALE: 1"=50'	SHEET 2 OF 2 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	315
<b>TD-44</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



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

**URS**  
 100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198

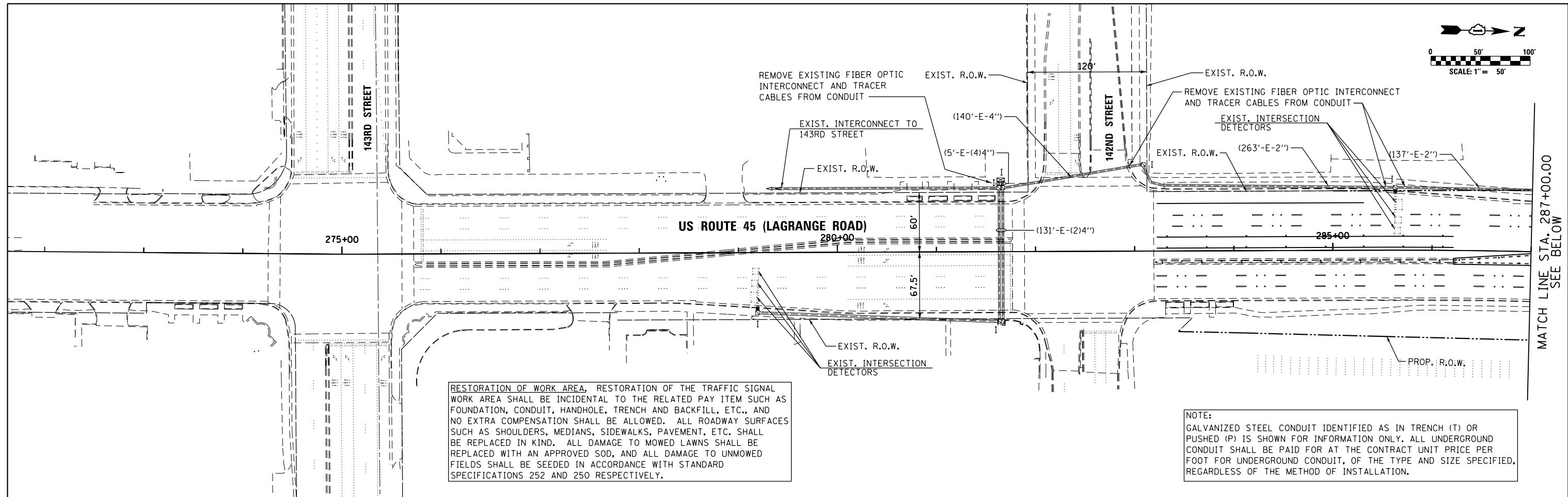
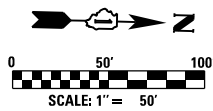
FILE NAME = D160M62-SHT-TD45.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 100.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT SCHEMATIC  
 US 45 (LAGRANGE RD)  
 FROM 135TH STREET TO 131ST STREET**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

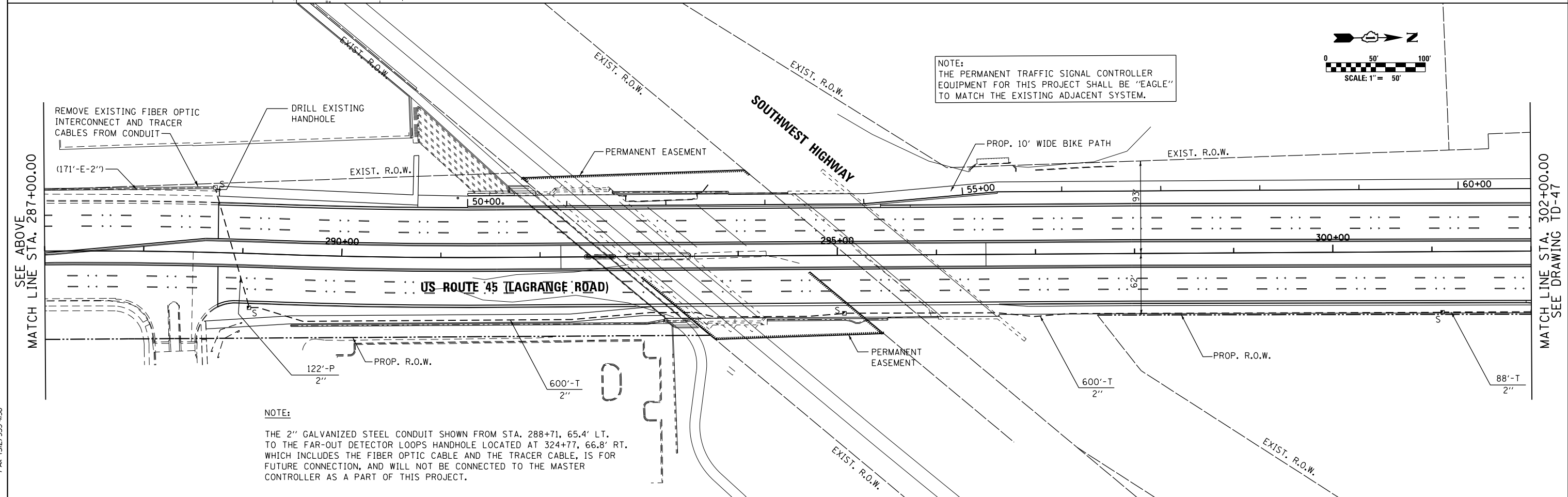
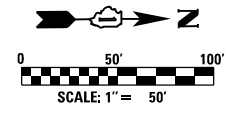
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	316
<b>TD-45</b>			<b>CONTRACT NO. 60M62</b>	
ILLINOIS FED. AID PROJECT				



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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

MATCH LINE STA. 287+00.00  
SEE BELOW



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

NOTE:  
THE 2" GALVANIZED STEEL CONDUIT SHOWN FROM STA. 288+71, 65.4' LT. TO THE FAR-OUT DETECTOR LOOPS HANDHOLE LOCATED AT 324+77, 66.8' RT. WHICH INCLUDES THE FIBER OPTIC CABLE AND THE TRACER CABLE, IS FOR FUTURE CONNECTION, AND WILL NOT BE CONNECTED TO THE MASTER CONTROLLER AS A PART OF THIS PROJECT.

SEE ABOVE  
MATCH LINE STA. 287+00.00

MATCH LINE STA. 302+00.00  
SEE DRAWING TD-47



FILE NAME =	USER NAME = Anthony.Plutz
D:\60M62-SHT-TD46.dgn	
SHT_DOUBLE PLAN	

DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

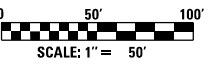
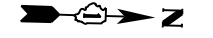
DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

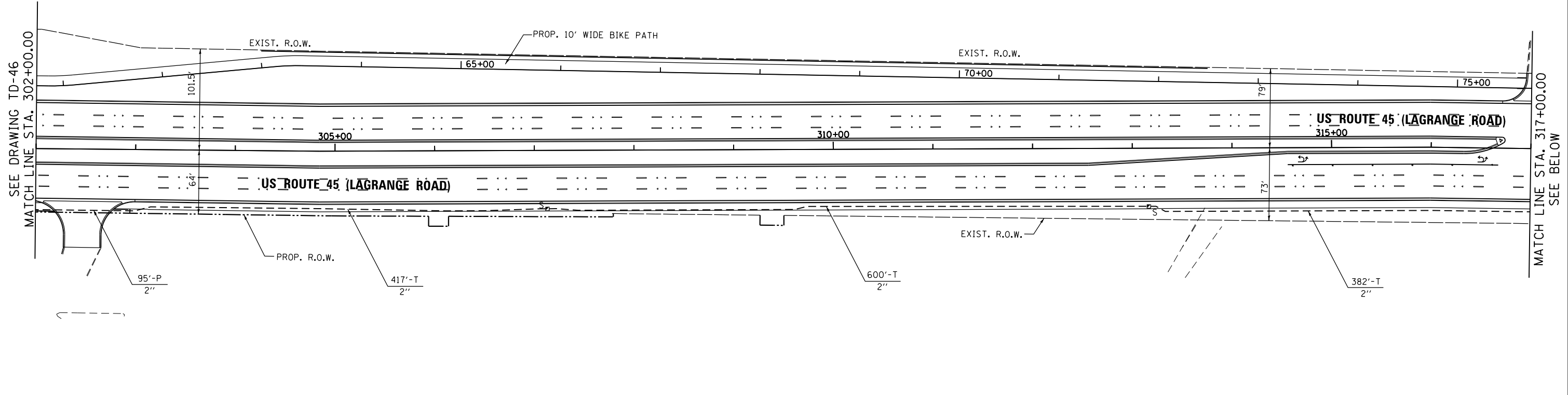
**INTERCONNECT PLAN  
US 45 (LAGRANGE RD)  
FROM 142ND STREET TO CREEK ROAD**

SCALE: 1"=50' SHEET 1 OF 4 SHEETS STA. BEGIN TO STA. 302+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	317
TD-46		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

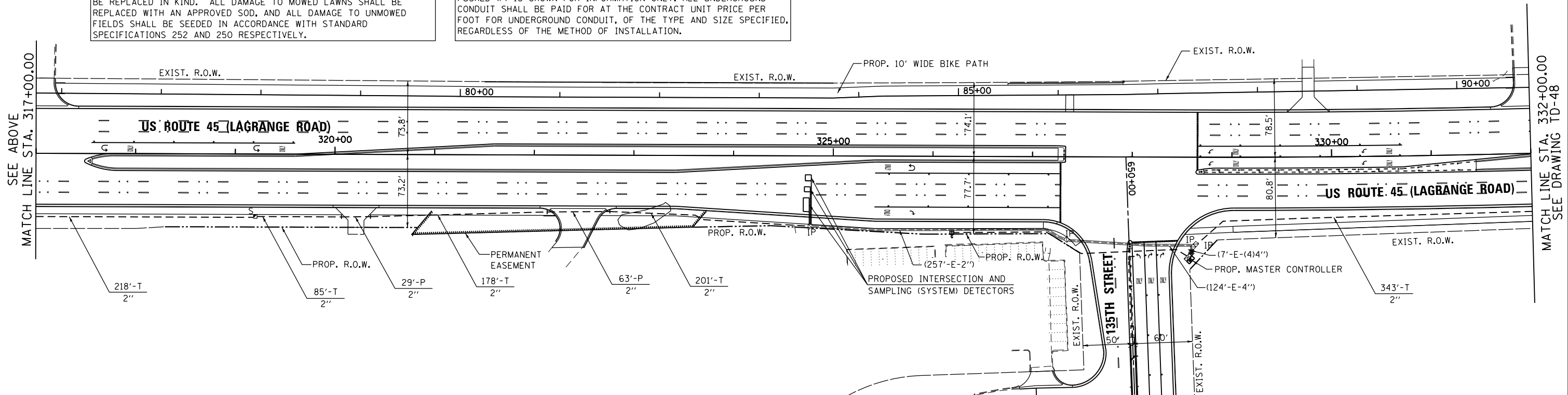
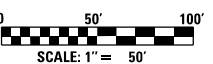
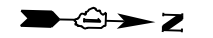


NOTE:  
THE PERMANENT TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-TD47.dgn  
SHT.DOUBLE.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 100.000000' / in.  
PLOT DATE = 3/13/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/13

REVISED -  
REVISED -  
REVISED -  
REVISED -

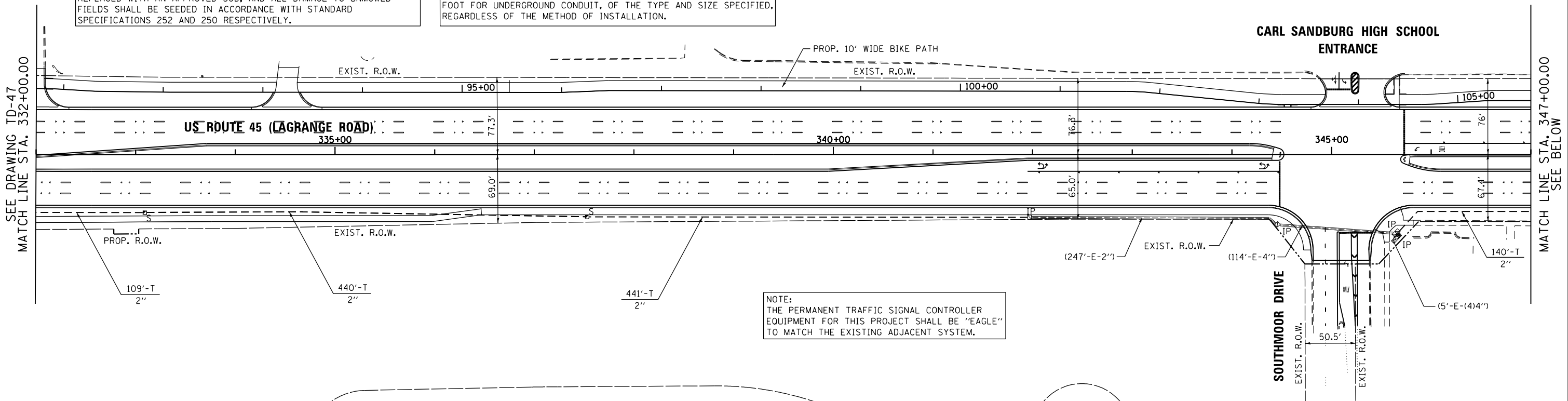
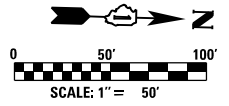
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN  
US 45 (LAGRANGE RD)  
FROM 142ND STREET TO CREEK ROAD  
SCALE: 1"=50' SHEET 2 OF 4 SHEETS STA. 302+00.00 TO STA. 332+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	318
<b>TD-47</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

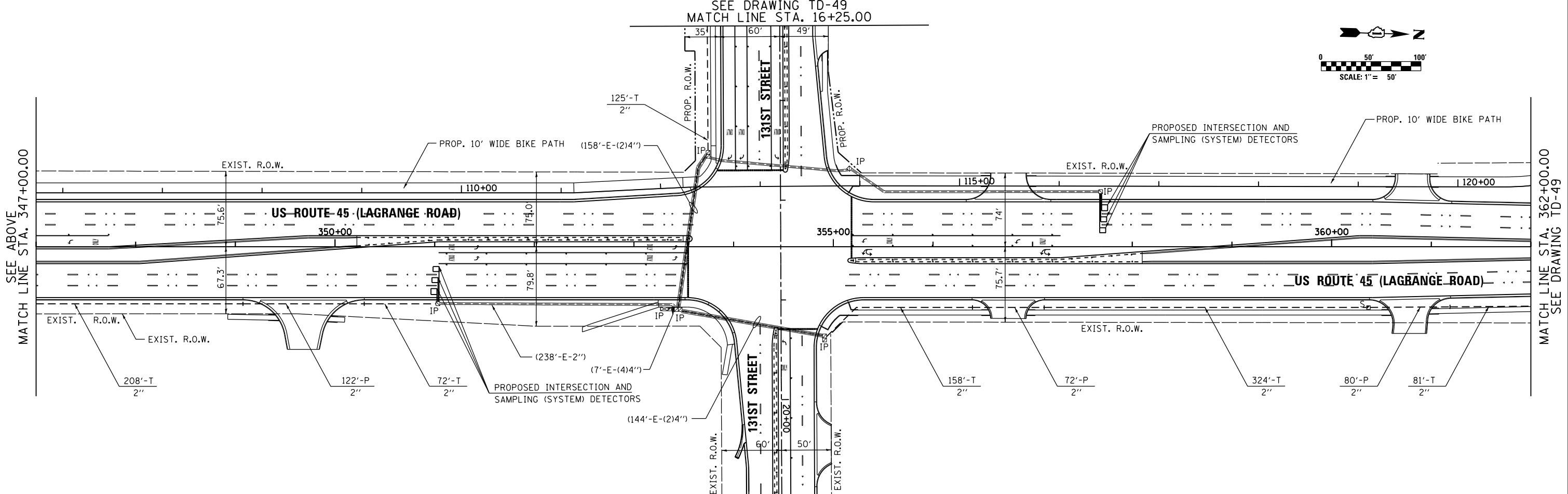
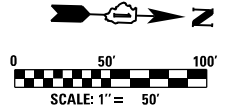
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



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

SEE DRAWING TD-49  
MATCH LINE STA. 16+25.00



100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998



FILE NAME = D160M62-SHT-TD48.dgn  
SHT\_DOUBLE PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 100.000000' / in.  
PLOT DATE = 3/13/2013

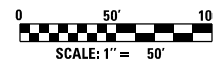
DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/13

REVISED -  
REVISED -  
REVISED -  
REVISED -

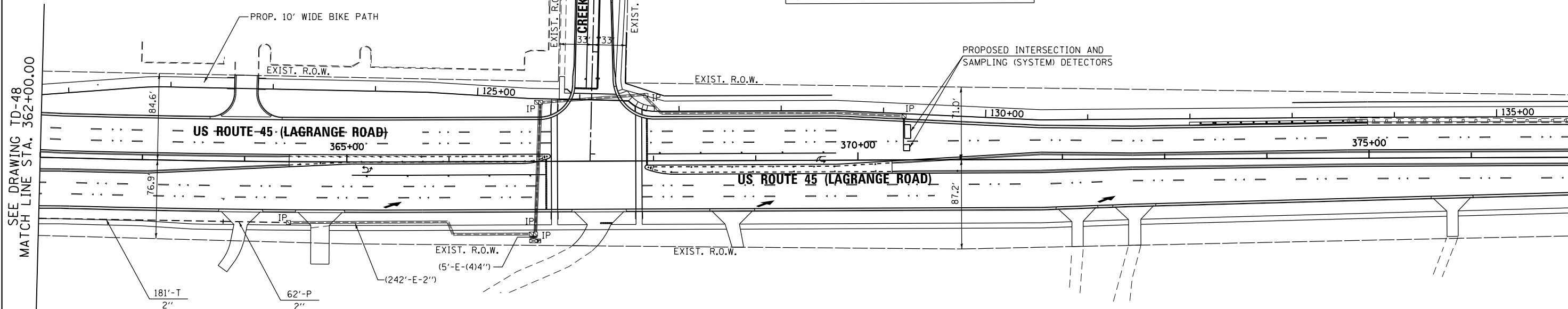
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN  
US 45 (LAGRANGE RD)  
FROM 142ND STREET TO CREEK ROAD  
SCALE: 1"=50' SHEET 3 OF 4 SHEETS STA. 332+00.00 TO STA. 362+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	319
<b>TD-48</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



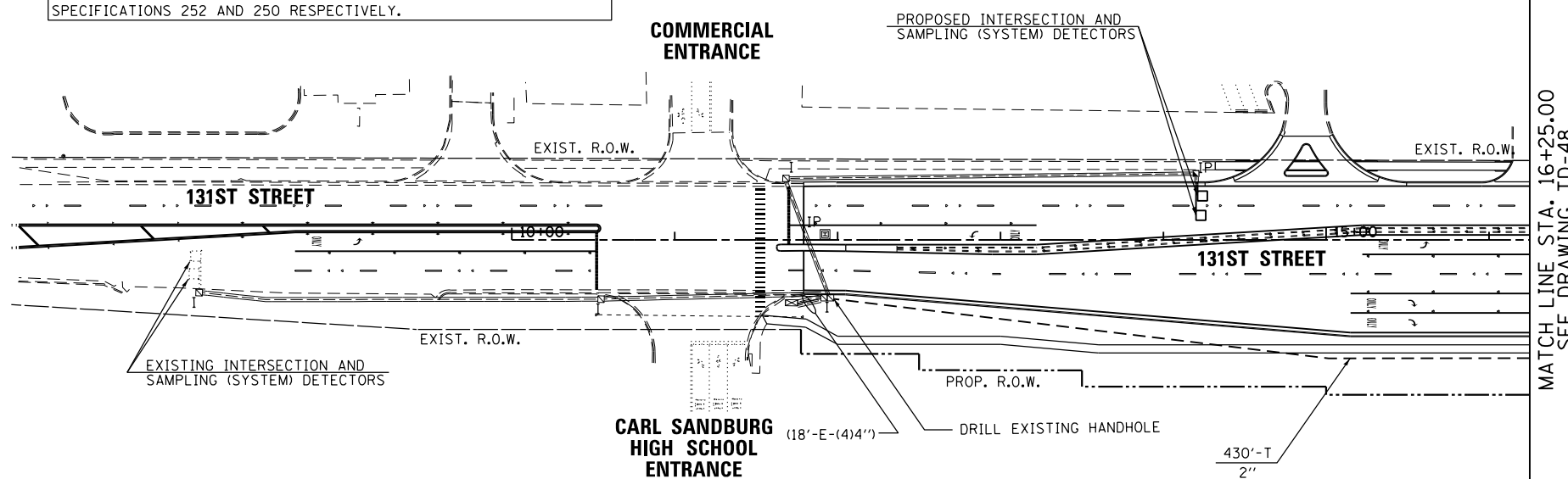
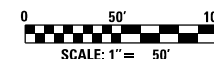
NOTE:  
THE PERMANENT TRAFFIC SIGNAL CONTROLLER  
EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.



SEE DRAWING TD-48  
MATCH LINE STA. 362+00.00

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 SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



MATCH LINE STA. 16+25.00  
SEE DRAWING TD-48

**URS**  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4198

FILE NAME =	USER NAME = Anthony.Plutz
D160M62-SHT-TD49.dgn	
SHT_DOUBLE PLAN	

DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

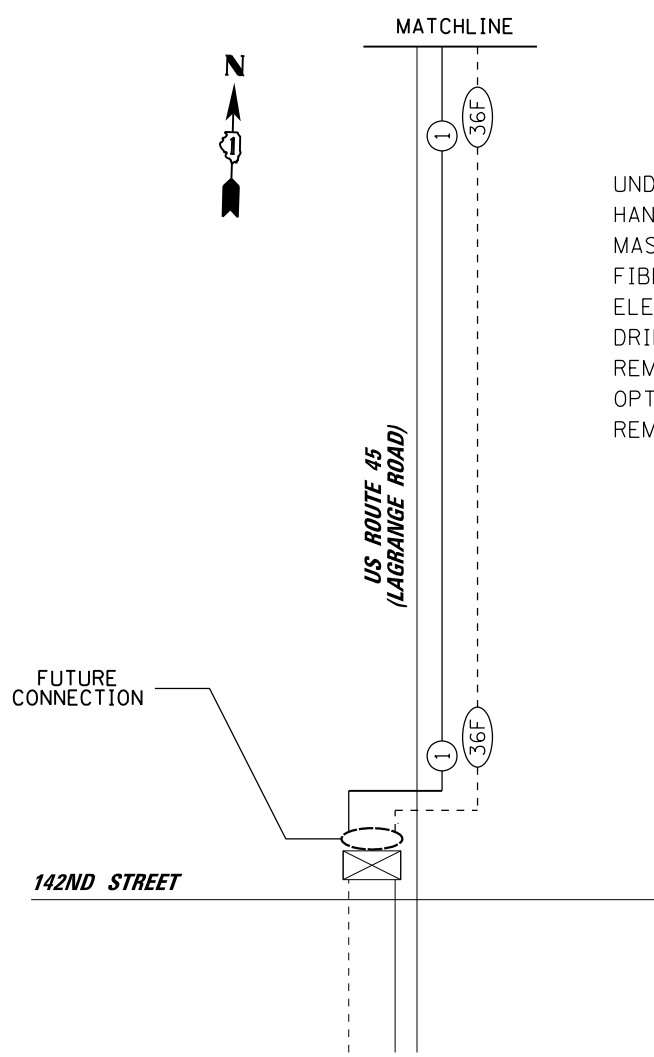
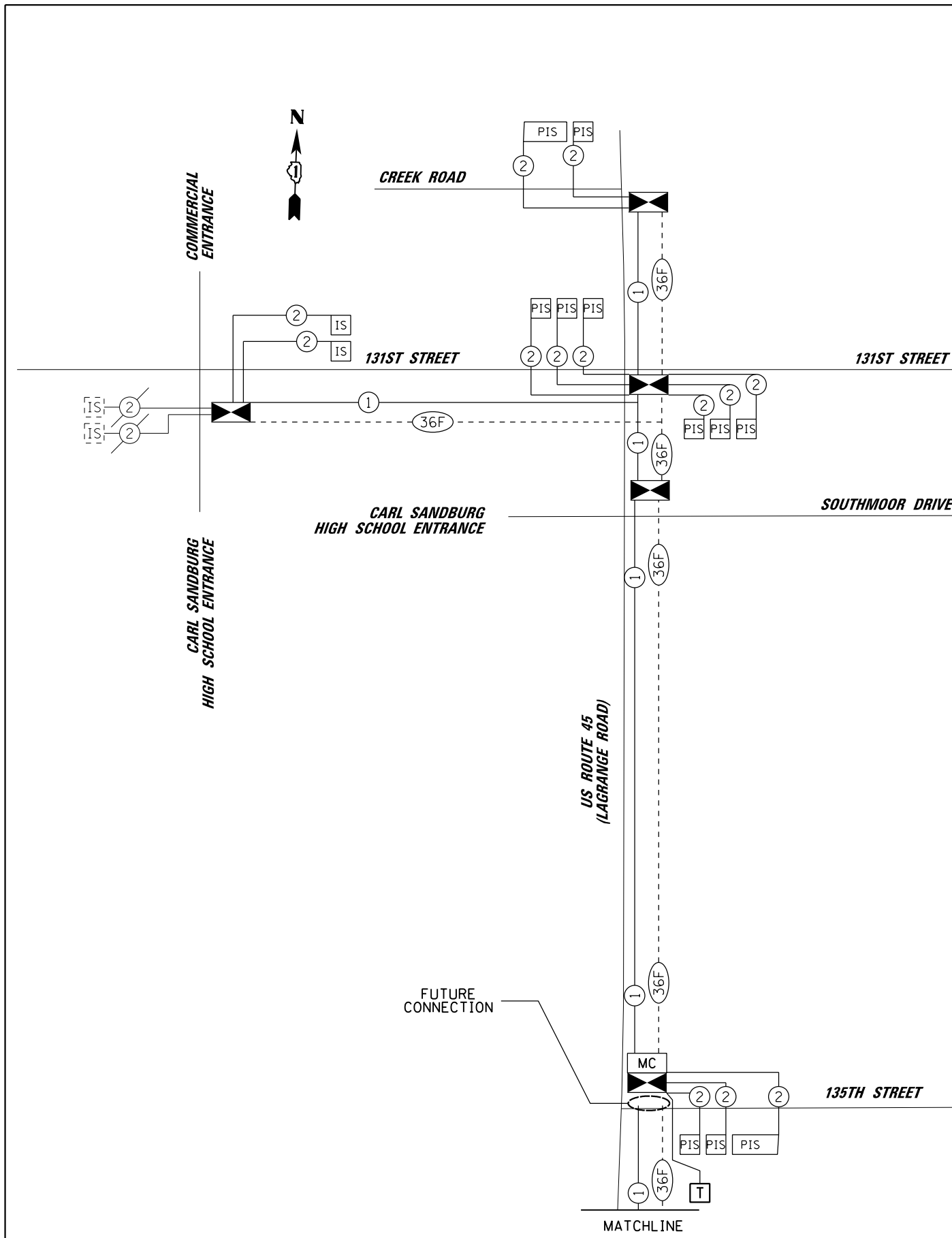
DESIGNED - MRF	REVISD -
DRAWN - MRF	REVISD -
CHECKED - MJL	REVISD -
DATE - 03/13/13	REVISD -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN US 45 (LAGRANGE RD) FROM 135TH STREET TO CREEK ROAD			
SCALE: 1"=50'	SHEET 4 OF 4 SHEETS	STA. 362+00.00 TO STA. END	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	320
TD-49			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				





SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	7066
HANDHOLE	EACH	9
MASTER CONTROLLER (SPECIAL)	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	9777
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	9777
DRILL EXISTING HANDHOLE	EACH	2
REMOVE EXISTING HANDHOLE	EACH	4
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1523

NOTE:  
 THE ENDS OF THE TRACER CABLE AND THE FIBER OPTIC INTERCONNECT CABLE FROM 135TH STREET TO 142ND STREET SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINETS BUT SHALL NOT BE CONNECTED TO THE CONTROLLER AT EITHER END. THESE CABLES ARE FOR FUTURE USE.

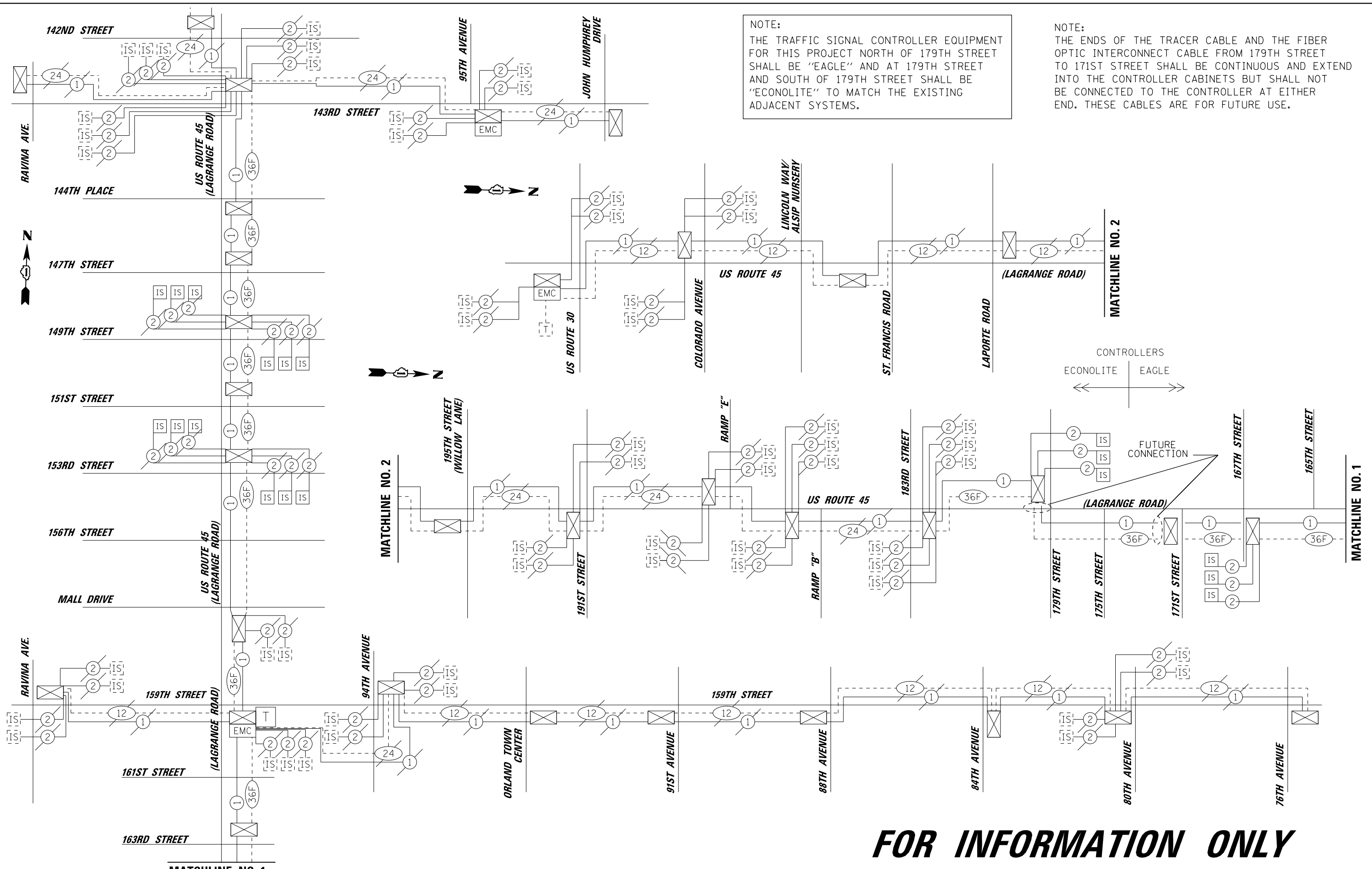
NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME = D160M62-SHT-TD50.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>INTERCONNECT SCHEMATIC    US 45 (LAGRANGE RD)    FROM 142ND STREET TO CREEK ROAD</b>			
SCALE: N.T.S.	SHEET 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 321
TD-50			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



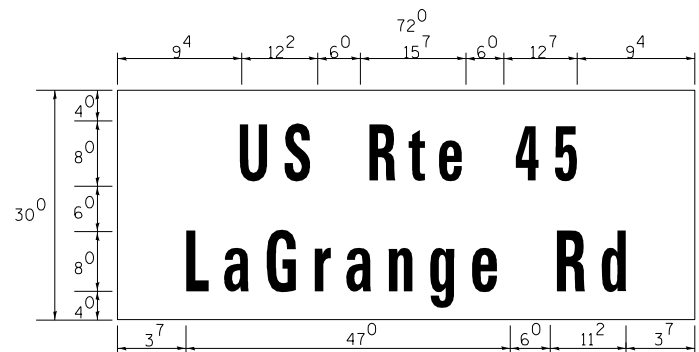
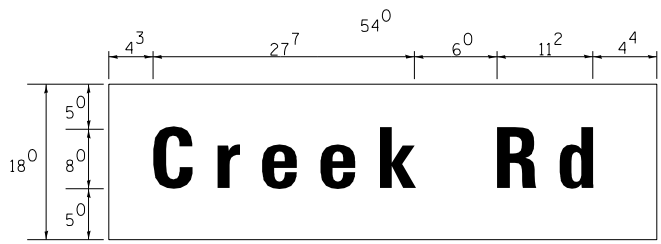
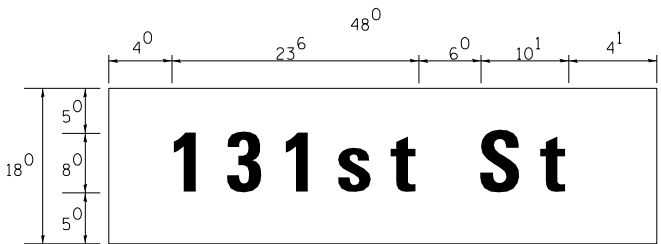
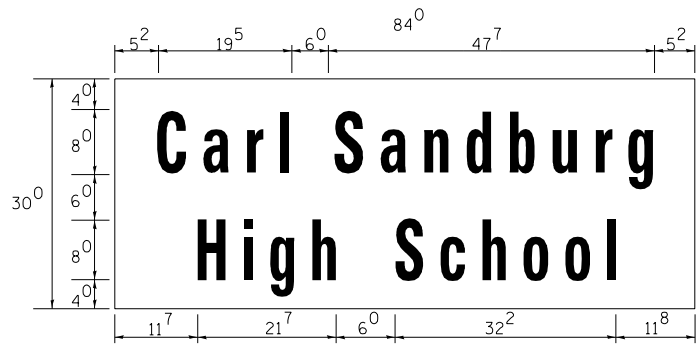
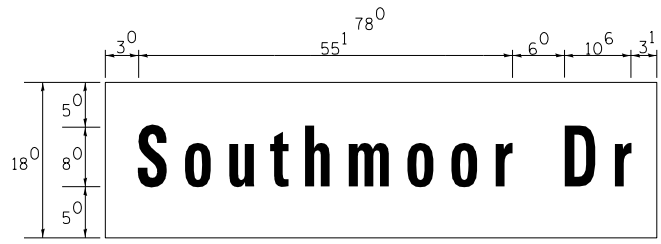
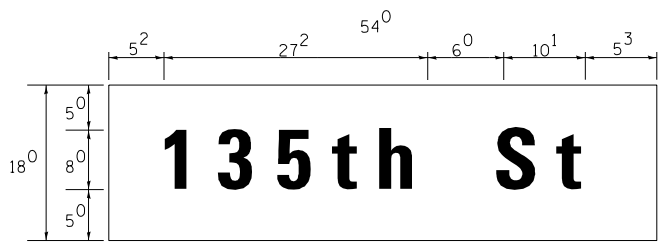
NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT NORTH OF 179TH STREET SHALL BE "EAGLE" AND AT 179TH STREET AND SOUTH OF 179TH STREET SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEMS.

NOTE:  
 THE ENDS OF THE TRACER CABLE AND THE FIBER OPTIC INTERCONNECT CABLE FROM 179TH STREET TO 171ST STREET SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINETS BUT SHALL NOT BE CONNECTED TO THE CONTROLLER AT EITHER END. THESE CABLES ARE FOR FUTURE USE.

CONTROLLERS  
 ECONOLITE | EAGLE  
 ← | →

**FOR INFORMATION ONLY**

FILE NAME = D160M62-SHT-TD51.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC US 45 (LAGRANGE RD) FROM US ROUTE 30 TO 142ND STREET		F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 322
	PLOT SCALE = 100.0000 sf / in.	CHECKED - MJL	REVISED -		SCALE: N.T.S.	SHEET 1 OF 1 SHEETS	STA. TO STA.	TD-51		CONTRACT NO. 60M62	
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -				ILLINOIS FED. AID PROJECT				



Upper Case To Lower Case  
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SERIES	SECOND LETTER															
		acde		bhikl		f w		j		s t		v y		x		z	
		C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	12	14	14	15	12	14	06	10	11	14	06	10	11	12	12	14	
B	14	15	20	21	14	15	11	12	14	15	12	14	12	14	16	17	
C E G	14	15	20	21	12	14	06	10	12	14	12	14	14	15	14	15	
D O Q R	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	15	
F	05	06	14	15	06	10	05	06	06	10	06	10	06	10	11	12	
H I M N	20	21	22	24	20	21	14	15	16	17	16	17	20	21	20	21	
J U	20	21	20	21	16	17	14	15	16	17	16	17	16	17	20	21	
K L	11	12	16	17	11	12	05	06	11	12	11	12	11	12	12	14	
P	12	14	14	15	12	14	05	06	11	12	11	12	12	14	12	14	
S	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14	
T	11	12	16	17	06	10	06	10	11	12	11	12	11	12	12	14	
V	06	10	14	15	11	12	06	10	12	14	12	14	12	14	12	14	
Y	05	06	14	15	06	10	05	06	05	07	05	06	06	10	11	12	
Z	16	17	22	24	16	17	12	14	16	17	16	17	16	17	20	21	

Lower Case To Lower Case  
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SERIES	SECOND LETTER															
		acde		bhikl		f w		j		s t		v y		x		z	
		C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
ad hgi j	16	17	22	24	16	17	12	14	14	15	14	15	16	17	16	17	
lmn qu																	
b f k o p s	12	14	16	17	11	12	05	06	11	12	11	12	12	14	12	14	
c e	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14	
r	06	10	12	14	06	10	03	03	05	06	05	06	06	10	06	10	
t z	12	14	16	17	12	14	06	10	11	12	11	12	12	14	12	14	
v y	11	12	14	15	11	12	05	06	06	10	06	10	11	12	11	12	
w	11	12	14	15	11	12	05	06	11	12	11	12	11	12	12	14	
x	12	14	16	17	11	12	05	06	11	12	11	12	11	12	12	14	

Number To Number  
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SERIES	SECOND NUMBER																			
		0		1		2		3		4		5		6		7		8		9	
		C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	16	17	16	17	14	15	12	14	14	15	14	15	16	17	12	14	16	17	16	17	
1	20	21	20	21	20	21	16	17	14	15	20	21	20	21	14	15	20	21	20	21	
2 3 4	14	15	14	15	14	15	12	14	12	14	14	15	14	15	11	12	16	17	14	15	
5	14	15	14	15	14	15	11	12	11	12	14	15	14	15	11	12	14	15	14	15	
6	16	17	14	15	14	15	12	15	12	14	14	15	14	15	11	12	14	15	14	15	
7	12	14	12	14	14	15	12	15	05	06	12	14	14	15	11	12	14	15	12	14	
8	16	17	16	17	14	15	12	15	12	14	14	15	16	17	12	14	16	17	14	15	

EXAMPLE, 2<sup>3</sup> DENOTES  $\frac{3}{8}$

UPPER AND LOWER CASE  
LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS				LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	36	50	50	65	a	35	42
B	32	40	43	53	b	35	42
C	32	40	43	53	c	35	41
D	32	40	43	53	d	35	42
E	30	35	40	47	e	35	42
F	30	35	40	47	f	23	26
G	32	40	43	53	g	35	42
H	32	40	43	53	h	35	42
I	07	07	11	12	i	11	11
J	30	36	40	50	j	20	22
K	32	41	43	54	k	35	42
L	30	35	40	47	l	11	11
M	37	45	51	61	m	60	70
N	32	40	43	53	n	35	42
O	34	42	45	55	o	36	43
P	32	40	43	53	p	35	42
Q	34	42	45	55	q	35	42
R	32	40	43	53	r	26	32
S	32	40	43	53	s	36	42
T	30	35	40	47	t	27	32
U	32	40	43	53	u	35	42
V	35	44	47	60	v	42	47
W	44	52	60	70	w	55	64
X	34	40	45	53	x	44	51
Y	36	50	50	66	y	46	53
Z	32	40	43	53	z	36	43

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	12	14	15	20
2	32	40	43	53
3	32	40	43	53
4	35	43	47	57
5	32	40	43	53
6	32	40	43	53
7	32	40	43	53
8	32	40	43	53
9	32	40	43	53
0	34	42	45	55

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4988

FILE NAME = D160M62-SHT-TD52.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
DESIGNED -  
DRAWN -  
CHECKED -  
DATE - 03/13/13

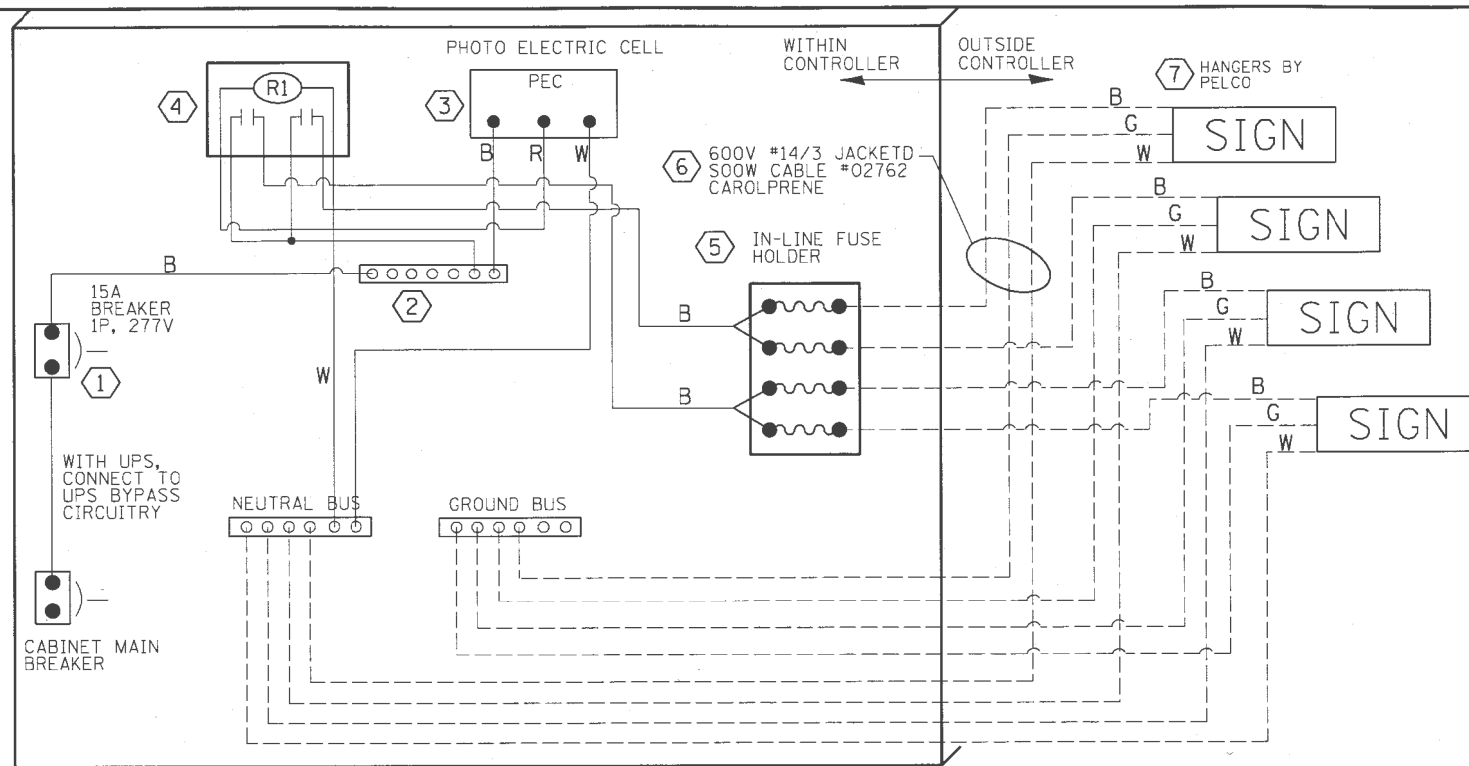
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED SIGNS  
LED INTERNALLY ILLUMINATED STREET NAME SIGNS

SCALE: SHEET OF SHEETS STA. TO STA.

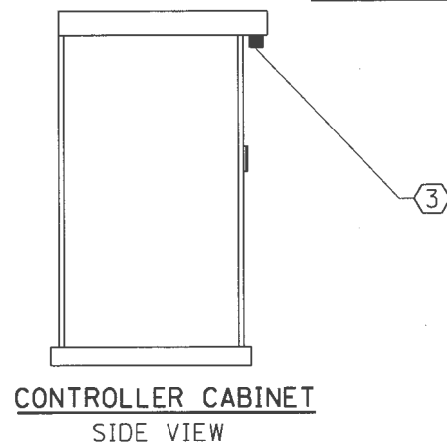
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	323
CONTRACT NO. 60M62				
ILLINOIS FED. AID PROJECT				



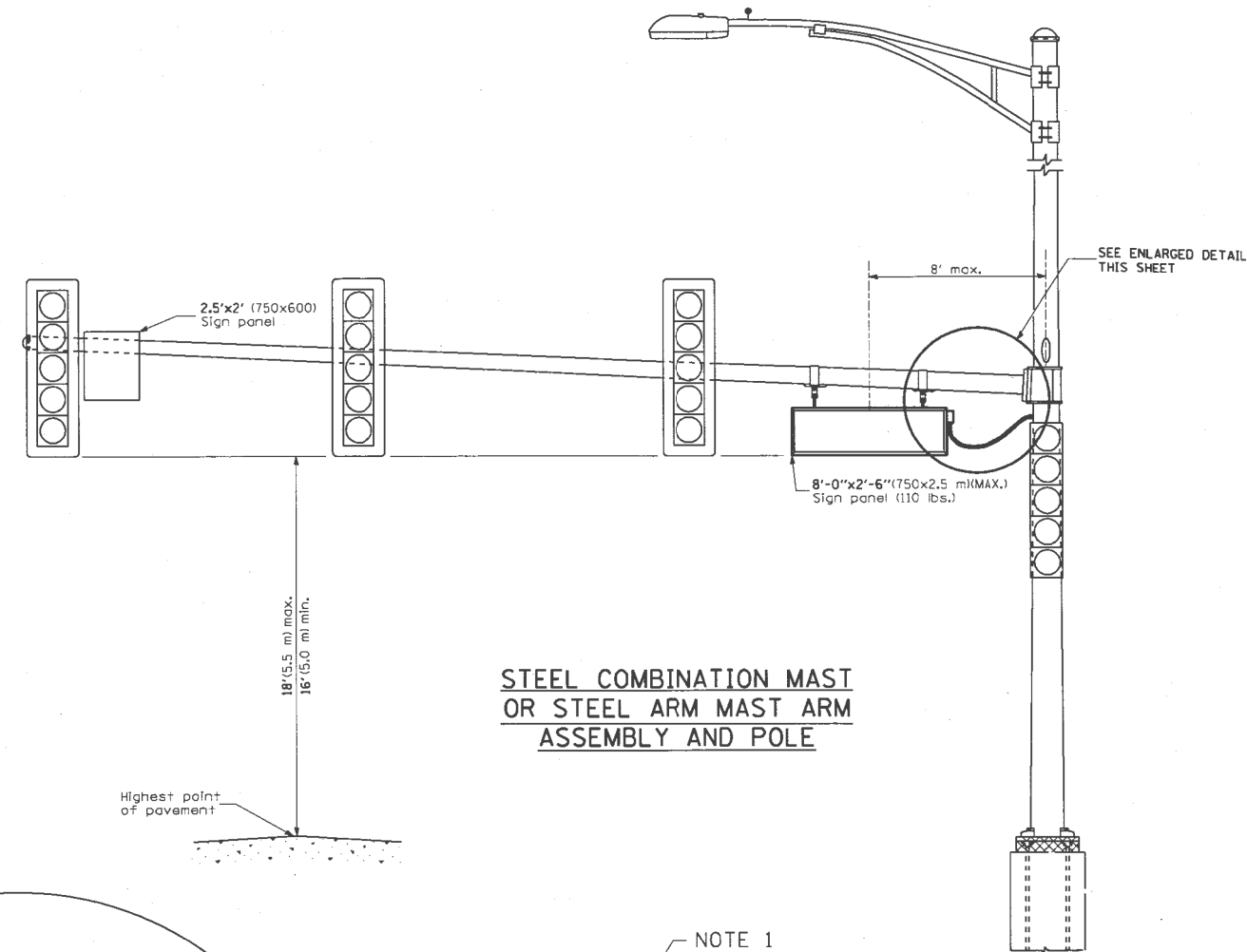
LED SIGN WIRING DETAIL

DESCRIPTION	MANUFACTURER	MODEL	NOTES
① CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag. min. R.I. of 14K R.M.S. symmetrical amperes at 277V.
② TERMINAL BLOCK	MARATHON	1502 DJSV	
③ PHOTO ELECTRIC CONTROL	FISHER PIERCE	B124-1.5-07762	
④ CONTROL RELAY	SQUARE D	8501X020V02	BOLT ON W/SCREW TERMINAL
⑤ INLINE FUSE HOLDER WITH 5 AMP FUSE	BUSSMAN	S-8000 BK/S-8-3-4-R	
⑥ ELECTRIC CABLE, NO. 14, 3/C (BLACK, WHITE, GREEN)	CAROLPRENE/SOOW	02762	
⑦ SIGN MOUNTING HARDWARE	PELCO	SE-5015	S.S. HARDWARE

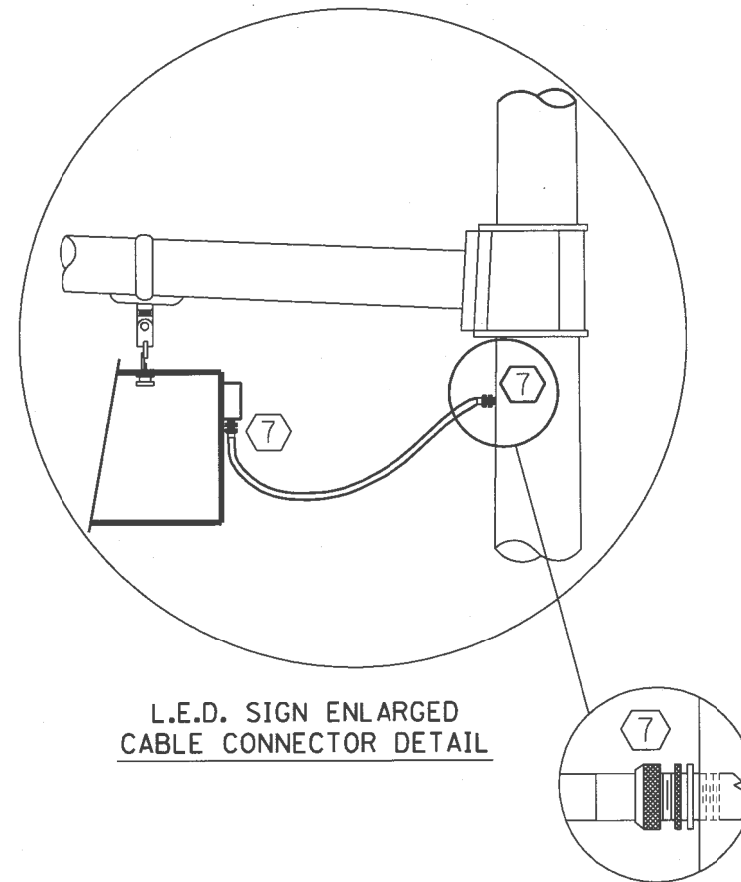
BILL OF MATERIALS



CONTROLLER CABINET SIDE VIEW

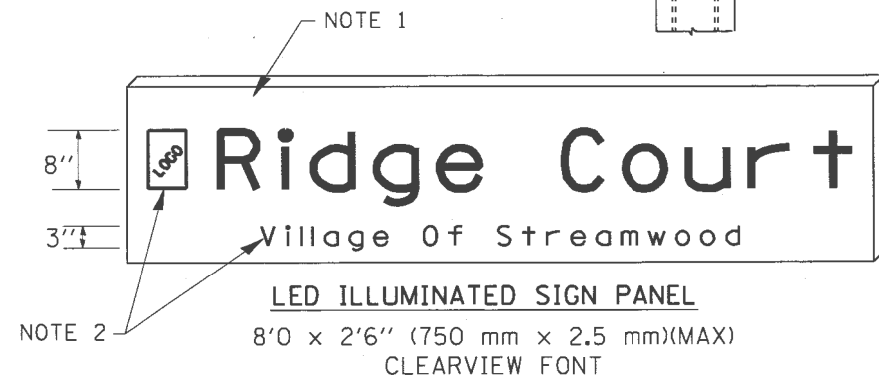


STEEL COMBINATION MAST OR STEEL ARM MAST ARM ASSEMBLY AND POLE



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL

L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



LED ILLUMINATED SIGN PANEL  
8'0 x 2'6" (750 mm x 2.5 mm)(MAX)  
CLEARVIEW FONT

NOTES:

- SIGNS SHALL BE DUAL SIDED. FRONT AND BACK OF SIGN WILL BE THE SAME.
- CERTAIN ADDITIONAL INFORMATION MAY BE ALLOWED ON THE SIGN. VERIFY WITH ENGINEER.
- SIGNS SHALL NOT BE ENERGIZED WHEN TRAFFIC SIGNALS ARE POWERED BY THE UPS. THE SIGNS SHALL BE CONNECTED TO THE UPS BYPASS CIRCUITRY.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:  
R = RED      BL = BLUE      W = WHITE  
B = BLACK      Y = YELLOW      G = GREEN
- ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12AWG STRANDED UNLESS OTHERWISE INDICATED.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ROADWAY ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES, T-BASE AND 20A, 120V GFCI RECEPTACLE 15'-0" ABOVE THE BASE OF POLE, BLACK W/BANNER ARM AND ORNAMENTAL BRACKET.
	RELOCATED LIGHTING UNIT, PROVIDE NEW 250W HPS, 240V, MC-III LUMINAIRE ON A RELOCATED POLE PROPOSED LOCATION
	RELOCATED LIGHTING UNIT IN PROPOSED LOCATION
	PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, INSTALLED ON 12'-0" MAST ARM AT 45'-0" MOUNTING HEIGHT, ON POLE AND FOUNDATION SUPPLIED BY THE TRAFFIC SIGNAL CONTRACTOR, WITH 5A FUSES
	EXISTING LIGHTING UNIT
	EXISTING COMBINATION POLE LIGHTING UNIT INSTALLED IN AN EARLIER STAGE
	EXISTING LIGHTING UNIT TO BE REMOVED
	EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
	TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES
	EXISTING TEMPORARY LIGHTING UNIT TO REMAIN
	EXISTING TEMPORARY LIGHTING UNIT TO BE REMOVED
	UNDERPASS LUMINAIRE, 100 WATT, 240V PHASE TO NEUTRAL, HPS, WITH TYPE III DISTRIBUTION, WALL MOUNTED
	EXISTING PEDESTRIAN LIGHTING UNIT
	EXISTING BOLLARD LIGHTING UNIT
	ELECTRIC JUNCTION BOX, TYPE AND SIZE AS INDICATED
	ELECTRIC HANDHOLE
	GROUND RECEPTACLE

ROADWAY ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	EXISTING LIGHTING CONTROLLER
	EXISTING COMBINATION LIGHTING CONTROLLER
	EXISTING COMBINATION SERVICE DISCONNECT CABINET, SEE TRAFFIC SIGNAL PLANS
	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED TRANSFORMER
	EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED TRANSFORMER
	PROPOSED LIGHTING CONTROLLER 200A, 240/480V, 1Ø, 3W, SINGLE DOOR, BASE MOUNTED
	PROPOSED COMBINATION LIGHTING CONTROLLER ATTACHED TO TRAFFIC SIGNAL CONTROL CABINET 120/240V, 1Ø, 3W
	PROPOSED COMBINATION SERVICE DISCONNECT, SEE TRAFFIC SIGNAL PLANS
	PROPOSED UTILITY SERVICE CONNECTION, POLE MOUNTED TRANSFORMER
	PROPOSED UTILITY SERVICE CONNECTION, PAD MOUNTED TRANSFORMER
	TEMPORARY WOOD POLE, 60' CLASS 4
	ELECTRIC UTILITY POLE
	ELECTRIC GROUND ROD
	ELECTRIC SERVICE WEATHERHEAD
	EXPOSED CONDUIT
	DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY
	EXISTING DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY TO REMAIN
	EXISTING CONDUIT EXPOSED
	EXISTING DIRECT BURIED CABLE, UNIT DUCT, OR RACEWAY TO BE ABANDONED (SEE GENERAL NOTE 1, DRAWING GE-2)
	AERIAL ELECTRIC CABLE
	EXISTING AERIAL ELECTRIC CABLE
	EXISTING AERIAL ELECTRIC CABLE TO BE REMOVED
	CONCEALED CONDUIT IN STRUCTURE
	UNDERGROUND CONDUIT SLEEVE
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	LIQUID TIGHT FLEXIBLE METAL CONDUIT

CALL-OUT SAMPLES	
DEFINITION	EXAMPLE
CONDUIT QUANTITY, SIZE, TYPE, LENGTH	
X" UD, CONDUCTORS (LOAD)	
CONTROLLER DESIGNATION RATINGS & DESCRIPTION LOCATION	
WOOD POLE LOCATION	
CONTROLLER.CIRCUIT.LIGHT (RECEPTACLE CIRCUIT *) STA. #, SETBACK	
CONTROLLER.CIRCUIT.LIGHT STA. #, OFFSET	
POLE SETBACK: LIGHT POLE SETBACK IS MEASURED FROM FACE OF CURB TO CENTER OF POLE	
POLE OFFSET: LIGHT POLE OFFSET IS MEASURED FROM ROADWAY CENTERLINE TO CENTER OF TEMPORARY POLE	

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
A.D.A.	AMERICANS WITH DISABILITIES ACT
AFG	ABOVE FINISHED GRADE
A/R	AERIAL CABLE TO BE REMOVED
ATS	ATTACHED TO STRUCTURE
B	BASELINE
BOE	IDOT BUREAU OF ELECTRICITY
CB	CIRCUIT BREAKER
CKT	CIRCUIT
C	CENTERLINE
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
ECA	ELECTRIC CABLE ASSEMBLY
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST OR MAST ARM)
EOP	EDGE OF PAVEMENT
ER	EXISTING RELOCATED UNIT IN PROPOSED LOCATION
ET	EXISTING TEMPORARY UNIT TO REMAIN
ETR	EXISTING TEMPORARY RELOCATED UNIT
FT	FEET OR FOOT
FND BW	FOUNDATION BARRIER WALL
FND BW OS	FOUNDATION BARRIER WALL OFFSET
FND CON	FOUNDATION CONCRETE
FND CON OS	FOUNDATION CONCRETE OFFSET
FND MET	FOUNDATION METAL
FND PW	FOUNDATION PARAPET WALL
FU	FUSE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LT	LEFT
LTFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
M	METER
MA	MAST ARM
MM	MILLIMETER
MTG HT	MOUNTING HEIGHT
MW	MESSANGER WIRE
NO. #	NUMBER
P	PROPOSED
PB	PUSH BUTTON
PH, Ø	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PVCC RGC	PVC COATED RIGID GALVANIZED STEEL CONDUIT
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED U.N.O.)
RR	EXISTING UNIT TO BE REMOVED AND RELOCATED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED STEEL CONDUIT
RT	RIGHT
SEL SW	SELECTOR SWITCH
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
STRUCT	STRUCTURE
T	TEMPORARY LIGHTING UNIT
TMP	TEMPORARY
TR	TEMPORARY UNIT TO BE REMOVED, SALVAGE EQUIPMENT AS SPECIFIED
TRR	TEMPORARY UNIT TO BE REMOVED AND RELOCATED
TUR	TEMPORARY UNIT ON UTILITY POLE TO BE REMOVED
TYP.	TYPICAL
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
WP	WOOD POLE
XFMR	TRANSFORMER

**GENERAL NOTES:**

1. UNLESS NOTED OTHERWISE, ALL LIGHTING EQUIPMENT REMOVED AS PART OF THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE VILLAGE OF ORLAND PARK AND SHALL BE DELIVERED TO THE VILLAGE OF ORLAND PARK MAINTENANCE FACILITY. THE VILLAGE OF ORLAND PARK WILL REMOVE ALL ROADWAY LIGHTING WIRING FROM CONDUIT PRIOR TO POLE REMOVAL. THE CONTRACTOR SHALL TURN OVER TO THE VILLAGE OF ORLAND PARK ALL REMOVED POLES, MAST ARMS, FIXTURES, AND CONTROLLERS.
2. THE CONTRACTOR SHALL COORDINATE ALL WORK AND MATERIALS WITH SPECIAL ATTENTION TO ALL OTHER CONSTRUCTION CONTRACTS. THIS WORK SHALL BE INCLUDED IN THE COST OF THIS CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
3. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) 72 HOURS BEFORE EXCAVATION FOR UNDERGROUND UTILITY LOCATIONS. UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE.
4. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO COMMENCING WORK AND COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION.
6. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL UTILITY COMPANIES.
7. WHEN ELECTRIC LIGHTING IS UTILIZED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC.
8. QUANTITIES OF RIGID GALVANIZED STEEL CONDUIT AND PVC CONDUIT WHERE INDICATED ON THE PLANS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE CONFORMANCE WITH SPECIFIED REQUIREMENTS.
9. GROUNDING CONNECTIONS AT ALL EQUIPMENT FOUNDATIONS SHALL BE EXOTHERMICALLY WELDED, UNLESS NOTED OTHERWISE, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
10. NO EQUIPMENT OR MATERIAL SHALL BE DELIVERED TO THE JOB SITE PRIOR TO THE APPROVAL AND INSPECTION OF THE ENGINEER. ANY EQUIPMENT OR MATERIAL DELIVERED TO THE JOB SITE PRIOR TO APPROVAL AND INSPECTION SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
11. THE PROPOSED LIGHTING CONTROL CABINET SHALL BE INSTALLED WITHIN THE RIGHT OF WAY WITH THE EXACT LOCATION TO BE CONFIRMED BY THE CONTRACTOR IN THE FIELD.
12. THE CONTRACTOR SHALL PREPARE A PRELIMINARY SCHEDULE WHEN THE CONTRACT COMMENCES WHICH ESTABLISHES THE DATE WHEN THE ELECTRICAL SERVICES WILL BE REQUIRED. THIS SCHEDULE SHALL BE FORWARDED IN WRITING TO COMMONWEALTH EDISON COMPANY (ComEd). SUBSEQUENT UPDATING OF THE SCHEDULE SHALL BE FORWARDED TO COMED AS CHANGES MAY OCCUR IN THE DATE OF SERVICE REQUIREMENTS. TEN (10) DAYS BEFORE THE ELECTRICAL SERVICES ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY COMED BY PHONE AND CONFIRM THE REQUEST IN WRITING. COMED SERVICE CONTRACT AND AGREEMENT SHALL BE FORWARDED TO THE VILLAGE OF ORLAND PARK FOR REVIEW AND SIGNATURE.
13. ALL PITS USED FOR ACCESSING CONDUITS UNDER ROADWAYS SHALL BE LOCATED 5'-0" (MINIMUM) CLEAR FROM THE EDGE OF SHOULDER. LOCATIONS OF THE CONDUIT CROSSINGS SHOWN ARE APPROXIMATE AND MAY BE SHIFTED AS NECESSARY TO MEET THE MINIMUM CLEARANCE REQUIRED. THE CONTRACTOR SHALL SUBMIT PLANS FOR THE LOCATION AND SIZE OF EACH PIT AND MAINTENANCE AND PROTECTION OF TRAFFIC AT THE SITE OF EACH PIT FOR THE APPROVAL OF THE ENGINEER BEFORE THE EXCAVATION OF ANY PIT MAY BEGIN.
14. EXISTING LIGHTING CONTROLLERS ARE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK. PROPOSED LIGHTING CONTROLLERS C115 AND C117 WILL BE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK.
15. UNDERGROUND CONDUIT SHALL EXTEND (2') BEYOND THE SHOULDER, CURB, BARRIER WALL, AND/OR GUARDRAIL, AS APPLICABLE.
16. THE INSTALLATION OF COMBINATION TRAFFIC SIGNAL AND STREET LIGHT POLES IS A COORDINATED EFFORT OF THE TRAFFIC SIGNAL CONTRACTOR AND ELECTRICAL CONTRACTOR. THE COMBINATION LIGHTING CONTROLLER AND STANDARD COMBINATION LIGHTING DISCONNECT DETAILS ARE INCLUDED IN THE TRAFFIC SIGNAL DRAWINGS. THE TRAFFIC SIGNAL CONTRACTOR WILL PROVIDE AND INSTALL THE COMBINATION LIGHTING CONTROLLER, THE COMBINATION POLE, THE LUMINAIRE MAST ARM, AND THE COMBINATION SERVICE DISCONNECT. THE ELECTRICAL CONTRACTOR WILL PROVIDE AND INSTALL THE COMBINATION POLE LUMINAIRE, ALL WIRING INSIDE THE COMBINATION POLE ASSOCIATED WITH THE LUMINAIRE, LIGHTING CONDUCTORS BETWEEN ALL COMBINATION POLES AND THE COMBINATION LIGHTING CONTROLLER, AND THE LIGHTING POWER CONDUCTORS BETWEEN THE COMBINATION LIGHTING CONTROLLER AND THE COMBINATION SERVICE DISCONNECT. THE TRAFFIC SIGNAL CONTRACTOR AND THE ELECTRICAL CONTRACTOR MUST COORDINATE THE INSTALLATION OF TRAFFIC SIGNAL AND LIGHTING CONDUITS IN THE BASE OF THE COMBINATION SERVICE DISCONNECT, THE BASE OF THE TRAFFIC SIGNAL CONTROL CABINET AND COMBINATION LIGHTING CONTROLLER, THE BASES OF ALL COMBINATION POLES, AND THE INSTALLATION OF CONDUIT AND WIRING BETWEEN THE COMBINATION POLE AND THE TRAFFIC SIGNAL CONTROLLER CABINET AND THE COMBINATION LIGHTING CONTROLLER. THE ELECTRICAL CONTRACTOR'S WORK ASSOCIATED WITH THE COMBINATION POLES IS SHOWN ON THE ELECTRICAL SHEETS.
17. COMBINATION LIGHTING WILL BE OWNED AND MAINTAINED BY IDOT, THEREFORE THE COMBINATION POLE UNIT IDENTIFICATION SHALL BE BLACK LETTERS AND NUMERALS ON A SILVER-WHITE REFLECTIVE BACKGROUND. ALL OTHER LIGHTING UNITS AND SYSTEMS ARE NOT MAINTAINED BY IDOT, AND SHALL HAVE AN ALTERNATE COLOR SCHEME IDENTIFICATION OF BLACK ON YELLOW.
18. THE TRAFFIC SIGNAL SHEETS DO NOT SHOW THE TRAFFIC SIGNAL MAST ARM POLES BEING INSTALLED IN ANY PARTICULAR STAGE OF CONSTRUCTION. THE TIMING OF THE INSTALLATION IS LEFT UP TO THE TRAFFIC SIGNAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL INSURE THAT THE COMBINATION TRAFFIC SIGNAL/STREET LIGHTING MAST ARM POLES ARE INSTALLED IN THE STAGE SHOWN ON THE ELECTRICAL SHEETS.
19. THE COORDINATION OF THE SIDE STREET WORK WITH LAGRANGE ROAD WORK IS LEFT UP TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE OPERATING STATUS OF LAGRANGE ROAD STREET LIGHTS REGARDLESS OF THE SIDE STREET STAGING. THIS MEANS THE CONTRACTOR MAY HAVE TO INSTALL TEMPORARY OVERHEAD WIRING FOR LAGRANGE ROAD STREET LIGHTS TO BYPASS STREET LIGHTS NOT YET INSTALLED. NOT ALL POSSIBILITIES FOR TEMPORARY OVERHEAD WIRING NEEDS ARE SHOWN ON THE PLANS, SINCE THIS DEPENDS UPON COORDINATION AS DETERMINED BY THE CONTRACTOR.

**GENERAL NOTES (CONTINUED):**

20. FURNISH AND INSTALL A COMBINATION POLE LIGHTING CONTROLLER TO OPERATE THE LIGHT FIXTURES ON THE PROPOSED LIGHTING/TRAFFIC SIGNALS COMBINATION POLES AS SHOWN ON THESE PLANS. THE COMBINATION LIGHTING CONTROLLER (CLC) SHALL BE ATTACHED TO THE SIDE OF THE TRAFFIC SIGNAL CONTROLLER CABINET AS SHOWN ON THE ATTACHED DETAILS. COMBINATION LIGHTING CONTROLLERS ARE POWERED FROM THE PROPOSED LIGHTING/TRAFFIC SIGNALS COMBINATION SERVICE DISCONNECT CABINET, AND PAID FOR UNDER PAY ITEM NO. X8250090 "COMBINATION POLE LIGHTING CONTROLLER".
21. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/8" #8, 1/2" #10 G. IN CONDUIT FROM EACH PROPOSED COMBINATION LIGHTING/TRAFFIC SIGNALS SERVICE DISCONNECT CABINET TO EACH PROPOSED COMBINATION LIGHTING CONTROLLER LOCATION. INSTALL THE UNIT DUCT IN A SEPARATE CONDUIT FOR THE ENTIRE RUN. SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS.
22. PROPOSED LIGHT POLE SET BACKS ARE MEASURED FROM THE FACE OF CURB TO THE CENTER OF THE LIGHT POLE. MINIMUM SET BACK SHALL BE 3 FEET. OFFSETS FOR TEMPORARY LIGHTING WOOD POLES ARE MEASURED FROM THE ROADWAY CENTERLINE TO THE CENTER OF THE WOOD POLE.

**SUGGESTED LIGHTING PHASING NOTES:**

- PRE-STAGE (PRIOR TO THE START OF STAGE 1 CONSTRUCTION)**
- A. FURNISH AND INSTALL TEMPORARY LIGHTING CONTROLLERS "T104" AND "T105" AS SHOWN ON DRAWINGS E-12 AND E-13.
  - B. COORDINATE WITH COMED TO GET POWER TO LIGHTING CONTROLLERS "T104" AND "T105". FURNISH AND INSTALL ALL ITEMS NECESSARY AS COORDINATED WITH COMED TO GET POWER TO LIGHTING CONTROLLERS "T104" AND "T105".
  - C. FURNISH, INSTALL, AND ENERGIZE ALL TEMPORARY LIGHTING UNITS AS INDICATED ON DRAWINGS E-11 THROUGH E-13 PRIOR TO THE REMOVAL OF EXISTING LIGHTING UNITS.
  - D. REMOVE EXISTING LIGHTING UNITS AND FOUNDATIONS ON THE WEST SIDE OF US-45 (LAGRANGE ROAD) AS INDICATED ON DRAWINGS E-11 THROUGH E-13 IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
  - E. TRANSPORT ALL REMOVED LIGHTING UNITS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING AS DETERMINED BY THE ENGINEER, UNLESS NOTED OTHERWISE.
- STAGE 1A**
- A. REMOVE EXISTING LIGHTING UNITS AND FOUNDATIONS ON THE EAST SIDE OF US-45 (LAGRANGE ROAD) AS INDICATED ON DRAWINGS E-11 THROUGH E-13 IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
  - B. TRANSPORT ALL REMOVED LIGHTING UNITS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING AS DETERMINED BY THE ENGINEER, UNLESS NOTED OTHERWISE.
  - C. COORDINATE WITH COMED FOR THE REMOVAL OF POWER TO UNIDENTIFIED LIGHTING CONTROLLER LOCATED ON DRAWING E-12. REMOVE THE UNIDENTIFIED LIGHTING CONTROLLER AND FOUNDATION. TRANSPORT THE REMOVED LIGHTING CONTROLLER TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING PER THE SPECIAL PROVISIONS.
  - D. FURNISH AND INSTALL PROPOSED LIGHTING CONTROLLERS "C115" AND "C117" AND ASSOCIATED UTILITY SERVICES. COORDINATE WORK WITH COMED.
  - E. COORDINATE WITH THE GENERAL CONTRACTOR, THE TRAFFIC SIGNAL CONTRACTOR, AND COMED TO INSURE INSTALLATION OF COMBINATION LIGHTING CONTROLLERS, THE COMBINATION SERVICE DISCONNECT, AND MAST ARM POLES FOR COMBINATION LIGHTING UNITS AS SHOWN IN PLANS.
  - F. FURNISH AND INSTALL PROPOSED LIGHTING UNITS AND PROPOSED SOUTHWEST HIGHWAY BRIDGE UNDERPASS LIGHTING UNITS ON THE EAST SIDE OF US-45 (LAGRANGE ROAD) AS INDICATED ON DRAWINGS E-14 THROUGH E-16 AND E-10.
  - G. FURNISH AND INSTALL PROPOSED LIGHTING UNITS ON THE NORTH SIDE OF 135th STREET AS INDICATED ON DRAWING E-17.
  - H. FURNISH AND INSTALL PROPOSED LIGHTING UNITS ON THE SOUTH SIDE OF 131st STREET AS INDICATED ON DRAWING E-18.
  - I. DISCONNECT EXISTING UNDERPASS LIGHTING UNITS ON EASTERN ENDS OF EXISTING MULTI-USE PATH BRIDGE AND RAILROAD BRIDGE FROM ORLAND PARK CONTROLLER #3 (SHOWN ON DRAWING E-14). CONNECT UNDERPASS LIGHTING UNITS TO PROPOSED LIGHTING CONTROLLER "C115" CIRCUITS A AND B AS INSTRUCTED ON DRAWING E-9.
- STAGE 1B**
- A. FURNISH AND INSTALL PROPOSED LIGHTING UNITS ON THE EAST SIDE OF US-45 (LAGRANGE ROAD) AND ON THE SOUTH SIDE OF 135th STREET AS INDICATED ON DRAWINGS E-19 THROUGH E-21.
  - B. ENERGIZE PROPOSED LIGHTING CONTROLLERS "C115" AND "C117" ONCE ALL OF THE CIRCUIT RUNS FOR THE EAST SIDE OF LAGRANGE ROAD AND SIDE STREETS EAST OF LAGRANGE ROAD ARE INSTALLED AS SHOWN ON DRAWINGS E-14 THROUGH E-22, E-9, AND E-10.
  - C. PROVIDE PERMANENT UNIT DUCT CONNECTION TO COMBINATION LIGHTING UNITS FROM THEIR RESPECTIVE COMBINATION CONTROLLERS.
- STAGE 2**
- A. REMOVE ALL TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS "T104" AND "T105", ASSOCIATED UTILITY SERVICES, AND WIRING ONCE PROPOSED LIGHTING CONTROLLERS "C115", "C117", AND "C131" ARE ENERGIZED AND TRAFFIC IS SHIFTED TO PROPOSED NORTHBOUND LANES CONSTRUCTED IN STAGES 1A AND 1B.
- STAGE 3**
- A. FURNISH, INSTALL, AND ENERGIZE PROPOSED LIGHTING UNITS AND PROPOSED SOUTHWEST HIGHWAY BRIDGE UNDERPASS LIGHTING UNITS ON THE WEST SIDE OF US-45 (LAGRANGE ROAD) AS INDICATED ON DRAWINGS E-23 THROUGH E-25 AND E-10.
  - B. FURNISH AND INSTALL PROPOSED LIGHTING UNIT ON 131st STREET AS INDICATED ON DRAWING E-26. INSTALL PERMANENT UNIT DUCT CONNECTIONS AS INDICATED ON DRAWINGS E-25 AND E-26 TO ENERGIZE PROPOSED ROADWAY LIGHTING UNITS.
  - C. DISCONNECT EXISTING UNDERPASS LIGHTING UNITS ON WESTERN ENDS OF EXISTING MULTI-USE PATH BRIDGE AND RAILROAD BRIDGE FROM ORLAND PARK CONTROLLER #3 (SHOWN ON DRAWING E-23). CONNECT UNDERPASS LIGHTING UNITS TO PROPOSED LIGHTING CONTROLLER "C115" AS INSTRUCTED ON DRAWING E-9.
  - D. COORDINATE WITH THE GENERAL CONTRACTOR AND THE TRAFFIC SIGNAL CONTRACTOR TO INSURE INSTALLATION OF MAST ARM POLES FOR COMBINATION LIGHTING UNITS.
  - E. DISCONNECT ELECTRICAL FEED TO LIGHTING UNIT ON NORTHWEST CORNER OF CREEK ROAD, AND REMOVE LIGHTING UNIT AND FOUNDATION. FURNISH AND INSTALL PROPOSED FOUNDATION TO RELOCATE EXISTING LIGHTING UNIT. RECONNECT AND ENERGIZE EXISTING LIGHTING UNIT IN PROPOSED LOCATION. SEE DRAWING E-8 FOR DETAILS.



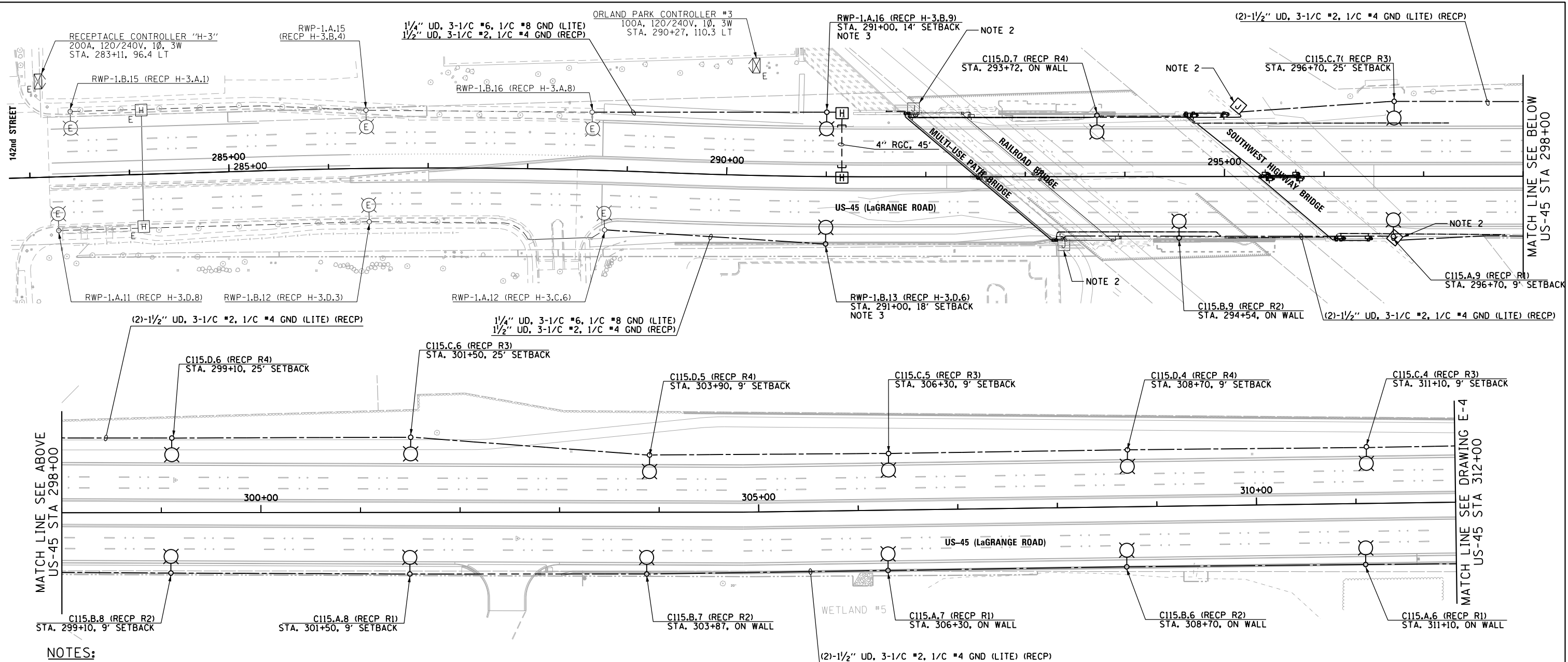
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	PLOT SCALE = 2.0000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US 45 (LAGRANGE ROAD)  
ELECTRICAL GENERAL NOTES AND PHASING NOTES**

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

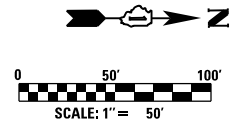
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	326
<b>E-2</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING GE-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-9 FOR PEDESTRIAN BRIDGE AND METRA BRIDGE UNDERPASS LIGHTING PLAN. SEE DRAWING E-10 FOR SOUTHWEST HIGHWAY UNDERPASS LIGHTING PLAN.
- CONTRACTOR MUST INSTALL A 120V GFCI RECEPTACLE AT 15'-0" ABOVE GRADE ON LIGHTING UNIT. CONNECT RECEPTACLE TO CONTROLLER H-3.
- STREET LIGHTING CONTROLLER RWP-1 IS LOCATED SOUTH OF 143rd STREET ON THE EAST SIDE OF THE ROAD AT APPROXIMATE STATION 270+00.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION. THAT SHALL INCLUDE THE APPROVED METER SOCKET PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN. AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/C #8, 1/C #10 G. IN CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGS OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

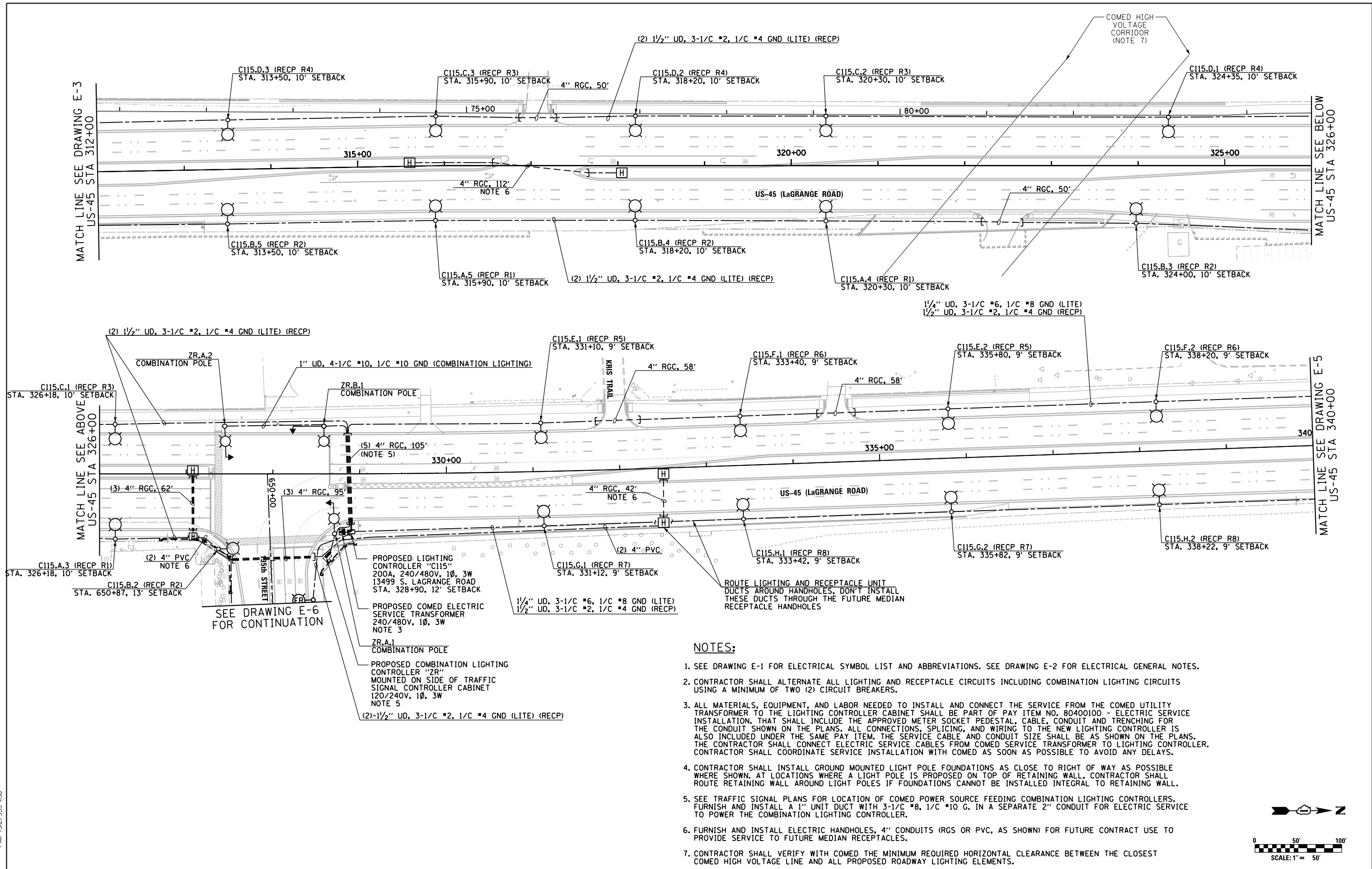


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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

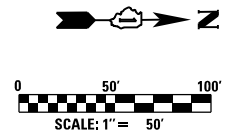
<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN</b>			
SCALE: 1"=50'	SHEET 1 OF 3 SHEETS	STA. 284+00 TO STA. 312+00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	327
<b>E-3</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION. THAT SHALL INCLUDE THE APPROVED METER SOCKET PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN. AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/4" #8, 1/4" #10 G. IN A SEPARATE 2" CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGS OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.
- CONTRACTOR SHALL VERIFY WITH COMED THE MINIMUM REQUIRED HORIZONTAL CLEARANCE BETWEEN THE CLOSEST COMED HIGH VOLTAGE LINE AND ALL PROPOSED ROADWAY LIGHTING ELEMENTS.



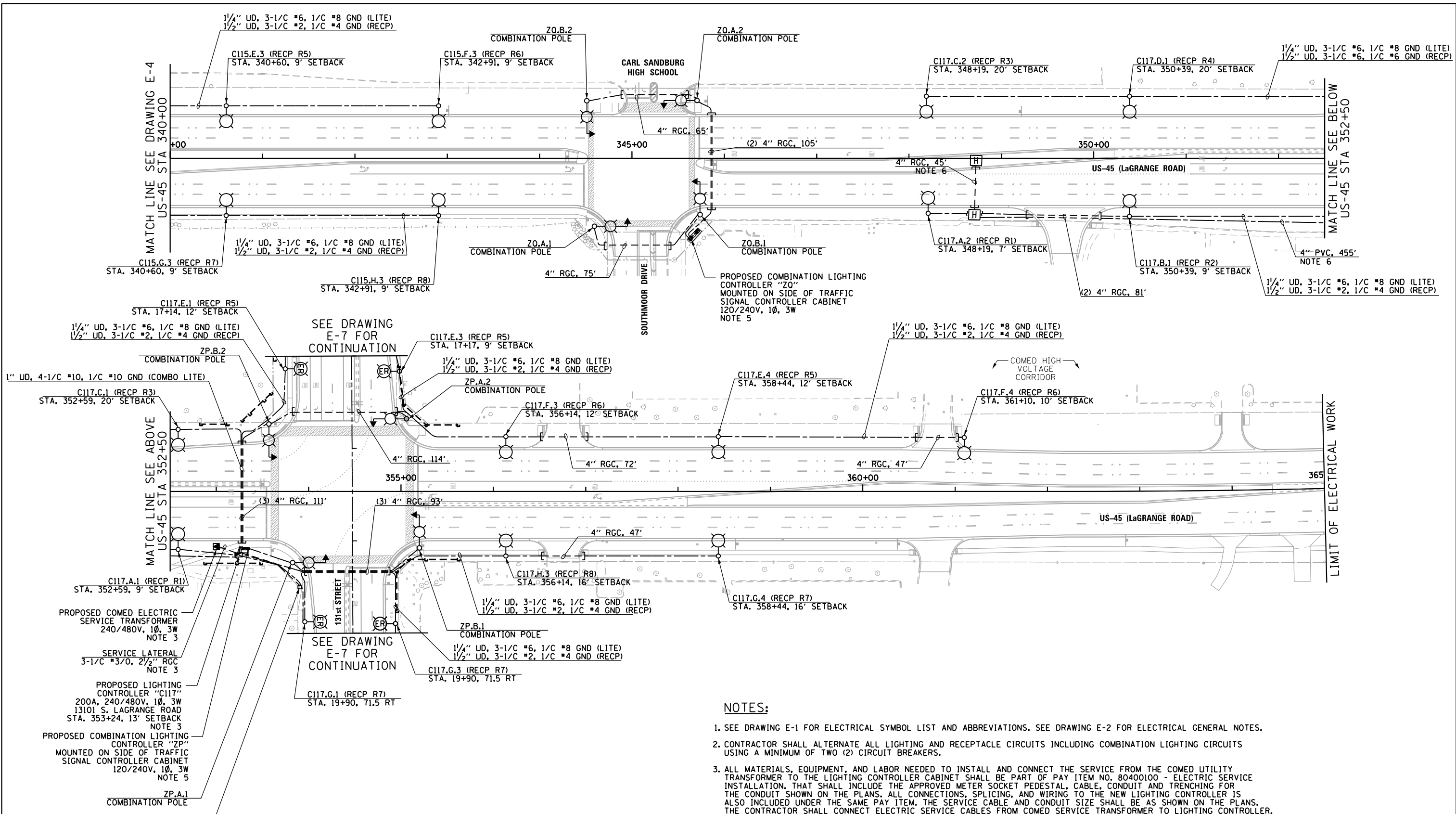
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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN</b>			
SCALE: 1"=50'	SHEET 2 OF 3 SHEETS	STA. 312+00 TO STA. 340+00	

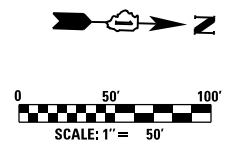
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	328
<b>E-4</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				





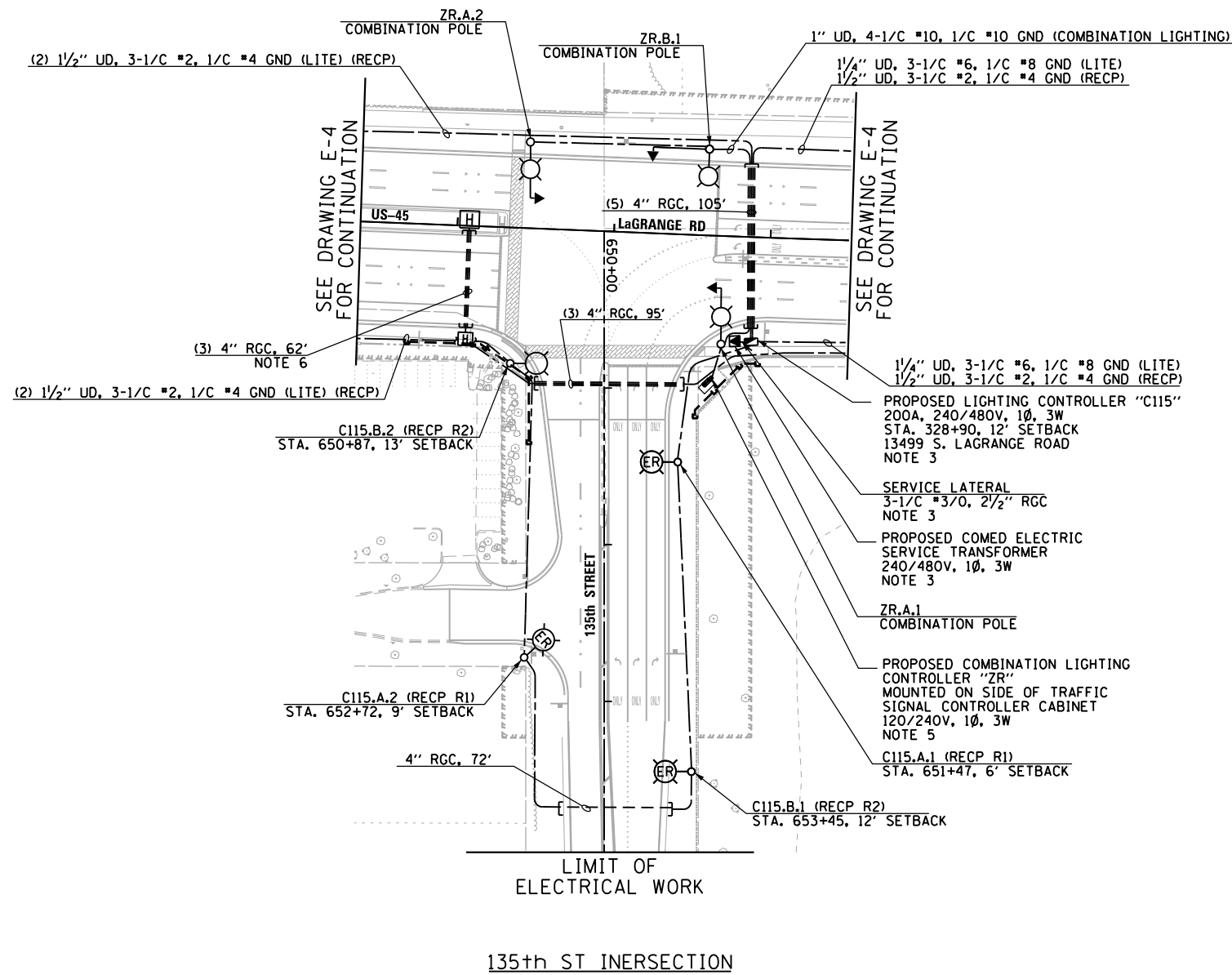
**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION, THAT SHALL INCLUDE THE APPROVED METER SOCKET PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN. AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/2" #8, 1/2" #4 G. IN A SEPARATE 2" CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGS OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.



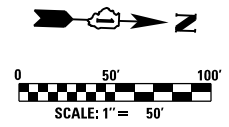
100 S. WACKER DR.  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-E05.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -	330			103R-5	COOK	778	329	
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			<b>E-5</b>		CONTRACT NO. 60M62		
						SCALE: 1"=50'	SHEET 3 OF 3 SHEETS	STA. 340+00 TO STA. 365+00	ILLINOIS FED. AID PROJECT	



**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL ALTERNATE ALL LIGHTING AND RECEPTACLE CIRCUITS INCLUDING COMBINATION LIGHTING CIRCUITS USING A MINIMUM OF TWO (2) CIRCUIT BREAKERS.
- ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO INSTALL AND CONNECT THE SERVICE FROM THE COMED UTILITY TRANSFORMER TO THE LIGHTING CONTROLLER CABINET SHALL BE PART OF PAY ITEM NO. 80400100 - ELECTRIC SERVICE INSTALLATION. THAT SHALL INCLUDE THE APPROVED METER SOCKET PEDESTAL, CABLE, CONDUIT AND TRENCHING FOR THE CONDUIT SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW LIGHTING CONTROLLER IS ALSO INCLUDED UNDER THE SAME PAY ITEM. THE SERVICE CABLE AND CONDUIT SIZE SHALL BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONNECT ELECTRIC SERVICE CABLES FROM COMED SERVICE TRANSFORMER TO LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATION WITH COMED AS SOON AS POSSIBLE TO AVOID ANY DELAYS.
- CONTRACTOR SHALL INSTALL GROUND MOUNTED LIGHT POLE FOUNDATIONS AS CLOSE TO RIGHT OF WAY AS POSSIBLE WHERE SHOWN. AT LOCATIONS WHERE A LIGHT POLE IS PROPOSED ON TOP OF RETAINING WALL, CONTRACTOR SHALL ROUTE RETAINING WALL AROUND LIGHT POLES IF FOUNDATIONS CANNOT BE INSTALLED INTEGRAL TO RETAINING WALL.
- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMED POWER SOURCE FEEDING COMBINATION LIGHTING CONTROLLERS. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/C #8, 1/C #10 G. IN A SEPARATE 2" CONDUIT FOR ELECTRIC SERVICE TO POWER THE COMBINATION LIGHTING CONTROLLER.
- FURNISH AND INSTALL ELECTRIC HANDHOLES, 4" CONDUITS (RGS OR PVC, AS SHOWN) FOR FUTURE CONTRACT USE TO PROVIDE SERVICE TO FUTURE MEDIAN RECEPTACLES.



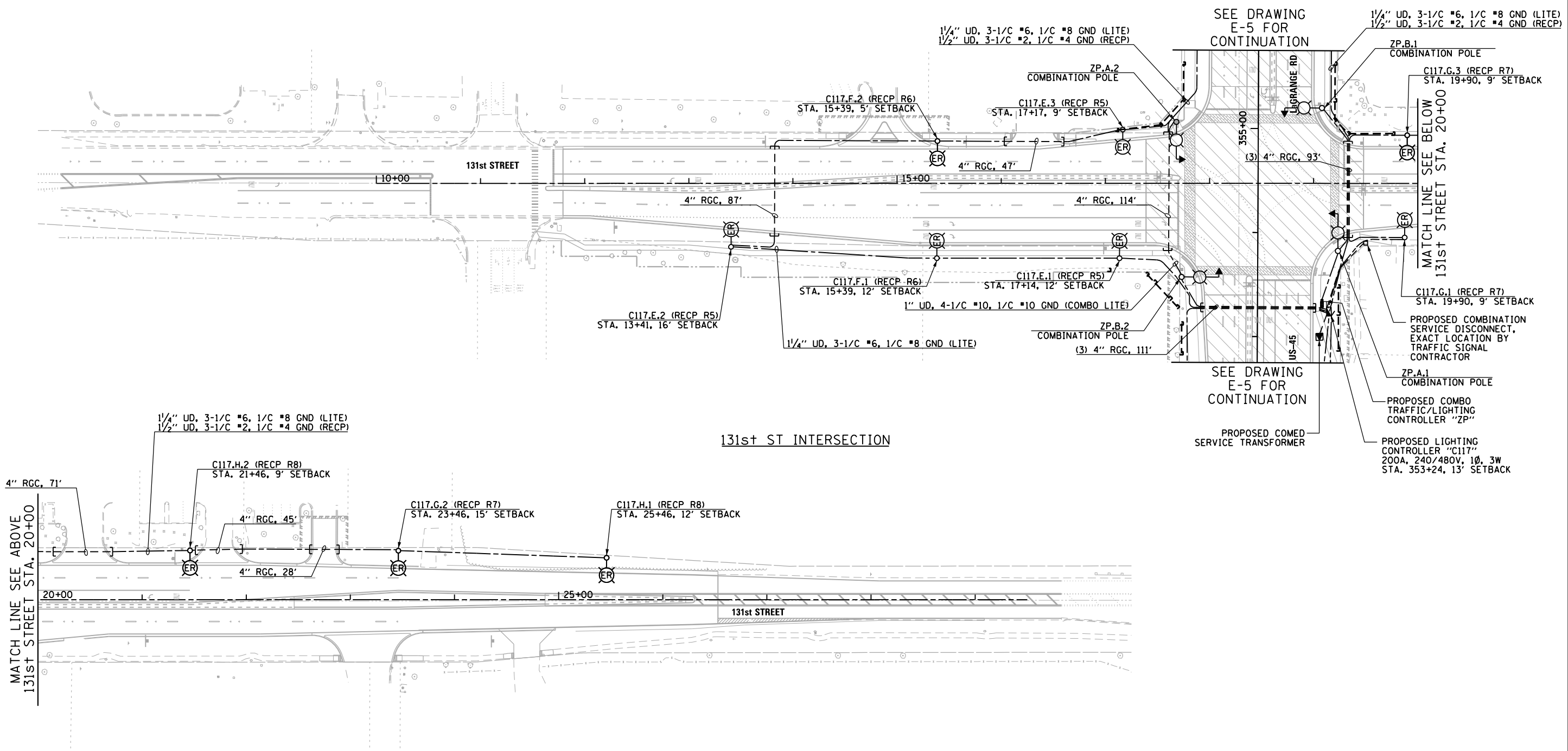
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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**135th STREET PROPOSED ROADWAY LIGHTING PLAN**

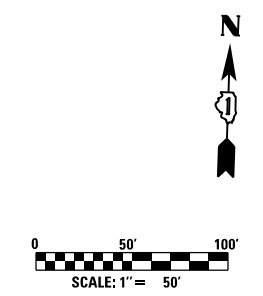
SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 650+00 TO STA. 664+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	330
<b>E-6</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



131st ST INTERSECTION

MATCH LINE SEE ABOVE  
131st STREET STA. 20+00



**URS**  
100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4198

FILE NAME = D160M62-SHT-E07.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -
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		DATE - 03/13/13	REVISED -

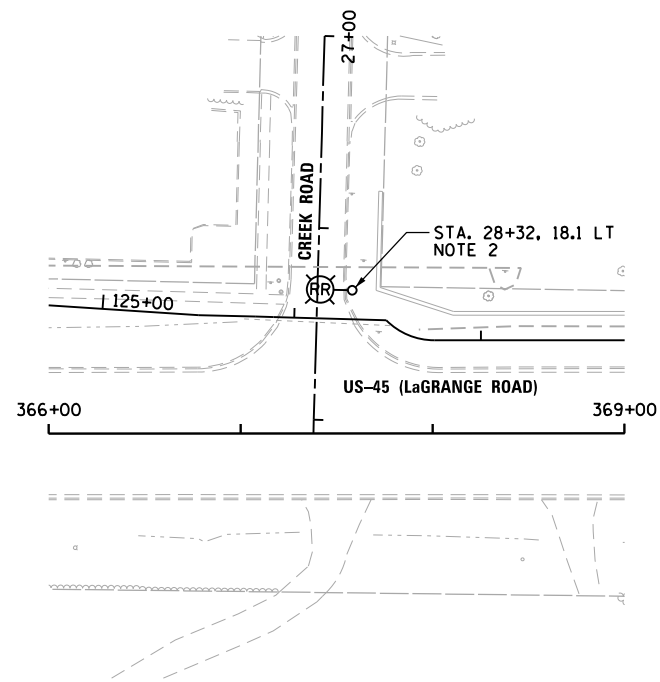
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

131st STREET PROPOSED ROADWAY LIGHTING PLAN			
SCALE: 1"=50'	SHEET 1 OF 1 SHEETS	STA. 10+00 TO STA. 28+00	

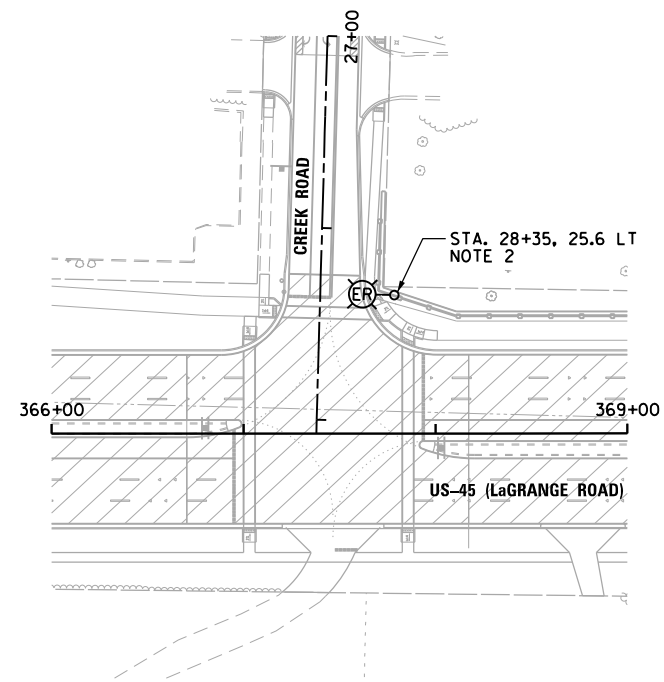
F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 331
E-7			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. CONTRACTOR MUST COORDINATE THE REMOVAL AND REINSTALLATION OF LIGHT POLE WITH THE PROPOSED RECONSTRUCTION OF CREEK ROAD AND WITH THE OWNER. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR LaGRANGE ROAD CONSTRUCTION STAGE 3 AND CREEK ROAD STAGING PLANS. CONTRACTOR TO DISCONNECT POWER SOURCE AT NEXT LIGHT POLE WEST OF POLE TO BE RELOCATED. THE CONTRACTOR MUST CONFIRM THE DIAMETER OF EXISTING BOLT CIRCLE FOR POLE TO BE RELOCATED PRIOR TO REMOVAL OF EXISTING POLE AND CONCRETE FOUNDATION. CONTRACTOR TO REINSTALL EXISTING POLE ON PROPOSED CONCRETE FOUNDATION, AND RECONNECT WIRING TO NEXT POLE WEST OF RELOCATED POLE. SEE IDOT STANDARD DRAWING E-45 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD", THE "REMOVAL OF POLE FOUNDATION", AND THE "LIGHT POLE FOUNDATION, 24" DIAMETER" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.

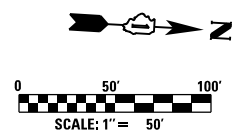


CREEK ROAD ELECTRICAL DEMOLITION PLAN  
SCALE: 1" = 50'-0"



CREEK ROAD PROPOSED ROADWAY LIGHTING PLAN  
SCALE: 1" = 50'-0"

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198  
**URS**



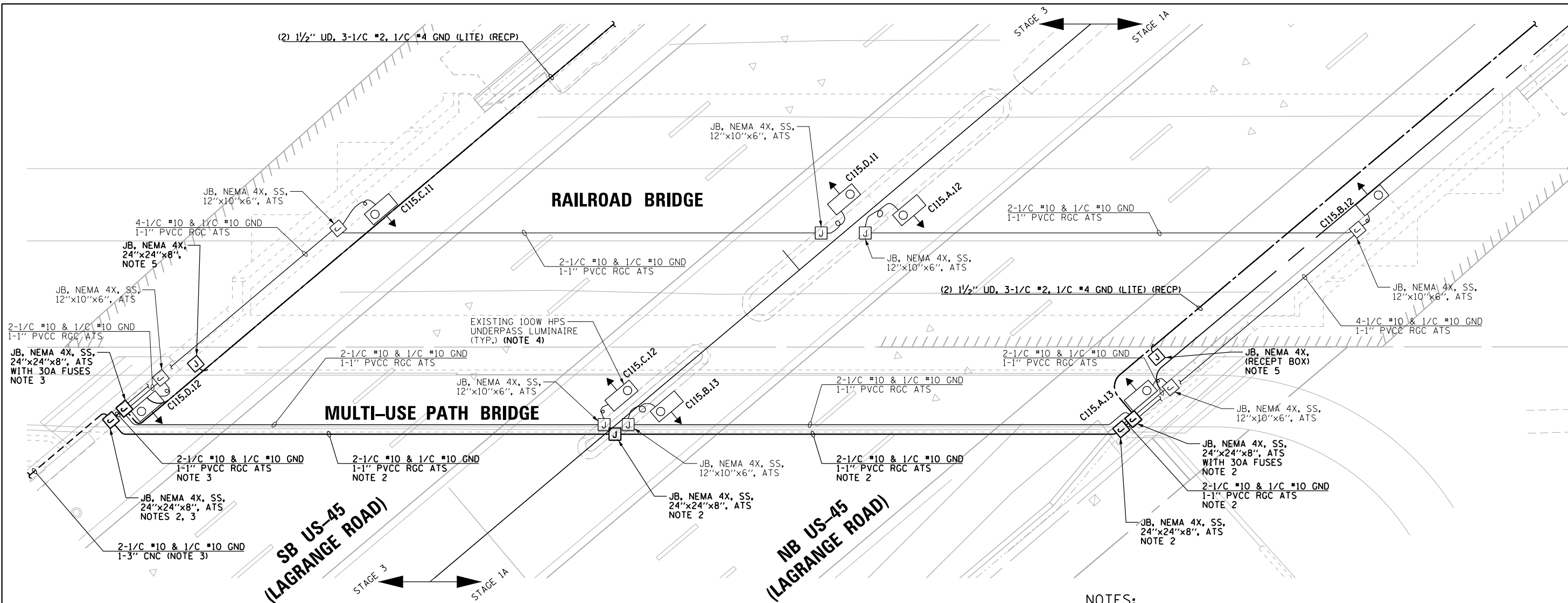
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SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

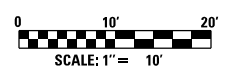
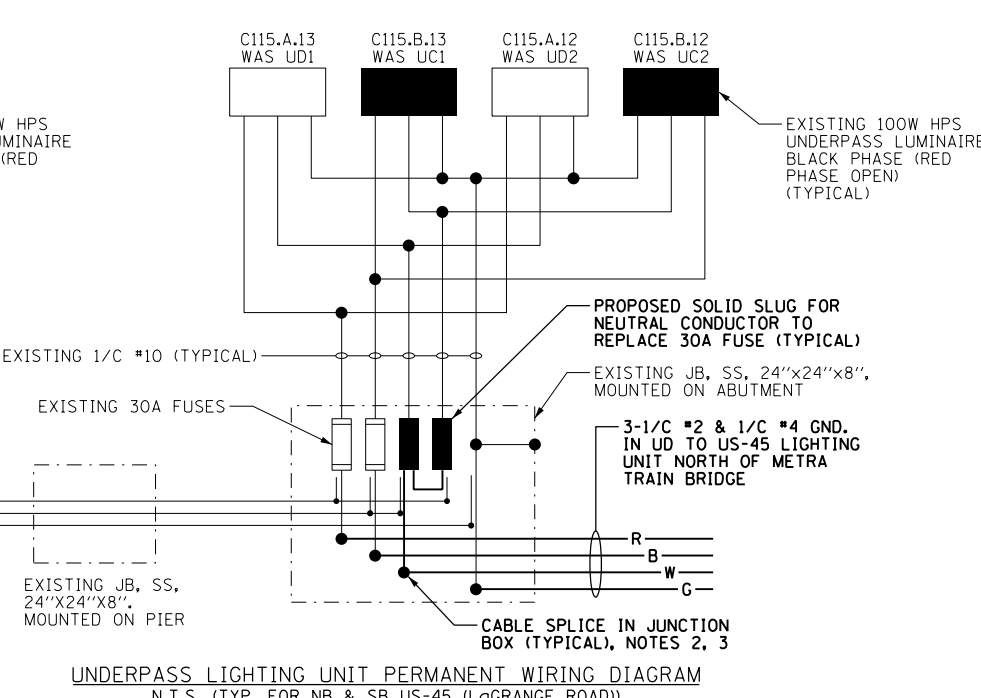
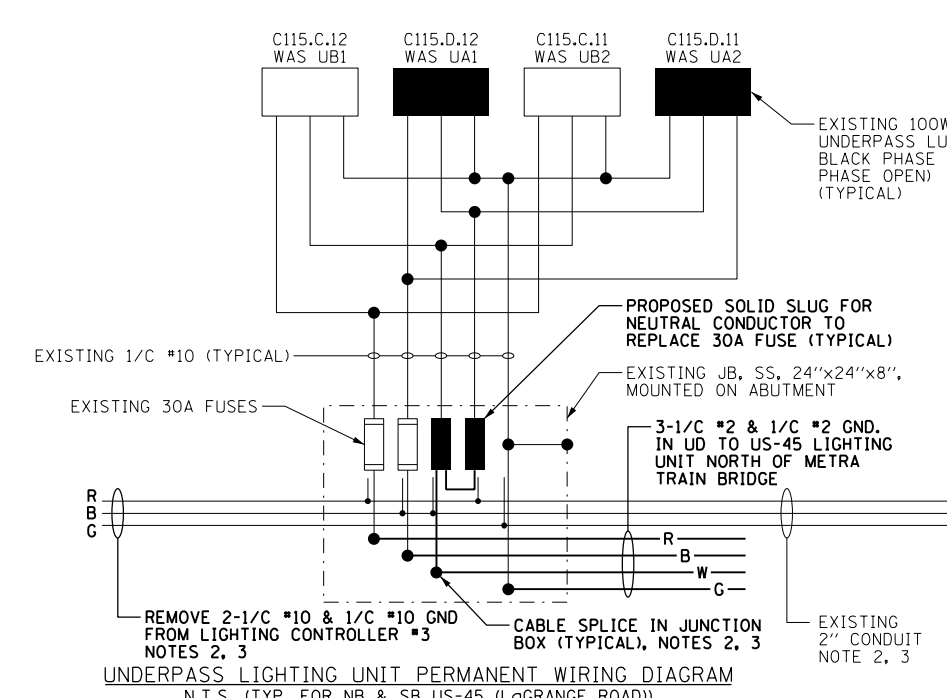
**CREEK ROAD ROADWAY LIGHTING PLANS**

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 366+00 TO STA. 369+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	332
<b>E-8</b>			<b>CONTRACT NO. 60M62</b>	
ILLINOIS FED. AID PROJECT				



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES AND SUGGESTED LIGHTING PHASING NOTES.
  - IN STAGE 1A, CONTRACTOR MUST DISCONNECT 2-1/2" #10 & 1/2" #10 GND WIRES FROM LINE SIDE OF FUSES WITHIN JUNCTION BOX ON EAST ABUTMENT, AND REMOVE WIRES BACK TO CORRESPONDING JUNCTION BOX ON WEST ABUTMENT. CONTRACTOR MUST NOT DISTURB CABLES PREVIOUSLY INSTALLED FOR PEDESTRIAN PATH LIGHTING. ALL EXISTING CONDUIT AND JUNCTION BOXES SHALL REMAIN IN PLACE AFTER CABLES ARE REMOVED. CONTRACTOR MUST INSTALL PULL STRINGS IN CONDUITS THAT WIRES ARE BEING REMOVED FROM. LUMINAIRES ON WEST SIDE OF UNDERPASS MUST REMAIN CONNECTED TO CONTROLLER #3, AND ENERGIZED DURING NIGHTTIME HOURS. CONTRACTOR MUST THEN REPLACE FUSES WITH SOLID NEUTRAL SLUGS AS SHOWN, JUMPER THE NEUTRAL SLUGS TOGETHER, AND CONNECT TO NEUTRAL WIRE FOR NEW ROADWAY LIGHTING CIRCUIT AS SHOWN IN WIRING DIAGRAM. CONTRACTOR MUST CONNECT NEW LIGHTING PHASE AND GROUND WIRES FROM ROADWAY LIGHTING CONTROLLER "C115" TO 30A FUSES FOR UNDERPASS LIGHTING. THIS WORK SHALL BE INCLUDED IN THE "UNIT DUCT, 600V, 3-1/2" NO.2, 1/2" NO.2 GROUND, (XLP-TYPE USE), 1/4" DIA. POLYETHYLENE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
  - IN STAGE 3, CONTRACTOR MUST DISCONNECT 2-1/2" #10 & 1/2" #10 GND WIRES FROM LINE SIDE OF FUSES WITHIN JUNCTION BOX ON WEST ABUTMENT, AND REMOVE WIRES BACK TO CONTROLLER #3 NEAR "ORLAND PARK VILLAGE CENTER" SIGN. CONTRACTOR MUST NOT DISTURB CABLES PREVIOUSLY INSTALLED FOR PEDESTRIAN PATH LIGHTING. ALL EXISTING CONDUIT AND JUNCTION BOXES SHALL REMAIN IN PLACE AFTER CABLES ARE REMOVED. CONTRACTOR MUST INSTALL PULL STRINGS IN CONDUITS THAT WIRES ARE BEING REMOVED FROM. CONTRACTOR MUST THEN REPLACE FUSES WITH SOLID NEUTRAL SLUGS AS SHOWN, JUMPER THE NEUTRAL SLUGS TOGETHER, AND CONNECT TO NEUTRAL WIRE FOR NEW ROADWAY LIGHTING CIRCUIT AS SHOWN IN WIRING DIAGRAM. CONTRACTOR MUST CONNECT NEW LIGHTING PHASE AND GROUND WIRES FROM ROADWAY LIGHTING CONTROLLER "C115" TO 30A FUSES FOR UNDERPASS LIGHTING. THIS WORK SHALL BE INCLUDED IN THE "UNIT DUCT, 600V, 3-1/2" NO.2, 1/2" NO.2 GROUND, (XLP-TYPE USE), 1/4" DIA. POLYETHYLENE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
  - CONTRACTOR MUST RELABEL EXISTING UNDERPASS LUMINAIRES TO BECOME IDENTIFIED BY THE NEW NAMES SHOWN ON THIS DRAWING. THIS WORK SHALL BE INCLUDED IN THE "UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR, STAINLESS STEEL HOUSING" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
  - TERMINATE RECEPTACLE CABLES IN JUNCTION BOXES FOR FUTURE RECEPTACLES.



100 S. WACKER DR.  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998



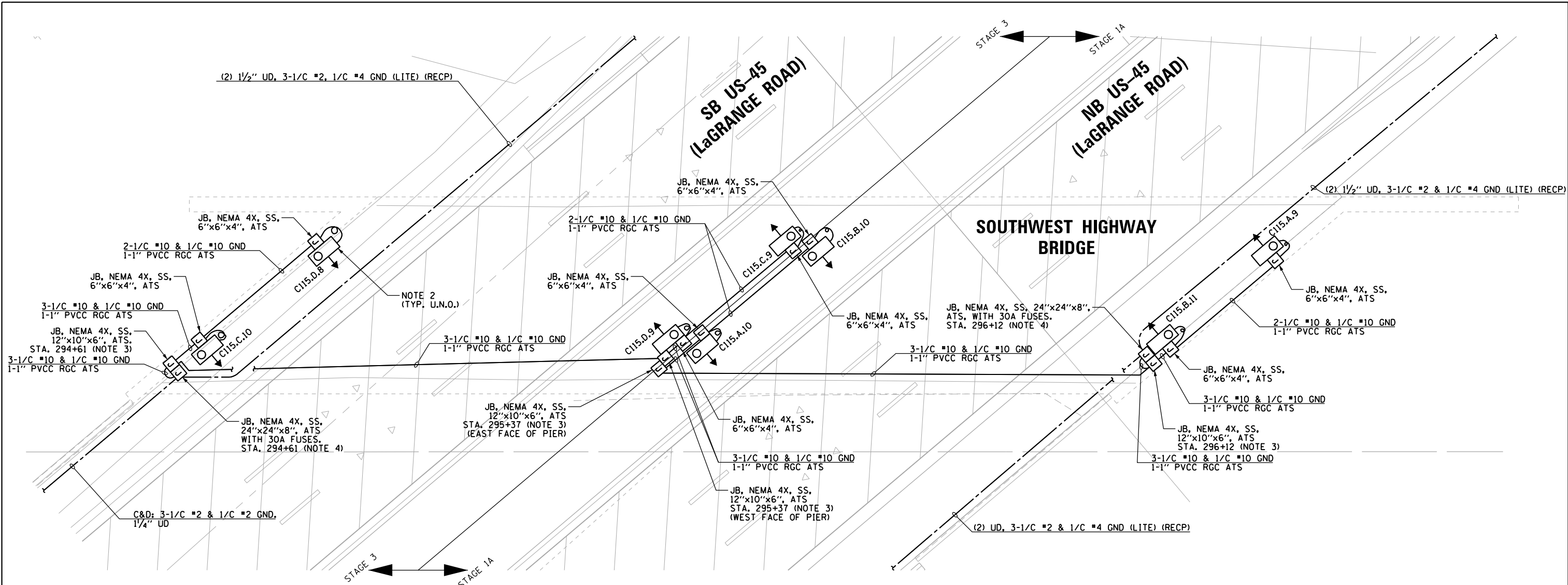
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SHT.PLAN	PLOT SCALE = 20.000000 / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

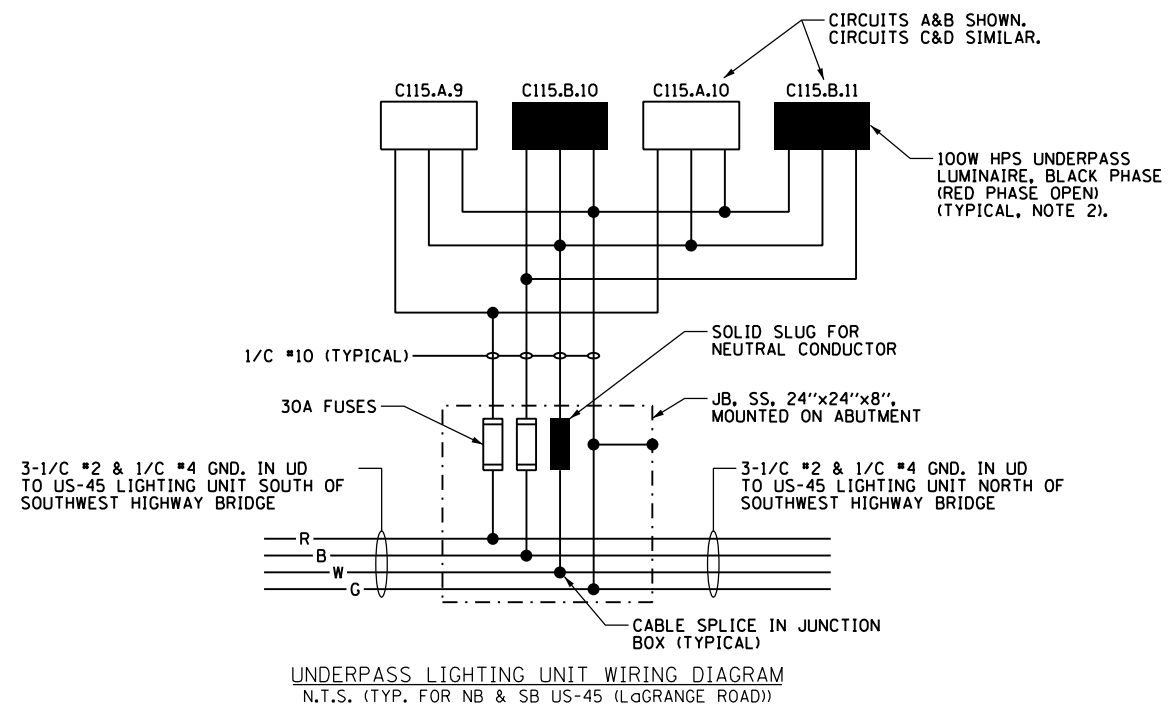
**UNDERPASS LIGHTING PLAN**  
**MULTI-USE PATH BRIDGE & RAILROAD BRIDGE**

SCALE: 1" = 10'    SHEET 1 OF 1 SHEETS    STA. 164+23 TO STA. 167+50

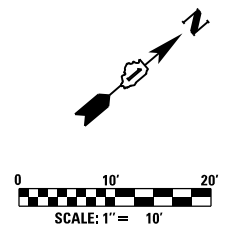
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	333
<b>E-9</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - SEE DRAWING E-49 FOR PROPOSED PIER/ABUTMENT UNDERPASS LIGHTING UNIT INSTALLATION DETAILS. FURNISH AND INSTALL 6"x6"x4" JUNCTION BOXES AS SHOWN ABOVE UNDERPASS LIGHTING FIXTURES ON TOP OF ABUTMENT WALL OR PIER.
  - FURNISH AND INSTALL 12"x10"x6" JUNCTION BOXES ON TOP OF ABUTMENT WALL OR PIER AT STATIONS GIVEN. ALIGN JUNCTION BOX WITH FACE OF ABUTMENT WALL OR PIER.
  - FURNISH AND INSTALL 24"x24"x8" JUNCTION BOXES ON FACE OF ABUTMENT WALL AT STATION GIVEN. MOUNT JUNCTION BOX 1'-0" BELOW TOP OF WALL.
  - FURNISH AND INSTALL REQUIRED STAINLESS STEEL MOUNTING HARDWARE FOR UNDERPASS LIGHTING FIXTURES AND JUNCTION BOXES PER IDOT STANDARD SPECIFICATIONS.



UNDERPASS FIXTURE NUMBER	UNDERPASS FIXTURE LOCATION (NOTE 2)	
	STATION	CL OFFSET
C115.C.10	294+69	62.5 LT
C115.D.8	294+99	62.5 LT
C115.D.9	295+41	1.6 LT
C115.A.10	295+45	1.5 RT
C115.C.9	295+72	1.5 LT
C115.B.10	295+75	1.6 RT
C115.B.11	296+17	62.5 RT
C115.A.9	296+44	62.5 RT



100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

**URS**

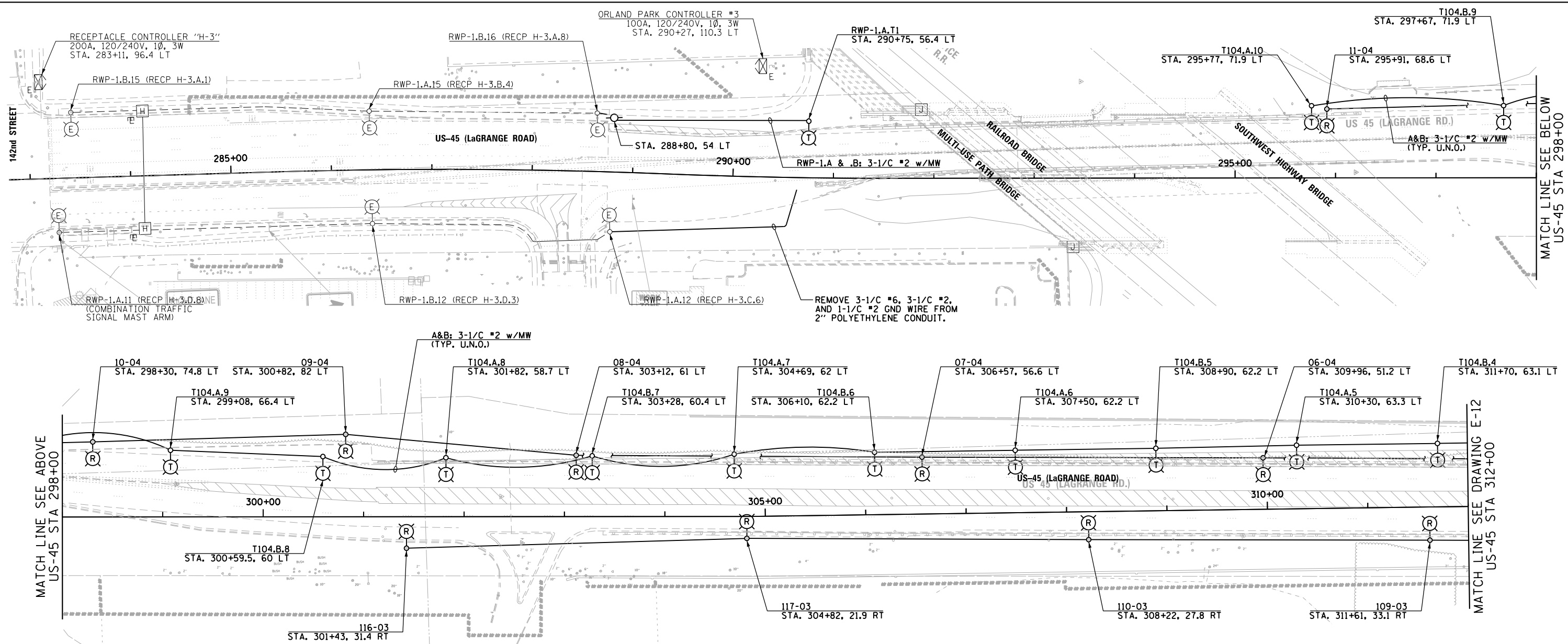
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	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UNDERPASS LIGHTING PLAN  
SOUTHWEST HIGHWAY BRIDGE**

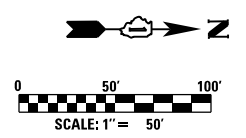
SCALE: 1" = 10' SHEET 1 OF 1 SHEETS STA. 164+23 TO STA. 167+50

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 334
<b>E-10</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



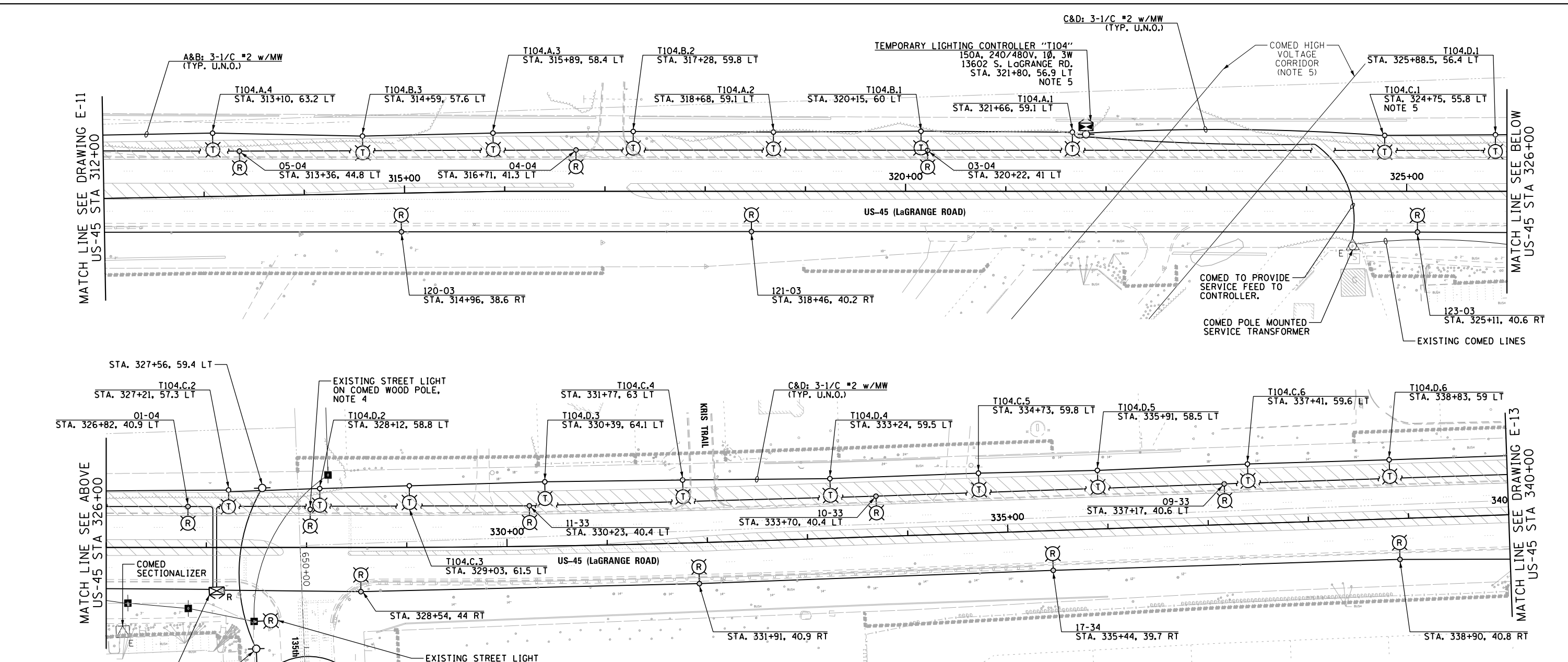
**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- ALL STREET LIGHT CABLE ROUTING SHOWN NORTH OF THE SOUTHWEST HIGHWAY BRIDGE AND THE LIGHTING CONTROLLER FEEDING THE STREET LIGHTS IS ASSUMED. CONTRACTOR SHALL VERIFY ACTUAL CABLE ROUTING AND ACTUAL CONTROLLER FEEDING THE STREET LIGHTS AND REMOVE ITEMS AS REQUIRED.
- STREET LIGHTING CONTROLLER RWP-1 IS LOCATED SOUTH OF 143rd STREET ON THE EAST SIDE OF THE ROAD AT APPROXIMATE STATION 270+00.



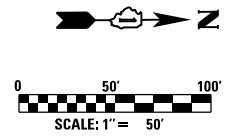
100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198  
**URS**

FILE NAME = D160M62-SHT-E11.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING AND DEMOLITION PLAN</b>	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -			330	103R-5	COOK	778	335
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -			<b>E-11</b>		CONTRACT NO. 60M62		
				SCALE: 1"=50'		SHEET 1 OF 3 SHEETS		STA. 284+00 TO STA. 312+00		ILLINOIS FED. AID PROJECT



**NOTES:**

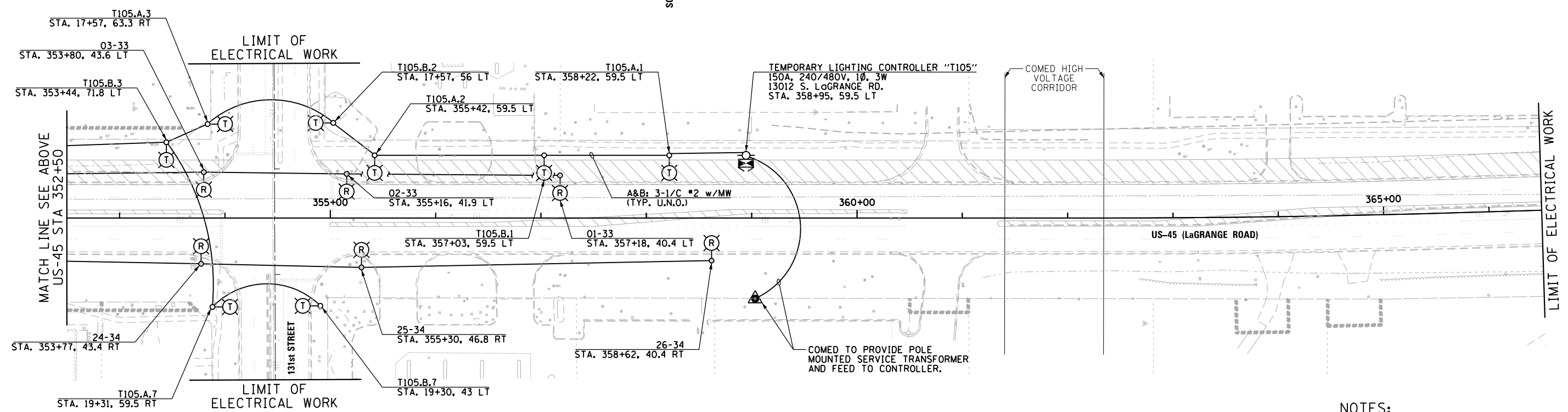
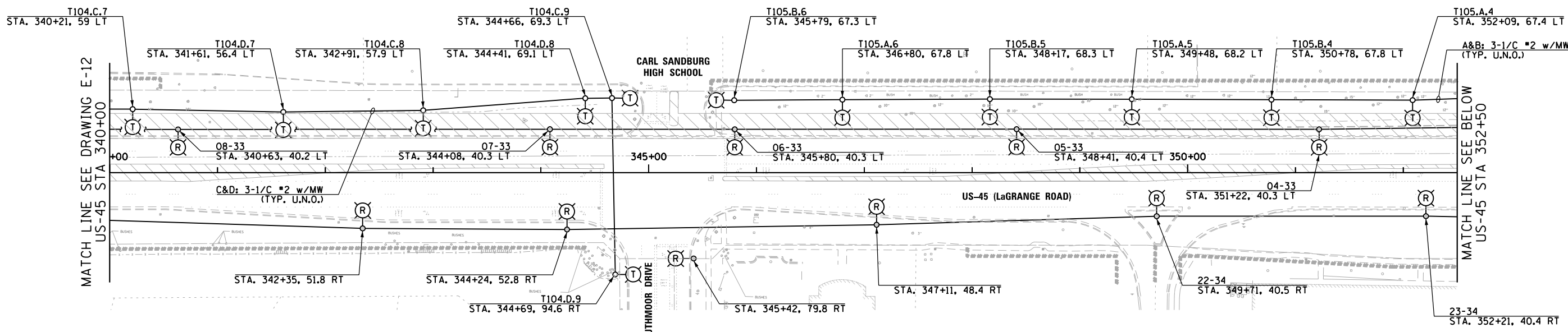
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- ALL STREET LIGHT CABLE ROUTING SHOWN ON THIS DRAWING AND THE LIGHTING CONTROLLER FEEDING THE STREET LIGHTS IS ASSUMED. CONTRACTOR SHALL VERIFY ACTUAL CABLE ROUTING AND ACTUAL CONTROLLER FEEDING THE STREET LIGHTS AND REMOVE ITEMS AS REQUIRED. CONTROLLER HAS NO IDENTIFICATION, AND THE SYSTEM VOLTAGE IS UNKNOWN.
- CONTRACTOR SHALL COORDINATE WITH COMED TO DETERMINE SOURCE OF POWER FOR STREET LIGHTING CONTROLLER.
- CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR DISCONNECTING AND REMOVING EXISTING STREET LIGHT FROM COMED POLE. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVAL OF LIGHTING UNIT, SALVAGE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- CONTRACTOR SHALL INSURE THAT THERE IS A MINIMUM HORIZONTAL CLEARANCE OF 50 FEET, OR AS DIRECTED BY COMED, BETWEEN THE POLE AND THE CLOSEST COMED HIGH VOLTAGE LINE.



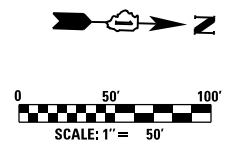
FILE NAME = D160M62-SHT-E12.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING AND DEMOLITION PLAN</b>	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISIED -	330			103R-5	COOK	778	336	
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISIED -			<b>E-12</b>		CONTRACT NO. 60M62		

ILLINOIS FED. AID PROJECT



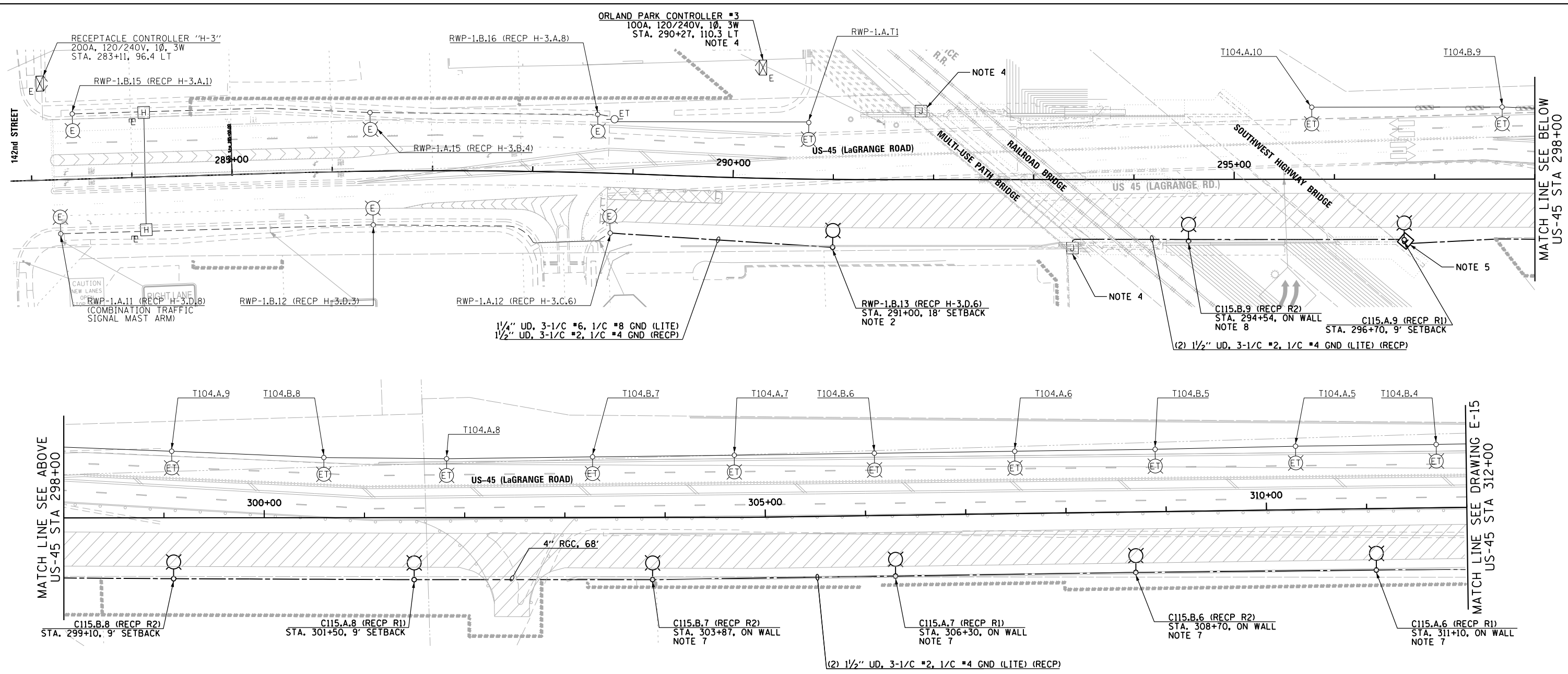


- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - ALL STREET LIGHT CABLE ROUTING SHOWN ON THIS DRAWING AND THE LIGHTING CONTROLLER FEEDING THE STREET LIGHTS IS ASSUMED. CONTRACTOR SHALL VERIFY ACTUAL CABLE ROUTING AND ACTUAL CONTROLLER FEEDING THE STREET LIGHTS AND REMOVE ITEMS AS REQUIRED.

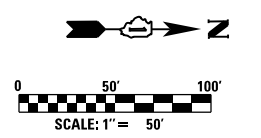


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 SUITE 500  
 CHICAGO, IL 60606  
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**URS**

FILE NAME = D160M62-SHT-E13.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING AND DEMOLITION PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -			330	103R-5	COOK	778	337	
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -			<b>E-13</b>		CONTRACT NO. 60M62			
		DATE - 03/13/13	REVISED -			SCALE: 1"=50'	SHEET 3 OF 3 SHEETS	STA. 340+00 TO STA. 366+50	ILLINOIS FED. AID PROJECT		

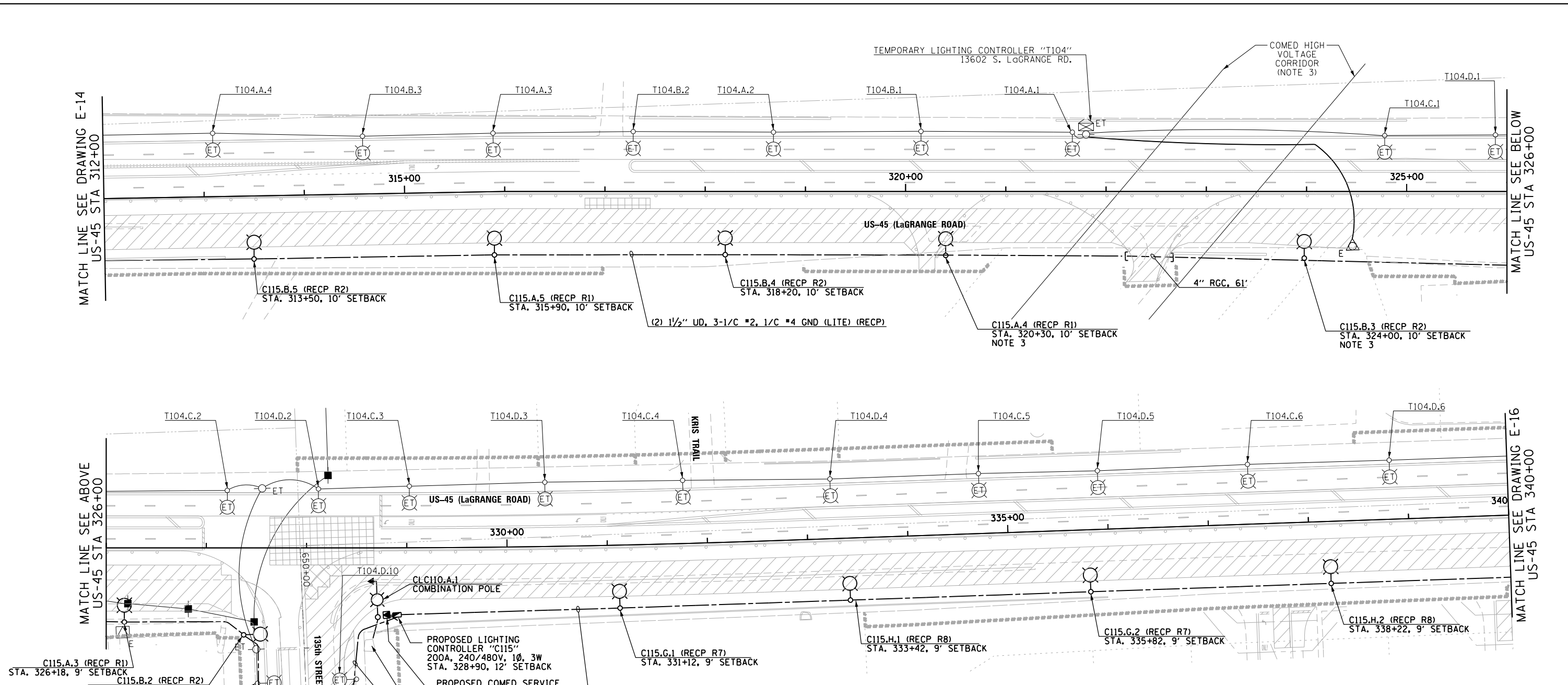


- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - CONTRACTOR MUST INSTALL A 120V GFCI RECEPTACLE AT 15'-0" ABOVE GRADE ON LIGHTING UNIT. CONNECT RECEPTACLE TO CONTROLLER H-3.
  - STREET LIGHTING CONTROLLER RWP-1 IS LOCATED SOUTH OF 143rd STREET ON THE EAST SIDE OF LAGRANGE ROAD AT APPROXIMATE STATION 270+00.
  - CONTRACTOR TO DEENERGIZE EXISTING CONTROLLER #3 BEFORE REMOVING TEMPORARY 2-1/C #10 & 1/C #10 GND CONDUCTORS IN CONDUIT BETWEEN MULTI-USE PATH BRIDGE ABUTMENTS. EXISTING NORTHBOUND UNDERPASS LUMINAIRES FOR MULTI-USE PATH & RAILROAD BRIDGES SHALL BE PERMANENTLY CONNECTED TO CONTROLLER C115. SOUTHBOUND UNDERPASS LUMINAIRES SHALL REMAIN CONNECTED TO CONTROLLER #3. SEE DRAWING E-9 FOR UNDERPASS LIGHTING PLAN AND WIRING DIAGRAM.
  - SEE DRAWING E-10 FOR SOUTHWEST HIGHWAY UNDERPASS LIGHTING PLAN.
  - SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
  - SEE DRAWING E-44 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.
  - REFER TO STRUCTURAL DRAWINGS FOR DETAILS OF LIGHTING UNIT FOUNDATION ON WALL 016-Z004.



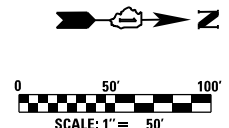
100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-E14.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: STAGE 1A</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			330	103R-5	COOK	778	338	
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			<b>E-14</b>		CONTRACT NO. 60M62			
						SCALE: 1"=50'	SHEET 1 OF 3 SHEETS	STA. 284+00 TO STA. 312+00	ILLINOIS FED. AID PROJECT		

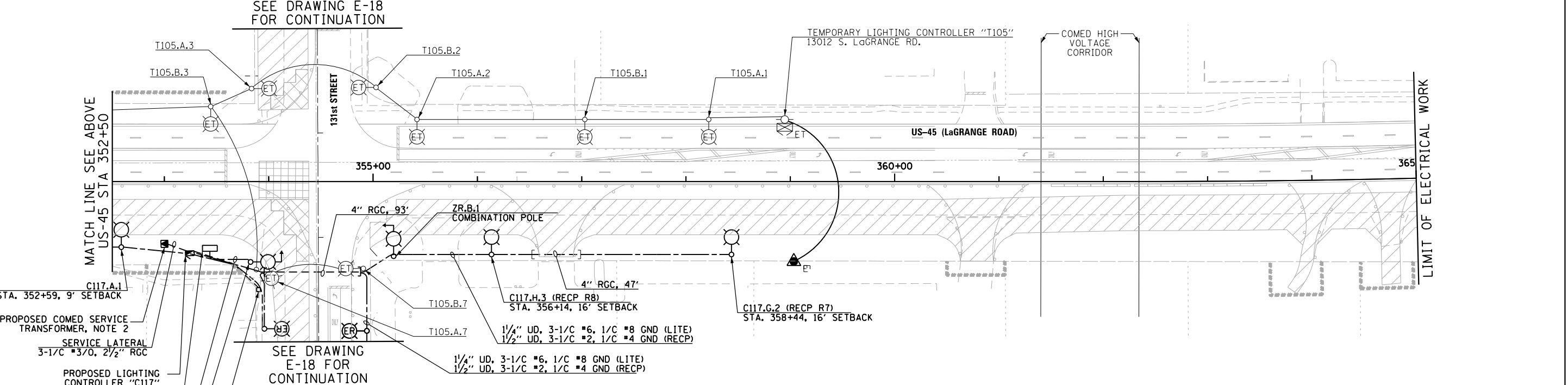
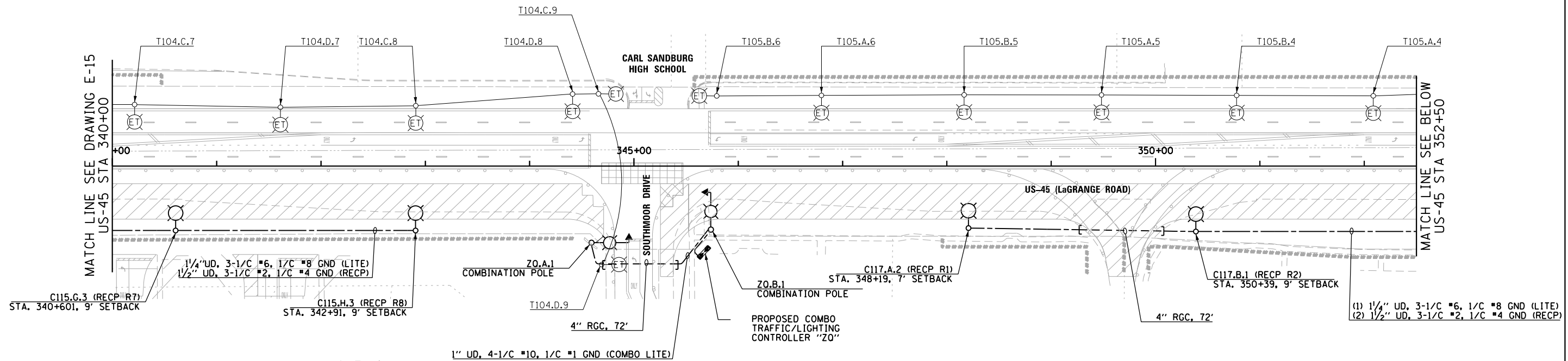


**NOTES:**

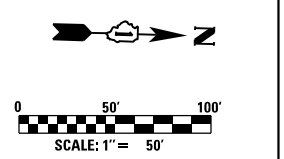
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- CONTRACTOR SHALL INSURE THAT THERE IS A MINIMUM HORIZONTAL CLEARANCE OF 50 FEET, OR AS DIRECTED BY COMED, BETWEEN THE POLE AND THE CLOSEST COMED HIGH VOLTAGE LINE.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
- SEE DRAWING E-44 FOR PROPOSED RETAINING WALL MOUNTED LIGHTING UNIT INSTALLATION DETAILS.
- CONTRACTOR TO FURNISH AND INSTALL (3) 3/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER DRAWING E-46.



FILE NAME = D160M62-SHT-E15.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: STAGE 1A</b>		F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 339
	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -		SCALE: 1"=50'	SHEET 2 OF 3 SHEETS	STA. 312+00 TO STA. 340+00	<b>E-15</b>		CONTRACT NO. 60M62	
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -				ILLINOIS FED. AID PROJECT				



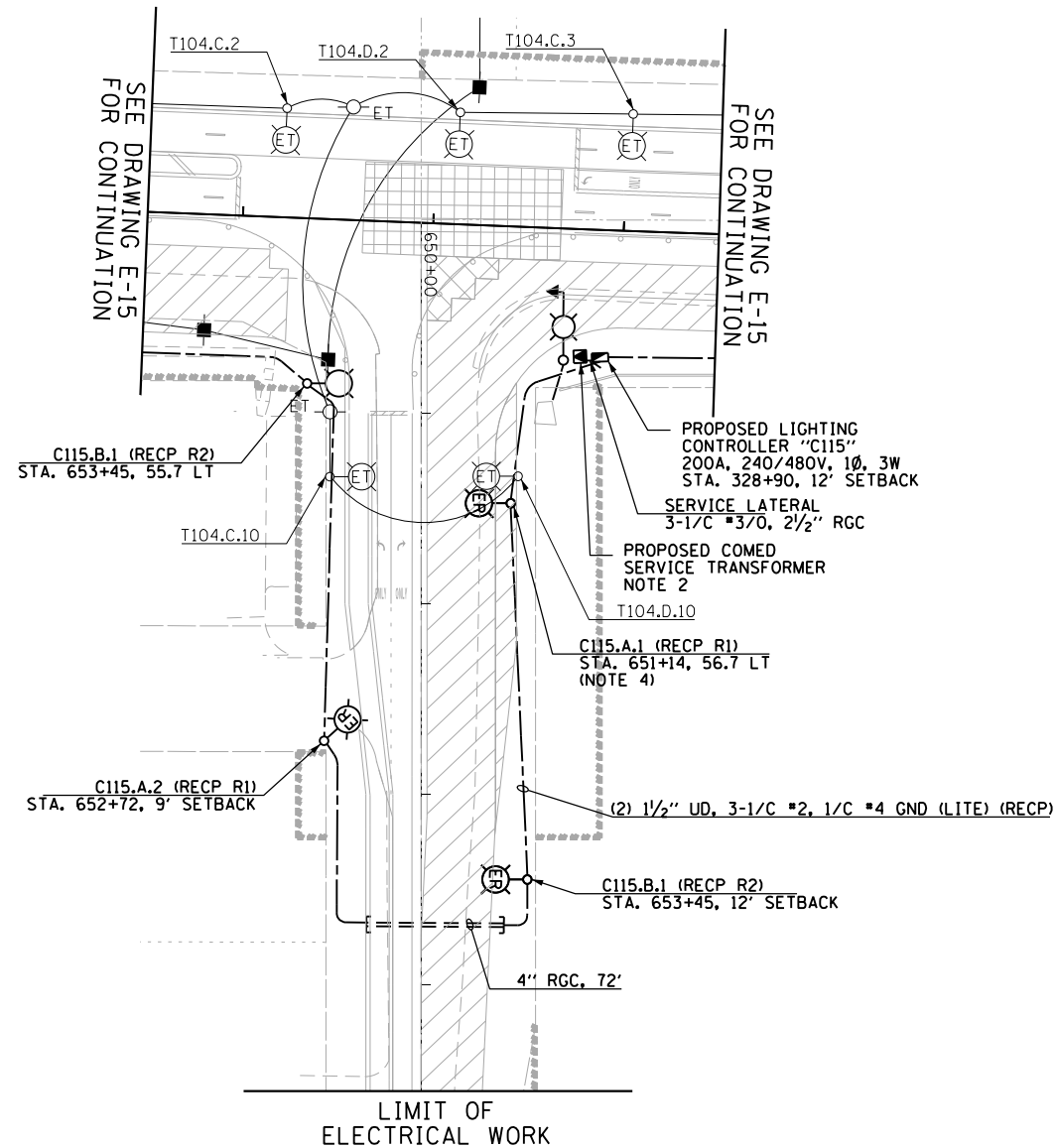
- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - CONTRACTOR MUST ROUTE CONDUIT FROM A LOCATION SPECIFIED BY COMED TO THE PRIMARY SIDE OF THE PROPOSED SERVICE TRANSFORMER. CONDUIT MATERIAL AND SIZE TO BE DETERMINED BY COMED, AND PAID FOR UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
  - SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.



100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
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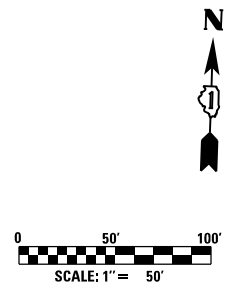
FILE NAME = D160M62-SHT-E16.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: STAGE 1A</b>	F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 340	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 3 OF 3 SHEETS	STA. 340+00 TO STA. 365+00	<b>E-16</b>		CONTRACT NO. 60M62
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT					



135th ST INTERSECTION

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. SEE DRAWING E-15 FOR FURTHER WORK CONCERNING THE PROPOSED COMED SERVICE TRANSFORMER.
3. SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
4. CONTRACTOR TO FURNISH AND INSTALL (3) 3 1/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER IDOT STANDARD DRAWING E-46.



FILE NAME = D160M62-SHT-E17.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 100.000000' / 1 in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**135th STREET TEMPORARY LIGHTING PLAN: STAGE 1A**

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 650+00 TO STA. 663+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	341
<b>E-17</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME = Anthony.Plutz
D160M62-SHT-E18.dgn	
SHT.PLAN	

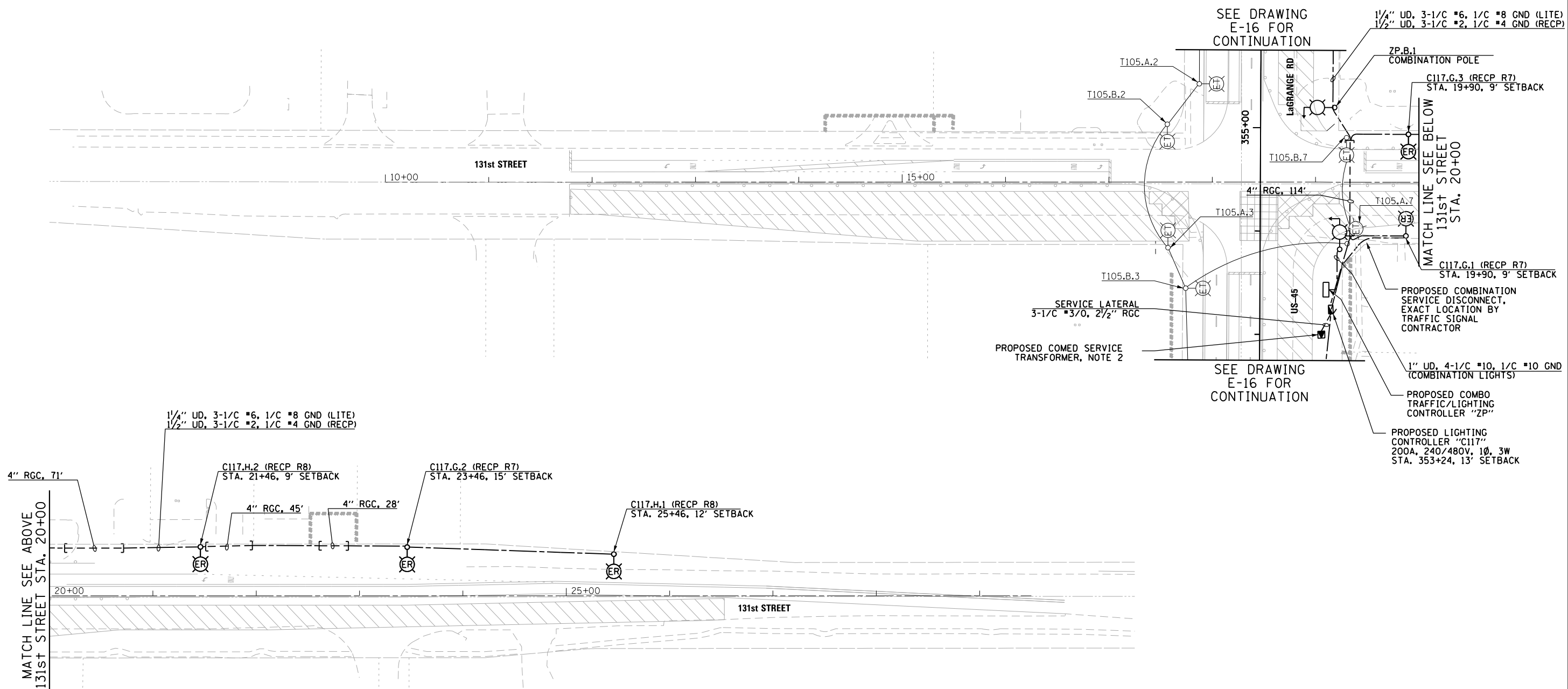
DESIGNED - MAE	REVISD -
DRAWN - WM	REVISD -
PLOT SCALE = 100.000000' / in.	REVISD -
PLOT DATE = 3/13/2013	REVISD -

CHECKED - DAD	DATE - 03/13/13
REVISD -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

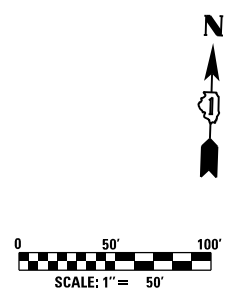
<b>131st STREET PROPOSED ROADWAY LIGHTING PLAN - STAGE 1A</b>	
SCALE: 1"=50'	SHEET 1 OF 1 SHEETS
STA. 10+00	TO STA. 28+00

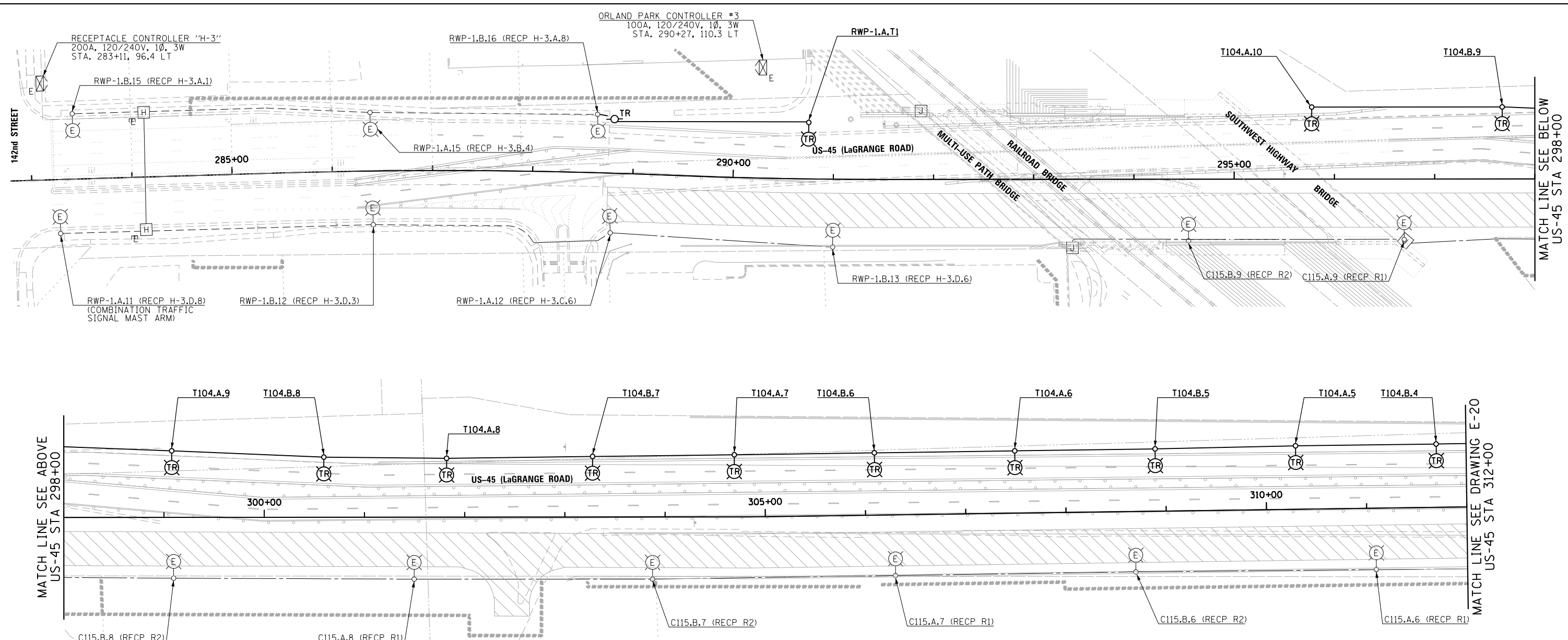
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	342
<b>E-18</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-16 FOR FURTHER WORK CONCERNING THE PROPOSED COMED SERVICE TRANSFORMER.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.

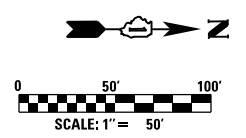




**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198  
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FILE NAME = D160M62-SHT-E19.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN - STAGE 1B</b>	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -			330	103R-5	COOK	778	343	
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -			<b>E-19</b>		CONTRACT NO. 60M62			
		DATE - 03/13/13	REVISED -			SCALE: 1"=50'		SHEET 1 OF 3 SHEETS		STA. 284+00 TO STA. 312+00	

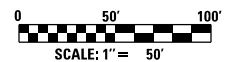
FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
D160M62-SHT-E20.dgn		DRAWN - WM	REVISED -
	PLOT SCALE = 100.000000' / 1" =	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US-45 (LaGRANGE ROAD)  
PROPOSED ROADWAY LIGHTING PLAN - STAGE 1B**

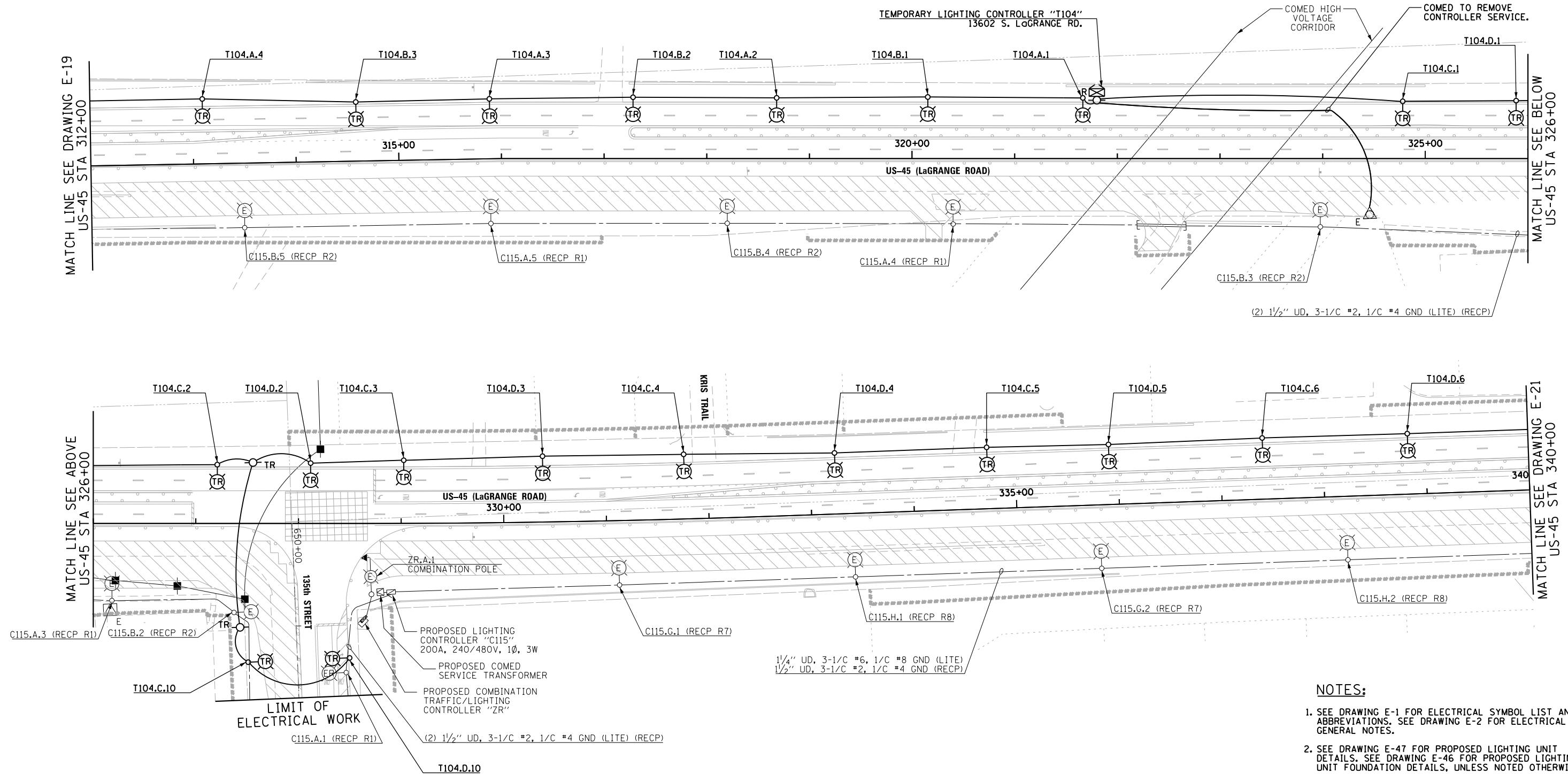
SCALE: 1"=50' SHEET 2 OF 3 SHEETS STA. 312+00 TO STA. 340+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	344
<b>E-20</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

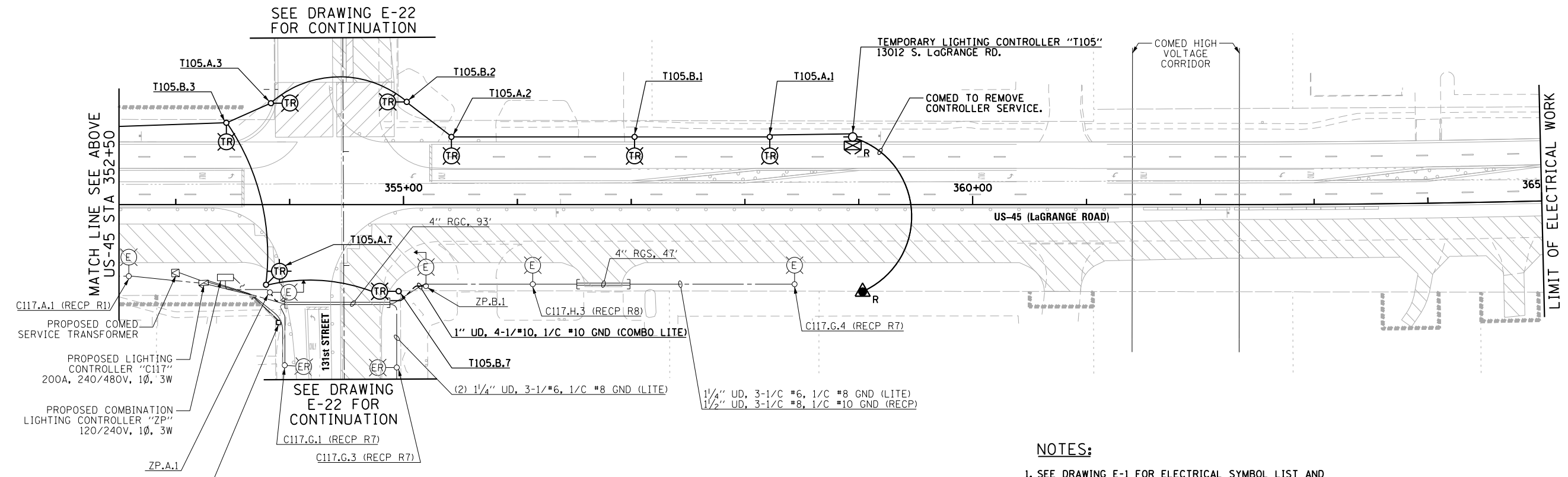
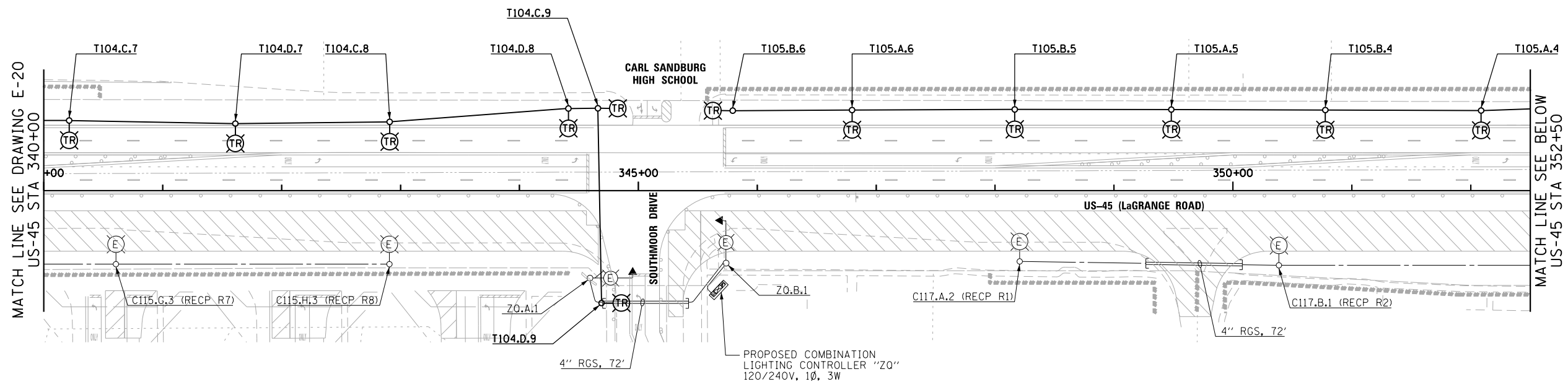


**NOTES:**

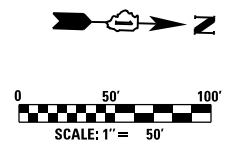
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.







- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.



100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198

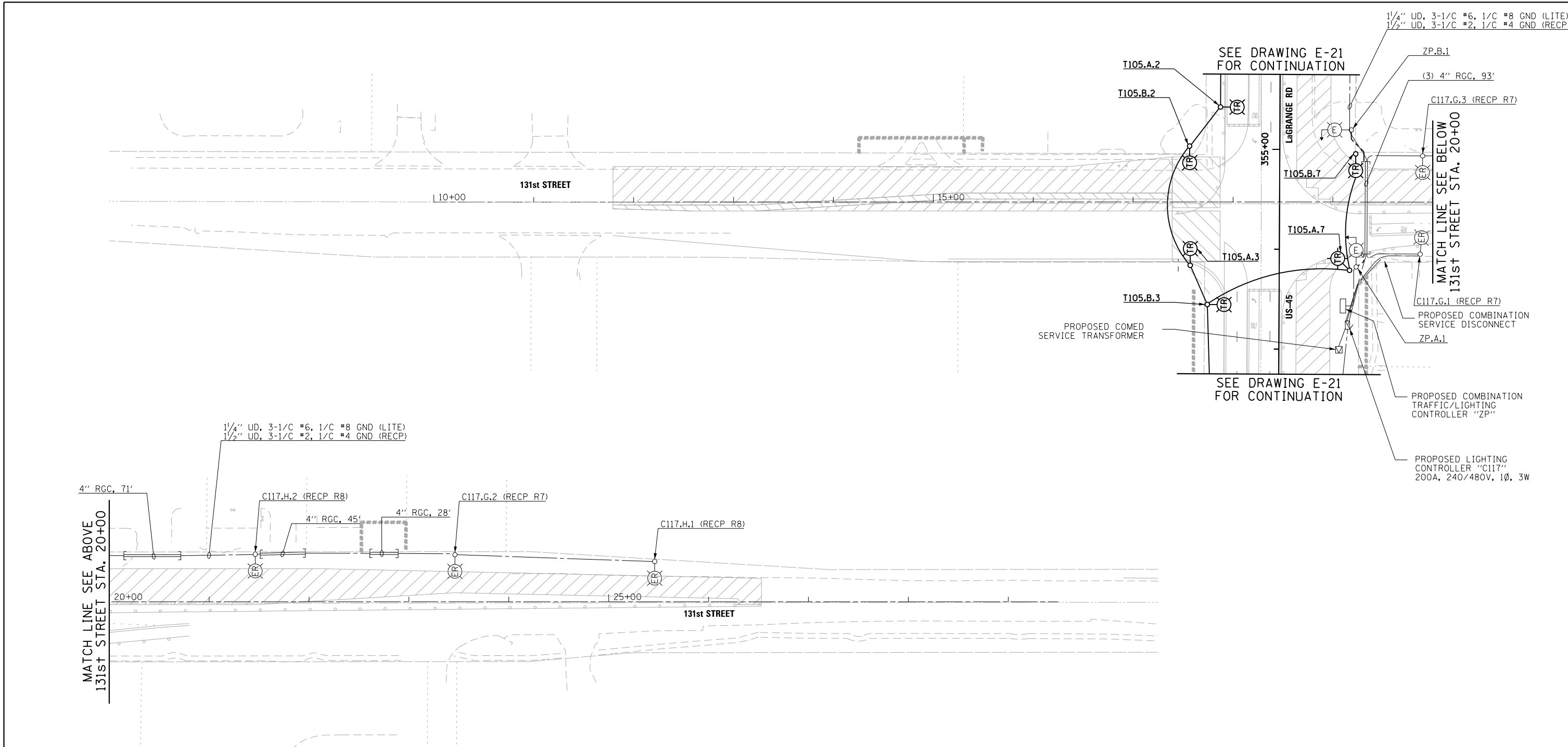


FILE NAME = D160M62-SHT-E21.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

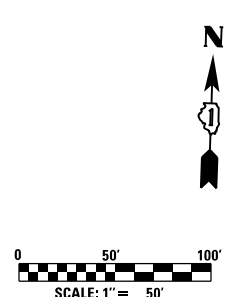
<b>US-45 (LaGRANGE ROAD)</b>			
<b>PROPOSED ROADWAY LIGHTING PLAN - STAGE 1B</b>			
SCALE: 1"=50'	SHEET 3 OF 3 SHEETS	STA. 340+00 TO STA. 365+00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	345
<b>E-21</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

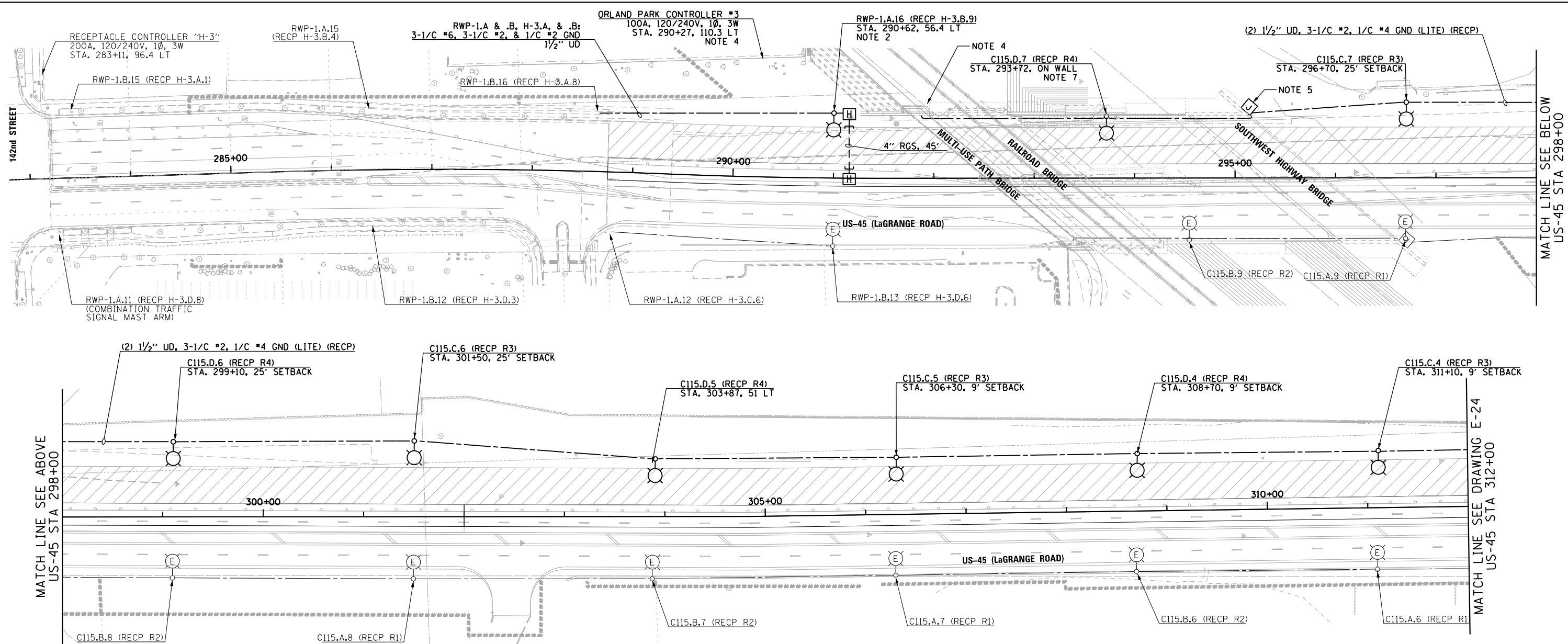


**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REMOVE THE IDENTIFIED TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLERS, ALL ASSOCIATED UTILITY SERVICE WORK, AND THE TEMPORARY WIRING DURING CONSTRUCTION STAGE 2, ONCE ALL OF THE PROPOSED ROADWAY LIGHTING UNITS ALONG THE EAST SIDE OF LAGRANGE ROAD ARE INSTALLED, ENERGIZED, TESTED, AND APPROVED BY THE ENGINEER.

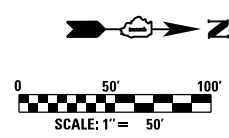


FILE NAME = D160M62-SHT-E22.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>131st STREET PROPOSED ROADWAY LIGHTING PLAN - STAGE 1B</b>	F.A.P. RTE. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 346		
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 1 OF 1 SHEETS	STA. 10+00 TO STA. 28+00	<b>E-22</b>		CONTRACT NO. 60M62	
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT						



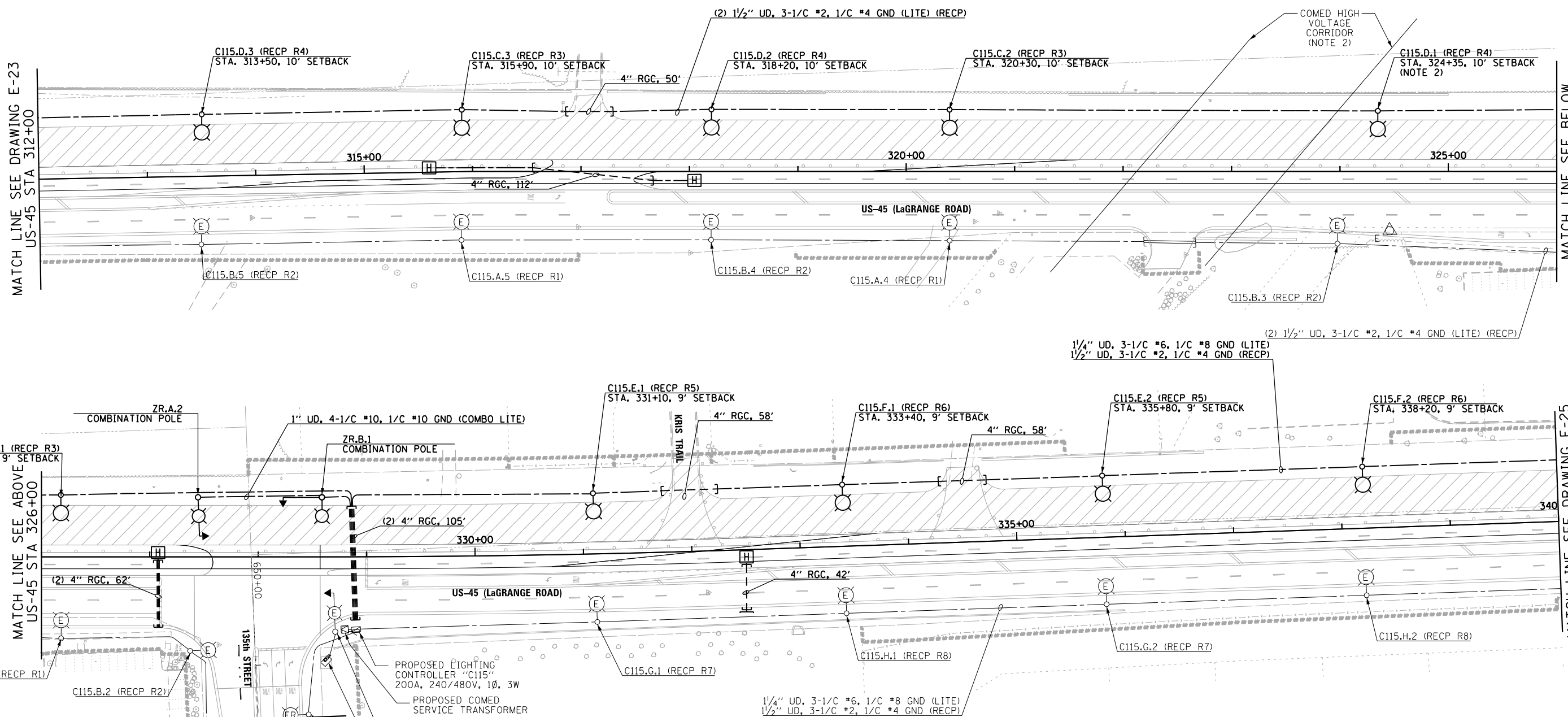
**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- CONTRACTOR MUST INSTALL A 120V GFCI RECEPTACLE AT 15'-0" ABOVE GRADE ON LIGHTING UNIT. CONNECT RECEPTACLE TO CONTROLLER H-3.
- STREET LIGHTING CONTROLLER RWP-1 IS LOCATED SOUTH OF 143rd STREET ON THE EAST SIDE OF THE ROAD AT APPROXIMATE STATION 270+00.
- CONTRACTOR TO DEENERGIZE EXISTING CONTROLLER #3 AND REMOVE 2-1/C #10 & 1/C #10 GND CONDUCTORS IN CONDUIT TO MULTI-USE PATH BRIDGE UNDERPASS LUMINAIRES. EXISTING SOUTHBOUND UNDERPASS LUMINAIRES FOR MULTI-USE PATH & RAILROAD BRIDGES SHALL BE PERMANENTLY CONNECTED TO CONTROLLER C115. SEE DRAWING E-9 FOR UNDERPASS LIGHTING PLAN AND WIRING DIAGRAM.
- SEE DRAWING E-10 FOR SOUTHWEST HIGHWAY UNDERPASS LIGHTING PLAN.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- REFER TO STRUCTURAL DRAWINGS FOR DETAILS OF LIGHTING UNIT FOUNDATION ON WALL 016-2003.

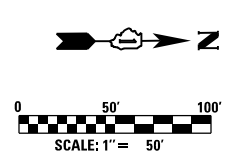


100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-E23.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN - STAGE 3</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -			330	103R-5	COOK	778	347
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -			<b>E-23</b>		CONTRACT NO. 60M62		
		DATE - 03/13/13	REVISED -	SCALE: 1"=50'		SHEET 1 OF 3 SHEETS		STA. 284+00 TO STA. 312+00		ILLINOIS FED. AID PROJECT

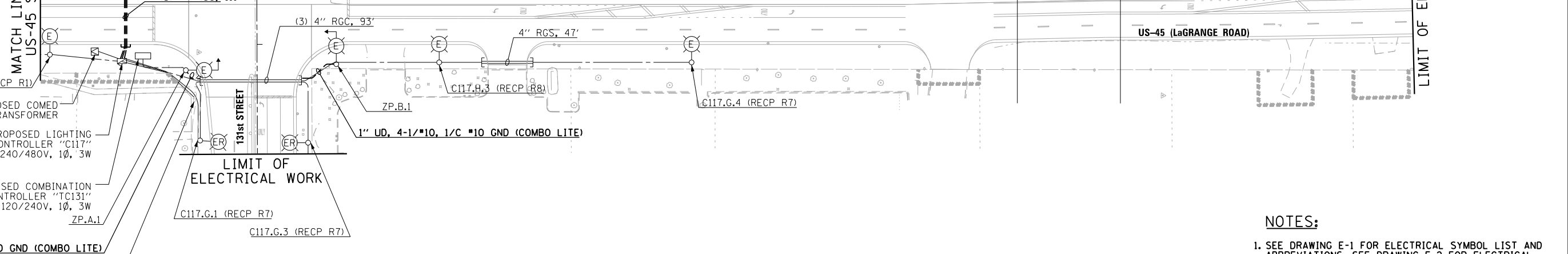
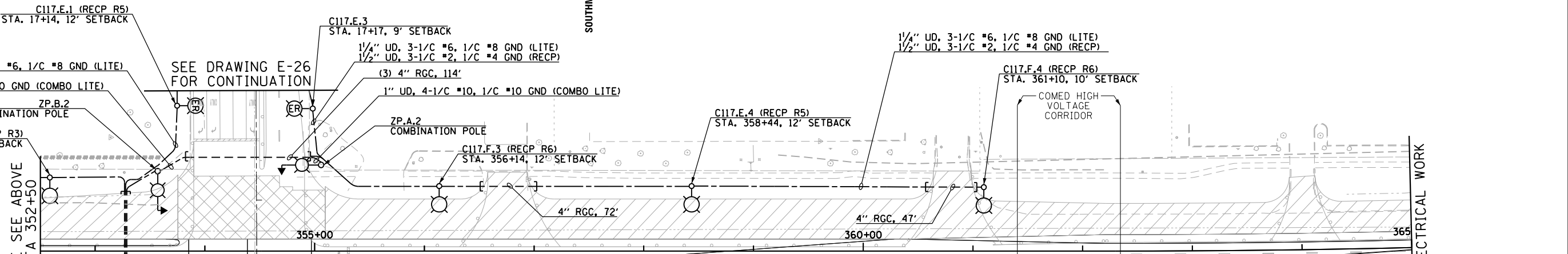
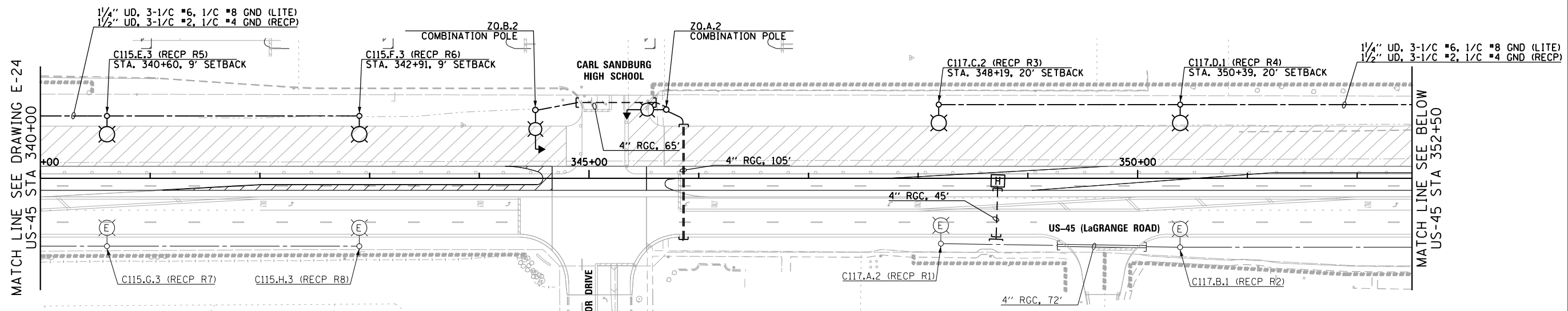


- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - CONTRACTOR SHALL INSURE THAT THERE IS A MINIMUM HORIZONTAL CLEARANCE OF 50 FEET, OR AS DIRECTED BY COMED, BETWEEN THE POLE AND THE CLOSEST COMED HIGH VOLTAGE LINE.
  - SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.

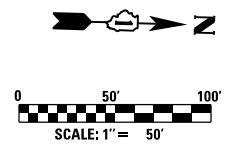


**URS**  
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 CHICAGO, IL 60606  
 TEL (312) 939-1000  
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FILE NAME = D160M62-SHT-E24.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN - STAGE 3</b>	F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 348	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 2 OF 3 SHEETS	STA. 312+00 TO STA. 340+00	<b>E-24</b>		CONTRACT NO. 60M62
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT					



- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
  - SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
  - CONTRACTOR TO FURNISH AND INSTALL (3) 3/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER IDOT STANDARD DRAWING E-45.



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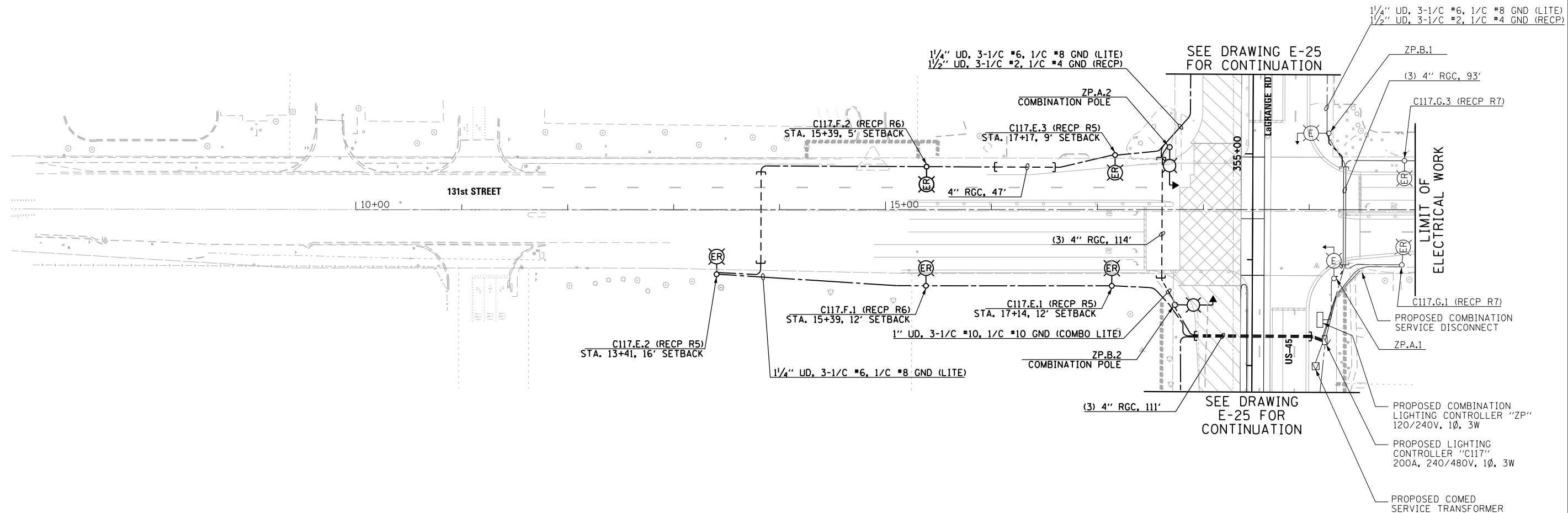


FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
D160M62-SHT-E25.dgn		DRAWN - WM	REVISED -
	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

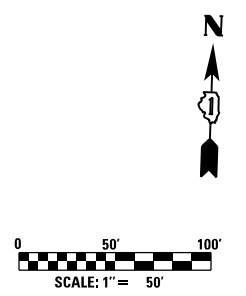
**US-45 (LaGRANGE ROAD)  
PROPOSED ROADWAY LIGHTING PLAN - STAGE 3**  
 SCALE: 1"=50' SHEET 3 OF 3 SHEETS STA. 340+00 TO STA. 365+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	349
<b>E-25</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-47 FOR PROPOSED LIGHTING UNIT DETAILS. SEE DRAWING E-46 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS, UNLESS NOTED OTHERWISE.
- CONTRACTOR TO FURNISH AND INSTALL (3) 3/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER DRAWING E-46.



**URS**  
 100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198

FILE NAME = D160M62-SHT-E26.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 100.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**131st STREET PROPOSED ROADWAY LIGHTING PLAN - STAGE 3**  
 SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 10+00 TO STA. 20+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	350
<b>E-26</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

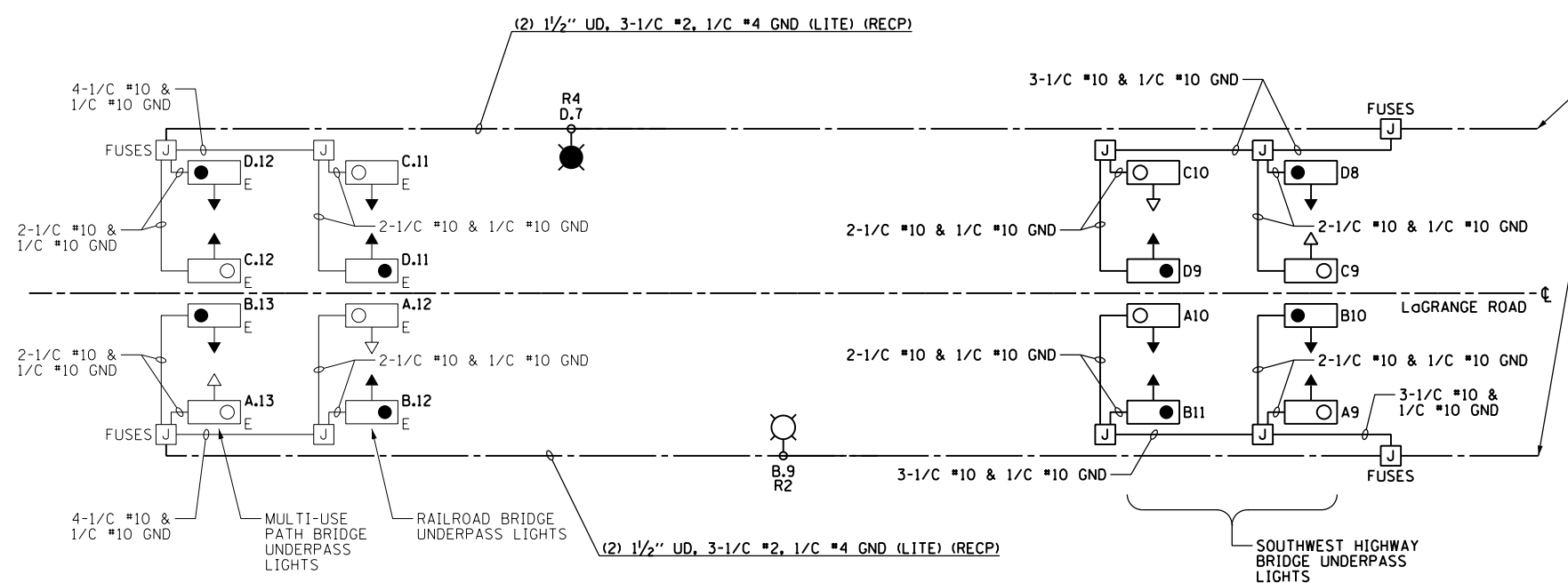
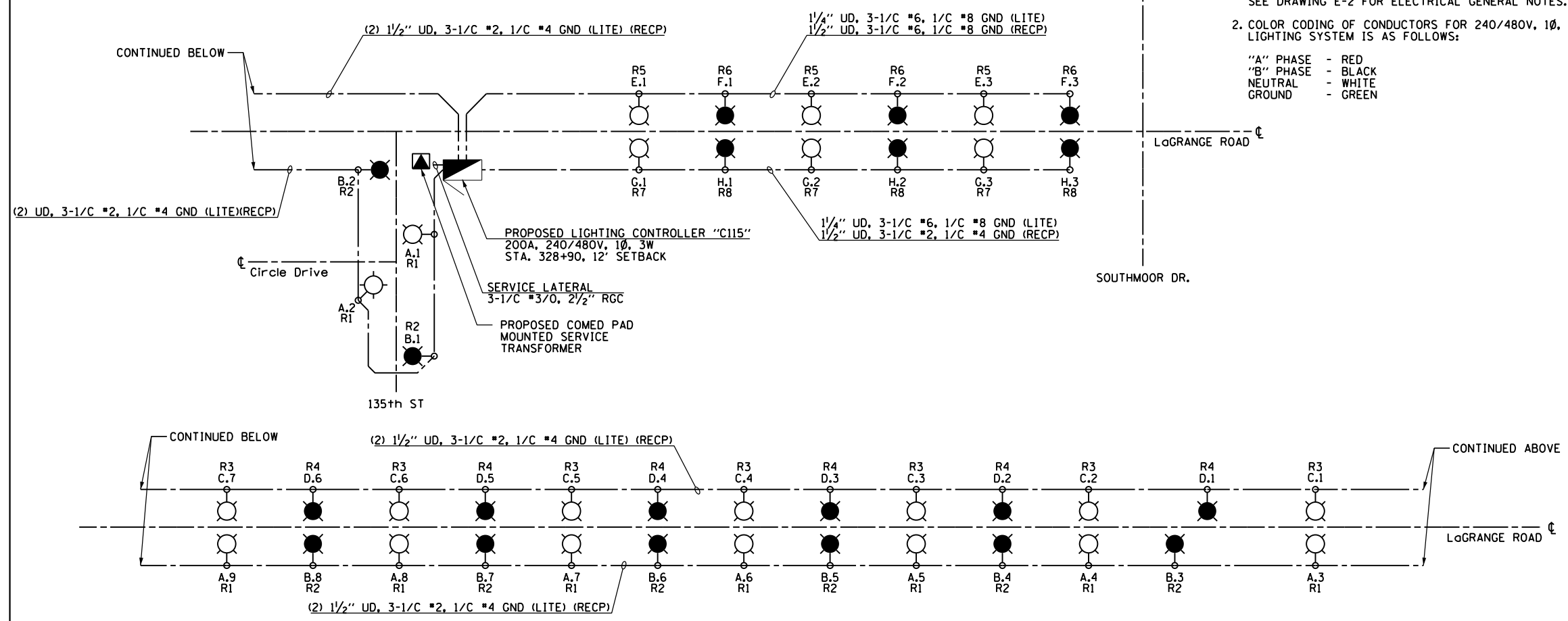
CARL SANDBURG HIGH SCHOOL

**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN

**LEGEND:**

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSE AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED UNDERPASS LUMINAIRE, 100 WATT, 240V PHASE TO NEUTRAL, HPS, WITH TYPE III DISTRIBUTION, WALL MOUNTED (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING UNDERPASS LIGHTING UNIT (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER 240/480V, 1Ø, 3W, SINGLE DOOR, BASE MOUNTED
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
- PROPOSED STAINLESS STEEL, NEMA 4X JUNCTION BOX ATTACHED TO STRUCTURE (SIZED AS INDICATED ON PLANS)
- EXISTING STAINLESS STEEL, NEMA 4X JUNCTION BOX ATTACHED TO STRUCTURE (SIZED AS INDICATED ON PLANS)
- PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED CONDUCTORS IN 1" PVCC RGS CONDUIT ATTACHED TO STRUCTURE; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- EXISTING CONDUCTORS IN 1" PVCC RGS CONDUIT ATTACHED TO STRUCTURE; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED



**LIGHTING CONTROLLER "C115"  
ROADWAY LIGHTING PANEL LOAD TABLE**

CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	20	4800	B	20	4800
C	16	3840	D	16	3840
E	6	1440	F	6	1440
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
TOTAL	48	11520	TOTAL	48	11520

**LIGHTING CONTROLLER "C107"  
RECEPTACLE PANEL LOAD TABLE**

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	13.5	1620	R2	13.5	1620
R3	10.5	1260	R4	10.5	1260
R5	4.5	540	R6	4.5	540
R7	4.5	540	R8	4.5	540
TOTAL	33	3960	TOTAL	33	3960

LOAD TABULATION IS BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE: 2.0A AT 240V  
 100W HPS UNDERPASS LUMINAIRE: 0.5A AT 240V

LOAD TABULATION IS BASED ON THE FOLLOWING:  
 180W RECEPTACLE: 1.5A AT 120V

**LIGHTING CONTROLLER "C115" WIRING DIAGRAM**  
N.T.S.

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M62-SHT-E27.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -






**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)  
LIGHTING CONTROLLER "C115" WIRING DIAGRAM**

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

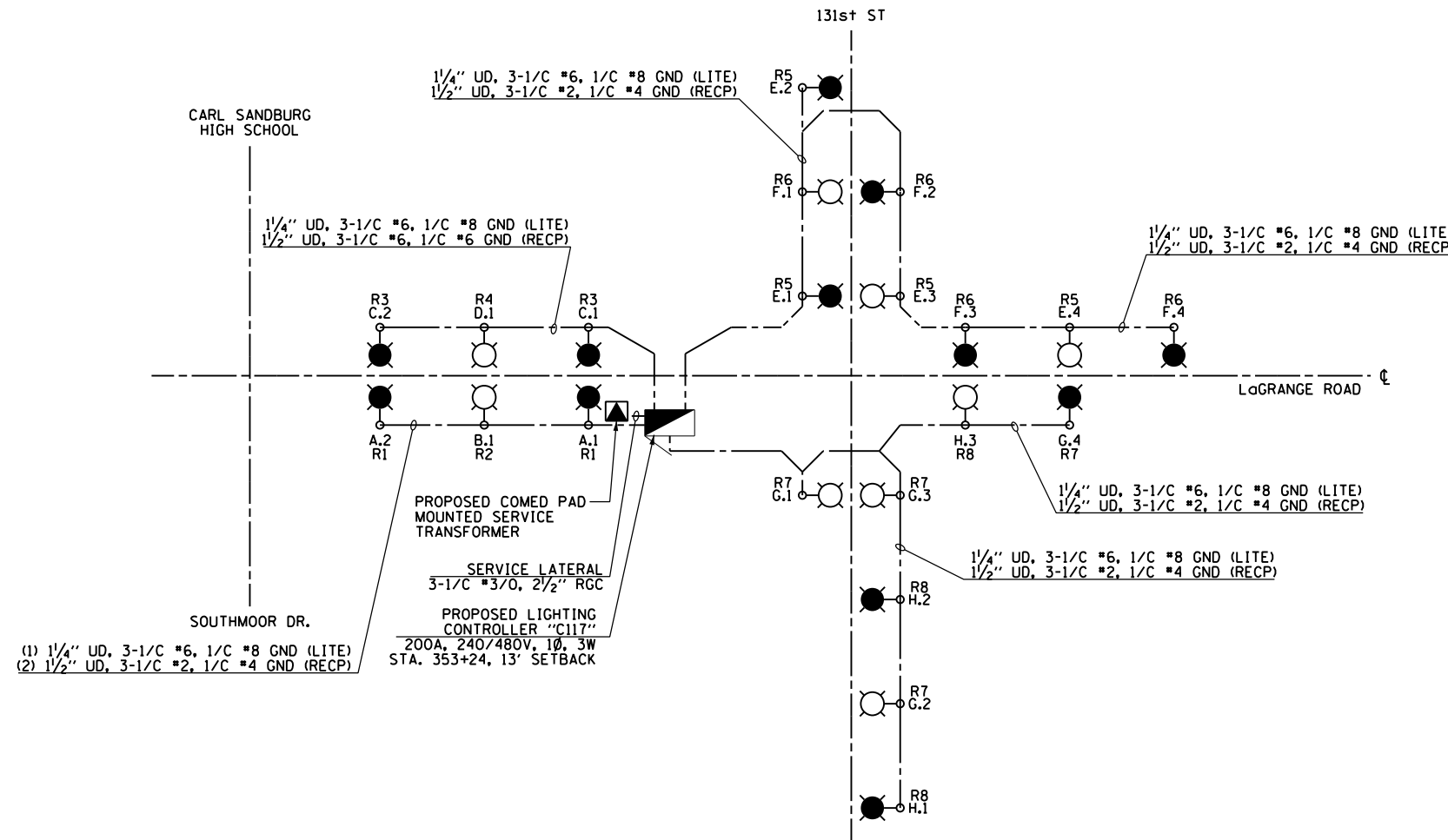
F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 351
<b>E-27</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

**LEGEND:**

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  PROPOSED ROADWAY LIGHTING CONTROLLER SINGLE DOOR, BASE MOUNTED, SPECIAL 200A, 240/480V, 1Ø, 3W
-  PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



**LIGHTING CONTROLLER "C117" WIRING DIAGRAM**  
N.T.S.



LIGHTING CONTROLLER "C117" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	4	960	D	2	480
E	8	1920	F	8	1920
G	8	1920	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
TOTAL	20	4800	TOTAL	18	4320

LOAD TABULATION IS BASED ON THE FOLLOWING:  
400W HPS LUMINAIRE: 2.0A AT 240V (PHASE TO NEUTRAL)

LIGHTING CONTROLLER "C107" RECEPTACLE PANEL LOAD TABLE					
CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	3	1620	R2	1.5	1620
R3	3	1260	R4	1.5	1260
R5	6	720	R6	6	720
R7	6	720	R8	4.5	540
TOTAL	18.0	2160	TOTAL	13.5	1620

LOAD TABULATION IS BASED ON THE FOLLOWING:  
180W RECEPTACLE: 1.5A AT 120V (PHASE TO NEUTRAL)

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D:\6062-SHT-E28.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
		DRAWN - WM	REVISED -
	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

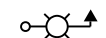

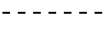
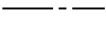
**US 45 (LaGRANGE ROAD)  
LIGHTING CONTROLLER "C117" WIRING DIAGRAM**

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

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 352
<b>E-28</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

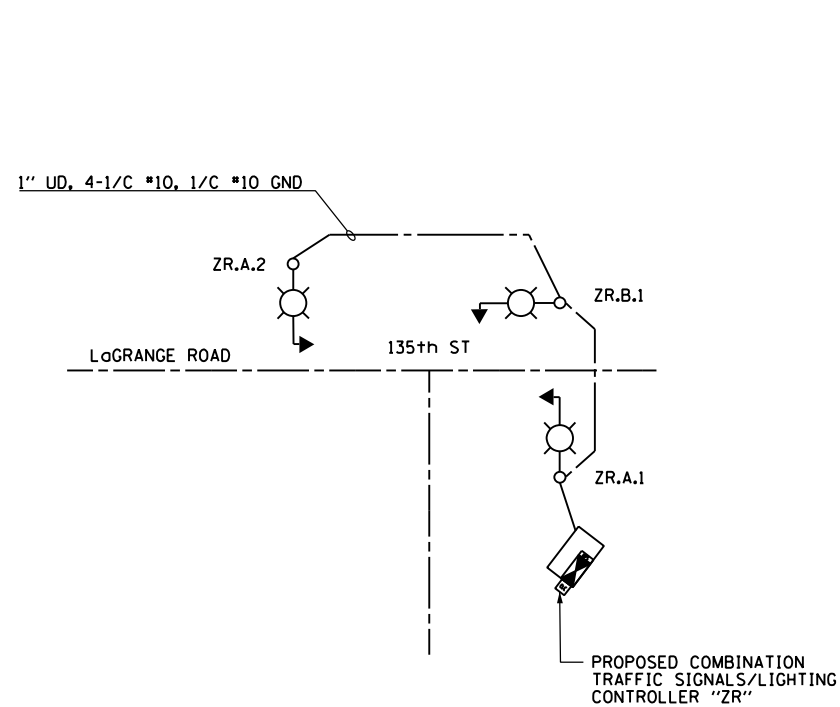


**LEGEND:**

-  PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, INSTALLED ON 12'-0" MAST ARM AT 45'-0" MOUNTING HEIGHT. POLE AND FOUNDATION SUPPLIED BY THE TRAFFIC SIGNAL CONTRACTOR, WITH 5A FUSES
-  PROPOSED COMBINATION LIGHTING CONTROLLER ATTACHED TO SIDE OF TRAFFIC SIGNALS CABINET 120/240V, 1Ø, 3W
-  PROPOSED CONDUIT AND CABLE AS IDENTIFIED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS IDENTIFIED

**NOTES:**

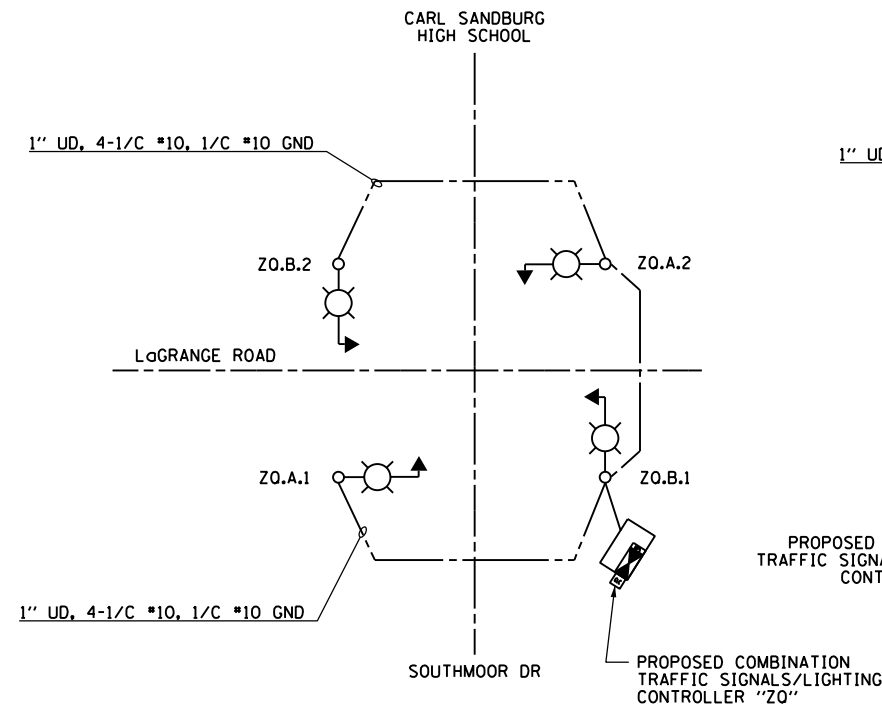
1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W COMBINATION LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 GROUND - GREEN



PROPOSED COMBINATION TRAFFIC/LIGHTING CONTROLLER  
 "ZR" WIRING DIAGRAM  
 N.T.S.

COMBO TRAFFIC/LIGHTING CONTROLLER "ZR" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT			CIRCUIT		
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	--	--	D	--	--
TOTAL	4.0	960	TOTAL	2.0	480

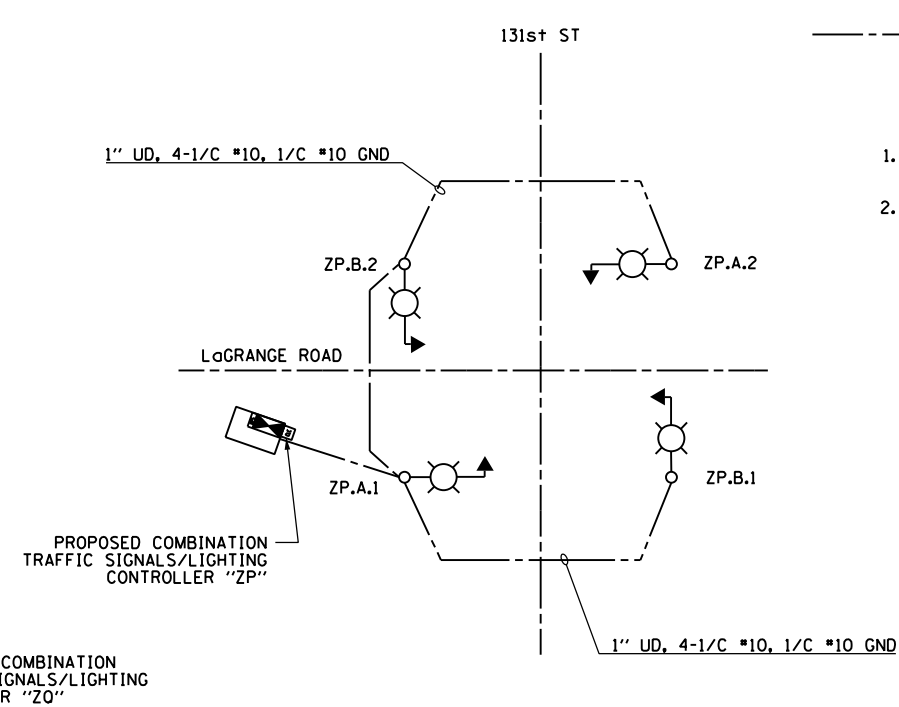
LOAD TABULATION IS BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE: 2.0A AT 240V (PHASE TO PHASE)



PROPOSED COMBINATION TRAFFIC/LIGHTING CONTROLLER  
 "ZO" WIRING DIAGRAM  
 N.T.S.

COMBO TRAFFIC/LIGHTING CONTROLLER "ZO" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT			CIRCUIT		
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	4	960
C	--	--	D	--	--
TOTAL	4.0	960	TOTAL	4.0	960

LOAD TABULATION IS BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE: 2.0A AT 240V (PHASE TO PHASE)



PROPOSED COMBINATION TRAFFIC/LIGHTING CONTROLLER  
 "ZP" WIRING DIAGRAM  
 N.T.S.

COMBO TRAFFIC/LIGHTING CONTROLLER "ZP" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT			CIRCUIT		
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	4	960
C	--	--	D	--	--
TOTAL	4.0	960	TOTAL	4.0	960




LOAD TABULATION IS BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE: 2.0A AT 240V (PHASE TO PHASE)

FILE NAME = D160M62-SHT-E29.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT_PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

US 45 (LaGRANGE ROAD) PROPOSED COMBINATION TRAFFIC / LIGHTING CONTROLLERS "CLC110", "CLC111", & "CLC112" WIRING DIAGRAM			
SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	353
E-29			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

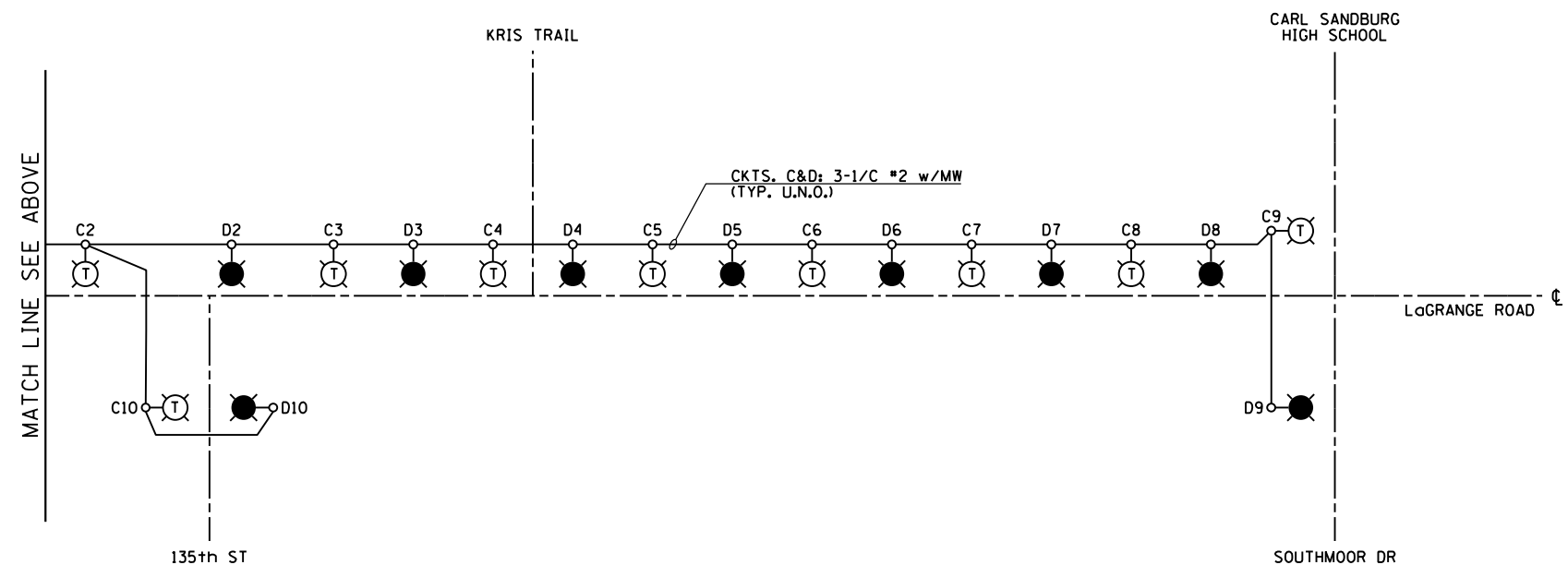
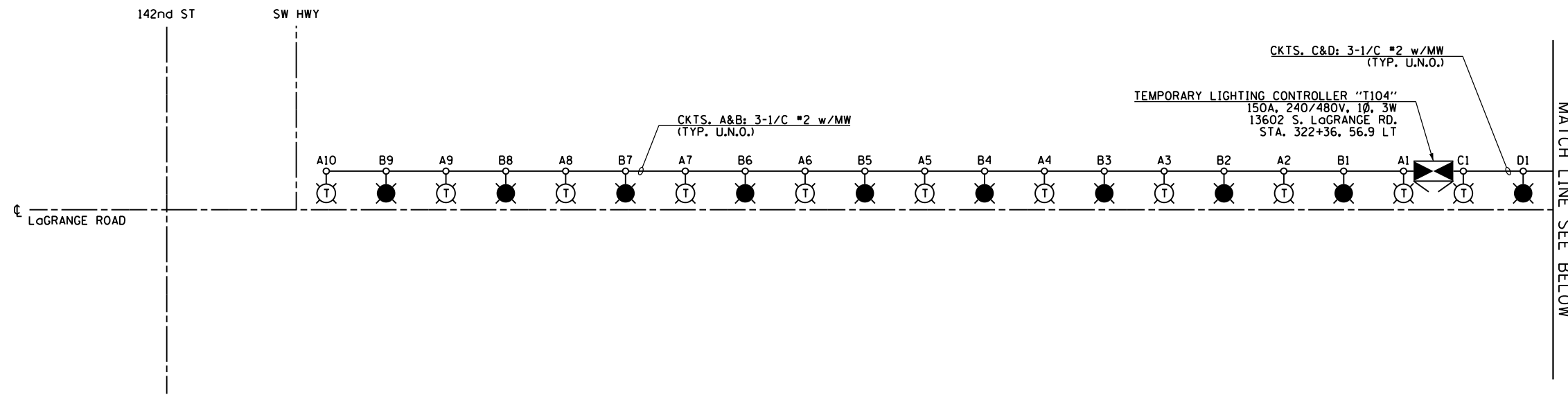
**LEGEND:**

-  TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  TEMPORARY ROADWAY LIGHTING CONTROLLER
-  TEMPORARY AERIAL CABLE AND MESSENGER WIRE AS INDICATED

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:

- "A" PHASE - RED
- "B" PHASE - BLACK
- NEUTRAL - WHITE
- GROUND - GREEN



TEMPORARY LIGHTING CONTROLLER T104 WIRING DIAGRAM  
N.T.S.

LIGHTING CONTROLLER "T104" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	20	4800	B	18	4320
C	20	4800	D	20	4800
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	40	9600	TOTAL	38	9120

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198  
**URS**

FILE NAME = D160M62-SHT-E30.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -




**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)**  
**TEMPORARY LIGHTING CONTROLLER "T104" WIRING DIAGRAM**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	354
<b>E-30</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

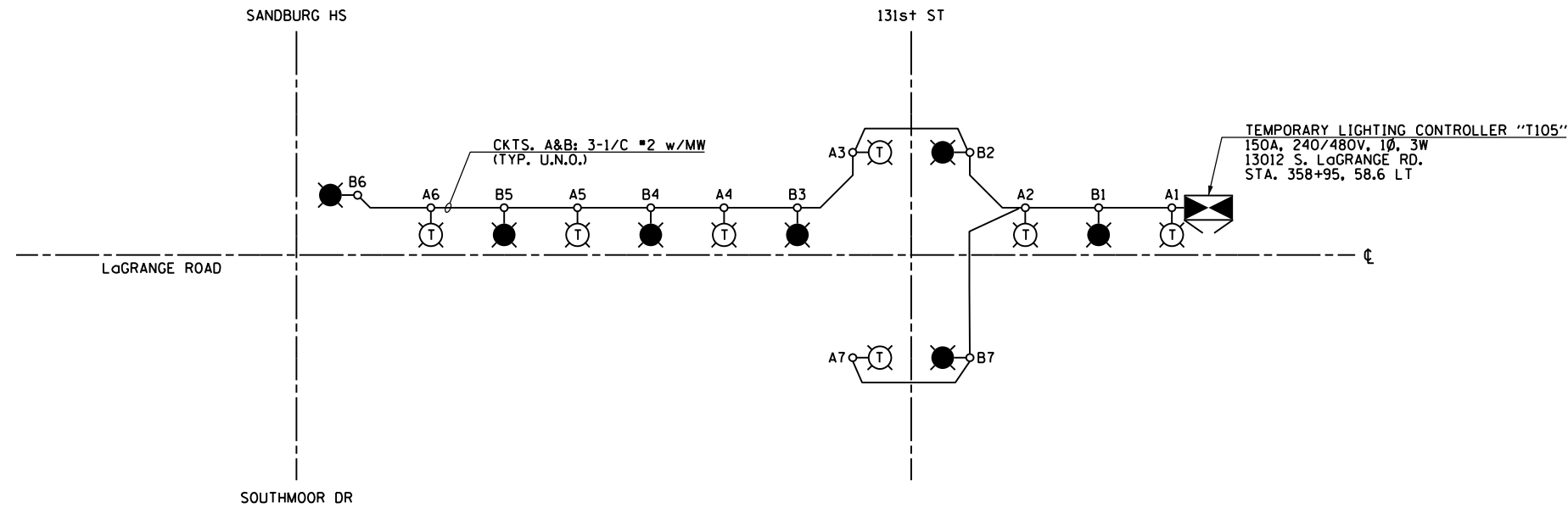
**LEGEND:**

-  TEMPORARY LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 60'-0" CLASS 4 WOOD POLE, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  TEMPORARY ROADWAY LIGHTING CONTROLLER
-  TEMPORARY AERIAL CABLE AND MESSENGER WIRE AS INDICATED

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:

"A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



TEMPORARY LIGHTING CONTROLLER T105 WIRING DIAGRAM  
 N.T.S.



CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	14	3360	B	14	3360
C	--	--	D	--	--
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	14	3360	TOTAL	14	3360

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4198  
**URS**

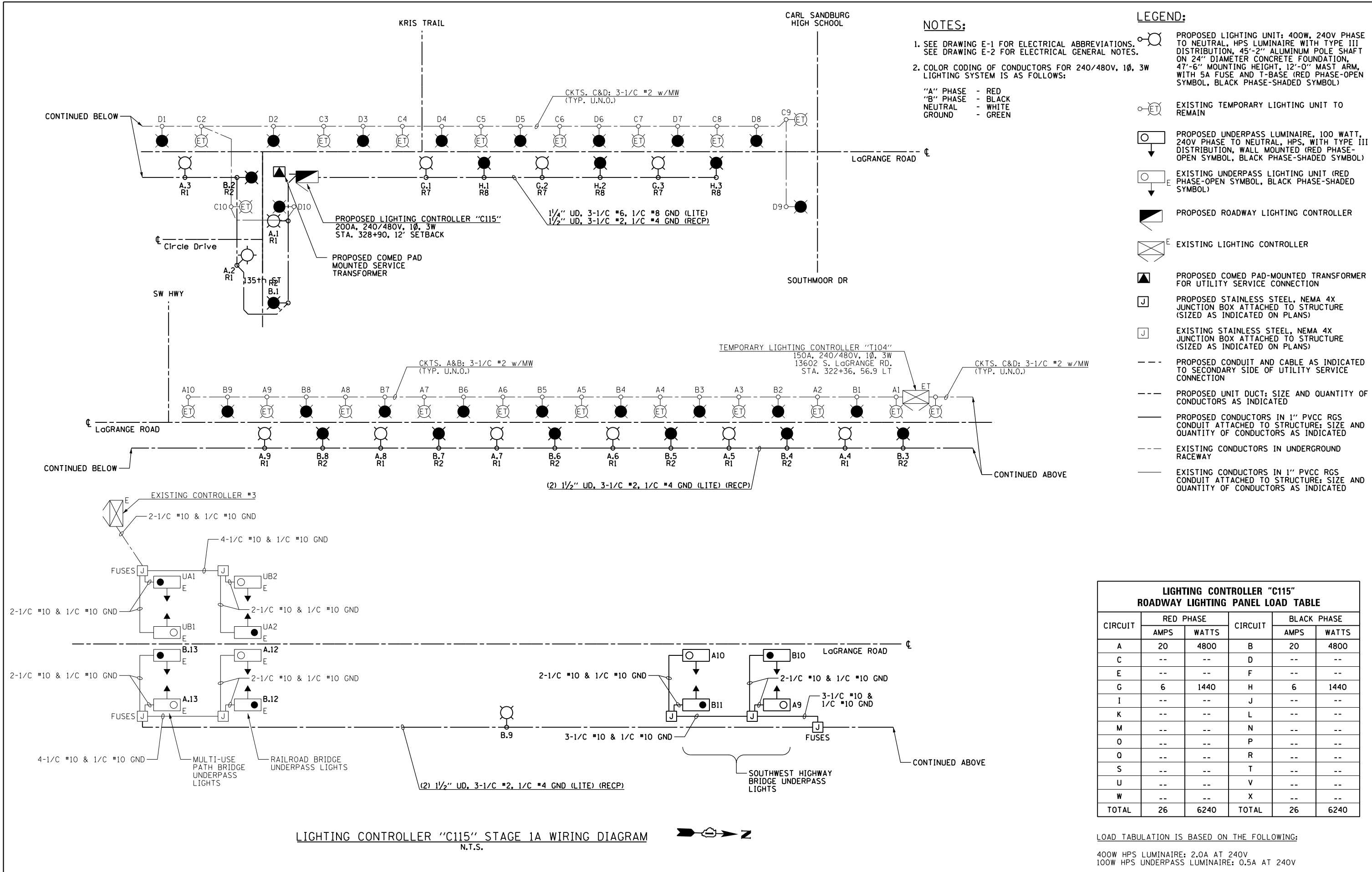
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		DRAWN - WM	REVISED -
	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)  
 TEMPORARY LIGHTING CONTROLLER "T105" WIRING DIAGRAM

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

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 355
<b>E-31</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



LIGHTING CONTROLLER "C115" STAGE 1A WIRING DIAGRAM  
 N.T.S.







FILE NAME = D160M62-SHT-E32.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)  
 LIGHTING CONTROLLER "C115" STAGE 1A WIRING DIAGRAM  
 SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

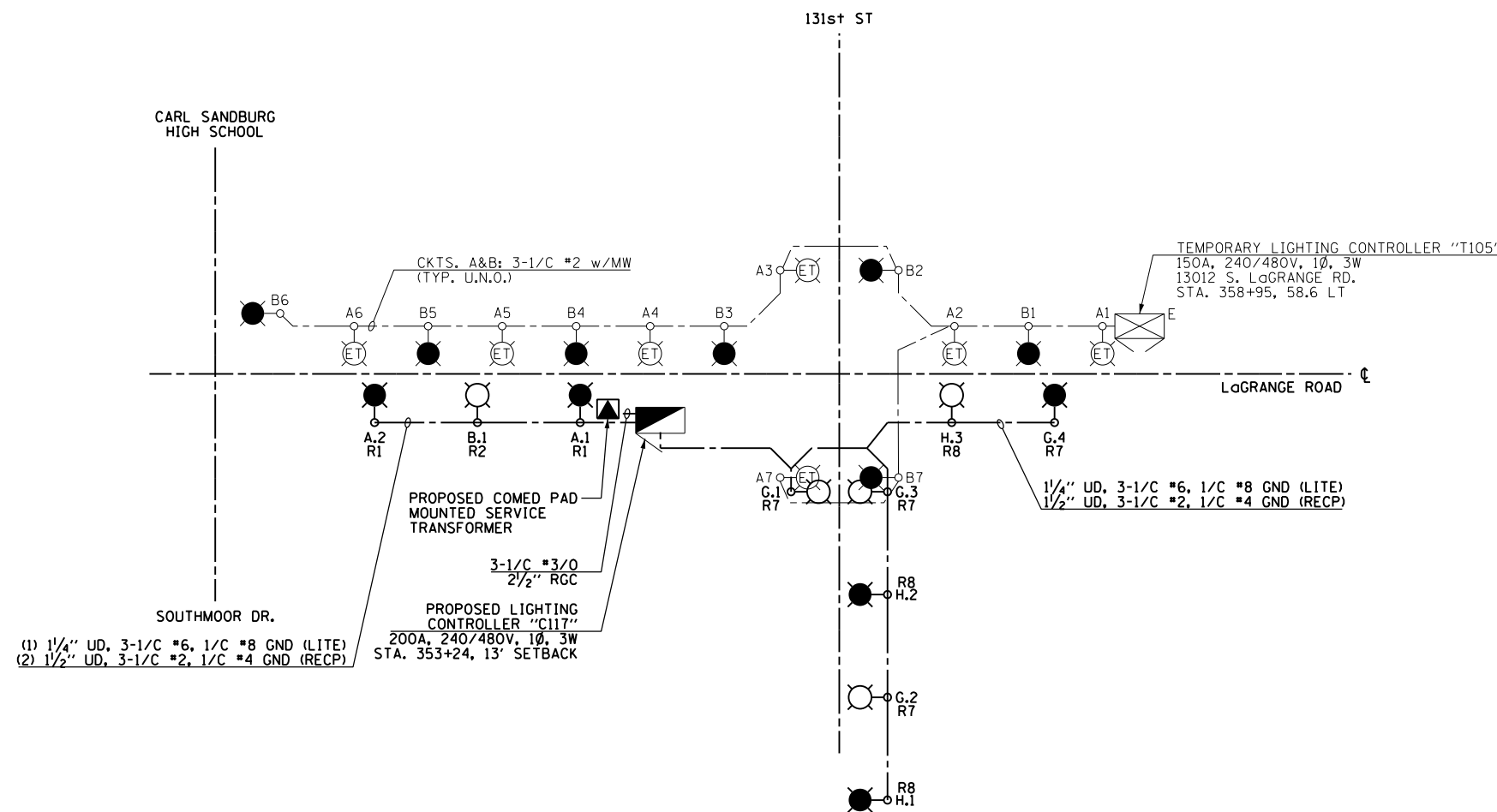
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	356
E-32			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**LEGEND:**

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  EXISTING TEMPORARY LIGHTING UNIT TO REMAIN
-  PROPOSED ROADWAY LIGHTING CONTROLLER SINGLE DOOR, BASE MOUNTED, SPECIAL 200A, 240/480V, 1Ø, 3W
-  PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  PROPOSED CONDUIT AND CABLE AS INDICATED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



**LIGHTING CONTROLLER "C117" STAGE 1A WIRING DIAGRAM**  
N.T.S.



**LIGHTING CONTROLLER "T105"  
ROADWAY LIGHTING PANEL LOAD TABLE**

CIRCUIT	RED PHASE		BLACK PHASE		
	AMPS	WATTS	AMPS	WATTS	
A	14	3360	B	14	3360
C	--	--	D	--	--
E	--	--	F	--	--
G	--	--	H	--	--
I	--	--	J	--	--
K	--	--	L	--	--
TOTAL	14	3360	TOTAL	14	3360

LOAD TABULATION IS BASED ON THE FOLLOWING:  
400W HPS LUMINAIRE: 2.0A AT 240V

**LIGHTING CONTROLLER "C117"  
ROADWAY LIGHTING PANEL LOAD TABLE**

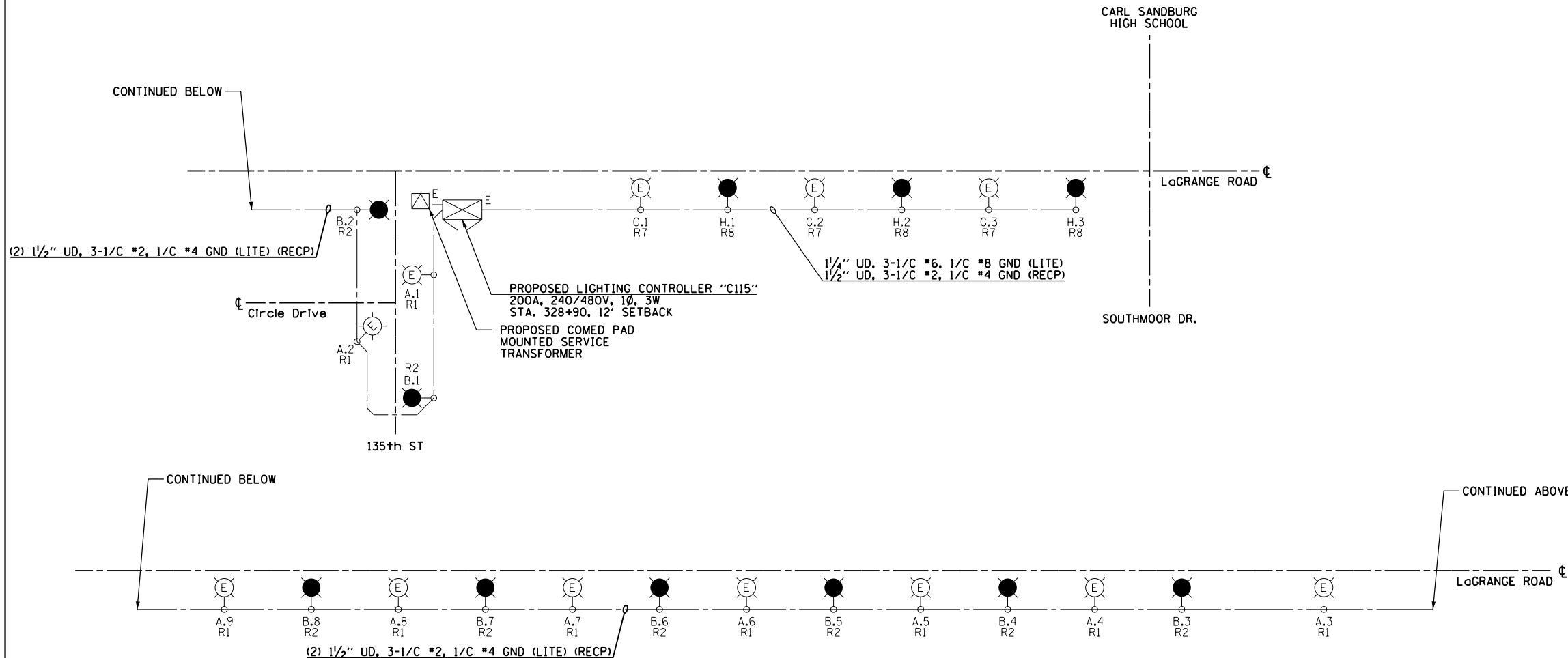
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	--	--	D	--	--
E	--	--	F	--	--
G	8	1920	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
TOTAL	12	2880	TOTAL	8	1920

LOAD TABULATION IS BASED ON THE FOLLOWING:  
400W HPS LUMINAIRE: 2.0A AT 240V

FILE NAME = D160M62-SHT-E33.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	357
<b>E-33</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

CARL SANDBURG HIGH SCHOOL

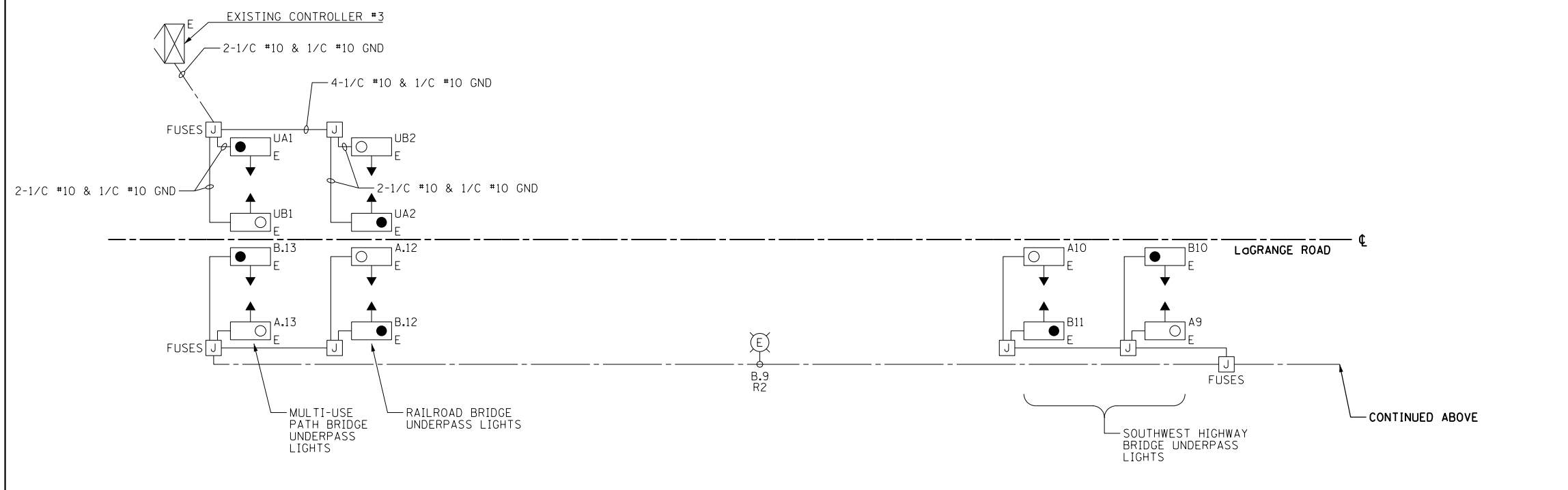


**LEGEND:**

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSE AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING UNDERPASS LIGHTING UNIT (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- ROADWAY LIGHTING CONTROLLER (EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE)
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION AS INSTALLED IN EARLIER CONSTRUCTION STAGE
- EXISTING STAINLESS STEEL, NEMA 4X JUNCTION BOX ATTACHED TO STRUCTURE (SIZED AS INDICATED ON PLANS)
- PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION AS INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- UNDERGROUND CONDUCTORS (EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE)
- CONDUCTORS IN 1" PVCC RGC CONDUIT ATTACHED TO STRUCTURE (EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE)

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	20	4800	B	20	4800
C	--	--	D	--	--
E	--	--	F	--	--
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
<b>TOTAL</b>	<b>26</b>	<b>6240</b>	<b>TOTAL</b>	<b>26</b>	<b>6240</b>











LIGHTING CONTROLLER "C115" STAGE 1B WIRING DIAGRAM  
N.T.S.



100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

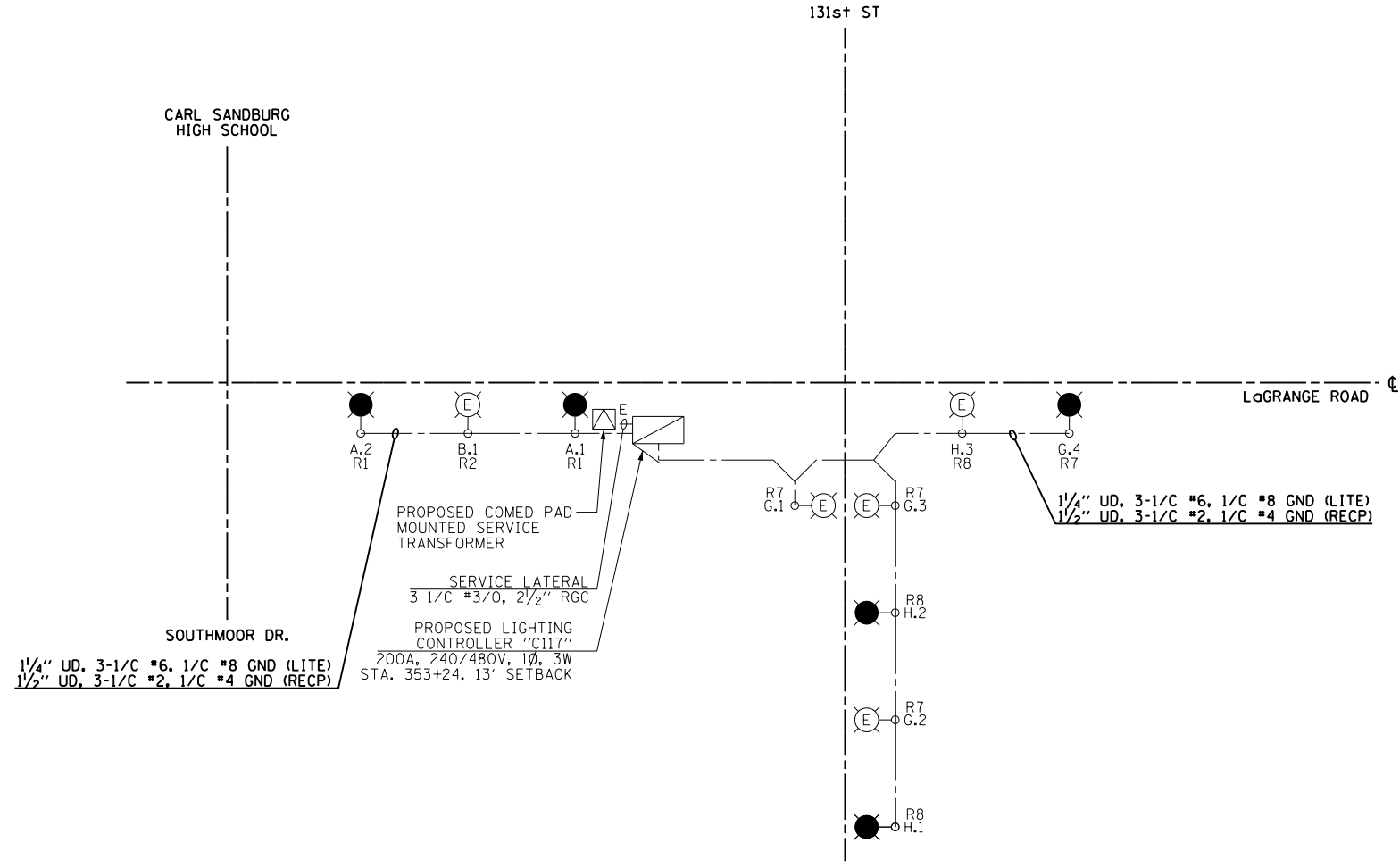
FILE NAME = D160M62-SHT-E34.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US 45 (LaGRANGE ROAD) LIGHTING CONTROLLER "C115" STAGE 1B WIRING DIAGRAM</b>	F.A.P. RTE. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 358	
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>E-34</b>		CONTRACT NO. 60M62
	PLOT DATE = 3/13/2013	DATE = 03/13/13	REVISED -					ILLINOIS FED. AID PROJECT			

**LEGEND:**

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED COMBINATION POLE LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED COMBINATION LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
-  COMBINATION SERVICE DISCONNECT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
-  PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



LIGHTING CONTROLLER "C117" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	4	960
C	--	--	D	--	--
E	--	--	F	--	--
G	4	960	H	2	480
I	--	--	J	--	--
K	--	--	L	--	--
M	2	480	N	2	480
O	2	480	P	2	480
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
<b>TOTAL</b>	<b>12</b>	<b>2880</b>	<b>TOTAL</b>	<b>10</b>	<b>2400</b>

LOAD TABULATION IS BASED ON THE FOLLOWING:  
 400W HPS LUMINAIRE: 2.0A AT 240V

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4198  
**URS**

FILE NAME = D160M62-SHT-E35.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US 45 (LaGRANGE ROAD) LIGHTING CONTROLLER "C117" STAGE 1B WIRING DIAGRAM</b>	F.A.P. RFE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 359
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISIED -	SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		<b>E-35</b>		CONTRACT NO. 60M62		
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISIED -	ILLINOIS FED. AID PROJECT						

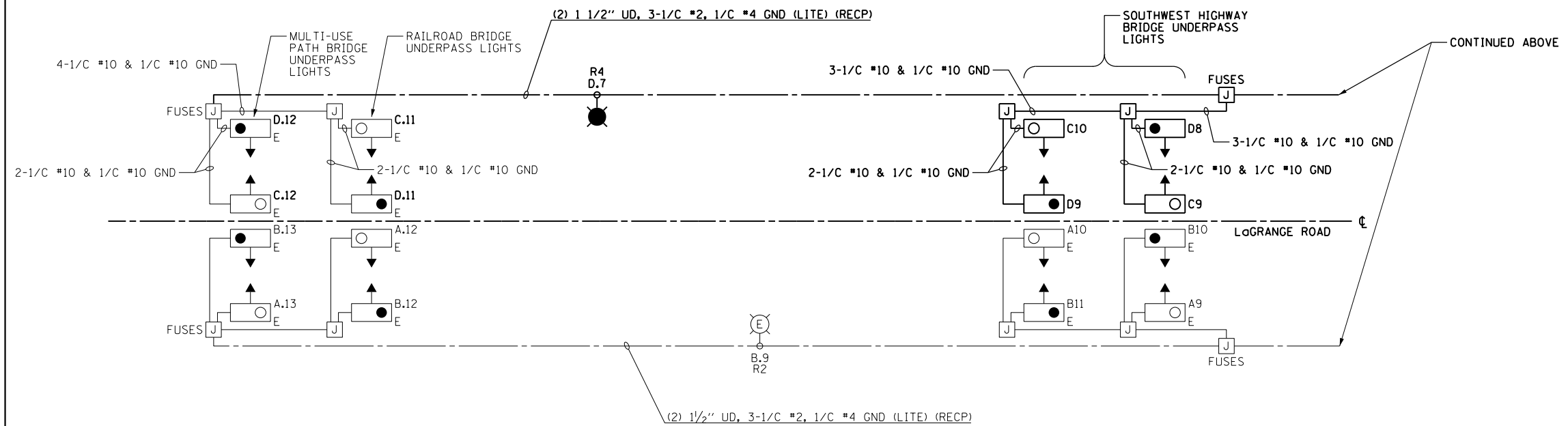
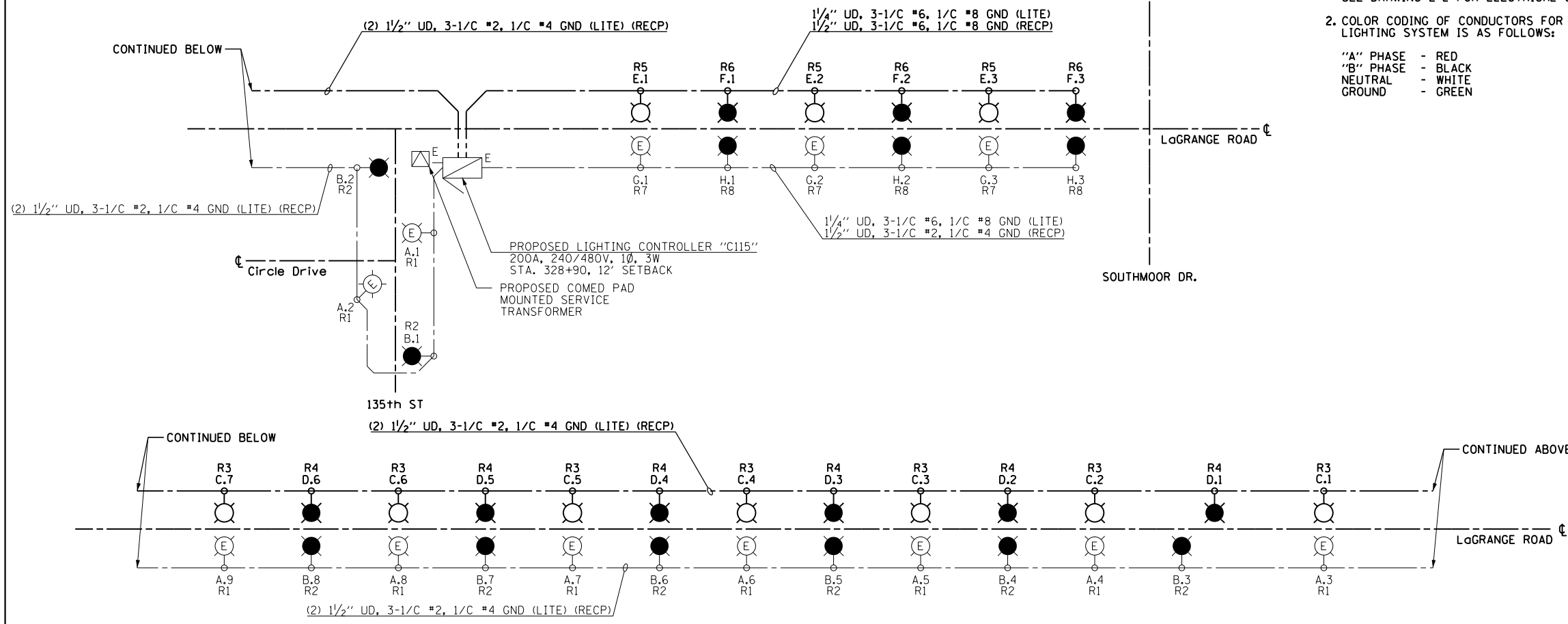
CARL SANDBURG HIGH SCHOOL

**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:  
 "A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN

**LEGEND:**

- PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSE AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED UNDERPASS LUMINAIRE, 100 WATT, 240V PHASE TO NEUTRAL, HPS, WITH TYPE III DISTRIBUTION, WALL MOUNTED (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED TWIN-LUMINAIRE LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- EXISTING UNDERPASS LIGHTING UNIT (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER AS INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION AS INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED STAINLESS STEEL, NEMA 4X JUNCTION BOX ATTACHED TO STRUCTURE (SIZED AS INDICATED ON PLANS)
- EXISTING STAINLESS STEEL, NEMA 4X JUNCTION BOX ATTACHED TO STRUCTURE (SIZED AS INDICATED ON PLANS)
- PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION AS INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED UNIT DUCT; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED CONDUCTORS IN 1" PVC RGS CONDUIT ATTACHED TO STRUCTURE; SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
- PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE
- CONDUCTORS IN 1" PVC RGS CONDUIT ATTACHED TO STRUCTURE (EXISTING OR INSTALLED IN EARLIER CONSTRUCTION STAGE)



LIGHTING CONTROLLER "C115" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	20	4800	B	20	4800
C	16	3840	D	16	3840
E	6	1440	F	6	1440
G	6	1440	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
R	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
TOTAL	48	11520	TOTAL	48	11520

LIGHTING CONTROLLER "C115" STAGE 3 WIRING DIAGRAM  
N.T.S.

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V  
100W HPS UNDERPASS LUMINAIRE: 0.5A AT 240V

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

**URS**

FILE NAME = D160M62-SHT-E36.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -












STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)  
LIGHTING CONTROLLER "C115" STAGE 3 WIRING DIAGRAM  
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	360
E-36			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



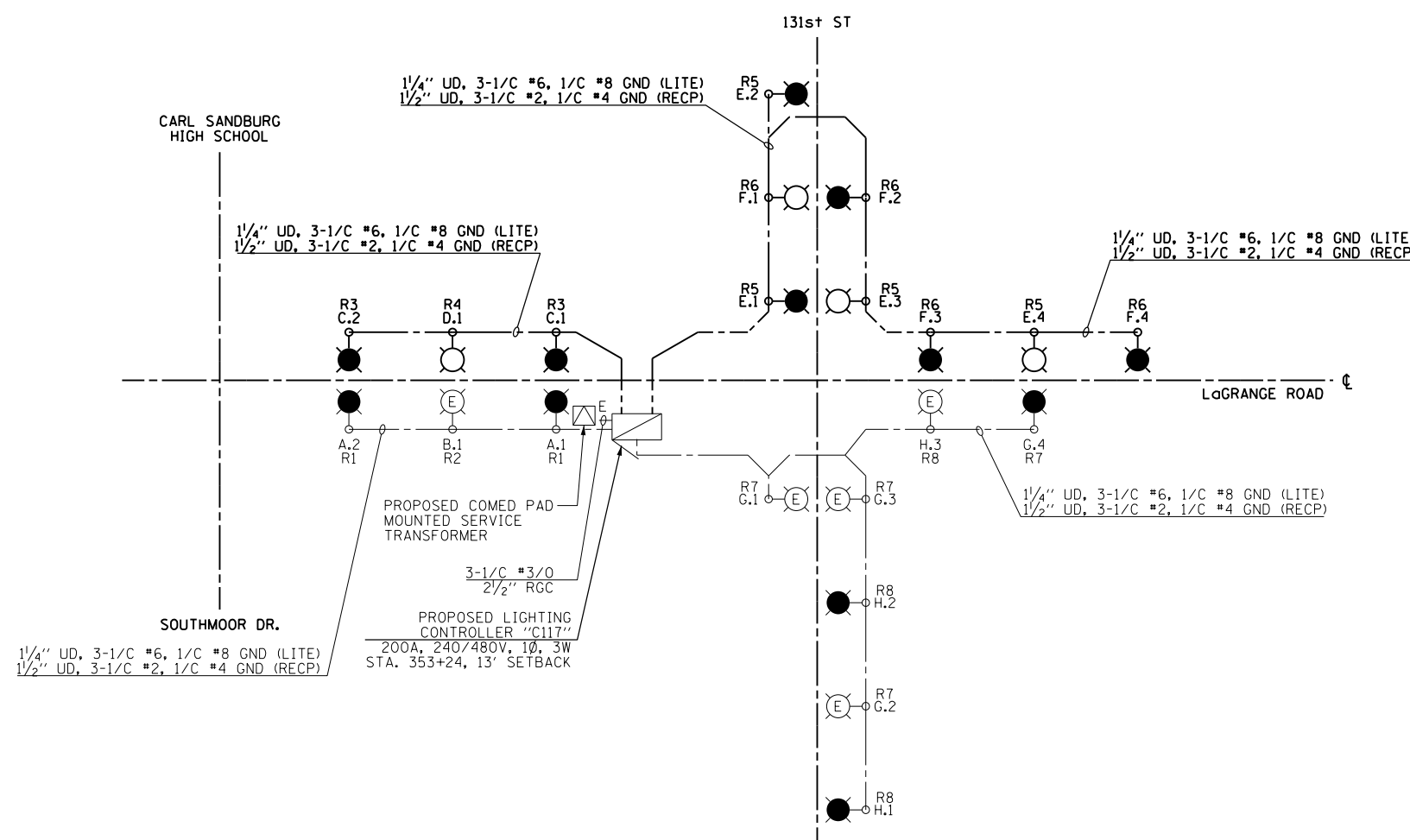
**LEGEND:**

-  PROPOSED LIGHTING UNIT: 400W, 240V PHASE TO NEUTRAL, HPS LUMINAIRE WITH TYPE III DISTRIBUTION, 45'-2" ALUMINUM POLE SHAFT ON 24" DIAMETER CONCRETE FOUNDATION, 47'-6" MOUNTING HEIGHT, 12'-0" MAST ARM, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
-  PROPOSED COMBINATION POLE LIGHTING UNIT: 400W, 2.0A AT 240V PHASE TO PHASE, HPS LUMINAIRE WITH TYPE III DISTRIBUTION
-  PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED COMBINATION POLE LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED COMBINATION LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
-  COMBINATION SERVICE DISCONNECT INSTALLED IN EARLIER CONSTRUCTION STAGE
-  EXISTING COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  PROPOSED CONDUIT AND CABLE TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
-  PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS INDICATED
-  PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. COLOR CODING OF CONDUCTORS FOR 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:

"A" PHASE - RED  
 "B" PHASE - BLACK  
 NEUTRAL - WHITE  
 GROUND - GREEN



**LIGHTING CONTROLLER "C117" STAGE 3 WIRING DIAGRAM**  
 N.T.S.

LIGHTING CONTROLLER "C117" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	4	960	B	2	480
C	4	960	D	2	480
E	8	1920	F	8	1920
G	4	960	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	--	--	X	--	--
<b>TOTAL</b>	<b>20</b>	<b>4800</b>	<b>TOTAL</b>	<b>18</b>	<b>4320</b>

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V

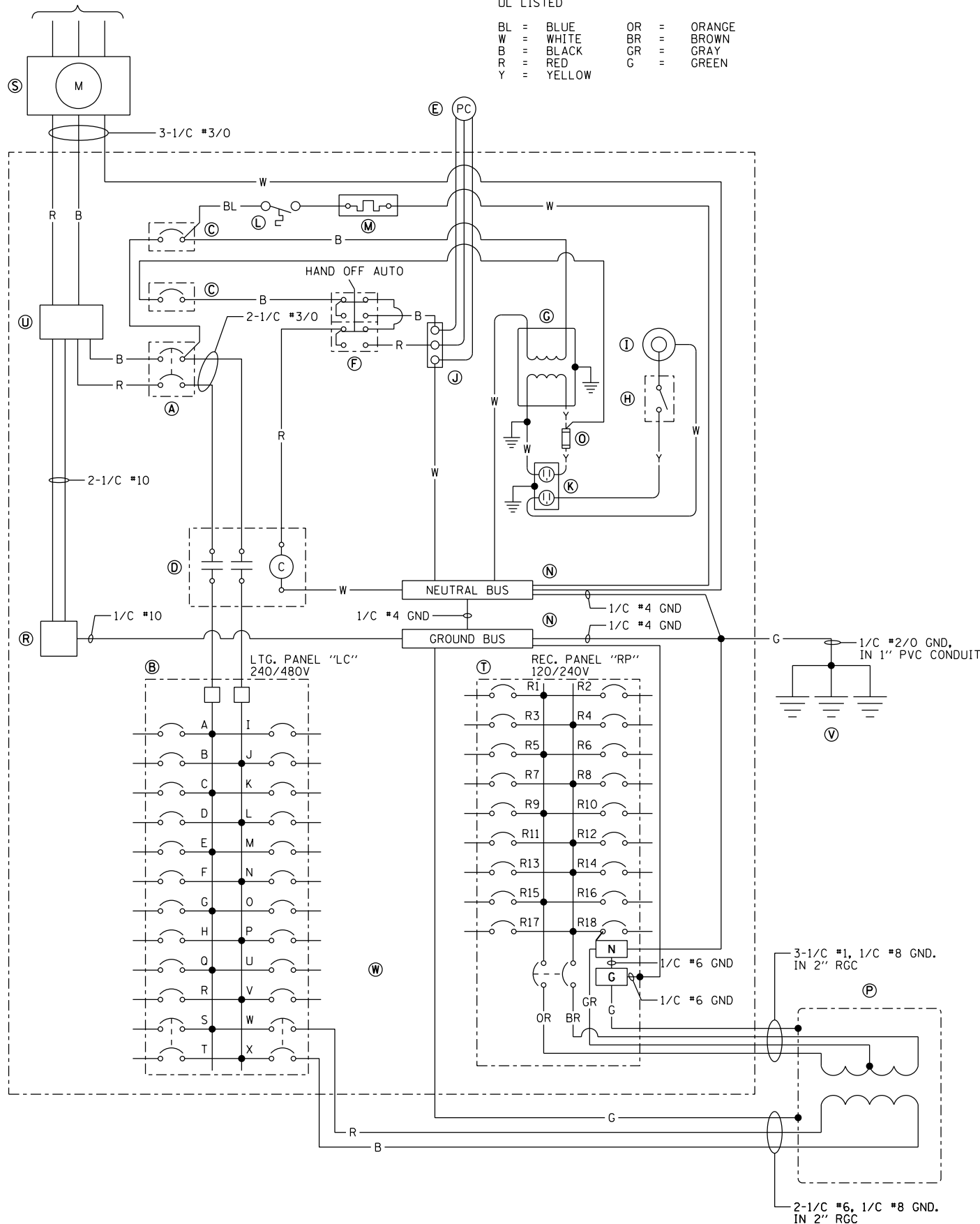
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SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	361
<b>E-37</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

ELECTRICAL SERVICE FROM  
COMED PAD MOUNTED TRANSFORMER  
200A, 240/480V, 1Ø, 3W

POWER WIRING: RHH/RHW  
CONTROL WIRING: #12 MTW  
NEUTRAL BUS COLOR CODED WHITE  
GROUND BUS COLOR CODED GREEN  
UL LISTED

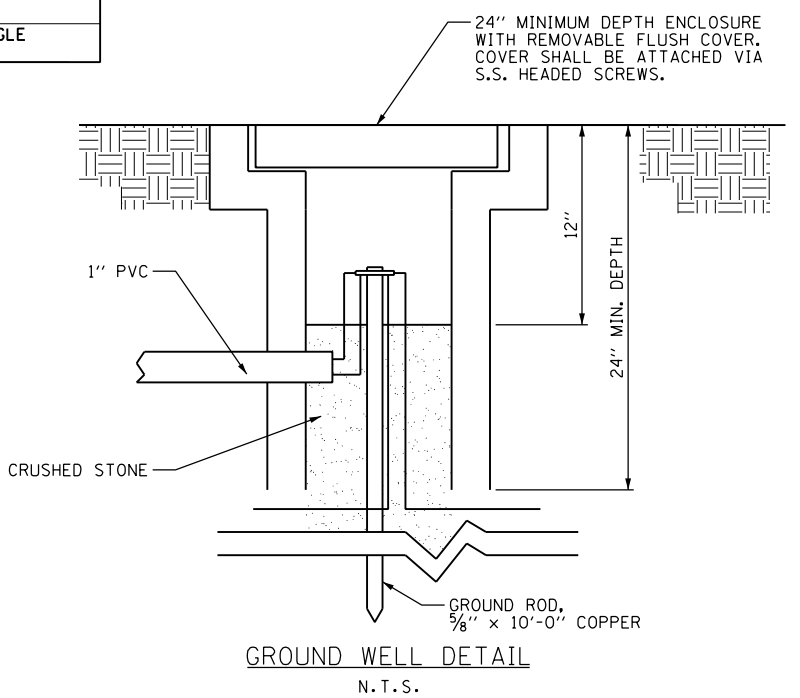
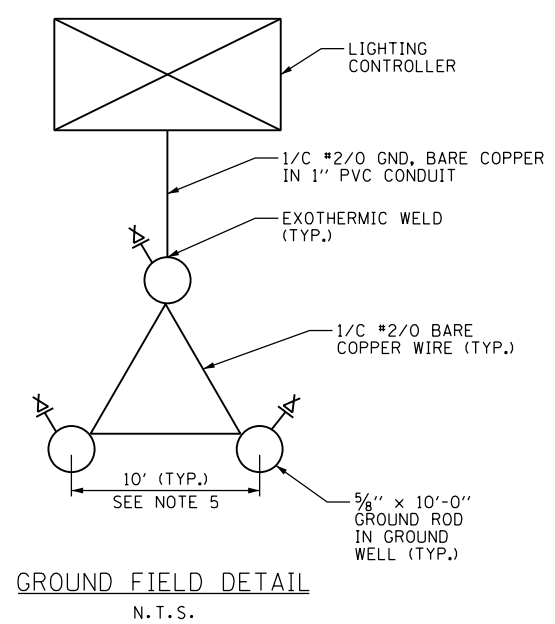
BL = BLUE OR = ORANGE  
W = WHITE BR = BROWN  
B = BLACK GR = GRAY  
R = RED G = GREEN  
Y = YELLOW



BILL OF MATERIALS		
ITEM	QTY.	DESCRIPTION
(A)	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 200 AMP, 480V, 2-POLE, NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 65,000 AMPERES AT 480 VOLTS
(B)	1	EATON, POW-R-LINE C PANELBOARD, 480/240 VOLT, 1-PHASE, 3-WIRE, 30 BRANCH CIRCUITS, 225 AMPERE MAIN LUGS, WITH (20) 1-POLE 30 AMPERE, 240 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, INTERRUPTING RATING 65,000 AMPERES AT 277 VOLTS (4 SPARE) AND (2) 2-POLE 50 AMPERE, 480 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, INTERRUPTING RATING 65,000 AMPERES AT 480 VOLTS (1 SPARE)
(C)	2	EATON, HFD1015, 1-POLE, 15 AMPERE, 240 VOLT CIRCUIT BREAKER, INTERRUPTING RATING 65,000 AMPERES AT 277 VOLTS
(D)	1	EATON, A202K4BA, 2-POLE, 200 AMPERE CONTACTOR, 240 VOLT COIL
(E)	1	PHOTOCELL (MOUNTED ON THE FRONT OF THE CABINET UNDER THE DRIP EDGE AND TO THE SIDE OF THE ACCESS DOOR)
(F)	1	SQUARE D, 900IKYK111, HAND-OFF-AUTO SELECTOR SWITCH
(G)	1	JEFFERSON, 21-0071-055, 1 KILOVOLT-AMPERE TRANSFORMER
(H)	1	OMRON, A20G07BK, DOOR SWITCH
(I)	1	GENERAL ELECTRIC, H7-120V-15F-3W-DD, 60 WATT ENCLOSED AND GASKETED INCANDESCENT FIXTURE
(J)	1	3 POINT TERMINAL BLOCK
(K)	1	HUBBELL, HBL5362ISA, 20 AMPERE GROUND FAULT CIRCUIT INTERRUPTOR RECEPTACLE, WITH WEATHERPROOF BOX & COVER
(L)	1	WHITE-RODGERS, #2E552, 0-50 DEGREE THERMOSTAT
(M)	1	VULCAN #OS1408-250B 250 WATT STAINLESS STEEL HEATER
(N)	2	COPPER GROUND AND NEUTRAL BUS, MINIMUM 1/4"x1"x12"
(O)	1	BUSSMANN, KTK15, FUSE
(P)	1	OLSUN ELECTRIC CORPORATION, #GS15LE-6, 25 KILOVOLT-AMPERE, 1-PHASE, 480-120/240 VOLT TRANSFORMER IN NEMA 3R ENCLOSURE
(R)	1	BRACKET MOUNTED SURGE ARRESTER FOR 480/240 VOLT, 3 WIRE SERVICE
(S)	1	METER SOCKET/PEDESTAL FOR ELECTRIC UTILITY CO. METER
(T)	1	EATON, POW-R-LINE C PANELBOARD, 240/120 VOLT, 1-PHASE, 3-WIRE, 18 BRANCH CIRCUITS, 100 AMPERE, 2-POLE, 240 VOLT MAIN BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS, WITH (18) 1-POLE 30 AMPERE, 120 VOLT, BOLT-ON GROUND FAULT CIRCUIT INTERRUPTING BRANCH CIRCUIT BREAKERS, CATALOG NUMBER GHBGFE1030, INTERRUPTING RATING 14,000 AMPERES AT 120 VOLTS (2 SPARE)
(U)	1	MARATHON, #1402401, 175A, 2-POLE, 600 VOLT POWER DISTRIBUTION BLOCK
(V)	3	COPPER GROUND ROD, 5/8"x10'
(W)	18	POWER DIST SPLICE BLOCKS #2 AWG TO #14 AWG SINGLE POLE. (NOT SHOWN ON BACKPLATE)

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-20 FOR CONTROLLER CABINET DETAILS.
- THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE EQUIPMENT PER NEC 230.66 AND U.L. LISTED.
- BOND PANELBOARD ENCLOSURES "LC" AND "RP" TO THE CONTROLLER ENCLOSURE WITH #6 GND.
- IF THERE IS NOT ENOUGH RIGHT OF WAY TO INSTALL THE GROUNDING TRIAD AS SHOWN, REDUCE SPACING TO 6'.
- ALL EQUIPMENT, MATERIALS AND COMPONENTS MUST BE SPECIFICATION GRADE OR BETTER. COMPLETE CABINET CONSTRUCTION SHALL FOLLOW ALL APPLICABLE IDOT SPECIFICATIONS, STANDARDS, AND DETAILS.
- MANUFACTURER MODEL AND PART NUMBERS SHOWN ARE MINIMUM ACCEPTABLE COMPONENTS AND CAN BE SUBSTITUTED WITH EQUAL OR BETTER MATERIALS FROM OTHER MANUFACTURERS WITH THE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.



100 S. WACKER DR.  
10TH FLOOR  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4198



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)  
LIGHTING CONTROLLER WIRING DIAGRAM & GROUNDING DETAILS  
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	362
E-38		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

**SPECIFICATIONS:**

**PERFORMANCE** - THE ENCLOSURE WILL MEET OR EXCEED THE REQUIREMENTS OF A NEMA 3R RATING AND SHALL BE U.L. LISTED PER U.L. 508.

**MATERIAL** - SHEET ALUMINUM 1/8" THICKNESS, ALLOY 5052 H32. SURFACE SHALL HAVE A SMOOTH, NATURAL ALUMINUM MILL FINISH. ALL WELDS TO BE HELIARC AND SHALL BE NEATLY FORMED AND FREE OF CRACKS, BLOW HOLES, AND OTHER DEFECTS. ALL EDGES TO BE FREE OF BURRS.

**CABINET FEATURES** - CABINET TOP SLOPED 1/2" TO THE REAR, WITH 1/8" X 1" VENT SLOTS UNDER FRONT OVERHANG.

**DOORS AND LOCKS** - THE MAIN DOOR IS OF NEMA TYPE 3R CONSTRUCTION WITH CELLULAR NEOPRENE GASKET, WHICH IS RAIN TIGHT. HINGE IS 2" OPEN AND IS CONTINUOUS 14 GAUGE STAINLESS STEEL WITH A 1/4" DIA. PIN AND IS CAPPED AT THE TOP TO RENDER IT TAMPER PROOF. THE HINGE IS SECURED WITH 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND ESNA LOCK NUTS. STANDARD EQUIPMENT INCLUDES A THREE POINT LOCKING SYSTEM, WHICH SECURES THE DOOR AT THE TOP, BOTTOM, AND CENTER. A CORBIN LOCK WITH TWO KEYS IS ALSO FURNISHED. THE MAIN DOOR IS ALSO EQUIPPED WITH A THREE POSITION DOOR STOP, ONE AT 90°, ONE AT 120°, AND ONE AT 180°. DOOR LOCKING RODS ARE 1/4" X 3/4" ALUMINUM TURNED EDGEWAYS WITH 1" NYLON ROLLERS. MAIN DOOR HANDLE IS 3/4" DIAMETER STAINLESS STEEL. THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE FRONT OF THE CABINET.

**EQUIPMENT MOUNTING** - THE CABINET SHALL BE EQUIPPED WITH TWO ADJUSTABLE "L" MOUNTING CHANNELS WELDED TO EACH SIDE WALL AND THE BACK WALL ALLOWING FULL ADJUSTMENT OF SHELVES OR PANELS.

**VENTILATION** - VENT SLOTS (1/8" X 1") ARE PROVIDED ON THE UNDERSIDE OF THE COVER OVERHANG AND LOUVER SLOTS ARE FORMED IN THE LOWER PORTION OF THE MAIN DOOR. THIS CREATES A NATURAL MOVEMENT OF AIR AND HAS A COOLING EFFECT ON THE ELECTRICAL EQUIPMENT.

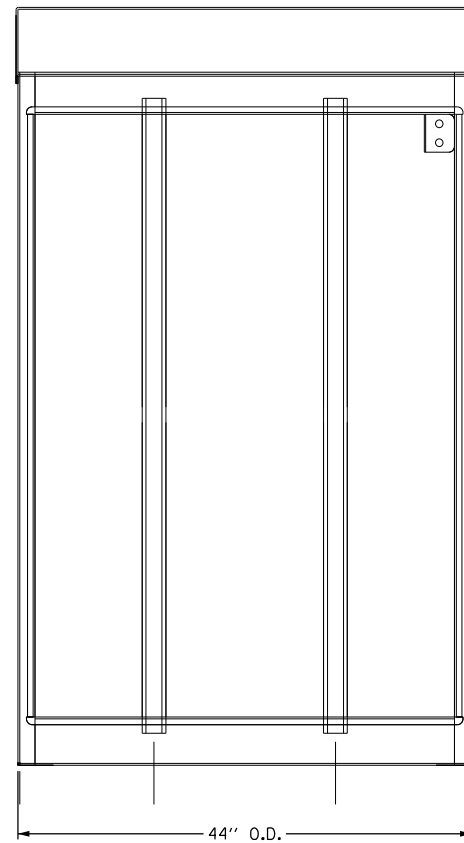
**CABINET TYPE FOR PERMANENT CONTROLLERS "C115" AND "C117"** ARE BASE MOUNTED AND EQUIPPED WITH INSIDE FLANGES AT THE FRONT, BACK, AND SIDES FOR ANCHORING TO A BASE (SEE INSTALLATION DETAILS ON DRAWING E-40).

**CABINET TYPE FOR TEMPORARY CONTROLLERS "T104" AND "T105"** ARE POLE MOUNTED (SEE INSTALLATION DETAILS ON DRAWING E-41).

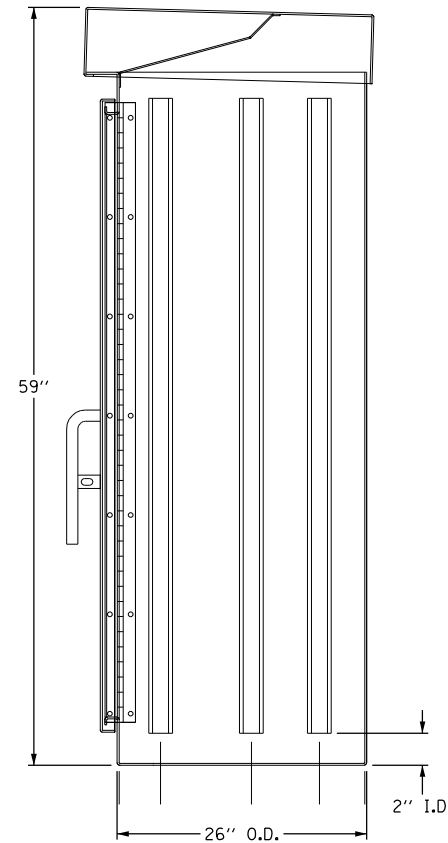
THIS SPECIFICATION IS PER IDOT STANDARD SPECIFICATIONS.

INDICATED DIMENSIONS REPRESENT THE MINIMUM REQUIREMENTS. DIMENSIONS SHALL BE INCREASED AS REQUIRED TO COMPLY WITH THE CODE AND TO ADEQUATELY HOUSE ALL REQUIRED COMPONENTS WITH AMPLE ROOM FOR ARRANGEMENT AND TERMINATION OF WIRING.

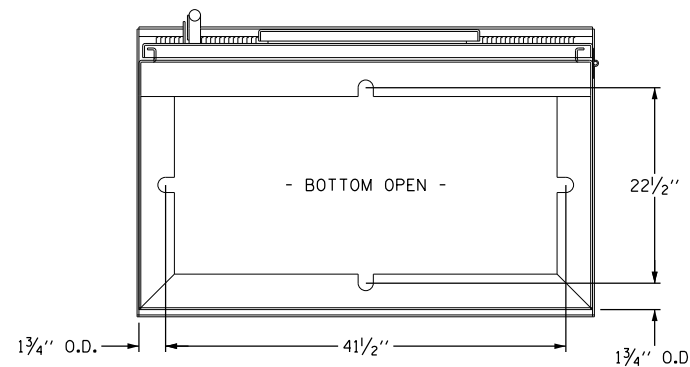
THE SERVICE EQUIPMENT SHALL BE MARKED TO IDENTIFY AS BEING SUITABLE AS SERVICE EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 230.66.



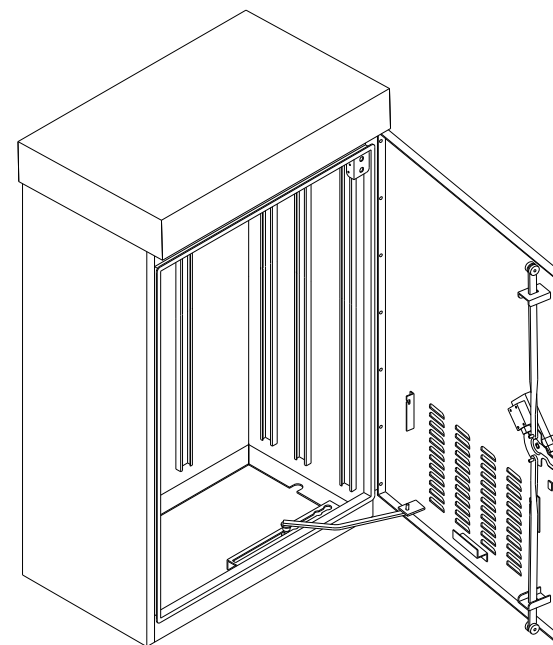
FRONT VIEW  
DOOR REMOVED



RIGHT SIDE VIEW



BOTTOM VIEW  
MOUNTING PATTERN



ALUMINUM TYPE IV CONTROL CABINET 3R  
59"x44"x26"  
SCALE: NOT TO SCALE

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4198  
**URS**

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
D160M62-SHT-E39.dgn		DRAWN - WM	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

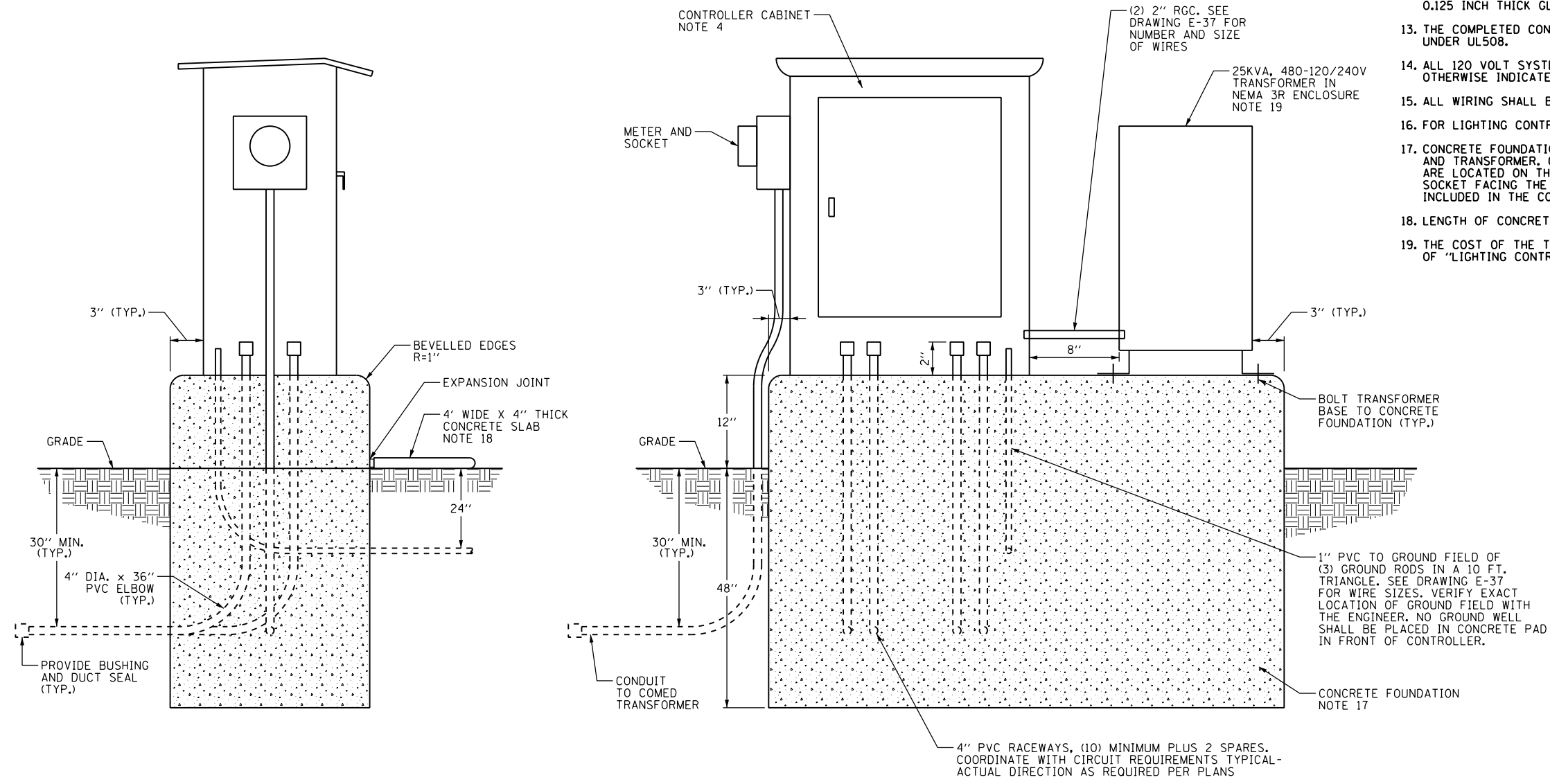
**US 45 (LaGRANGE ROAD)  
LIGHTING CONTROLLER DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	363
<b>E-39</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**NOTES:**

1. COORDINATE PLACEMENT OF RACEWAYS WITH CONTROLLER MANUFACTURER TO ASSURE DOOR LATCH DOES NOT INTERFERE WITH CABLES OR OTHER DEVICES.
2. THE CONTRACTOR SHALL PROVIDE A GROUND FIELD AT EACH CABINET LOCATION. THE GROUND RODS, ANCHOR BOLTS AND REINFORCEMENT STEEL SHALL ALL BE INTERCONNECTED.
3. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF CONTROLLER FOUNDATION AND GROUND FIELD WITH THE ENGINEER.
4. SEE DRAWING E-39 FOR CONTROL CABINET DETAILS.
5. ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
6. NAME PLATE SHALL HAVE ENGRAVED 0.75 INCH HIGH LETTERS FILLED IN BLACK: "ROADWAY LIGHTING CONTROLLER, VILLAGE OF ORLAND PARK".
7. ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALLED AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
8. ALL DEVICES SHALL BE FRONT REMOVABLE.
9. ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
10. ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
11. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
12. CIRCUIT BREAKERS, CONTACTORS AND OTHER COMPONENTS SHALL BE PANEL MOUNTED ON 0.125 INCH THICK GLASTIC INSULATION BACK PANEL.
13. THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
14. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12AWG STRANDED UNLESS OTHERWISE INDICATED.
15. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
16. FOR LIGHTING CONTROLLER WIRING DIAGRAM, SEE DRAWING E-38.
17. CONCRETE FOUNDATION SHALL BE CONSTRUCTED AS REQUIRED TO SUPPORT CONTROL CABINET AND TRANSFORMER. CONTRACTOR TO INSURE THE CONTROLLER CABINET AND METER SOCKET ARE LOCATED ON THE FOUNDATION END CLOSEST TO THE UTILITY SERVICE, WITH THE METER SOCKET FACING THE DIRECTION OF THE UTILITY SERVICE. CONCRETE FOUNDATION SHALL BE INCLUDED IN THE COST OF "LIGHTING CONTROLLER, SPECIAL" PAY ITEM.
18. LENGTH OF CONCRETE SLAB SHOULD MATCH LENGTH OF CONCRETE FOUNDATION.
19. THE COST OF THE TRANSFORMER AND THE RELATED WORK SHALL BE INCLUDED IN THE COST OF "LIGHTING CONTROLLER, SPECIAL" ITEM.



LEFT SIDE ELEVATION

FRONT ELEVATION

**LIGHTING CONTROLLER FOUNDATION DETAILS**  
N.T.S.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4198  
**URS**

FILE NAME = D160M62-SHT-E40.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)**  
**LIGHTING CONTROLLER FOUNDATION DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	364
<b>E-40</b>		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

**NOTES:**

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- THE COST OF CONTROLLER MOUNTING HARDWARE AND RELATED APPURTENANCES SHALL BE INCLUDED IN "TEMPORARY LIGHTING CONTROLLER" PAY ITEM.
- SEE DRAWING E-39 FOR CONTROLLER CABINET DETAILS.
- THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE EQUIPMENT PER NEC 230.66.
- THE COST OF WOOD POLE AND ALL NECESSARY CABLES AND CONDUITS SHALL BE INCLUDED IN THE COST OF "ELECTRIC SERVICE INSTALLATION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- THE COST OF GROUND ROD AND ASSOCIATED GROUND WIRE AND PVC CONDUIT SHALL BE INCLUDED IN "ELECTRIC SERVICE INSTALLATION" PAY ITEM.
- THE COST OF ELECTRIC CABLE ASSEMBLIES SHALL BE CONSIDERED INCIDENTAL TO THE "AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

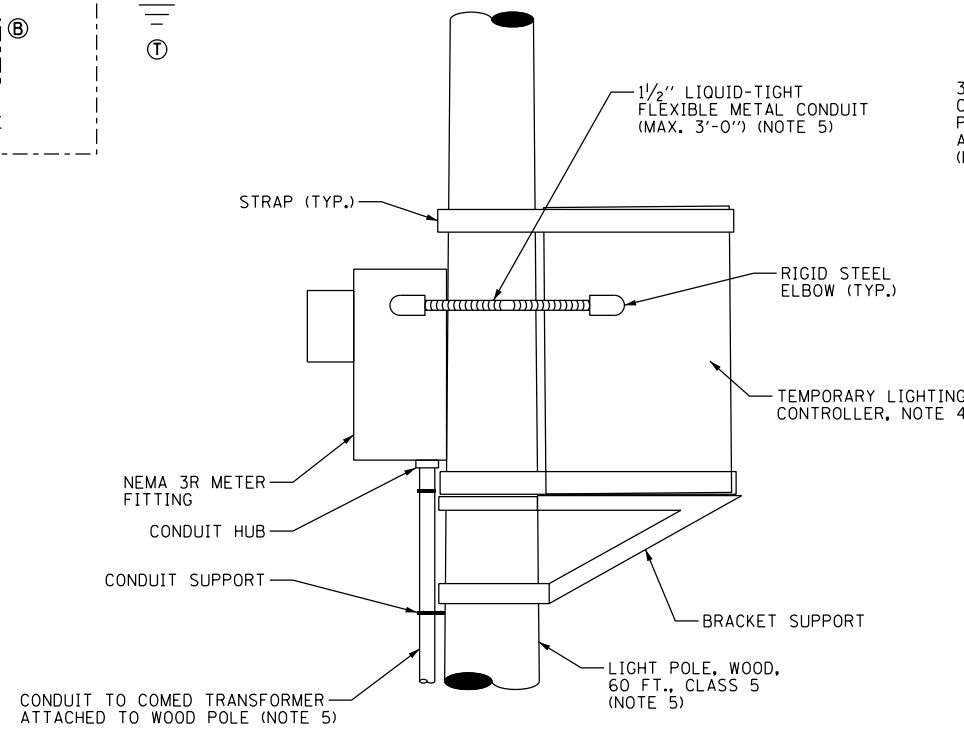
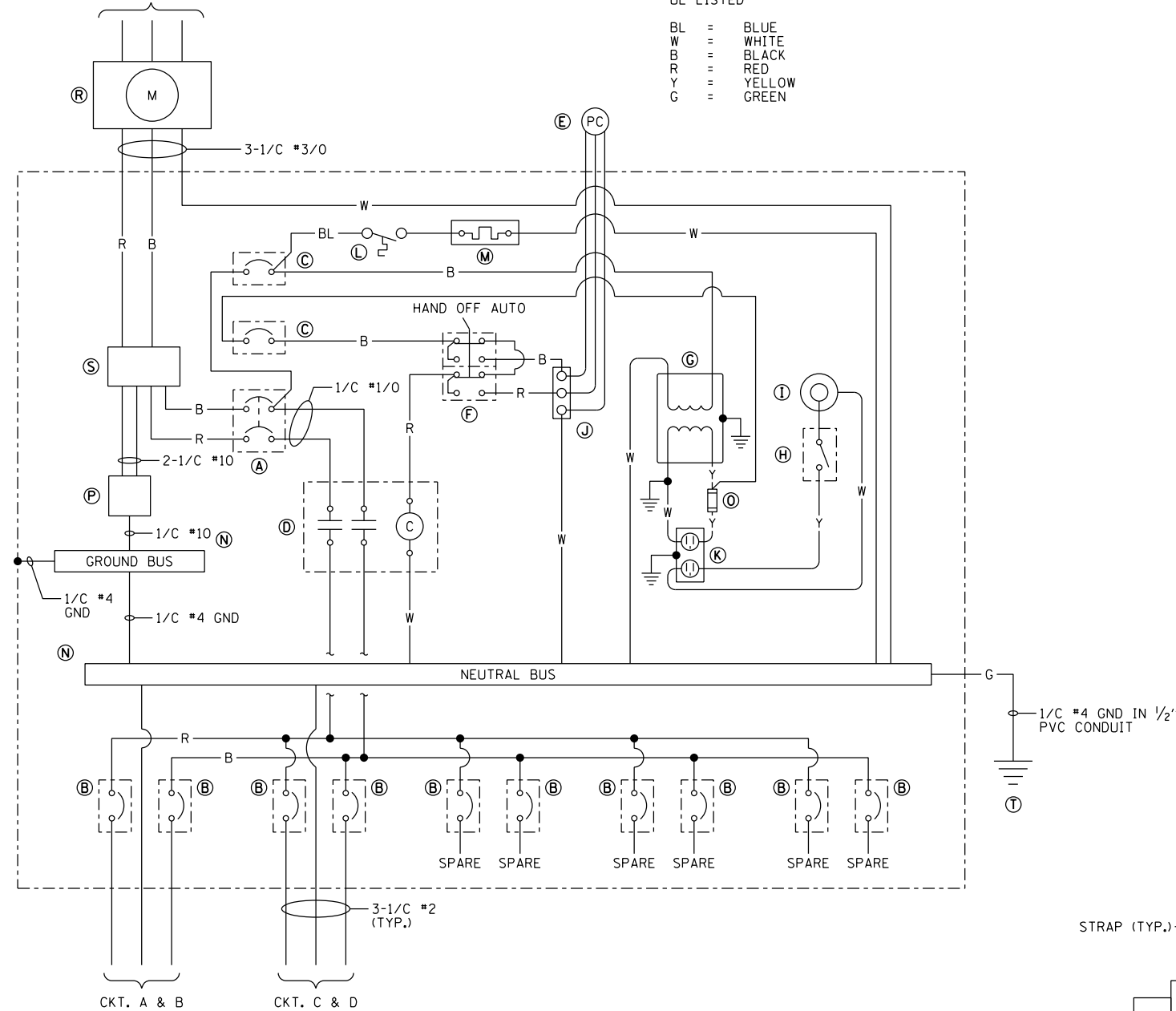
**BILL OF MATERIALS**

ITEM	QTY.	DESCRIPTION
(A)	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 150 AMPERE, 480 VOLT, 2-POLE, NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING 25,000 AMPERES AT 480 VOLTS
(B)	10	CUTLER HAMMER, GHB1040, 1-POLE, 40 AMPERE, 240 VOLT, BOLT-ON BRANCH CIRCUIT BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS (6 SPARE)
(C)	2	CUTLER HAMMER, EHD1015, 1-POLE, 15 AMPERE, 240 VOLT CIRCUIT BREAKER, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS
(D)	1	CUTLER HAMMER, A202K4BA, 2-POLE, 200 AMPERE, 120 VOLT COIL CONTACTOR
(E)	1	NITELIGHTER, FA105M, PHOTOCCELL (MOUNTED ON THE TOP OF CONTROL CABINET)
(F)	1	SQUARE D, 9001KYK111, HAND-OFF-AUTO SELECTOR SWITCH
(G)	1	JEFFERSON, 21-0071-055, 1 KILOVOLT-AMPERE TRANSFORMER
(H)	1	OMRON, A20G07BK, DOOR SWITCH
(I)	1	LEVITON, 29816-C, LIGHT FIXTURE
(J)	1	CINCH, 3 POINT TERMINAL BLOCK
(K)	1	LEVITON, 6599, 15 AMPERE GROUND FAULT CIRCUIT INTERRUPTOR RECEPTACLE, WITH WEATHERPROOF COVER
(L)	1	WHITE-RODGERS, #2E552, 0-50 DEGREE THERMOSTAT
(M)	1	VULCAN #OS1408-250B 250 WATT STAINLESS STEEL HEATER
(N)	2	COPPER GROUND AND NEUTRAL BUS, MINIMUM 1/4"x1"x12"
(O)	1	BUSSMANN, KTK15, FUSE
(P)	1	BRACKET MOUNTED SURGE ARRESTER FOR 480/240 VOLT, 3-WIRE SERVICE
(R)	1	METER SOCKET FOR ELECTRIC UTILITY COMPANY METER
(S)	1	MARATHON, #1402401, 175A, 2-POLE, 600 VOLT POWER DISTRIBUTION BLOCK
(T)	1	COPPER-CLAD GROUND ROD, 5/8"x10'

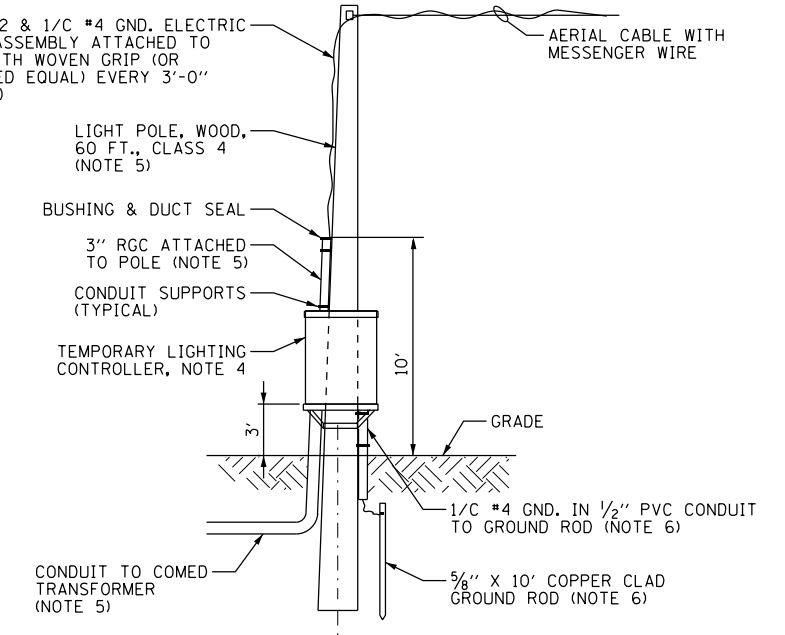
ELECTRICAL SERVICE FROM COMED  
150A, 240/480V, 1Ø, 3W

POWER WIRING: RHH/RHW  
CONTROL WIRING: #12 MTW  
NEUTRAL BUS COLOR CODED WHITE  
GROUND BUS COLOR CODED GREEN  
UL LISTED

BL = BLUE  
W = WHITE  
B = BLACK  
R = RED  
Y = YELLOW  
G = GREEN



TEMPORARY LIGHTING CONTROLLER  
INSTALLATION DETAIL  
N.T.S.



TEMPORARY LIGHTING CONTROLLER  
WIRING AND SERVICE INSTALLATION DETAIL  
N.T.S.

100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998



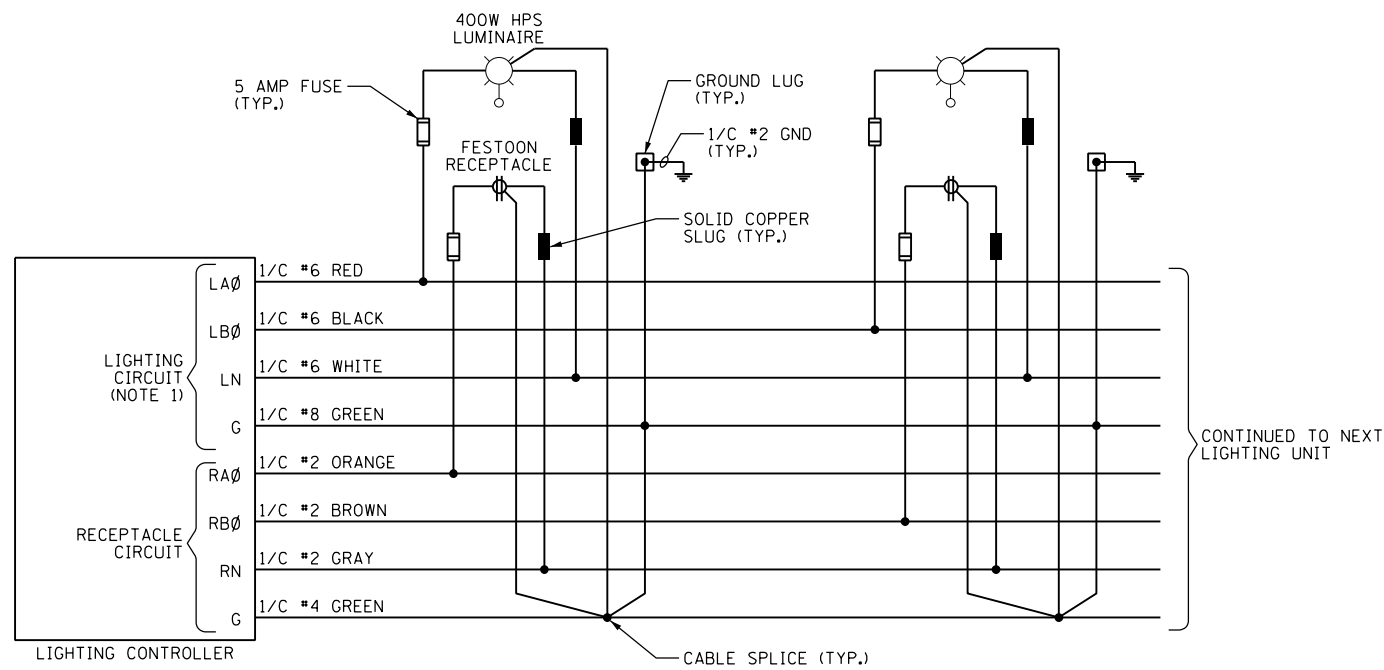
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)  
TEMPORARY LIGHTING CONTROLLER DETAILS & DIAGRAMS

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

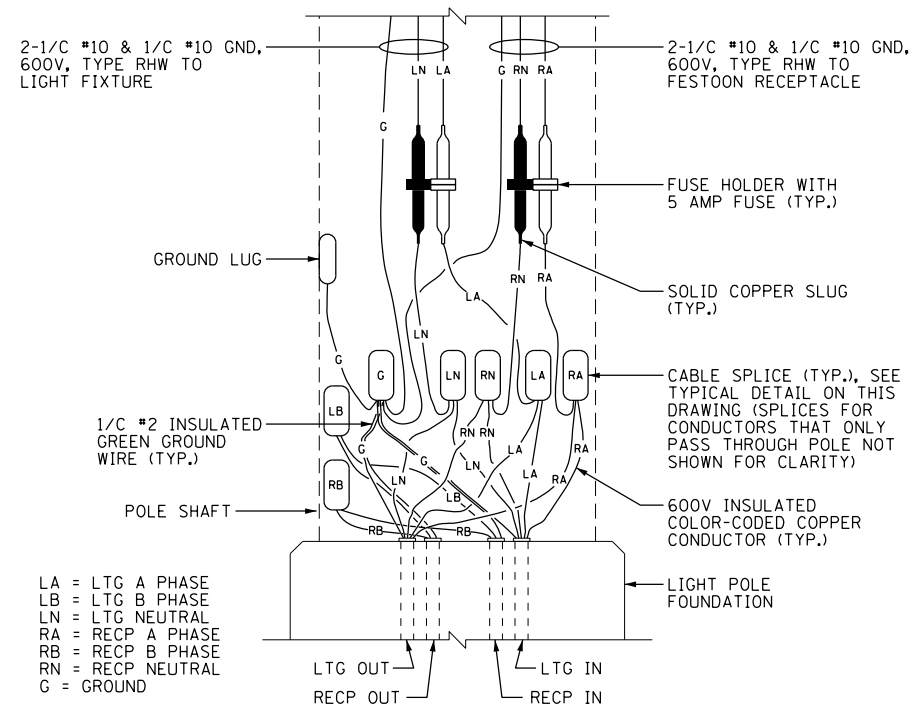
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	365
E-41		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				



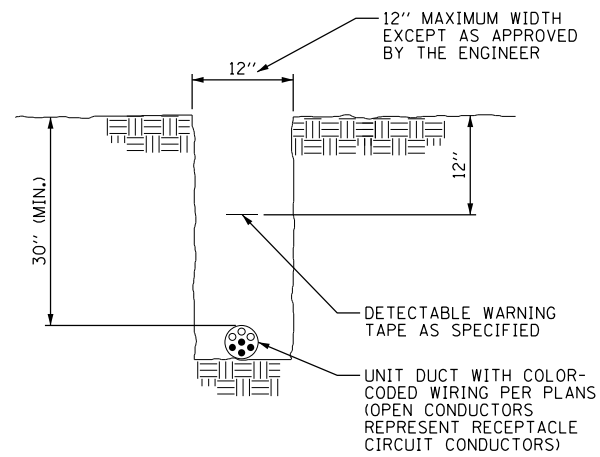
TYPICAL LIGHTING UNIT AND RECEPTACLE WIRING DIAGRAM  
N.T.S.

NOTES:

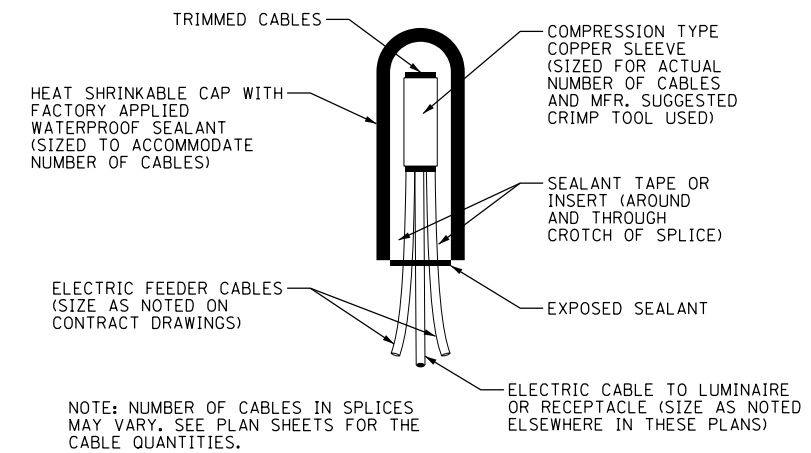
- SOME LIGHTING CIRCUITS ARE REQUIRED TO USE 3-1/C #2, 1/C #4 GND.



TYPICAL POLE BASE WIRING DETAIL  
N.T.S.



TYPICAL UNIT DUCT IN TRENCH DETAIL  
N.T.S.



TYPICAL SPLICE DETAIL  
N.T.S.

# 1-PH COMPT TR PAD - ESS/RSS 167KVA MAXIMUM CAPACITY

ITEM	MATERIAL DESCRIPTION (By ComEd)	MIG	SI	UNIT	QTY
A	GROUNDING INSTALLATION (1) C8550_GO	G			1
C	Wire, Copper; #1/0-19 Strand, Soft Drawn, Tin Coated, Bare	G	355082	FT	35
D	Connector, Compression; 1/0 Or 2/0 Strd Cu. Run & Tap.	U	368545	EA	1

### NOTES:

#### APPLICATION

- THIS STANDARD SHALL BE USED FOR THE INSTALLATION OF AN ELECTRIC OR RESIDENTIAL SERVICE STATION FOUNDATION AS DESCRIBED IN THE "INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE BOOK", SECTIONS 2.02 AND 2.07.

#### SUPPLEMENTARY MATERIAL

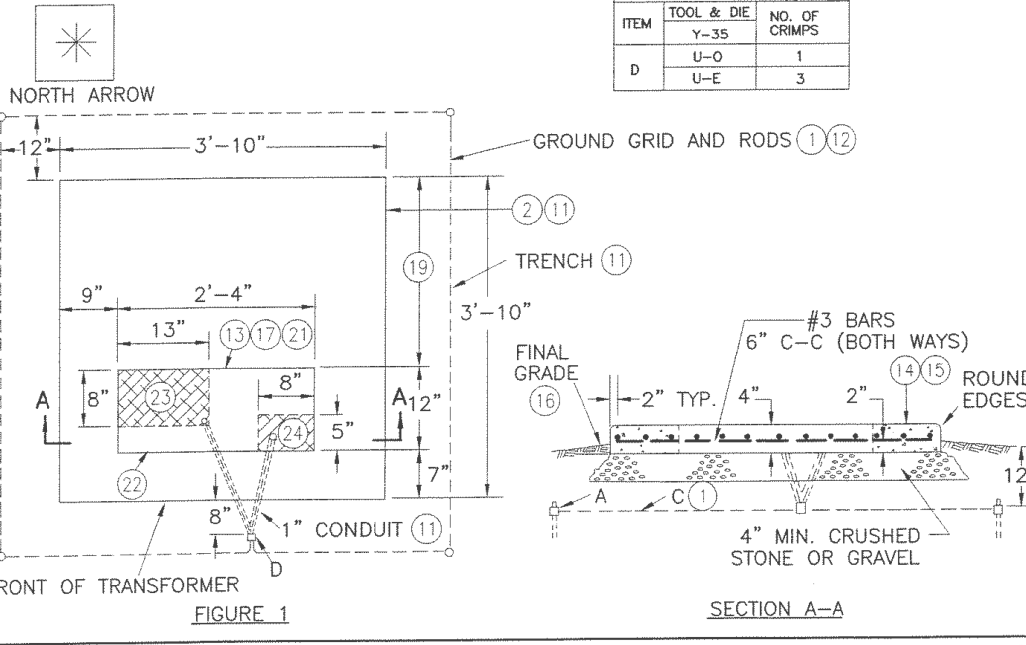
- WHEN BARE LEAD COVERED CABLES ARE LOCATED OR PLANNED WITHIN 200 FEET, OMIT ITEM "C" AND REPLACE WITH 1/0 LEAD CLAD COPPER CONDUCTOR (SI 360809). SPECIFY STAINLESS STEEL GROUNDS PER C8550.GO.
- PRECAST ALTERNATIVES TO THIS POURED DESIGN MAY BE AVAILABLE. CONTACT CONSTRUCTION STANDARDS GROUP.

#### INFORMATION

- THE CUSTOMER TO INSTALL THE TRANSFORMER FOUNDATION, 1 INCH CONDUITS, AND TRENCH FOR ComEd GROUND WIRE.
- ComEd TO PROVIDE AND INSTALL THE GROUND WIRE AND GRID.
- AFTER PRIMARY AND SECONDARY CONDUITS ARE IN PLACE, BACKFILL WITH SCREENINGS, SAND, OR FINE EXCAVATED MATERIAL. COMPACT THOROUGHLY BEFORE POURING FOUNDATION.
- CONCRETE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE ACI CODE AND AIR ENTRAINMENT. IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. AIR ENTRAINMENT SHALL BE 4 TO 7 PERCENT OF THE VOLUME OF CONCRETE.

- TOP OF FOUNDATION TO BE SMOOTH AND LEVEL.
- GRADE AWAY FROM FOUNDATION. FINAL GRADE SHALL BE WELL DRAINED AT ALL TIMES.
- PRIMARY AND SECONDARY CONDUIT MUST COME THROUGH FOUNDATION IN DESIGNATED AREAS.
- SEE C7723 FOR BURNDY-HUSKY DIE SET CROSS REFERENCE.
- DO NOT PLACE CONDUITS UNDER THIS SECTION OF FOUNDATION IF AVOIDABLE.
- DO NOT DISTURB EARTH IN FOUNDATION AREA MORE THAN NECESSARY WHEN INSTALLING CONDUIT.
- TERMINATE PRIMARY AND SECONDARY CONDUITS FLUSH WITH TOP OF FOUNDATION.
- BOX OUT CONDUIT OPENING.
- SECONDARY CONDUIT LOCATION.
- PRIMARY CONDUIT LOCATION.
- PLEASE CONSULT GP 346 (SPCC) OR ENVIRONMENTAL SERVICES IF EITHER OF THE FOLLOWING EXISTS:
  - A SINGLE ABOVE GROUND TANK WITH A CAPACITY OF 660 GALLONS OR MORE.
  - MORE THAN ONE ABOVE GROUND TANK WITH TOTAL CAPACITY EQUAL TO OR EXCEEDING 1320 GALLONS.

ITEM	TOOL & DIE	NO. OF CRIMPS
	Y-35	1
D	U-O	1
	U-E	3

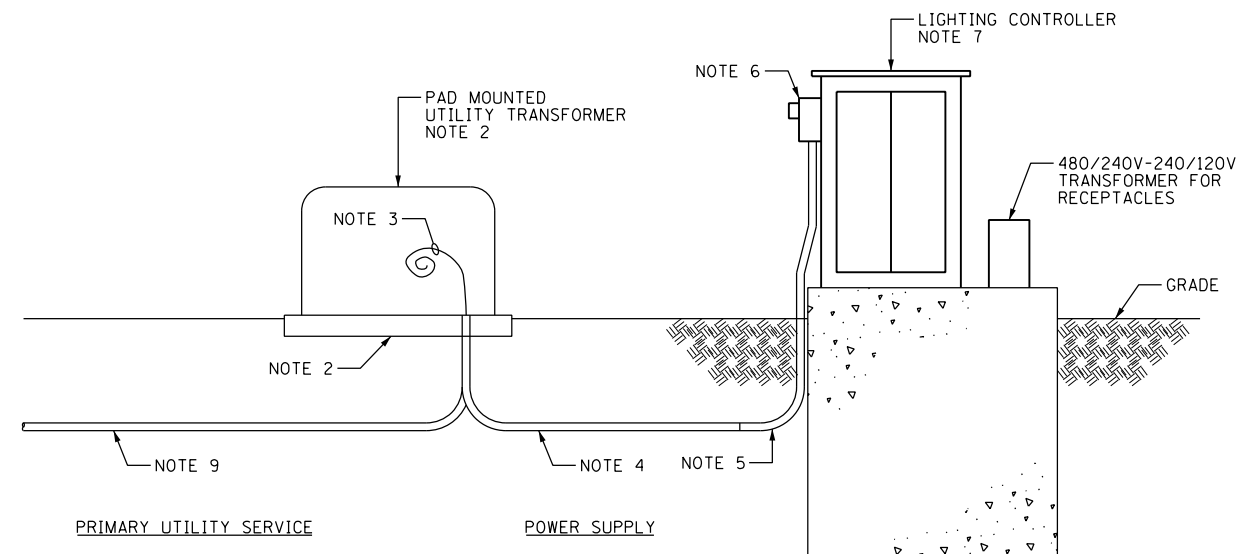


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ComEd SYSTEM STANDARD

### NOTES:

- THIS WORK SHALL BE INSTALLED UNDER THE "ELECTRIC SERVICE INSTALLATION" PAY ITEM, UNLESS NOTED OTHERWISE.
- COMMONWEALTH EDISON COMPANY (COMED) SHALL FURNISH AND INSTALL THE PAD MOUNTED TRANSFORMER COMPLETE WITH GROUNDING SYSTEM INCLUDING GROUND RODS, GROUNDING CONDUCTOR, PRIMARY CABLE, CUT-OUT SWITCH, LIGHTNING ARRESTOR, CONNECTORS, AND ANY OTHER EQUIPMENT AND LABOR DEEMED NECESSARY. SEE COMED SYSTEM STANDARD C5288 FOR INSTALLATION REQUIREMENTS.
- ELECTRIC SERVICE CONDUCTORS FROM THE INSIDE OF THE CABINET TO THE TRANSFORMER. PROVIDE 10 FT OF SLACK FOR CONNECTION TO TRANSFORMER BY COMED. CABLE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED FOR ELECTRIC CABLE IN CONDUIT. LABEL CABLE ON BOTH ENDS. SEE PLAN DRAWINGS FOR CABLE TYPE AND SIZE.
- UNDERGROUND CONDUIT. SEE PLAN DRAWINGS FOR CONDUIT MATERIAL AND SIZE.
- RGC 90 DEGREES LONG SWEEP ELBOW IN TRENCH, SEE PLAN DRAWINGS FOR CONDUIT, TYPE, SIZE, AND QUANTITY. THIS WORK SHALL BE INSTALLED UNDER THE "ELECTRIC SERVICE INSTALLATION" PAY ITEM.
- UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM, COMED SHALL FURNISH AND INSTALL METER ON CONTROLLER CABINET.
- SEE DRAWING E-40 FOR LIGHTING CONTROLLER FOUNDATION DETAILS.
- SUBMIT A PLAN DRAWING SHOWING THE PROPOSED PRIMARY CONDUIT INSTALLATION TO COMED FOR THEIR APPROVAL. THIS WORK SHALL BE COVERED UNDER THE "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- COORDINATE DETAILS WITH COMED. FOR BID, ASSUME 200 FEET OF 4" DIA. UNDERGROUND RGC WITH 3-1/C #2/0 12KV CABLES.



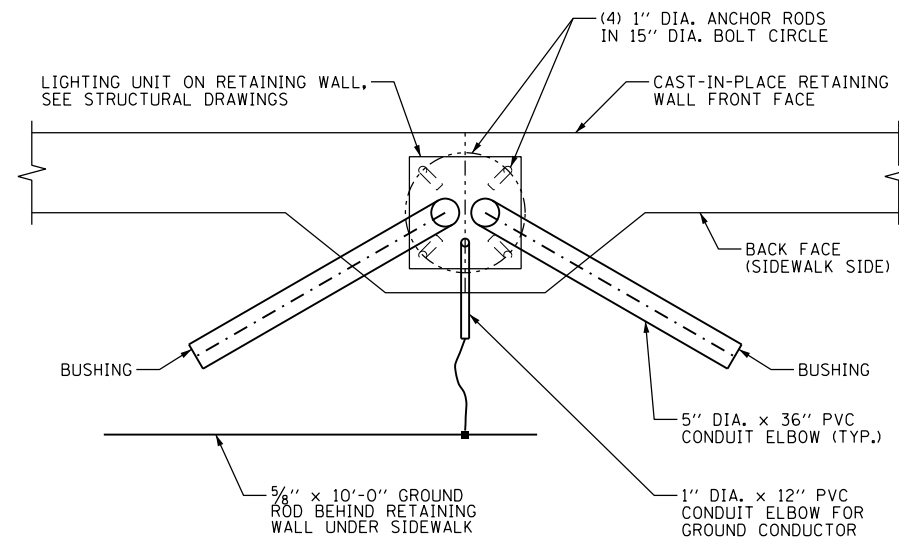
## ELECTRIC SERVICE INSTALLATION DETAIL N.T.S.

FILE NAME = D160M62-SHT-E43.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2:8.000000 '1' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

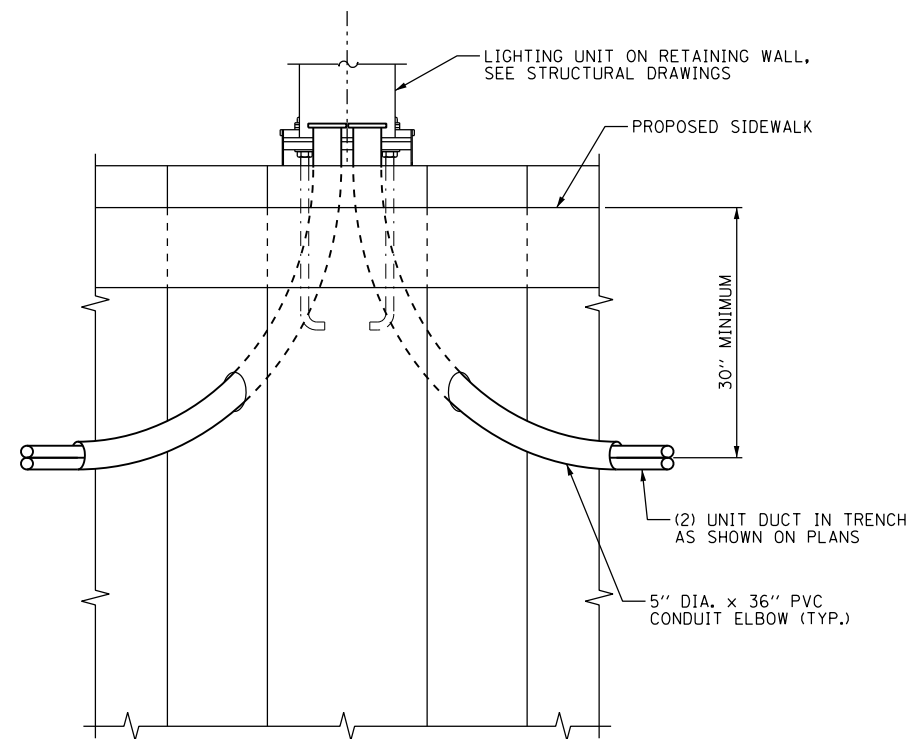
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	367
E-43			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**NOTES:**

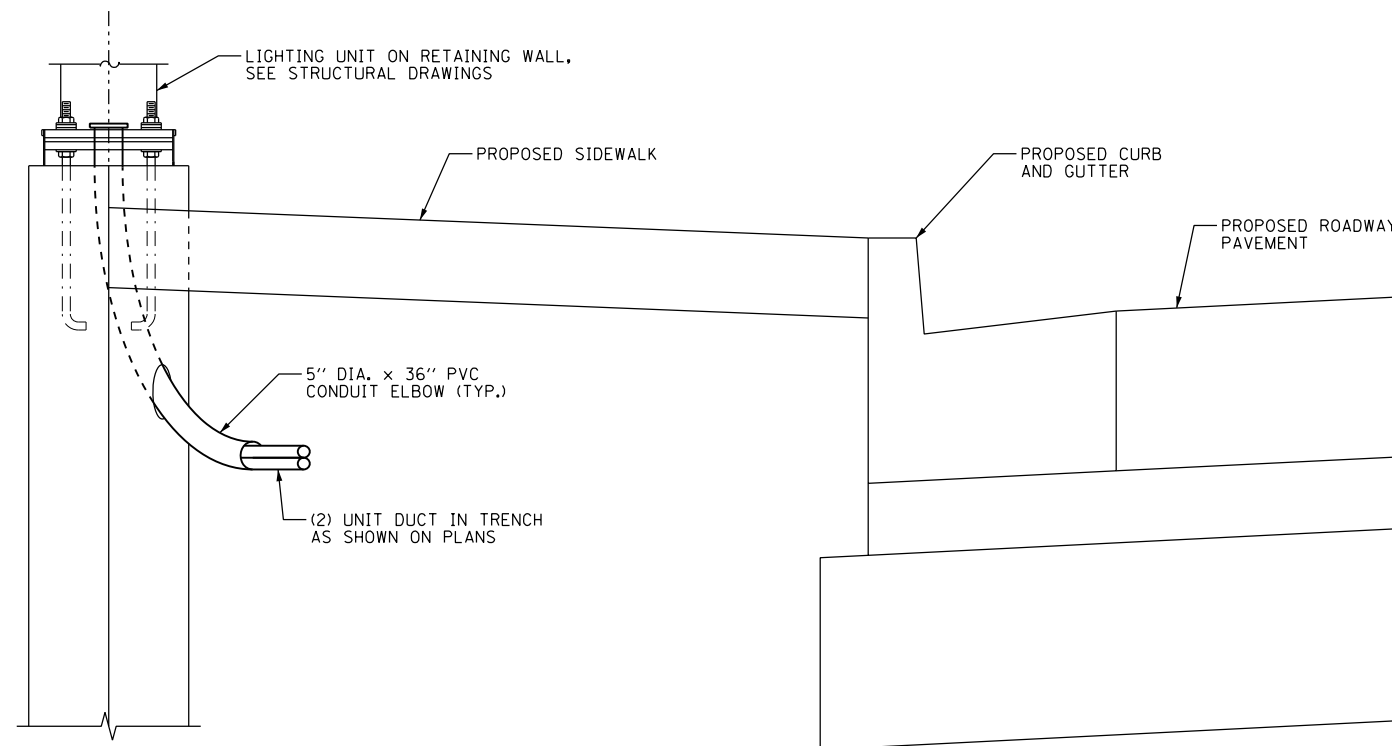
1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.



PLAN VIEW



BACK FACE ELEVATION  
(GROUNDING SYSTEM OMITTED)



SECTION

**LIGHT POLE ON CAST-IN-PLACE RETAINING WALL**  
N.T.S.

100 S. WACKER DR.  
5TH FLOOR  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4198

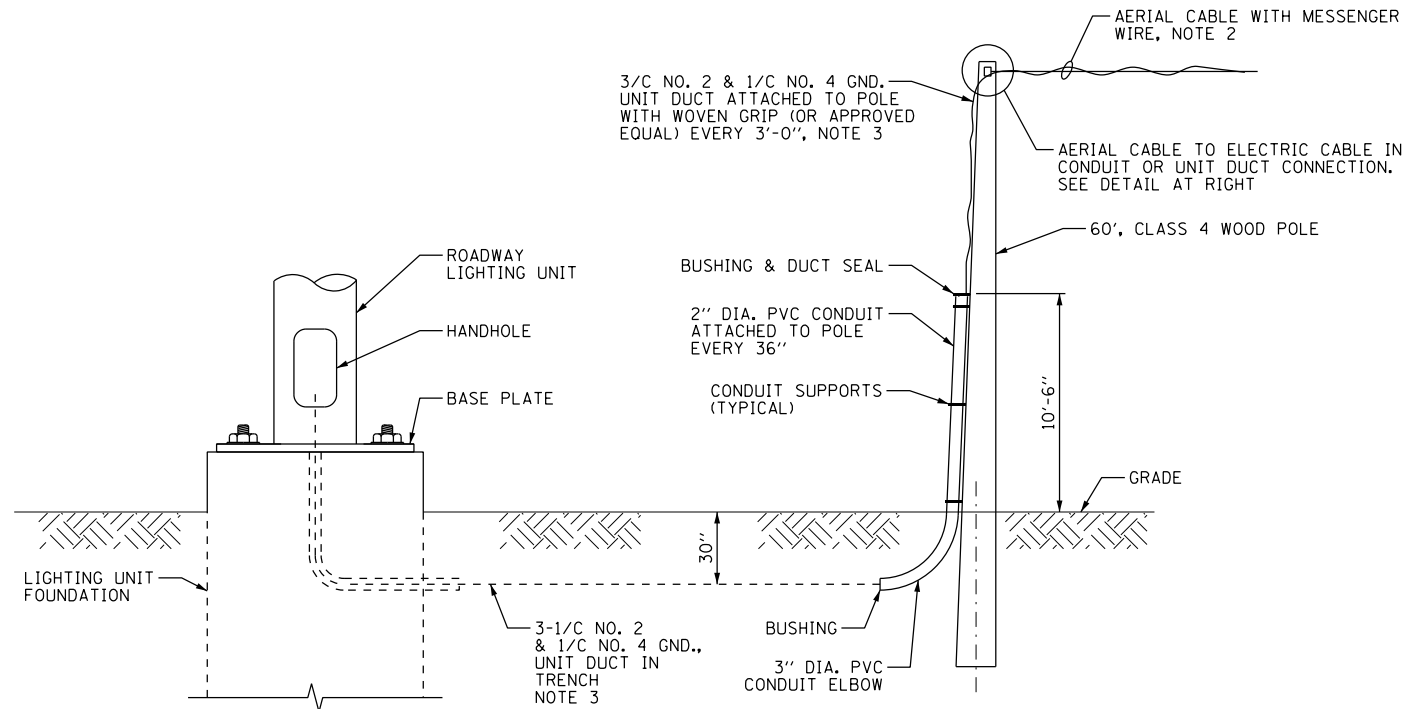
**URS**

FILE NAME = D160M62-SHT-E44.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US 45 (LaGRANGE ROAD) RETAINING WALL MOUNTED LIGHT POLE INSTALLATION DETAILS</b>	F.A.P. RTE. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 368	
SHT.PLAN	PLOT SCALE = 2.0000' / in.	CHECKED - DAD	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>E-44</b>		CONTRACT NO. 60M62
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT					

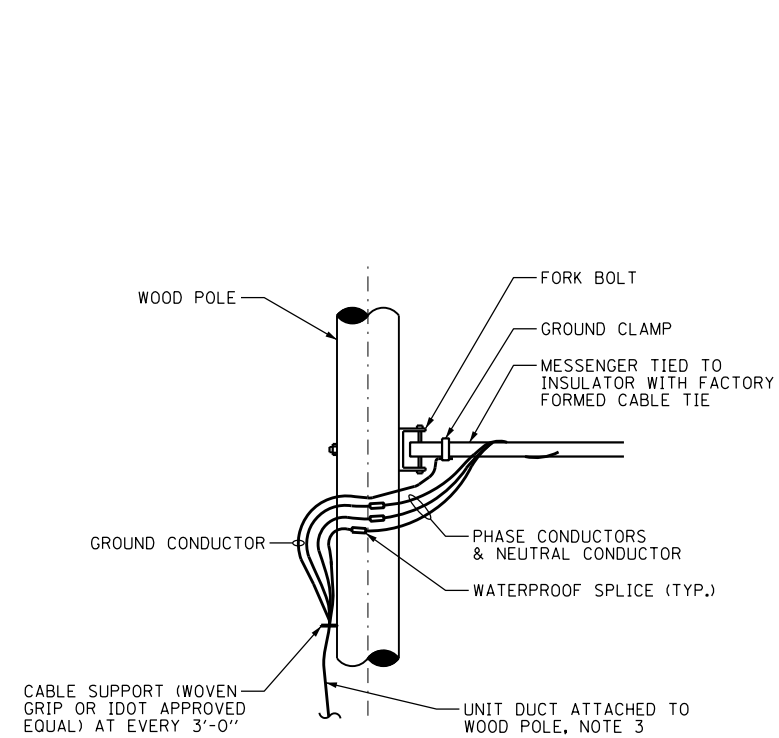


**NOTES:**

1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. AERIAL CABLE MUST HAVE A MINIMUM CLEARANCE OF 20'-0" TO GRADE AT ALL LOCATIONS.
3. CONTRACTOR HAS THE OPTION TO SUBSTITUTE THE UNIT DUCT WITH ELECTRIC CABLE IN CONDUIT. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR ANY ADDITIONAL MATERIALS AS A RESULT OF THIS SUBSTITUTION.



**WOOD POLE TO ROADWAY LIGHTING UNIT  
WIRING CONNECTION DETAIL**  
N.T.S.



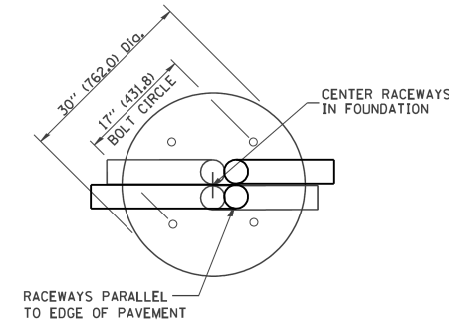
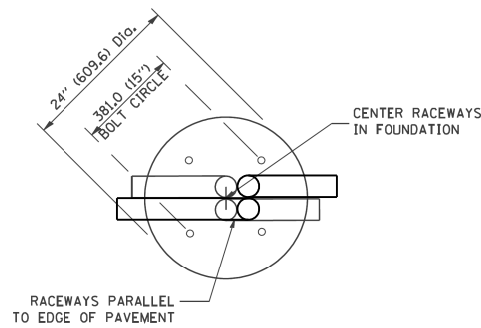
**AERIAL CABLE TO ELECTRIC  
CABLE ASSEMBLY CONNECTION DETAIL**  
N.T.S.

FILE NAME = D160M62-SHT-E45.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.0000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 369
<b>E-45</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**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 O <sub>u</sub> = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O <sub>u</sub> = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O <sub>u</sub> = 1.50 TON/SO. 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)	(2.74 m)

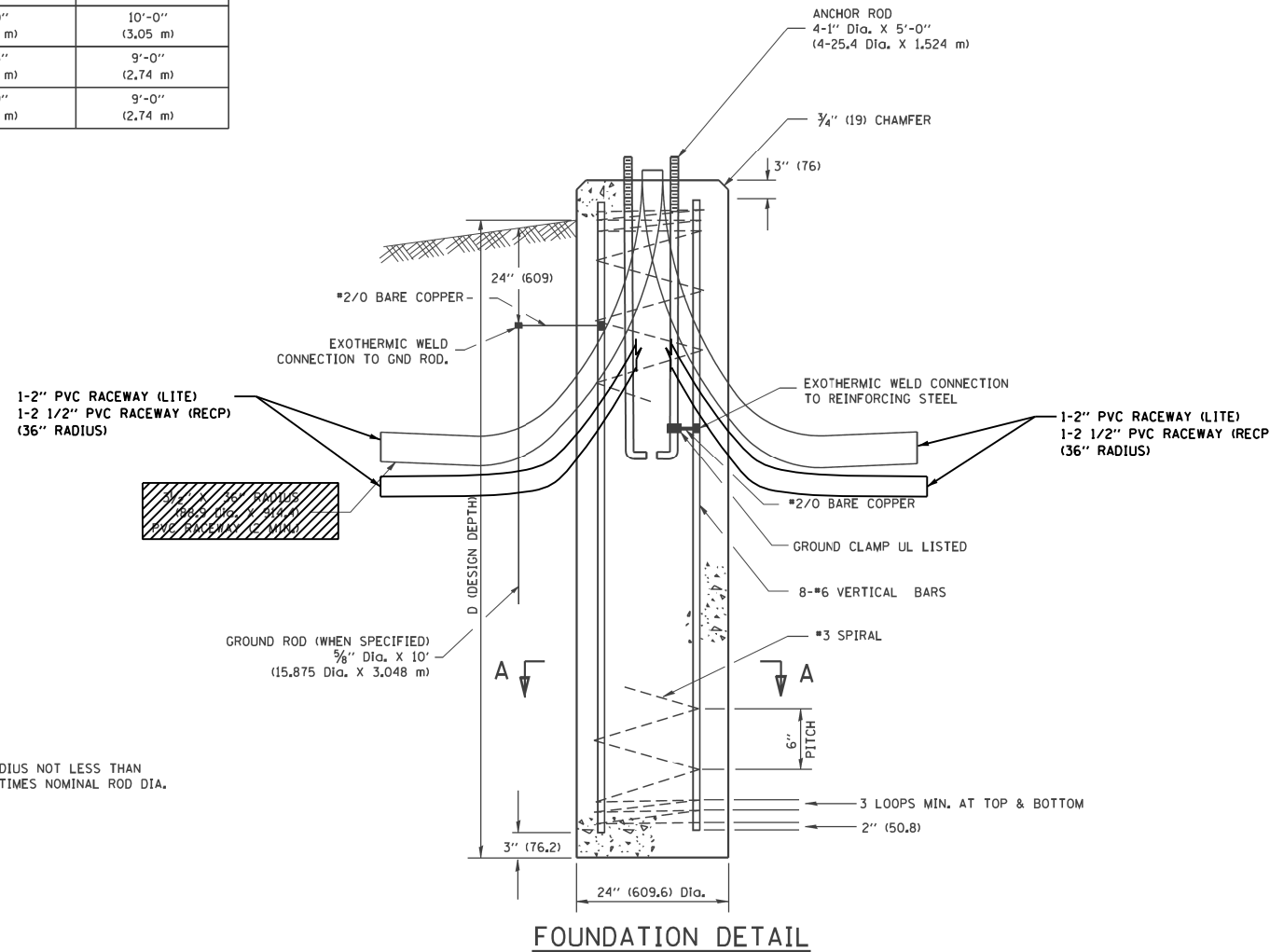


**TOP VIEW**

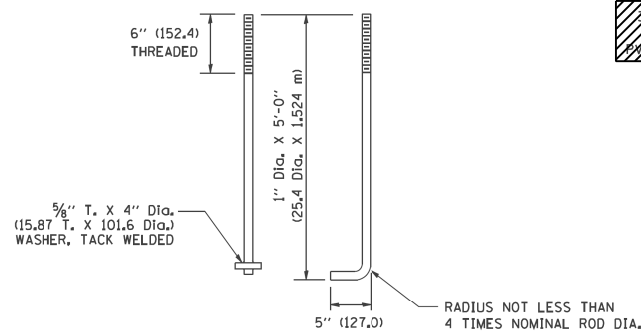
**TOP VIEW**

**NOTES**

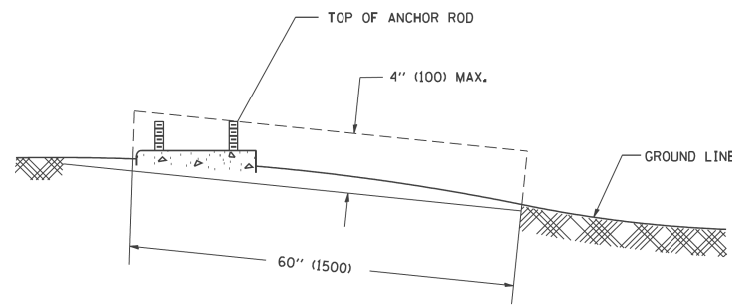
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, 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 UMG 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.
- CONTRACTOR MUST INSURE THAT THE SETBACK FROM THE BACK OF CURB TO CENTERLINE OF ALL FOUNDATIONS IS KEPT AT A MINIMUM OF 3'-0". CONTRACTOR MUST ALSO INSURE THAT 4'-0" OF MINIMUM SIDEWALK PAVEMENT WIDTH IS GIVEN WHEREVER A FOUNDATION IS WITHIN THE SIDEWALK OR PATH LIMITS PER A.D.A. REQUIREMENTS.



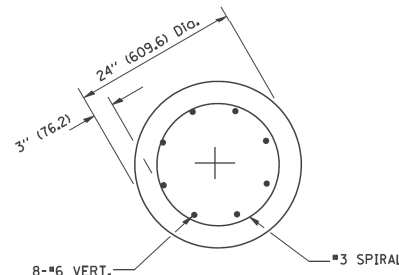
**FOUNDATION DETAIL**



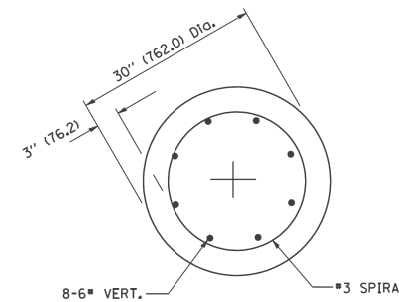
**ANCHOR ROD DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



**SECTION A-A**

FILE NAME = D160M62-SHT-E46.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
PLOT SCALE = 2.000000' / in.	CHECKED - DAD	DRAWN - WM	REVISED -
PLOT DATE = 3/13/2013	DATE - 03/13/13		REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	370
<b>E-46</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				

**POLE PART NUMBERS**

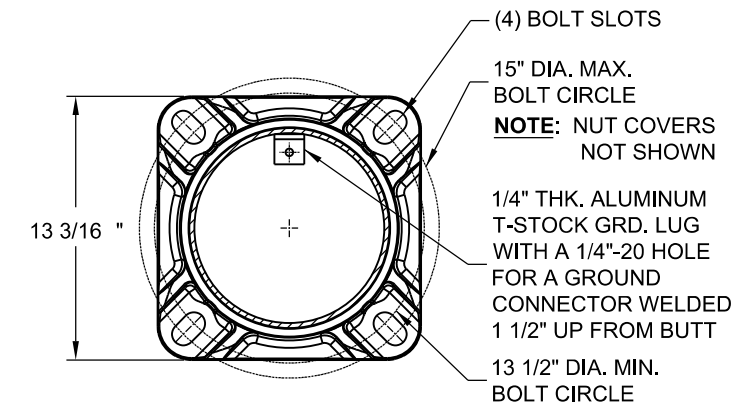
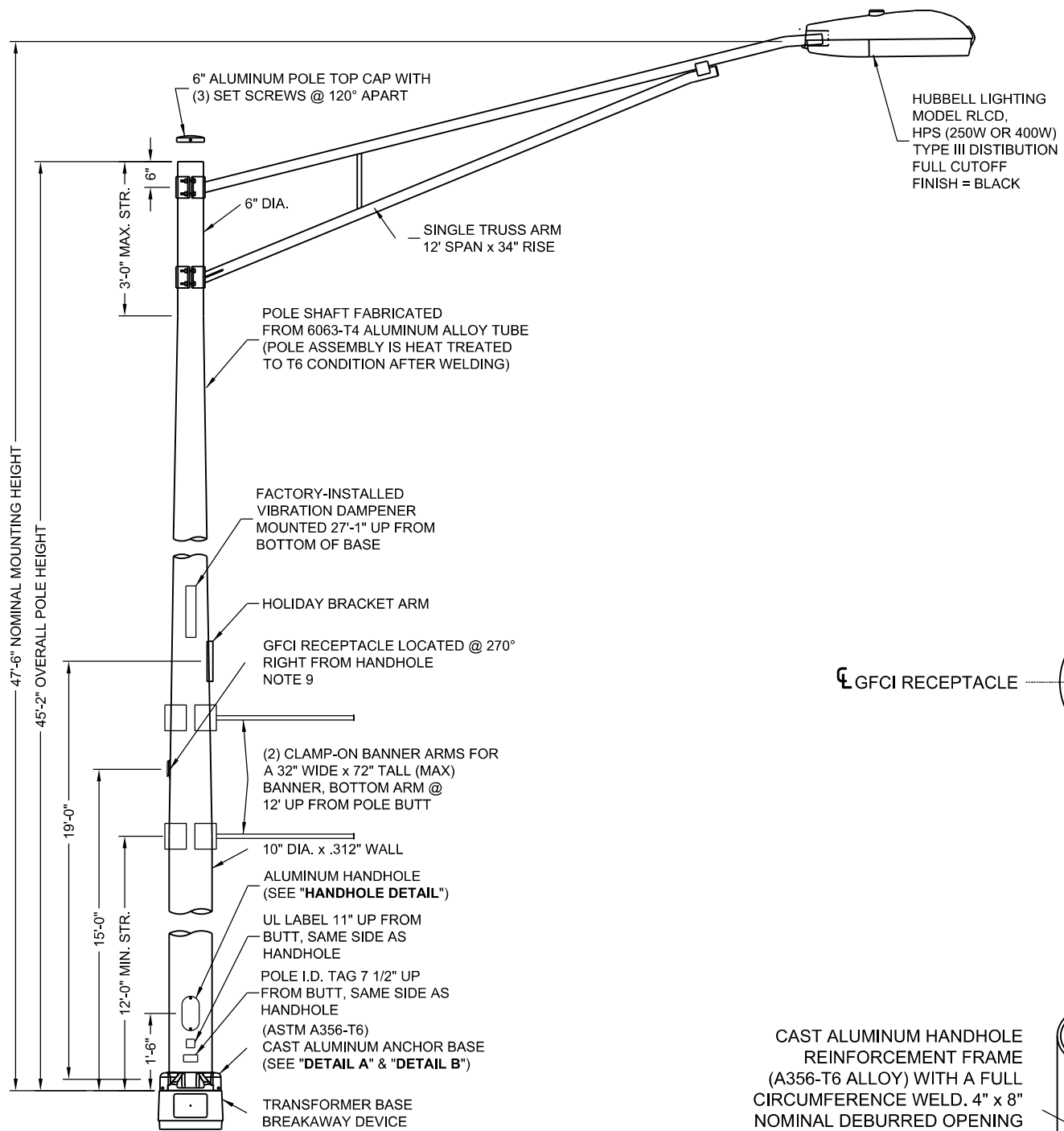
**LIGHT POLE:**  
VALMONT MODEL # 450260108T4C  
ALUMINUM ALLOY  
FINISH: POWDER BLACK DBL

**LUMINAIRE:**  
HUBBELL LIGHTING  
400 WATT LUMINAIRE: RLCD-40S38-032-1-2-5-F3-BLACK  
250 WATT LUMINAIRE: RLCD-25S38-032-1-2-5-F3-BLACK

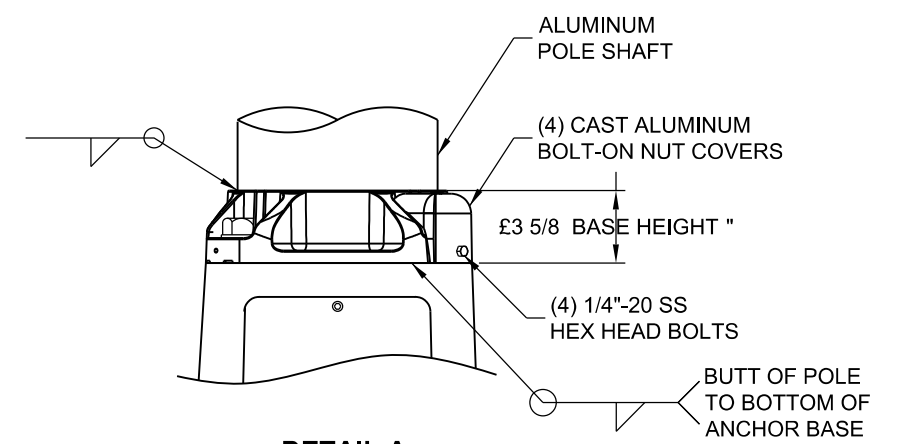
**TRANSFORMER BASE:**  
FINISH: POWDER BLACK DBL

**HOLIDAY BRACKET ARM SUPPLIER:**  
PERMALITES  
1305 SCHOOLHOUSE RD  
NEW LENOX, IL  
815-485-5530  
815-953-7116

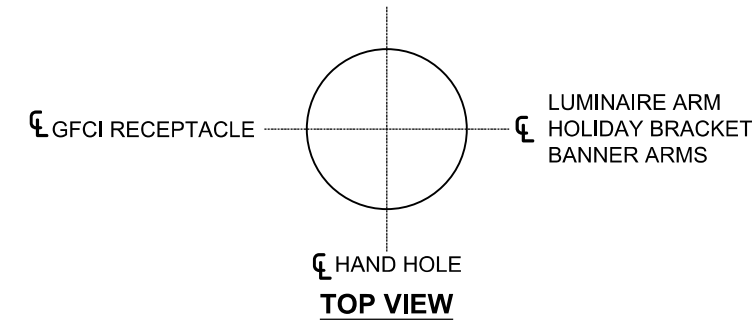
HUBBELL LIGHTING  
MODEL RLCD,  
HPS (250W OR 400W)  
TYPE III DISTRIBUTION  
FULL CUTOFF  
FINISH = BLACK



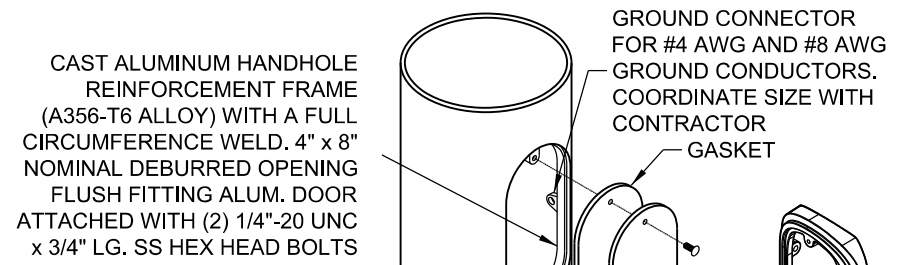
**DETAIL B**



**DETAIL A**



**TOP VIEW**



**HANDHOLE DETAIL**

**CAST ALUMINUM FRAME 4" x 8"**

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. TWO PIECE SHAFT WILL BE MATCHED, MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
  4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. CONTRACTOR SHALL COORDINATE LUGS WITH POLE MANUFACTURER FOR BONDING LUGS.
  6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.
  9. ALL PROPOSED LIGHTING UNITS SHALL HAVE A 20A, 120V, GFCI RECEPTACLE WITH IN-USE WEATHERPROOF RUGGED UV-RESISTANT POLYCARBONATE COVER INSTALLED ON BACK OF POLE AT 15'-0" ABOVE THE BASE OF POLE. RECEPTACLE AND BOX SHALL BE BLACK.
  10. CONTRACTOR MUST PROVIDE A BREAKAWAY DEVICE, TRANSFORMER BASE WITH 15" DIA. BOLT CIRCLE, FOR ALL PROPOSED LIGHTING UNITS. TRANSFORMER BASE SHALL BE INCLUDED IN PAY ITEM "LIGHT POLE SPECIAL".
  11. LIGHT POLE SHALL BE LISTED OR CLASSIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY SUCH AS UL, ETL, OR EQUIVALENT.
  12. CONTRACTOR MUST VERIFY ALL INFORMATION, PART NUMBERS, DIMENSIONS, MEASUREMENTS, AND COMPONENTS SHOWN ON THIS SHEET WITH THE VILLAGE OF ORLAND PARK PUBLIC WORKS DEPARTMENT AND THE EQUIPMENT MANUFACTURERS BEFORE ORDERING.

100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

**URS**

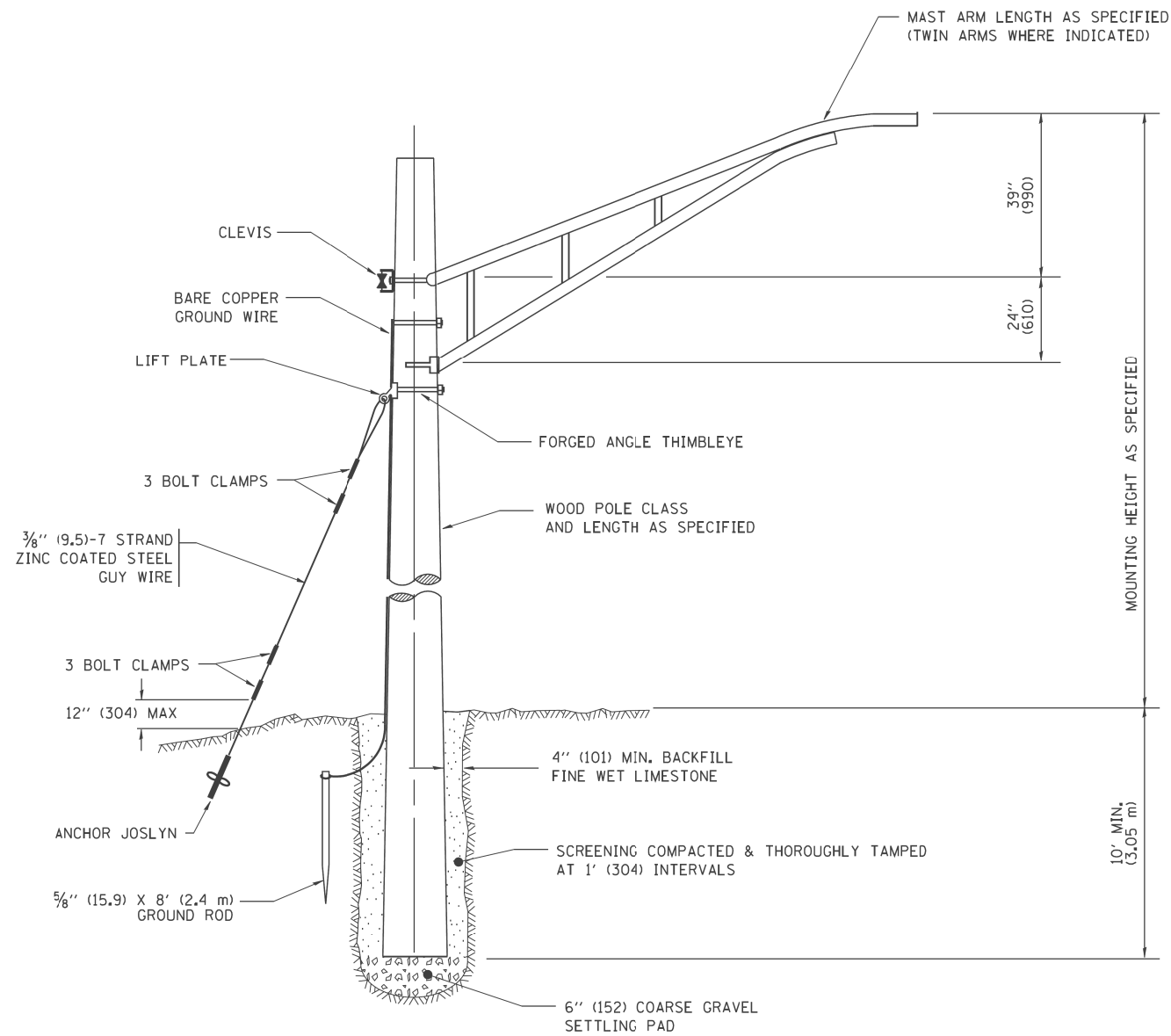
FILE NAME = D160M62-SHT-E47.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

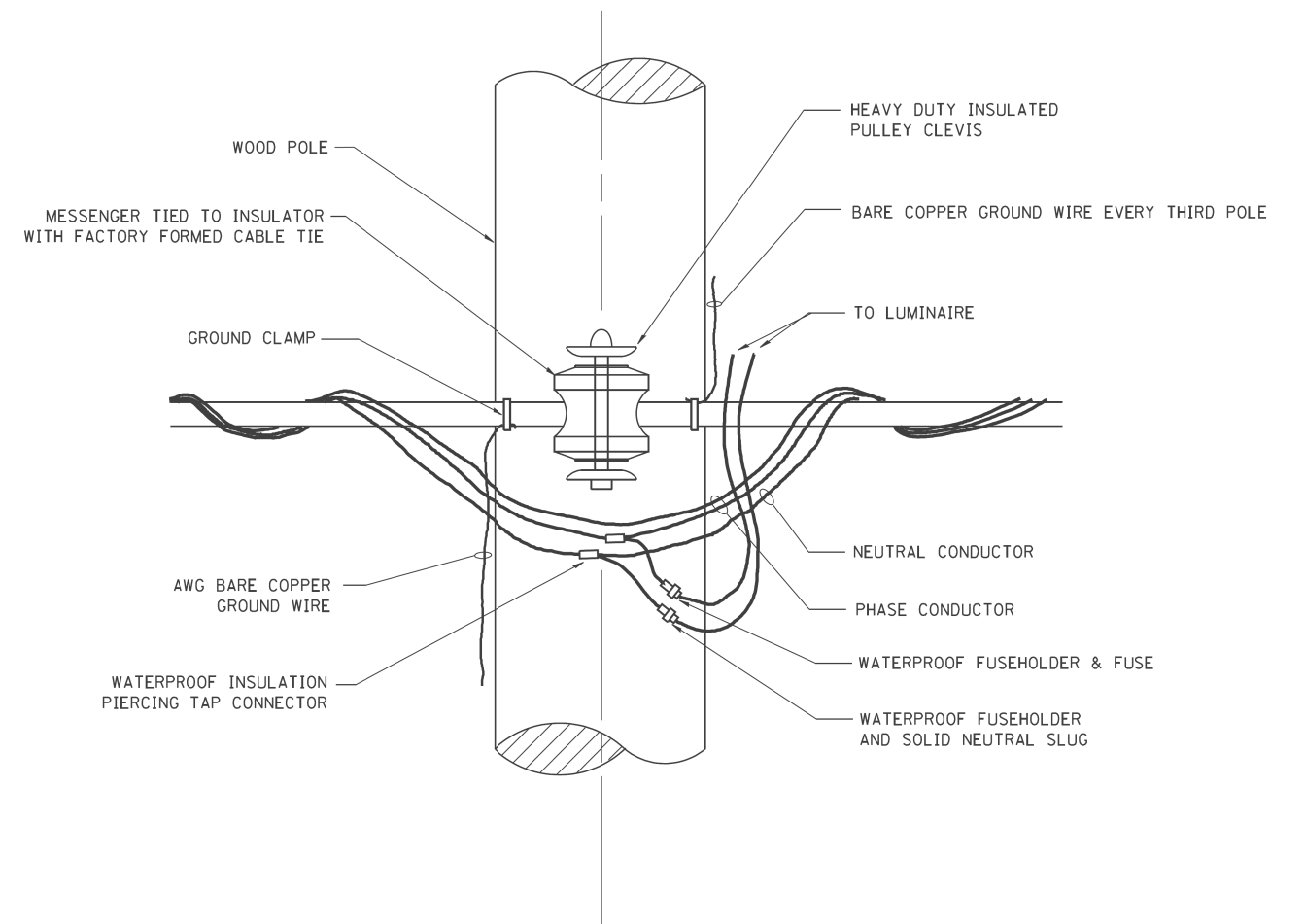
**US-45 (LaGRANGE ROAD)  
ALUMINUM LIGHT POLE, 47 1/2" (14.478 m) MOUNTING HEIGHT**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	371
<b>E-47</b>			<b>CONTRACT NO. 60M62</b>	
ILLINOIS FED. AID PROJECT				



TEMPORARY LIGHT POLE DETAIL



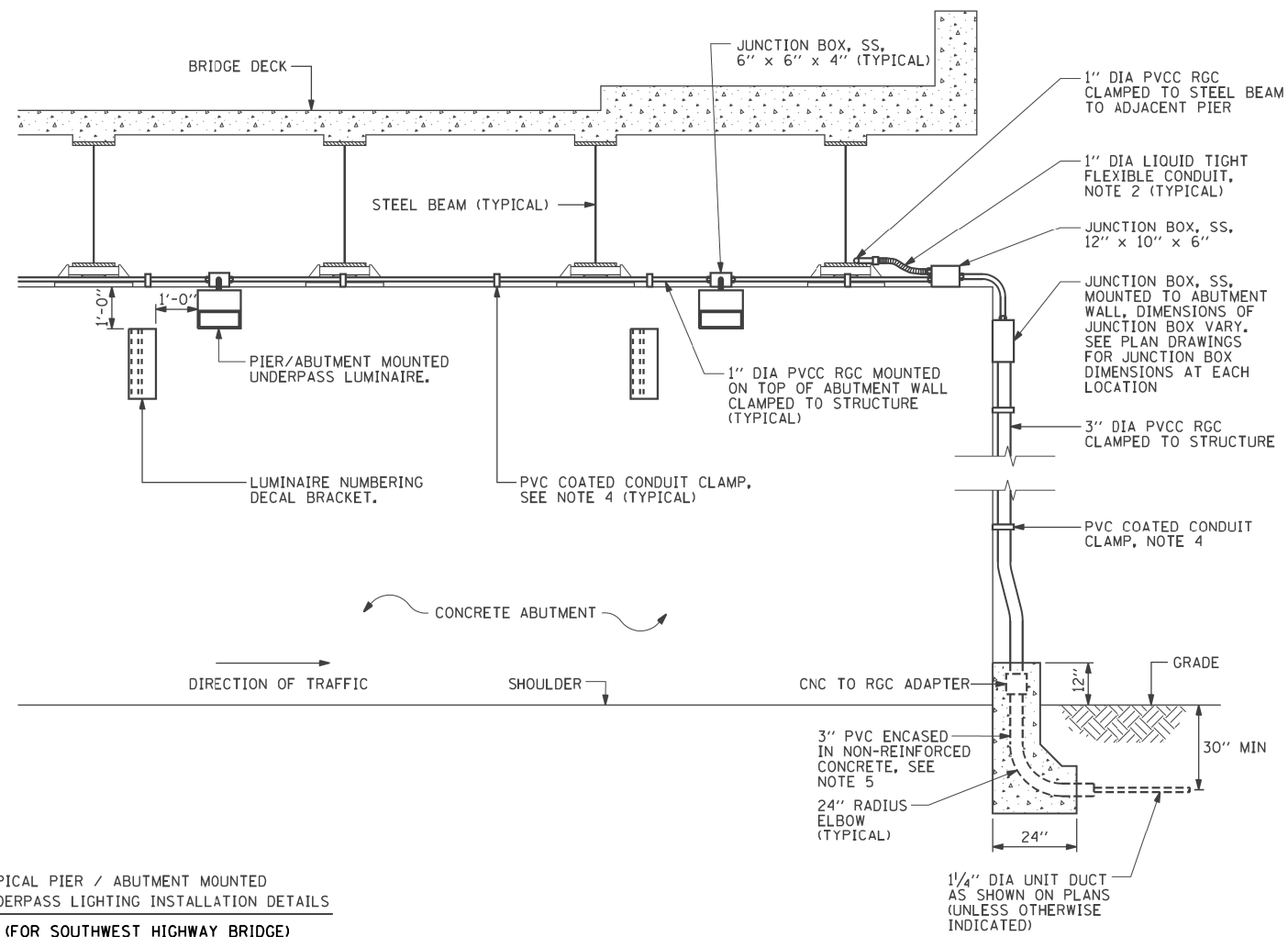
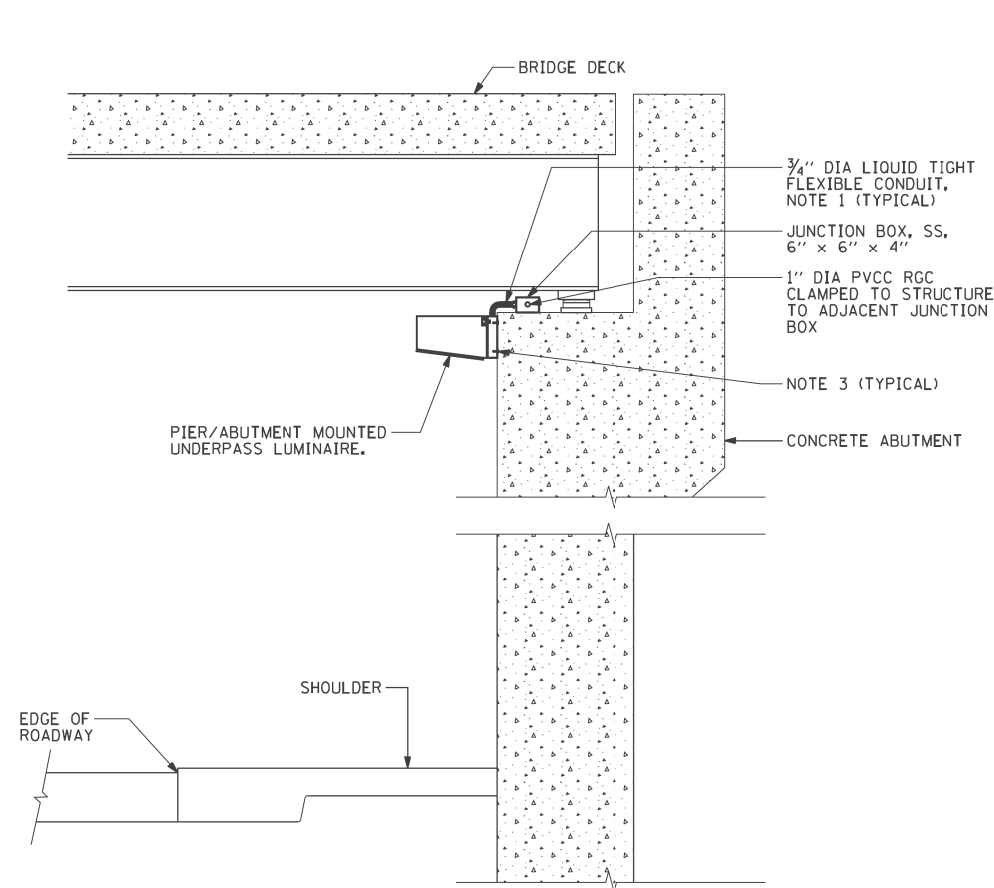
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

**NOTES:**

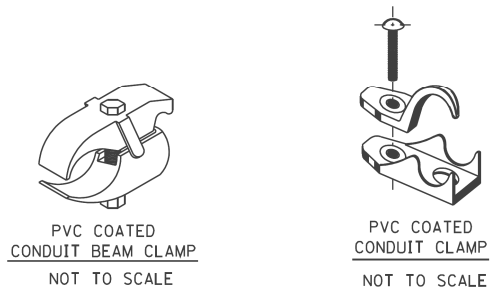
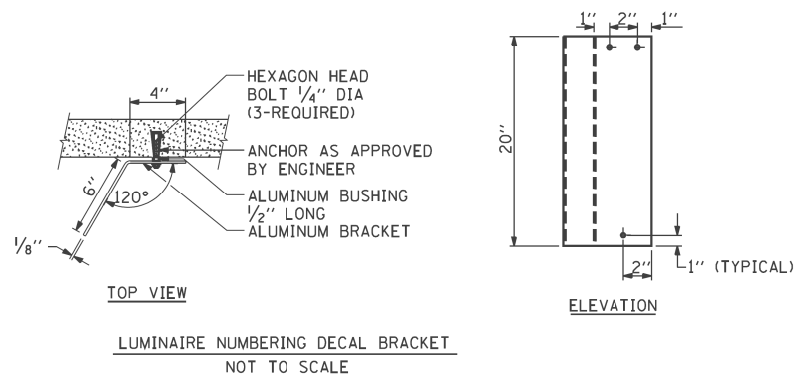
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

FILE NAME = D160M62-SHT-E48.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 372
<b>E-48</b>			CONTRACT NO. 60M62	
ILLINOIS FED. AID PROJECT				



TYPICAL PIER / ABUTMENT MOUNTED UNDERPASS LIGHTING INSTALLATION DETAILS (FOR SOUTHWEST HIGHWAY BRIDGE)



NOTES:

- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN, PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT THE COST OF THE 3/4" DIA. RIGID STEEL CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE LUMINAIRE INSTALLATION.
- UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
- EXPANSION ANCHOR, POWDER ACTUATED FASTENERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
- THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
- ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
D160M62-SHT-E49.dgn		DRAWN - WM	REVISED -
	PLOT SCALE = 2.0000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

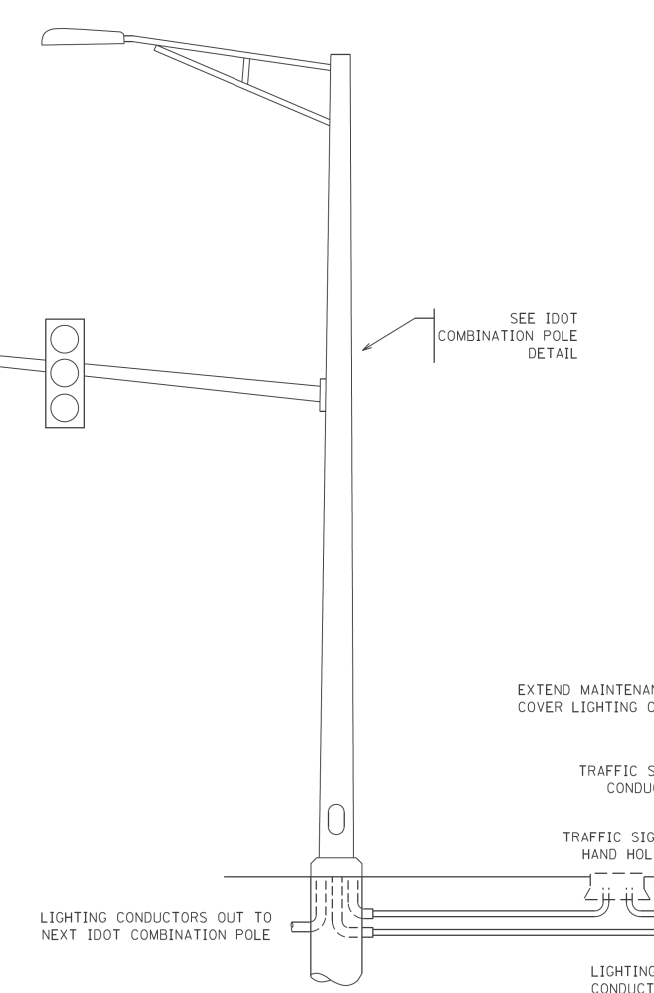
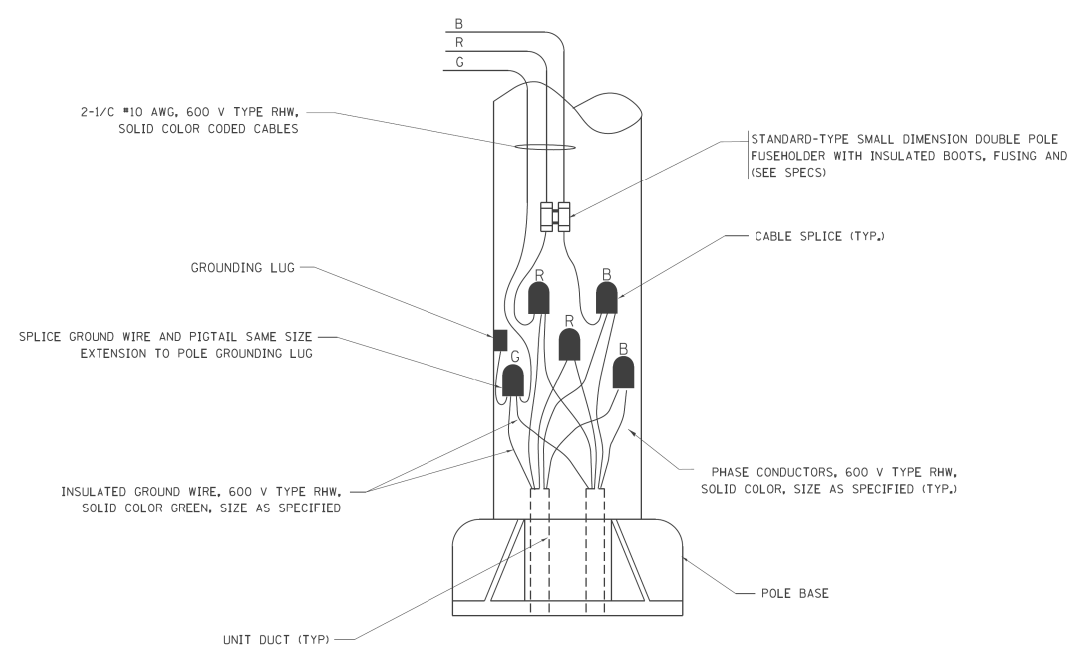
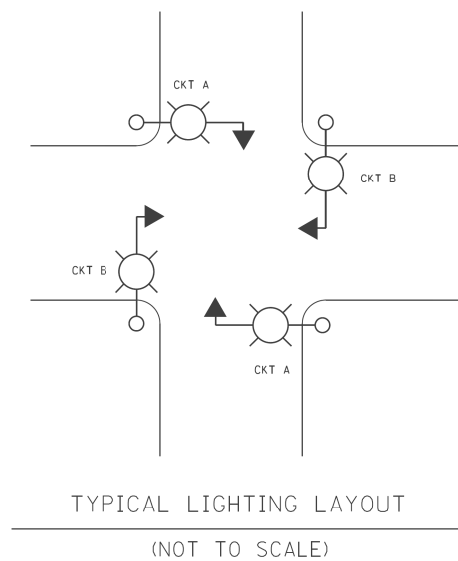
US-45 (LAGRANGE ROAD)  
PIER / ABUTMENT MOUNTED UNDERPASS  
LUMINAIRE INSTALLATION DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	373
E-49		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

PANEL EQUIPMENT

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
A	1	CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 2 POLE, 240 VOLT 100 AMP FRAME, 30 AMP TRIP, INTERRUPTING RATING 22K RMS SYMETRICALL AMP
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 30 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT.
C	2	CIRCUIT BREAKERS, 2 POLE, 100 AMP. FRAME 20 AMP. NON-INTERCHANGABLE TRIP INTERRUPTING RATING NEMA 10,000 AMP AT 240 V.
D	1	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 100 AMP FRAME, 15 AMP NON-INTERCHANGABLE TRIP, INTERRUPTING RATING 22K RMS SYMETRICAL AMP AT 240V.
E	1	ASTRONMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH]
F	1	H-O-A SWITCH
G	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
H	1	COPPER NEUTRAL BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
I	1	RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTACTOR
J	2	TERMINAL BLOCK

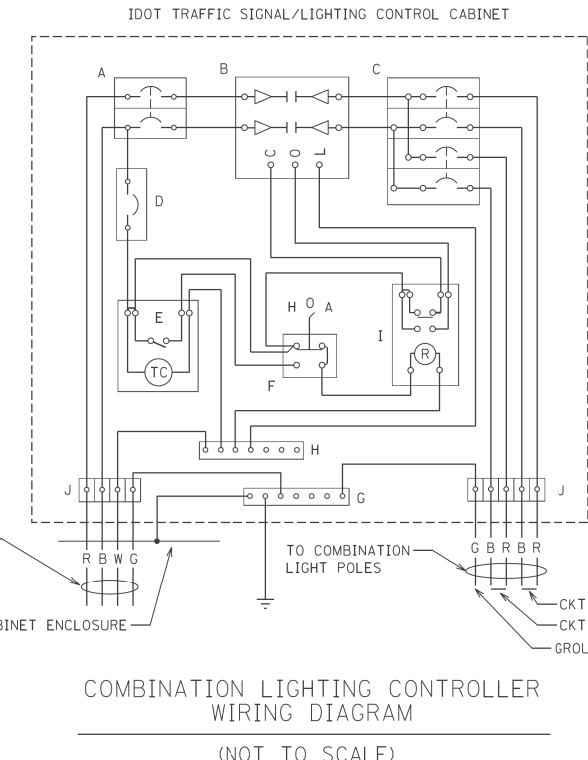


NOTES:

- ALL WIRING RELATED TO THE LIGHTING CONTROLS SHALL BE #10 AWG, 600V, TYPE SWITCH BOARD WIRE, STRANDED COPPER.
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE ENCLOSURE.
- ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED.
- ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY. UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED.
- THE COMBINATION POLE LIGHTING CABLING DETAIL IS INTENDED TO SHOW CONNECTIONS ONLY. FOR FURTHER INFORMATION ON THE COMBINATION LIGHT POLE, THE TRAFFIC SIGNAL CONTROL CABINET, AND THE SERVICE DISCONNECT BOX REFER TO THE RESPECTIVE DETAIL DRAWINGS.
- COMBINATION LIGHTING SHALL BE TIMED TO ENERGIZE 20 MINUTES PRIOR TO DUSK AND SHALL BE TIMED TO DE-ENERGIZE 20 MINUTES AFTER TO DAWN.
- COMBINATION LIGHTING CONTROLLER AND ALL COMBINATION POLES SHALL HAVE IDOT DESIGNATIONS AND IDOT LABELS. LIGHTING CONTROLLER DESIGNATIONS SHALL BE COORDINATED WITH THE BUREAU OF TRAFFIC - LIGHTING SECTION.

POLE WIRING DETAIL  
(NOT TO SCALE)

TYPICAL LIGHTING LAYOUT  
(NOT TO SCALE)



COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM  
(NOT TO SCALE)

COMBINATION POLE LIGHTING CABLING - TYPICAL  
(NOT TO SCALE)

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4198  
**URS**

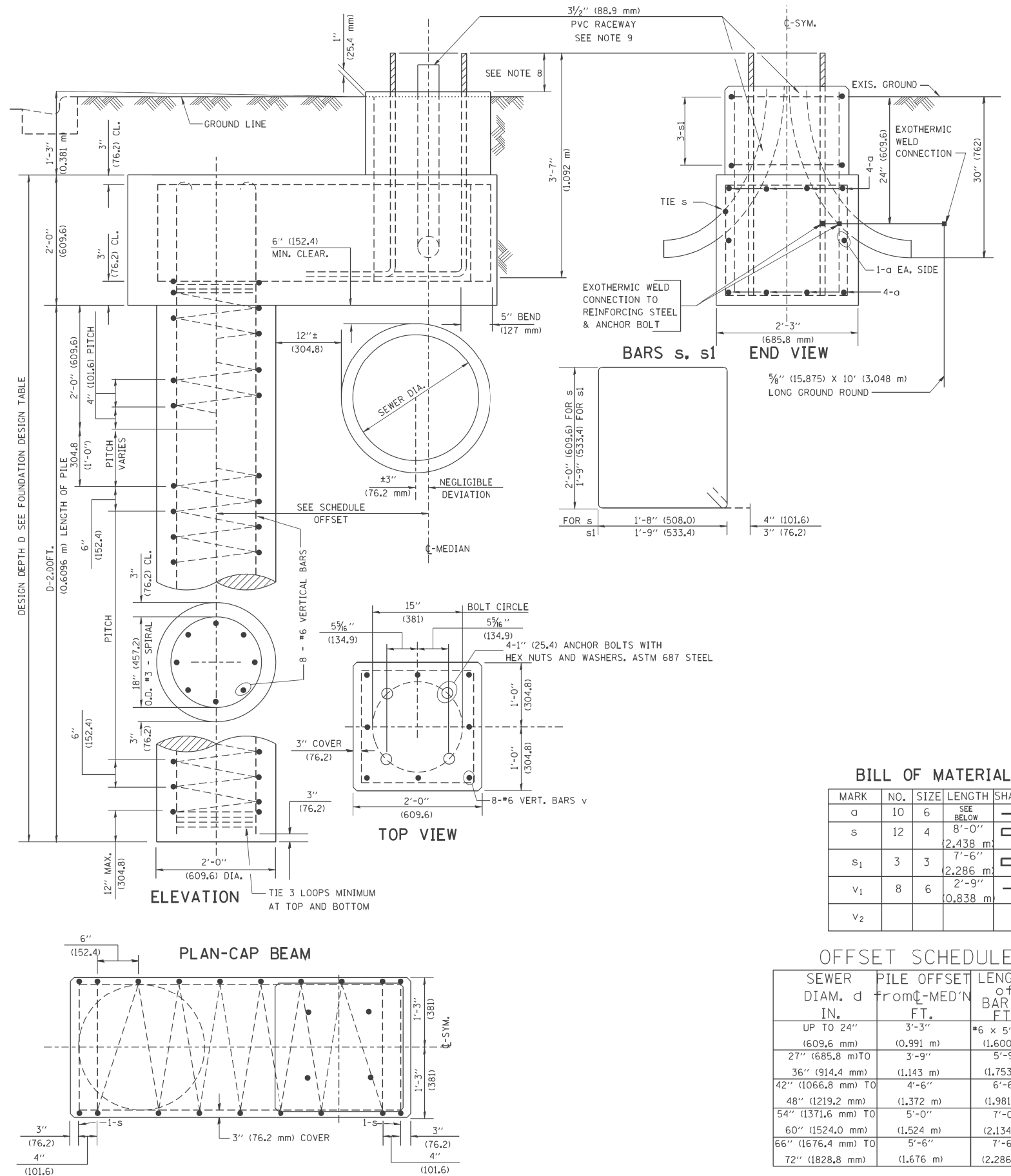
FILE NAME = D160M62-SHT-E50.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>US-45 (LaGRANGE ROAD) COMBINATION LIGHTING CONTROLLER</b>	F.A.P. RTE. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 374		
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>E-50</b>		CONTRACT NO. 60M62	
	PLOT DATE = 3/13/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT						

FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	#3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	#3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	#3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	#3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	#3X66' (20.112 m)	8-#6X7'-6" (2.286 m)	#3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	#3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	#3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	#3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- 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 BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- 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.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	#6	SEE BELOW	—
s	12	#3	8'-0" (2.438 m)	□
s <sub>1</sub>	3	#3	7'-6" (2.286 m)	□
v <sub>1</sub>	8	#6	2'-9" (0.838 m)	—
v <sub>2</sub>				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET FROM C-MED'N FT.	LENGTH OF BAR a FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	#6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9" (1.753 m)
36" (914.4 mm)	4'-6" (1.372 m)	6'-6" (1.981 m)
42" (1066.8 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
48" (1219.2 mm)	5'-6" (1.676 m)	7'-6" (2.286 m)
54" (1371.6 mm) TO	6'-0" (1.828 m)	
60" (1524.0 mm)		
66" (1676.4 mm) TO		
72" (1828.8 mm)		

URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
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FILE NAME = D160M62-SHT-E51.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / 1" IN.	DRAWN - WM	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION OFFSET  
40' (12.192 m) TO 47 12' (14.478m) M.H.  
15" (381 mm) BOLT CIRCLE

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

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 375
E-51		CONTRACT NO. 60M62		
ILLINOIS FED. AID PROJECT				

**INDEX OF SHEETS**

- 1 Key Plan & General Notes
- 2 Typical Sections & Details
- 3 Retaining Wall No. 1 - S.N. 016-Z053
- 4 Retaining Wall No. 2 - S.N. 016-Z054
- 5 Retaining Wall No. 3 - S.N. 016-Z055
- 6 Retaining Wall No. 4 - S.N. 016-Z056
- 7 Retaining Wall No. 5 - S.N. 016-Z057
- 8 Retaining Wall No. 6 - S.N. 016-Z058
- 9 Retaining Wall No. 7 - S.N. 016-Z059
- 10 Retaining Wall No. 8 - S.N. 016-Z060
- 11-18 Soil Boring Logs

Note:  
For structure numbers 016-Z002 thru 016-Z007 see respective wall sheets following miscellaneous walls.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges

**DESIGN STRESSES**

**FIELD UNITS**

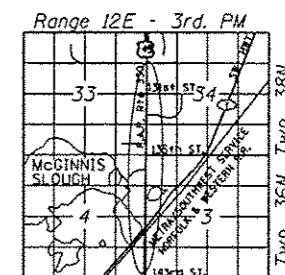
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (ASTM A572 Grade 50 Sheet Piling)

**WALL TYPES**

CIP = Cast-in-place  
 Sht. Pile = Permanent Sheet Piling with concrete facing/cap  
 Block = Segmental concrete block wall

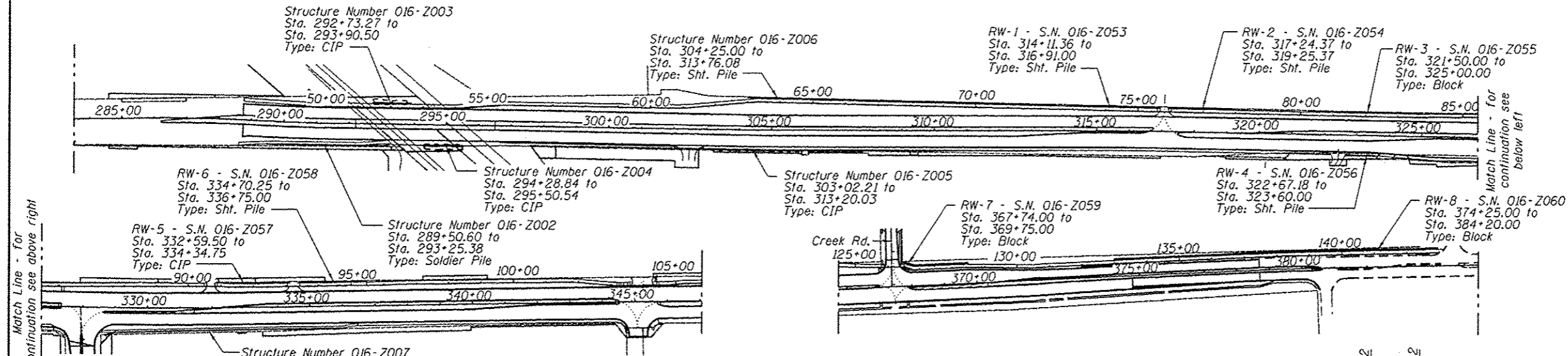
**EXISTING UTILITY LEGEND**

- A — Aerial Lines
- CTV — Cable TV
- E — Electric
- FO — Fiber Optic
- G — Gas
- S — Sanitary Sewer
- T — Telephone
- W — Water



**LOCATION SKETCH**

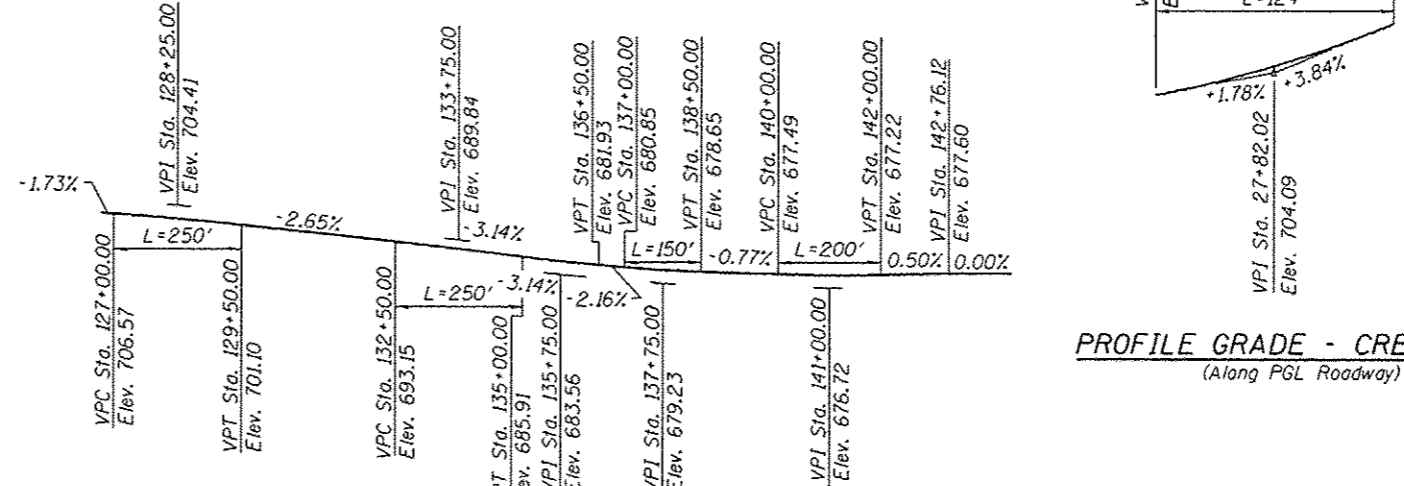
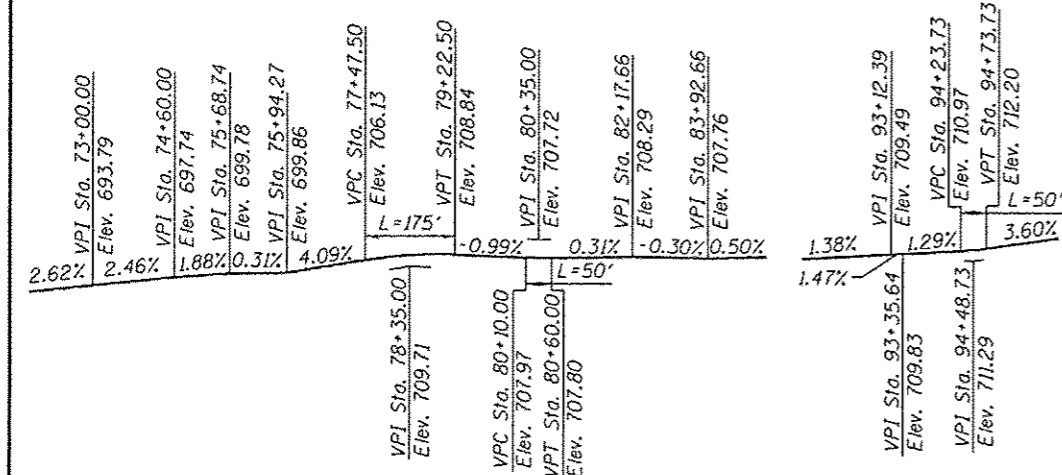
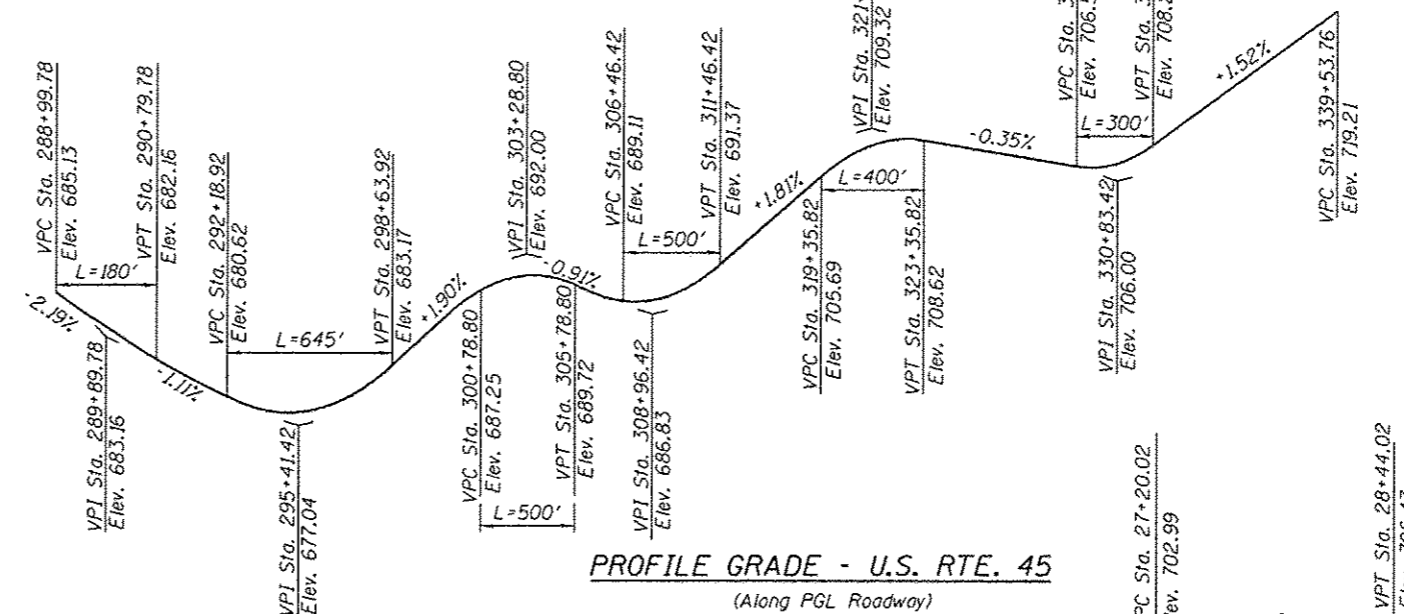
**KEY PLAN & GENERAL NOTES**  
**U.S. ROUTE 45 - LAGRANGE ROAD**  
**FAP RTE. 330 - SEC 103R-5**  
**COOK COUNTY**



**GENERAL NOTES**

- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor shall use care when excavating around existing foundations and utilities. Any damage caused to existing facilities shall be repaired or replaced at the Contractor's expense.
- See individual wall sheets for maximum applied bearing pressure for each Cast-In-Place wall.
- Contractor to coordinate finished appearance of Form Liner and Segmental Concrete Block Wall.
- The form liner shall be a random Ashlar blend pattern consisting of the following block sizes:
  1. 28% - 4"x18"
  2. 16% - 8"x8"
  3. 28% - 8"x11"
  4. 28% - 8"x18"

*Arsalan M. Khan*  
 ARSALAN M. KHAN, S.E.  
 LICENSE NO.: 081-006258  
 EXPIRES: NOVEMBER 30, 2014  
 DATE: 03-13-2013

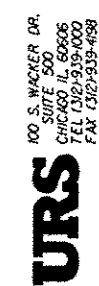


**PROFILE GRADE - MULTI-USE PATH**  
 (Along PGL Path)  
 (Retaining Walls 1 thru 4)

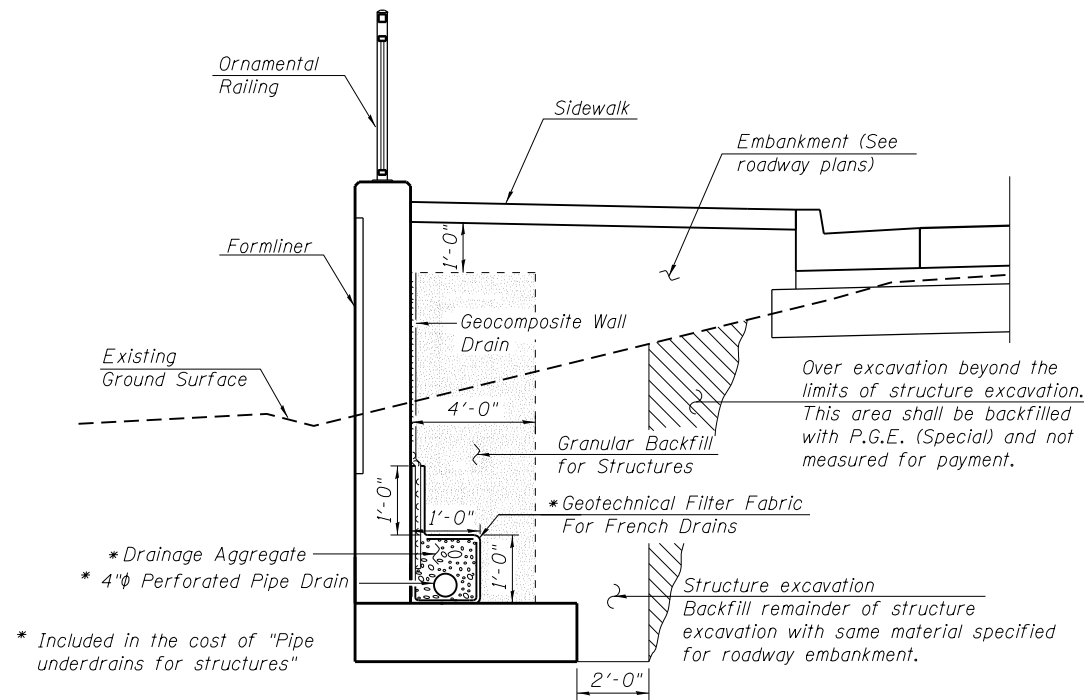
**PROFILE GRADE - MULTI-USE PATH**  
 (Along PGL Path)  
 (Retaining Walls 5 & 6)

**PROFILE GRADE - MULTI-USE PATH**  
 (Along PGL Path)  
 (Retaining Walls 7 & 8)

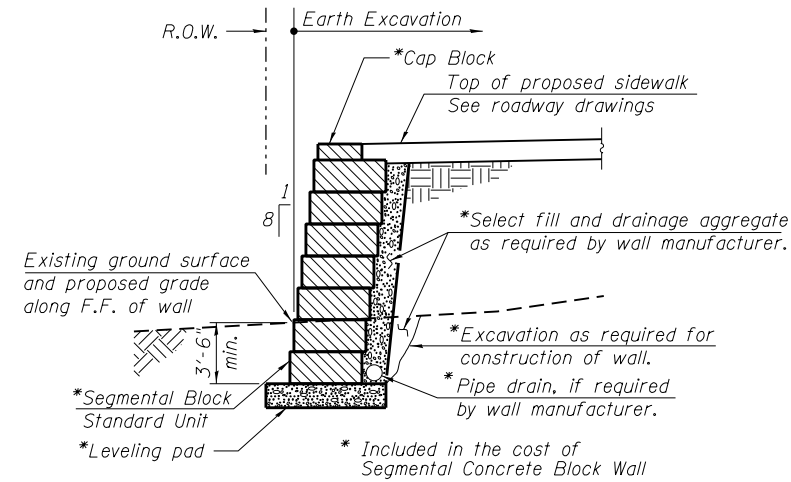
FILE NAME : 0160462-SHT-WALLS GENERAL NOTES.dgn	USER NAME : Kyle.Pearl	DESIGNED - M.J.L.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 376
PLOT SCALE = 375.00' / in.	DRAWN - M.J.L.	CHECKED - P.M.H.	REVISED -		CONTRACT NO. 60M62				
PLOT DATE = 3/15/2013	CHECKED - P.M.H.	REVISED -	REVISED -		SHEET NO. 1 OF 18 SHEETS				
					ILLINOIS FED. AID PROJECT				





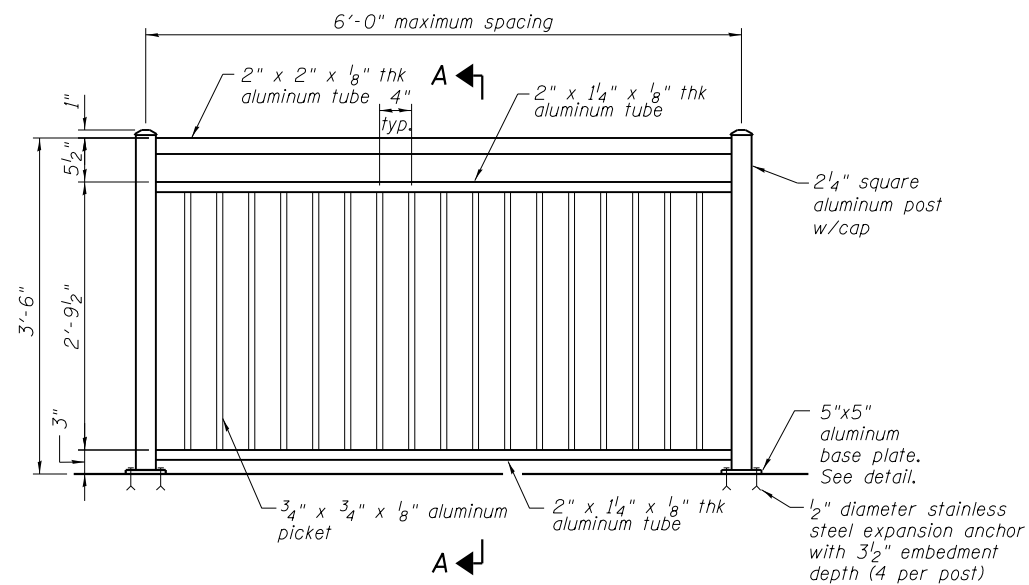


TYPICAL SECTION THRU C.I.P. WALL

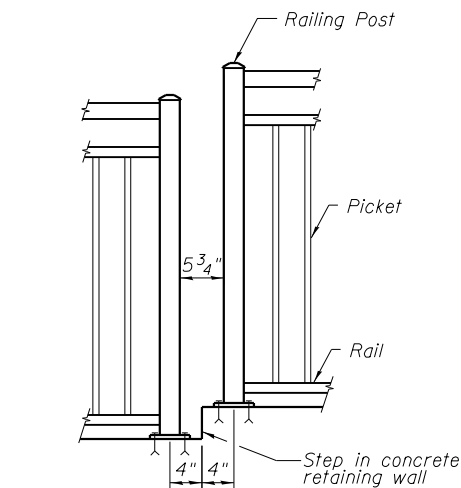
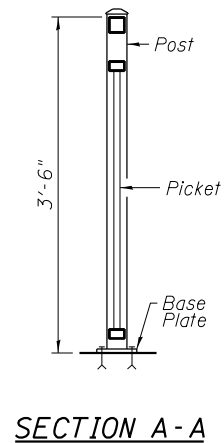


Note: Due to R.O.W. constraints, wall system cannot have soil reinforcement.

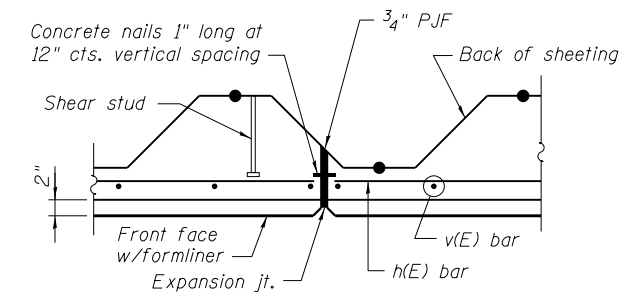
TYPICAL SECTION THRU SEGMENTAL BLOCK WALL



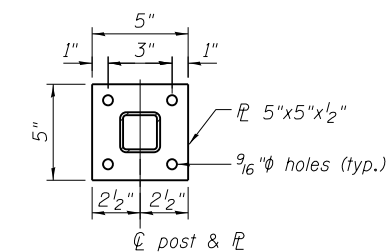
TYPICAL ORNAMENTAL RAILING



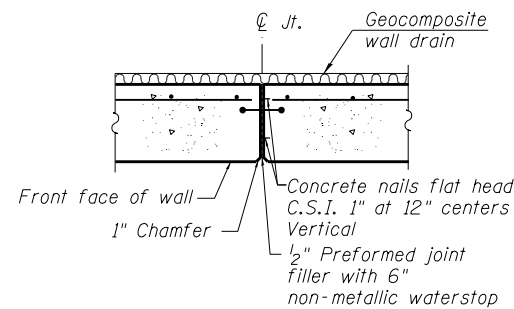
TYPICAL DETAIL AT STEP IN WALL



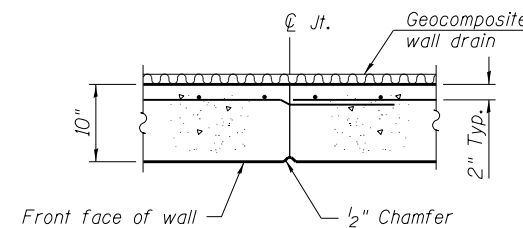
PLAN SECTION THROUGH SHEET PILE WALL AT EXPANSION JOINT



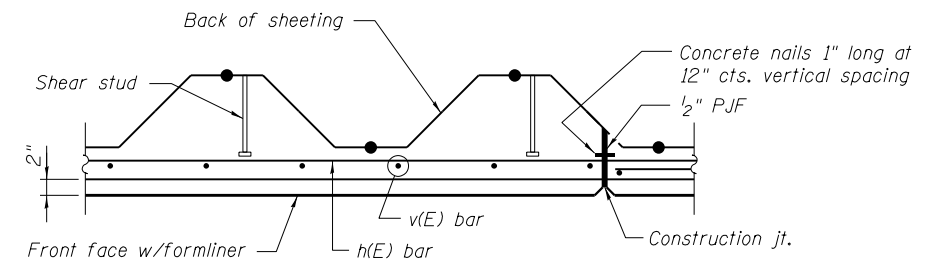
BASE PLATE DETAIL



EXPANSION JOINT DETAILS



CONSTRUCTION JOINT DETAILS

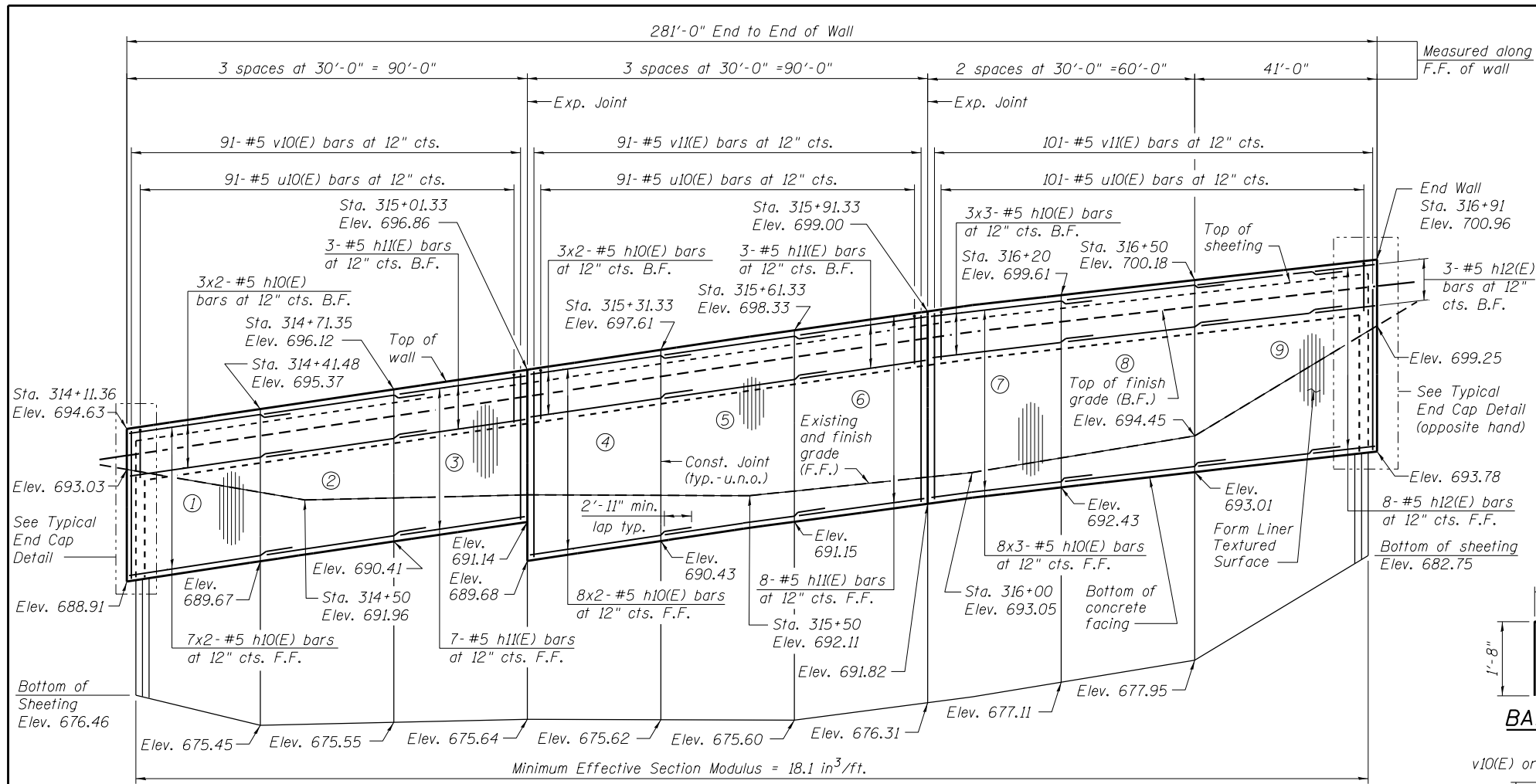


PLAN SECTION THROUGH SHEET PILE WALL AT CONSTRUCTION JOINT

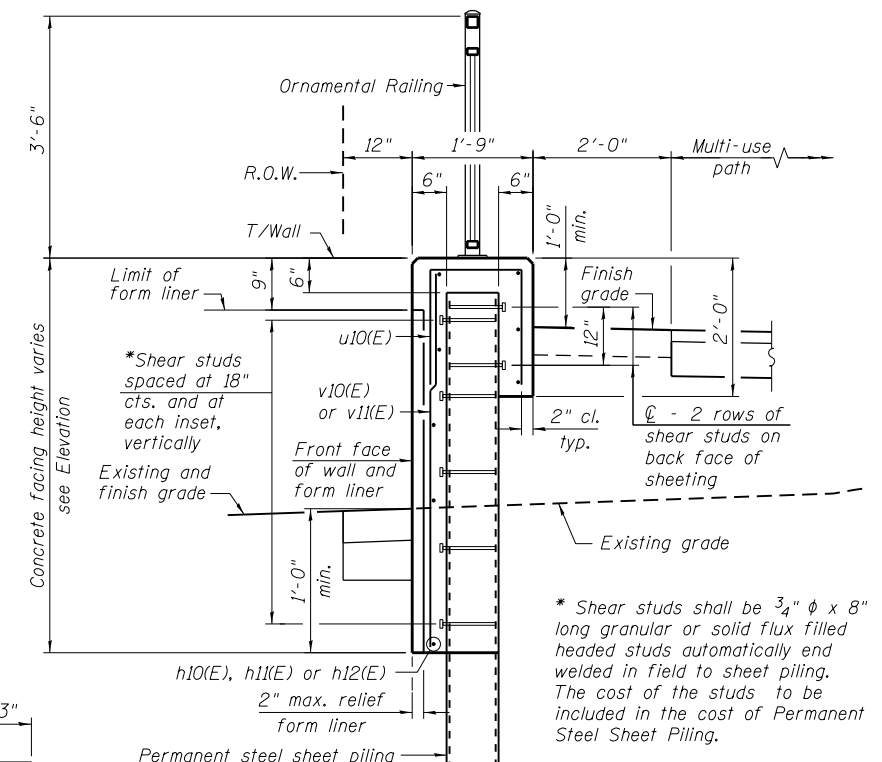
Note:  
All outlets for drainage system components shall be determined in the field by the contractor and approved by the Engineer. They shall either extend 2'-0" from the end of each wall, extend until intersecting with the side slopes or outlet through a core drilled hole at low point of wall. The pipes shall drain into concrete headwalls if extended to side slopes. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Cost of outlets included in the cost of pipe underdrains for structures.

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
D160M62-SHT-Wall_Details.dgn		CHECKED -	REVISED -
	PLOT SCALE = 2:8.0000 1' = 1 in.	DRAWN -	REVISED -
	PLOT DATE = 3/13/2013	CHECKED -	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	377
CONTRACT NO. 60M62				
ILLINOIS FED. AID PROJECT				

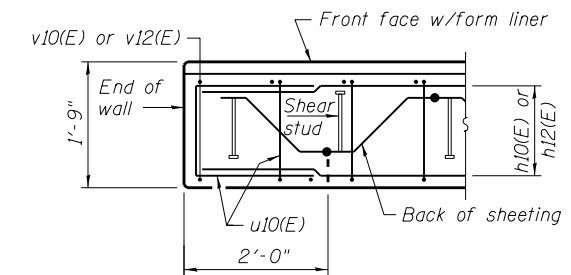


**ELEVATION**  
(Looking West - F.F. of wall shown)

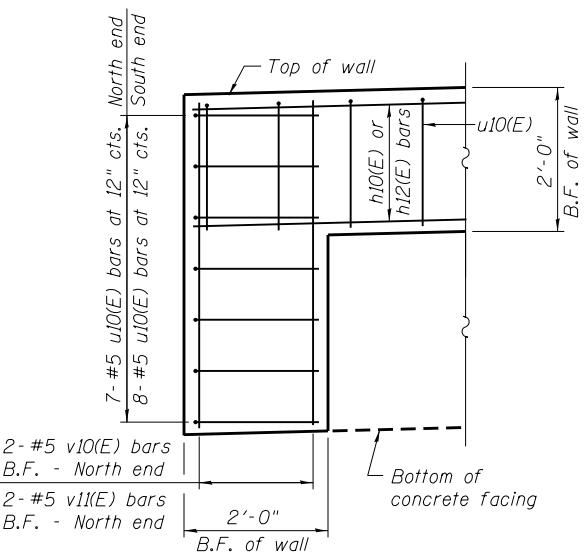


**TYPICAL SECTION THROUGH WALL**

**BAR u10(E)**



**PLAN AT END OF WALL**



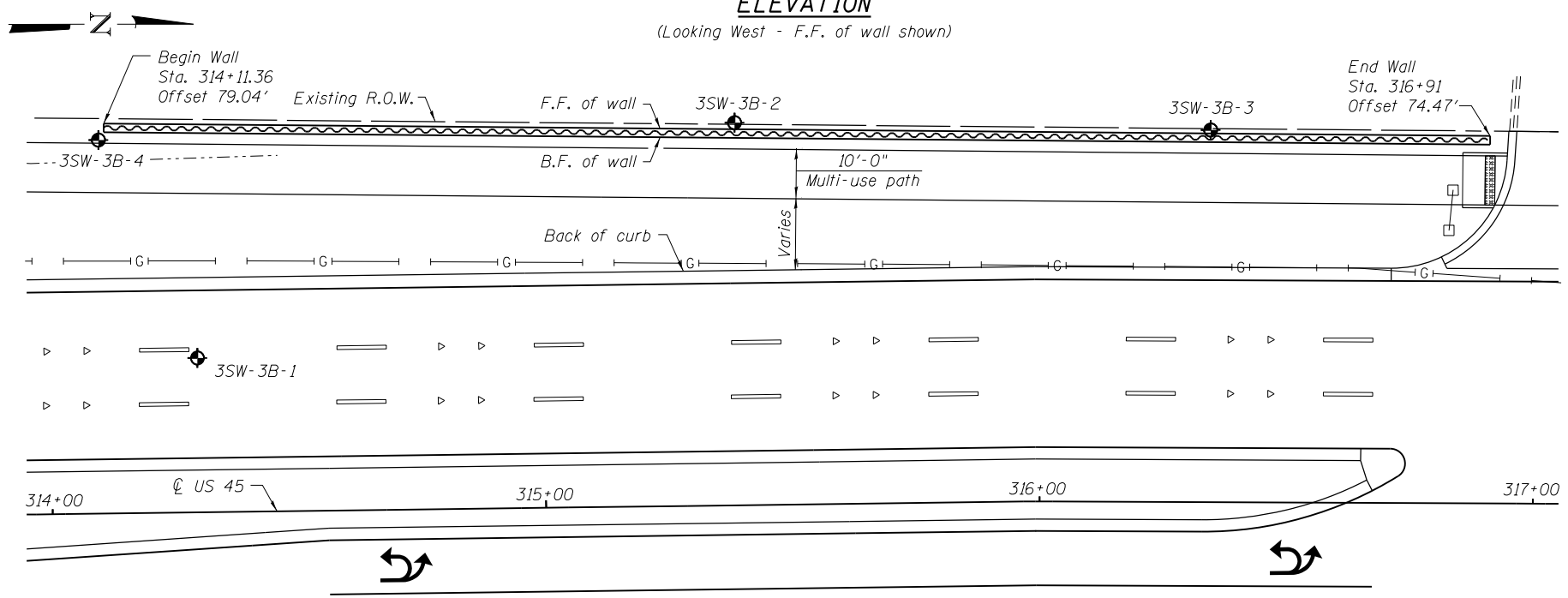
**TYPICAL END CAP DETAIL**  
(v(E) bars in F.F. not shown for clarity)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h10(E)	75	#5	33'-8"	—
h11(E)	21	#5	29'-8"	—
h12(E)	11	#5	10'-10"	—
v10(E)	93	#5	5'-5"	—
v11(E)	194	#5	6'-10"	—
u10(E)	296	#5	4'-7"	□
Structure Excavation		Cu. Yd.	75	
Concrete Structures		Cu. Yd.	98.1	
Form Liner Textured Surface		Sq. Ft.	1,675	
Reinforcement Bars, Epoxy Coated		Pound	6,740	
Permanent Sheet Piling		Sq. Ft.	5,844	
Ornamental Railing		Foot	281	

Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

**NOTES:**  
 Wall stations, offsets and dimensions are measured at front face of wall.  
 All exposed corners shall have a 1" chamfer.  
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.  
 For Typical Wall Details and Ornamental Railing see Sheet 2.  
 The details for the concrete cap, reinforcement and required number of shear stud connectors are based on Section AZ 18 sheet piling. If the Contractor chooses to use any other section, then the Contractor shall submit revised concrete cap and reinforcement configuration for approval by the Engineer. Such changes shall not be cause for additional compensation.



**PLAN**

**BAR LAPS**

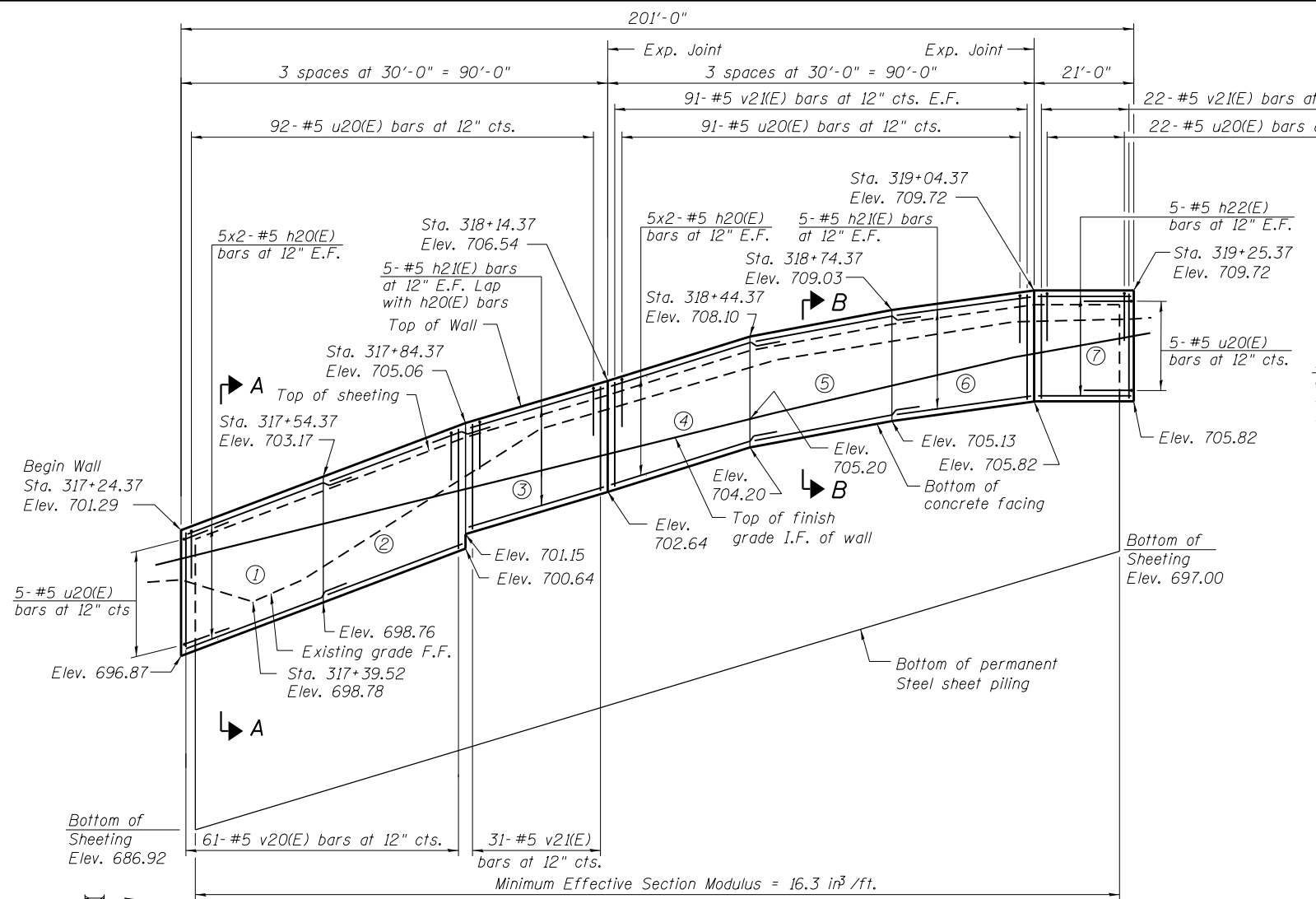
Basic Lap #5 bars - 2'-7"  
 Top Bar Lap #5 bars - 2'-11"

**LEGEND:**  
 ① - Panel number  
 ◆ - Soil Boring  
 F.F. - Front Face  
 B.F. - Back Face  
 E.F. - Each Face

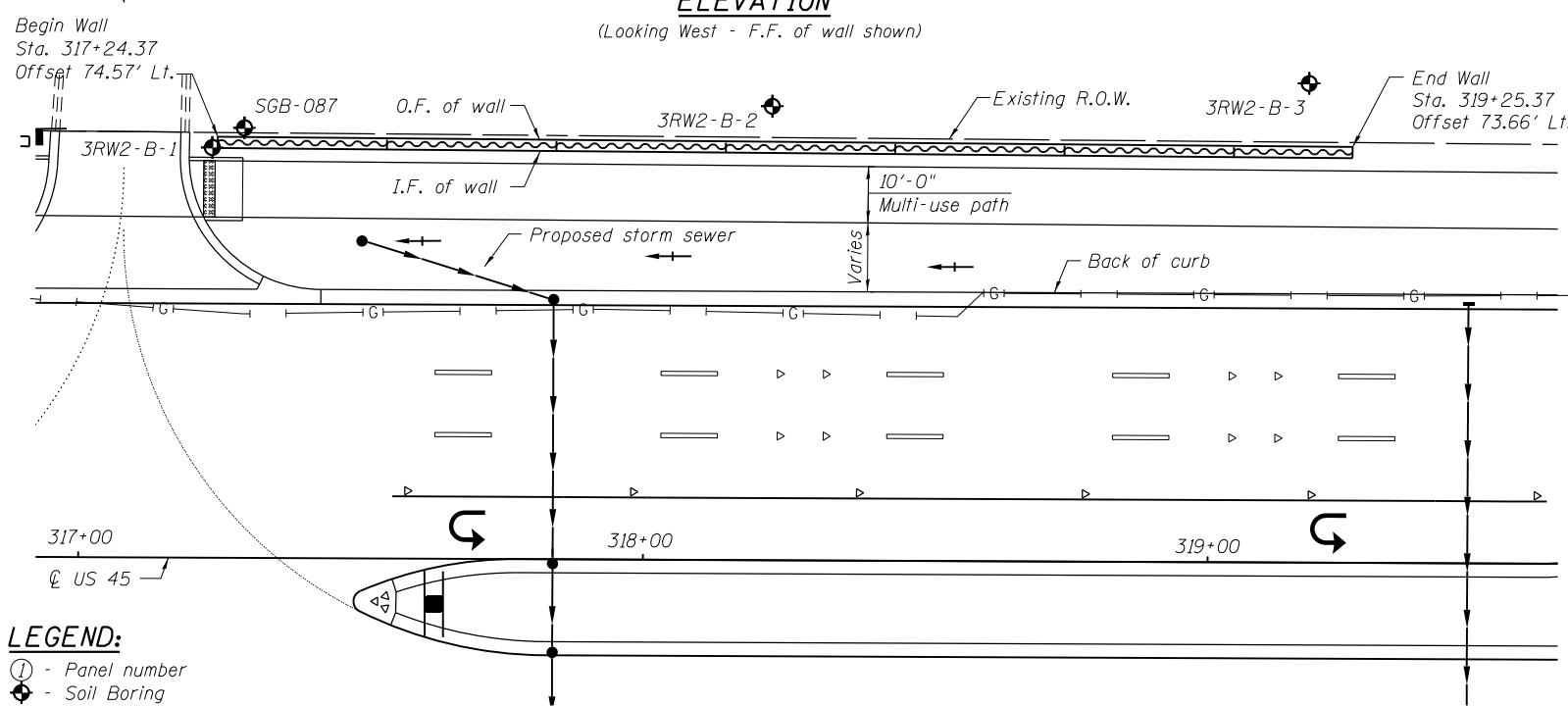
100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998



FILE NAME = D:\60M62-SHT-Wall.01.dgn	USER NAME = Anthony-Plutz	DESIGNED - RJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RETAINING WALL NO. 1 - S.N. 016-Z053 STATION 314 + 11.36 TO 316 + 91.00</b>	F.A.P. R.T.E. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 378	
	PLOT SCALE = 3/32" = 1' / 1/8" IN.	DRAWN - RJ/AMV	REVISED -			CONTRACT NO. 60M62					
	PLOT DATE = 3/13/2013	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. 3 OF 18 SHEETS					

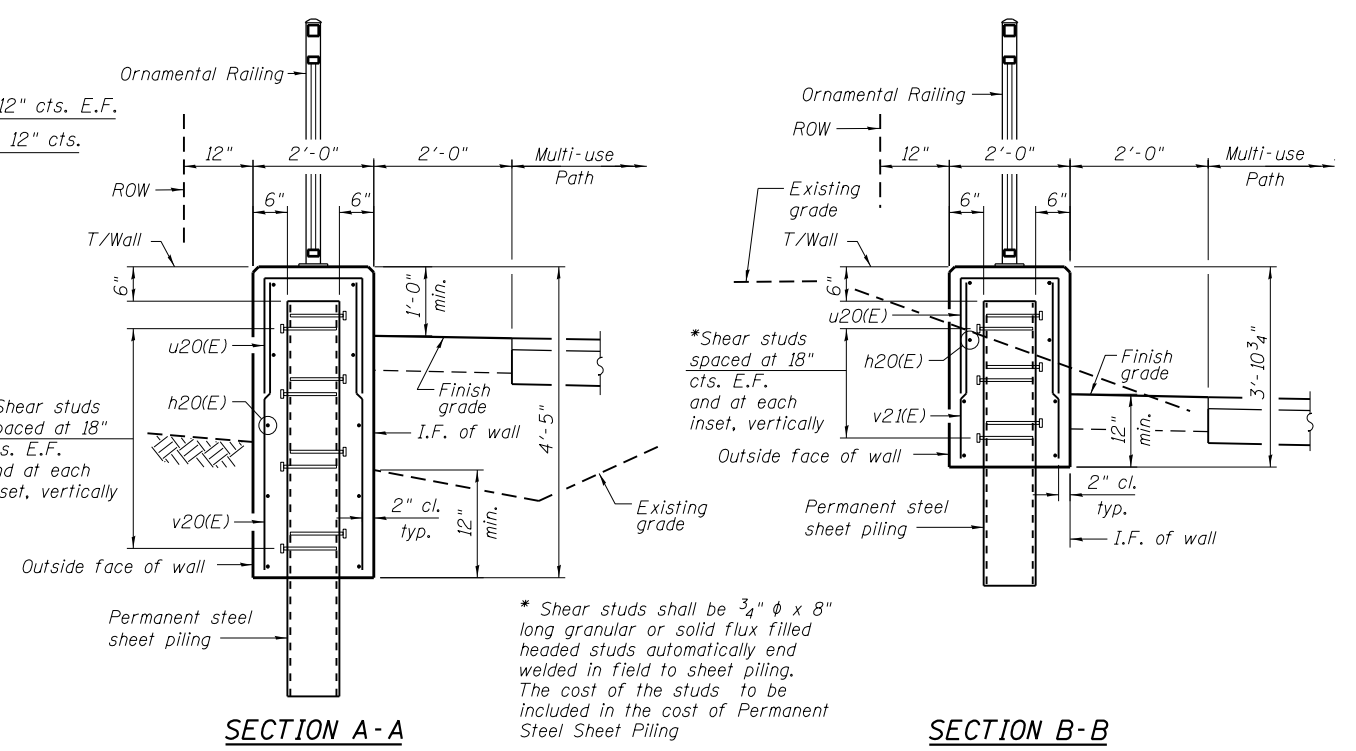


**ELEVATION**  
(Looking West - F.F. of wall shown)



**PLAN**

**LEGEND:**  
 ① - Panel number  
 ◆ - Soil Boring  
 O.F. - Outside Face  
 I.F. - Inside Face  
 E.F. - Each Face



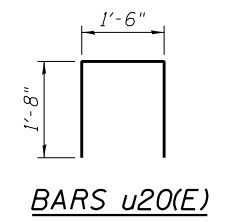
**SECTION A-A**

**SECTION B-B**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h20(E)	40	#5	32'-3"	—
h21(E)	20	#5	28'-8"	—
h22(E)	10	#5	20'-8"	—
v20(E)	61	#5	4'-1"	—
v21(E)	144	#5	3'-7"	—
u20(E)	215	#5	4'-7"	□
Structure Excavation		Cu. Yd.	107	
Concrete Structures		Cu. Yd.	60.1	
Reinforcement Bars, Epoxy Coated		Pound	3,990	
Permanent Sheet Piling		Sq. Ft.	2,830	
Ornamental Railing		Foot	201	

Bars indicated thus 5x2-#5 h20(E) etc. indicates 5 lines of bars with 2 lengths per line.

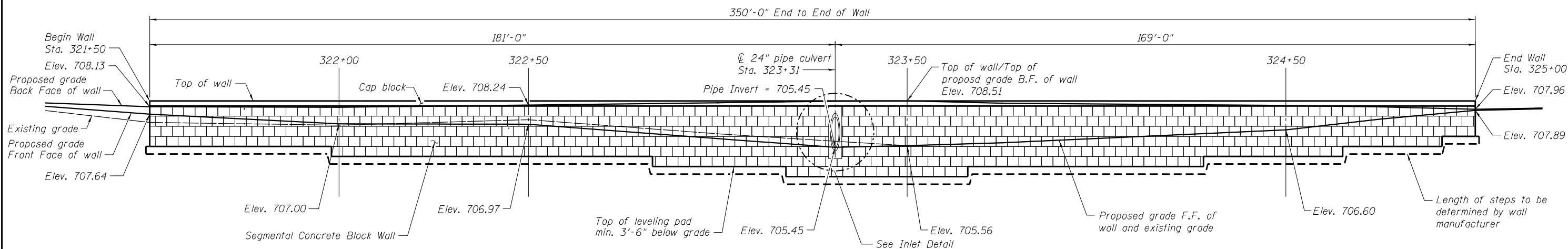


**BARS u20(E)**

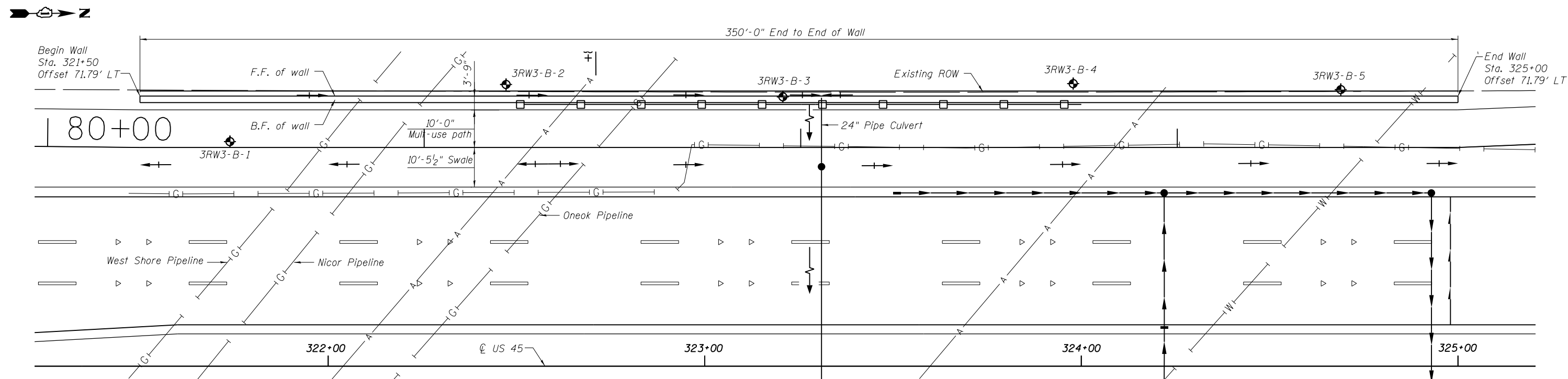
**Notes:**  
 Wall stations, offsets and dimensions are measured at front face of wall.  
 All exposed corners shall have a 1" chamfer.  
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.  
 For Typical Wall Details and Ornamental Railing see Sheet 2.

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**URS**

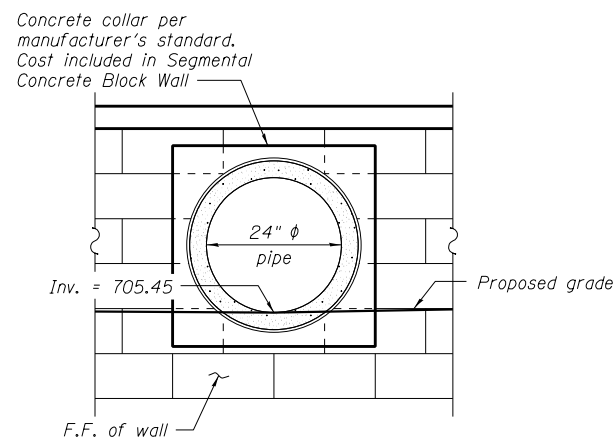
FILE NAME = D160M62-SHT-Wall.02.dgn	USER NAME = Anthony.Plutz	DESIGNED - RJ	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RETAINING WALL NO. 2 - S.N. 016-2054 STATION 317 + 24.37 TO 319 + 25.37</b>	F.A.P. R.T.E. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 379	
PLOT SCALE = 33.3321' / in.	DRAWN - RJ	CHECKED -	REVISD -			CONTRACT NO. 60M62					
PLOT DATE = 3/13/2013	CHECKED -	REVISD -	REVISD -			ILLINOIS FED. AID PROJECT					
SHEET NO. 4 OF 18 SHEETS											



**ELEVATION**  
(Looking at F.F. of Wall)



**PLAN**



**INLET DETAIL**

**LEGEND**

- A— Aerial line
- G— Gas line
- W— Water line
- Catch basin
- Flow arrow
- Soil boring location

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Ornamental Railing	Ft.	200
Segmental Concrete Block Wall	Sq. Ft.	2,051

Notes:  
 Wall stations, offsets and dimensions are measured at front face of wall.  
 All exposed corners shall have a 1" chamfer.  
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.  
 For Typical Wall Details and Ornamental Railing see Sheet 2.  
 The Contractor shall maintain a minimum of 2' of clearance between the bottom of leveling pad and top of West Shore Pipeline.

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 CHICAGO, IL 60606  
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 FAX (312) 939-4998  
**URS**

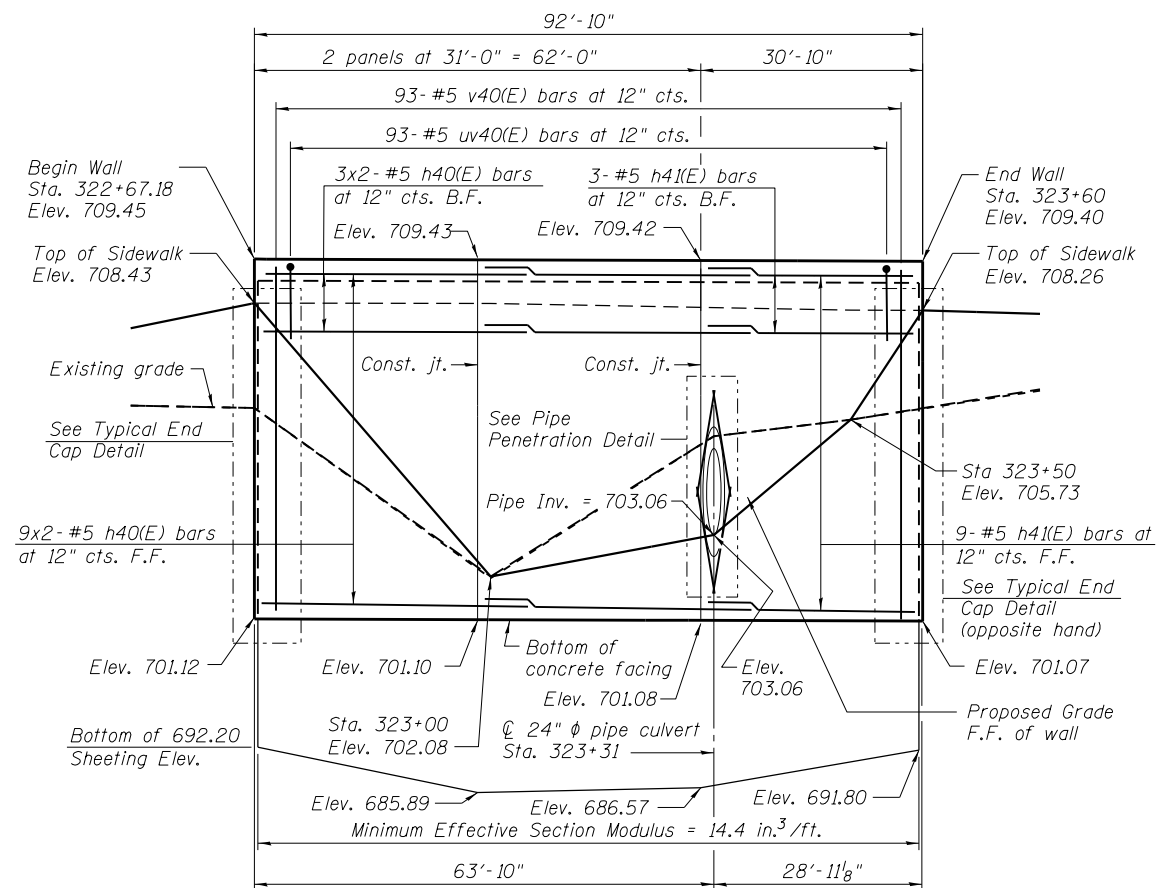
FILE NAME = D:\60M62-SHT-Wall.03.dgn	USER NAME = Anthony.Plutz	DESIGNED - RJ	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 26.6667' / in.	DRAWN - RJ/AMV	REVISED -
	PLOT DATE = 3/13/2013	CHECKED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

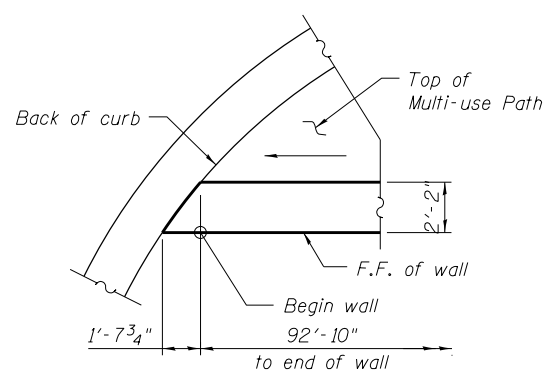
**RETAINING WALL NO. 3 - S.N. 016-2055  
STATION 321 + 50.00 TO 325 + 00.00**

SHEET NO. 5 OF 18 SHEETS

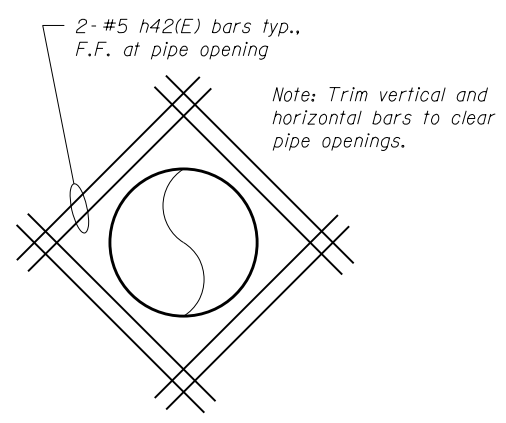
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	380
CONTRACT NO. 60M62				
ILLINOIS FED. AID PROJECT				



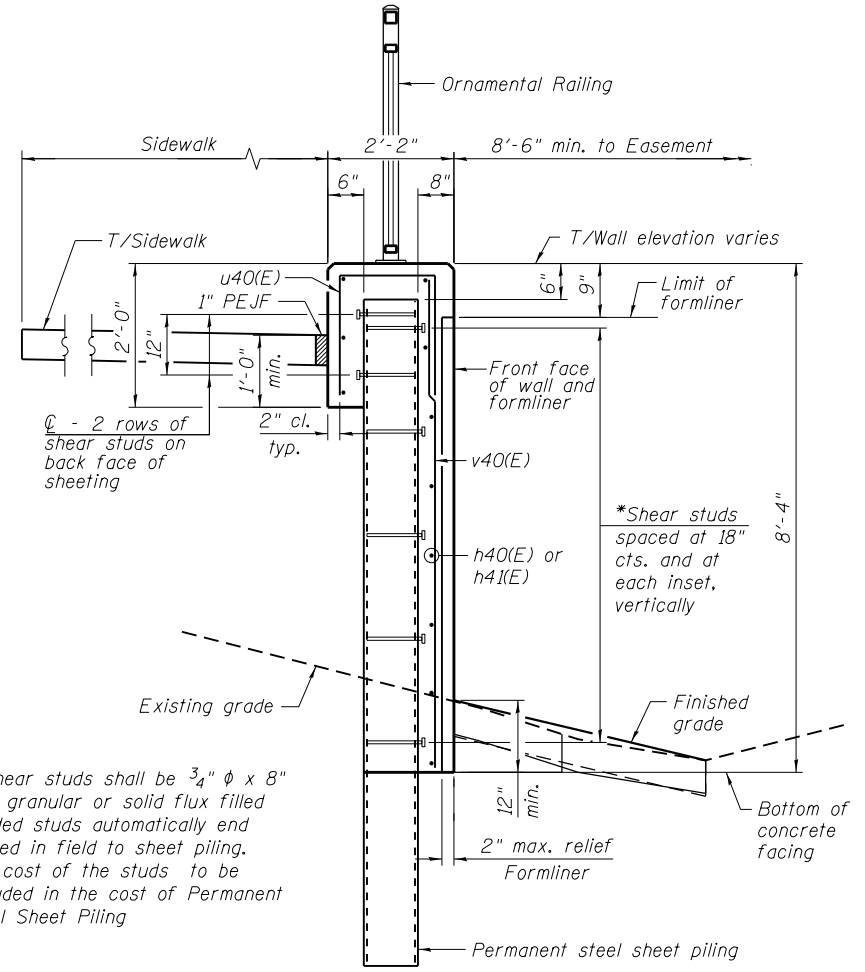
**ELEVATION**



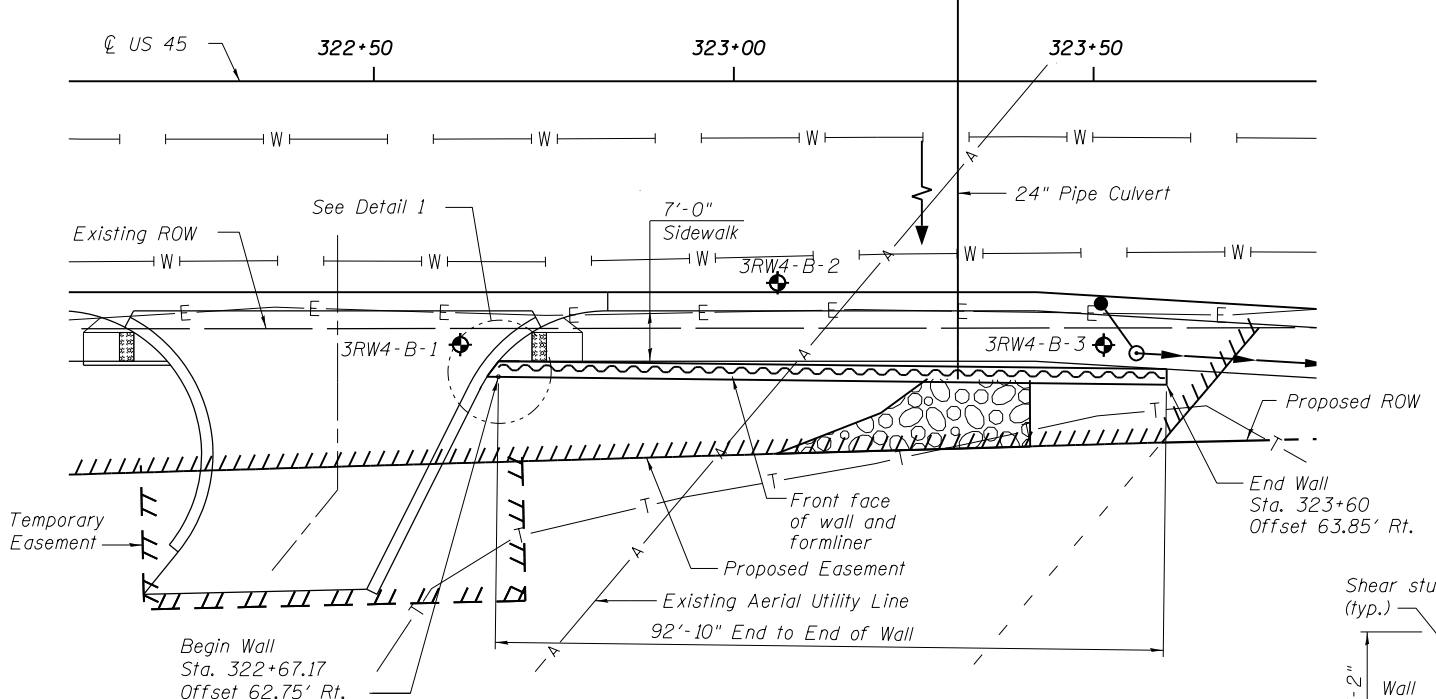
**DETAIL 1**



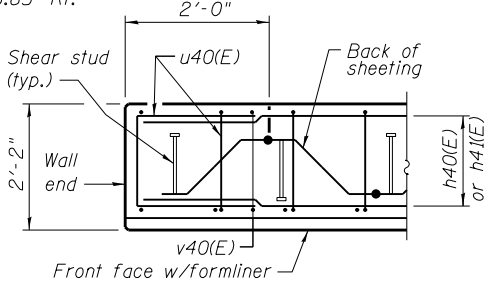
**PIPE PENETRATION DETAIL**



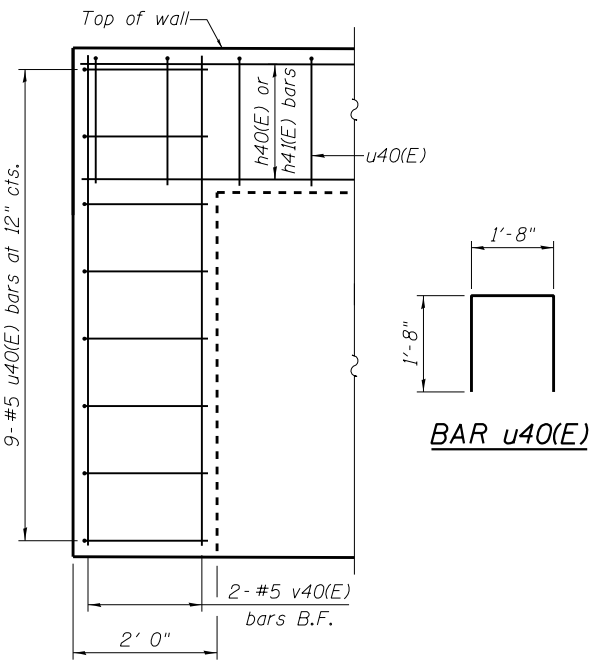
**TYPICAL SECTION THROUGH WALL**



**PLAN**



**PLAN AT END OF WALL**



**TYPICAL END CAP DETAIL**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h40(E)	24	#5	33'-11"	—
h41(E)	12	#5	30'-8"	—
h42(E)	8	#5	3'-6"	—
v40(E)	97	#5	8'-0"	—
u40(E)	109	#5	5'-0"	□
Structure Excavation			Cu. Yd.	48
Concrete Structures			Cu. Yd.	39.3
Form Liner Textured Surface			Sq. Ft.	704
Reinforcement Bars, Epoxy Coated			Pound	2,640
Permanent Sheet Piling			Sq. Ft.	1,929
Ornamental Railing			Foot	93

Notes:  
 Wall stations, offsets and dimensions are measured at front face of wall.  
 All exposed corners shall have a 1" chamfer.  
 For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.  
 For Typical Wall Details and Ornamental Railing see Sheet 2.

**LEGEND**

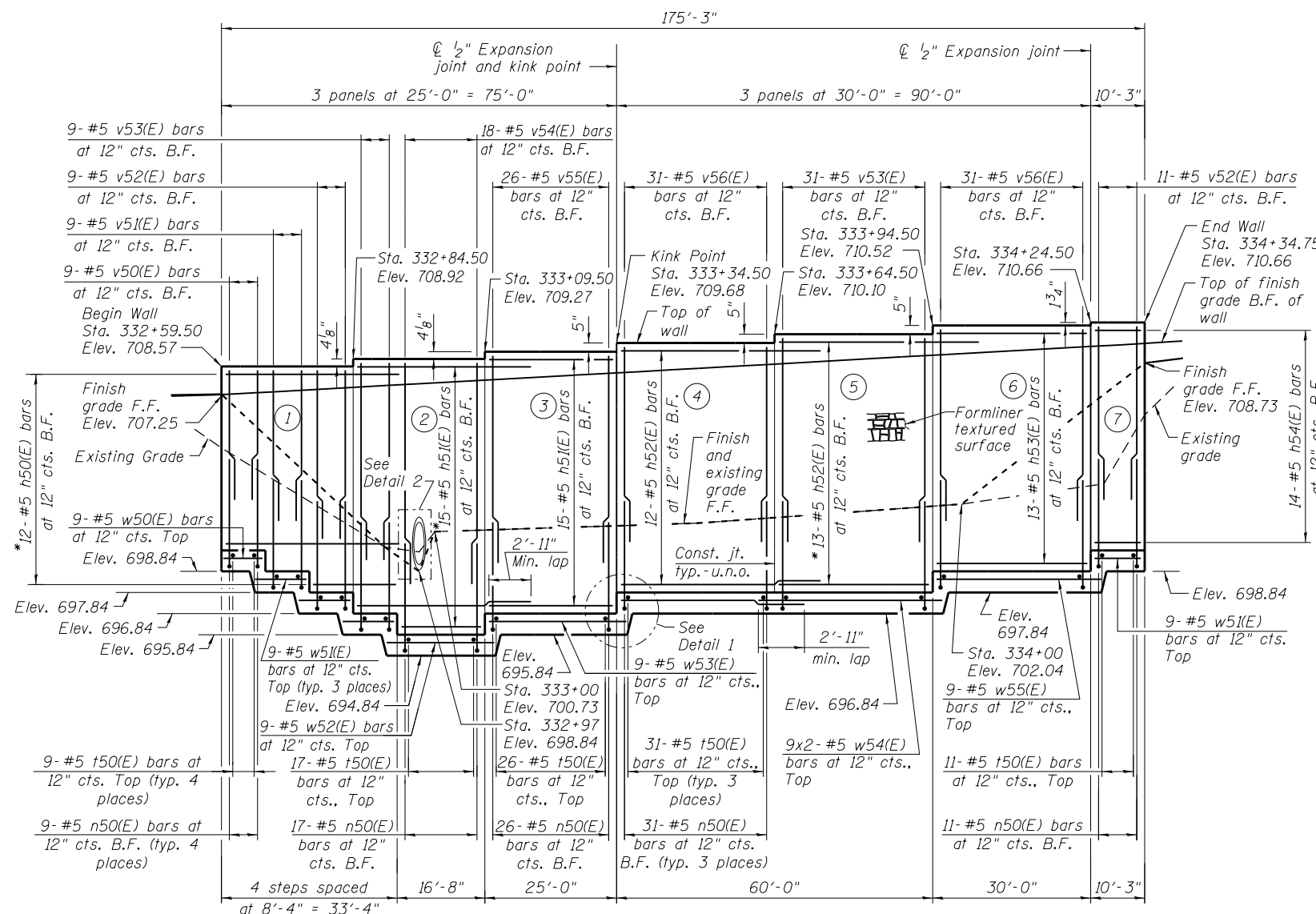
— A —	Aerial line	— E —	Electric line - underground
— W —	Water line	→	Flow arrow
— T —	Telephone line	⊕	Soil boring location

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**URS**

**BILL OF MATERIAL**

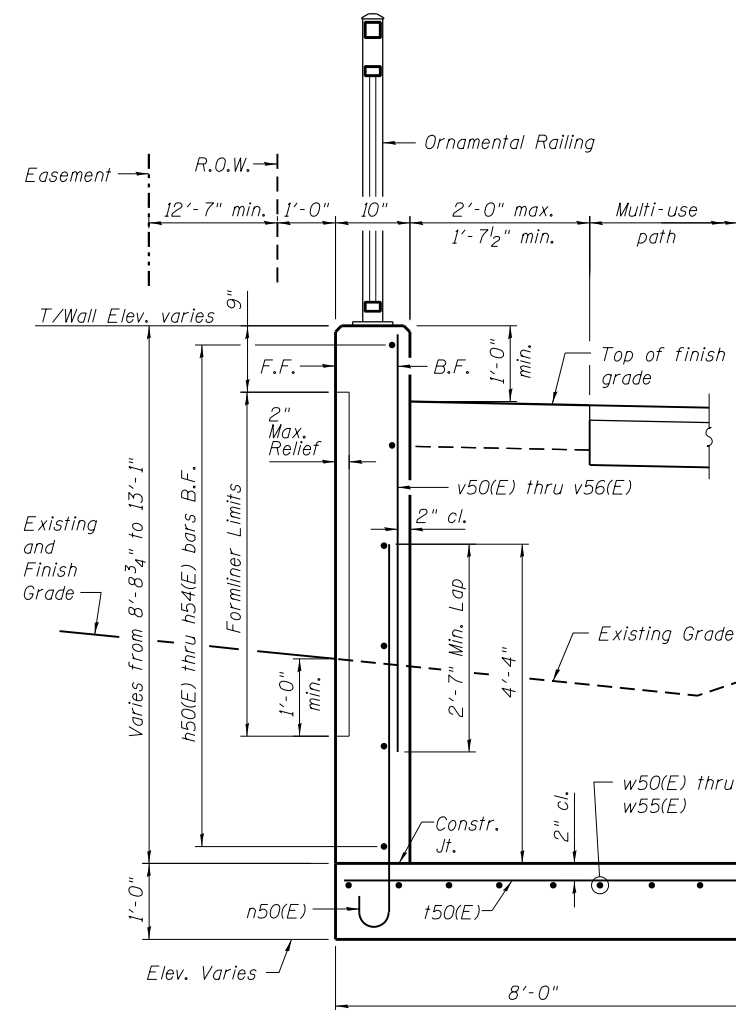
Bar	No.	Size	Length	Shape
h50(E)	27	#5	28'-1"	
h51(E)	14	#5	24'-8"	
h52(E)	25	#5	33'-1"	
h53(E)	13	#5	28'-10"	
h54(E)	14	#5	9'-11"	
h55(E)	16	#5	4'-0"	
n50(E)	183	#5	5'-8"	
v50(E)	9	#5	6'-4"	
v51(E)	9	#5	7'-4"	
v52(E)	20	#5	8'-5"	
v53(E)	40	#5	9'-10"	
v54(E)	18	#5	10'-8"	
v55(E)	26	#5	10'-0"	
v56(E)	62	#5	9'-5"	
t50(E)	183	#5	7'-8"	
w50(E)	9	#5	8'-0"	
w51(E)	36	#5	10'-0"	
w52(E)	9	#5	20'-4"	
w53(E)	9	#5	27'-8"	
w54(E)	18	#5	32'-5"	
w55(E)	9	#5	31'-8"	
w56(E)	72	#5	3'-4"	
Structure Excavation			Cu. Yd.	387
Concrete Structures			Cu. Yd.	117.2
Form Liner Textured Surface			Sq. Ft.	1,428
Reinforcement Bars, Epoxy Coated			Pound	9,020
Geocomposite Wall Drain			Sq. Yd.	179
Granular Backfill for Structures			Cu. Yd.	230
Ornamental Railing			Foot	176
Pipe Underdrains for Structures, 4"			Foot	180

Bars indicated thus 9x3-#5 etc. indicates 9 lines of bars with 3 lengths per line.

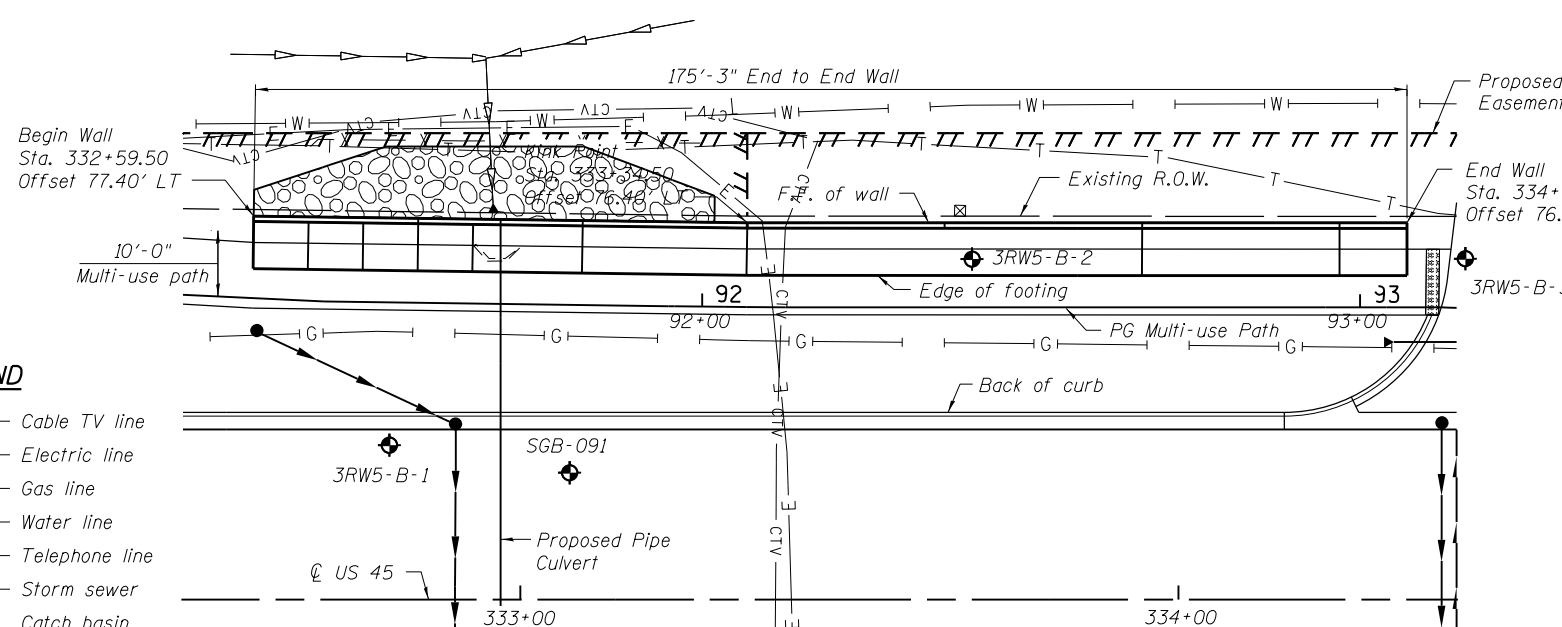
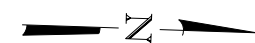


**ELEVATION**  
(B.F. of wall shown)

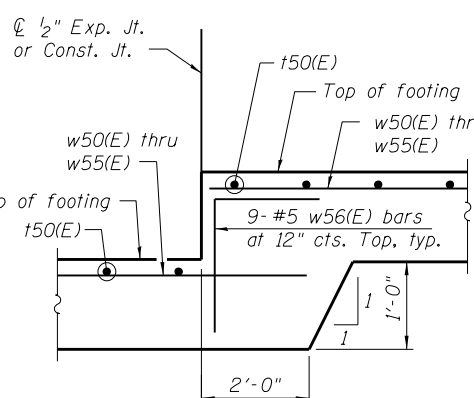
\*Trim bars adjacent to steps to fit.



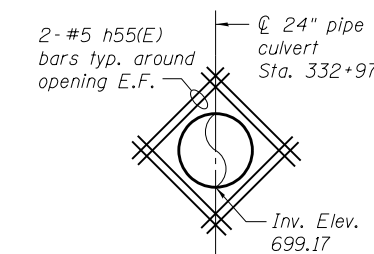
**TYPICAL SECTION THRU WALL**



**PLAN**

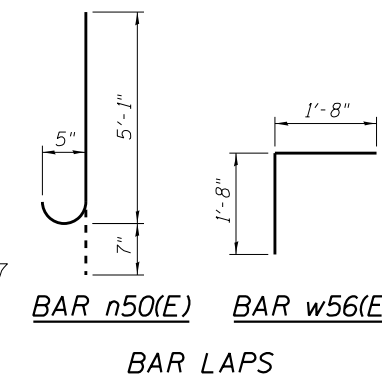


**DETAIL 1**  
(Similar for All Footing Steps)



Note: Trim vertical and horizontal bars to clear pipe openings.

**DETAIL 2**



**BAR LAPS**  
Basic Lap #5 bars - 2'-7"  
Top Bar Lap #5 bars - 2'-11"

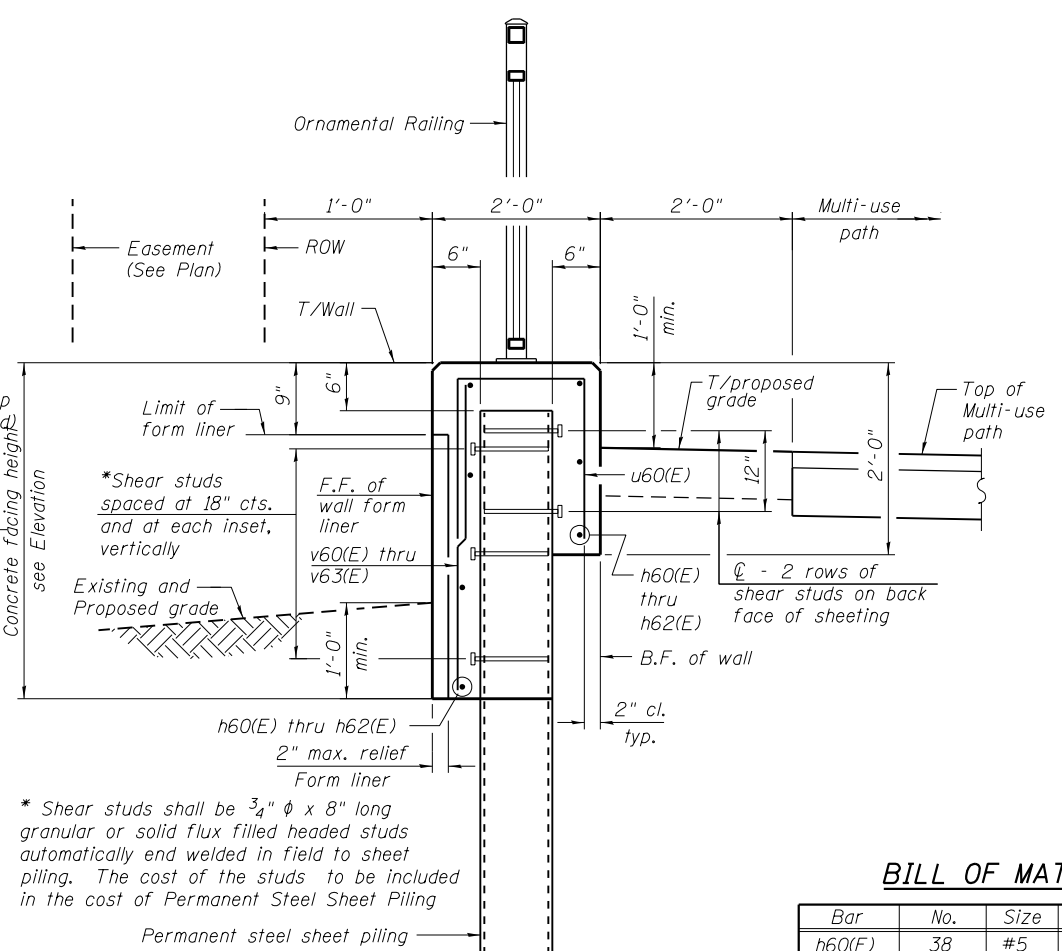
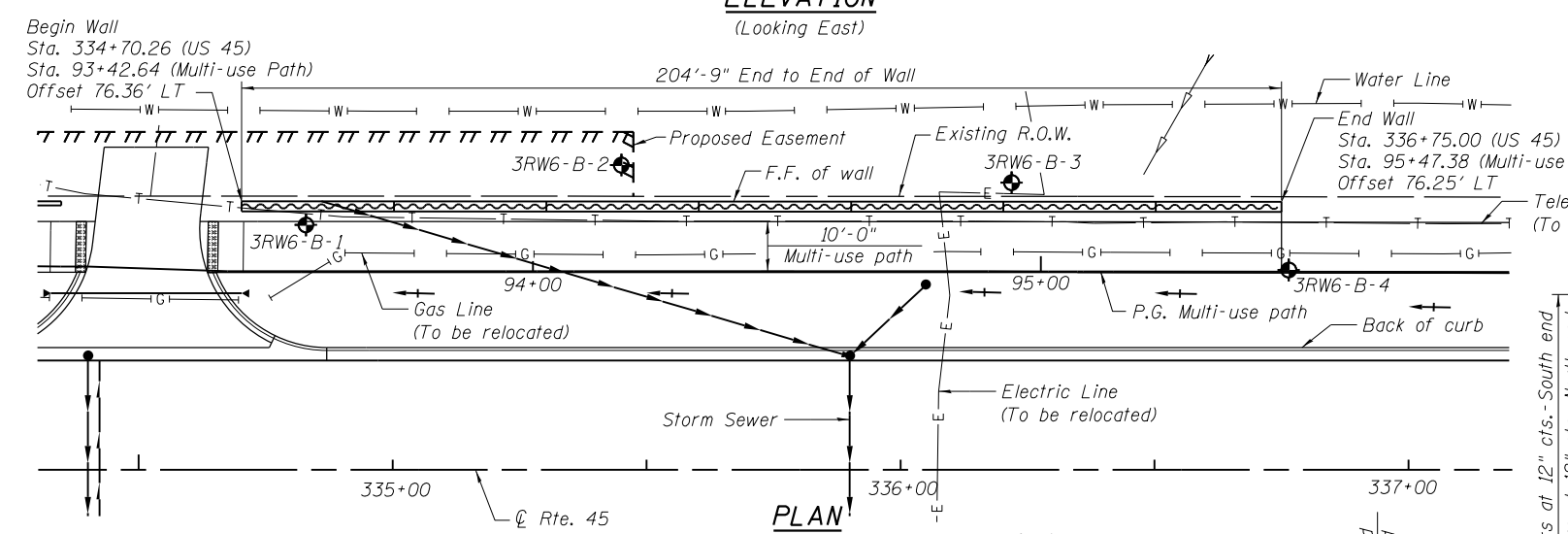
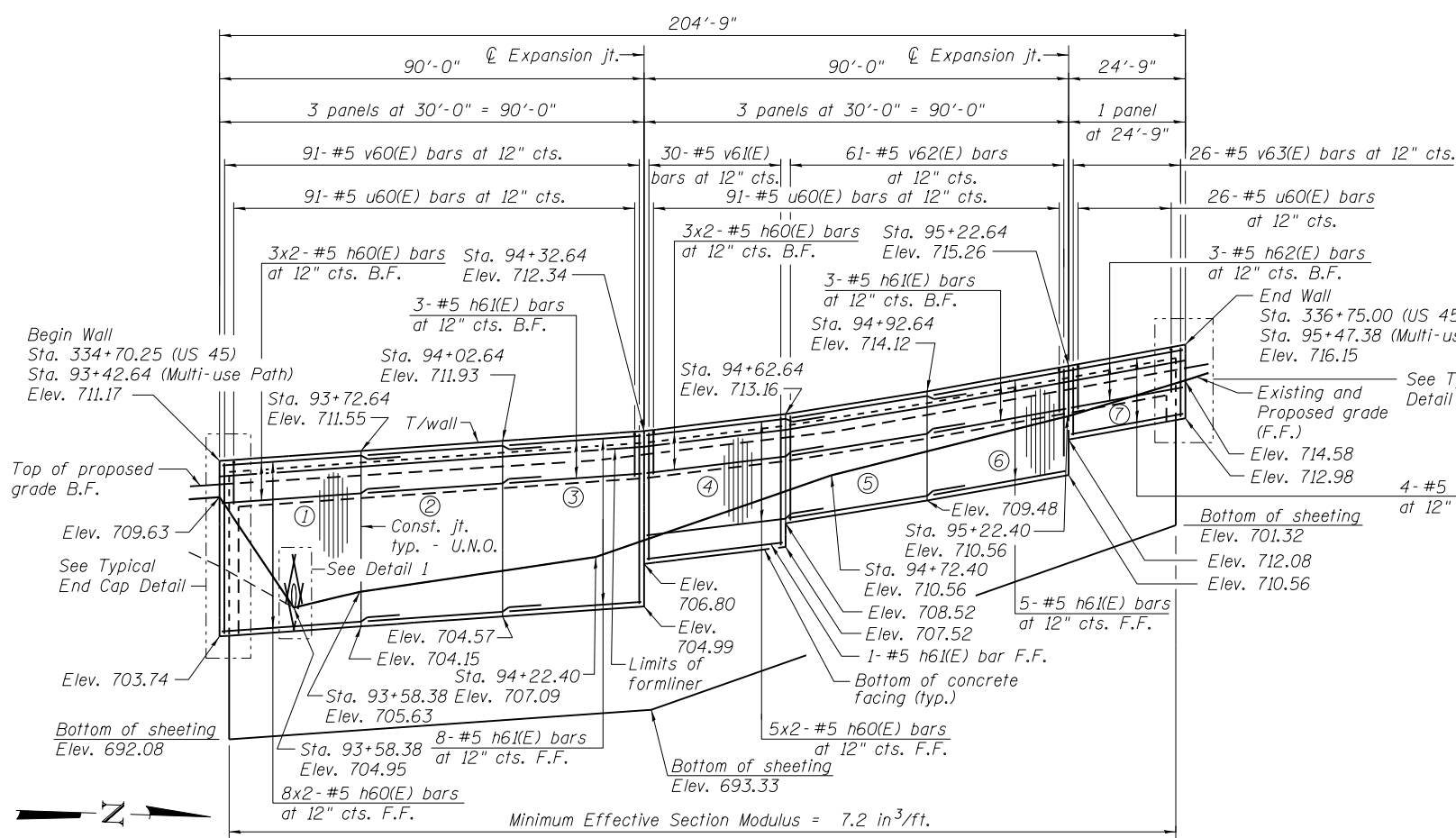
**NOTES:**

Wall stations, offsets and dimensions are measured at front face of wall. All exposed corners shall have a 1" chamfer. For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2.

- LEGEND**
- CTV — Cable TV line
  - E — Electric line
  - G — Gas line
  - W — Water line
  - T — Telephone line
  - S — Storm sewer
  - Catch basin
  - ⊕ Soil boring location

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**URS**

FILE NAME = D160M62-SHT-Wall.05.dgn	USER NAME = Anthony.Plutz	DESIGNED - MGB	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RETAINING WALL NO. 5 - S.N.016-2057 STA. 332+59.50 TO 334+34.75</b>	F.A.P. RT. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 382	
	PLOT SCALE = 29.17' / in.	DRAWN - MGB/AMV	REVISD -			SHEET NO. 7 OF 18 SHEETS					
	PLOT DATE = 3/13/2013	CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT					
						CONTRACT NO. 60M62					

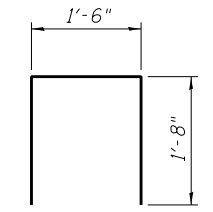


**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h60(E)	38	#5	32'-11"	—
h61(E)	20	#5	29'-8"	—
h62(E)	7	#5	24'-5"	—
h63(E)	16	#5	2'-6"	—
v60(E)	93	#5	7'-0"	—
v61(E)	30	#5	5'-1"	—
v62(E)	61	#5	4'-3"	—
v63(E)	28	#5	2'-9"	—
u60(E)	220	#5	4'-10"	□
Structure Excavation			Cu. Yd.	74
Concrete Structures			Cu. Yd.	73.7
Form Liner Textured Surface			Sq. Ft.	1,037
Reinforcement Bars, Epoxy Coated			Pound	4,450
Permanent Sheet Piling			Sq. Ft.	3,554
Ornamental Railing			Foot	205

Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

**BAR u60(E)**

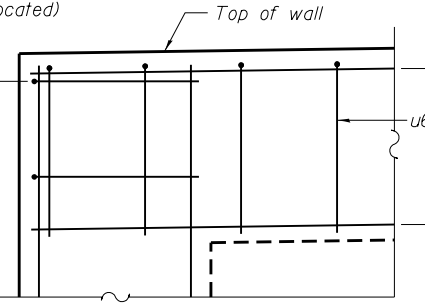
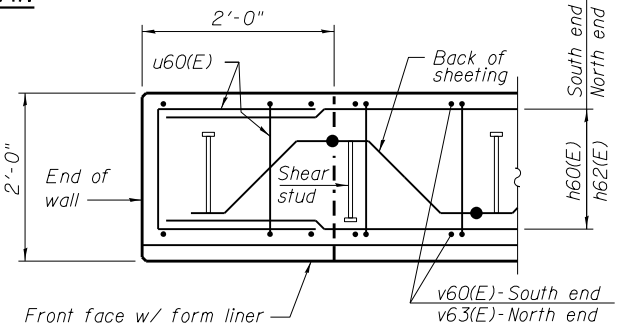


**BAR LAPS**

#5 bars - 2'-7" (Basic Lap)  
#5 bars - 2'-11" (Top Bar Lap)

**LEGEND**

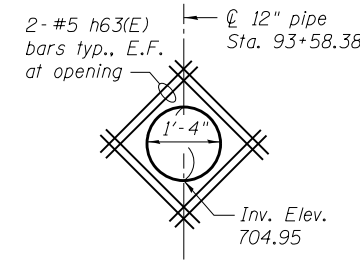
- ① - Panel No.
- ◆ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face



**TYPICAL END CAP DETAIL**

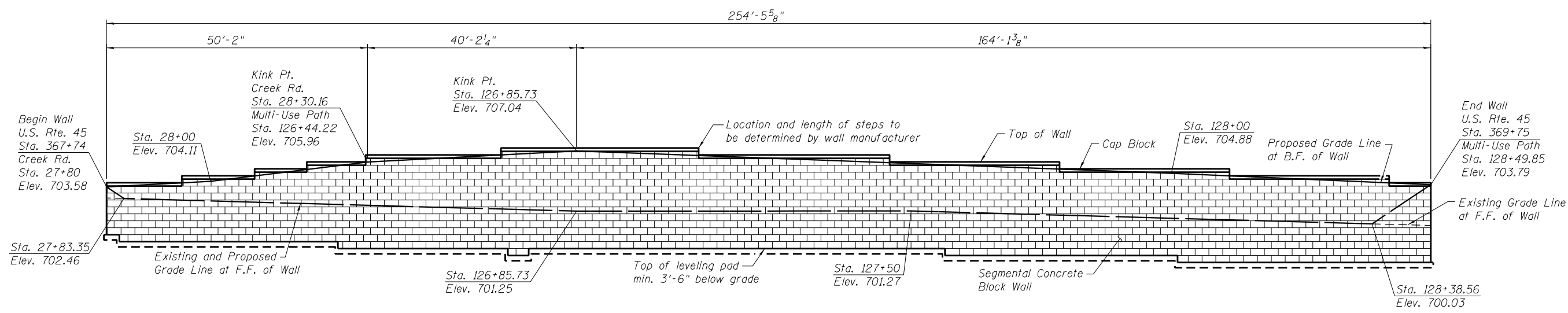
(v(E) bars in F.F. not shown for clarity)

**DETAIL 1**

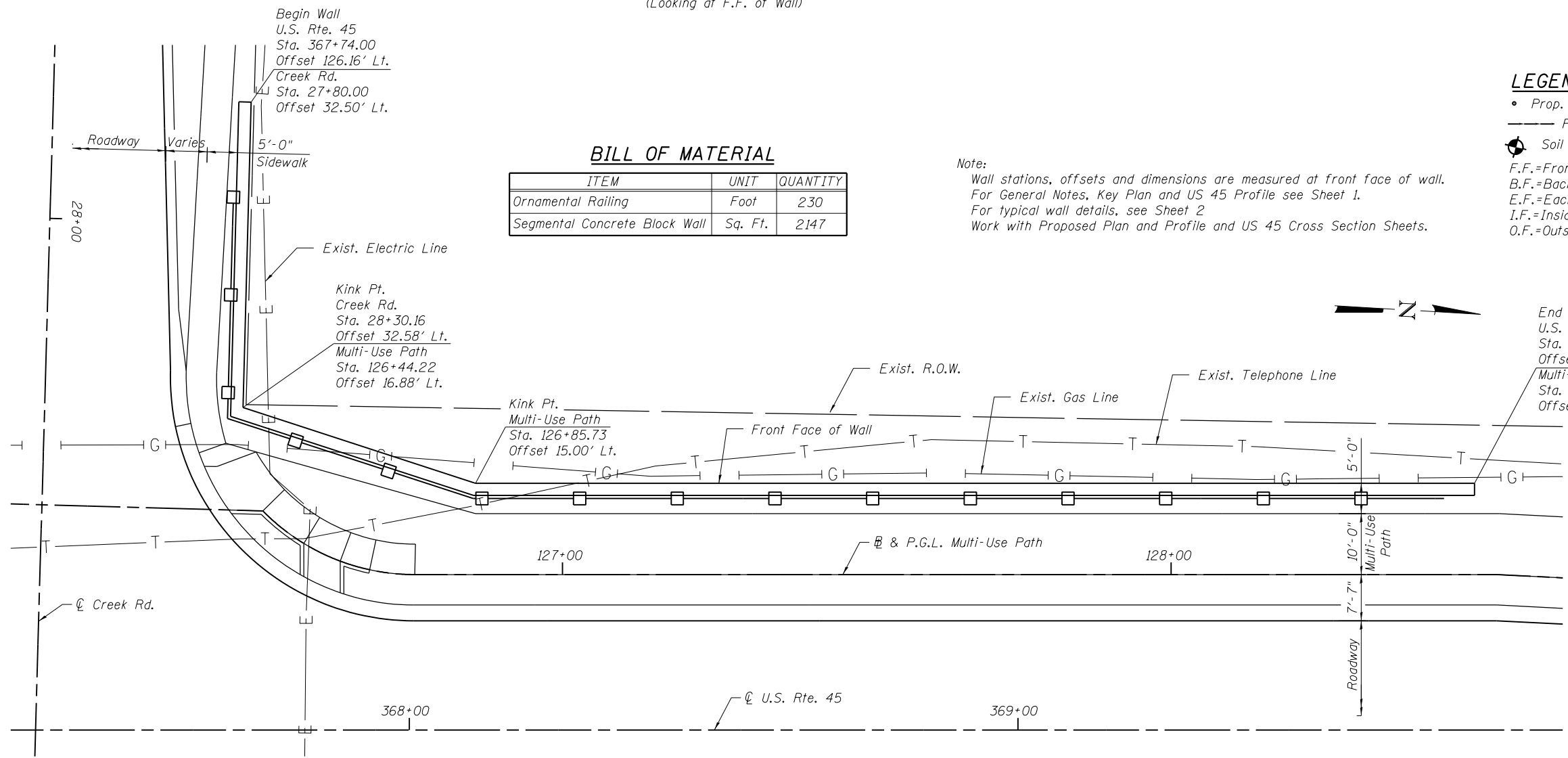


Note: Trim vertical and horizontal bars to clear pipe openings.

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**ELEVATION**  
(Looking at F.F. of Wall)



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Ornamental Railing	Foot	230
Segmental Concrete Block Wall	Sq. Ft.	2147

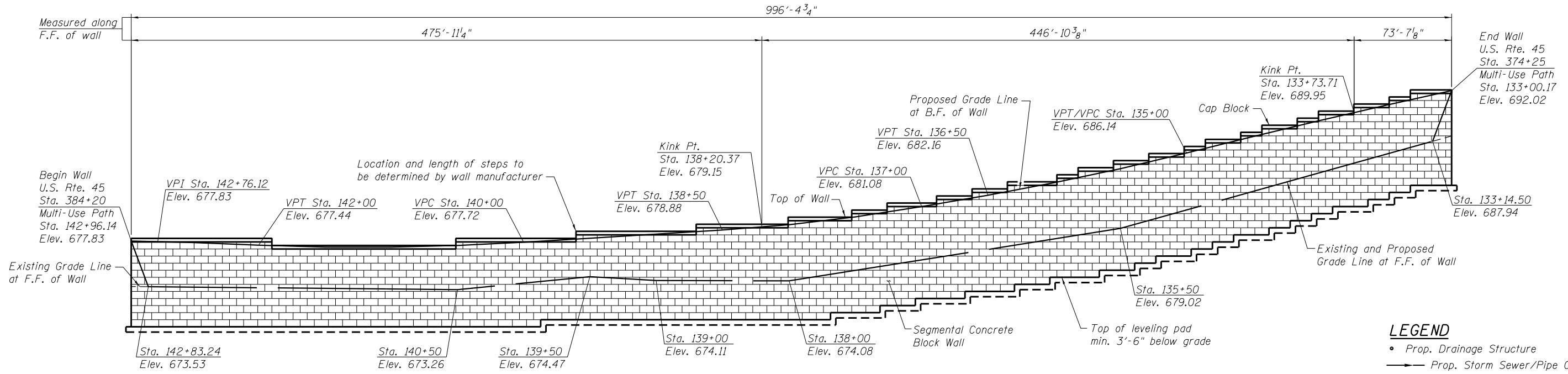
Note:  
Wall stations, offsets and dimensions are measured at front face of wall.  
For General Notes, Key Plan and US 45 Profile see Sheet 1.  
For typical wall details, see Sheet 2  
Work with Proposed Plan and Profile and US 45 Cross Section Sheets.

- LEGEND**
- Prop. Drainage Structure
  - Prop. Storm Sewer/Pipe Culvert
  - ⊙ Soil Boring
  - F.F.=Front Face
  - B.F.=Back Face
  - E.F.=Each Face
  - I.F.=Inside Face
  - O.F.=Outside Face

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 CHICAGO, IL 60606  
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**URS**

FILE NAME = D160M62-SHT-Wall.07.dgn	USER NAME = Anthony.Plutz	DESIGNED - PMH	REVISIED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RETAINING WALL NO. 7 - S.N. 016-2059 STATION 367+74 TO 369+75</b>	F.A.P. RTE. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 384
PLOT SCALE = 21.33' / in.	DRAWN - PMH	REVISIED -	CONTRACT NO. 60M62							
PLOT DATE = 3/13/2013	CHECKED -	REVISIED -	SHEET NO. 9 OF 18 SHEETS							
						ILLINOIS FED. AID PROJECT				





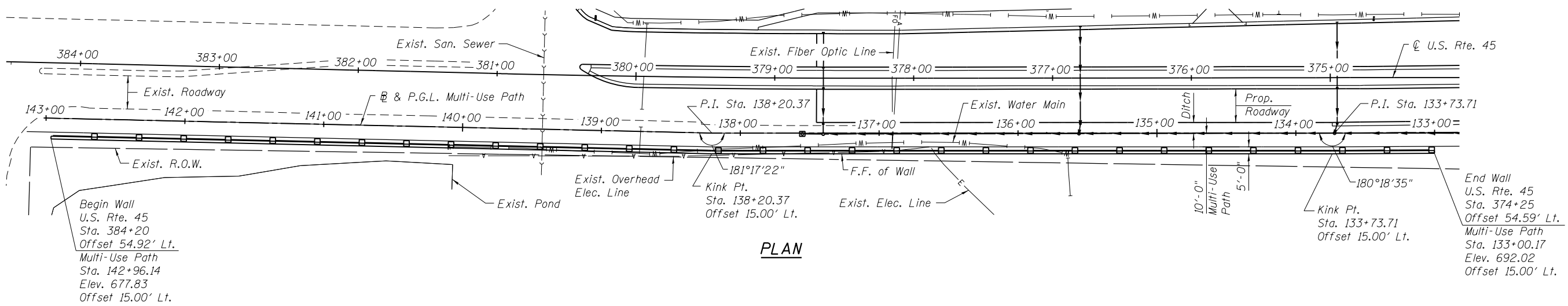
- LEGEND**
- Prop. Drainage Structure
  - Prop. Storm Sewer/Pipe Culvert
  - ⊙ Soil Boring
  - F.F.=Front Face
  - B.F.=Back Face
  - E.F.=Each Face
  - I.F.=Inside Face
  - O.F.=Outside Face

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Ornamental Railing	Foot	997
Segmental Concrete Block Wall	Sq. Ft.	8856

**ELEVATION**  
(Looking at F.F. of Wall)

Note:  
Wall stations, offsets and dimensions are measured at front face of wall.  
For General Notes, Key Plan and U.S. Rte. 45 Profile see Sheet 1.  
For typical wall details, see Sheet 2.  
Work with Proposed Plan and Profile and US 45 Cross Section Sheets.



**PLAN**

URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME = D160M62-SHT-Wall.08.dgn	USER NAME = Anthony.Plutz	DESIGNED - PMH	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RETAINING WALL NO. 8 - S.N. 016-2060 STATION 374+25 TO 384+20</b>	F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 385	
PLOT SCALE = 80:8.00 1" = 80.00'	DRAWN - PMH	REVISD -	SHEET NO. 10 OF 18 SHEETS			CONTRACT NO. 60M62					
PLOT DATE = 3/13/2013	CHECKED -	REVISD -	ILLINOIS FED. AID PROJECT								

**BORING LOG 3RW2-B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW2, Cook Co., IL

Datum: NGVD  
 Elevation: 599.40 ft  
 North: 1812526.00 ft  
 East: 1115223.39 ft  
 Station: 317+23.42  
 Offset: 72.66 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
699.23	23-inch thick, brown SILTY CLAY --TOPSOIL-- Stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel	0	1	6 10 5	3.77	20							
		5	2	6 10 7	4.50	17							
		10	3	6 10 5	3.94	22							
		15	4	4 7 7	3.44	19							
		20	5	6 10 4	2.74	18							
		25	6	6 10 3	1.64	17							
684.4	Boring terminated at 15.00 ft	15											

**GENERAL NOTES**

Begin Drilling: 09-23-2011 Complete Drilling: 09-23-2011  
 Drilling Contractor: WTS Drill Rig: D-50 TMR  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3RW2-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW2, Cook Co., IL

Datum: NGVD  
 Elevation: 707.80 ft  
 North: 1812628.82 ft  
 East: 1115218.44 ft  
 Station: 318+26.20  
 Offset: 78.18 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
697.3	23-inch thick, brown SILTY CLAY --TOPSOIL-- Hard, brown and gray SILTY CLAY LOAM, trace gravel	0	1	6 10 11	4.50	17							
		5	2	6 10 11	4.50	13							
		10	3	6 7 8	5.25	22							
		15	4	4 7 8	5.82	19							
697.3	Medium dense, brown SILT	15	5	6 9 8	NP	26							
694.8	Very stiff, brown SILTY CLAY LOAM, trace gravel	20	6	6 9 3	2.13	18							
692.8	Boring terminated at 15.00 ft	15											

**GENERAL NOTES**

Begin Drilling: 09-23-2011 Complete Drilling: 09-23-2011  
 Drilling Contractor: WTS Drill Rig: D-50 TMR  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3RW2-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW2, Cook Co., IL

Datum: NGVD  
 Elevation: 710.00 ft  
 North: 1812723.90 ft  
 East: 1115214.52 ft  
 Station: 319+21.26  
 Offset: 82.65 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
695.0	23-inch thick, brown SILTY CLAY --TOPSOIL-- Very stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel	0	1	6 7 9	4.50	22							
		5	2	6 7 8	4.50	15							
		10	3	7 9 11	4.10	19							
		15	4	4 7 7	5.17	19							
		20	5	6 7 8	4.18	21							
		25	6	6 9 6	2.56	16							
695.0	Boring terminated at 15.00 ft	15											

**GENERAL NOTES**

Begin Drilling: 09-23-2011 Complete Drilling: 09-23-2011  
 Drilling Contractor: WTS Drill Rig: D-50 TMR  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

**BORING LOG 3RW3-B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW3, Cook Co., IL

Datum: NGVD  
 Elevation: 706.00 ft  
 North: 1812980.05 ft  
 East: 1115241.17 ft  
 Station: 321+77.55  
 Offset: 57.46 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
705.3	8-inch thick, brown SILTY CLAY --TOPSOIL-- Hard, brown and gray SILTY CLAY LOAM, trace gravel	0	1	4 6 6	2.46	19							
		5	2	4 4 5	2.30	20							
		10	3	7 9 12	6.15	15							
		15	4	6 9 12	5.25	15							
695.5	Very stiff, gray CLAY	15	5	4 6 6	2.79	21							
691.0	Boring terminated at 15.00 ft	15	6	2 4 6	2.79	22							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-23-2011	Complete Drilling	09-23-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

**BORING LOG 3RW3-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW3, Cook Co., IL

Datum: NGVD  
 Elevation: 707.30 ft  
 North: 1813053.44 ft  
 East: 1115226.40 ft  
 Station: 322+50.86  
 Offset: 72.64 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
706.7	7-inch thick, brown SILTY CLAY --TOPSOIL-- Stiff to hard, brown and gray CLAY to SILTY CLAY, trace gravel	0	1	7 5 5	3.12	20							
		5	2	4 4 4	2.54	23							
		10	3	5 3 3	2.05	20							
		15	4	7 5 8	4.84	18							
		20	5	7 5 7	2.45	20							
692.3	Boring terminated at 15.00 ft	15	6	3 4 4	1.97	20							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-23-2011	Complete Drilling	09-23-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

**BORING LOG 3RW3-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW3, Cook Co., IL

Datum: NGVD  
 Elevation: 705.70 ft  
 North: 1813126.93 ft  
 East: 1115230.09 ft  
 Station: 323+24.37  
 Offset: 69.37 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
706.53	53-inch thick, brown SILTY CLAY --TOPSOIL-- Medium stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel	0	1	5 4 5	3.28	20							
		5	2	3 3 3	1.72	25							
		10	3	6 8 10	6.72	19							
		15	4	5 7 9	5.08	17							
		20	5	3 4 4	1.15	19							
		25	6	3 3 7	0.74	24							
		30	7	7 7 9	NA								
		35	8	3 5 6	2.46	17							
		40											
		45											
		50											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-23-2011	Complete Drilling	09-23-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -
D:\60M62-SHT-Boring02.dgn		CHECKED - JCE	REVISED -
	PLOT SCALE = 0:2.00 '1" = 10'	DRAWN - JDK	REVISED -
	PLOT DATE = 3/13/2013	CHECKED -	REVISED -

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	387
CONTRACT NO. 60M62			ILLINOIS FED. AID PROJECT	

**BORING LOG 3RW3-B-4**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW3, Cook Co., IL

Datum: NGVD  
 Elevation: 705.80 ft  
 North: 1813204.06 ft  
 East: 1115227.02 ft  
 Station: 324+01.48  
 Offset: 72.87 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
705.8	6-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Very stiff to hard, brown and gray SILTY CLAY, trace gravel	0-1	1	10 10	2.54 3	16	705.8		0				
		1-2	2	10 10	5.17 3	18			1				
		2-3	3	10 10	5.25 3	24			2				
		3-4	4	10 10	5.41 3	22			3				
694.8	6-inch thick, brown SILT Stiff, gray SILTY CLAY LOAM, trace gravel	4-5	5	10 10	1.80 3	16			4				
690.6	Boring terminated at 15.00 ft	5-15	6	10 10	1.50 3	17			5				

**GENERAL NOTES**

Begin Drilling: 10-24-2011 Complete Drilling: 10-24-2011  
 Drilling Contractor: Groff/WTS Drill Rig: CME LL-60 ATV  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: 11.00 ft  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

**BORING LOG 3RW3-B-5**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW3, Cook Co., IL

Datum: NGVD  
 Elevation: 706.60 ft  
 North: 1813275.11 ft  
 East: 1115229.01 ft  
 Station: 324+72.54  
 Offset: 71.29 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
706	Brown SILTY LOAM Very stiff to hard, brown and gray SILTY CLAY LOAM, trace gravel	0-1	1	10 10	4.50 10	18	706		0				
		1-2	2	10 10	4.50 10	15			1				
		2-3	3	10 10	6.97 11	16			2				
		3-4	4	10 10	5.41 7	16			3				
693.6	Loose, gray SAND --Moist--	4-5	5	10 10	2.30 7	17			4				
691.1	Stiff, gray SILTY CLAY LOAM, trace gravel	5-15	6	10 10	NP 4	17			5				
688.1	Boring terminated at 17.50 ft	15-17.5	7	10 10	1.64 B	17			6				

**GENERAL NOTES**

Begin Drilling: 09-23-2011 Complete Drilling: 09-23-2011  
 Drilling Contractor: WTS Drill Rig: D-50 TMR  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

**BORING LOG 3RW4-B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW4, Cook Co., IL

Datum: NGVD  
 Elevation: 706.20 ft  
 North: 1813067.35 ft  
 East: 1115359.61 ft  
 Station: 322+65.53  
 Offset: 60.49 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
703.2	Medium dense, gray CRUSHED STONE --FILL--	0-1	1	5 6 10	NP	6	703.2		0				
		1-2	2	10 10	2.87 S	22			1				
		2-3	3	10 10	1.72 B	27			2				
698.2	Loose, gray SANDY LOAM	3-4	4	10 10	NP	25			3				
695.7	Very stiff, brown and gray SILTY CLAY, trace gravel	4-5	5	10 10	3.69 7	18			4				
687.5	Rock fragments in nose of spoon, possible boulder Split spoon refusal at 38.75' Boring terminated at 38.75 ft	5-38.75	6	10 10	2.13 7	20			5				
		38.75-40	7	10 10	3.36 7	17			6				
		40-45	8	10 10	2.57 7	17			7				
		45-50	9	10 10	2.79 8	15			8				
		50-55	10	10 10	3.03 8	16			9				

**GENERAL NOTES**

Begin Drilling: 10-21-2011 Complete Drilling: 10-21-2011  
 Drilling Contractor: Groff/WTS Drill Rig: CME LL-60 ATV  
 Driller: K&K Logger: B. Wilson Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: 8.00 ft  
 At Completion of Drilling: 21.00 ft  
 Time After Drilling: NA  
 Depth to Water: NA

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

**BORING LOG 3RW4-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW4, Cook Co., IL

Datum: NGVD  
 Elevation: 704.70 ft  
 North: 1813111.47 ft  
 East: 1115351.29 ft  
 Station: 323+09.60  
 Offset: 51.92 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
703.7	12-inch thick STONE (Rip Rap Drainage)						676.7						
	Very stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel	1	1	3 4 3	2.62	17							
		2	2	4 5 4	3.20	18							
		3	3	5 6 4	5.00	17							
		4	4	6 7 3	5.62	16							
		5	5	6 8 3	4.02	17							
		6	6	7 9 3	4.43	16							
		7	7	4 7 7	4.79	14							
		8	8	5 8 8	3.20	17							
		9	9	6 9 3	3.77	15							
		10	10	3 3 10	3.36	16							
							668.2	Very stiff, gray SILTY CLAY, trace gravel					
							664.7	Boring terminated at 40.00 ft					

**GENERAL NOTES**

Begin Drilling **10-24-2011** Complete Drilling **10-24-2011**  
 Drilling Contractor **Groff/WTS** Drill Rig **CME LL-60 ATV**  
 Driller **K&K** Logger **B. Wilson** Checked by **C. Marin**  
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling **28.00 ft**  
 At Completion of Drilling **18.00 ft**  
 Time After Drilling **NA**  
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3RW4-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW4, Cook Co., IL

Datum: NGVD  
 Elevation: 705.90 ft  
 North: 1813156.73 ft  
 East: 1115360.19 ft  
 Station: 323+54.91  
 Offset: 60.56 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
702.9	6-7.3-inch thick, brown SILTY CLAY --TOPSOIL--						680.1	Gray SAND					
	Medium dense, brown and gray LOAM, little gravel	1	1	7 8 8	NP	17							
		2	2	5 9 10	4.50	15							
		3	3	7 11 12	3.94	19							
		4	4	5 6 9	5.66	20							
		5	5	8 10 13	5.90	17							
		6	6	4 6 7	NP	20							
		7	7	4 6 7	2.71	16							
		8	8	4 6 18	2.46	15							
		9	9	8 9 11	3.85	15							
		10	10	5 7 8	2.62	19							
							685.9	Boring terminated at 40.00 ft					

**GENERAL NOTES**

Begin Drilling **09-28-2011** Complete Drilling **09-28-2011**  
 Drilling Contractor **WTS** Drill Rig **D-50 TMR**  
 Driller **K&K** Logger **B. Wilson** Checked by **C. Marin**  
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling **24.75 ft**  
 At Completion of Drilling **28.75 ft**  
 Time After Drilling **NA**  
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3RW5-B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW5, Cook Co., IL

Datum: NGVD  
 Elevation: 706.20 ft  
 North: 1814080.99 ft  
 East: 1115254.59 ft  
 Station: 332+80.13  
 Offset: 42.60 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
680.7	6.05-9.4-inch thick, brown SILTY CLAY --TOPSOIL--						680.7	Loose, gray LOAM, trace gravel					
	Stiff to very stiff, brown and gray CLAY LOAM, some gravel	1	1	3 3 4	1.23	21							
		2	2	3 3 4	1.50	26							
		3	3	3 3 5	NA								
		4	4	3 4 8	3.00	18							
		5	5	7 12 15	6.72	20							
		6	6	4 7 10	6.15	19							
		7	7	3 4 6	NP	26							
		8	8	3 4 6	NP	16							
		9	9	3 3 3	NP	9							
		10	10	3 3 6	1.15	15							
							677.2	Stiff to very stiff, gray SILTY CLAY, trace to some gravel					
							672.2						
							669.2-2.0P						
							667.2	Very stiff to hard, brown and gray SILTY CLAY, trace gravel					
							665.7	Loose, gray, fine to medium SAND					
							663.2	Stiff, gray SILTY CLAY LOAM, trace gravel					
							659.7	Medium dense, gray SILTY LOAM, little gravel					
							656.2	Boring terminated at 50.00 ft					

**GENERAL NOTES**

Begin Drilling **09-29-2011** Complete Drilling **09-29-2011**  
 Drilling Contractor **WTS** Drill Rig **D-50 TMR**  
 Driller **K&K** Logger **B. Wilson** Checked by **C. Marin**  
 Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling **15.50 ft**  
 At Completion of Drilling **25.00 ft**  
 Time After Drilling **NA**  
 Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.



**BORING LOG 3RW5-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW5, Cook Co., IL

Datum: NGVD  
 Elevation: 700.80 ft  
 North: 1814168.68 ft  
 East: 1115223.77 ft  
 Station: 334+68.67  
 Offset: 70.87 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
700.1	8-inch thick, dark brown SILTY CLAY --TOPSOIL--	0	1	6	0.41	24		--HARD DRILLING-- Cobbles	11	NA			
	Soft, brown and gray SILTY CLAY	1	2	6	0.41	33			12	50/2			
		2	3	6	0.41	33			13	5	7	3.20	10
695.3	Hard, brown and gray SILTY CLAY, trace gravel	3	4	7	5.00	18			14	5	8	4.92	14
		4	5	8	6.48	17			15	5	9	4.92	14
		5	6	8	6.15	20			16	5	10	2.38	14
		6	7	8	6.23	20			17	5	11		
685.3	Medium dense, brown and gray SILT with clay and sand seams	7	8	5	NP	23		Boring terminated at 40.00 ft	18				
		8	9	4	1.80	15			19				
682.8	Stiff to hard, gray SILTY CLAY LOAM, trace to little gravel	9	10	7	4.43	14			20				
		10	11	4	1.97	13			21				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-30-2011	Complete Drilling	09-30-2011	While Drilling	15.50 ft		
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	25.00 ft		
Driller	K&K	Logger	B. Wilson	Time After Drilling	NA		
Checked by	C. Marin	Depth to Water	NA				
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

**BORING LOG 3RW5-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW5, Cook Co., IL

Datum: NGVD  
 Elevation: 702.00 ft  
 North: 1814243.61 ft  
 East: 1115221.53 ft  
 Station: 334+43.63  
 Offset: 70.94 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
701.3	4.3-inch thick ASPHALT --PAVEMENT--	0	1	NR		21			11				
	9-inch thick, brown GRAVELLY SAND --BASE COURSE--	1	2	1	0.57	29			12	4	3.12	16	
	Soft to medium stiff, brown CLAY LOAM, trace gravel --FILL--	2	3	1	0.25	29			13	10	4.59	17	
694.6	Medium stiff, black CLAY LOAM --BURIED TOPSOIL--	3	4	2	0.50	35			14	4	2.62	14	
		4	5	3	3.36	24			15	4	7.38	18	
691.5	Very stiff, brown and gray SILTY CLAY	5	6	3	3.61	17			16	3	4.02	18	
		6	7	4	7.46	19			17	3	3.20	16	
686.5	Very stiff to hard, brown to gray SILTY CLAY to SILTY CLAY LOAM, trace to same gravel	7	8	7	4.67	18			18	5	1.97	14	
		8	9	4	4.02	18			19	5	1.72	11	
		9	10	3	4.02	18			20				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-14-2011	Complete Drilling	09-14-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&P	Logger	F. Bozga	Time After Drilling	NA		
Checked by	C. Marin	Depth to Water	NA				
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

**BORING LOG 3RW6-B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 705.20 ft  
 North: 1814282.87 ft  
 East: 1115219.64 ft  
 Station: 334+82.93  
 Offset: 71.69 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
704.4	10-inch thick, black SILTY LOAM --TOPSOIL--	0	1	1	0.50	28			11	7	8	NA	
	Medium stiff to stiff, brown and gray CLAY	1	2	1	1.23	28			12	7	9	5.49	18
		2	3	4	3.61	16			13	4	4.50	18	
699.7	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	3	4	3	3.50	17			14	4	7.38	18	
		4	5	11	4.50	18			15	4	4.02	18	
		5	6	3	3.20	16			16	3	3.20	16	
687.8	Wet SAND	6	7	3	4.02	18			17	5	1.97	14	
	Very stiff, gray SILTY CLAY, trace gravel	7	8	3	3.20	16			18	5	1.72	11	
684.7	Stiff, gray SILTY LOAM, trace gravel	8	9	5	1.97	14			19				
		9	10	5	1.72	11			20				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-15-2011	Complete Drilling	09-15-2011	While Drilling	17.50 ft		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	18.00 ft		
Driller	R&P	Logger	F. Bozga	Time After Drilling	NA		
Checked by	C. Marin	Depth to Water	NA				
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

**BORING LOG 3RW6-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 707.80 ft  
 North: 1814344.60 ft  
 East: 1115206.05 ft  
 Station: 336+46.01  
 Offset: 83.50 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
707.63	3-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown CLAY LOAM, little gravel	0-4.50	1	3 4 4	4.50	16	707.63	3-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown CLAY LOAM, trace gravel	0-4.50	11	3 4 4	1.23	16
704.9	--FILL-- Hard, brown SILTY CLAY, trace gravel	4.50-7.0	2	3 3 7	4.10	18	704.9	--FILL-- Stiff to hard, brown and gray CLAY to SILTY CLAY, trace gravel	4.50-6.31	12	3 3 9	2.79	15
		7.0-11.0	3	3 8 11	7.46	18			6.31-5.74	3	4 7 11	5.74	18
		11.0-19.0	4	4 8 11	5.82	19			5.74-5.33	4	4 7 11	5.33	17
		19.0-20.0	5	3 3 8	6.56	19			5.33-3.61	5	4 7 11	3.61	16
695.4	Wet SAND	20.0-21.0	6	3 3 3	2.87	16	695.4	Very stiff, gray SILTY CLAY, trace gravel	21.0-22.0	9	3 3 3	2.62	18
684.8	Stiff to very stiff, gray SILTY LOAM, trace gravel	21.0-25.0	7	2 4 5	1.23	16	684.8	Stiff to very stiff, gray SILTY LOAM, trace gravel	25.0-27.9	10	4 9 10	2.79	15
			8	3 6 9	2.62	14							
			9	3 3 3	2.62	18							
			10	3 4 6	1.39	15							

**GENERAL NOTES**

Begin Drilling: 09-15-2011 Complete Drilling: 09-15-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: 12.50 ft  
 At Completion of Drilling: 17.00 ft  
 Time After Drilling: NA  
 Depth to Water: NA

**BORING LOG 3RW6-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 710.80 ft  
 North: 1814421.52 ft  
 East: 1115207.29 ft  
 Station: 336+21.88  
 Offset: 80.03 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
707.63	3-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown CLAY LOAM, trace gravel	0-4.50	1	3 3 6	4.50	16	707.63	3-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown CLAY LOAM, trace gravel	0-4.50	11	3 3 6	2.13	11
		4.50-6.31	2	4 9 10	6.31	19			4.50-2.05	12	4 4 5	2.05	12
		6.31-5.74	3	4 7 11	5.74	18			2.05-4.51	3	4 8 10	4.51	18
		5.74-5.33	4	4 7 11	5.33	17			4.51-6.07	4	4 8 10	6.07	17
		5.33-3.61	5	4 7 11	3.61	16			6.07-4.43	5	4 7 9	4.43	17
		3.61-1.07	6	3 4 4	1.07	13			4.43-1.64	6	3 3 5	1.64	16
		1.07-1.72	7	3 3 3	1.72	14			1.64-2.46	7	4 6 7	2.46	14
		1.72-3.20	8	4 3 2	3.20	17			2.46-1.39	8	3 4 6	1.39	15
		3.20-NA	9	3 3 3	NA	NA			1.39-3.28	9	3 3 3	3.28	16
		NA-2.50	10	3 3 3	2.50	12			3.28-1.39	10	3 4 6	1.39	13

**GENERAL NOTES**

Begin Drilling: 09-15-2011 Complete Drilling: 09-15-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

**BORING LOG 3RW6-B-4**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 712.20 ft  
 North: 1814476.53 ft  
 East: 1115222.90 ft  
 Station: 336+76.41  
 Offset: 62.83 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
686.7	21.85-inch thick, black SILTY LOAM --TOPSOIL-- Hard, brown SILTY CLAY, little gravel	0-4.50	1	4 5 8	4.50	16	686.7	Medium dense, gray GRAVELLY LOAM	0-4.50	11	4 11 16	NP	5
		4.50-19.0	2	4 4 9	4.50	19			4.50-13.20	12	13 20 18	NP	8
		19.0-4.51	3	4 8 10	4.51	18							
		4.51-6.07	4	4 8 10	6.07	17							
		6.07-4.43	5	4 7 9	4.43	17							
		4.43-1.64	6	3 3 5	1.64	16							
		1.64-2.46	7	4 6 7	2.46	14							
		2.46-1.39	8	3 4 6	1.39	15							
		1.39-3.28	9	3 3 3	3.28	16							
		3.28-1.39	10	3 4 6	1.39	13							

**GENERAL NOTES**

Begin Drilling: 09-14-2011 Complete Drilling: 09-14-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

**BORING LOG 3SW-3B-1**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: Ret. Wall 1, Cook Co., IL

Datum: NGVD  
 Elevation: 594.96 ft  
 North: 1812231.54 ft  
 East: 1115266.08 ft  
 Station: 314+29.72  
 Offset: 31.27 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
684.0	12-inch thick ASPHALT --PAVEMENT--												
683.5	6-inch thick CRUSHED STONE --BASE COURSE--												
	Very stiff to hard, brown CLAY LOAM, little gravel												
	--FILL--												
687.0	Very stiff to hard, brown to gray SILTY CLAY, little gravel --L <sub>c</sub> (%)=37, P <sub>c</sub> (%)=18-- --%Gravel=0.6-- --%Sand=9.7-- --%Silt=56.1-- --%Clay=33.6-- --A-6 (17)--	1	50	4.50	18								
		2	4	4.50	16								
		3	3	2.54	17								
		4	21	2.00	16								
		5	19	4.25	14								
		6	8	4.02	16								
679.5	Medium stiff, gray SILT	15											
678.2	Very stiff, gray SILTY CLAY LOAM to SILTY LOAM, little to some gravel	7	15	2.05	14								
		8	10	2.00	13								
	--HARD DRILLING-- --PEBBLY--	9		NA									
671.4	Boring terminated at 24.00 ft	10		50/2									

**GENERAL NOTES**

Begin Drilling: 10-11-2010 Complete Drilling: 10-11-2010  
 Drilling Contractor: K&S Drill Rig: D-50 TMR  
 Driller: T&M Logger: C. Marin Checked by: A. Kurnia  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling:  DRY  
 At Completion of Drilling:  DRY  
 Time After Drilling: NA  
 Depth to Water: NA  
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3SW-3B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: Ret. Wall 1, Cook Co., IL

Datum: NGVD  
 Elevation: 692.17 ft  
 North: 1812344.08 ft  
 East: 1115220.72 ft  
 Station: 315+42.80  
 Offset: 75.29 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
691.3	10-inch thick, dark brown LOAM --TOPSOIL--												
	Stiff to very stiff, brown SILTY CLAY, trace roots												
	--L <sub>c</sub> (%)=51, P <sub>c</sub> (%)=19-- --%Gravel=0.6-- --%Sand=10.5-- --%Silt=53.0-- --%Clay=35.9-- --A-7-6 (30)--	1	4	3.50	22								
		2	3	1.64	23								
686.7	Stiff to very stiff, brown to gray SILTY CLAY LOAM, trace to little gravel	5											
		3	3	2.87	15								
		4	4	2.46	16								
		5	5	2.87	17								
	--L <sub>c</sub> (%)=31, P <sub>c</sub> (%)=17-- --%Gravel=4.0-- --%Sand=19.7-- --%Silt=54.8-- --%Clay=21.5-- --A-6 (9)--	6	4	2.46	16								
		7	3	2.38	16								
		8	3	2.38	15								
		9	4	1.89	16								
667.9	Medium dense, gray SAND	10											
		10	4	1.56	24								

**GENERAL NOTES**

Begin Drilling: 10-08-2010 Complete Drilling: 10-08-2010  
 Drilling Contractor: K&S Drill Rig: D-50 TMR  
 Driller: T&M Logger: C. Marin Checked by: A. Kurnia  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling:  23.50 ft  
 At Completion of Drilling:  21.00 ft  
 Time After Drilling: NA  
 Depth to Water: NA  
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3SW-3B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: Ret. Wall 1, Cook Co., IL

Datum: NGVD  
 Elevation: 694.39 ft  
 North: 1812440.58 ft  
 East: 1115222.34 ft  
 Station: 316+37.98  
 Offset: 73.22 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
684.1	14-inch thick, dark brown LOAM --TOPSOIL--												
	Very stiff, brown SILTY CLAY LOAM to SILTY LOAM, trace gravel												
		1	4	3.50	20								
		2	7	3.53	15								
		3	3	2.53	16								
685.6	Medium dense, brown SANDY LOAM, little gravel	10											
683.9	Very stiff, brown to gray SILTY CLAY, trace gravel	5											
		4	2	NP	19								
		5	3	3.53	20								
		6	3	4.02	18								
679.7	Medium dense, gray SANDY LOAM	15											
678.6	Very stiff, gray SILTY CLAY LOAM, trace gravel	7											
		2	2	2.46	18								
		3	3	2.00	15								
		8	3	2.38	15								
		9	3	2.38	15								
		10	15	3.28	17								

**GENERAL NOTES**

Begin Drilling: 10-08-2010 Complete Drilling: 10-08-2010  
 Drilling Contractor: K&S Drill Rig: D-50 TMR  
 Driller: T&M Logger: C. Marin Checked by: A. Kurnia  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling:  10.50 ft  
 At Completion of Drilling:  DRY  
 Time After Drilling: NA  
 Depth to Water: NA  
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.



**BORING LOG 3SW-3B-4**

WEI Job No.: 201-40-01

Client: **McDonough Associates Inc.**  
 Project: **US 45, Segment 3**  
 Location: **RW1, Cook Co., IL**

Datum: NGVD  
 Elevation: 592.00 ft  
 North: 1812215.15 ft  
 East: 1115224.10 ft  
 Station: 314+13.86  
 Offset: 73.44 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
691.3	3-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Hard, brown and gray SILTY CLAY LOAM, little gravel	0-10	1	10 13 13	4.50 P	13							
		10-15	2	7 12 14	4.50 P	17							
		15-20	3	6 9 12	4.50 P	14							
		20-25	4	4 8 8	4.92 P	13							
		25-30	5	8 9 13	5.99 P	18							
678.3	Medium dense, brown and gray SILT	30-35	6	6 6 4	NP	18							
676.5	Stiff, gray SILTY CLAY LOAM, little gravel	35-40	7	3 4 13	1.48 P	9							
674.8	Medium dense, gray SANDY LOAM, trace gravel --DRY--	40-45	8	10 10 12	NP	11							
672.0	Boring terminated at 20.00 ft	45-50											

**GENERAL NOTES**

Begin Drilling: **09-22-2011** Complete Drilling: **09-22-2011**  
 Drilling Contractor: **WTS** Drill Rig: **D-50 TMR**  
 Driller: **K&K** Logger: **B. Wilson** Checked by: **C. Marin**  
 Drilling Method: **3.25" IDA HSA; Boring backfilled upon completion.**

**WATER LEVEL DATA**

While Drilling: **13.75 ft**  
 At Completion of Drilling: **DRY**  
 Time After Drilling: **NA**  
 Depth to Water: **NA**

**BORING LOG SGB-087**

WEI Job No.: 201-40-01

Client: **McDonough Associates Inc.**  
 Project: **US 45, Segment 3**  
 Location: **Mainline, Cook Co., IL**

Datum: NGVD  
 Elevation: 700.74 ft  
 North: 1812531.76 ft  
 East: 1115239.93 ft  
 Station: 317+29.11  
 Offset: 76.16 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
700.7	6-inch thick black LOAM --TOPSOIL-- Loose, brown gravelly SANDY LOAM	0-1	1	6 6 6	NP	8							
697.7	--FILL-- Very stiff to hard, brown SILTY CLAY --L <sub>c</sub> (%)=35, P <sub>c</sub> (%)=18-- --%Gravel=0.9-- --%Sand=15.1-- --%Silt=52.6-- --%Clay=31.4-- --A-6 (13)--	1-5	2	10 10 10	NP	14							
		5-10	3	4 4 4	2.50 P	22							
		10-15	4	3 4 4	2.50 P	22							
		15-20	5	4 7 10	4.50 P	19							
690.7	Boring terminated at 10.00 ft	20-25											

**GENERAL NOTES**

Begin Drilling: **07-26-2010** Complete Drilling: **07-26-2010**  
 Drilling Contractor: **WTS** Drill Rig: **B-57 TMR**  
 Driller: **K&J** Logger: **F. Bozga** Checked by: **C. Marin**  
 Drilling Method: **2.25" SSA; Boring backfilled upon completion.**

**WATER LEVEL DATA**

While Drilling: **DRY**  
 At Completion of Drilling: **DRY**  
 Time After Drilling: **NA**  
 Depth to Water: **NA**

**BORING LOG SGB-091**

WEI Job No.: 201-40-01

Client: **McDonough Associates Inc.**  
 Project: **US 45, Segment 3**  
 Location: **Mainline, Cook Co., IL**

Datum: NGVD  
 Elevation: 706.65 ft  
 North: 1814108.49 ft  
 East: 1115257.99 ft  
 Station: 333+07.51  
 Offset: 38.4 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
706.7	6-inch thick black LOAM --TOPSOIL-- Stiff to hard, brown to dark brown CLAY LOAM, trace gravel	0-1	1	5 5 5	4.50 P	13							
	--FILL--	1-2	2	3 3 5	2.75 P	21							
		2-3	3	3 4 6	1.75 P	18							
		3-4	4	7 7 8	NR								
		4-5	5	9 11 14	4.00 P	21							
696.7	Boring terminated at 10.00 ft	5-10											

**GENERAL NOTES**

Begin Drilling: **07-23-2010** Complete Drilling: **07-23-2010**  
 Drilling Contractor: **WTS** Drill Rig: **B-57 TMR**  
 Driller: **K&J** Logger: **F. Bozga** Checked by: **C. Marin**  
 Drilling Method: **2.25" SSA; Boring backfilled upon completion.**

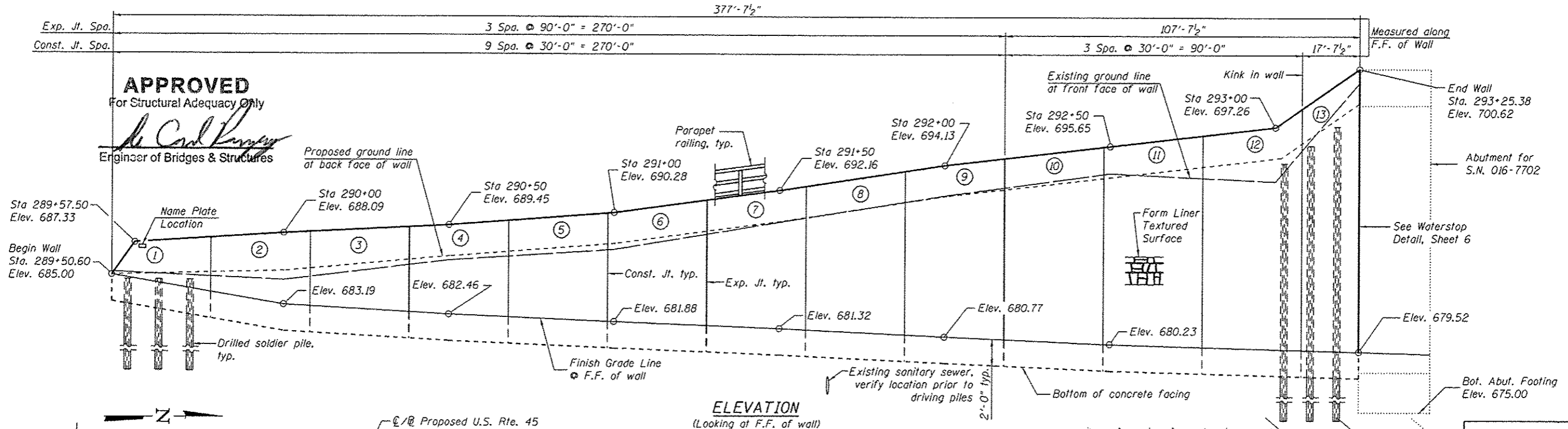
**WATER LEVEL DATA**

While Drilling: **DRY**  
 At Completion of Drilling: **DRY**  
 Time After Drilling: **NA**  
 Depth to Water: **NA**

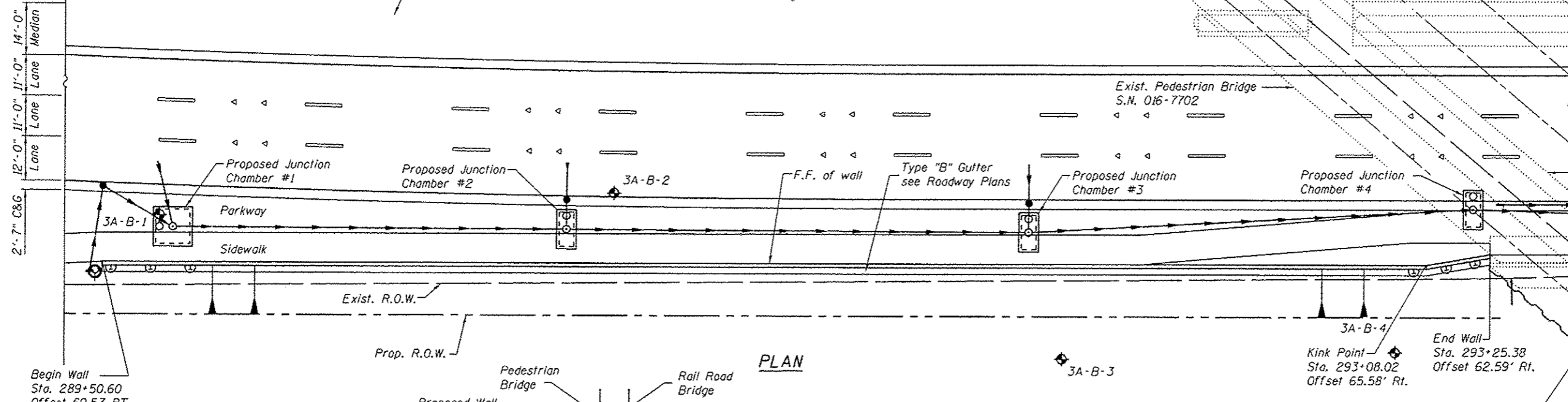
Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

Bench Mark: Elev. 689.00 Top of brass survey monument located at the west edge of the LaGrange Road southbound pavement, 600 feet north of the SouthWest Highway bridge.

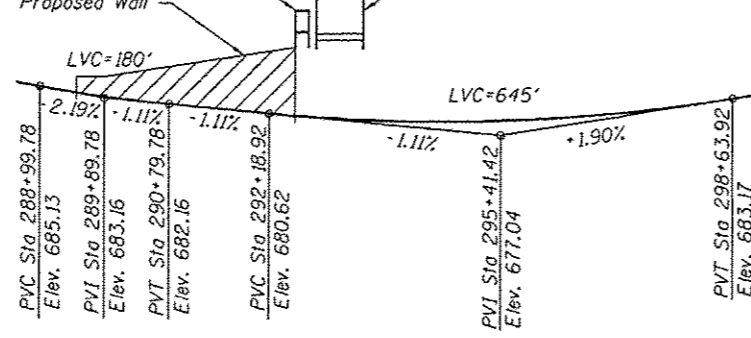
Existing Structure: None



**ELEVATION**  
(Looking at F.F. of wall)



**PLAN**



**PROFILE GRADE**  
(along PGL US Rte. 45)

**LEGEND**

- Exist. Sanitary Sewer
- ◆ Prop. Drainage Structure
- ▶ Prop. Storm Sewer
- ⊙ Soil Boring
- F.F.=Front Face
- B.F.=Back Face
- E.F.=Each Face
- I.F.=Inside Face
- O.F.=Outside Face

Note:  
Offsets are measured from the  $\mathcal{E}/\mathcal{W}$  U.S. Rte. 45 to front face of wall

**CURVE DATA**

Prop. Curve US45PCL-2  
 PI STA. = 290+43.86  
 $\Delta = 2^\circ 22' 27''$  (LT)  
 $D = 1^\circ 03' 15''$   
 $R = 5,435.00'$   
 $T = 112.62'$   
 $L = 225.21'$   
 $E = 1.17'$

ST.P. = ---  
 S.P. RUN = ---  
 P.C. STA. = 289+31.24  
 P.T. STA. = 291+56.45



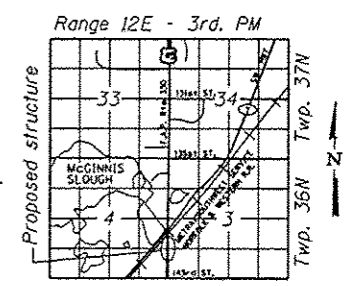
*Arsalan M. Khan*  
 ARSALAN M. KHAN, S.E.  
 LICENSE NO.: 081-006258  
 EXPIRES: NOVEMBER 30, 2014  
 DATE: 03-13-2013

**DESIGN SPECIFICATIONS**  
 2002 AASHTO Standard Specifications  
 for Highway Bridges

**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (M270 Grade 36)

STATION 289+50.60  
 BUILT BY  
 STATE OF ILLINOIS  
 LOADING HS-20  
 STRUCTURE NO. 016-2002

**NAME PLATE**  
 See Std. 515001

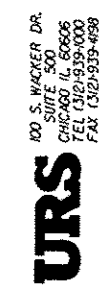


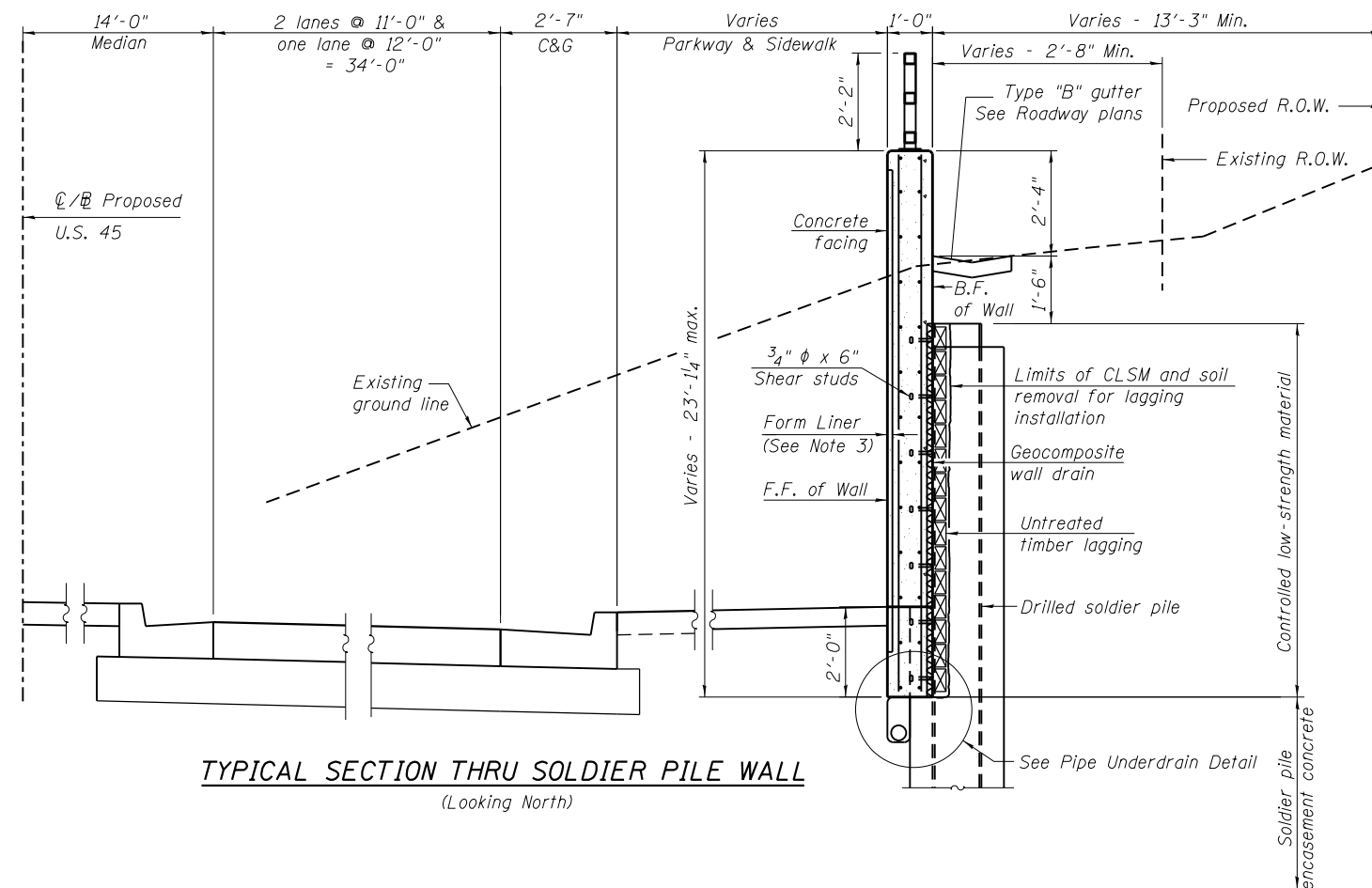
**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 45 - LAGRANGE ROAD**  
**F.A.P. RTE. 330 SEC. 103R-5**  
**COOK COUNTY**  
**STATION 289+50.60 TO 293+25.38**  
**STRUCTURE NO. 016-2002**

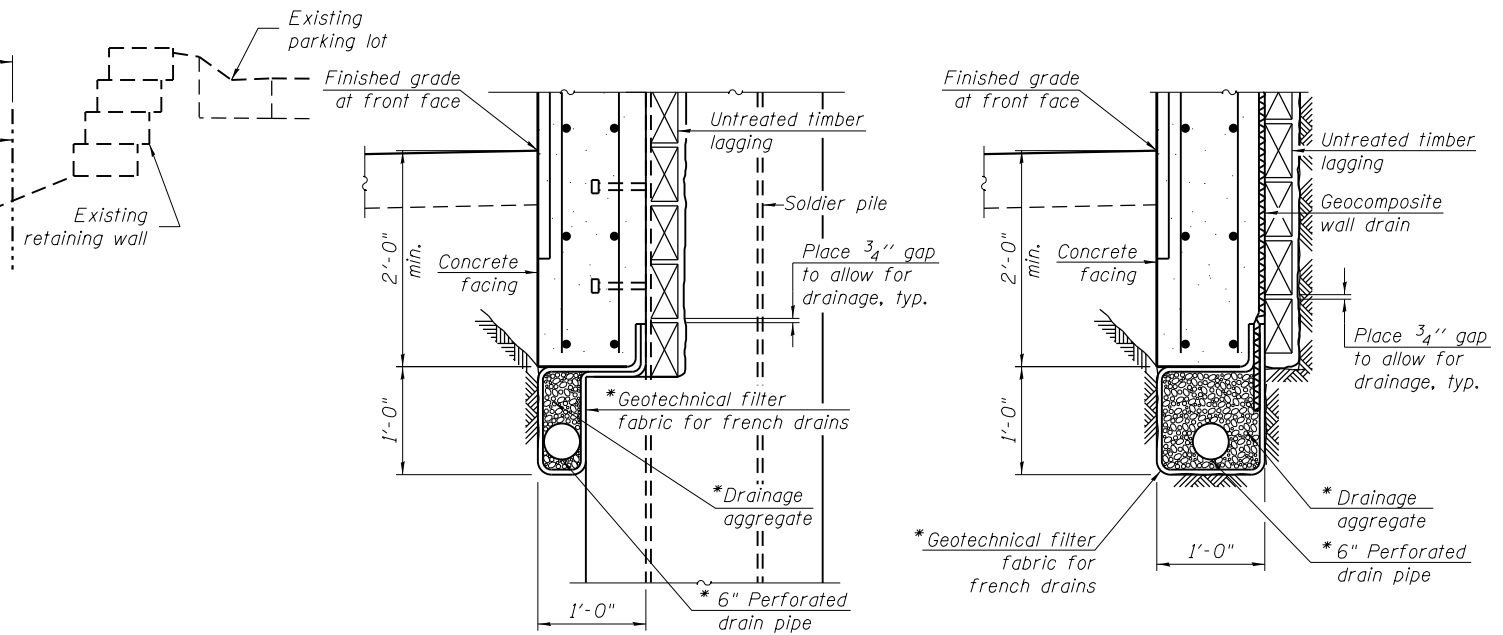
FILE NAME : 0162002-0062-001-CPE.dgn	USER NAME : Kyle.Pearl	DESIGNED - KJH	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 178	SHEET NO. 394
	PLOT SCALE = 32.0/0.0000 1" = 32.0'	CHECKED - PMH	REVISD -						
	PLOT DATE = 3/15/2013	DRAWN - RJ	REVISD -						
		CHECKED - MJL	REVISD -						

3-15-2013





**TYPICAL SECTION THRU SOLDIER PILE WALL**  
(Looking North)



**PIPE UNDERDRAIN DETAIL**

\*Included in the cost of "Pipe Underdrains for Structures 6".

**GENERAL NOTES**

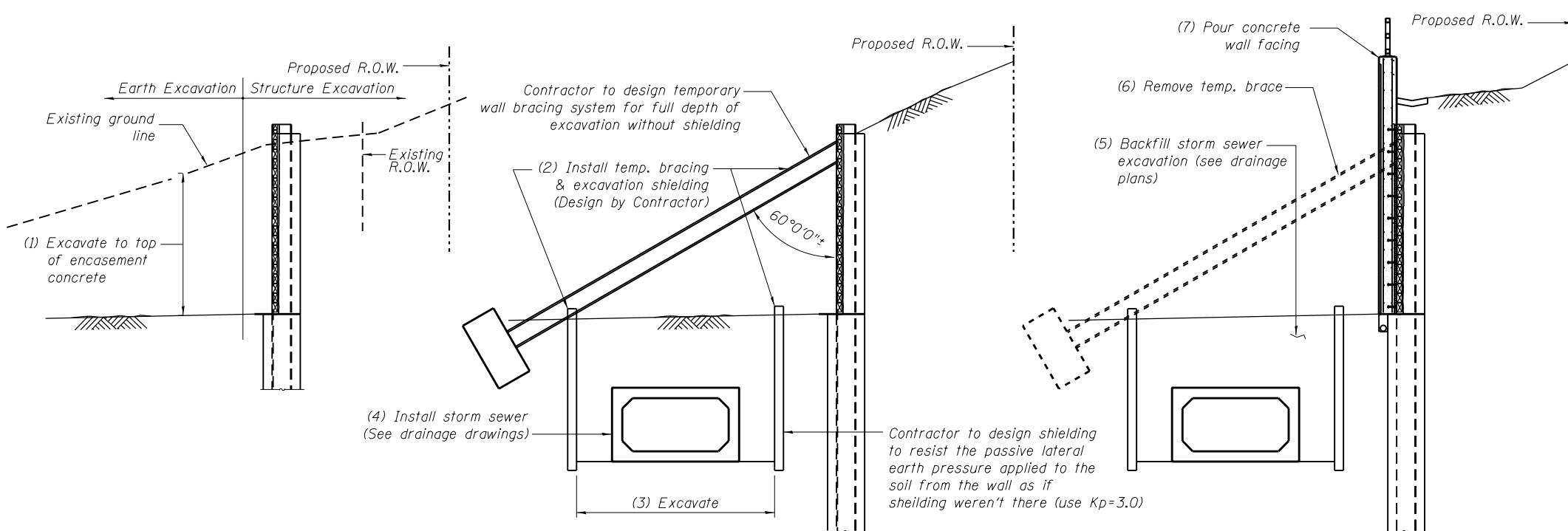
- Reinforcement bars designated (E) shall be epoxy coated.
- The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn timber with a minimum allowable bending stress of 1000 psi.
- The form liner shall be a random Ashlar blend pattern consisting of the following block sizes:
  - 28% - 4" X 18"
  - 16% - 8" X 8"
  - 28% - 8" X 11"
  - 28% - 8" X 18"

**INDEX OF SHEETS**

- General Plan & Elevation
- General Details & Bill of Material
- Plan and Elevation
- Plan and Elevation
- Pile Schedule & Details
- Bill of Material
- Parapet Railing
- Soil Borings
- Soil Borings

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	683
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	40
Concrete Structures	Cu. Yd.	175.7
Form Liner Textured Surface	Sq. Ft.	3,989
Stud Shear Connectors	Each	973
Reinforcement Bars, Epoxy Coated	Pound	20,100
Parapet Railing	Foot	378
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	375
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	12,474
Removal of Temporary Soil Retention System	Sq. Ft.	962
Untreated Timber Lagging	Sq. Ft.	3,303
Furnishing Soldier Piles (W Section)	Foot	1,514
Pipe Underdrains for Structures 6"	Foot	435
Temporary Wall Bracing System	L. Sum	1



**STEP 1 - CONSTRUCT SOLDIER PILE WALL W/O FACING**

**STEP 2 - INSTALL TEMPORARY WALL BRACING SYSTEM AND STORM SEWER**

**STEP 3 - FINISH WALL CONSTRUCTION**

**SOLDIER PILE WALL STAGE CONSTRUCTION**

URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

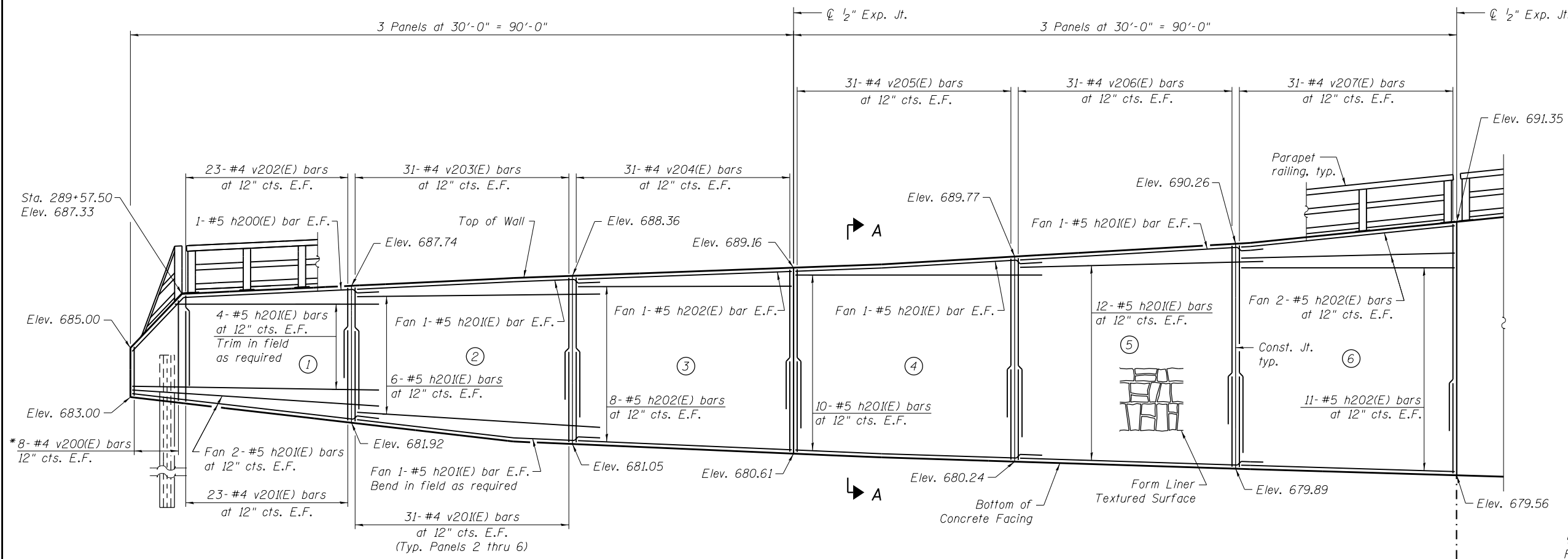
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		CHECKED - PMH	REVISED -
	PLOT SCALE = 4:8.0002 '1' / in.	DRAWN - PMH/RJ	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL DETAILS & BILL OF MATERIAL  
STRUCTURE NO. 016-2002

SHEET NO. 2 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	395
				CONTRACT NO. 60M62
ILLINOIS FED. AID PROJECT				



\*Denotes bars with bar cutting diagram.

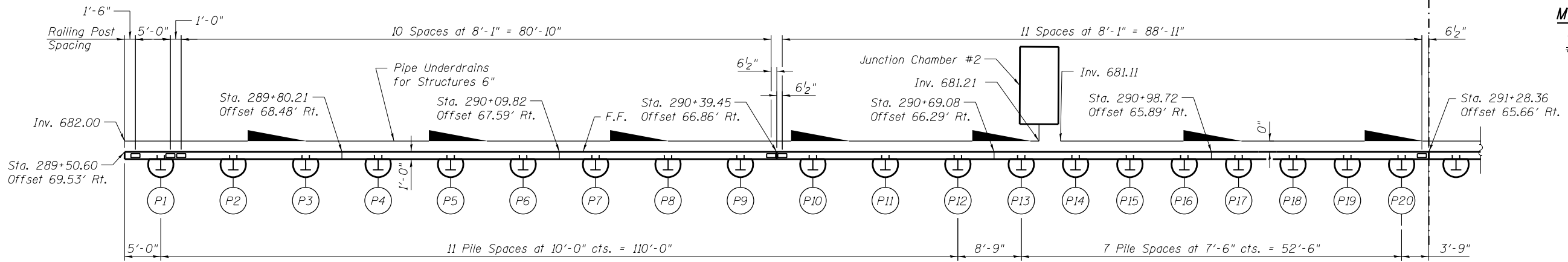
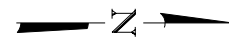
**WALL ELEVATION**  
(Looking at F.F. of Wall)

- LEGEND:**  
 F.F. = Front Face of Wall  
 E.F. = Each Face of Wall  
 (1) = Panel No.  
 (P1) = Soldier Pile No.

- NOTES:**  
 1. Wall stations, offsets and dimensions are measured at front face of wall.  
 2. For Bar List see Sheet 6.  
 3. For Typical Details see Sheet 2.  
 4. For Soldier Pile Schedule see Sheet 5.  
 5. For Section A-A see Sheet 6.  
 6. For Railing Details see Sheet 7.

**MIN. BAR LAP**  
 #4 bars = 2'-1"  
 #5 bars = 2'-11"

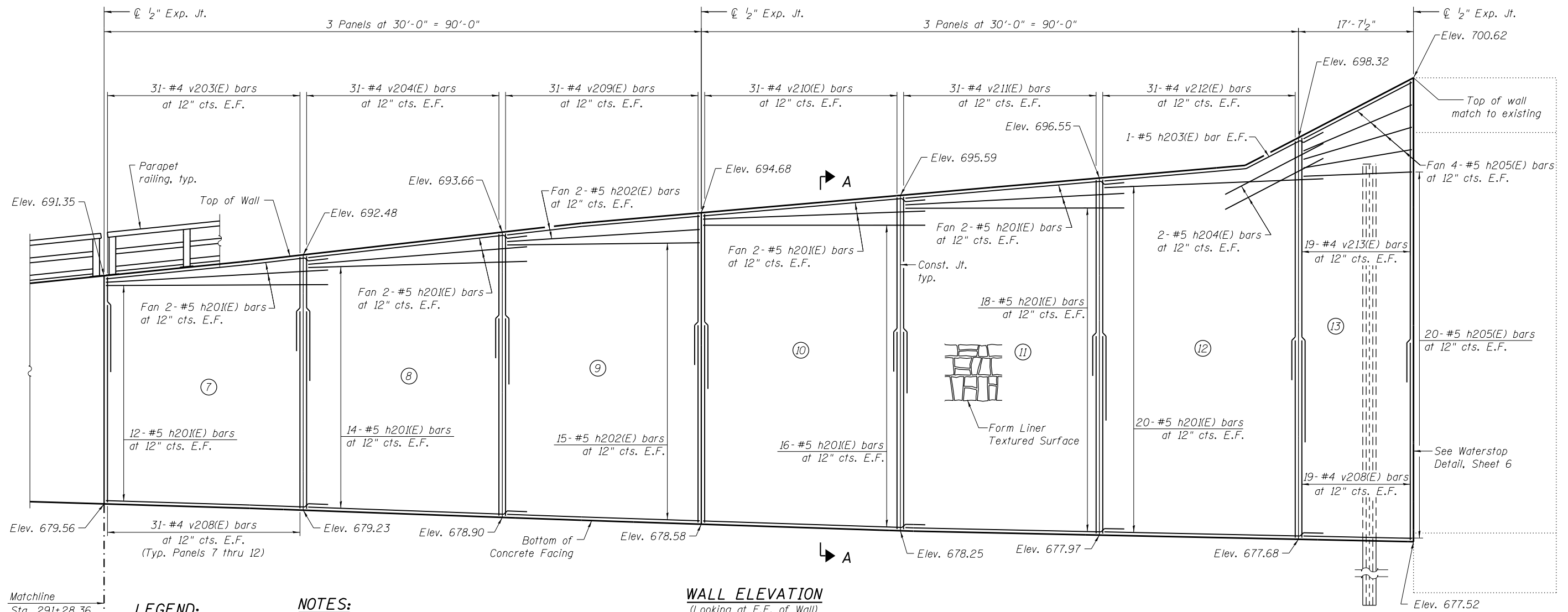
Matchline  
Sta. 291+28.36



**PLAN**

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = 0162002-60M62-003-pln.dgn	USER NAME = Anthony.Plutz	DESIGNED - KJH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND ELEVATION STRUCTURE NO. 016-2002</b>	F.A.P. R.T.E. = 330	SECTION = 103R-5	COUNTY = COOK	TOTAL SHEETS = 778	SHEET NO. = 396	
PLOT SCALE = 1/8" = 1'-0"	DRAWN - RJ	CHECKED - PMH	REVISED -			CONTRACT NO. 60M62					
PLOT DATE = 3/13/2013	CHECKED - MJL	REVISIONS	REVISIONS			ILLINOIS FED. AID PROJECT					
						SHEET NO. 3 OF 9SHEETS					



**WALL ELEVATION**  
(Looking at F.F. of Wall)

**LEGEND:**

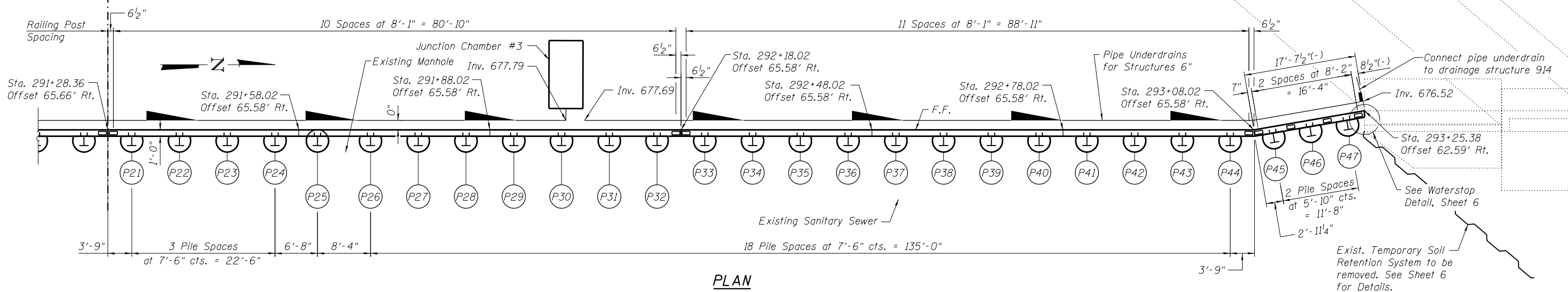
F.F. = Front Face of Wall  
 E.F. = Each Face of Wall  
 (I) = Panel No.  
 (P1) = Soldier Pile No.

**NOTES:**

1. Wall stations, offsets and dimensions are measured at front face of wall.
2. For Bar List see Sheet 6.
3. For Typical Details see Sheet 2.
4. For Soldier Pile Schedule see Sheet 5.
5. For Section A-A see Sheet 6.
6. For Railing Details see Sheet 7.

**MIN. BAR LAP**

#4 bars = 2'-1"  
 #5 bars = 2'-11"



**PLAN**

URS  
 100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998

FILE NAME =	USER NAME = Anthony.Plutz
0162002-60M62-004-pln.dgn	
PLOT SCALE = 1/8" = 1'-0"	
PLOT DATE = 3/13/2013	

DESIGNED - KJH	REVISED -
CHECKED - PMH	REVISED -
DRAWN - RJ	REVISED -
CHECKED - MJL	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

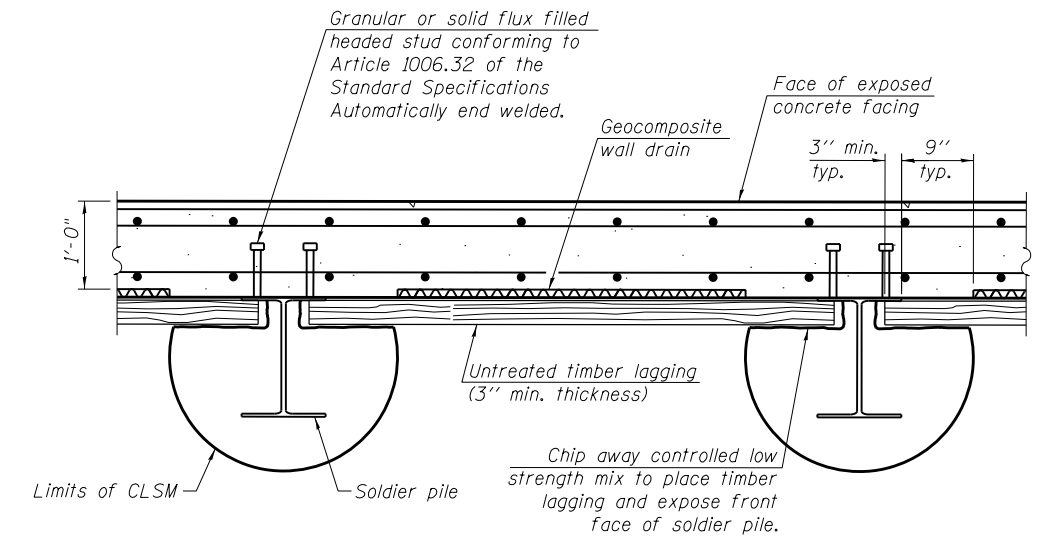
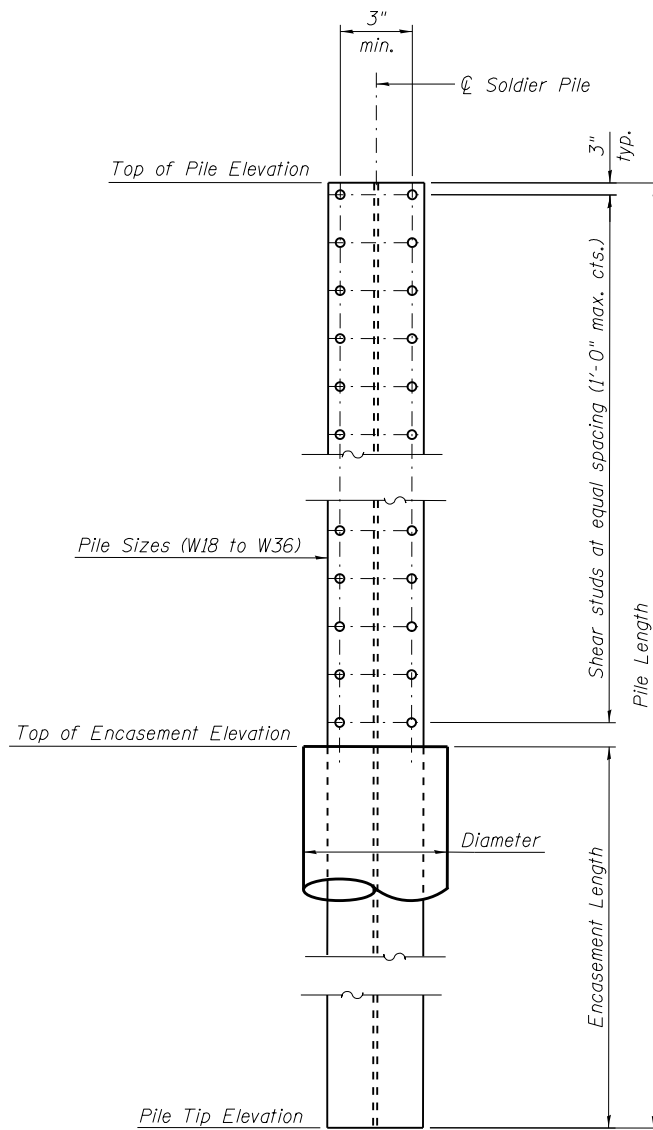
PLAN AND ELEVATION  
 STRUCTURE NO. 016-2002

SHEET NO. 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	397
CONTRACT NO. 60M62				
ILLINOIS FED. AID PROJECT				

### SOLDIER PILE SCHEDULE

Soldier Pile Data					Concrete Encasement Data			
Pile No.	Pile Size	Top of Pile Elevation	Pile Tip Elevation	Pile Length (Ft.)	No. of Studs	Diameter (In.)	Top of Encasement Elevation	Encasement Length
P1	W18x46	682.84	667.07	15.77	2	24	682.82	15.75
P2	W18x46	683.64	666.71	16.93	4	24	682.46	15.75
P3	W18x46	683.82	666.35	17.47	4	24	682.10	15.75
P4	W18x46	684.01	666.02	17.99	6	24	681.77	15.75
P5	W18x46	684.22	665.73	18.49	6	24	681.48	15.75
P6	W18x46	684.42	665.44	18.98	8	24	681.19	15.75
P7	W18x76	684.66	663.47	21.19	8	30	680.97	17.50
P8	W18x76	684.93	663.33	21.60	10	30	680.83	17.50
P9	W18x76	685.20	663.19	22.01	10	30	680.69	17.50
P10	W21x93	685.43	661.55	23.88	10	30	680.55	19.00
P11	W21x93	685.63	661.43	24.21	12	30	680.43	19.00
P12	W21x93	685.84	661.30	24.53	12	30	680.30	19.00
P13	W21x93	686.00	661.20	24.80	12	30	680.20	19.00
P14	W21x93	686.12	661.11	25.01	14	30	680.11	19.00
P15	W21x93	686.24	661.02	25.22	14	30	680.02	19.00
P16	W21x93	686.37	660.94	25.43	14	30	679.94	19.00
P17	W24x104	686.56	659.60	26.96	14	36	679.85	20.25
P18	W24x104	686.84	659.52	27.32	16	36	679.77	20.25
P19	W24x104	687.11	659.44	27.67	16	36	679.69	20.25
P20	W24x104	687.38	659.35	28.03	16	36	679.60	20.25
P21	W24x131	687.66	657.52	30.14	18	36	679.52	22.00
P22	W24x131	687.94	657.44	30.50	18	36	679.44	22.00
P23	W24x131	688.22	657.36	30.87	18	36	679.36	22.00
P24	W24x131	688.50	657.27	31.23	20	36	679.27	22.00
P25	W27x146	688.76	656.95	31.81	20	36	679.20	22.25
P26	W27x146	689.09	656.86	32.23	20	36	679.11	22.25
P27	W27x146	689.38	656.78	32.61	22	36	679.03	22.25
P28	W27x146	689.68	656.69	32.99	22	36	678.94	22.25
P29	W27x146	689.96	654.86	35.09	24	36	678.86	24.00
P30	W27x146	690.21	654.78	35.43	24	36	678.78	24.00
P31	W27x146	690.47	654.70	35.77	24	36	678.70	24.00
P32	W27x146	690.72	654.62	36.10	26	36	678.62	24.00
P33	W30x173	690.96	652.78	38.18	26	42	678.53	25.75
P34	W30x173	691.19	652.70	38.49	26	42	678.45	25.75
P35	W30x173	691.42	652.62	38.79	28	42	678.37	25.75
P36	W30x173	691.65	652.54	39.10	28	42	678.29	25.75
P37	W33x201	691.88	649.72	42.16	28	42	678.22	28.50
P38	W33x201	692.12	649.64	42.48	28	42	678.14	28.50
P39	W33x201	692.36	649.57	42.79	30	42	678.07	28.50
P40	W33x201	692.60	649.50	43.10	30	42	678.00	28.50
P41	W36x262	692.84	647.10	45.74	30	48	677.93	30.83
P42	W36x262	693.08	647.03	46.05	32	48	677.86	30.83
P43	W36x262	693.33	646.96	46.37	32	48	677.79	30.83
P44	W36x262	693.57	646.89	46.68	32	48	677.72	30.83
P45	W36x262	694.87	643.83	51.05	36	48	677.66	33.83
P46	W36x262	695.64	643.77	51.86	38	48	677.60	33.83
P47	W36x262	696.40	643.72	52.68	38	48	677.55	33.83

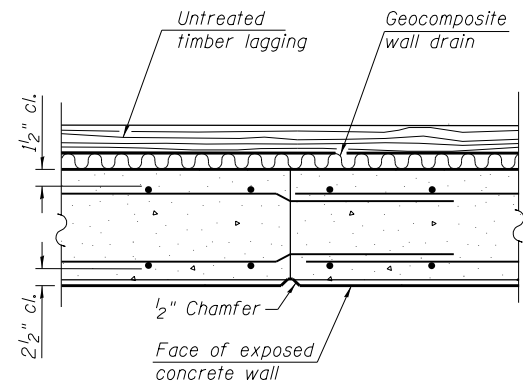


**DETAIL PLAN**

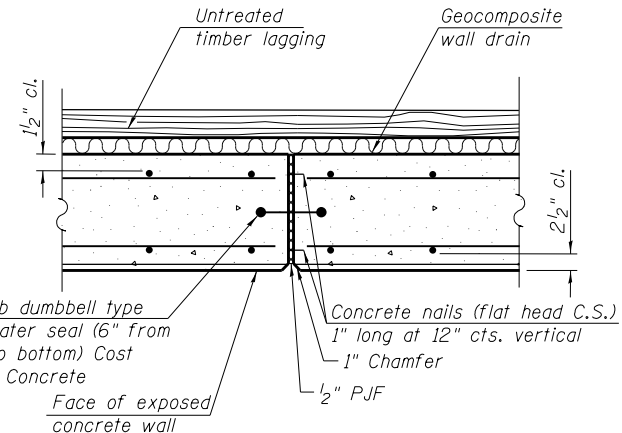
**SOLDIER PILE ELEVATION AND SHEAR STUD CONNECTION DETAILS**

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		CHECKED - PMH	REVISED -
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	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -

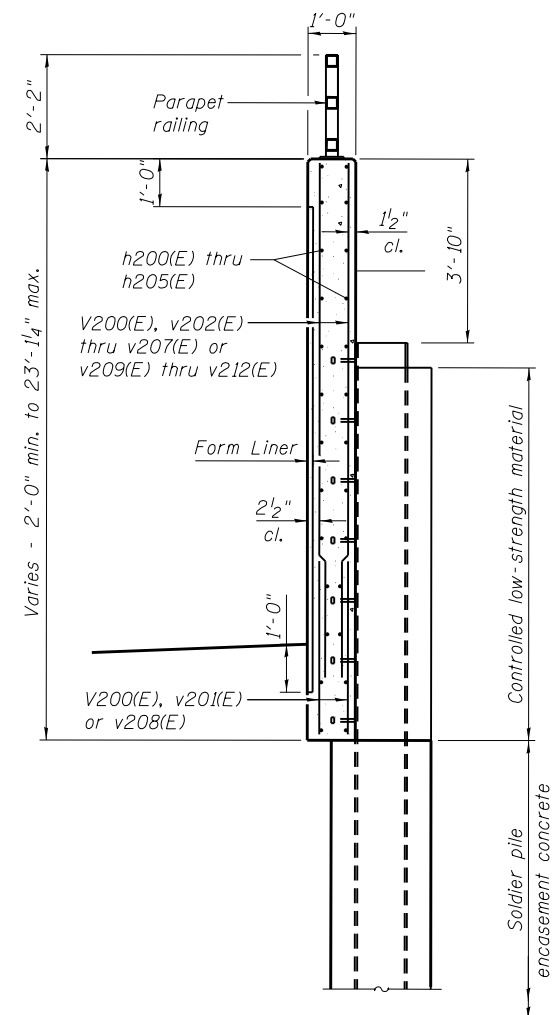
F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	398
CONTRACT NO. 60M62				
ILLINOIS FED. AID PROJECT				



**CONSTRUCTION JOINT DETAIL**

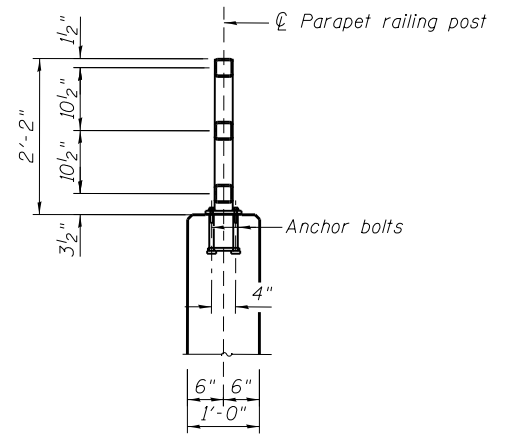


**EXPANSION JOINT DETAIL**



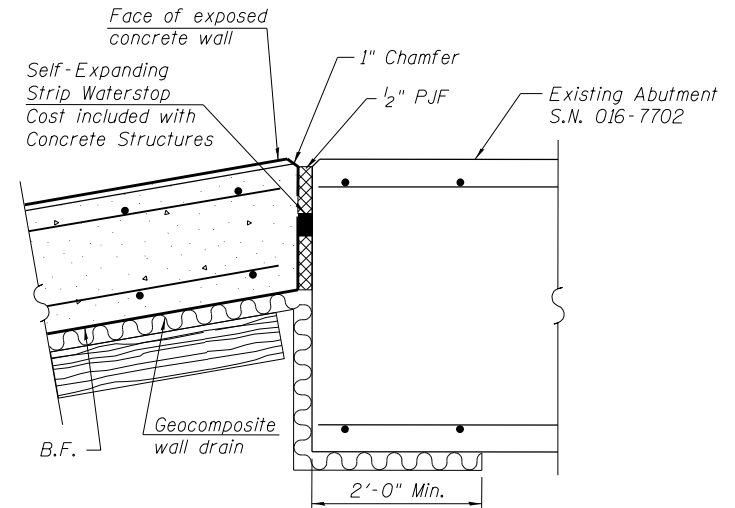
**SECTION A-A**

For details not shown see Typical Section Thru Soldier Pile Wall, Sheet 2.



**SECTION THRU PARAPET RAILING**

For railing details see Sheet 7.

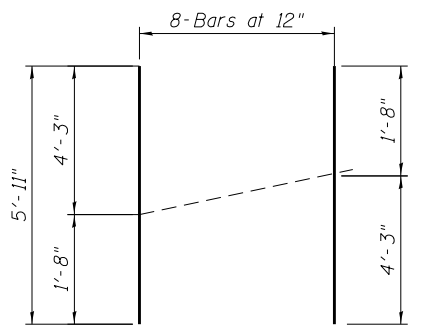


**WATERSTOP DETAIL**

6" Hollow bulb dumbbell type nonmetallic water seal (6" from top of wall to bottom) Cost included with Concrete Structures  
 Concrete nails (flat head C.S.) 1" long at 12" cts. vertical  
 1" Chamfer  
 1/2" P.J.F.

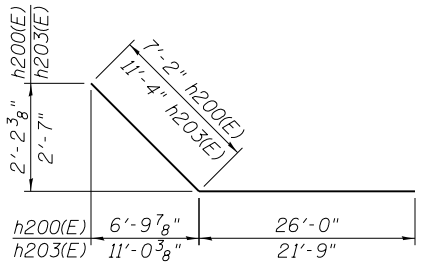
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h200(E)	2	#5	33'-2"	
h201(E)	252	#5	33'-0"	
h202(E)	78	#5	29'-8"	
h203(E)	2	#5	33'-1"	
h204(E)	4	#5	14'-3"	
h205(E)	48	#5	17'-3"	
v200(E)	8	#4	5'-11"	
v201(E)	356	#4	4'-0"	
v202(E)	46	#4	3'-9"	
v203(E)	124	#4	5'-3"	
v204(E)	124	#4	6'-9"	
v205(E)	62	#4	7'-6"	
v206(E)	62	#4	8'-3"	
v207(E)	62	#4	9'-9"	
v208(E)	410	#4	10'-0"	
v209(E)	62	#4	8'-1"	
v210(E)	62	#4	9'-3"	
v211(E)	62	#4	10'-6"	
v212(E)	62	#4	12'-7"	
v213(E)	38	#4	15'-1"	
Reinforcement Bars, Epoxy Coated		Pound	20,100	
Concrete Structures		Cu. Yd.	175.7	

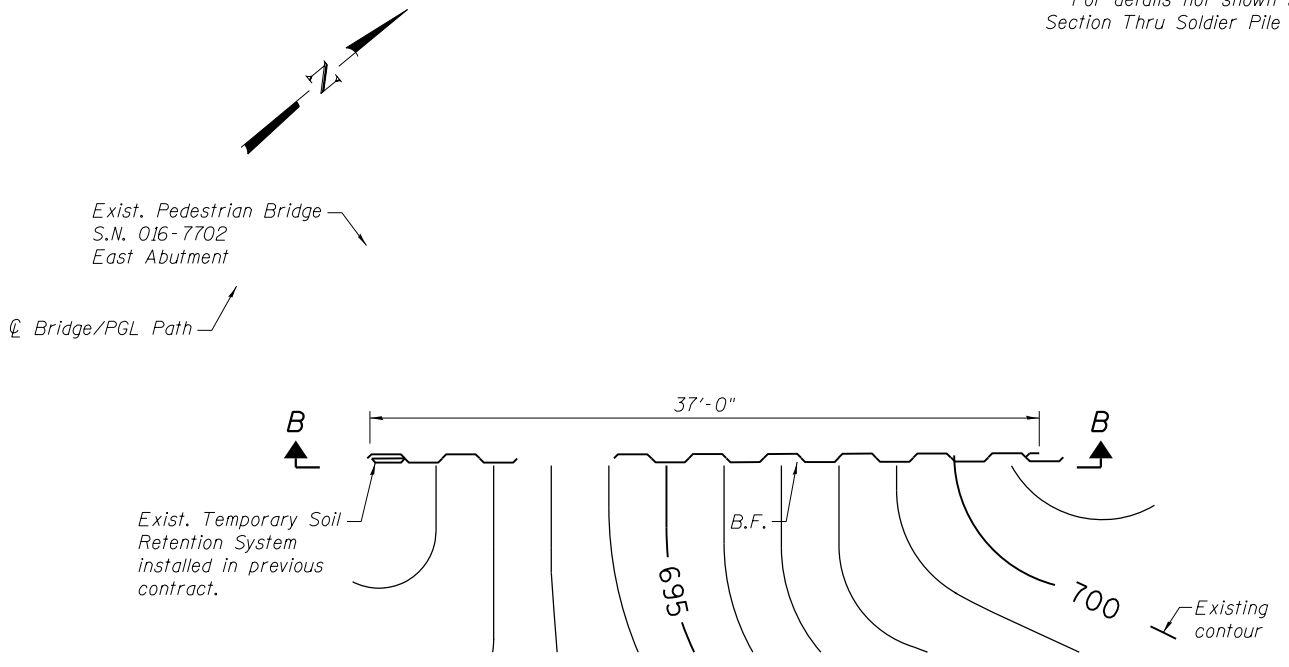


**BAR v200(E) BAR CUTTING DIAGRAM**

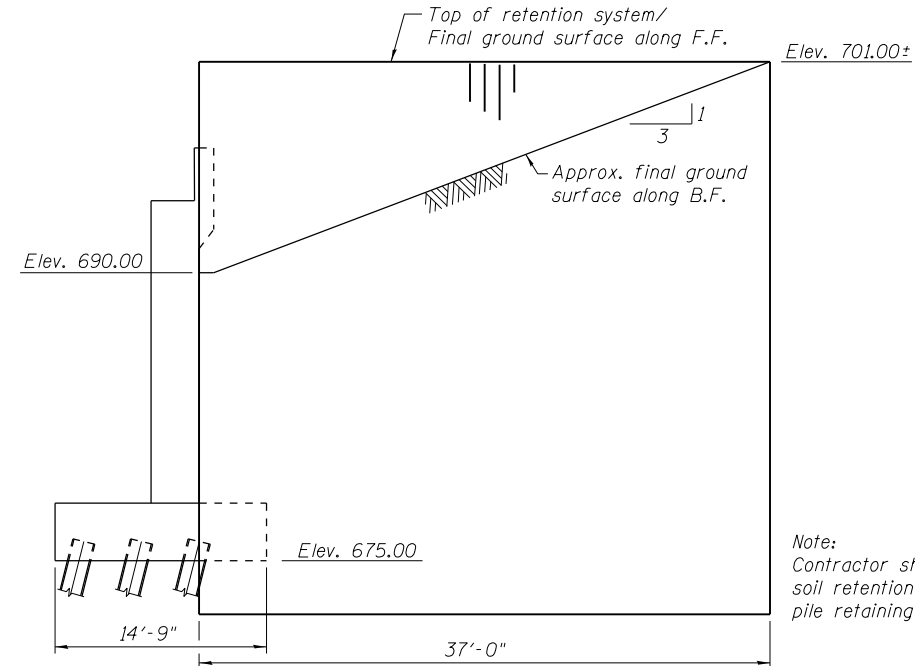
Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.



**BARS h200(E) & h203(E)**



**EXISTING TEMPORARY SOIL RETENTION SYSTEM TO BE REMOVED**



**SECTION B-B (Looking at B.F.)**

Note: Contractor shall remove temporary soil retention system after soldier pile retaining wall is in place.

URS  
 100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998

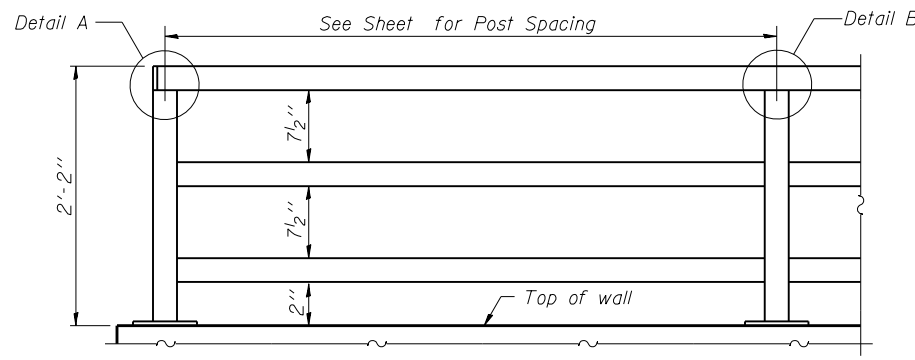
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		DRAWN - RJ	REVISED -
		CHECKED - MJL	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

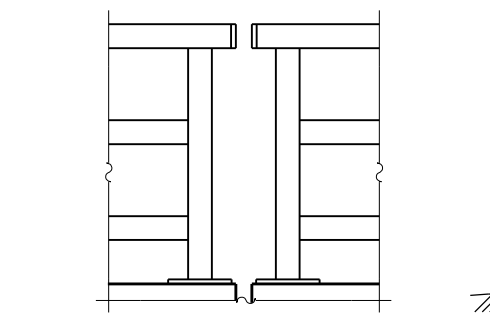
BILL OF MATERIAL  
 STRUCTURE NO. 016-2002

SHEET NO. 6 OF 9SHEETS

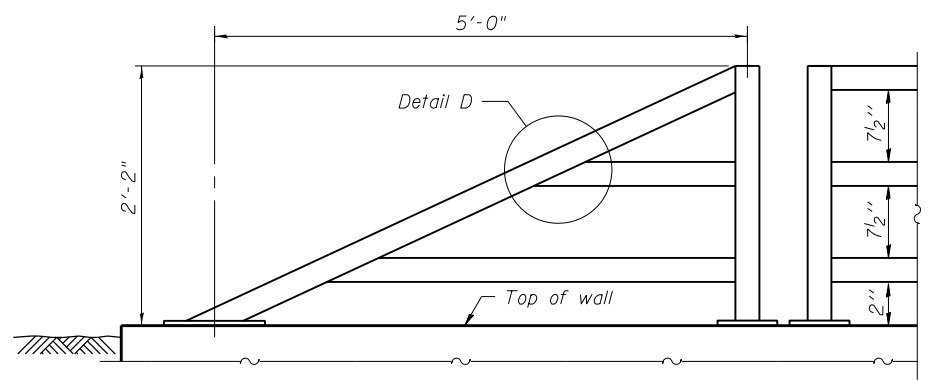
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-5	COOK	778	399
				CONTRACT NO. 60M62
ILLINOIS FED. AID PROJECT				



**PARAPET RAILING**  
**ELEVATION**  
(Inside Face of Rail)

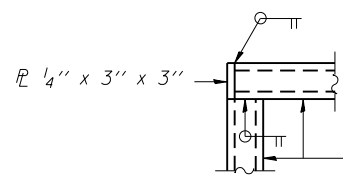


**PARAPET RAILING**  
**ELEVATION AT EXPANSION JOINT**

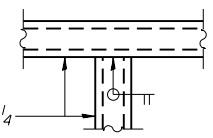


**PARAPET RAILING**  
**AT END SECTION**

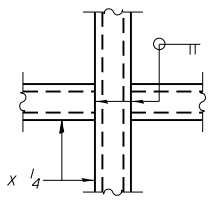
Note:  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



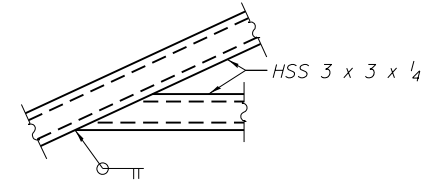
**DETAIL A**



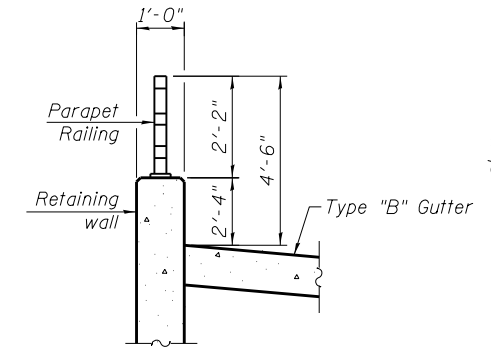
**DETAIL B**



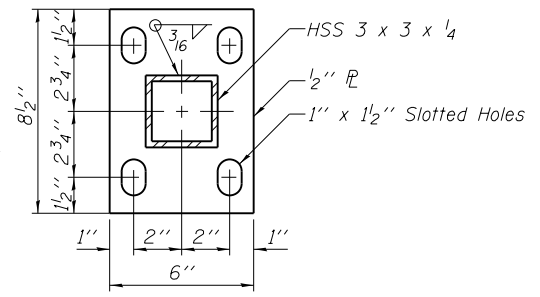
**DETAIL C**



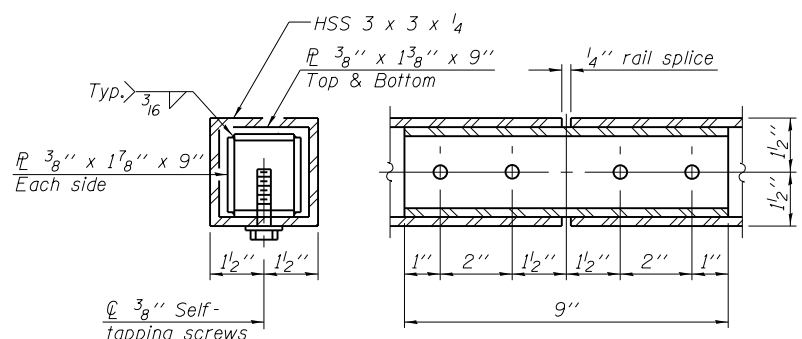
**DETAIL D**



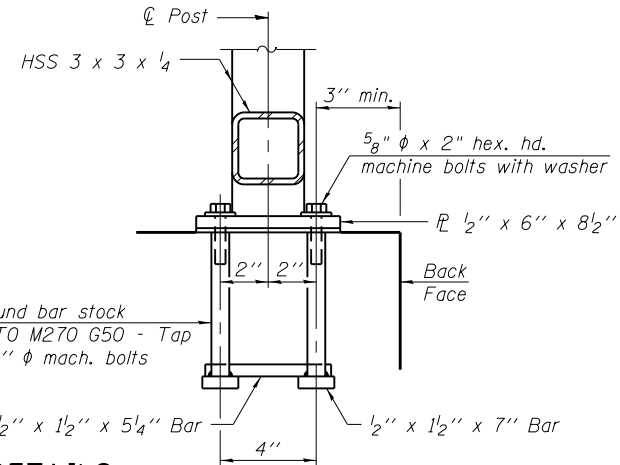
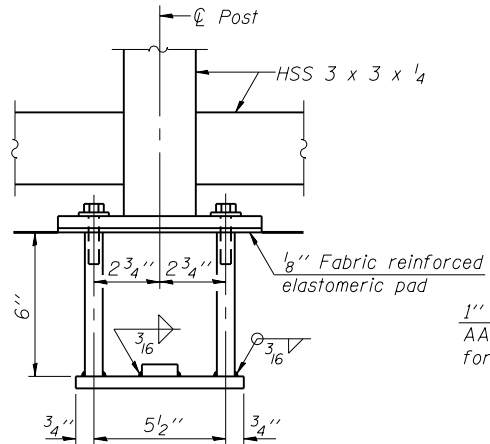
**SECTION THRU RAILING**



**BASE PLATE**



**RAIL SPLICE**



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8"  $\phi$  anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

**BILL OF MATERIAL**

Item	Unit	Quantity
Parapet Railing	Foot	378

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998



FILE NAME = 0162002-60M62-007-Rail.dgn	USER NAME = Anthony.Plutz	DESIGNED - PMH	REVISED -
		CHECKED - MJL	REVISED -
	PLOT SCALE = 0:2.0000 '1' / in.	DRAWN - RJ	REVISED -
	PLOT DATE = 3/13/2013	CHECKED - MJL	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PARAPET RAILING**  
**STRUCTURE NO. 016-2002**

SHEET NO. 7 OF 9 SHEETS

F.A.P. RTE. 330	SECTION 103R-5	COUNTY COOK	TOTAL SHEETS 778	SHEET NO. 400
CONTRACT NO. 60M62				ILLINOIS FED. AID PROJECT