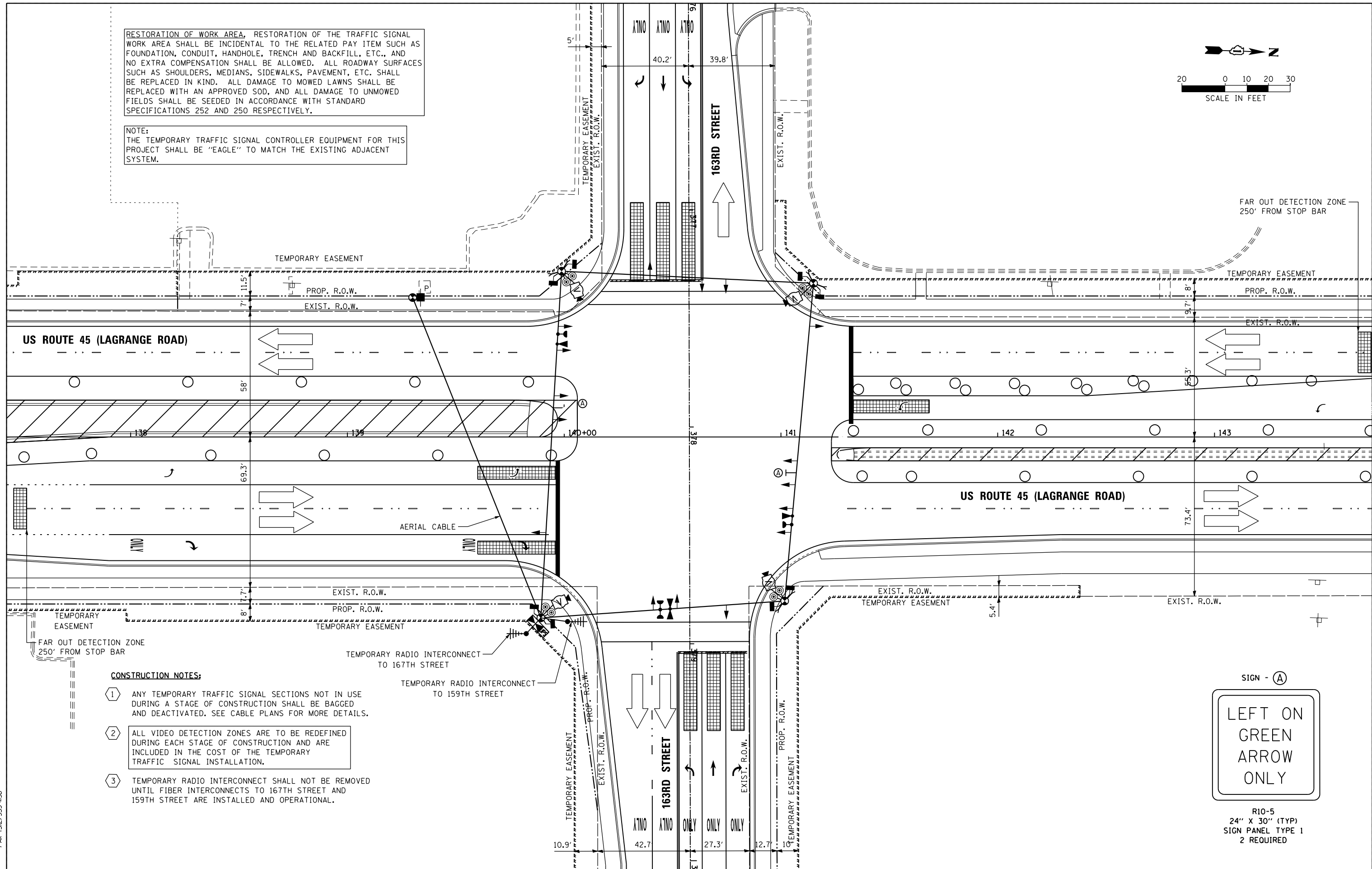
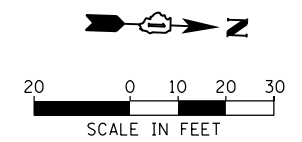


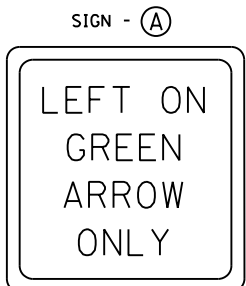
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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 TEMPORARY 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 INTERCONNECTS TO 167TH STREET AND 159TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5
24" X 30" (TYP)
SIGN PANEL TYPE 1
2 REQUIRED

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

FILE NAME = D160F05-SHT-TD40.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

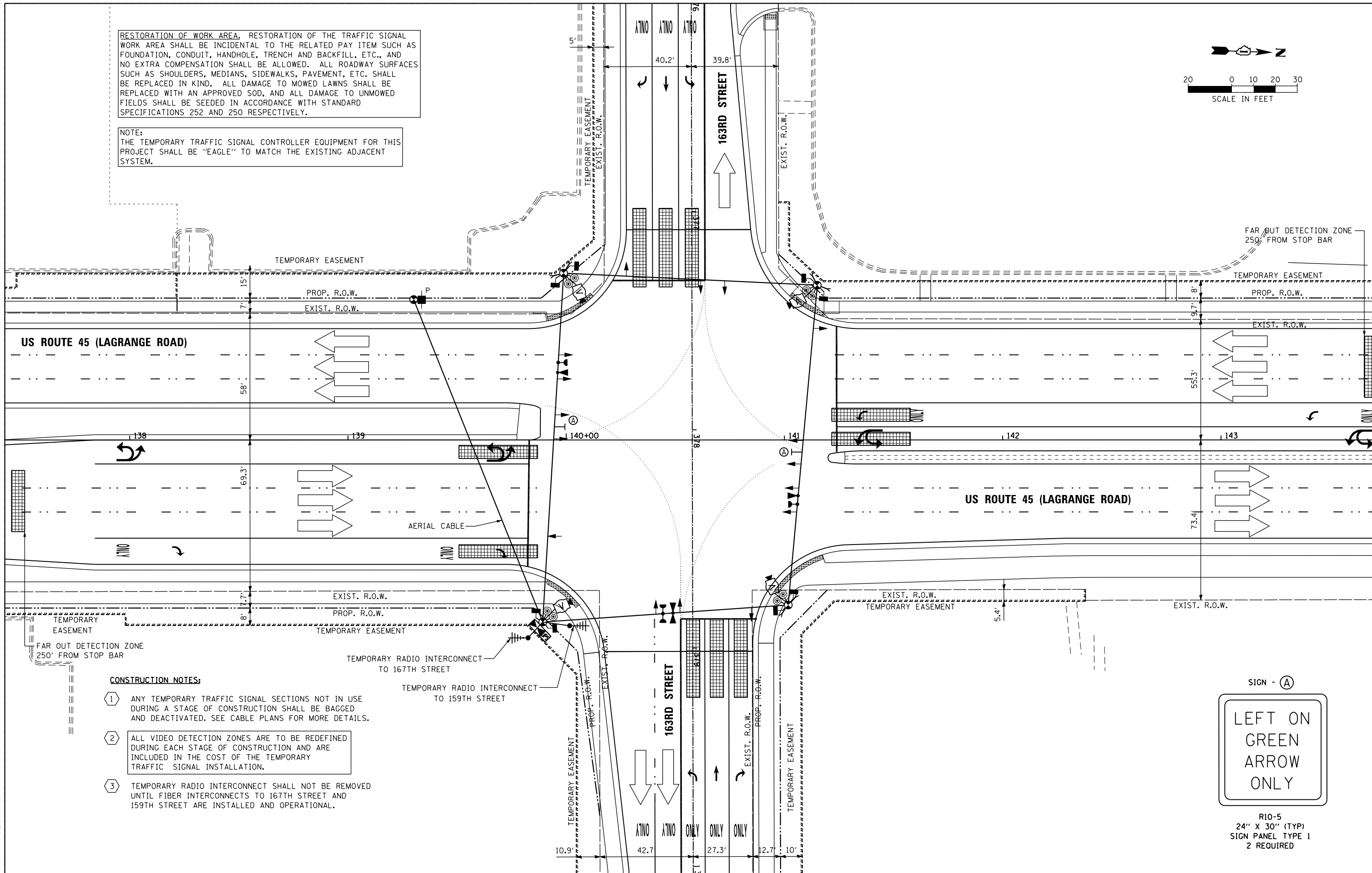
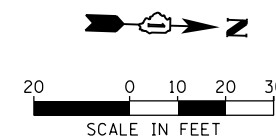
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4
US 45 (LAGRANGE ROAD) AND 163RD STREET**

SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	501
TD-40			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

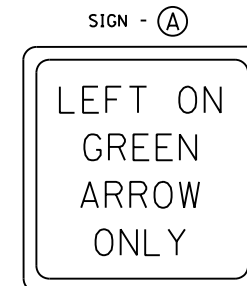
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

NOTE:
THE TEMPORARY 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 INTERCONNECTS TO 167TH STREET AND 159TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5
24" X 30" (TYP)
SIGN PANEL TYPE 1
2 REQUIRED

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

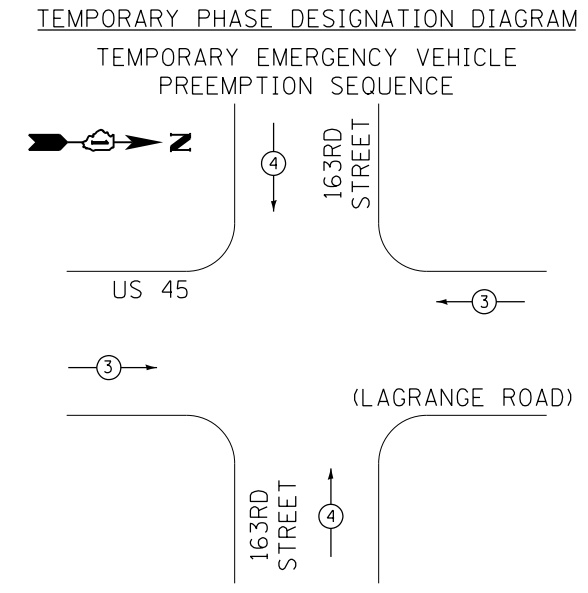
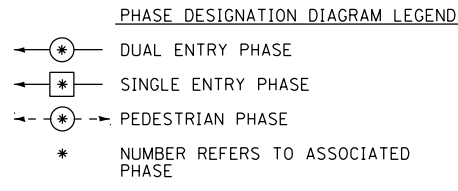
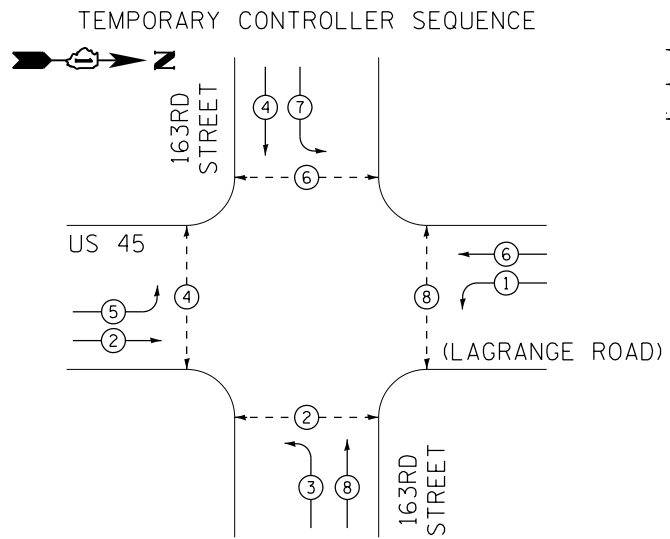
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		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS
US 45 (LAGRANGE ROAD) AND 163RD STREET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	502
TD-41		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

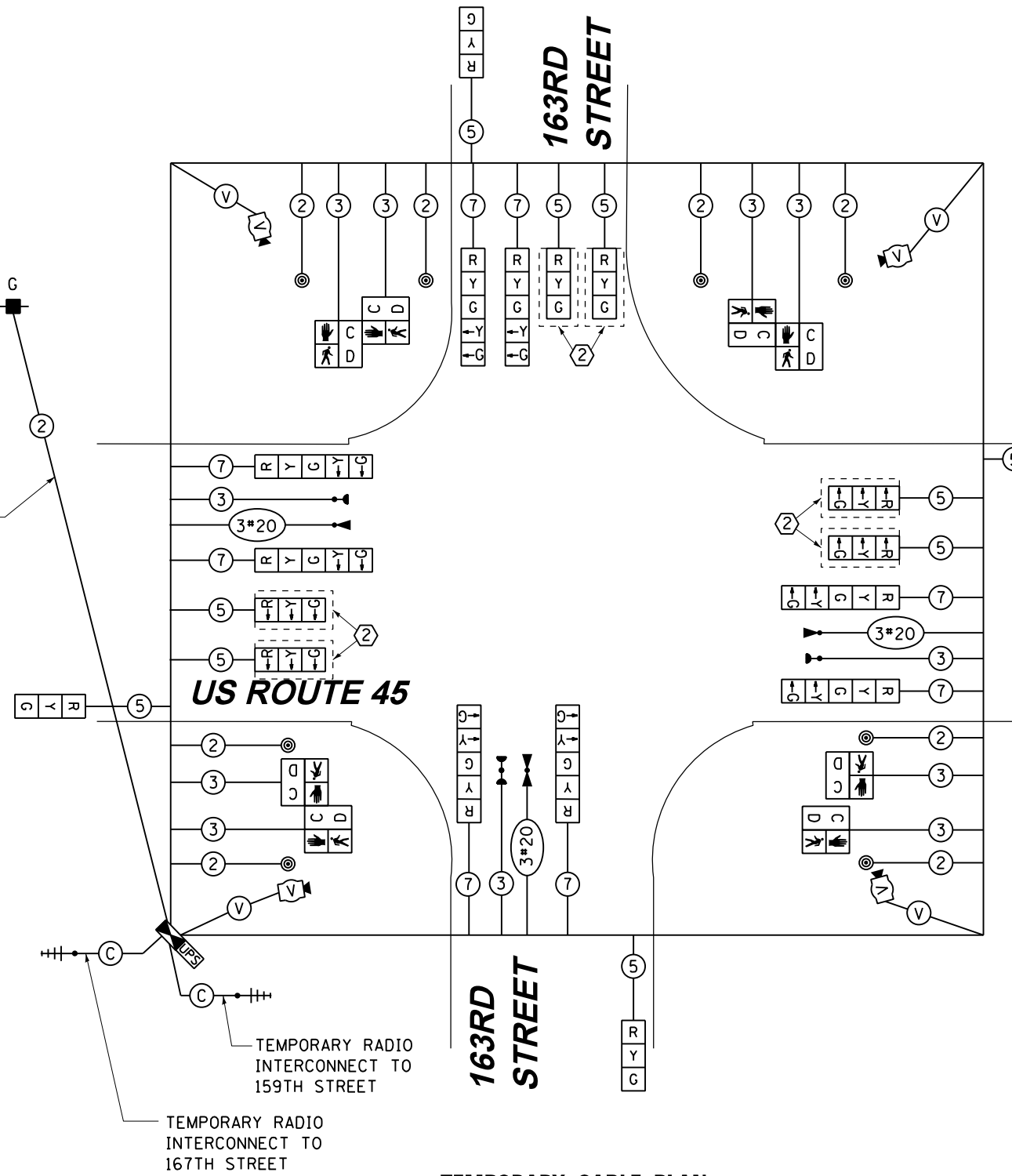


TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	→	↑

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	8		25	1.00	200.0
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=	691.2

VILLAGE OF ORLAND PARK
14700 SOUTH RAVINIA AVE.

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



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

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 167TH STREET AND 159TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
 - ② BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.

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

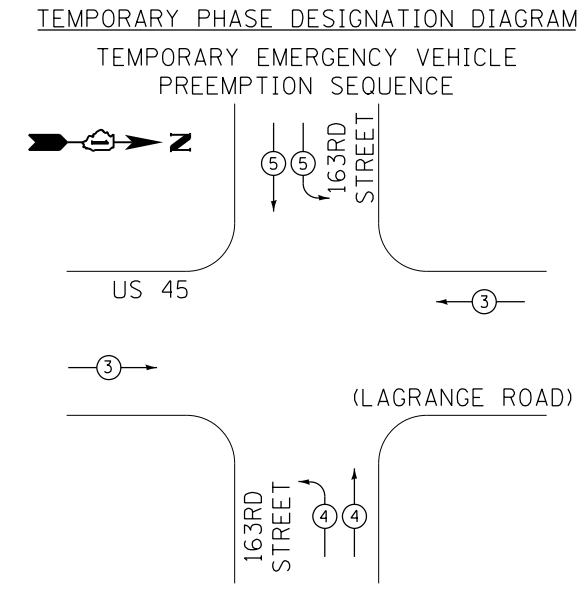
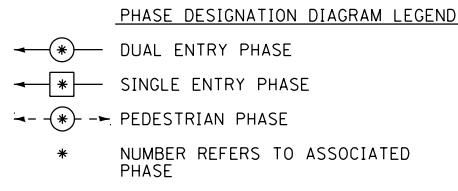
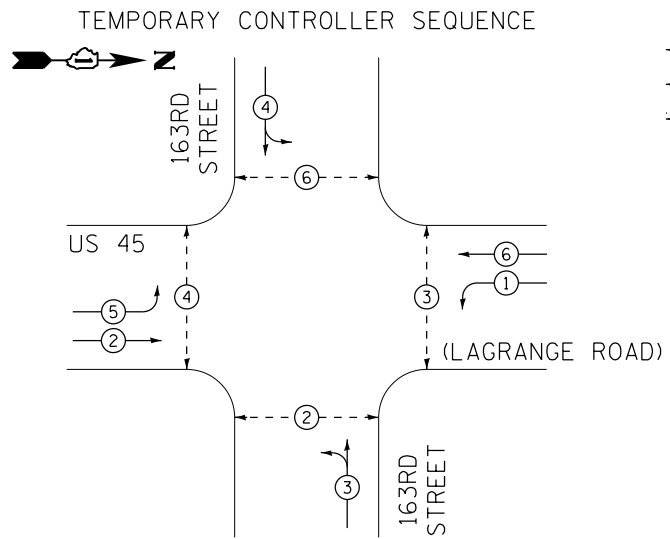
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SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US 45 (LAGRANGE ROAD) AND 163RD STREET - PRE-STAGE, STAGE 1

SCALE: N.T.S. SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	503
TD-42		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				



TEMPORARY EMERGENCY VEHICLE PREEMPTORS

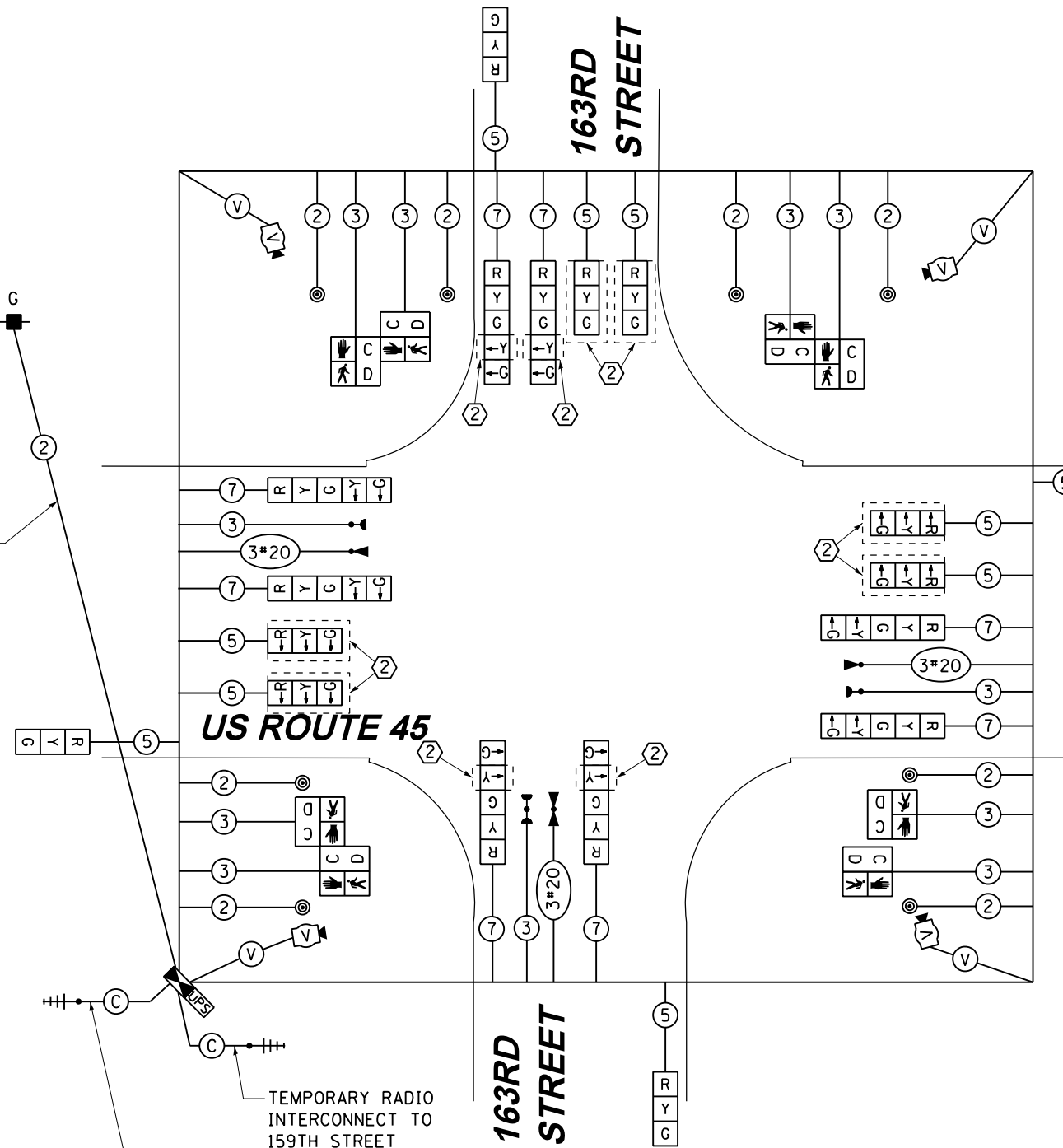
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	→	↗	↘

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
		INCANDESC. LED		
SIGNAL (RED)	12	17	0.50	102.0
(YELLOW)	12	25	0.25	75.0
(GREEN)	16	15	0.25	60.0
ARROW	8	12	0.10	9.6
PED. SIGNAL	8	25	1.00	200.0
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=	696.6

VILLAGE OF ORLAND PARK
14700 SOUTH RAVINIA AVE.

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



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

- CONSTRUCTION NOTES:**
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 167TH STREET AND 159TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
 - ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 1A AND 1B.

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

FILE NAME = D:\160F05-SHT-TD42A.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

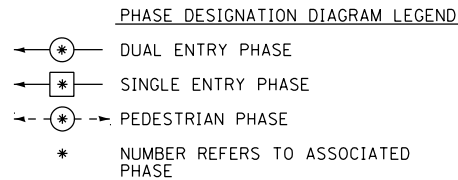
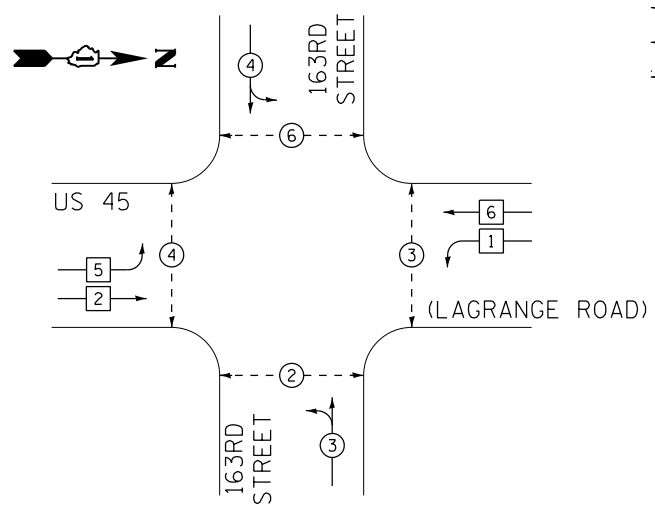
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US 45 (LAGRANGE ROAD) AND 163RD STREET - STAGE 1A & 1B

SCALE: N.T.S. SHEET 2 OF 4 SHEETS STA. TO STA.

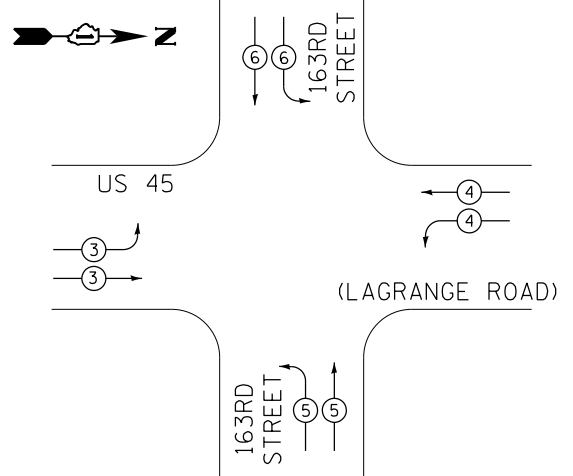
F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 504
TD-42A		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

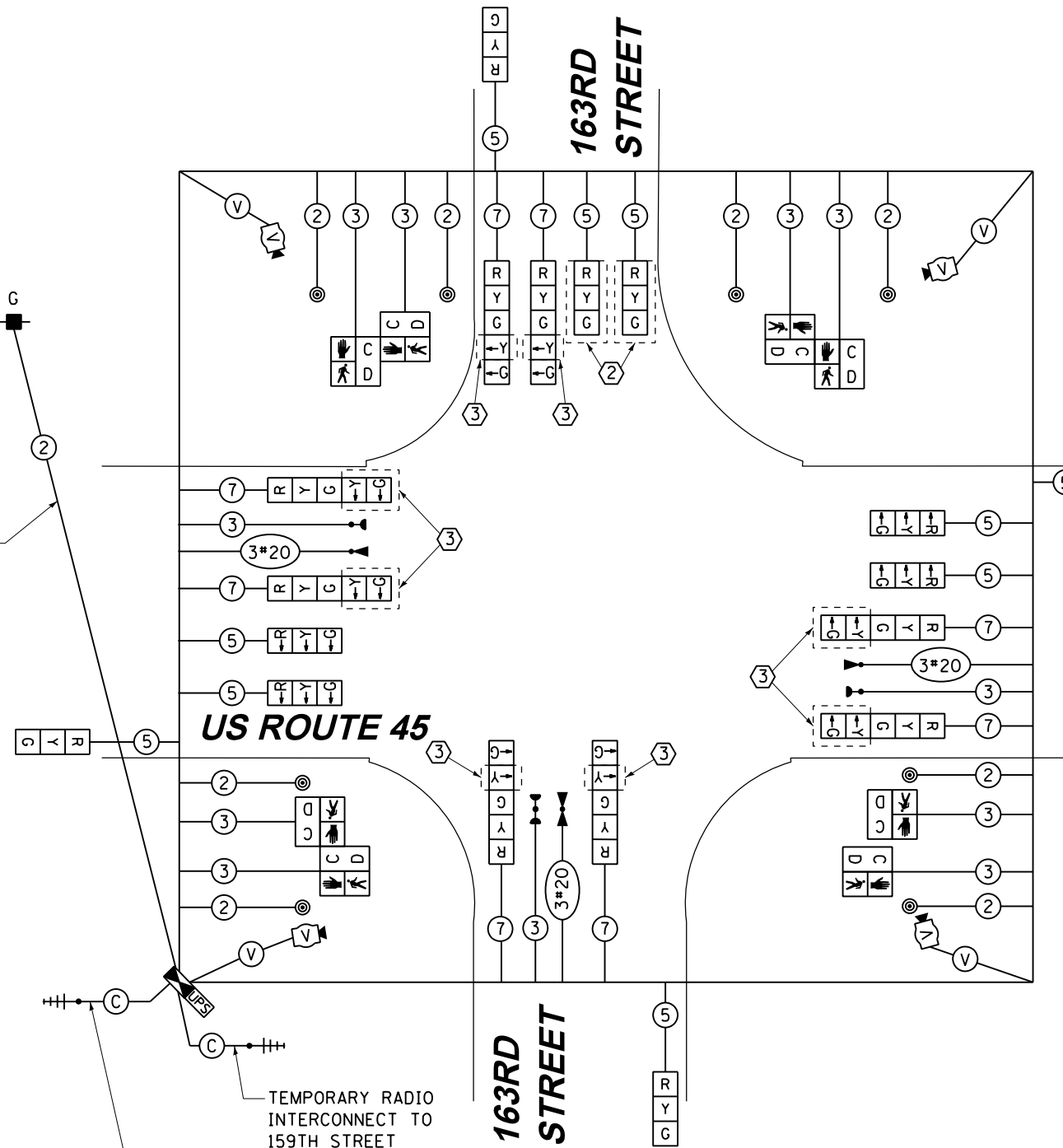


TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTORS	3	4	5	6
MOVEMENT	↔	↔	↔	↔

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	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	8		25	1.00	200.0
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 =	798.0

VILLAGE OF ORLAND PARK
14700 SOUTH RAVINIA AVE.

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

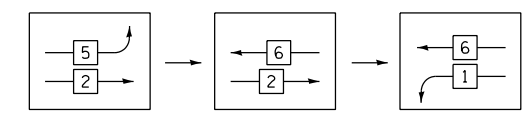


RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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 TEMPORARY TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 167TH STREET AND 159TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
 - ② BAG AND DEACTIVATE SIGNAL SECTION DURING ALL STAGES EXCEPT STAGE 3B.
 - ③ BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 2A, 2B, 3, 3A, 3B, AND 3C.

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



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

TEMPORARY CABLE PLAN
STAGE 2, 2A, 2B, 3, 3A, 3B & 3C

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



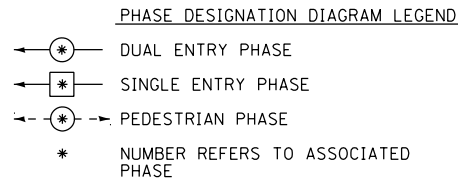
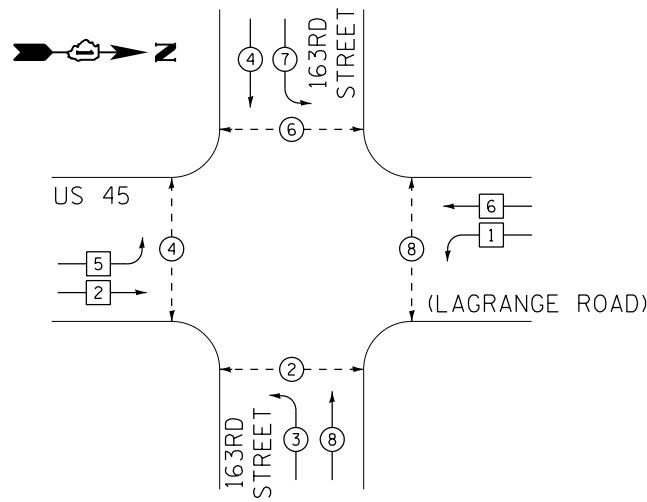
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SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISIONS
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISIONS
		DATE - 03/13/13	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

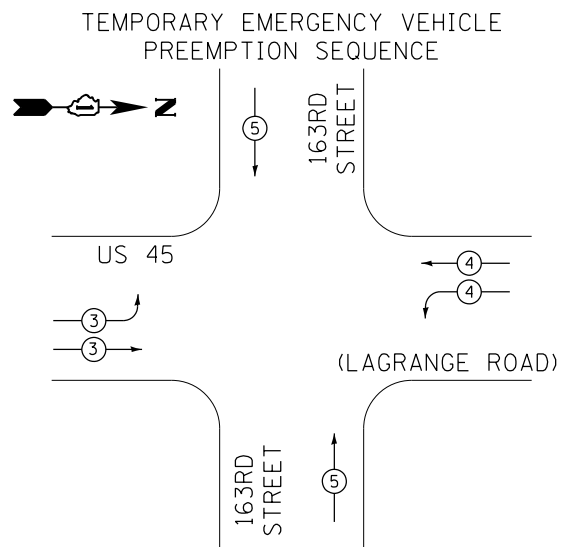
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US 45 (LAGRANGE ROAD) AND 163RD STREET - STAGE 2, 2A, 2B, 3, 3A, 3B & 3C

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 505
TD-43		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

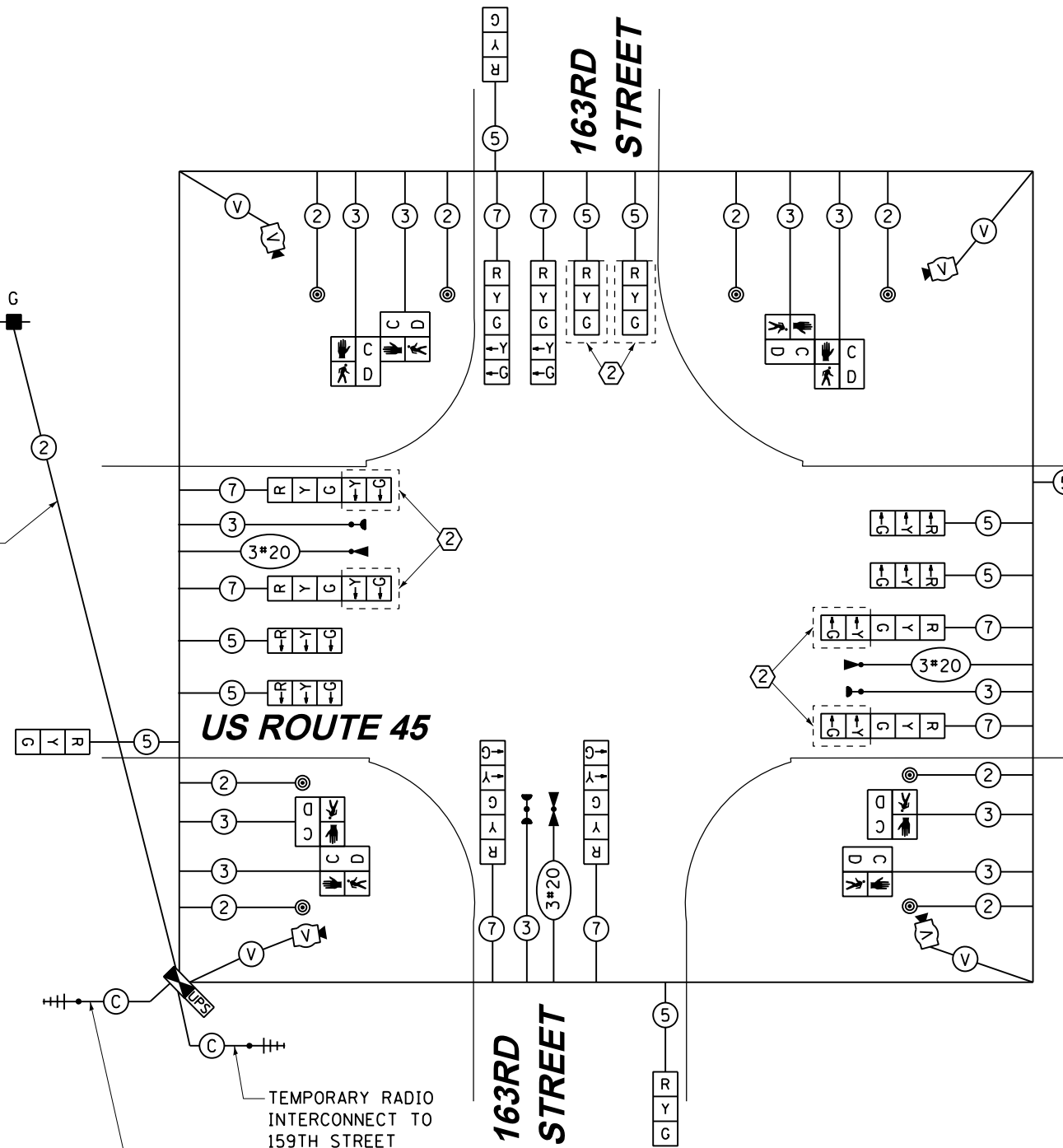


TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	17		0.50	136.0
(YELLOW)	16	25		0.25	100.0
(GREEN)	16	15		0.25	60.0
ARROW	8	12		0.10	9.6
PED. SIGNAL	8	25		1.00	200.0
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 =	755.6

VILLAGE OF ORLAND PARK
14700 SOUTH RAVINIA AVE.

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



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

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 167TH STREET AND 159TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
 - ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 4 AND FINAL GEOMETRICS.

TEMPORARY CABLE PLAN
STAGE 4 & FINAL GEOMETRICS

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

URS

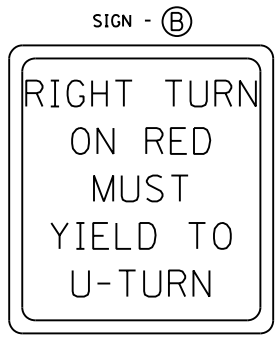
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SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US 45 (LAGRANGE ROAD) AND 163RD STREET - STAGE 4 & FINAL GEOMETRICS

SCALE: N.T.S. SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 506
TD-43A		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

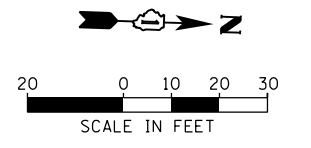


R10-5
30" X 36" (TYP)
SIGN PANEL TYPE 1
4 REQUIRED

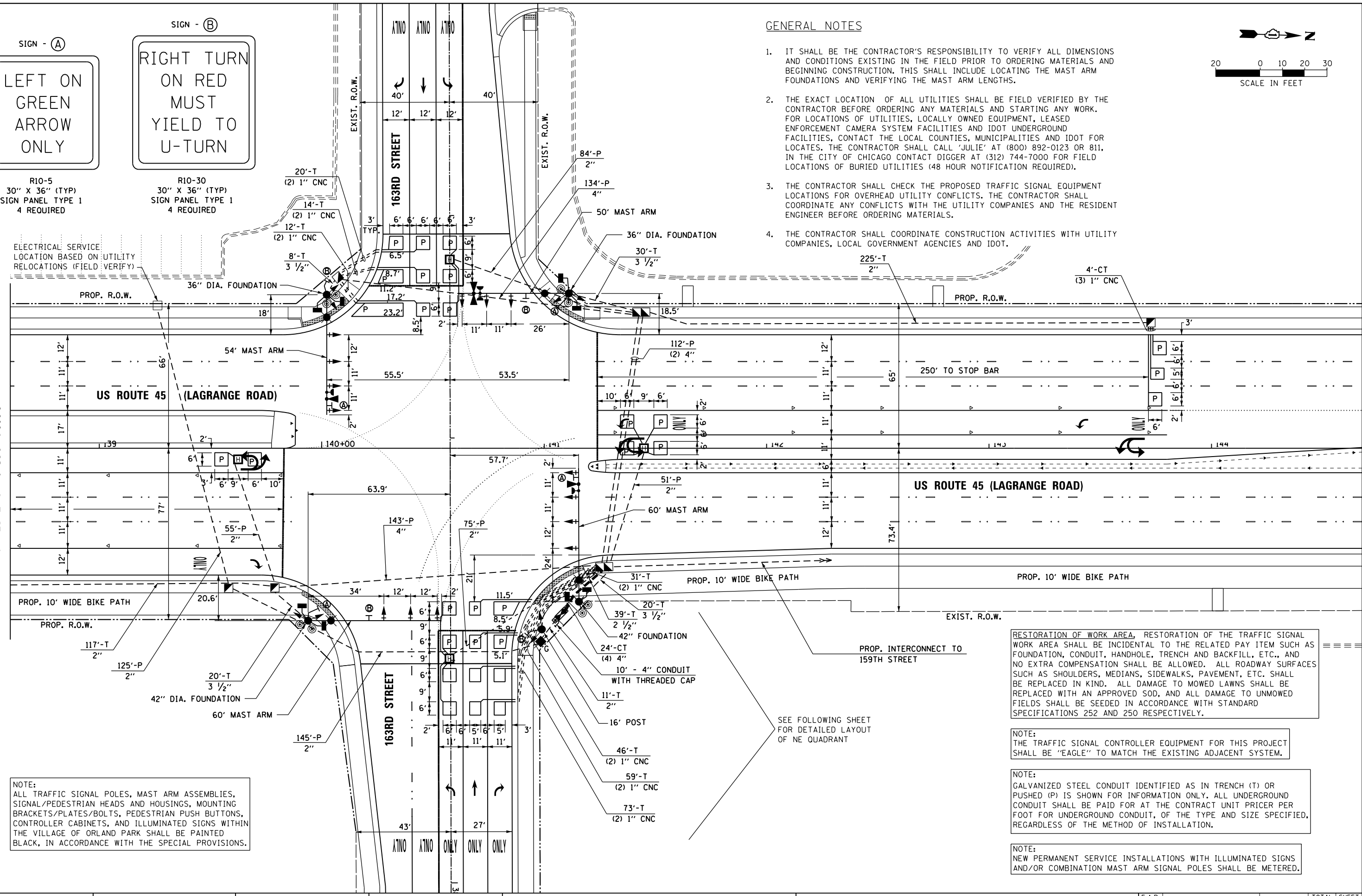
R10-30
30" X 36" (TYP)
SIGN PANEL TYPE 1
4 REQUIRED

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.



SEE DRAWING TD-45
MATCH LINE STA. 138+60.00



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.

SEE FOLLOWING SHEET
FOR DETAILED LAYOUT
OF NE QUADRANT



FILE NAME =
D160F05-SHT-TD44.dgn

USER NAME = Frank.Stallone
DESIGNED - MRF
DRAWN - MRF
CHECKED - MJL
DATE - 03/13/13

REVISOR -
REVISION -
REVISION -
REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US 45 (LAGRANGE ROAD) AND 163RD STREET

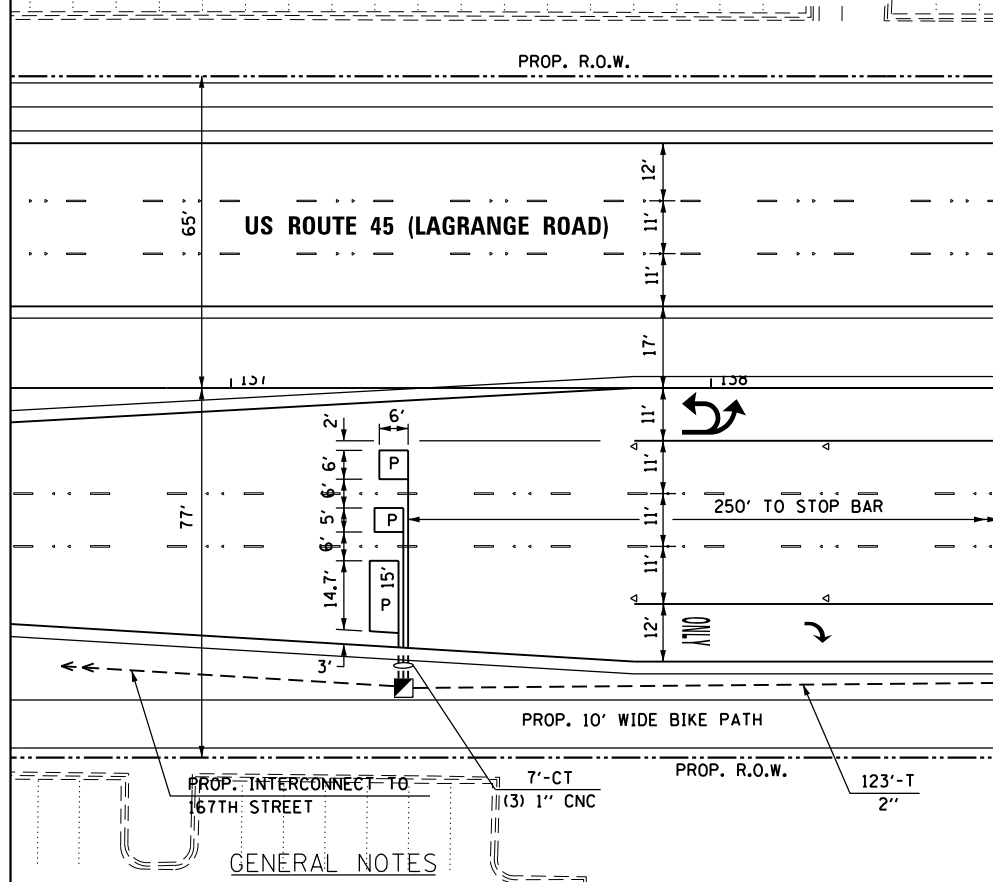
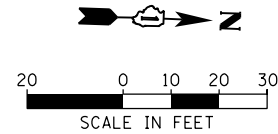
SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	507
TD-44		CONTRACT NO. 60F05		
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:
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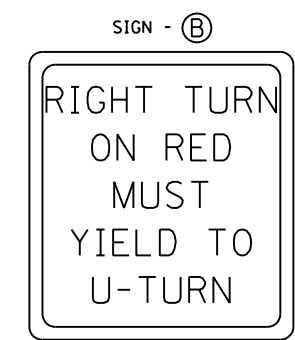
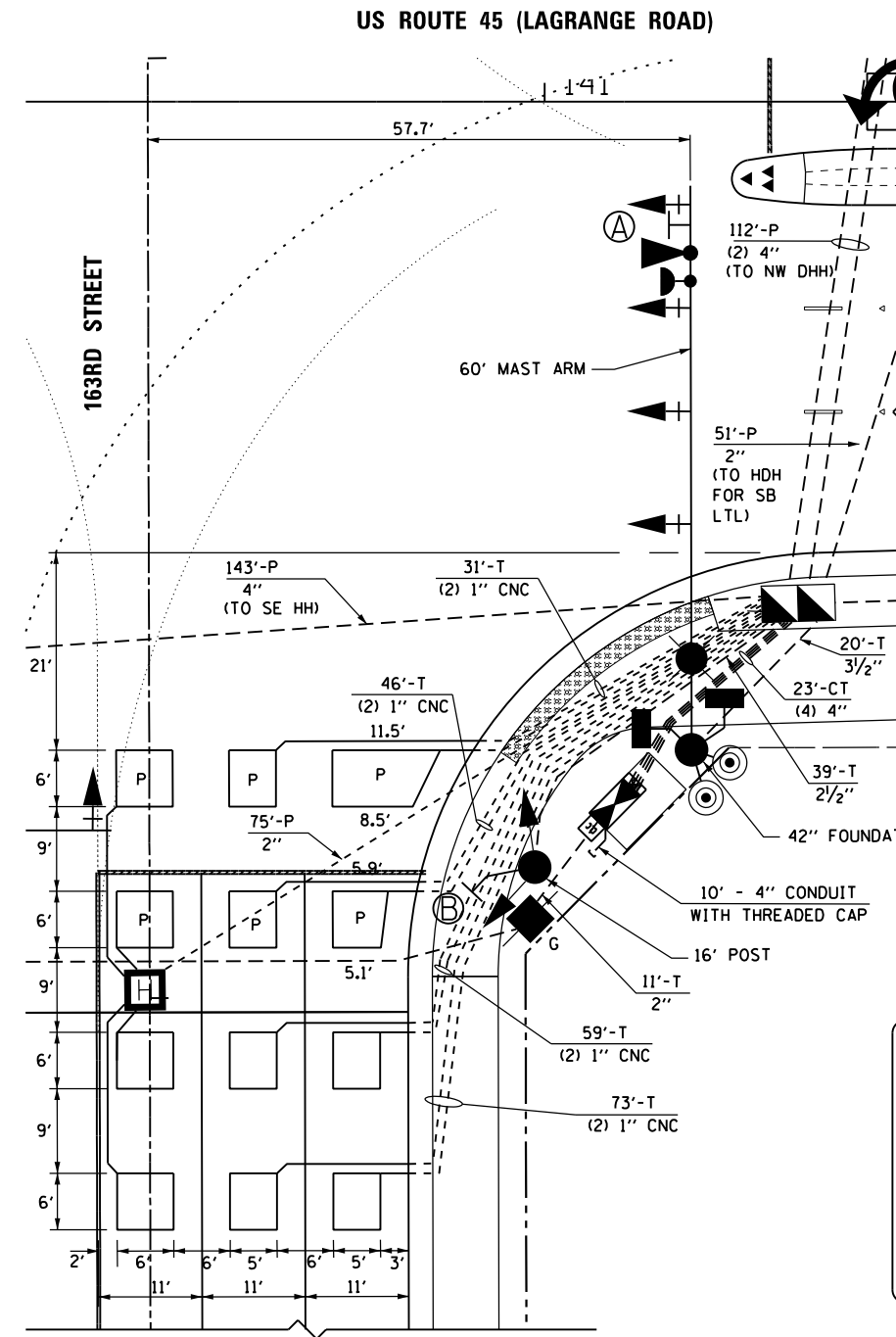
NOTE:
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



SEE DRAWING TD-44
MATCH LINE STA. 138+60.00

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.
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- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



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

DETAIL PLAN - NE QUADRANT

SCALE: 1" = 10'

100 S. WACKER DR.
5TH FLOOR
CHICAGO, IL 60606
TEL (312) 935-1000
FAX (312) 935-4998



FILE NAME = D160F05-SHT-TD45.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

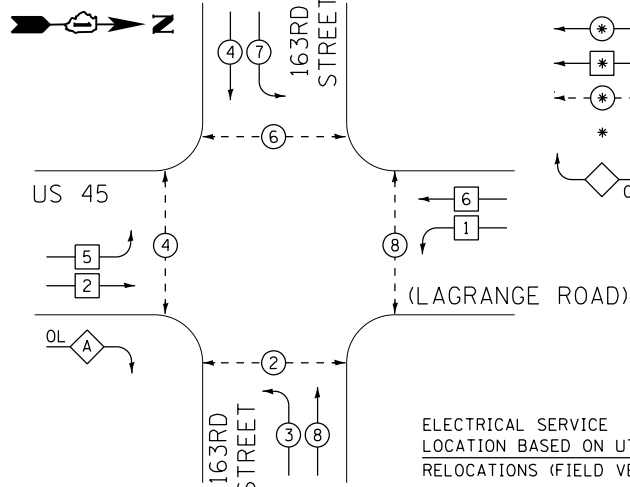
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US 45 (LAGRANGE ROAD) AND 163RD STREET

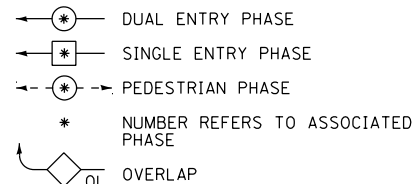
SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	508
TD-45		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



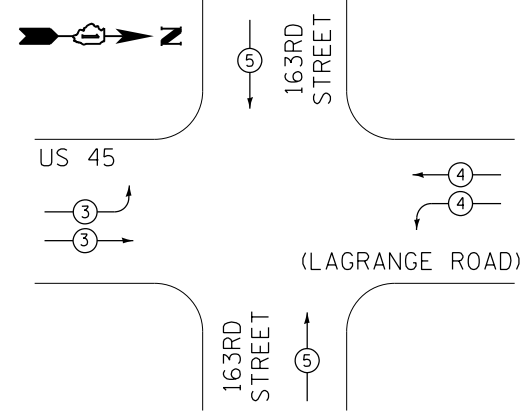
PHASE DESIGNATION DIAGRAM LEGEND



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

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)	22	17	25	0.50		187.0
(YELLOW)	22	15	25	0.25		137.5
(GREEN)	22	15	25	0.25		82.5
ARROW	12	12	25	0.10		14.4
PED. SIGNAL	8	25	25	1.00		200.0
CONTROLLER	1	100	100	1.00		100.0
ILLUM. SIGN	4	25	25	0.05		5.0
FLASHER		25	25	0.50		
ENERGY COST TO:	TOTAL =					726.4

VILLAGE OF ORLAND PARK
14700 SOUTH RAVINIA AVE.

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

FILE NAME = D:\160F05-SHT-TD46.dgn
SHT.PLAN

USER NAME = Frank.Stallone
DESIGNED - MRF
DRAWN - MRF
CHECKED - MJL
DATE - 03/13/13

REVISOR -
REVISOR -
REVISOR -
REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US 45 (LAGRANGE ROAD) AND 163RD STREET

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	50 FT	60
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1011
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	39
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	78
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	614
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
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	1656
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2512
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3100
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2284
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2330
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4 2 C	FOOT	306
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1005
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	11
DETECTOR LOOP, TYPE 1	FOOT	194
PREFORMED DETECTOR LOOP	FOOT	1001
*LIGHT DETECTOR	EACH	3
*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	10
REMOVE EXISTING CONCRETE FOUNDATION	FOOT	10
*ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	EACH	800
**LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

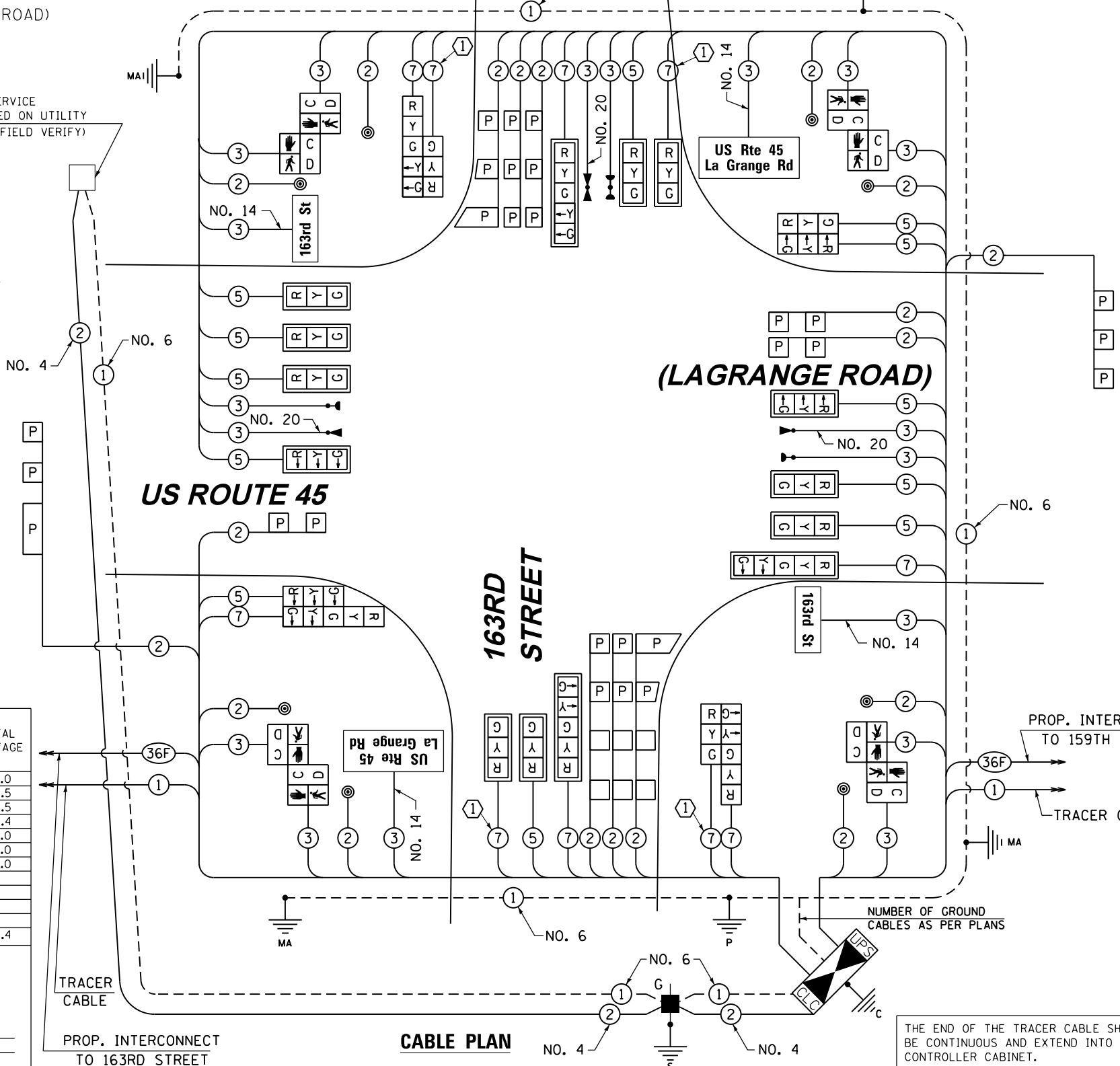
* 100% COST TO ORLAND FIRE PROTECTION DISTRICT
** 100% COST TO VILLAGE OF ORLAND PARK

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



CABLE PLAN

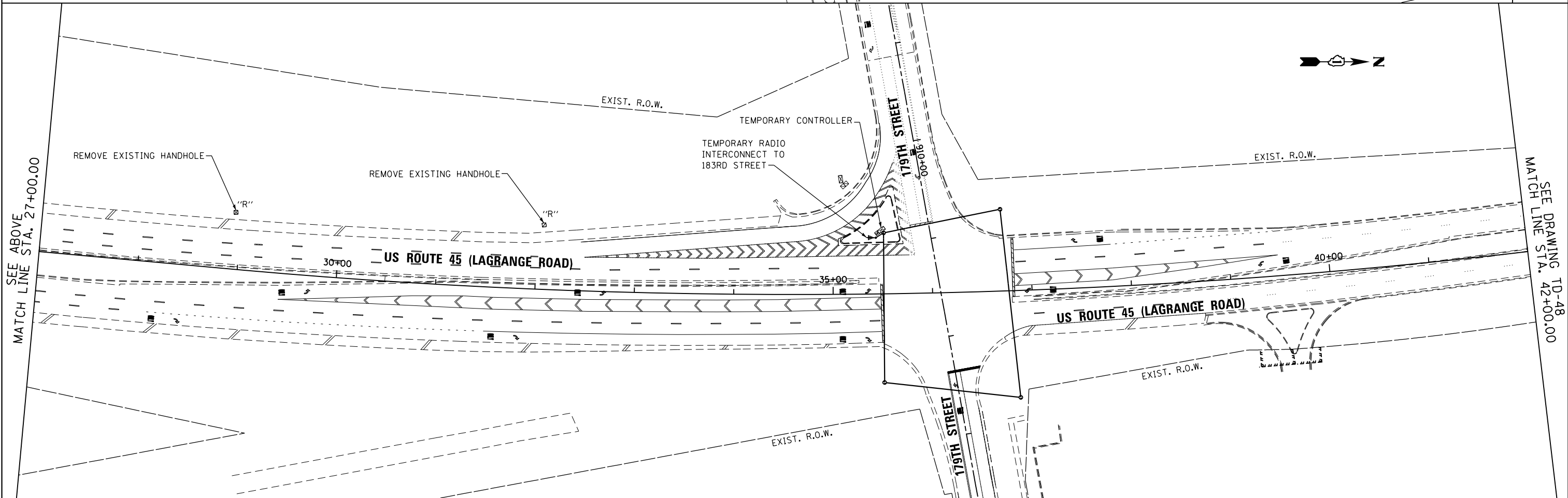
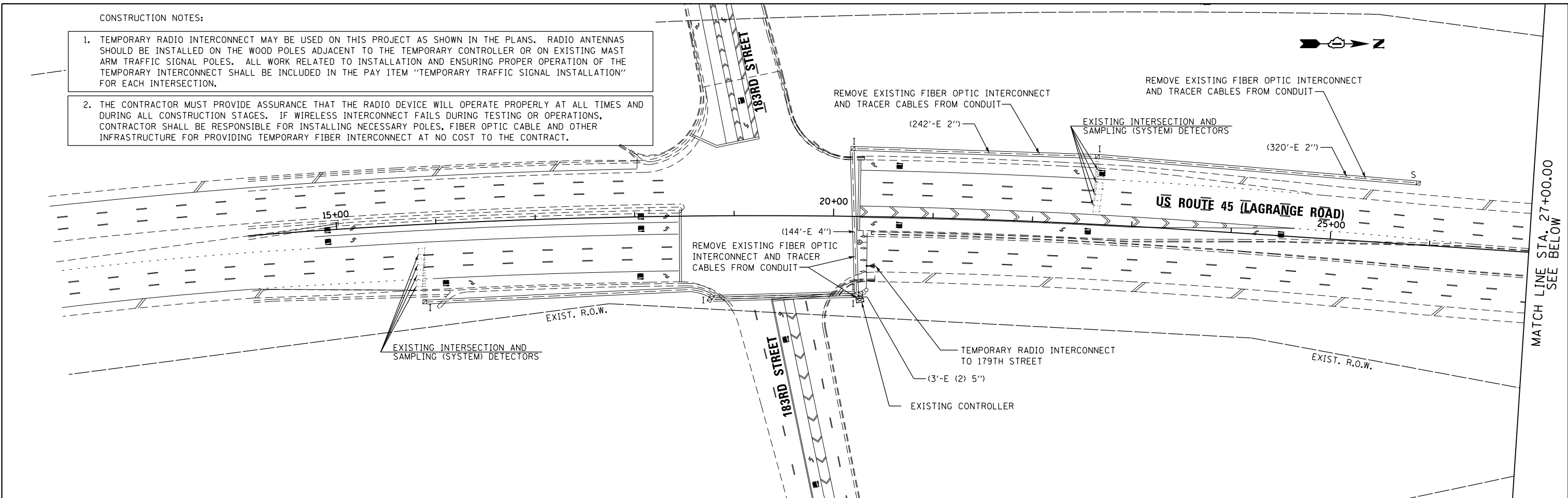
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	509
TD-46			CONTRACT NO. 60F05	

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

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



FILE NAME = D160F05-SHT-TD47.dgn
 SHT_DOUBLE PLAN

USER NAME = Frank.Stallone
 DESIGNED - MRF
 DRAWN - MRF
 PLOT SCALE = 100.000000' / 1" = 100'
 PLOT DATE = 3/14/2013

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
 US 45 (LAGRANGE ROAD)
 FROM 183RD STREET TO 159TH STREET
 SCALE: 1"=50'
 SHEET 1 OF 6 SHEETS
 STA. BEGIN TO STA. 42+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	510
TD-47			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

MATCH LINE STA. 27+00.00
SEE BELOW

SEE DRAWING TD-48
MATCH LINE STA. 42+00.00

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.
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SEE DRAWING TD-47
MATCH LINE STA. 42+00.00

MATCH LINE STA. 57+00.00
SEE BELOW

SEE ABOVE
MATCH LINE STA. 57+00.00

MATCH LINE STA. 72+00.00
SEE DRAWING TD-49



FILE NAME =
D160F05-SHT-TD48.dgn

USER NAME = Frank_Stallone
DESIGNED - MRF
DRAWN - MRF
PLOT SCALE = 100.000000' / in.
PLOT DATE = 3/14/2013

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

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET**

SCALE: 1"=50' SHEET 2 OF 6 SHEETS STA. 42+00.00 TO STA. 72+00.00

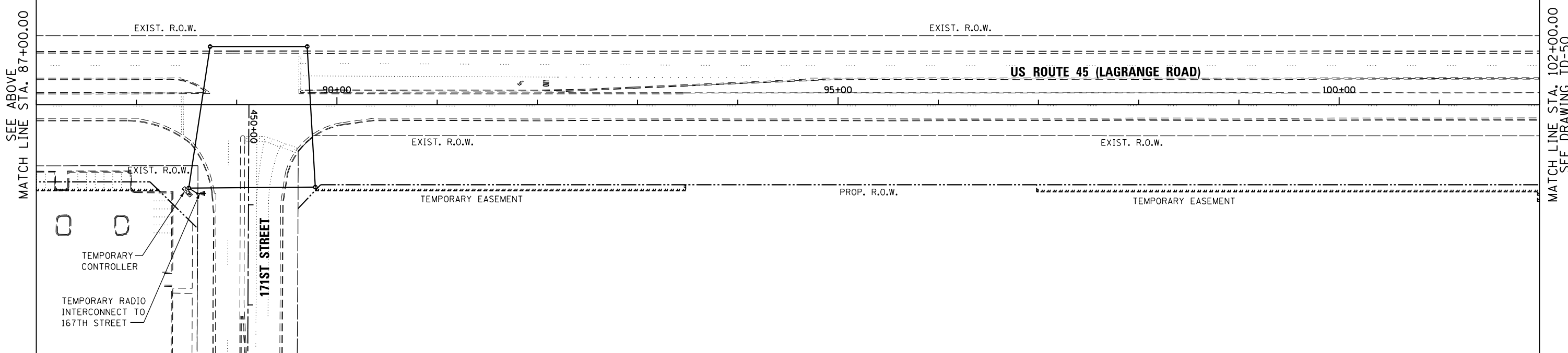
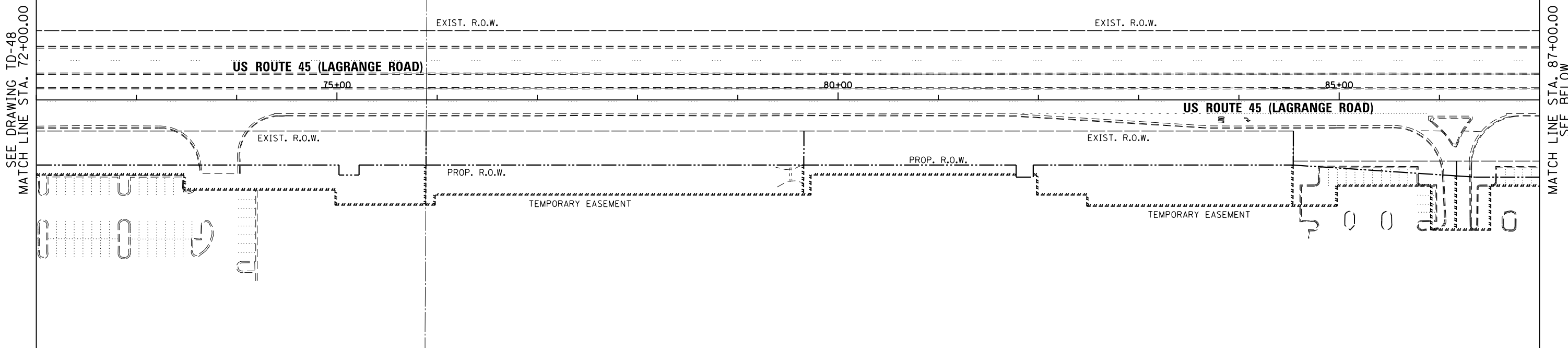
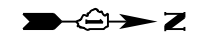
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	511
TD-48			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				



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

CONSTRUCTION NOTES:

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

FILE NAME = D160F05-SHT-TD49.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.DOUBLE.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET

SCALE: 1"=50' SHEET 3 OF 6 SHEETS STA. 72+00.00 TO STA. 102+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	512
TD-49		CONTRACT NO. 60F05		
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.

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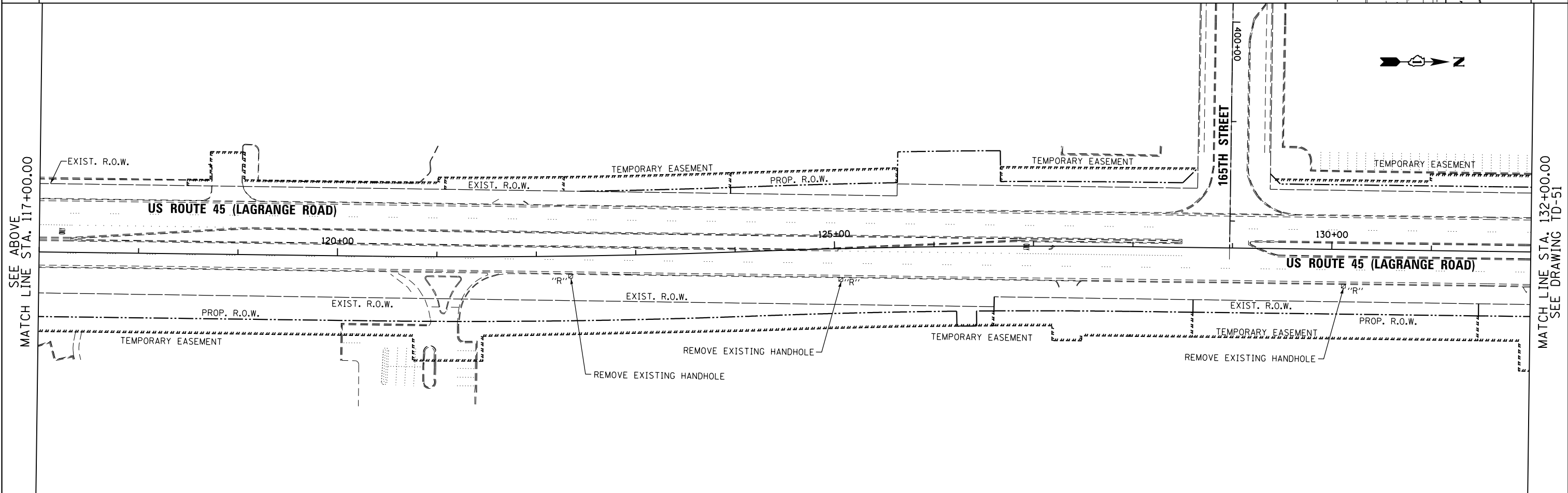
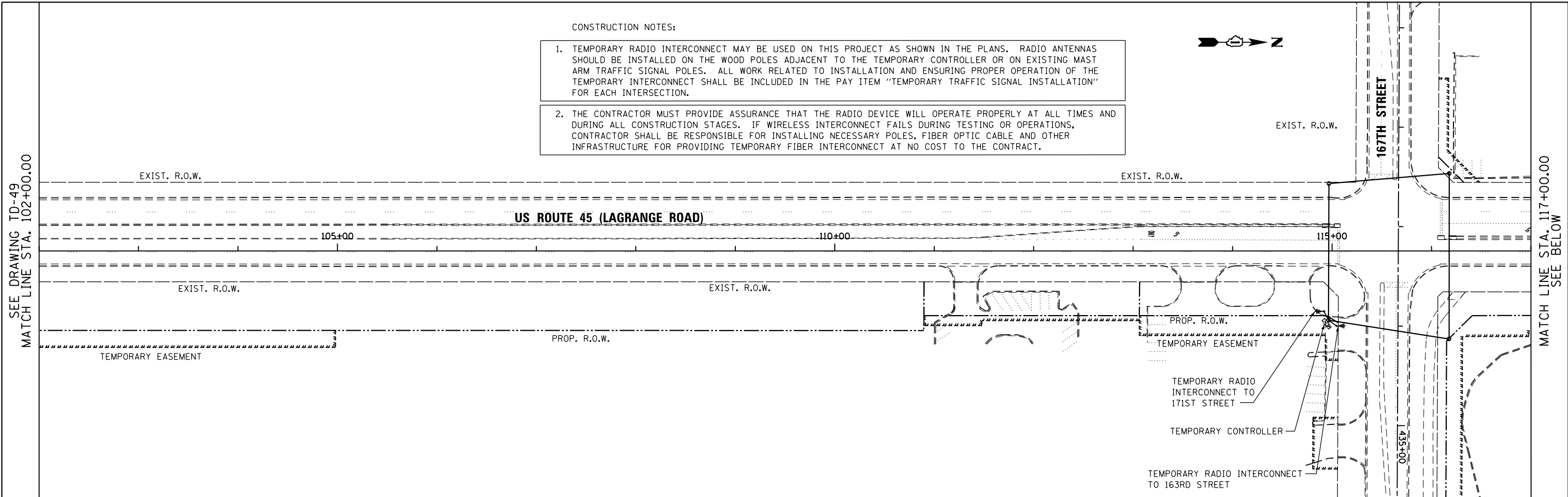


SEE DRAWING TD-49
MATCH LINE STA. 102+00.00

MATCH LINE STA. 117+00.00
SEE BELOW

SEE ABOVE
MATCH LINE STA. 117+00.00

MATCH LINE STA. 132+00.00
SEE DRAWING TD-51



FILE NAME = D160F05-SHT-TD50.dgn	USER NAME = Frank_Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
	PLOT SCALE = 100.000000' / 1" =	CHECKED - MJL	REVISED -
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET**

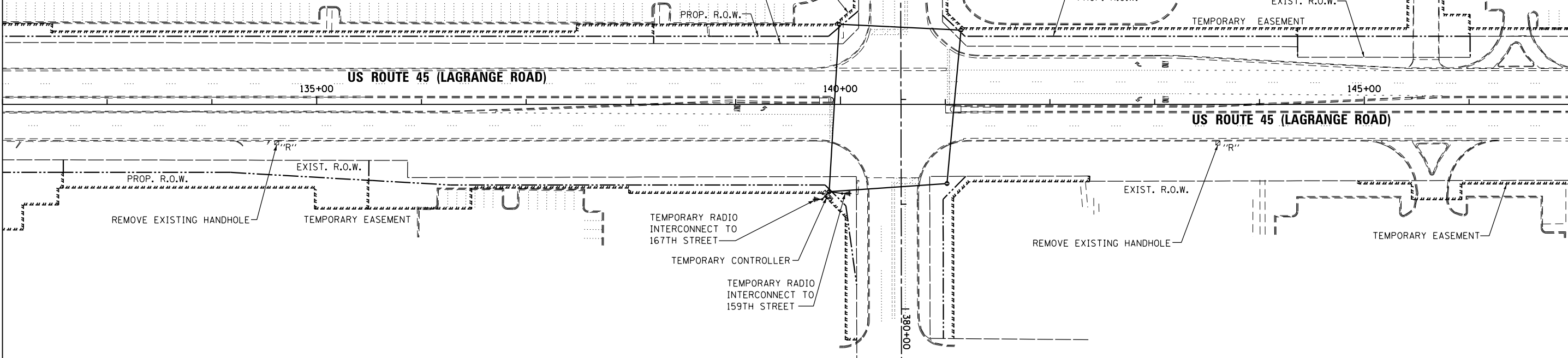
SCALE: 1"=50' SHEET 4 OF 6 SHEETS STA. 102+00.00 TO STA. 132+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	513
TD-50		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

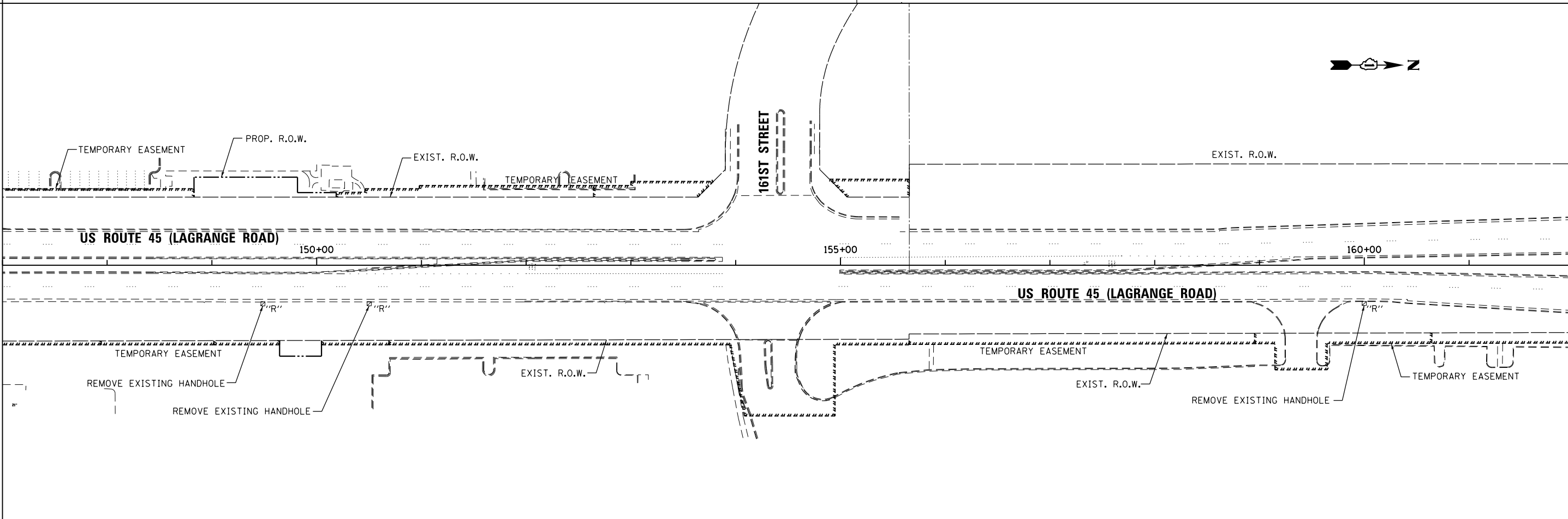
1. TEMPORARY RADIO INTERCONNECT MAY BE USED ON THIS PROJECT AS SHOWN IN THE PLANS. RADIO ANTENNAS SHOULD BE INSTALLED ON THE WOOD POLES ADJACENT TO THE TEMPORARY CONTROLLER OR ON EXISTING MAST ARM TRAFFIC SIGNAL POLES. ALL WORK RELATED TO INSTALLATION AND ENSURING PROPER OPERATION OF THE TEMPORARY INTERCONNECT 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.

SEE DRAWING TD-50
MATCH LINE STA. 132+00.00



MATCH LINE STA. 147+00.00
SEE BELOW

SEE ABOVE
MATCH LINE STA. 147+00.00



MATCH LINE STA. 162+00.00
SEE DRAWING TD-52

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

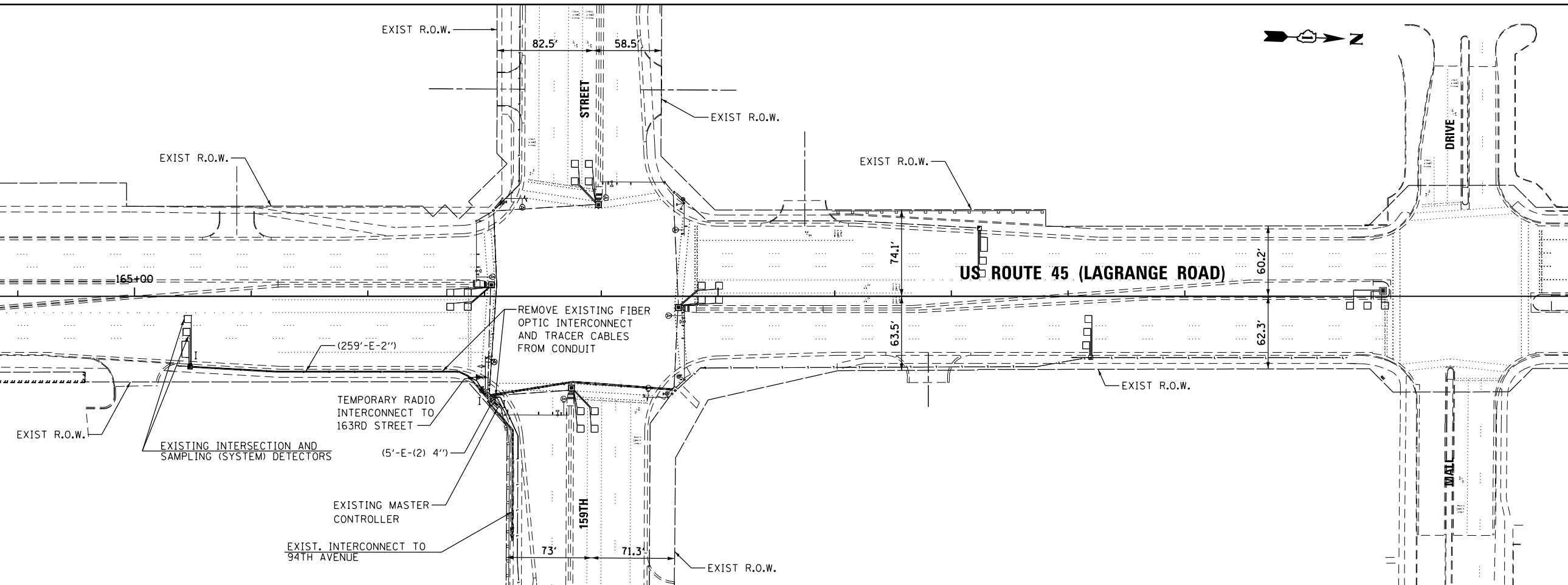
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		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN US 45 (LAGRANGE ROAD) FROM 183RD STREET TO 159TH STREET			
SCALE: 1"=50'	SHEET 5 OF 6 SHEETS	STA. 132+00.00 TO STA. 162+00.00	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	514
TD-51		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

SEE DRAWING TD-51
MATCH LINE STA. 162+00.00



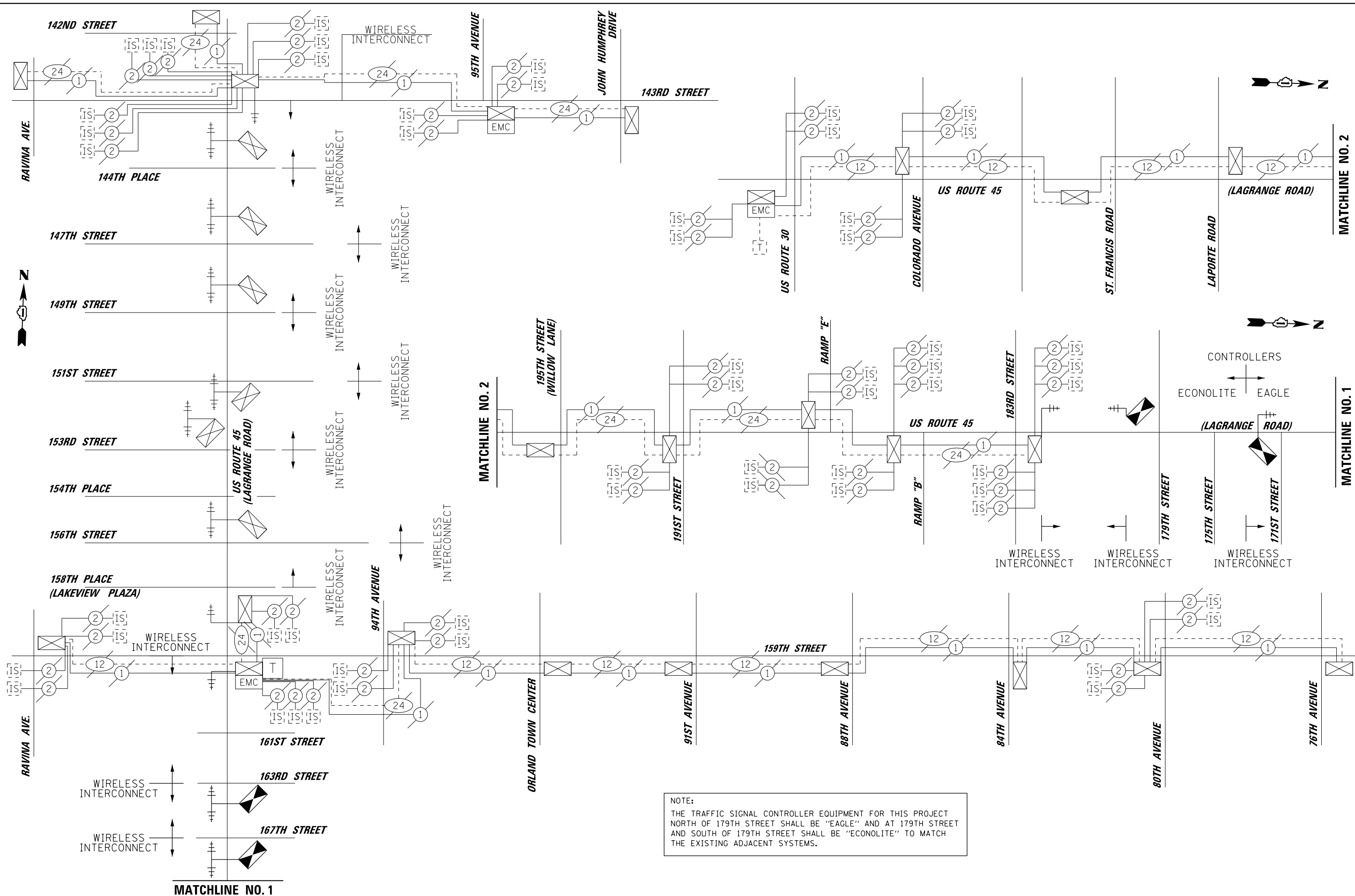
URS
100 S. WABASHER DR.
SUITE 500
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4198

FILE NAME = D160F05-SHT-TD52.dgn	USER NAME = Frank_Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY INTERCONNECT PLAN US 45 (LAGRANGE ROAD) FROM 183RD STREET TO 159TH STREET			
SCALE: N.T.S.	SHEET 6 OF 6 SHEETS	STA. TO STA.	

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 515
TD-52			CONTRACT NO. 60F05	
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.

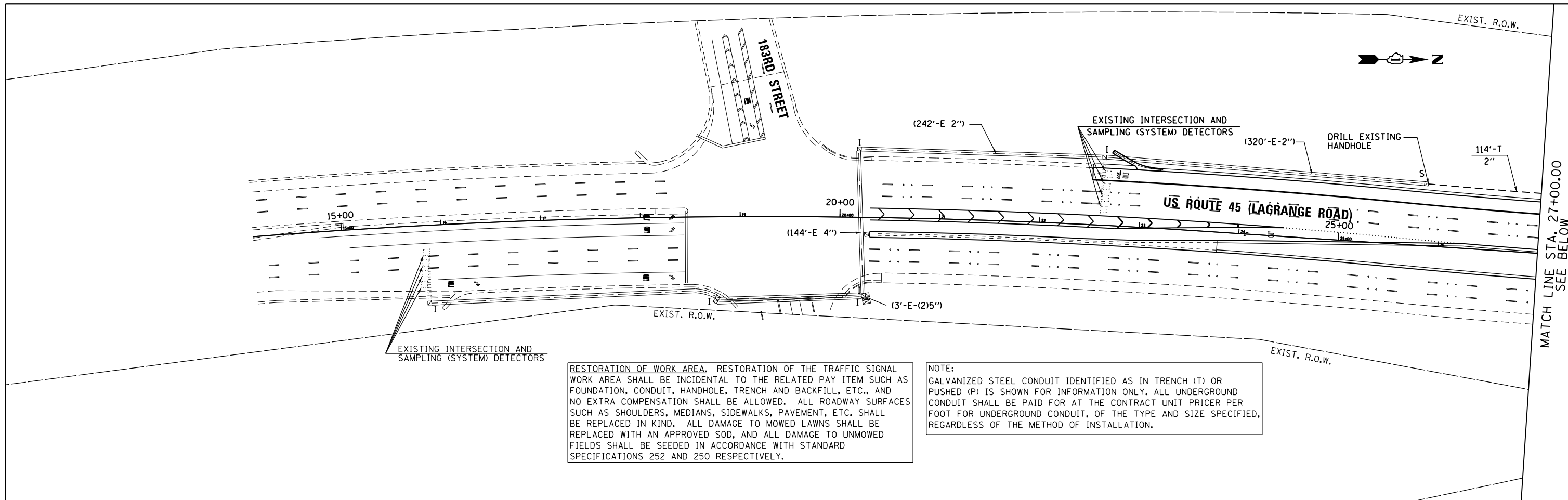
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		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
 US 45 (LAGRANGE ROAD)
 FROM 183RD STREET TO 159TH STREET**

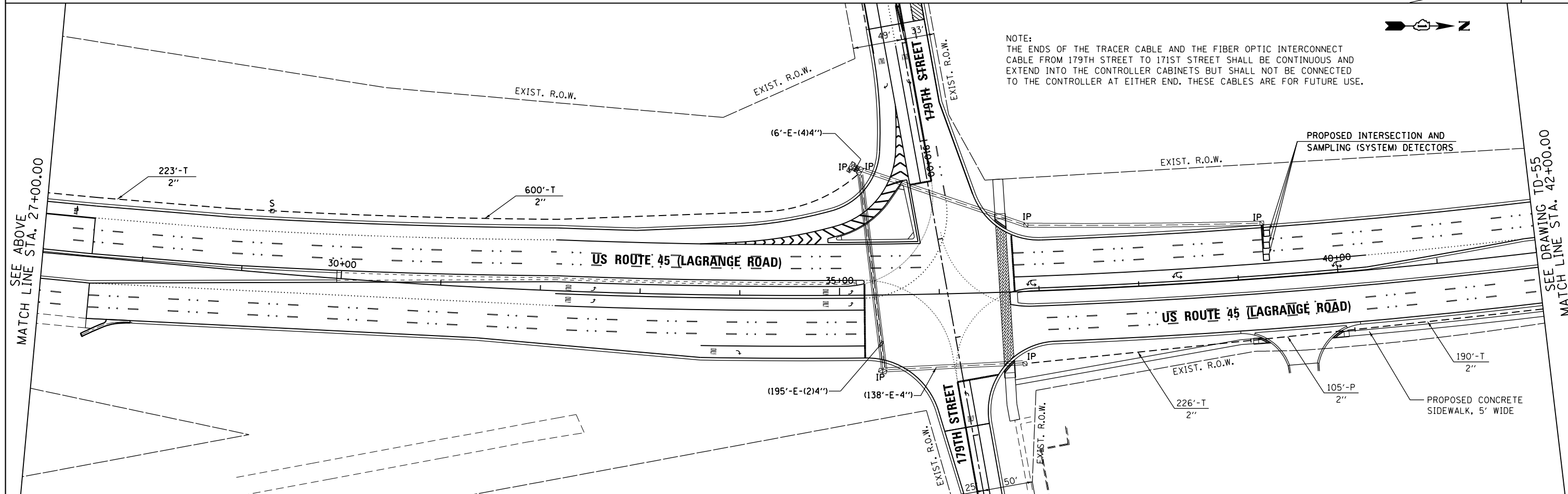
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 516
TD-53		CONTRACT NO. 60F05		
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 PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



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.

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



FILE NAME = D160F05-SHT-TD54.dgn
SHT_DOUBLE PLAN

USER NAME = Frank.Stallone
PLOT SCALE = 100.000000' / 1" / in.
PLOT DATE = 3/14/2013

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

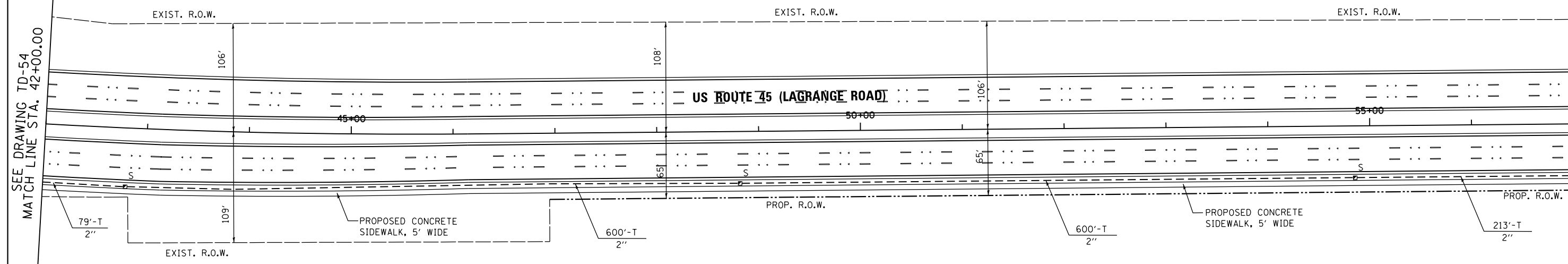
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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET

SCALE: 1"=50' SHEET 1 OF 6 SHEETS STA. BEGIN TO STA. 42+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	517
TD-54		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

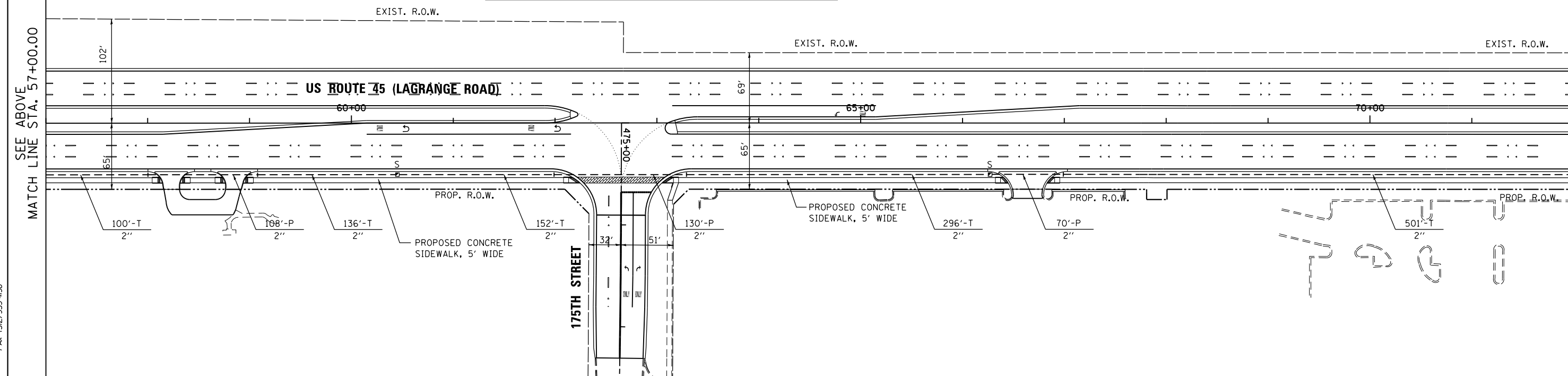


SEE DRAWING TD-54
MATCH LINE STA. 42+00.00

MATCH LINE STA. 57+00.00
SEE BELOW

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 PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



SEE ABOVE
MATCH LINE STA. 57+00.00

MATCH LINE STA. 72+00.00
SEE DRAWING TD-56



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

FILE NAME =
D160F05-SHT-TD55.dgn
SHT.DOUBLE.PLAN

USER NAME = Frank.Stallone
PLOT SCALE = 100.000000' / 1" / in.
PLOT DATE = 3/14/2013

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

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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET
SCALE: 1"=50'
SHEET 2 OF 6 SHEETS
STA. 42+00.00 TO STA. 72+00.00

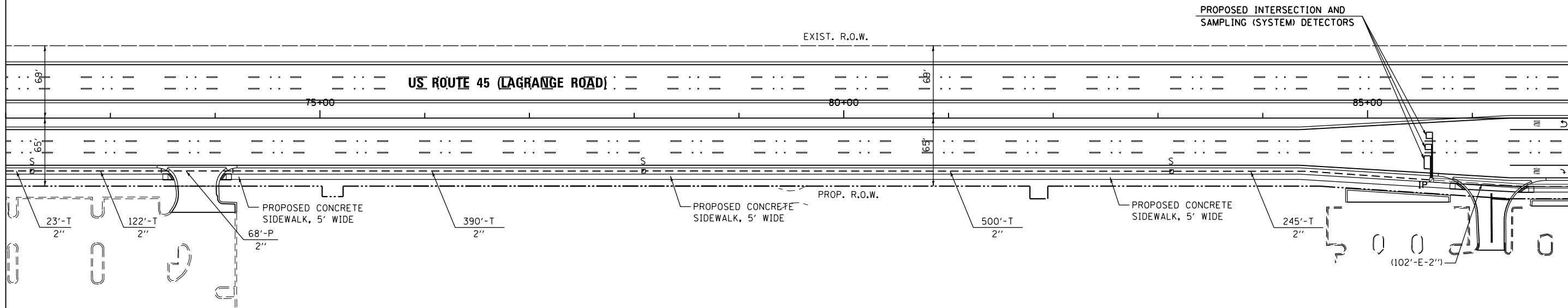
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	518
TD-55		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

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 PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



SEE DRAWING TD-55
MATCH LINE STA. 72+00.00

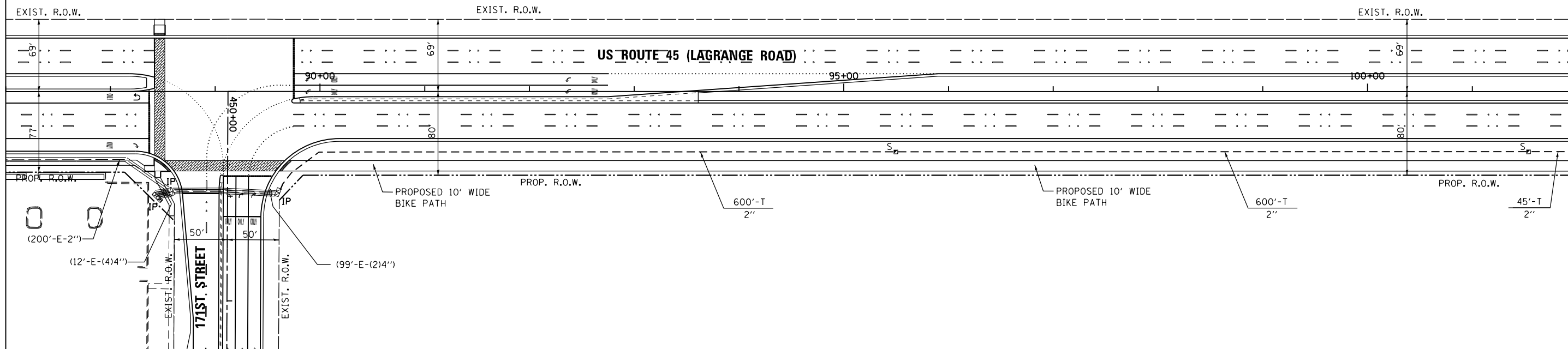


MATCH LINE STA. 87+00.00
SEE BELOW

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.



SEE ABOVE
MATCH LINE STA. 87+00.00



MATCH LINE STA. 102+00.00
SEE DRAWING TD-57



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

FILE NAME =
D160F05-SHT-TD56.dgn
SHT_DOUBLE PLAN

USER NAME = Frank.Stallone
PLOT SCALE = 100.000000' / in.
PLOT DATE = 3/14/2013

DESIGNED - MRF
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DATE - 03/13/13

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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET

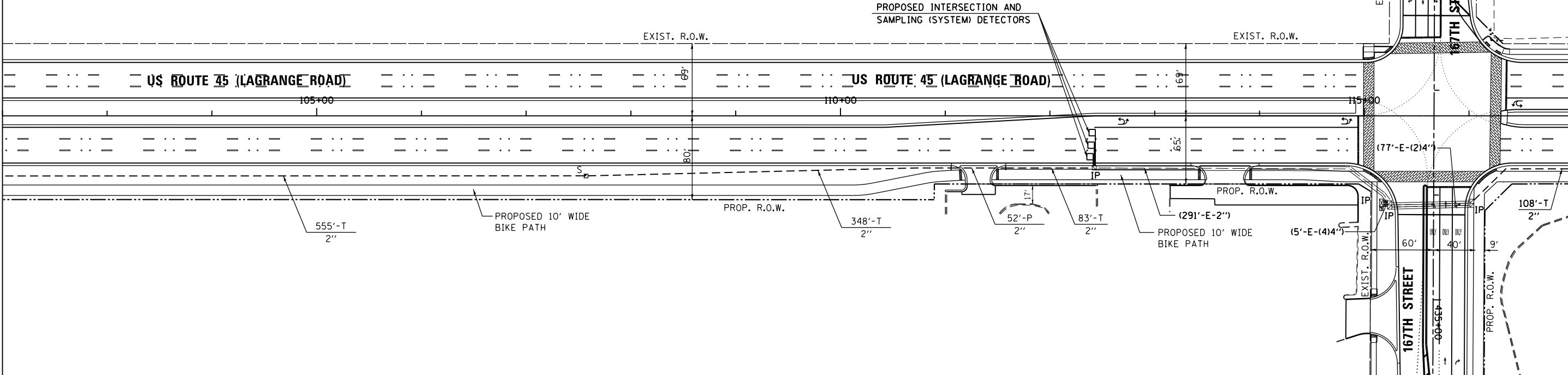
SCALE: 1"=50' SHEET 3 OF 6 SHEETS STA. 72+00.00 TO STA. 102+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	519
TD-56			CONTRACT NO. 60F05	
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.

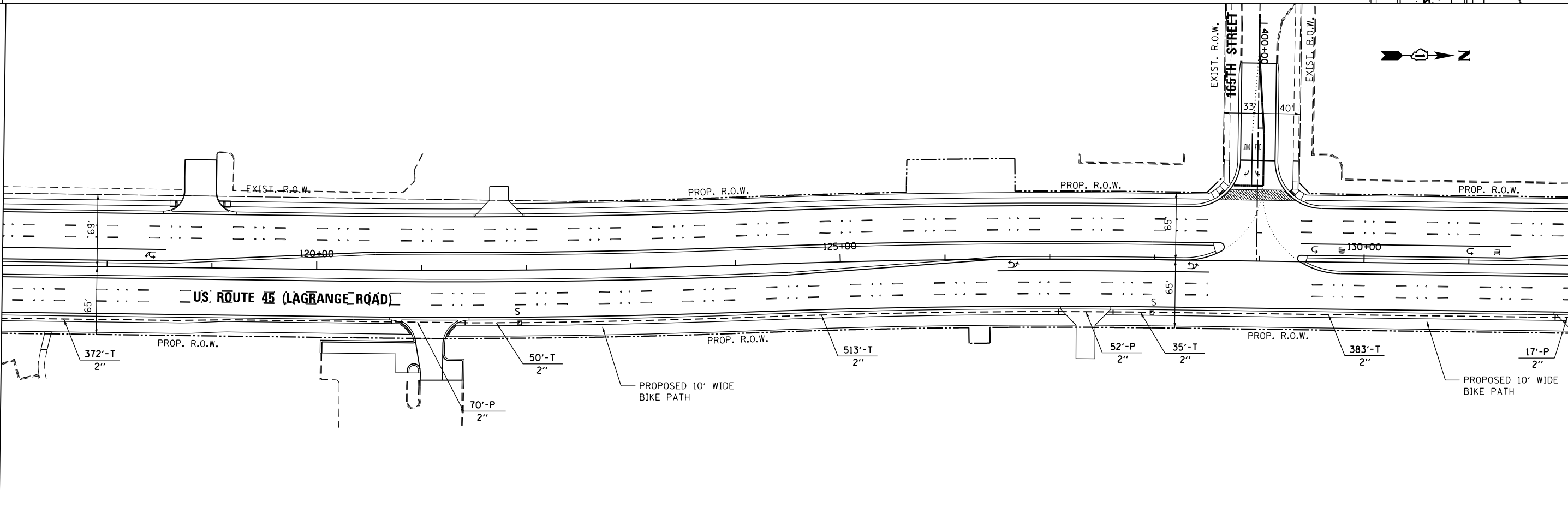
NOTE:
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

SEE DRAWING TD-56
MATCH LINE STA. 102+00.00



MATCH LINE STA. 117+00.00
SEE BELOW

SEE ABOVE
MATCH LINE STA. 117+00.00



MATCH LINE STA. 132+00.00
SEE DRAWING TD-58



FILE NAME = D:\160\F05-SHT-TD57.dgn
SHT.DOUBLE.PLAN

USER NAME = Frank.Stallone
PLOT SCALE = 100.000000' / 1" = 100'
PLOT DATE = 3/14/2013

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

REVISED -
REVISED -
REVISED -
REVISED -

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DEPARTMENT OF TRANSPORTATION

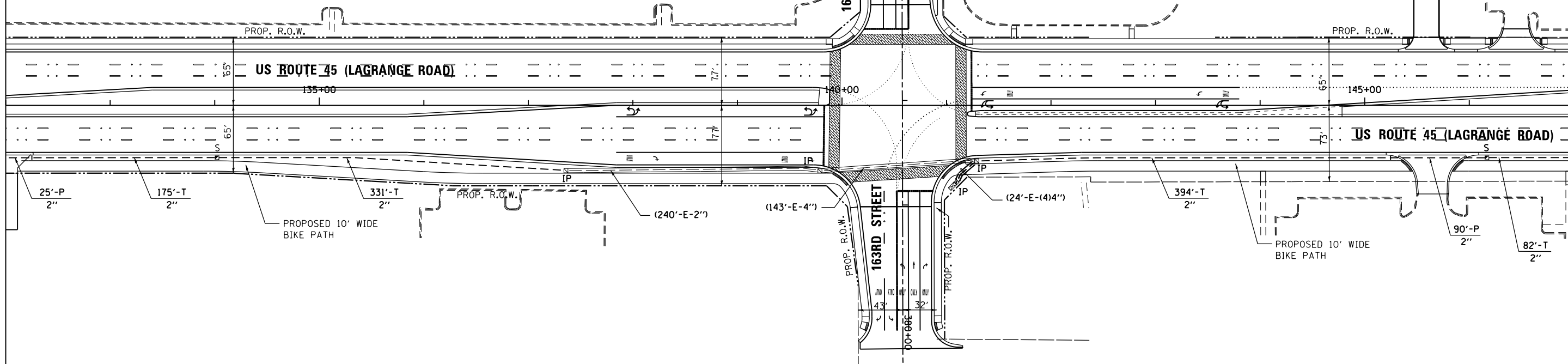
INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET
SCALE: 1"=50'
SHEET 4 OF 6 SHEETS
STA. 102+00.00 TO STA. 132+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	520
TD-57			CONTRACT NO. 60F05	
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.

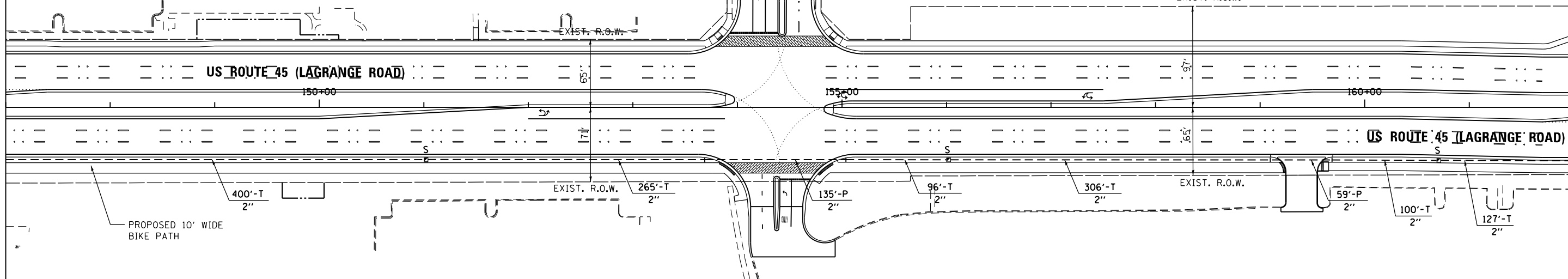
NOTE:
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

SEE DRAWING TD-57
MATCH LINE STA. 132+00.00



MATCH LINE STA. 147+00.00
SEE BELOW

SEE ABOVE
MATCH LINE STA. 147+00.00



MATCH LINE STA. 162+00.00
SEE DRAWING TD-59

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

FILE NAME =
D160F05-SHT-TD58.dgn
SHT.DOUBLE.PLAN

USER NAME = Frank.Stallone
PLOT SCALE = 100.000000' / 1" = 100'
PLOT DATE = 3/14/2013

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

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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
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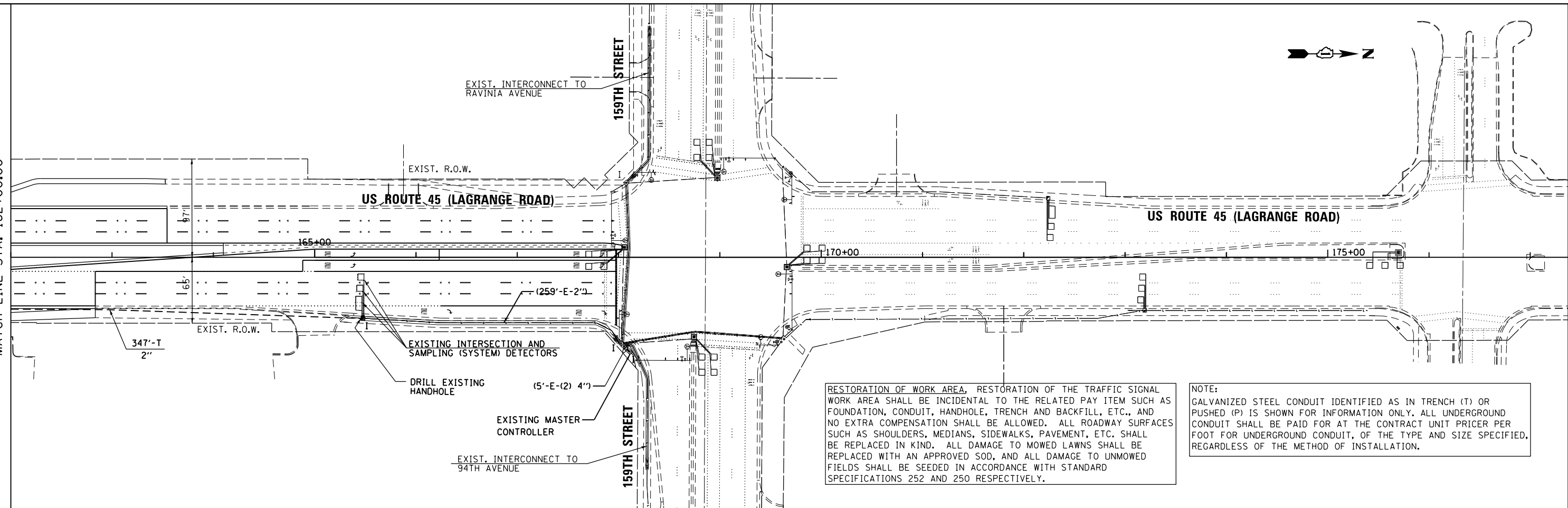
INTERCONNECT PLAN
US 45 (LAGRANGE ROAD)
FROM 183RD STREET TO 159TH STREET

SCALE: 1"=50' SHEET 5 OF 6 SHEETS STA. 132+00.00 TO STA. 162+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	521
TD-58		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				



SEE DRAWING TD-58
MATCH LINE STA. 162+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 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 PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

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

FILE NAME = D:\160F05-SHT-TD59.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
	PLOT SCALE = 100.000000' / 1" =	CHECKED - MJL	REVISED -
SHT.DOUBLE.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

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DEPARTMENT OF TRANSPORTATION**

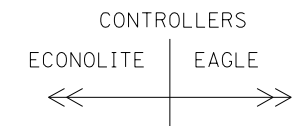
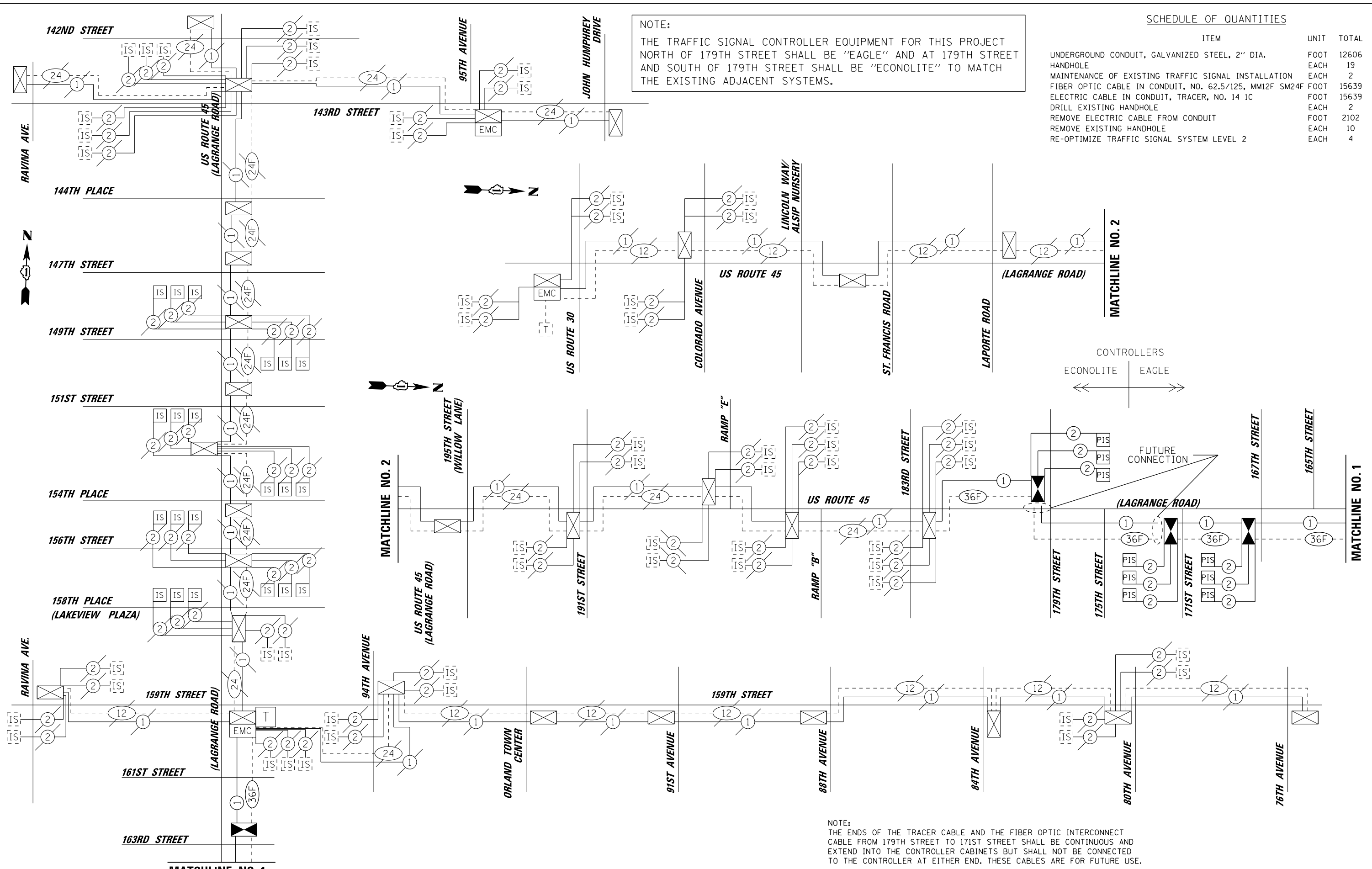
INTERCONNECT PLAN US 45 (LAGRANGE ROAD) FROM 183RD STREET TO 159TH STREET			
SCALE: 1"=50'	SHEET 6 OF 6 SHEETS	STA. 162+00.00 TO STA. END	

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 522
TD-59			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	12606
HANDHOLE	EACH	19
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	15639
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	15639
DRILL EXISTING HANDHOLE	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2102
REMOVE EXISTING HANDHOLE	EACH	10
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	4

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.

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

FILE NAME = D:\160F05-SHT-TD60.dgn	USER NAME = Frank.Stallone	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 100.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
US 45 (LAGRANGE RD)
FROM 183RD STREET TO 159TH STREET

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

F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 523
TD-60		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

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

EXAMPLE, 2³ DENOTES $\frac{3''}{8}$

FIRST LETTER	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	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ²	1 ⁴
B	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁶	1 ⁷
C E G	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵
D O Q R	1 ⁴	1 ⁵	2 ⁰	2 ¹	1 ⁴	1 ⁵	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵
F	0 ⁵	0 ⁶	1 ⁴	1 ⁵	0 ⁶	1 ⁰	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²
H I M N	2 ⁰	2 ¹	2 ²	2 ⁴	2 ⁰	2 ¹	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹	2 ⁰	2 ¹
J U	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹
K L	1 ¹	1 ²	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
P	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁴	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
S	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
T	1 ¹	1 ²	1 ⁶	1 ⁷	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
V	0 ⁶	1 ⁰	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
Y	0 ⁵	0 ⁶	1 ⁴	1 ⁵	0 ⁶	1 ⁰	0 ⁵	0 ⁶	0 ⁵	0 ⁷	0 ⁵	0 ⁶	0 ⁶	1 ⁰	1 ¹	1 ²
Z	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁶	1 ⁷	2 ⁰	2 ¹

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

FIRST LETTER	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 h g i j	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷
l m n q u																
b f k o p s	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
c e	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
r	0 ⁶	1 ⁰	1 ²	1 ⁴	0 ⁶	1 ⁰	0 ³	0 ³	0 ⁵	0 ⁶	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰
t z	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
v y	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²
w	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
x	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴

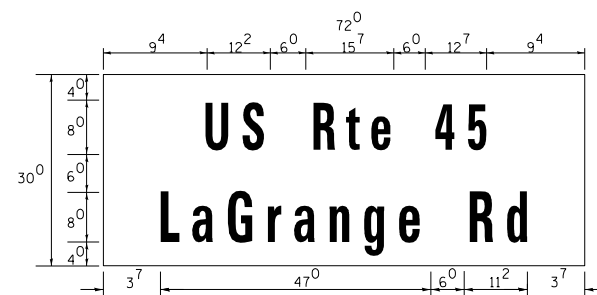
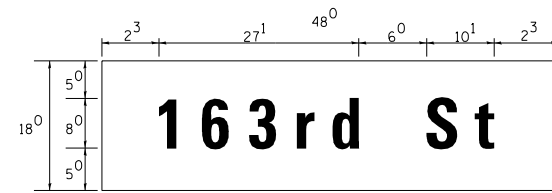
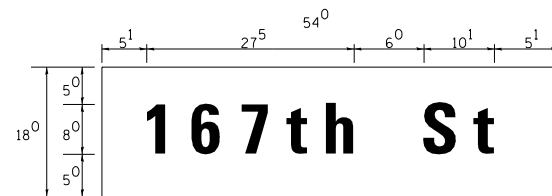
Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	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	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷
1	2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁶	1 ⁷	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹
2 3 4	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁶	1 ⁷	1 ⁴	1 ⁵
5	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵
6	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵
7	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁵	0 ⁵	0 ⁶	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴
8	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁴	1 ⁵

UPPER AND LOWER CASE
LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS				8 INCH UPPER CASE LETTERS				LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES		SERIES		SERIES			C	D
	C	D	C	D	C	D	C	D			
A	3 ⁶	5 ⁰	5 ⁰	6 ⁵	a	3 ⁵	4 ²				
B	3 ²	4 ⁰	4 ³	5 ³	b	3 ⁵	4 ²				
C	3 ²	4 ⁰	4 ³	5 ³	c	3 ⁵	4 ¹				
D	3 ²	4 ⁰	4 ³	5 ³	d	3 ⁵	4 ²				
E	3 ⁰	3 ⁵	4 ⁰	4 ⁷	e	3 ⁵	4 ²				
F	3 ⁰	3 ⁵	4 ⁰	4 ⁷	f	2 ³	2 ⁶				
G	3 ²	4 ⁰	4 ³	5 ³	g	3 ⁵	4 ²				
H	3 ²	4 ⁰	4 ³	5 ³	h	3 ⁵	4 ²				
I	0 ⁷	0 ⁷	1 ¹	1 ²	i	1 ¹	1 ¹				
J	3 ⁰	3 ⁶	4 ⁰	5 ⁰	j	2 ⁰	2 ²				
K	3 ²	4 ¹	4 ³	5 ⁴	k	3 ⁵	4 ²				
L	3 ⁰	3 ⁵	4 ⁰	4 ⁷	l	1 ¹	1 ¹				
M	3 ⁷	4 ⁵	5 ¹	6 ¹	m	6 ⁰	7 ⁰				
N	3 ²	4 ⁰	4 ³	5 ³	n	3 ⁵	4 ²				
O	3 ⁴	4 ²	4 ⁵	5 ⁵	o	3 ⁶	4 ³				
P	3 ²	4 ⁰	4 ³	5 ³	p	3 ⁵	4 ²				
Q	3 ⁴	4 ²	4 ⁵	5 ⁵	q	3 ⁵	4 ²				
R	3 ²	4 ⁰	4 ³	5 ³	r	2 ⁶	3 ²				
S	3 ²	4 ⁰	4 ³	5 ³	s	3 ⁶	4 ²				
T	3 ⁰	3 ⁵	4 ⁰	4 ⁷	t	2 ⁷	3 ²				
U	3 ²	4 ⁰	4 ³	5 ³	u	3 ⁵	4 ²				
V	3 ⁵	4 ⁴	4 ⁷	6 ⁰	v	4 ²	4 ⁷				
W	4 ⁴	5 ²	6 ⁰	7 ⁰	w	5 ⁵	6 ⁴				
X	3 ⁴	4 ⁰	4 ⁵	5 ³	x	4 ⁴	5 ¹				
Y	3 ⁶	5 ⁰	5 ⁰	6 ⁶	y	4 ⁶	5 ³				
Z	3 ²	4 ⁰	4 ³	5 ³	z	3 ⁶	4 ³				

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 ²	1 ⁴	1 ⁵	2 ⁰
2	3 ²	4 ⁰	4 ³	5 ³
3	3 ²	4 ⁰	4 ³	5 ³
4	3 ⁵	4 ³	4 ⁷	5 ⁷
5	3 ²	4 ⁰	4 ³	5 ³
6	3 ²	4 ⁰	4 ³	5 ³
7	3 ²	4 ⁰	4 ³	5 ³
8	3 ²	4 ⁰	4 ³	5 ³
9	3 ²	4 ⁰	4 ³	5 ³
0	3 ⁴	4 ²	4 ⁵	5 ⁵



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

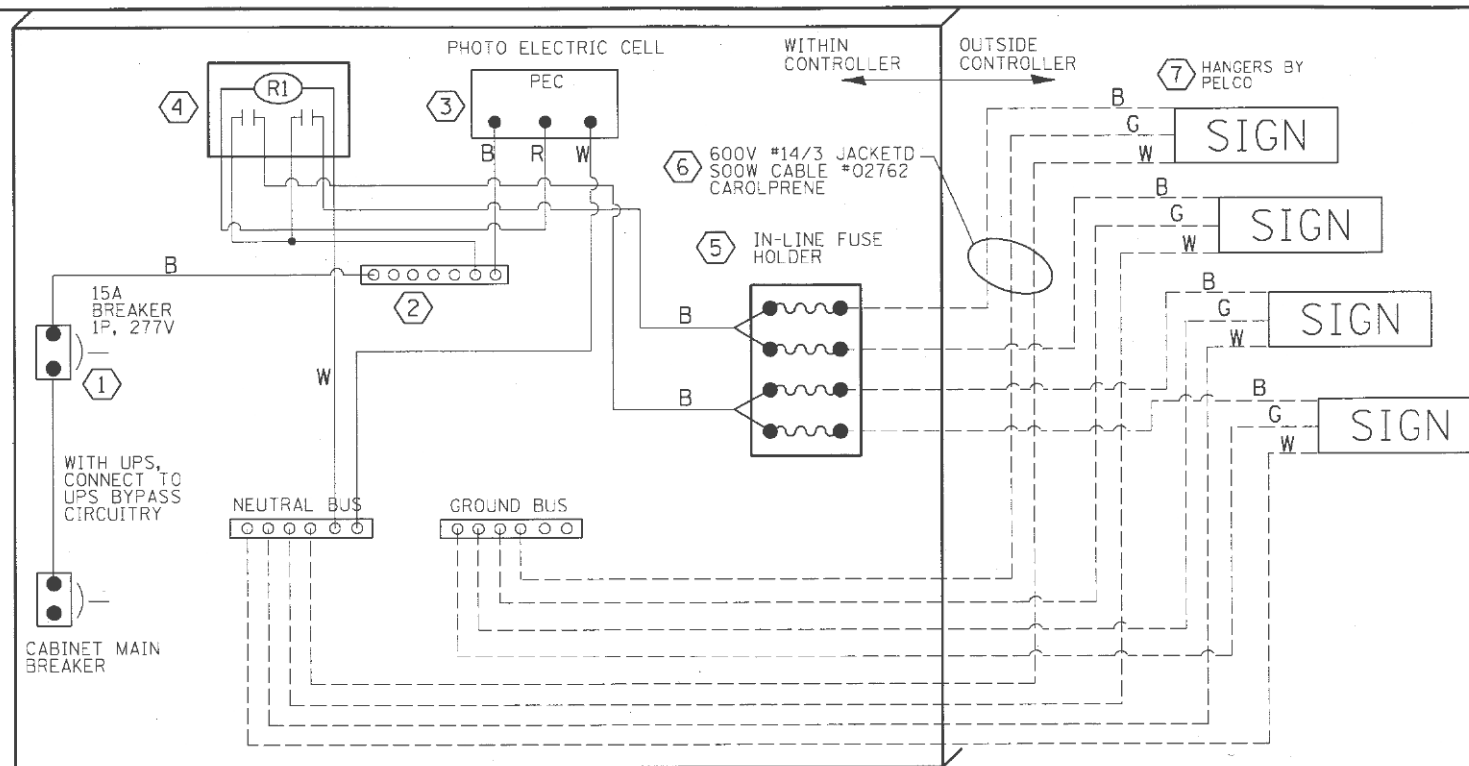
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SHT.PLAN	PLOT DATE = 3/15/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED SIGNS
LED INTERNALLY ILLUMINATED STREET NAME SIGNS

SCALE: SHEET OF SHEETS STA. TO STA.

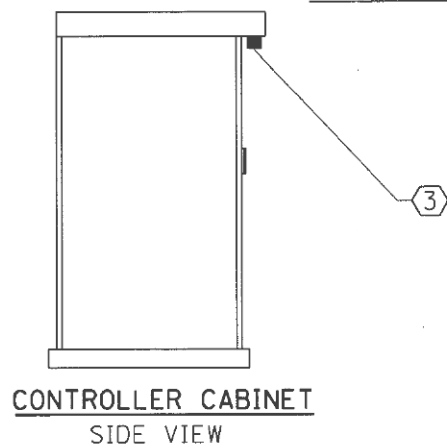
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	525
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	



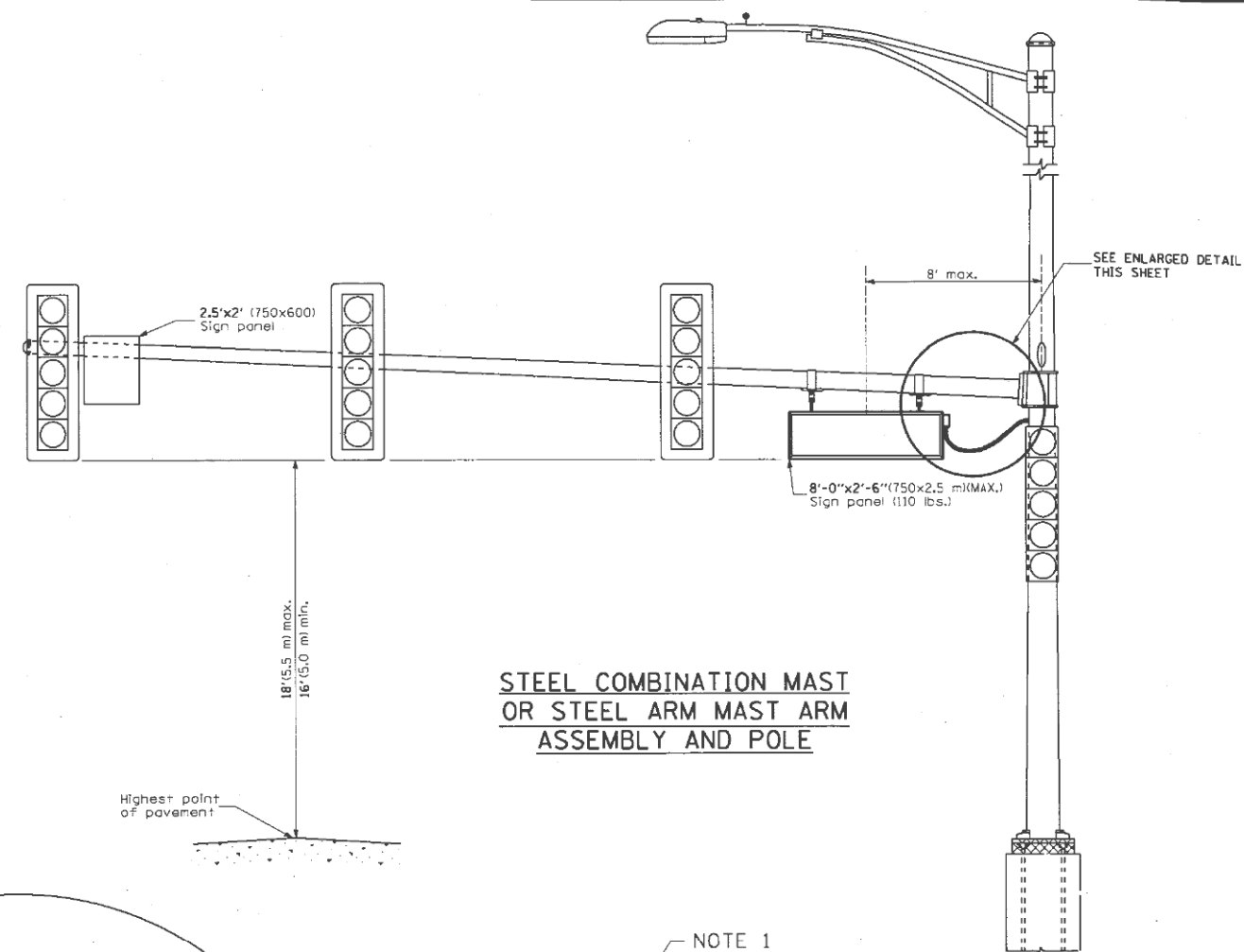
LED SIGN WIRING DETAIL

DESCRIPTION	MANUFACTURER	MODEL	NOTES
① CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag. min. R.I. of 14K R.M.S. symmetrical ampere 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

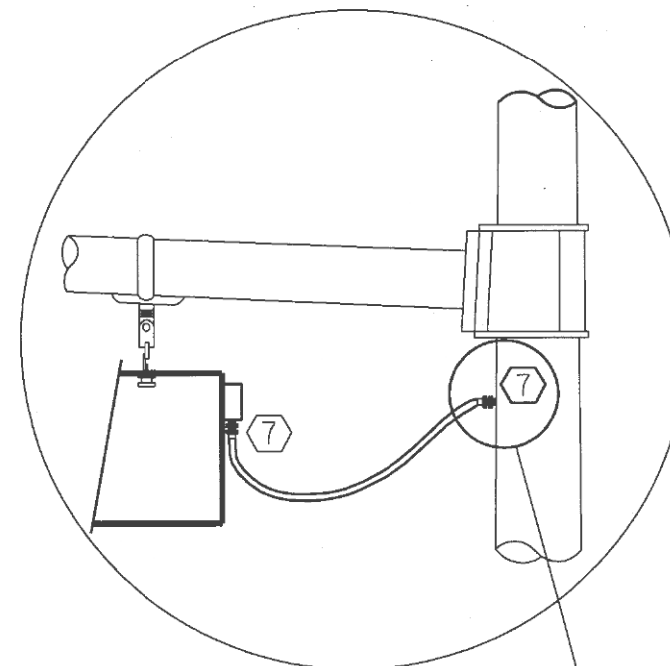
BILL OF MATERIALS



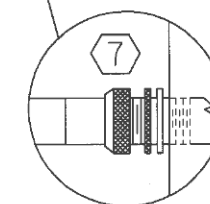
CONTROLLER CABINET SIDE VIEW



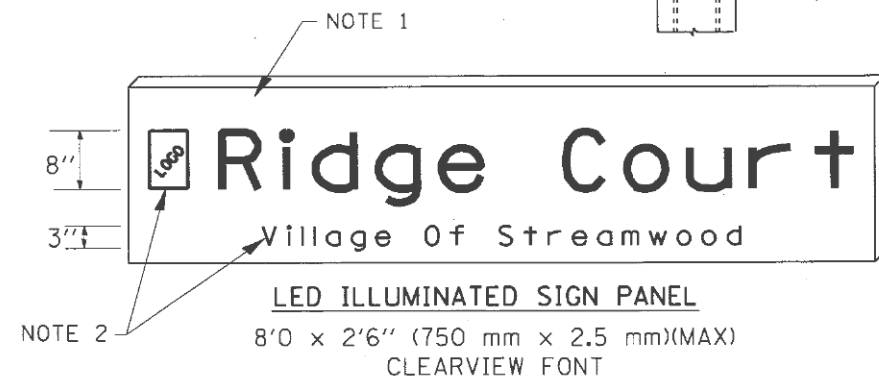
STEEL COMBINATION MAST OR STEEL ARM MAST ARM ASSEMBLY AND POLE



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



L.E.D. SIGN ENLARGED CABLE CONNECTOR DETAIL



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 IN 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 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
	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

ROADWAY ELECTRICAL SYMBOLS	
SYMBOL	DESCRIPTION
	ELECTRIC JUNCTION BOX, TYPE AND SIZE AS INDICATED
	ELECTRIC HANDHOLE
	GROUND RECEPTACLE
	EXISTING LIGHTING CONTROLLER
	PROPOSED LIGHTING CONTROLLER
	PROPOSED COMBINATION LIGHTING CONTROLLER ATTACHED TO TRAFFIC SIGNAL CONTROL CABINET
	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED TRANSFORMER
	EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED TRANSFORMER
	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

CALL-OUT SAMPLES	
DEFINITION	EXAMPLE
CONDUIT QUANTITY, SIZE, TYPE, LENGTH	
X" UD, CONDUCTORS (LOAD)	
CONTROLLER DESIGNATION RATINGS & DESCRIPTION LOCATION	
WOOD POLE LOCATION	
CONTROLLER, CIRCUIT, POLE * (RECEPTACLE CIRCUIT *) STA. #, SETBACK	
CONTROLLER, CIRCUIT, POLE * 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

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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	527
E-1			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

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. UNDERGROUND CONDUIT SHALL EXTEND (2') BEYOND THE SHOULDER, CURB, BARRIER WALL AND/OR GUARDRAIL, AS APPLICABLE.
12. 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.
13. 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.
14. ALL PITS USED FOR INSTALLING PUSHED (JACKED) STEEL CONDUITS UNDER EXISTING 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.
15. EXISTING LIGHTING CONTROLLERS ARE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK. PROPOSED LIGHTING CONTROLLER C107 WILL BE OWNED AND MAINTAINED BY THE VILLAGE OF ORLAND PARK.
16. 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.
17. 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 (Z2) 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".
18. FURNISH AND INSTALL A 1" UNIT DUCT WITH 3-1/2" #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.
19. 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:

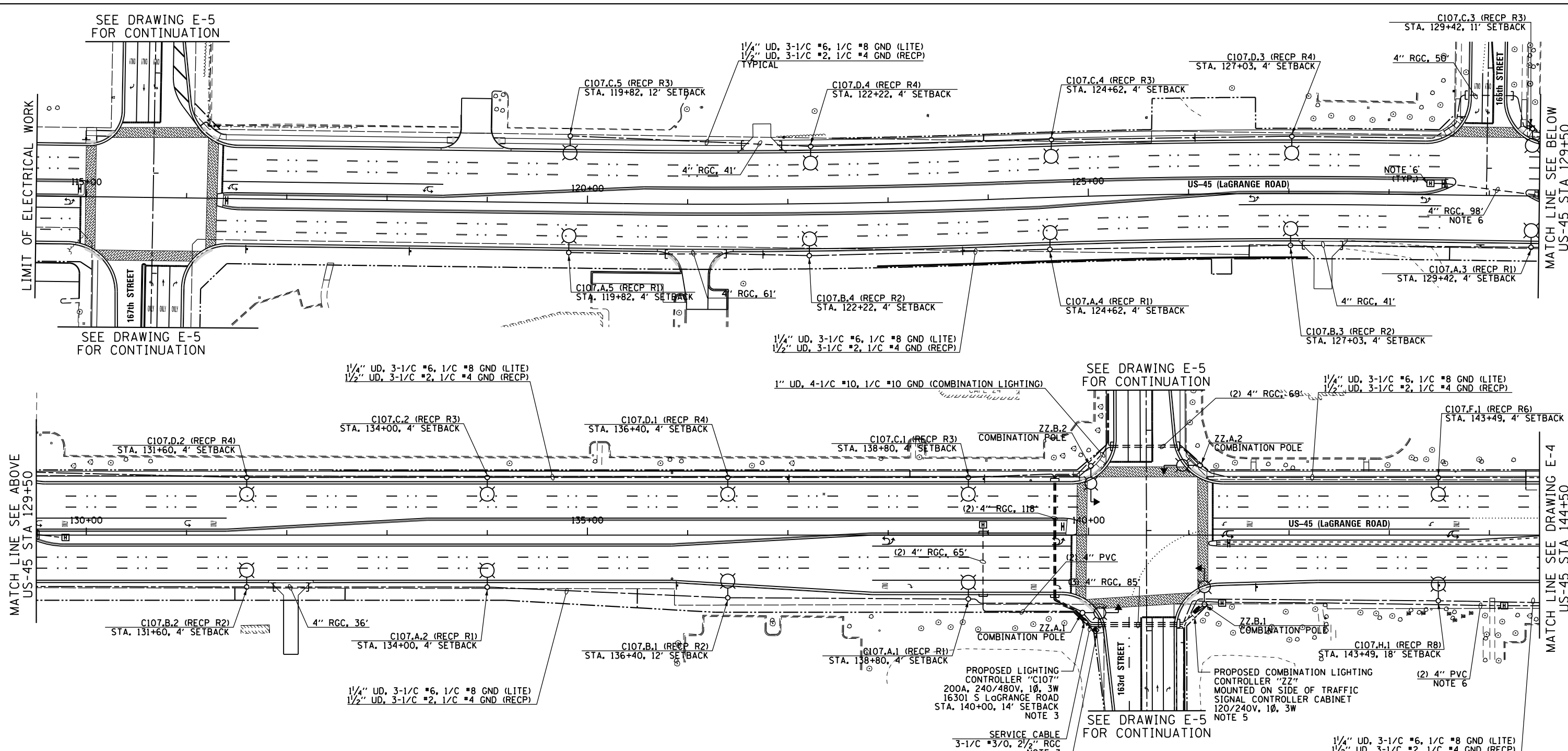
- PRE-STAGE (PRIOR TO THE START OF STAGE 1 CONSTRUCTION)**
- A. FURNISH AND INSTALL TEMPORARY LIGHTING CONTROLLER "T108" AS SHOWN ON DRAWING E-7.
 - B. COORDINATE WITH COMED TO GET POWER TO LIGHTING CONTROLLER "T108". FURNISH AND INSTALL ALL ITEMS NECESSARY AS COORDINATED WITH COMED TO GET POWER TO LIGHTING CONTROLLER "T108".
 - C. FURNISH, INSTALL, AND ENERGIZE ALL TEMPORARY LIGHTING UNITS AS INDICATED ON DRAWINGS E-7 THROUGH E-8 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-7 THROUGH E-8 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 1**
- A. REMOVE EXISTING LIGHTING UNITS AND FOUNDATIONS ON THE EAST SIDE OF US-45 (LaGRANGE ROAD) AS INDICATED ON DRAWINGS E-7 THROUGH E-8 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 LIGHTING CONTROLLERS FOR LIGHT SYSTEMS 1 AND 2 LOCATED ON DRAWINGS E-7 AND E-8. REMOVE THE LIGHTING CONTROLLERS AND FOUNDATIONS. TRANSPORT THE REMOVED LIGHTING CONTROLLERS TO THE OWNER'S ELECTRICAL MAINTENANCE FACILITY FOR PROCESSING PER THE SPECIAL PROVISIONS.
 - D. FURNISH AND INSTALL PROPOSED LIGHTING CONTROLLER "C107" AND ASSOCIATED UTILITY SERVICE. COORDINATE WORK WITH COMED.
 - E. FURNISH, INSTALL, AND ENERGIZE PROPOSED LIGHTING UNITS ON THE EAST SIDE OF US-45 (LaGRANGE ROAD) AS INDICATED ON DRAWINGS E-9 THROUGH E-10.
 - F. CONTRACTOR MUST COORDINATE THE REMOVAL AND RELOCATION OF EXISTING LIGHTING UNITS AT 175th STREET WITH COMED AND THE 175th STREET RECONSTRUCTION PERFORMED UNDER THIS PROJECT AS DIRECTED ON DRAWING E-6.
- STAGE 2**
- A. REMOVE ALL TEMPORARY LIGHTING UNITS, TEMPORARY LIGHTING CONTROLLER "T108", ASSOCIATED UTILITY SERVICE, AND WIRING ONCE TRAFFIC IS SHIFTED TO PROPOSED NORTHBOUND LANES CONSTRUCTED IN STAGE 1.
- STAGE 3**
- A. FURNISH, INSTALL, AND ENERGIZE PROPOSED LIGHTING UNITS ON THE WEST SIDE OF US-45 (LaGRANGE ROAD) AND SOUTH SIDE OF 163rd STREET AS INDICATED ON DRAWINGS E-11 THROUGH E-13.

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D160F05-SHT-E02.dgn		DRAWN - WM	REVISED -
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SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD) ELECTRICAL GENERAL NOTES AND PHASING NOTES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		330	103R-3	COOK	932	528
SCALE: NONE		SHEET 1 OF 1 SHEETS		STA. TO STA.	CONTRACT NO. 60F05	
				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 3-1/2" #8, 1/2" #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.

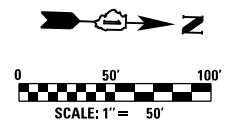
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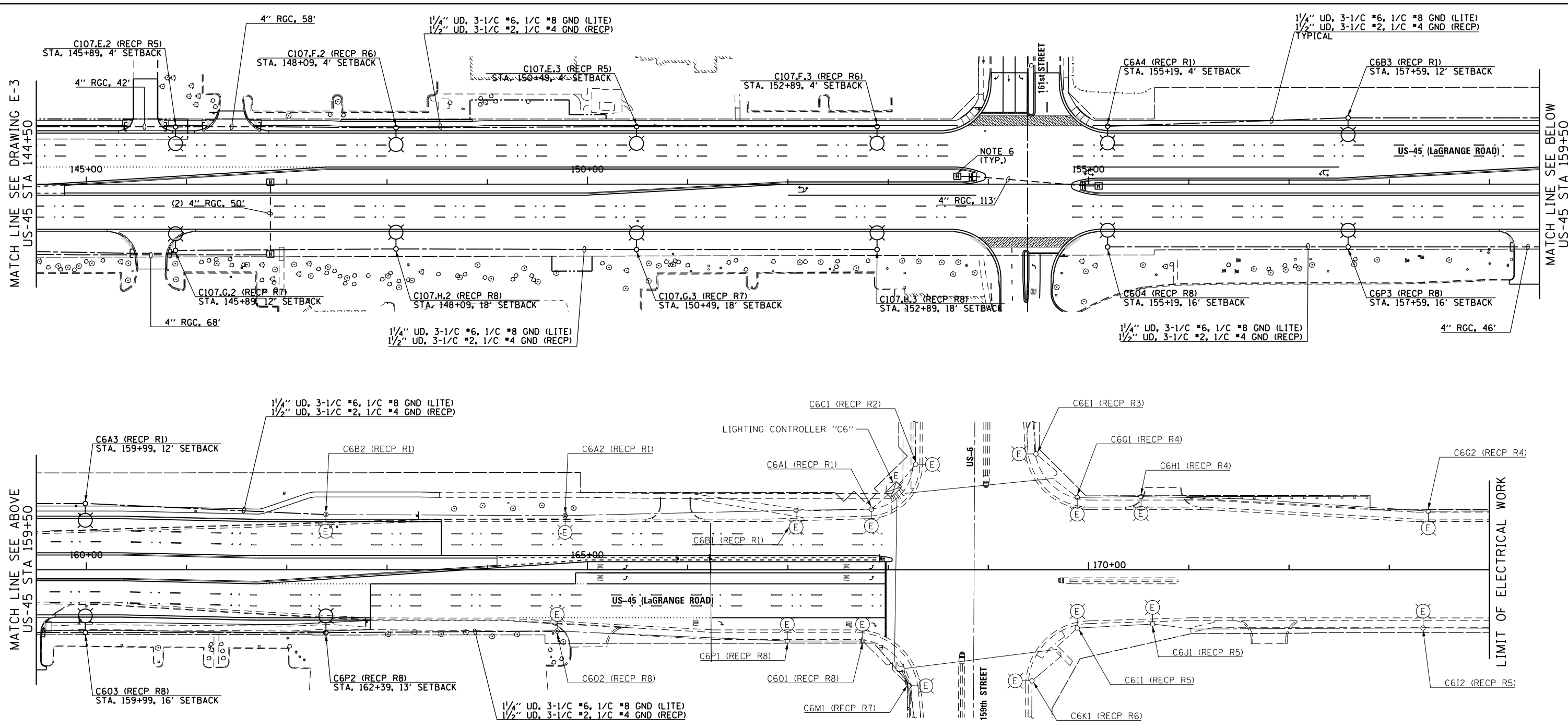
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DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
PROPOSED ROADWAY LIGHTING PLAN
 SCALE: 1"=50' SHEET 1 OF 3 SHEETS STA. 114+50.00 TO STA. 144+50.00

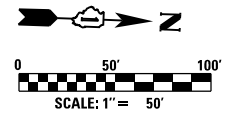
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	529
E-3			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				





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 3-1/4" #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.



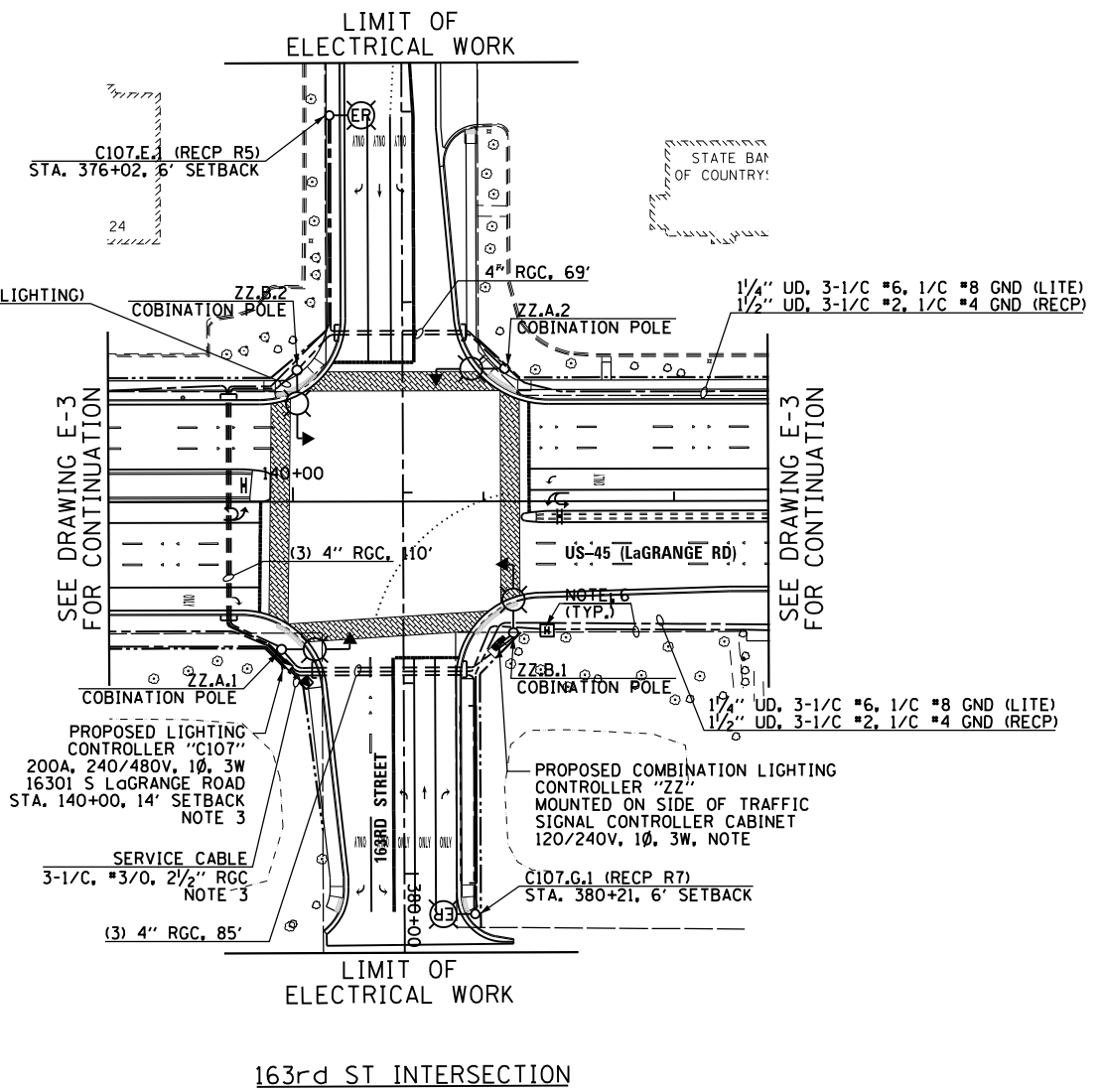
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FILE NAME = D160F05-SHT-E04.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
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SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

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DEPARTMENT OF TRANSPORTATION

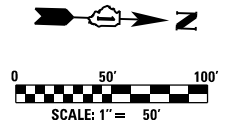
US 45 (LaGRANGE ROAD) PROPOSED ROADWAY LIGHTING PLAN	
SCALE: 1"=50'	SHEET 2 OF 3 SHEETS STA. 144+50.00 TO STA. 174+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	530
E-4			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				



NOTES:

- SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING GE-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 POLE 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/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.

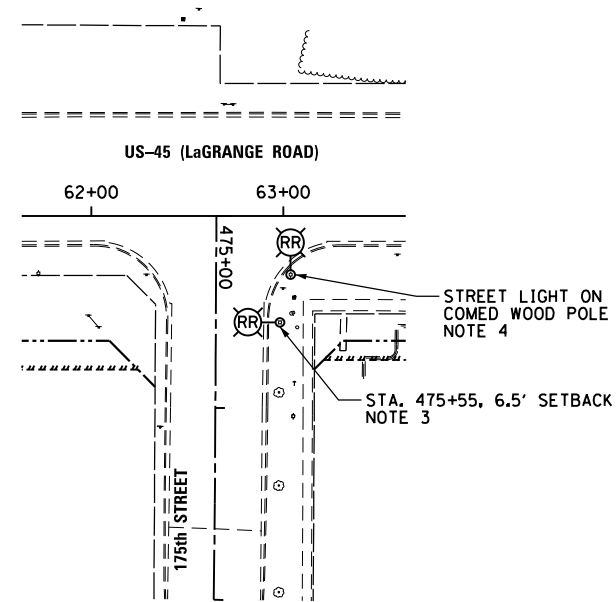


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FILE NAME = D160F05-SHT-E05.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED ROADWAY LIGHTING PLAN - 163rd STREET			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -					330	103R-3	COOK	932	531
	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -		E-5			CONTRACT NO. 60F05				
					SCALE: 1"=50'	SHEET 1 OF 1 SHEETS	STA. 373+53.84 TO STA. 380+63.44	ILLINOIS FED. AID PROJECT				

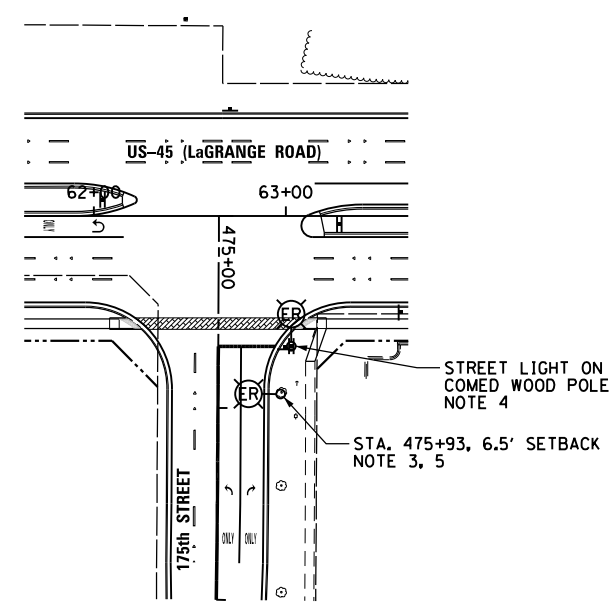
NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- XXXXX INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
- CONTRACTOR MUST COORDINATE THE REMOVAL AND REINSTALLATION OF LIGHT POLE WITH THE PROPOSED RECONSTRUCTION OF 175th STREET AND WITH THE OWNER. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING PLANS. CONTRACTOR TO DISCONNECT POWER SOURCE AT NEXT LIGHT POLE EAST 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 EAST OF RELOCATED POLE. SEE DRAWING E-25 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.
- EXACT LOCATION OF RELOCATED COMED POLE TO BE DETERMINED BY COMED. CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR REMOVING AND DISCONNECTING THE EXISTING STREET LIGHT, AND REINSTALLING AND RECONNECTING THE STREET LIGHT ON THE RELOCATED COMED POLE. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- RELOCATE ENTIRE POLE WITH LUMINAIRE. DO NOT REPLACE LUMINAIRE.



175th STREET ELECTRICAL DEMOLITION PLAN

SCALE: 1" = 50'-0"



175th STREET PROPOSED ROADWAY LIGHTING PLAN

SCALE: 1" = 50'-0"

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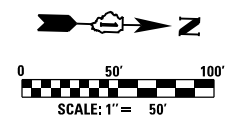
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SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

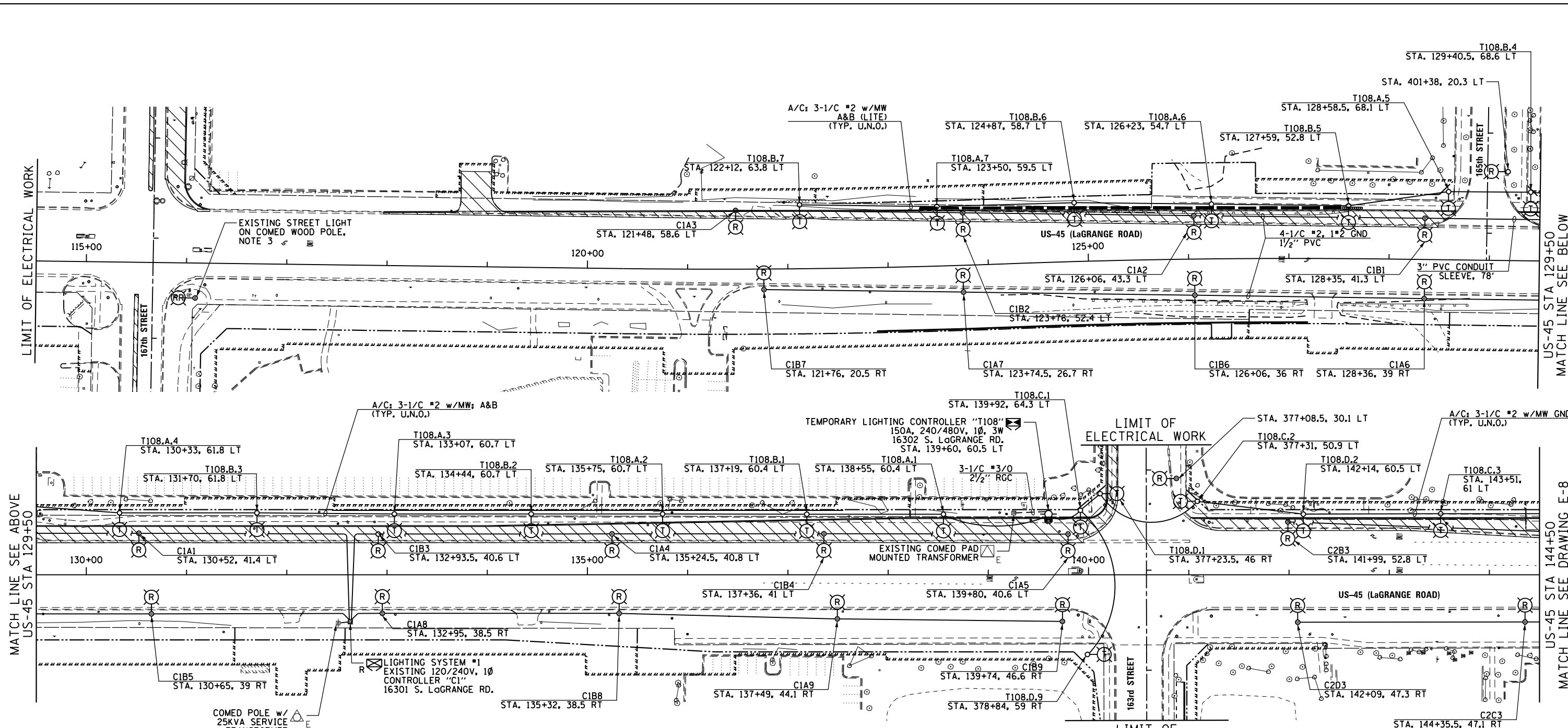
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED ROADWAY LIGHTING PLANS - 175th STREET

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 475+00.00 TO STA. 477+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	532
E-6			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				





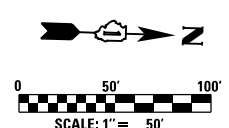
LIMIT OF ELECTRICAL WORK

MATCH LINE SEE ABOVE
US-45 STA 129+50

US-45 STA 129+50
MATCH LINE SEE BELOW

US-45 STA 144+50
MATCH LINE SEE DRAWING E-8

- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.
 - CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR REMOVING AND DISCONNECTING THE EXISTING STREET LIGHT, AND REINSTALLING AND RECONNECTING THE STREET LIGHT ON THE RELOCATED COMED POLE. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.



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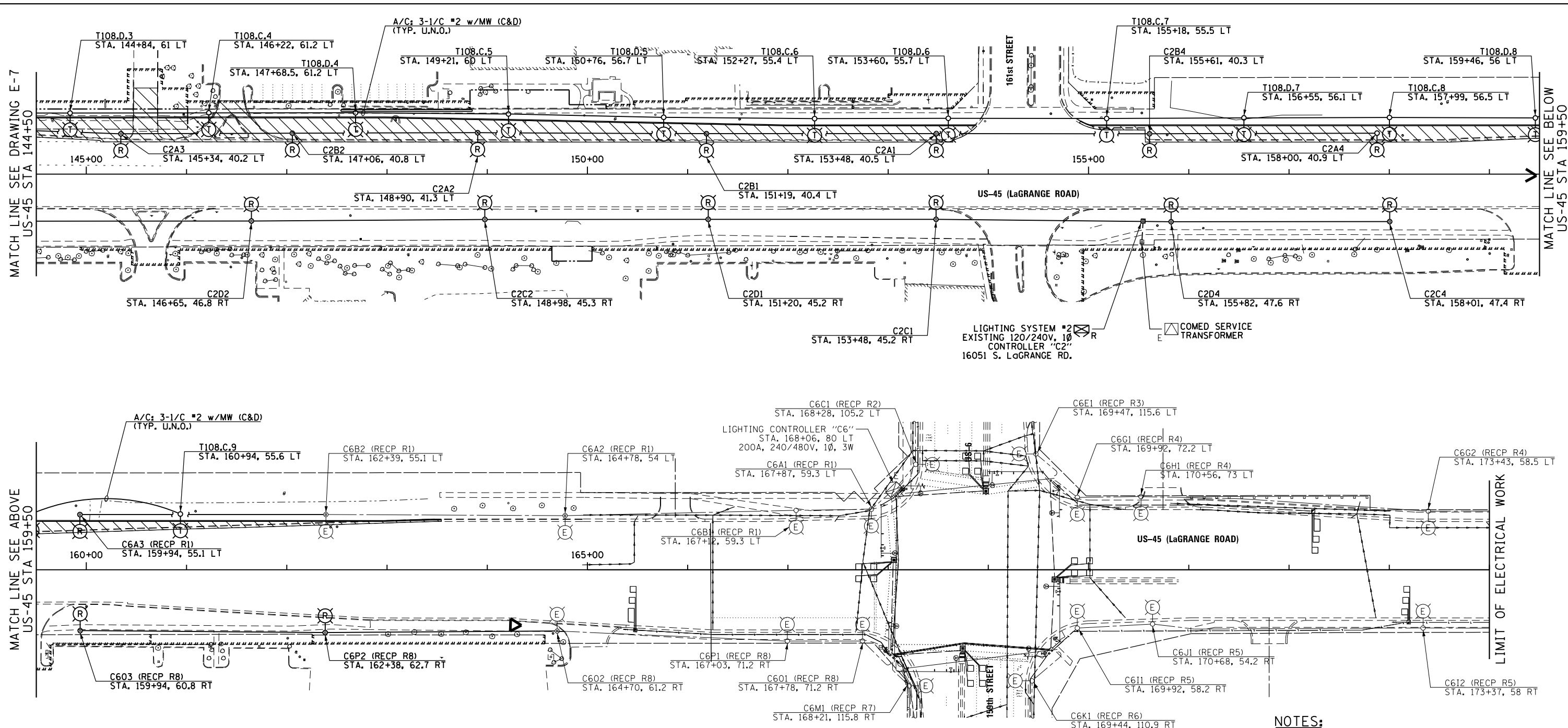
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	PLOT DATE = 3/14/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING PLAN: PRE-STAGE & STAGE 1**

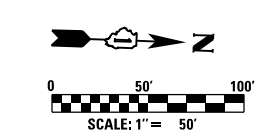
SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 114+50.00 TO STA. 144+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	533
E-7			CONTRACT NO.	60F05
ILLINOIS FED. AID PROJECT				

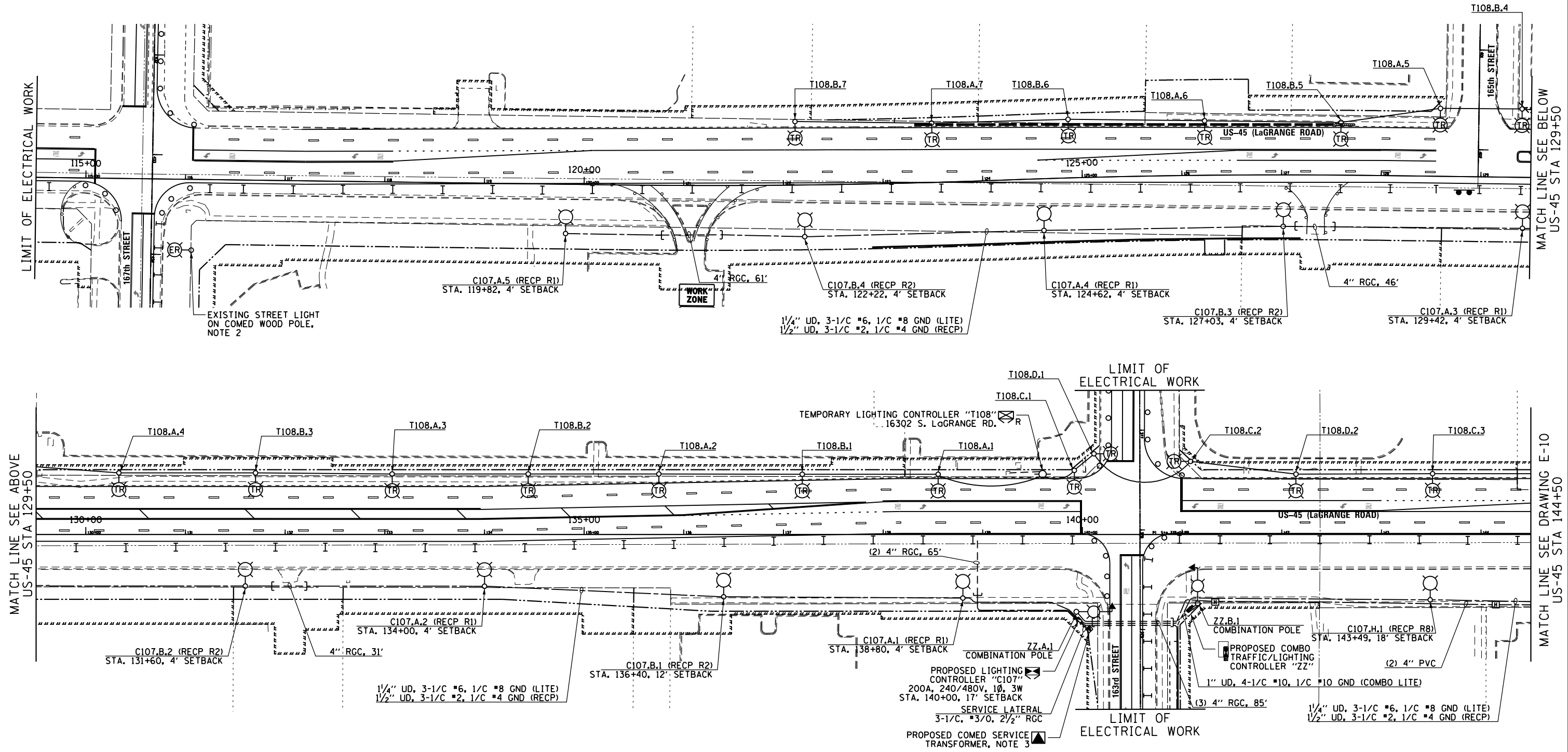


- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - INDICATES TEMPORARY PAVEMENT INSTALLATION LIMITS. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR CONSTRUCTION STAGING INFORMATION.

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FILE NAME = D:\160F05-SHT-E08.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: PRE-STAGE & STAGE 1	F.A.P. RITE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 534	
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 2 OF 2 SHEETS	E-8		CONTRACT NO. 60F05	ILLINOIS FED. AID PROJECT
	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -			STA. 144+50.00 TO STA. 174+00.00					



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- EXACT LOCATION OF RELOCATED COMED POLE TO BE DETERMINED BY COMED. CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR REMOVING AND DISCONNECTING THE EXISTING STREET LIGHT, AND REINSTALLING AND RECONNECTING THE STREET LIGHT ON THE RELOCATED COMED POLE. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- 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-26 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING E-25 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- 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.

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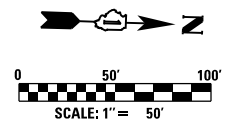
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SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING PLAN: STAGE 2**

SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 114+50.00 TO STA. 144+50.00

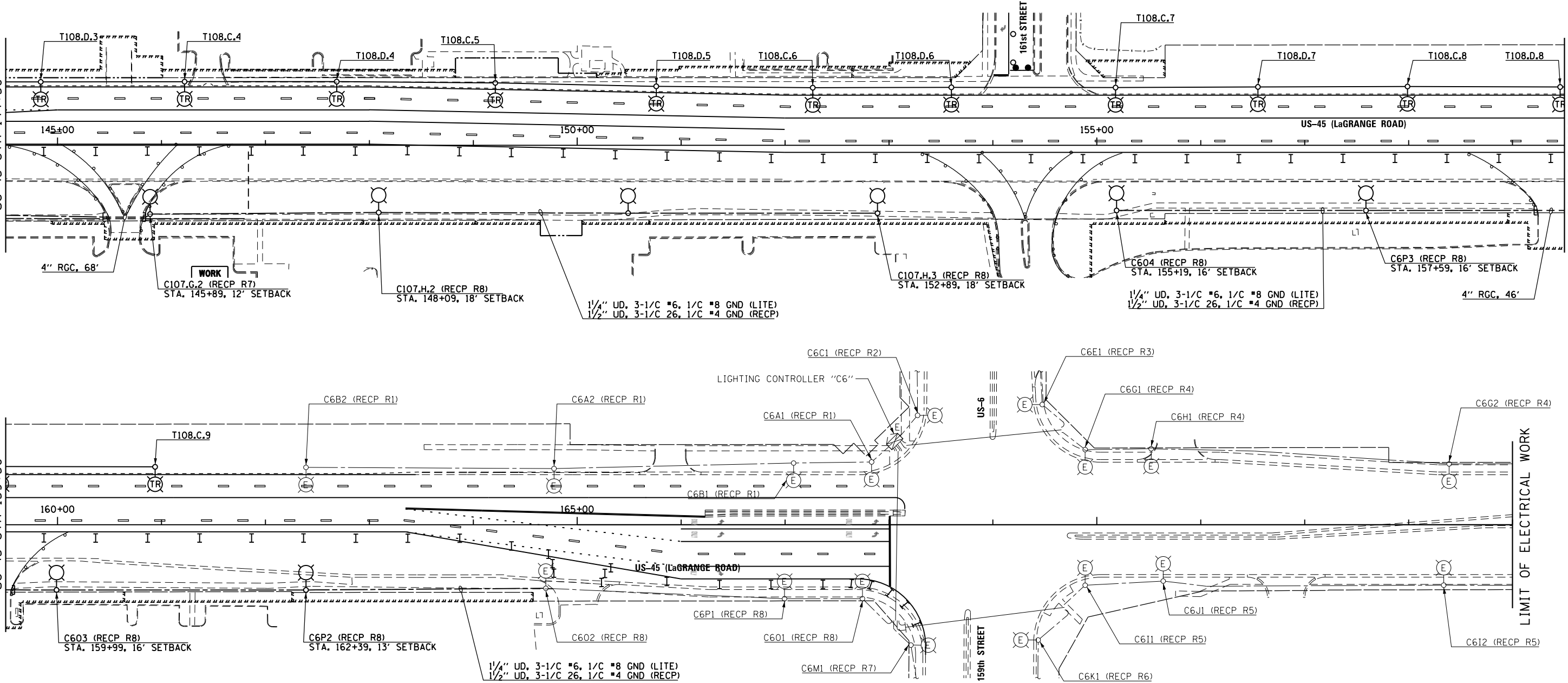
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	535
E-9			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				



MATCH LINE SEE DRAWING E-9
US-45 STA 144+50

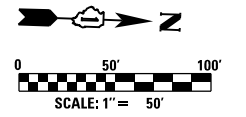
MATCH LINE SEE ABOVE
US-45 STA 159+50

MATCH LINE SEE BELOW
US-45 STA 159+50



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-26 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING E-25 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
- 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 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME =	USER NAME = Frank.Stallone
D160F05-SHT-E10.dgn	
SHT.PLAN	

DESIGNED - MAE	REVISD -
DRAWN - WM	REVISD -
CHECKED - DAD	REVISD -
DATE - 03/13/13	REVISD -

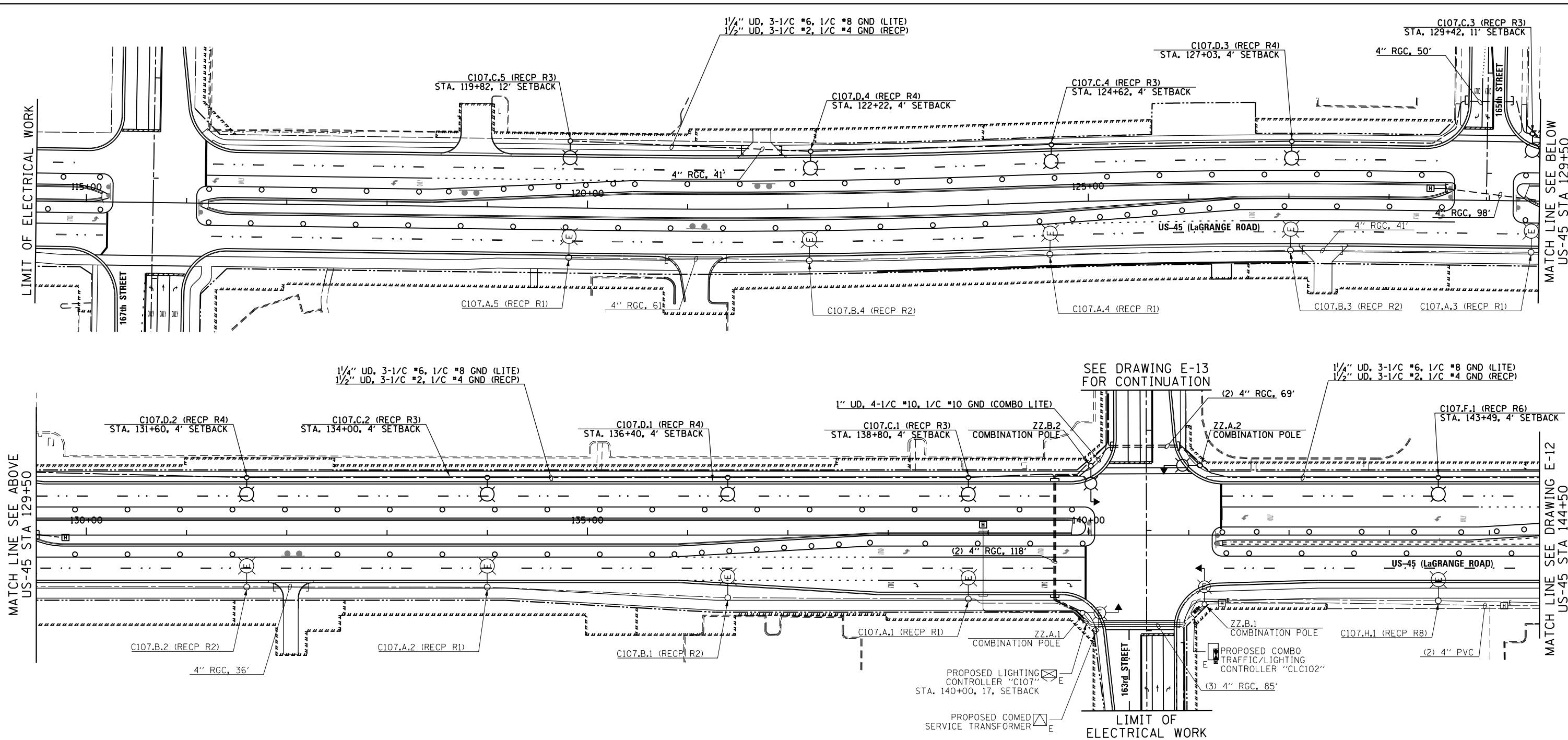
DESIGNED - MAE	REVISD -
DRAWN - WM	REVISD -
CHECKED - DAD	REVISD -
DATE - 03/13/13	REVISD -

DESIGNED - MAE	REVISD -
DRAWN - WM	REVISD -
CHECKED - DAD	REVISD -
DATE - 03/13/13	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

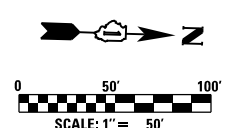
US 45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: STAGE 2	
SCALE: 1"=50'	SHEET 2 OF 2 SHEETS
STA. 144+50.00	TO STA. 174+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	536
E-10			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				



NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
- EXACT LOCATION OF RELOCATED COMED POLE TO BE DETERMINED BY COMED. CONTRACTOR TO COORDINATE WITH COMED AS TO WHO IS RESPONSIBLE FOR REMOVING AND DISCONNECTING THE EXISTING STREET LIGHT, AND REINSTALLING AND RECONNECTING THE STREET LIGHT ON THE RELOCATED COMED POLE. THIS WORK SHALL BE PAID FOR UNDER THE "REMOVE AND RELOCATE EXISTING LIGHT STANDARD" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
- SEE DRAWING E-26 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING E-25 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-25.
- EXISTING LIGHTING UNITS SHOWN ON EAST ARE PROPOSED UNITS INSTALLED IN PREVIOUS STAGE.



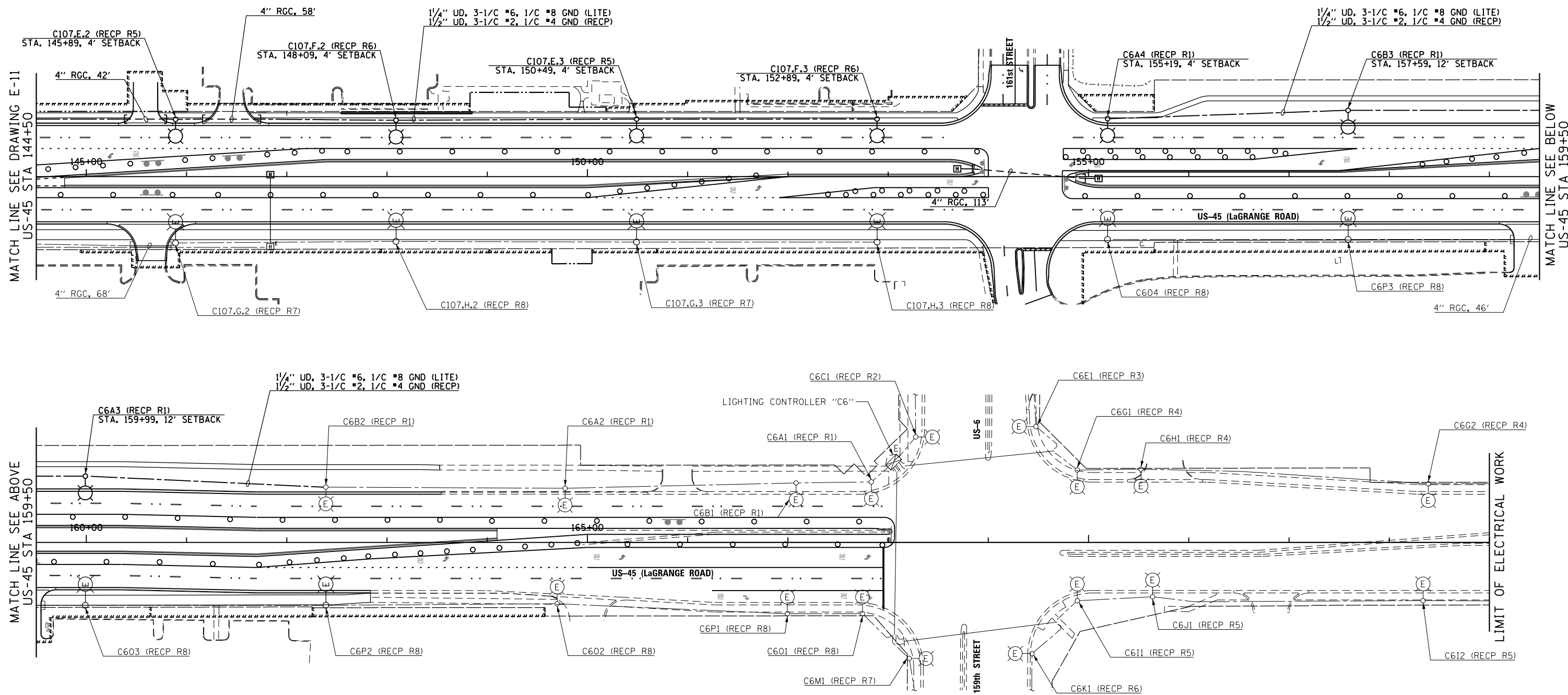
100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME =	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
D160F05-SHT-E11.dgn		DRAWN - WM	REVISED -
	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING PLAN: STAGE 3
 SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 114+50.00 TO STA. 144+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	537
E-11			CONTRACT NO.	60F05
ILLINOIS FED. AID PROJECT				



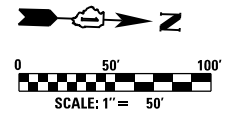
MATCH LINE SEE DRAWING E-11
US-45 STA 144+50

MATCH LINE SEE BELOW
US-45 STA 159+50

MATCH LINE SEE ABOVE
US-45 STA 159+50

LIMIT OF ELECTRICAL WORK

- NOTES:**
- SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
 - SEE DRAWING E-26 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING E-25 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
 - EXISTING LIGHTING UNITS SHOWN ON EAST ARE PROPOSED UNITS INSTALLED IN PREVIOUS STAGE.



URS
 100 S. WACKER DR.
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FILE NAME = D160F05-SHT-E12.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
		DRAWN - WM	REVISED -
	PLOT SCALE = 100.000000' / 1"	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

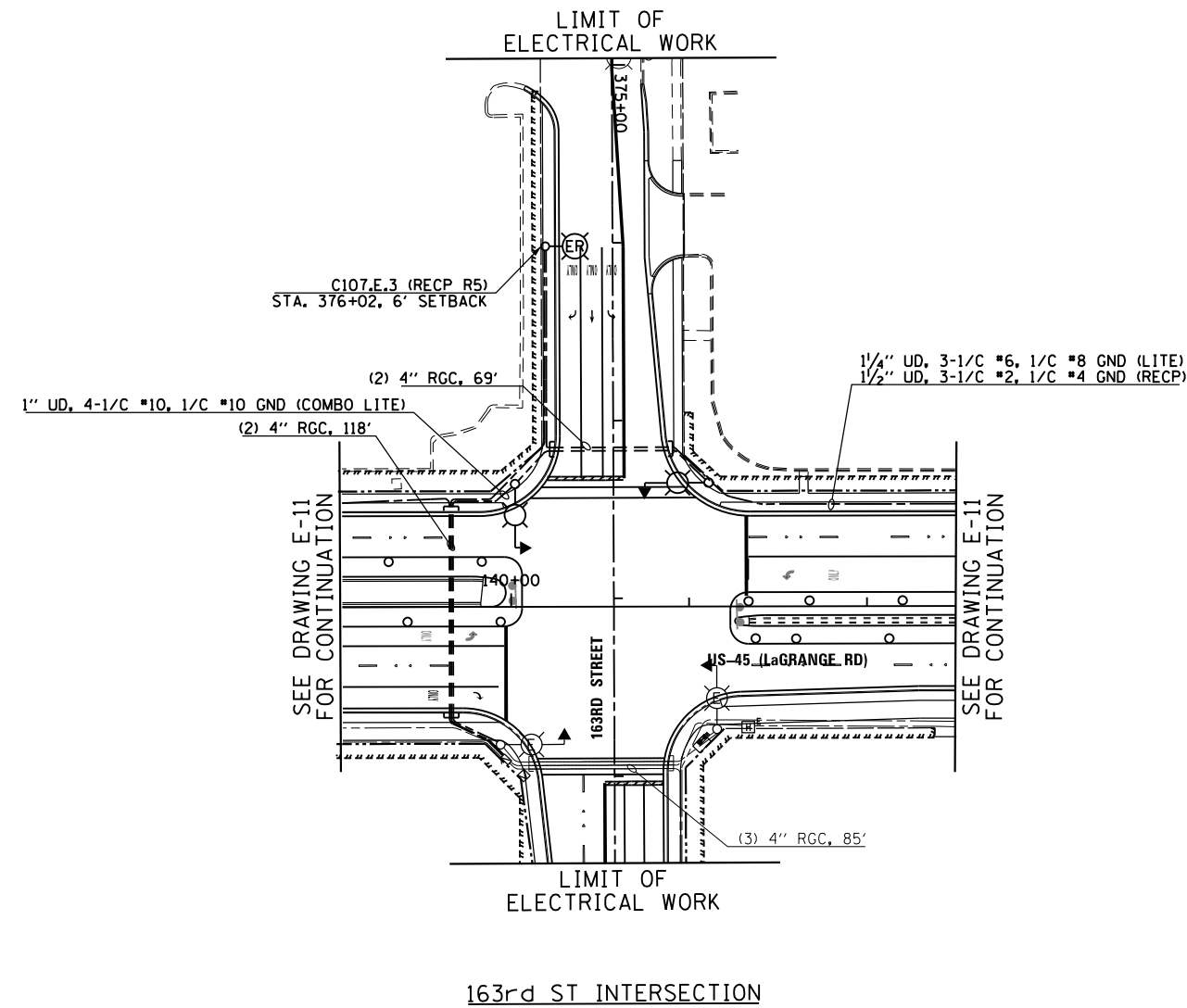
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

US 45 (LaGRANGE ROAD) TEMPORARY LIGHTING PLAN: STAGE 3			
SCALE: 1"=50'	SHEET 2 OF 2 SHEETS	STA. 144+50.00 TO STA. 174+00.00	

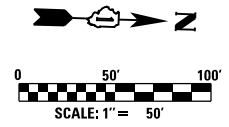
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	538
E-12			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

NOTES:

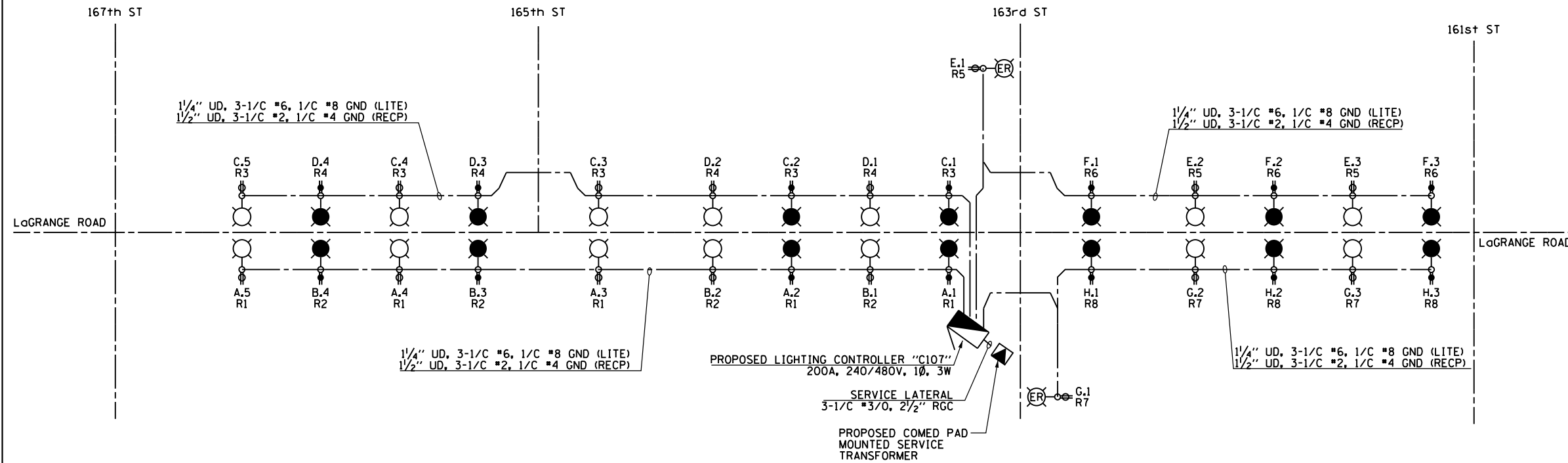
1. SEE DRAWING E-1 FOR ELECTRICAL SYMBOL LIST AND ABBREVIATIONS. SEE DRAWING E-2 FOR ELECTRICAL GENERAL NOTES.
2. SEE IDOT STANDARD DRAWING E-26 FOR PROPOSED LIGHTING UNIT DETAILS. SEE IDOT STANDARD DRAWING E-25 FOR PROPOSED LIGHTING UNIT FOUNDATION DETAILS.
3. CONTRACTOR TO FURNISH AND INSTALL (3) 3/2" x 36" RADIUS PVC CONDUIT RACEWAY ELBOWS IN FOUNDATION PER IDOT STANDARD DRAWING E-25.



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URS



FILE NAME = D160F05-SHT-E13.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	163RD STREET TEMPORARY LIGHTING PLAN: STAGE 3	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 539		
SHT.PLAN	PLOT SCALE = 100.000000' / in.	CHECKED - DAD	REVISED -			SCALE: 1"=50'	SHEET 1 OF 1 SHEETS	STA. 373+53.84 TO STA. 380+63.44	E-13		CONTRACT NO. 60F05	
	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -			ILLINOIS FED. AID PROJECT						



PROPOSED LIGHTING CONTROLLER "C107" WIRING DIAGRAM
N.T.S.

- 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)
 - RELOCATED LIGHTING UNIT, PROVIDE NEW 250W HPS, 240V, MC-III LUMINAIRE ON A RELOCATED POLE IN PROPOSED LOCATION, WITH 5A FUSES AND T-BASE (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
 - PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED ROADWAY LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN 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 IDENTIFIED TO SECONDARY SIDE OF UTILITY SERVICE CONNECTION
 - PROPOSED UNIT DUCT: SIZE AND QUANTITY OF CONDUCTORS AS IDENTIFIED

- 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
 - COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN
 - MEDIAN RECEPTACLE ARE FOR FUTURE LAND-SCAPING PROJECT.



CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	10	2400	B	8	1920
C	10	2400	D	8	1920
E	5.1	1248	F	6	1440
G	5.1	1248	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	12	2880	X	10.5	2520
TOTAL	42.2	10128	TOTAL	38.5	9240

CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	7.5	900	R2	6	720
R3	7.5	900	R4	6	720
R5	4.5	540	R6	4.5	540
R7	4.5	540	R8	4.5	540
R9	--	--	R10	--	--
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	24	2880	TOTAL	21	2520

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.1A AT 240V

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
360W MEDIAN RECEPTACLE: 3.0 AT 120V (NOTE 4)

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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

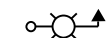
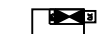

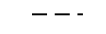
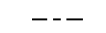
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
PROPOSED LIGHTING CONTROLLER "C107" WIRING DIAGRAM

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

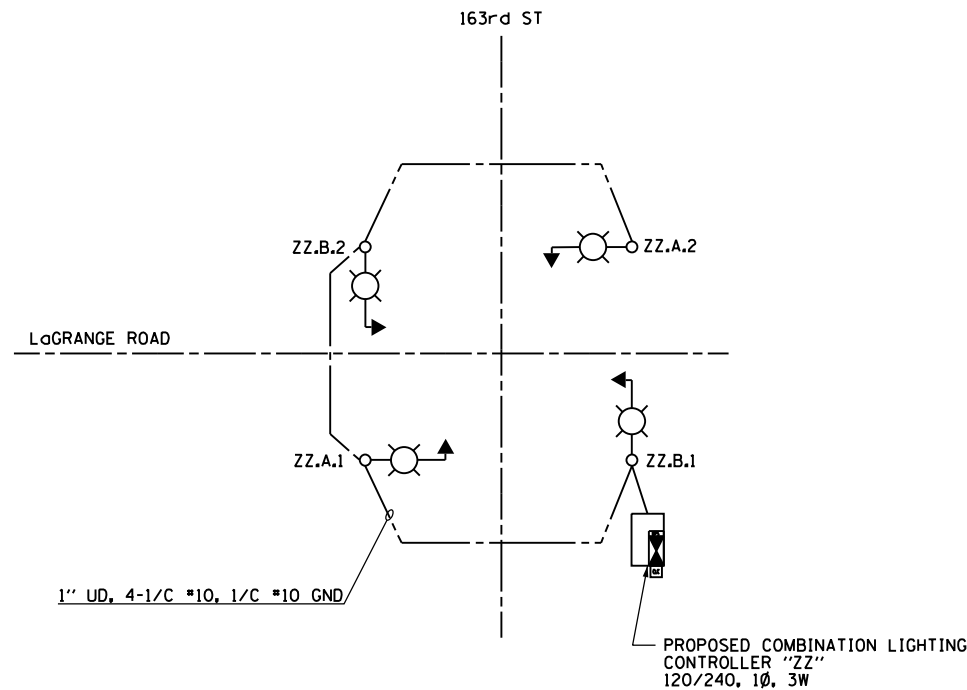
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	540
E-14			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

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
-  PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION
-  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 240/480V, 1Ø, 3W LIGHTING SYSTEM IS AS FOLLOWS:
 "A" PHASE - RED
 "B" PHASE - BLACK
 NEUTRAL - WHITE
 GROUND - GREEN
3. COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN



**PROPOSED COMBO TRAFFIC/LIGHTING CONTROLLER
 "ZZ" WIRING DIAGRAM
 N.T.S.**

COMBO TRAFFIC/LIGHTING CONTROLLER "ZZ" 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)

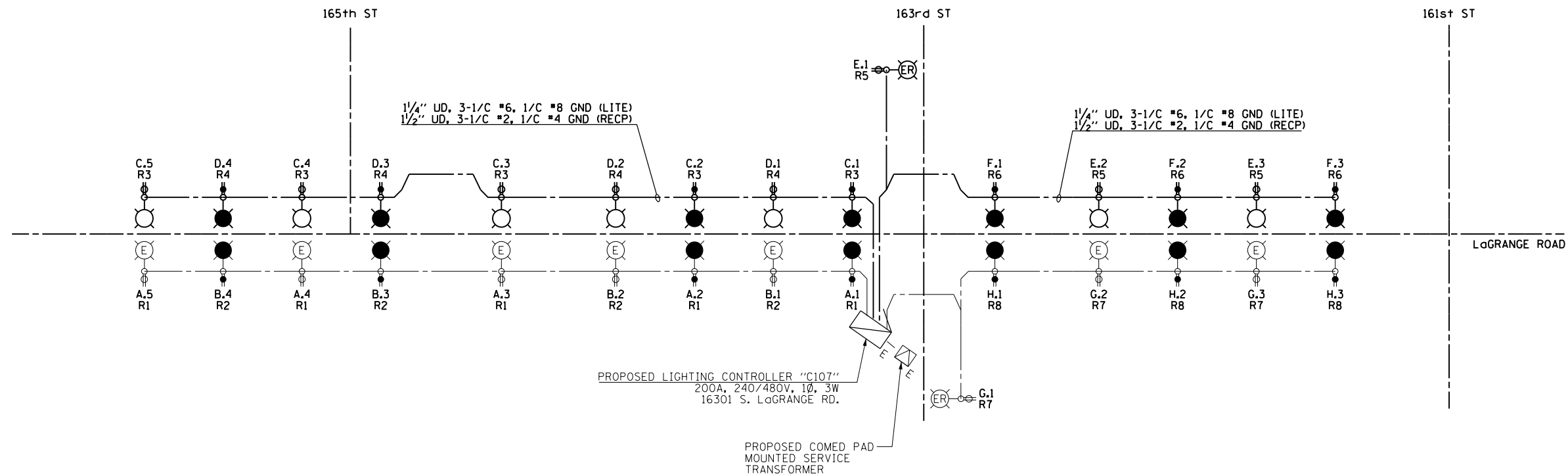


LEGEND:

- 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 (RED PHASE-OPEN SYMBOL, BLACK PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED ROADWAY LIGHTING UNIT (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED 120V, 20A, GFCI RECEPTACLE ON PROPOSED ROADWAY LIGHTING UNIT INSTALLED IN EARLIER CONSTRUCTION STAGE (ORANGE PHASE-OPEN SYMBOL, BROWN PHASE-SHADED SYMBOL)
- PROPOSED ROADWAY LIGHTING CONTROLLER INSTALLED IN EARLIER CONSTRUCTION STAGE
- PROPOSED COMED PAD-MOUNTED TRANSFORMER FOR UTILITY SERVICE CONNECTION INSTALLED IN EARLIER CONSTRUCTION STAGE
- 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 IDENTIFIED
- PROPOSED UNIT DUCT INSTALLED IN EARLIER CONSTRUCTION STAGE

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
- COLOR CODING OF CONDUCTORS FOR 120/240V, 1Ø, 3W RECEPTACLE SYSTEM IS AS FOLLOWS:
 "A" PHASE - ORANGE
 "B" PHASE - BROWN
 NEUTRAL - GRAY
 GROUND - GREEN



LIGHTING CONTROLLER "C107" STAGE 3 WIRING DIAGRAM
N.T.S.

LIGHTING CONTROLLER "C107" ROADWAY LIGHTING PANEL LOAD TABLE					
CIRCUIT	RED PHASE		CIRCUIT	BLACK PHASE	
	AMPS	WATTS		AMPS	WATTS
A	10	2400	B	8	1920
C	10	2400	D	8	1920
E	5.2	1248	F	6	1440
G	5.2	1248	H	6	1440
I	--	--	J	--	--
K	--	--	L	--	--
M	--	--	N	--	--
O	--	--	P	--	--
Q	--	--	R	--	--
S	--	--	T	--	--
U	--	--	V	--	--
W	40.5	9720	X	36	8640
TOTAL	70.9	17016	TOTAL	64	15360

LOAD TABULATION IS BASED ON THE FOLLOWING:

400W HPS LUMINAIRE: 2.0A AT 240V
250W HPS LUMINAIRE: 1.2A AT 240V

LIGHTING CONTROLLER "C107" RECEPTACLE PANEL LOAD TABLE					
CIRCUIT	ORANGE PHASE		CIRCUIT	BROWN PHASE	
	AMPS	WATTS		AMPS	WATTS
R1	7.5	900	R2	6	720
R3	7.5	900	R4	6	720
R5	4.5	540	R6	4.5	540
R7	4.5	540	R8	4.5	540
R9	--	--	R10	--	--
R11	--	--	R12	--	--
R13	--	--	R14	--	--
R15	--	--	R16	--	--
R17	--	--	R18	--	--
TOTAL	24	2880	TOTAL	21	2520

LOAD TABULATION IS BASED ON THE FOLLOWING:

180W RECEPTACLE: 1.5A AT 120V
360W MEDIAN RECEPTACLE: 3.0A AT 120V (NOTE 4)

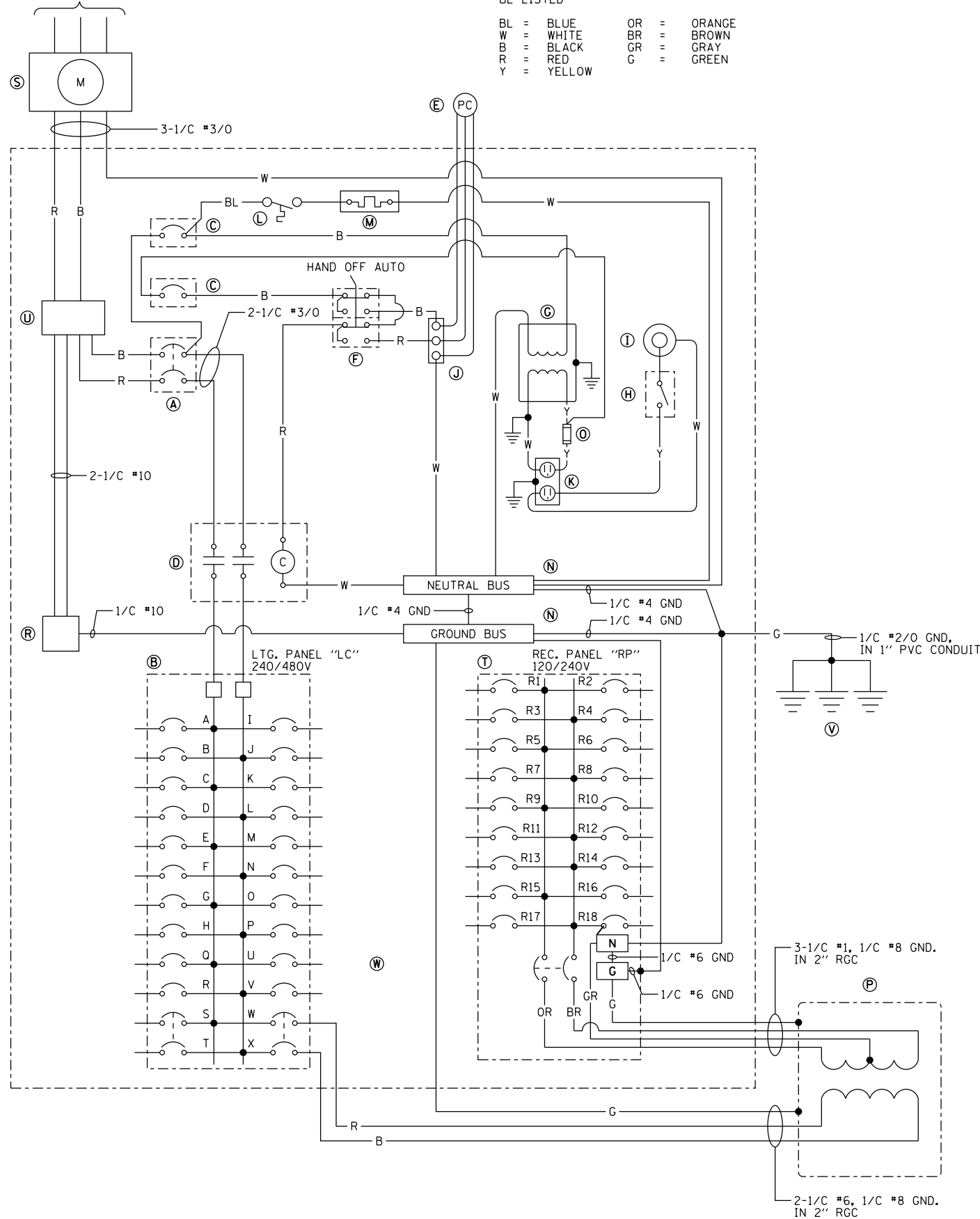
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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

F.A.P. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	544
E-18			CONTRACT NO. 60F05	
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

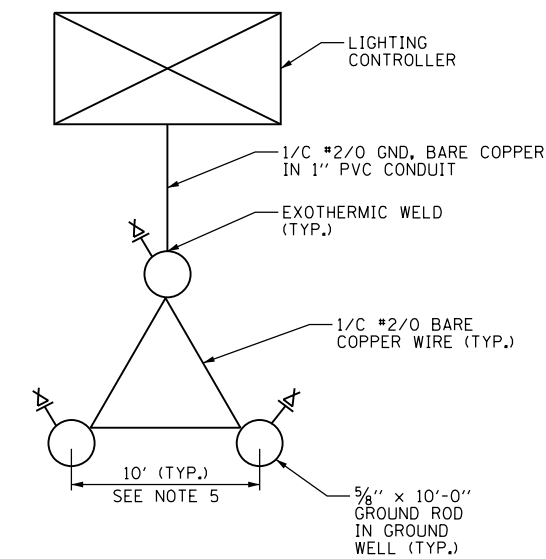
BL = BLUE OR = ORANGE
W = WHITE BR = BROWN
B = BLACK GR = GRAY
R = RED G = GREEN
Y = YELLOW



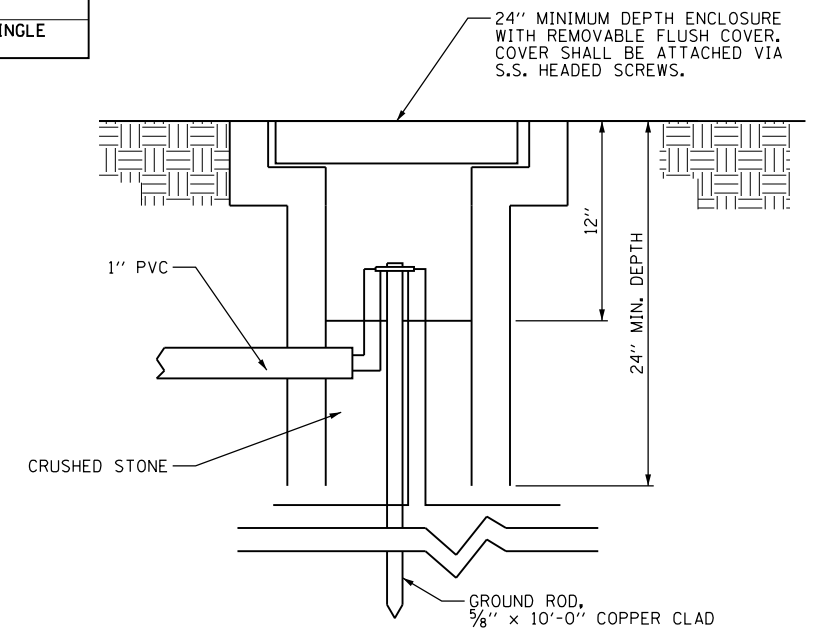
BILL OF MATERIALS		
ITEM	QTY.	DESCRIPTION
(A)	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 200 AMP, 480V, 2-POLE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING 25,000 AMPERES AT 480 VOLTS
(B)	1	CUTLER HAMMER, POW-R-LINE C PANELBOARD PRL2A, 480/240 VOLT, 1-PHASE, 3-WIRE, 30 BRANCH CIRCUITS, 225 AMPERE MAIN LUGS, WITH (20) 1 POLE-30 AMPERE, 240 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, CATALOG NUMBER GH81030, INTERRUPTING RATING 14,000 AMPERES AT 277 VOLTS (4 SPARE) AND (2) 2 POLE-50 AMPERE, 480 VOLT, BOLT-ON BRANCH CIRCUIT BREAKERS, INTERRUPTING RATING 14,000 AMPERES AT 480 VOLTS (1 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, CONTACTOR 120V 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	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	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 FOR ELECTRIC UTILITY COMPANY METER
(T)	1	CUTLER HAMMER, POW-R-LINE C PANELBOARD PRL1A, 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 GH8FEP1030, 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-CLAD 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.



GROUND FIELD DETAIL
N.T.S.



GROUND WELL DETAIL
N.T.S.

100 S. WACKER DR.
10TH FLOOR
CHICAGO, IL 60606
TEL (312) 935-1000
FAX (312) 935-4998

FILE NAME =
D160F05-SHT-E19.dgn

USER NAME = Frank.Stallone
PLOT SCALE = 2.000000' / in.
PLOT DATE = 3/14/2013

DESIGNED - MAE
DRAWN - WM
CHECKED - DAD
DATE - 03/13/13

REVISED -
REVISED -
REVISED -
REVISED -

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-3	COOK	932	545
E-19			CONTRACT NO. 60F05	
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.

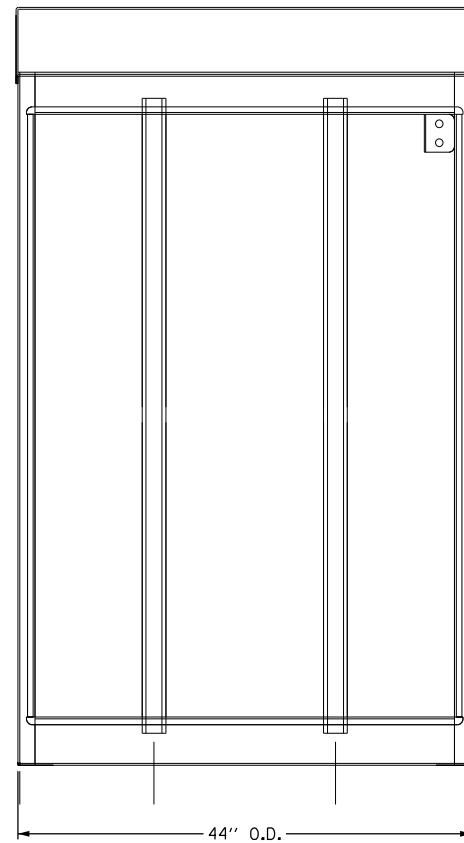
CABINET TYPE FOR PERMANENT CONTROLLER "C107" IS BASE MOUNTED AND EQUIPPED WITH INSIDE FLANGES AT THE FRONT, BACK, AND SIDES FOR ANCHORING TO A BASE (SEE INSTALLATION DETAILS ON DRAWING E-21).

CABINET TYPE FOR TEMPORARY CONTROLLER "T108" IS POLE MOUNTED (SEE INSTALLATION DETAILS ON DRAWING E-22).

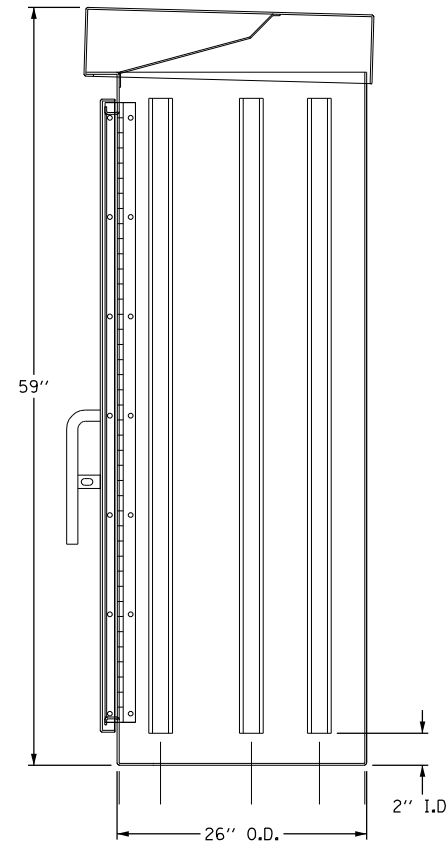
THIS SPECIFICATION IS PER IDOT STANDARD SPECIFICATIONS.

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.

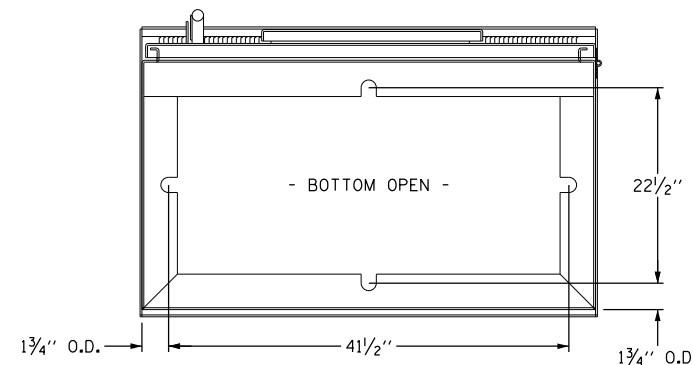
THE SERVICE EQUIPMENT SHALL BE MARKED TO IDENTIFY AS BEING SUITABLE AS SERVICE EQUIPMENT IN ACCORDANCE WITH NEC ARTICLE 230.66.



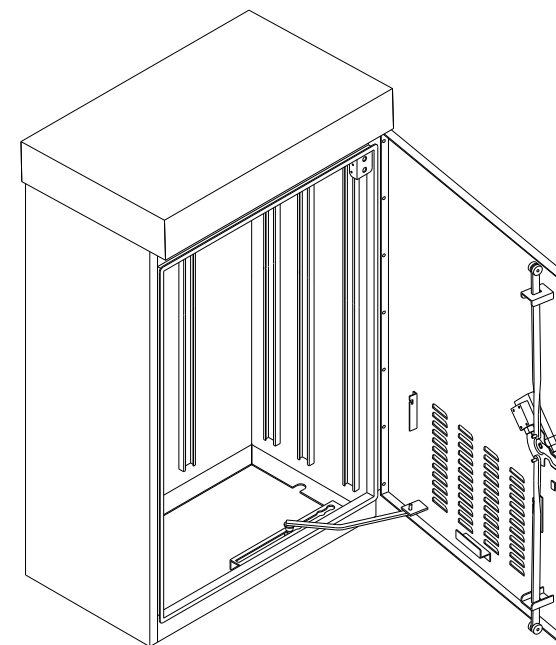
FRONT VIEW
DOOR REMOVED



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) 939-4998

URS

FILE NAME = D160F05-SHT-E20.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

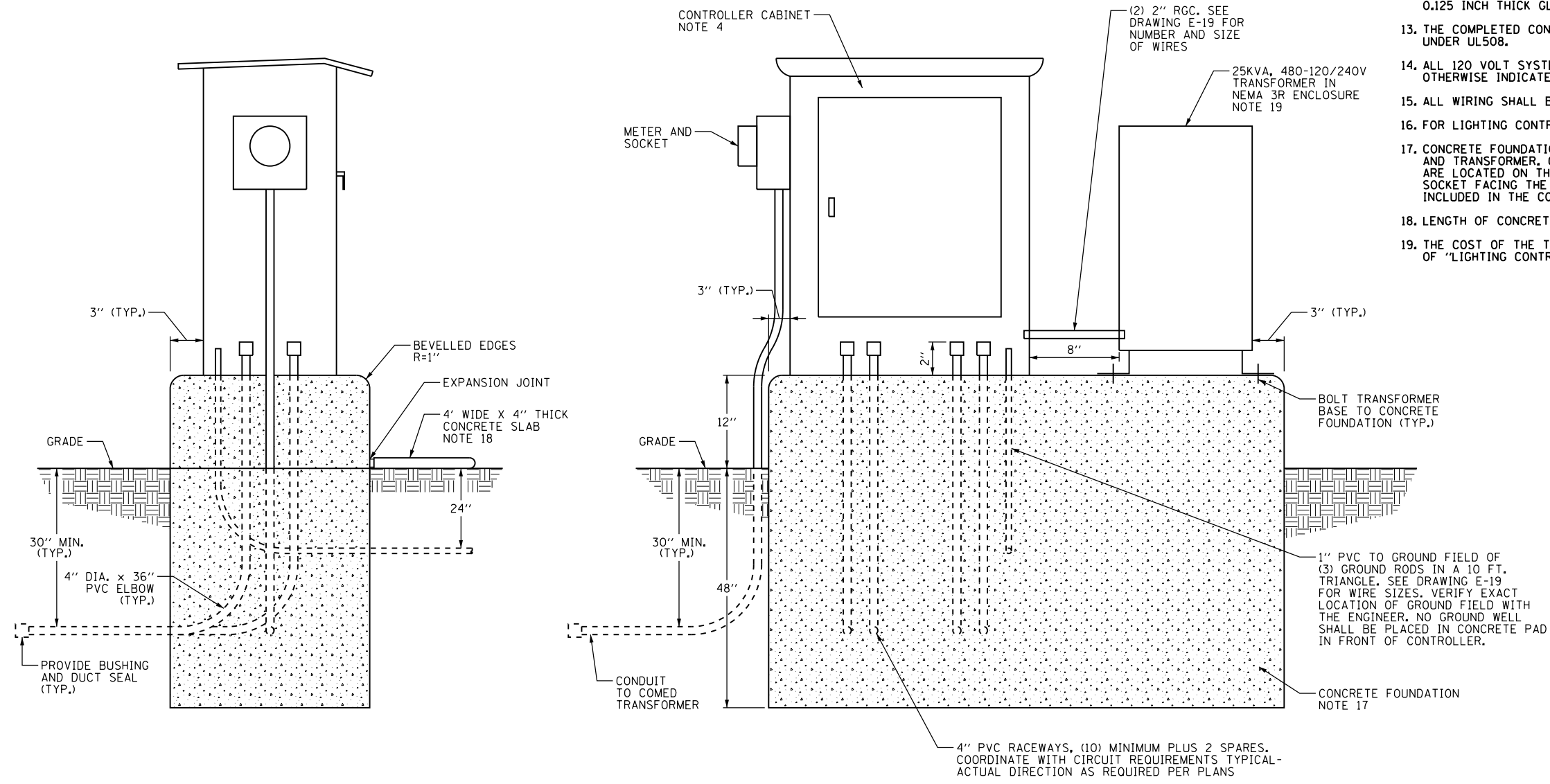
**US 45 (LaGRANGE ROAD)
LIGHTING CONTROLLER DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	546
E-20			CONTRACT NO. 60F05	
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-20 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-19.
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) 935-4998
URS

FILE NAME = D160F05-SHT-E21.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 45 (LaGRANGE ROAD) LIGHTING CONTROLLER FOUNDATION DETAILS	F.A.P. RTE. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 547	
SHT.PLAN	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -			SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	E-21		CONTRACT NO. 60F05
	PLOT DATE = 3/14/2013	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.
- THE COST OF CONTROLLER MOUNTING HARDWARE AND RELATED APPURTENANCES SHALL BE INCLUDED IN "TEMPORARY LIGHTING CONTROLLER" PAY ITEM.
- SEE DRAWING E-20 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.

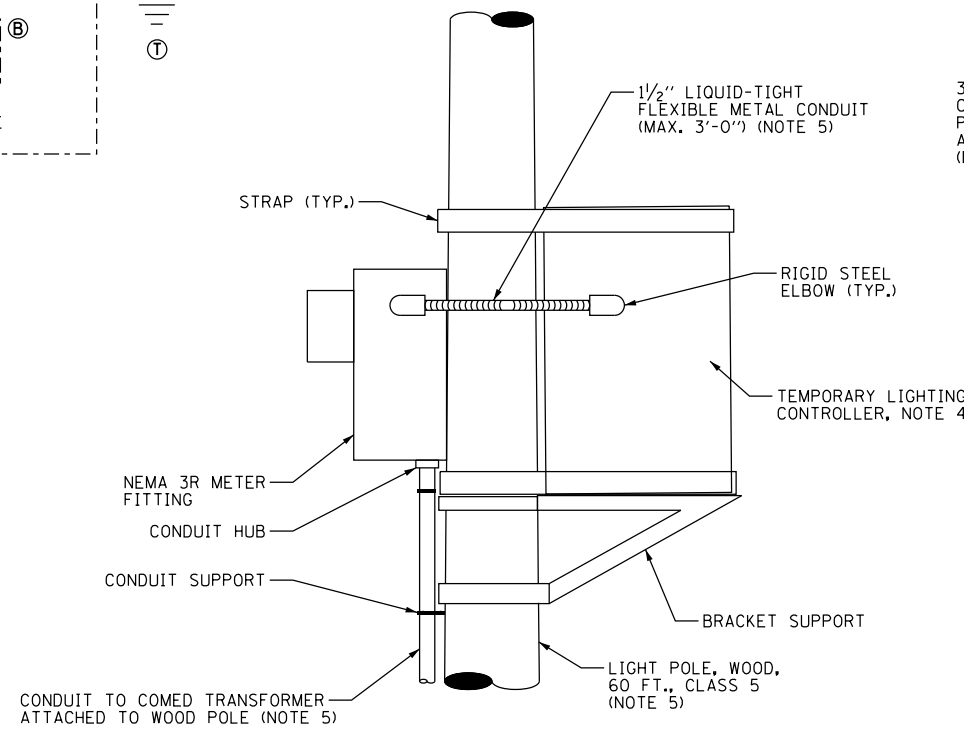
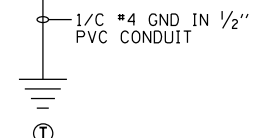
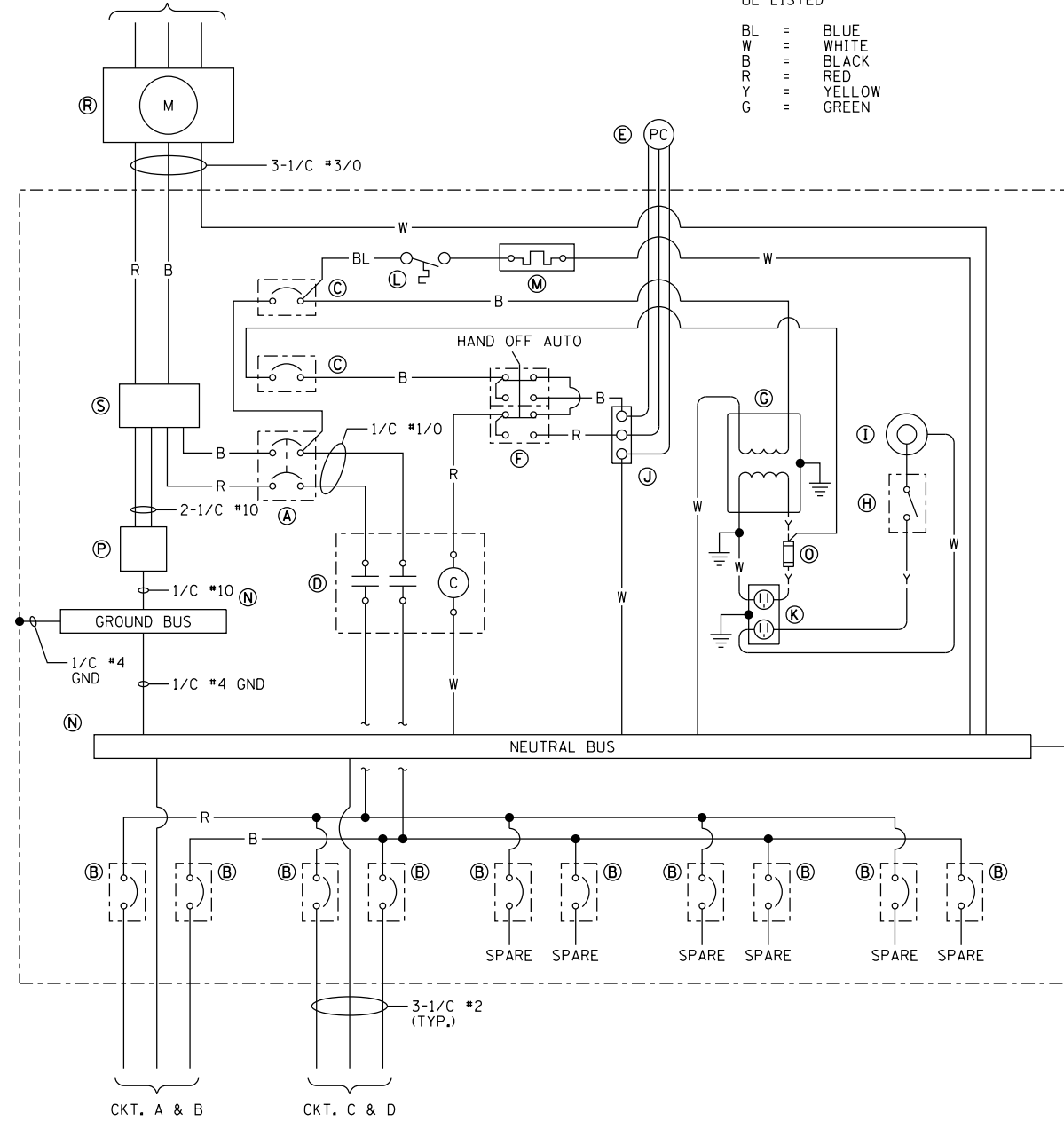
BILL OF MATERIALS

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'

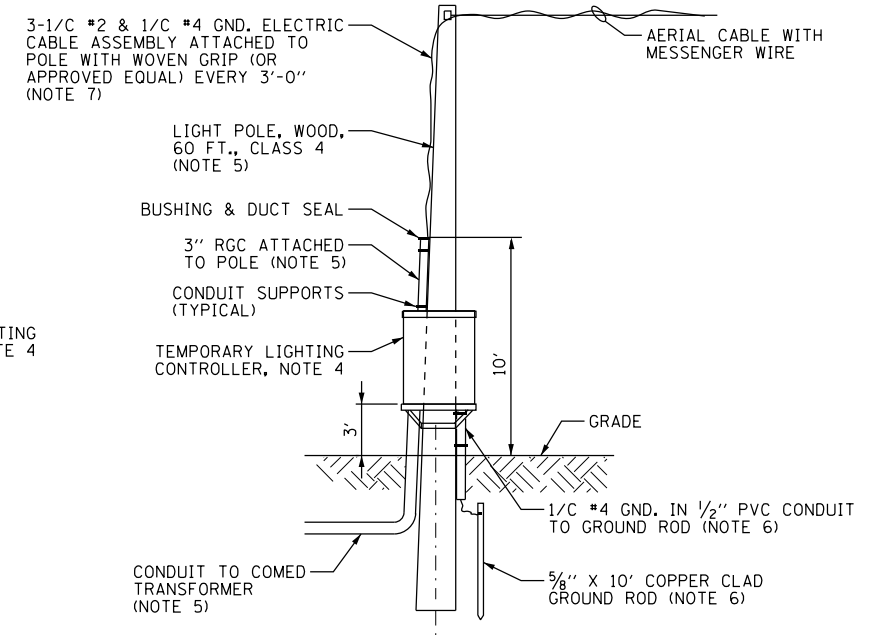
ELECTRICAL SERVICE FROM COMED
150A, 240/480V, 1Ø, 3W

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 600
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998

URS

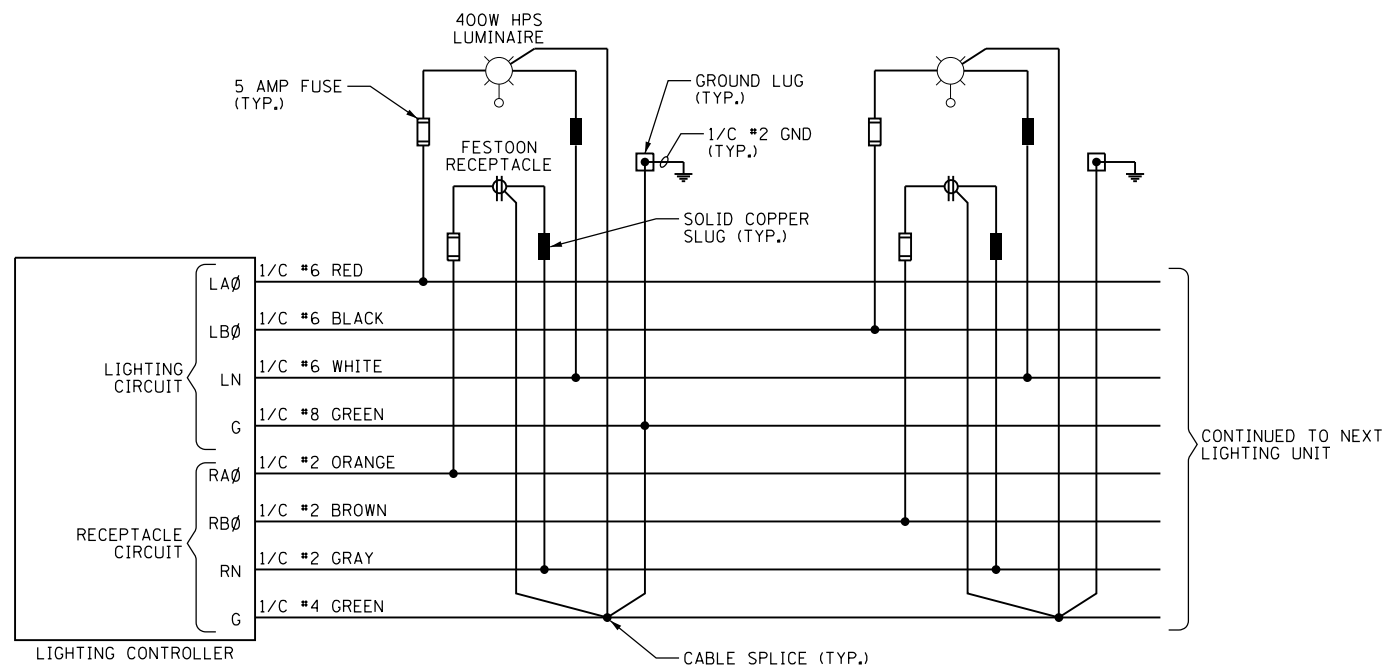
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		DRAWN - WM	REVISED -
		CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

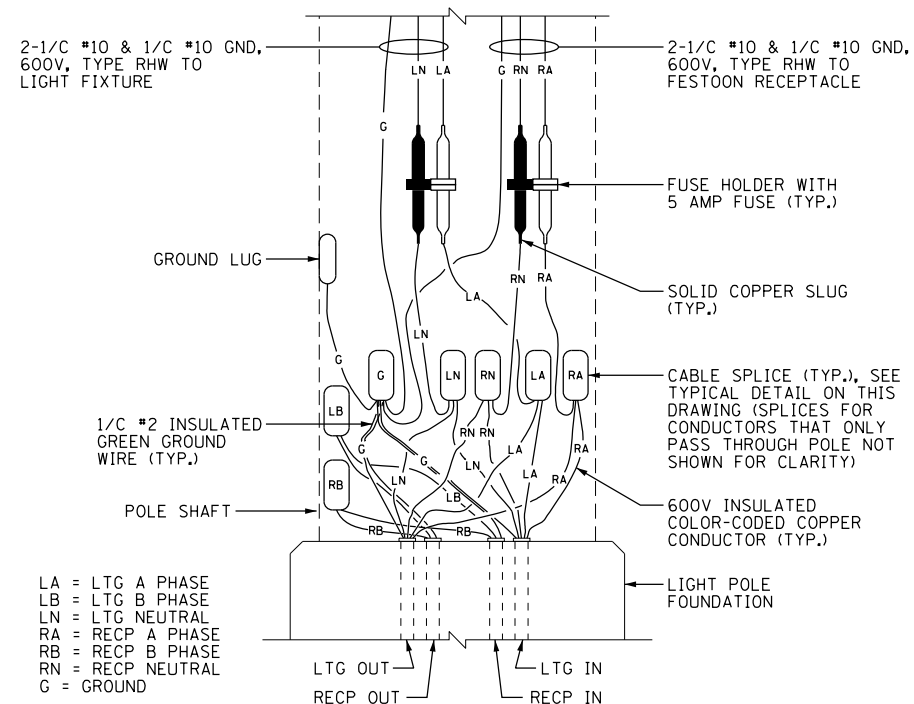
US 45 (LaGRANGE ROAD)
TEMPORARY LIGHTING CONTROLLER DETAILS & DIAGRAMS

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

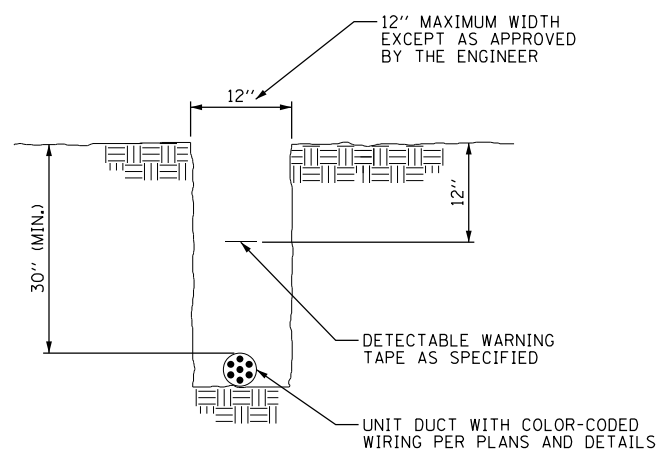
F.A.P. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	548
E-22		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				



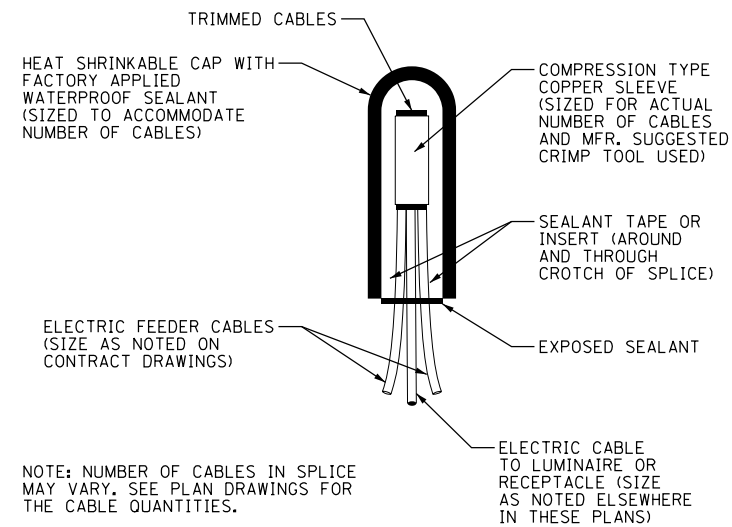
TYPICAL LIGHTING UNIT AND RECEPTACLE WIRING DIAGRAM
N.T.S.



TYPICAL POLE BASE WIRING DETAIL
N.T.S.



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



TYPICAL SPLICE DETAIL
N.T.S.

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

URS

FILE NAME = D160F05-SHT-E23.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2:8.000000 '1' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 45 (LaGRANGE ROAD)
ELECTRICAL WIRING DIAGRAMS & DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	549
E-23			CONTRACT NO. 60F05	
ILLINOIS FED. AID PROJECT				

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

ITEM	MATERIAL DESCRIPTION (BY ComEd)	MIG	SI	UNIT	QTY
A	GROUNDING INSTALLATION (1) C8550_G0	G			1
C	Wire, Copper; #1/0-19 Strand, Soft Drawn, Tin Coated, Bare, (1)	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.G0.
- PRECAST ALTERNATIVES TO THIS POURED DESIGN MAY BE AVAILABLE. CONTACT CONSTRUCTION STANDARDS GROUP.

INFORMATION

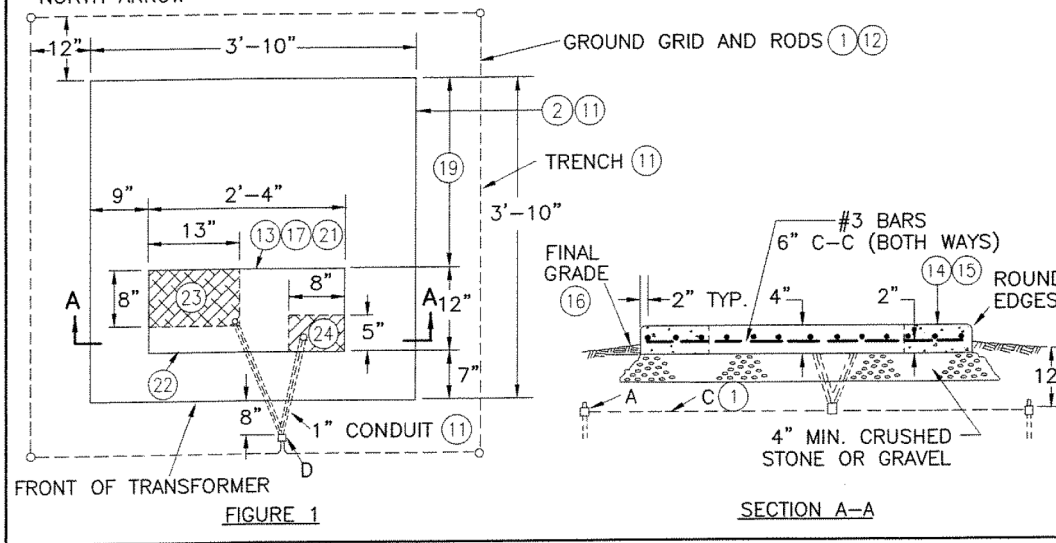
- THE CUSTOMER TO INSTALL THE TRANSFORMER FOUNDATION, 1 INCH CONDUITS, AND TRENCH FOR ComEd GROUND WIRE.
- ComEd TO PROVIDE AND INSTALL THE GROUND WIRE AND GRID.
- AFTER PRIMARY AND SECONDARY CONDUITS ARE IN PLACE, BACKFILL WITH SCREENINGS, SAND, OR FINE EXCAVATED MATERIAL. COMPACT THOROUGHLY BEFORE POURING FOUNDATION.
- CONCRETE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE ACI CODE AND AIR ENTRAINED. 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	
D	U-O	1
	U-E	3



NORTH ARROW

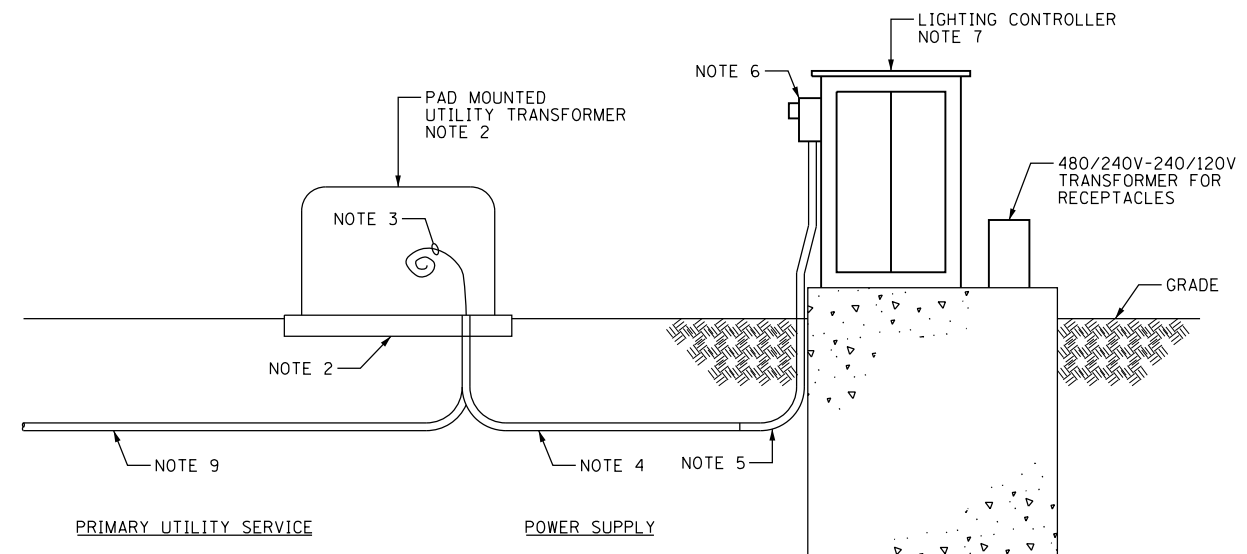


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ComEd SYSTEM STANDARD

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-21 FOR LIGHTING CONTROLLER AND 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.



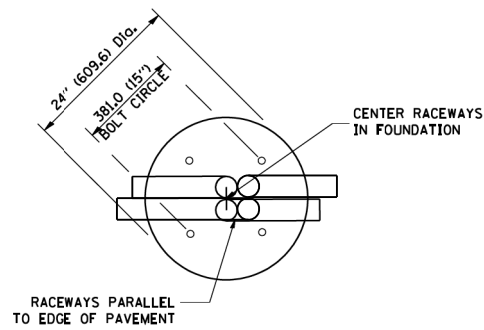
ELECTRIC SERVICE INSTALLATION DETAIL N.T.S.

FILE NAME = D160F05-SHT-E24.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2:8.000000 '1' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

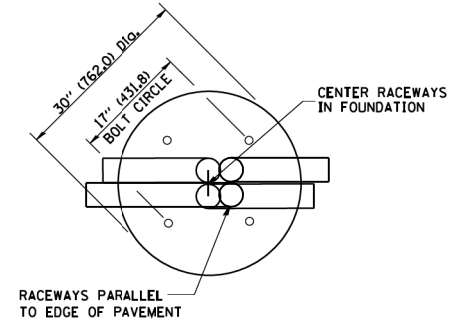
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	550
E-24		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

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



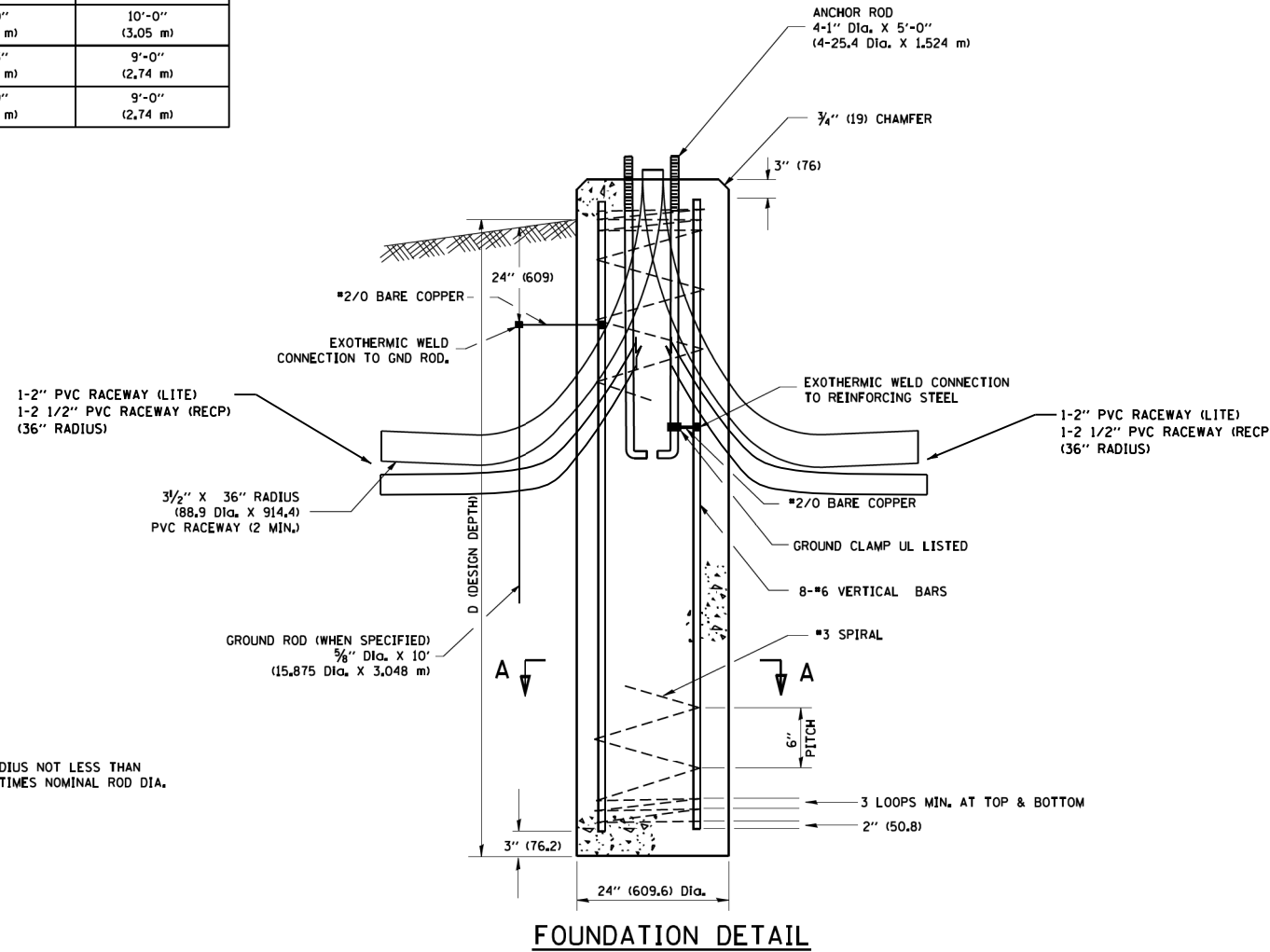
TOP VIEW



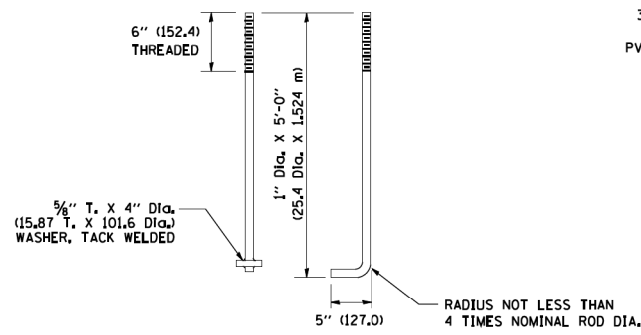
TOP VIEW

NOTES

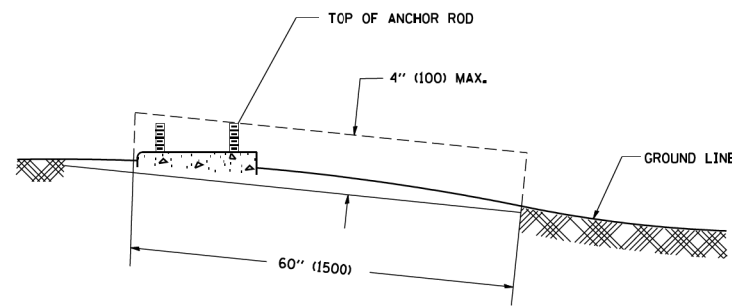
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, 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 (UM 6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION, IF BREAKAWAY COUPLINGS ARE SPECIFIED. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- 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.



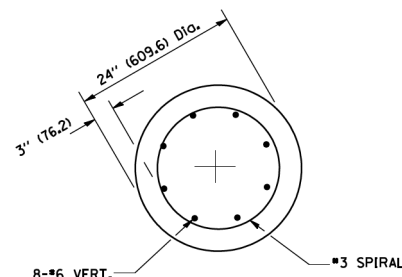
FOUNDATION DETAIL



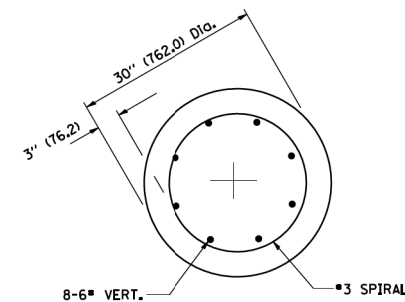
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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

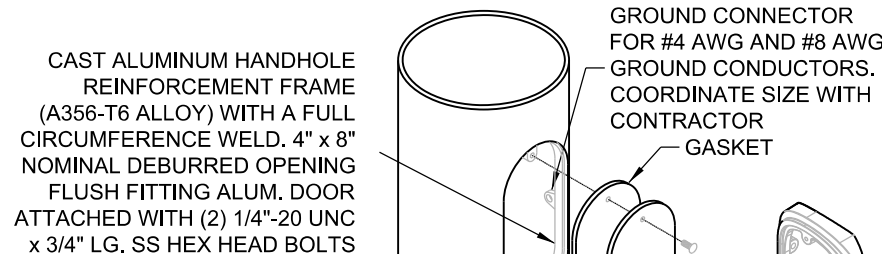
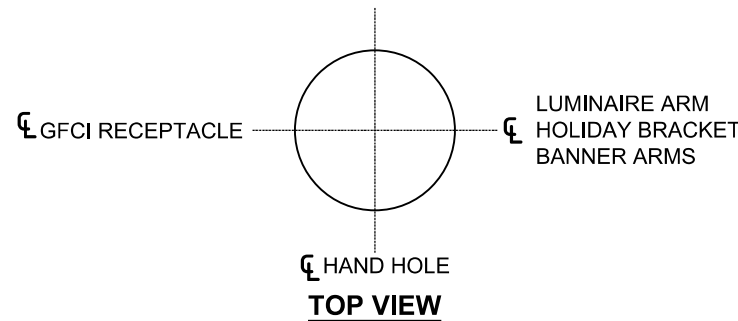
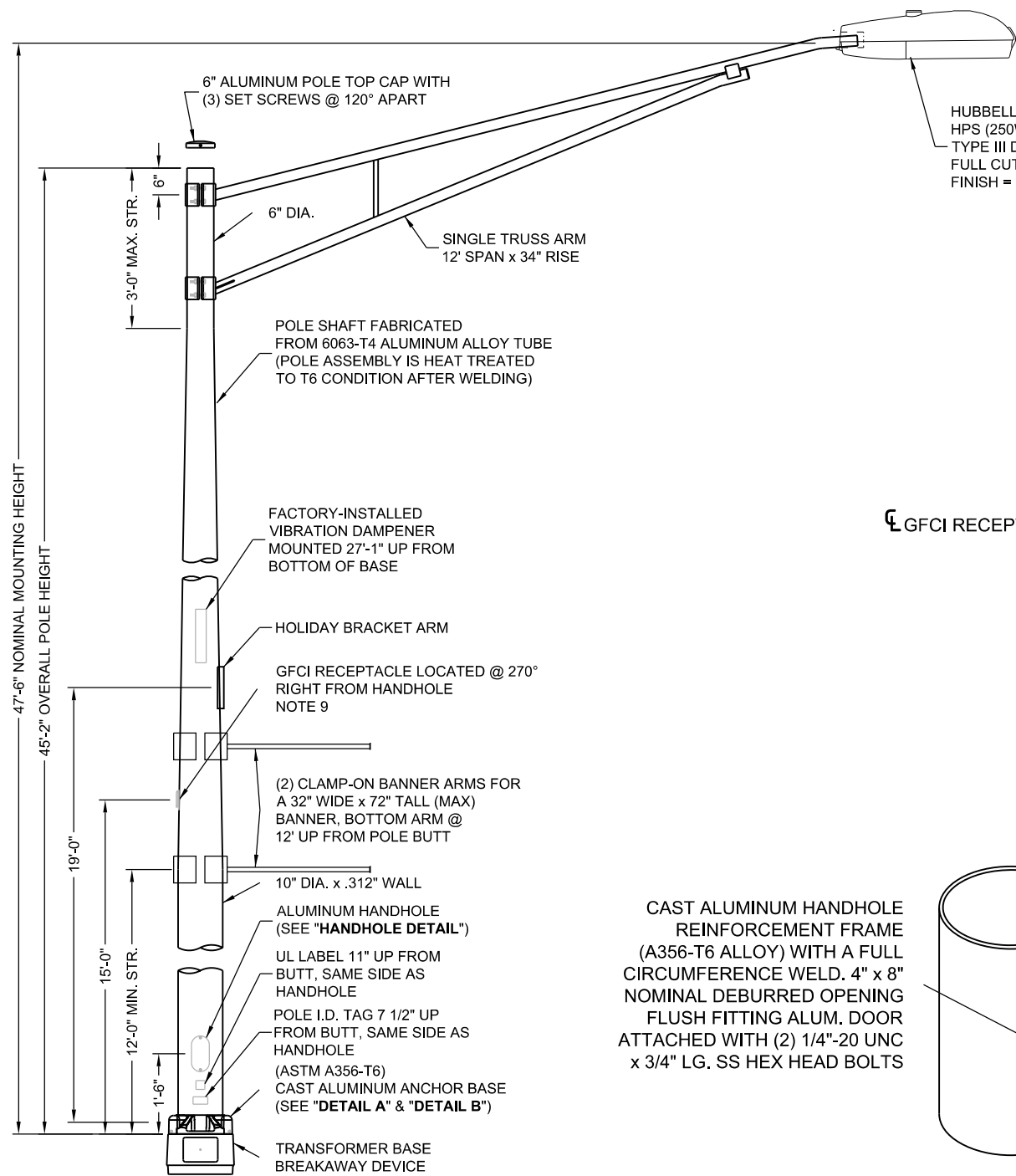
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		DRAWN - WM	REVISED -
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SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

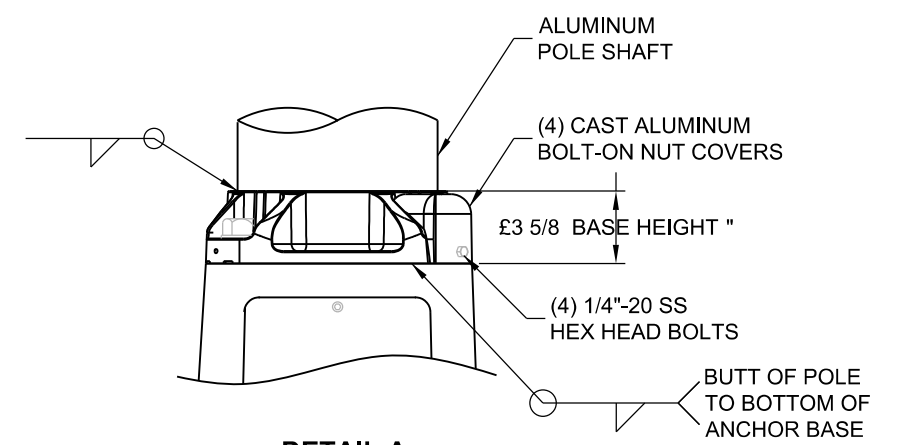
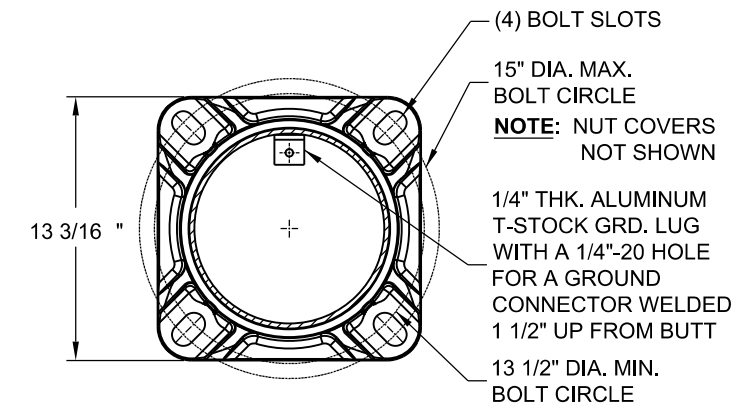
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US-45 (LaGRANGE ROAD)
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H., 15" (381mm) BOLT CIRCLE
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	551
E-25		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				



CAST ALUMINUM FRAME 4" x 8"



POLE PART NUMBERS

- LIGHT POLE:
VALMONT MODEL # 450260108T4C
ALUMINUM ALLOY
FINISH: POWDER BLACK DBL
- TRANSFORMER BASE:
FINISH: POWDER BLACK DBL
- BANNER ARMS:
- HOLIDAY BRACKET:
PERMALITES
1305 SCHOOLHOUSE RD
NEW LENOX, IL
815-485-5530
815-953-7116

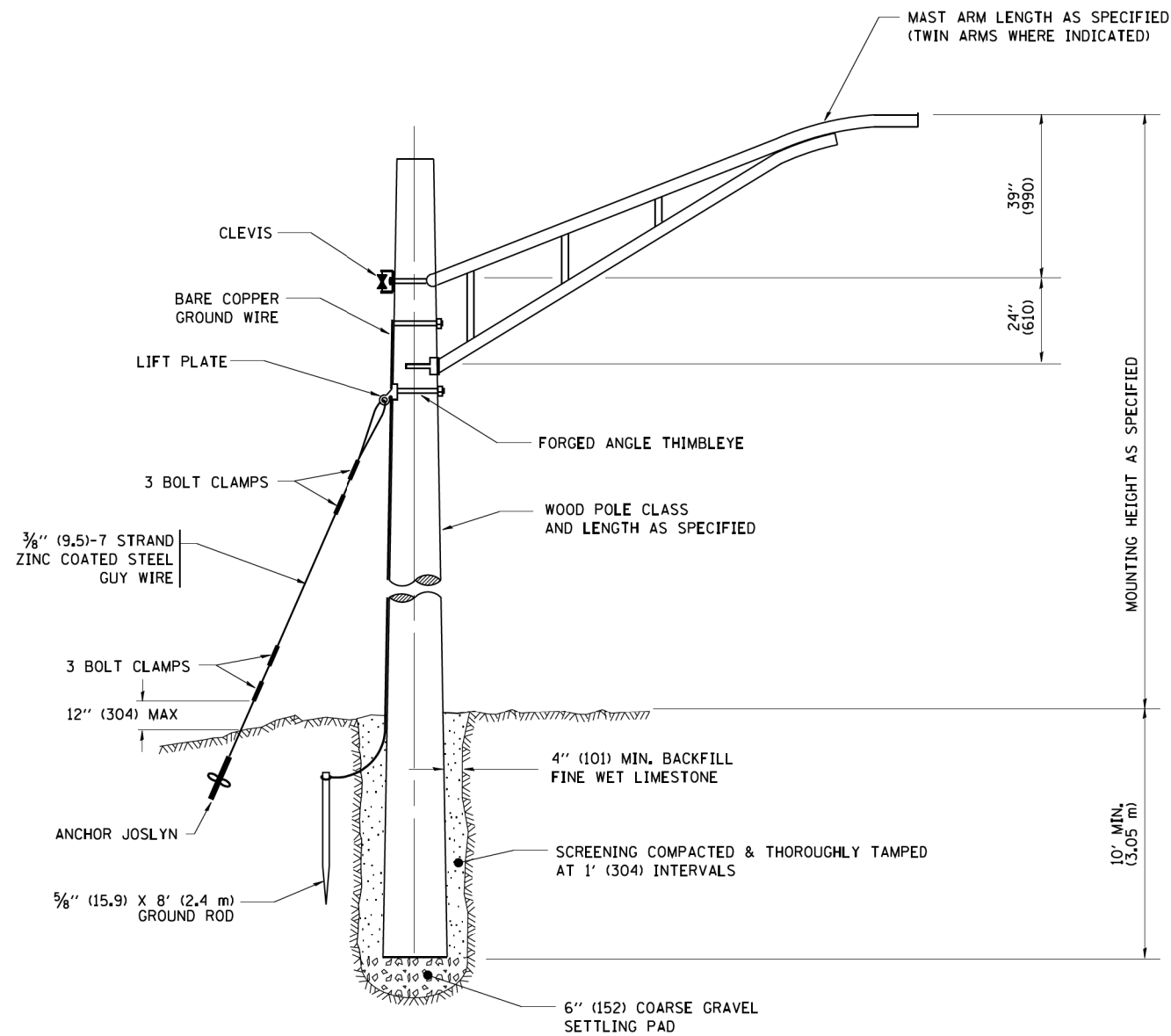
- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 - TWO PIECE SHAFT WILL BE MATCHED, MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 - THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 - THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. CONTRACTOR SHALL COORDINATE LUGS WITH POLE MANUFACTURER FOR BONDING LUGS.
 - LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 - LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 - LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.
 - ALL PROPOSED LIGHTING UNITS SHALL HAVE A 20A, 120V, GFCI RECEPTACLE WITH IN-USE WEATHERPROOF RUGGED U.V. RESISTANT POLYCARBONATE COVER INSTALLED ON BACK OF POLE AT 15'-0" ABOVE THE BASE OF POLE. RECEPTACLE AND BOX SHALL BE BLACK.
 - 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".
 - LIGHT POLE SHALL BE LISTED OR CLASSIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY SUCH AS UL, ETL, OR EQUIVALENT.

VILLAGE OF ORLAND LIGHT POLE DETAIL

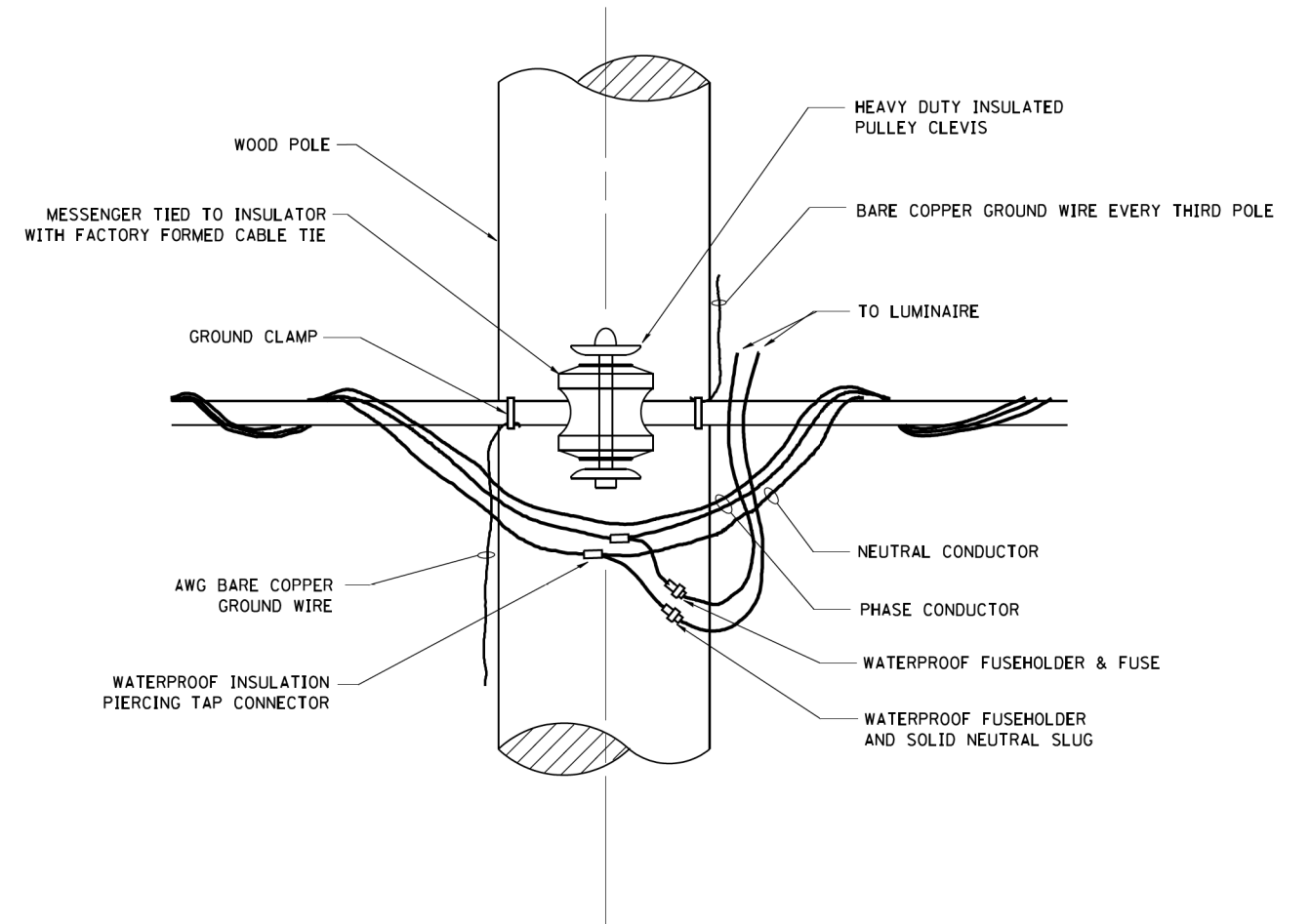
100 S. WACKER DR.
SUITE 600
CHICAGO, IL 60606
TEL (312) 939-1000
FAX (312) 939-4998

URS

FILE NAME = D:\160F05-SHT-E26.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US-45 (LaGRANGE ROAD) ALUMINUM LIGHT POLE, 47'-6" (14.478 m) MOUNTING HEIGHT	F.A.P. RTE. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 552	
PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISIED -	SCALE: NONE			SHEET 1 OF 1 SHEETS	STA. TO STA.	E-26		CONTRACT NO. 60F05	
PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISIED -	ILLINOIS FED. AID PROJECT								



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

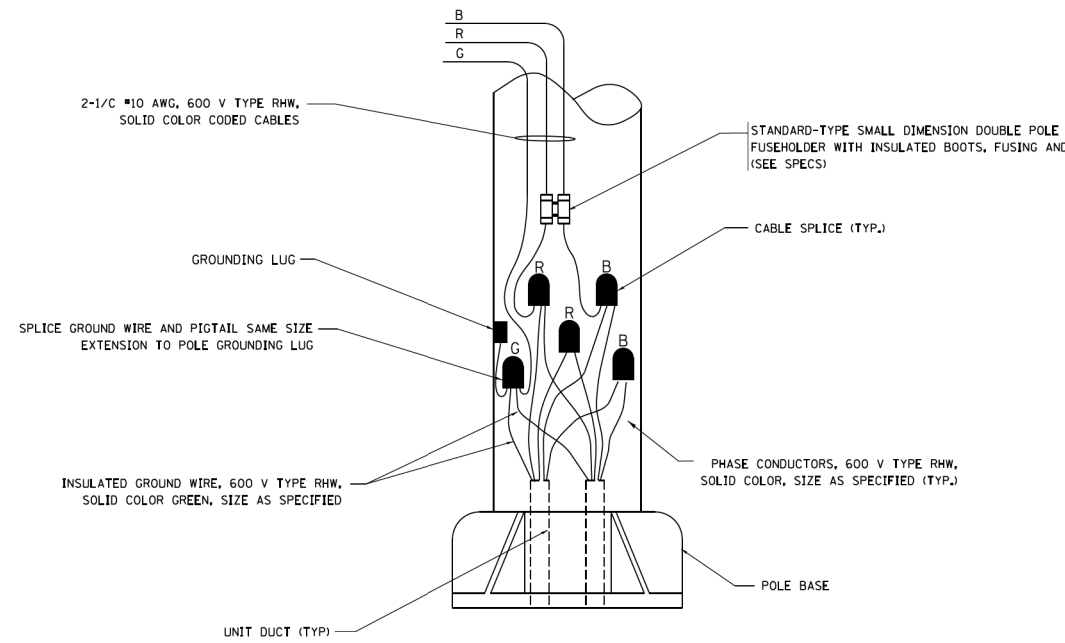
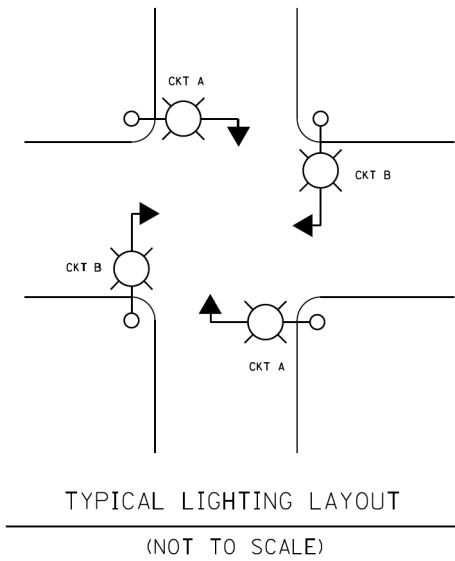
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

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 CHICAGO, IL 60606
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FILE NAME = D160F05-SHT-E27.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US-45 (LaGRANGE ROAD) TEMPORARY LIGHT POLE DETAILS		F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 553
	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -				E-27		CONTRACT NO. 60F05		
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -	SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT					

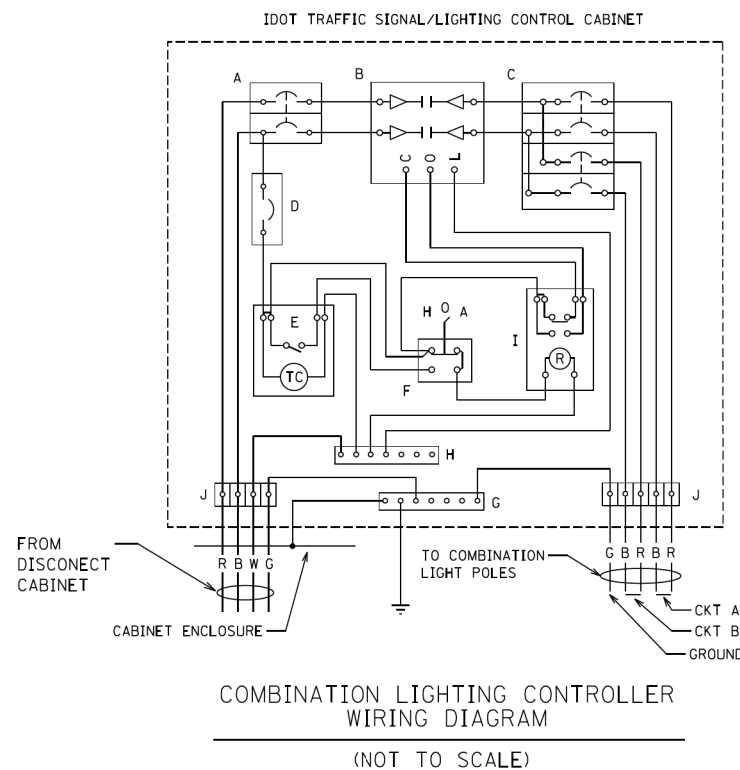
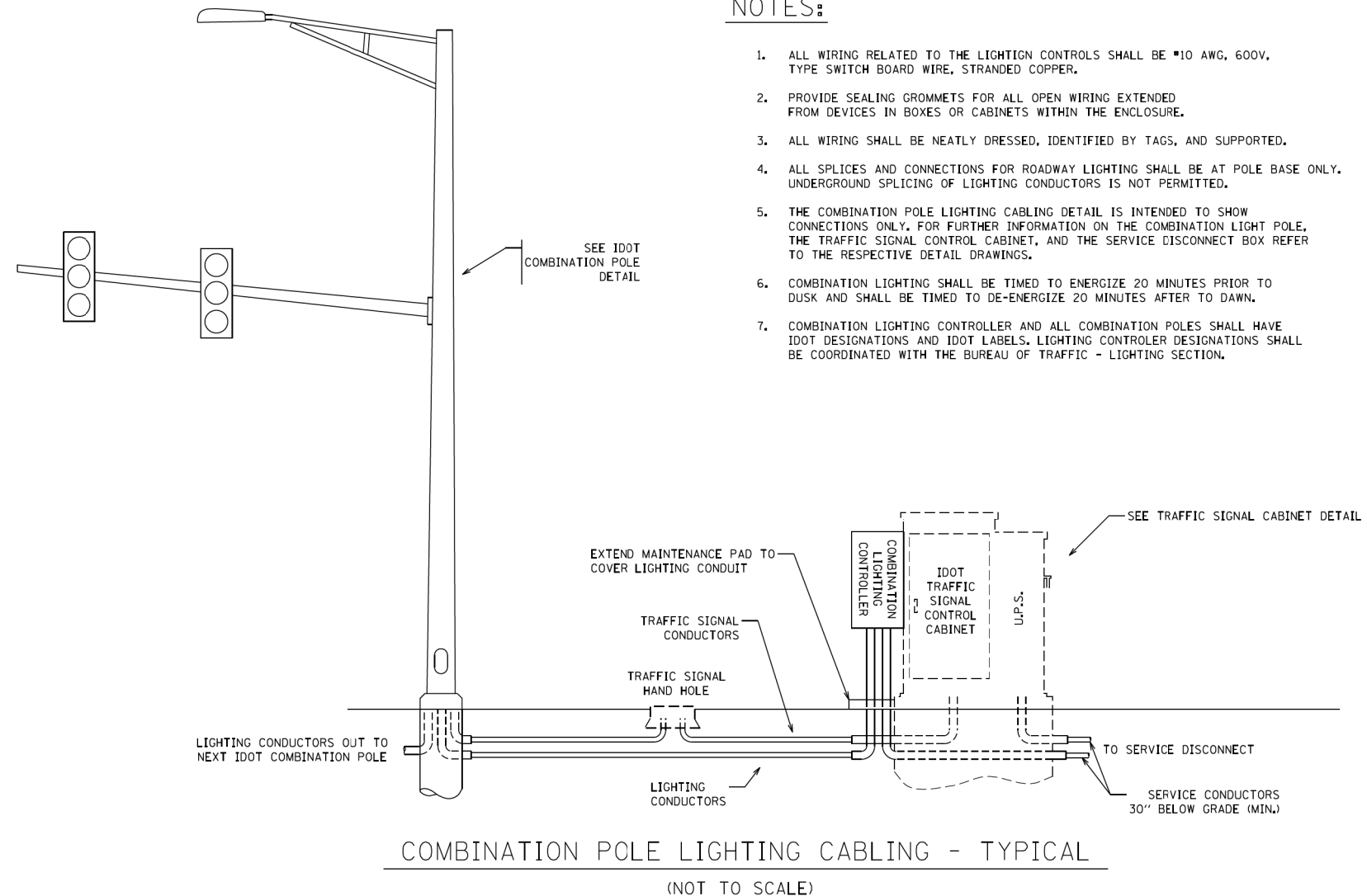
PANEL EQUIPMENT

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 SYMMETRICAL 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 SYMMETRICAL AMP AT 240V.
E	1	ASTRONOMIC 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.



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		DRAWN - WM	REVISED -
	PLOT SCALE = 2.000000' / in.	CHECKED - DAD	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US-45 (LaGRANGE ROAD) COMBINATION LIGHTING CONTROLLER	
SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.

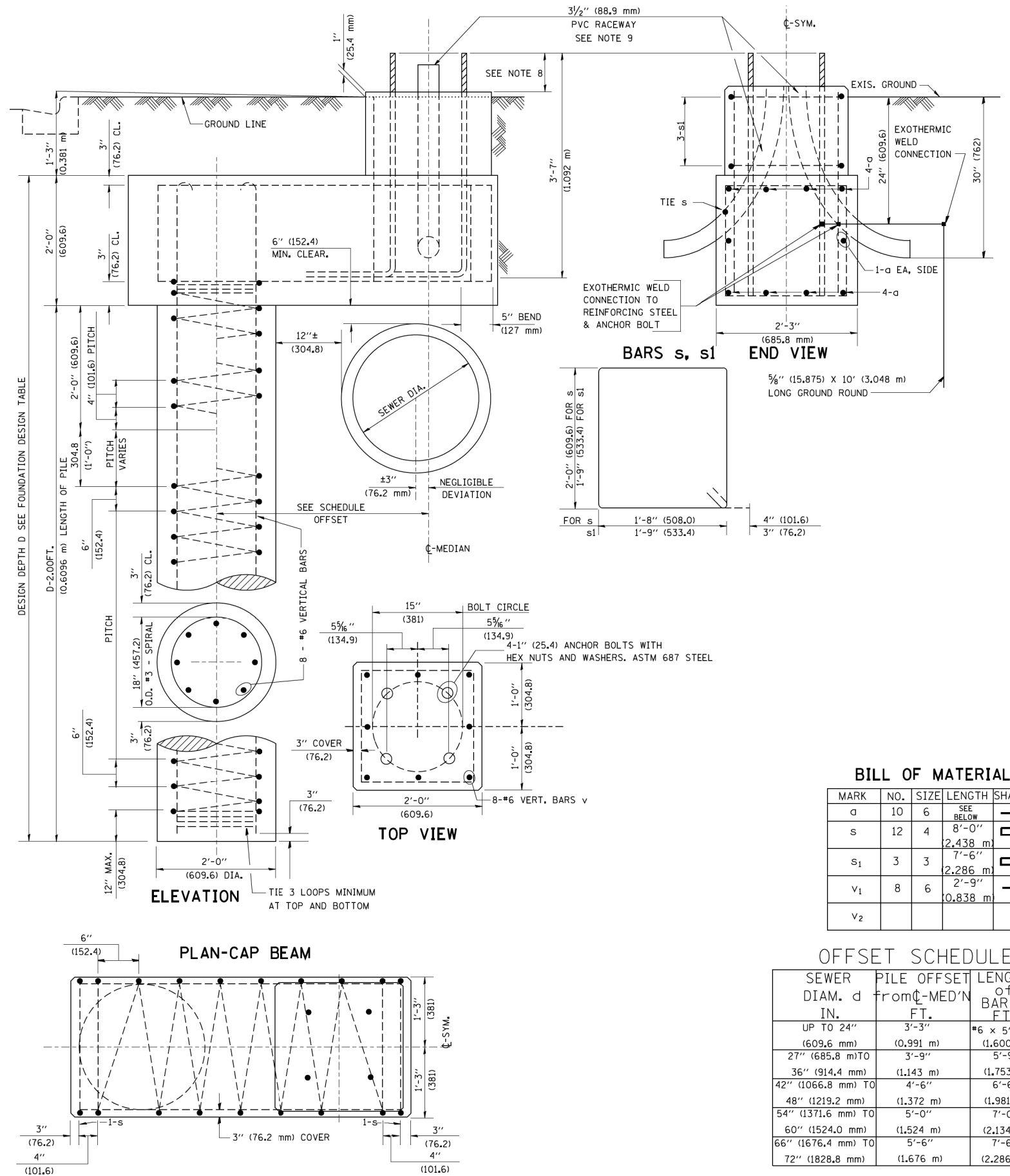
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	554
E-28		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

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 ERCTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8'-0" (2.438 m)	□
s ₁	3	3	7'-6" (2.286 m)	□
v ₁	8	6	2'-9" (0.838 m)	—
v ₂				

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)	(1.143 m)	(1.753 m)
42" (1066.8 mm) TO	4'-6" (1.372 m)	6'-6" (1.981 m)
48" (1219.2 mm)	(1.372 m)	(1.981 m)
54" (1371.6 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
60" (1524.0 mm)	(1.524 m)	(2.134 m)
66" (1676.4 mm) TO	5'-6" (1.676 m)	7'-6" (2.286 m)
72" (1828.8 mm)	(1.676 m)	(2.286 m)

FILE NAME = D160F05-SHT-E29.dgn	USER NAME = Frank.Stallone	DESIGNED - MAE	REVISED -
SHT.PLAN	PLOT SCALE = 2.000000' / in.	DRAWN - WM	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - DAD	REVISED -
		DATE - 03/13/13	REVISED -

F.A.P. R.T.E. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 555
E-29		CONTRACT NO. 60F05		
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

- 1 Key Plan & General Notes
- 2 Typical Sections & Details
- 3 Metal Shell Pile Details
- 4 Retaining Wall No. 1 - S.N. 016-2015
- 5 Retaining Wall No. 2 - S.N. 016-2016
- 6 Retaining Wall No. 3 - S.N. 016-2017
- 7 Retaining Wall No. 4 - S.N. 016-2018
- 8 Retaining Wall No. 5 - S.N. 016-2019
- 9 Retaining Wall No. 6 - S.N. 016-2020
- 10 Retaining Wall No. 7 - S.N. 016-2021
- 11 Retaining Wall No. 8 - S.N. 016-2022
- 12 Retaining Wall No. 9 - S.N. 016-2023
- 13 Retaining Wall No. 10 - S.N. 016-2024
- 14 Retaining Wall No. 11 - S.N. 016-2025
- 15-21 Retaining Wall No. 12 - S.N. 016-2026
- 22 Retaining Wall No. 14 - S.N. 016-2027
- 23-41 Soil Boring Logs

WALL TYPES

CIP = Cast-in-place
Sht. Pile = Permanent steel sheet piling with concrete facing

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

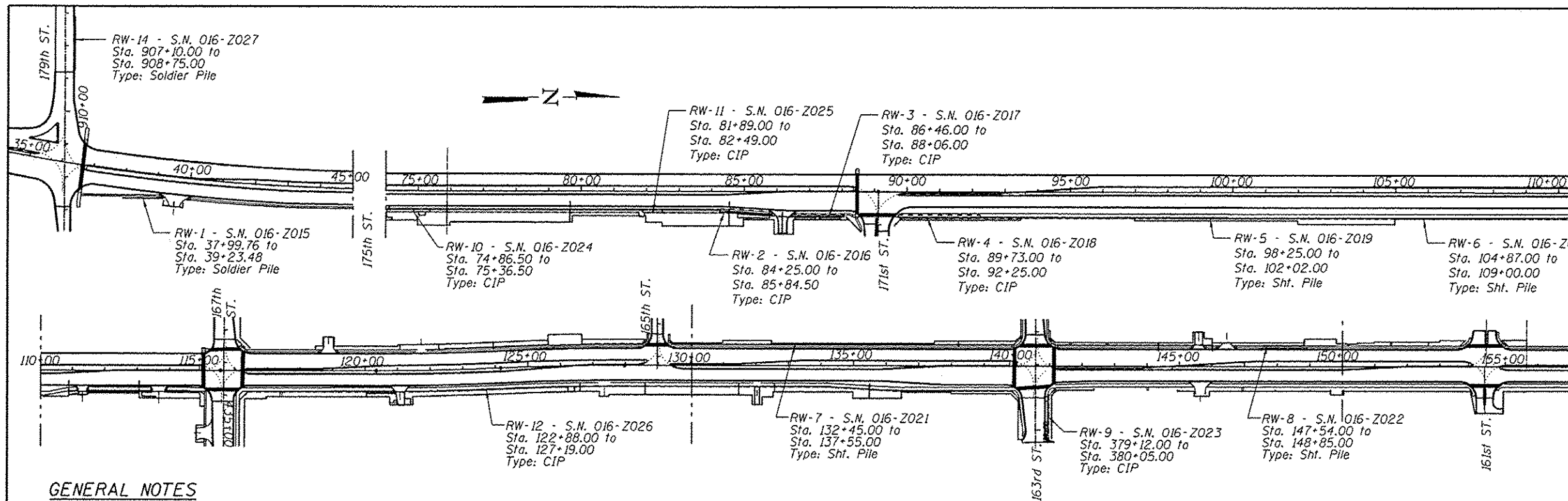
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50 HP Piles)
 $f_y = 50,000$ psi (ASTM A 572 Grade 50 Sheet Piling)

EXISTING UTILITY LEGEND

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

KEY PLAN & GENERAL NOTES
U.S. ROUTE 45 - LaGRANGE ROAD
FAP RTE. 330 - SEC 103R-3
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.

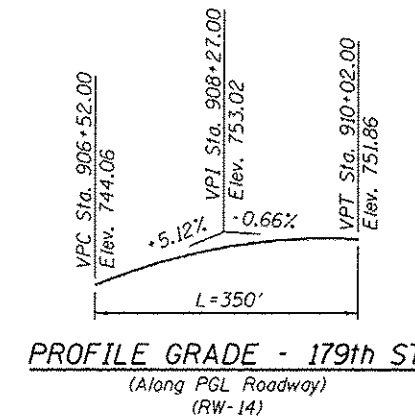
See individual wall sheets for maximum applied bearing pressure for each Cast-In-Place wall.

The form liner shall be a random Ashlar blend pattern consisting of the following block sizes:

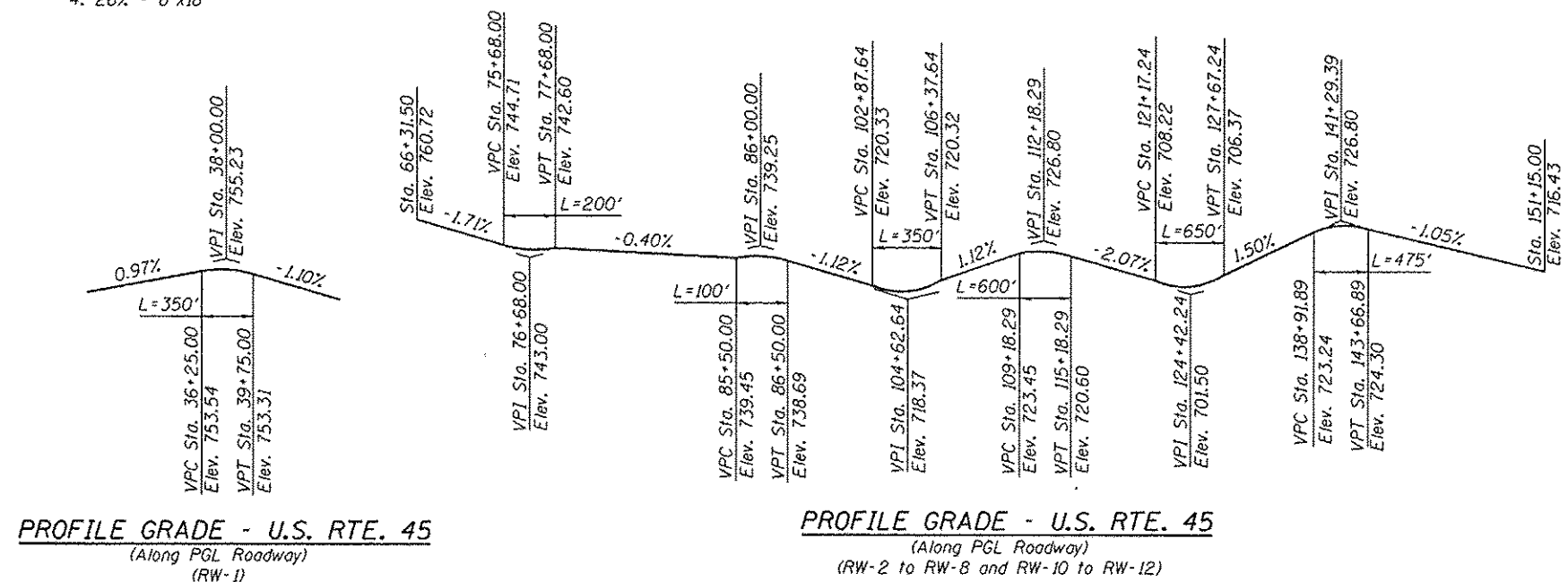
- 1. 28% - 4"x18"
- 2. 16% - 8"x8"
- 3. 28% - 8"x11"
- 4. 28% - 8"x18"



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



PROFILE GRADE - 179th ST.
(Along PGL Roadway)
(RW-14)



PROFILE GRADE - U.S. RTE. 45
(Along PGL Roadway)
(RW-1)

PROFILE GRADE - U.S. RTE. 45
(Along PGL Roadway)
(RW-2 to RW-8 and RW-10 to RW-12)

PROFILE GRADE - 163rd ST.
(Along PGL Roadway)
(RW-9)

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

FILE NAME = 0160F05-SHT-GENERAL NOTES.dgn

USER NAME = Kgly_Pearl
PLOT SCALE = 375.00' / 1" = 1/4" = 1/4" = 1/4"
PLOT DATE = 3/15/2013

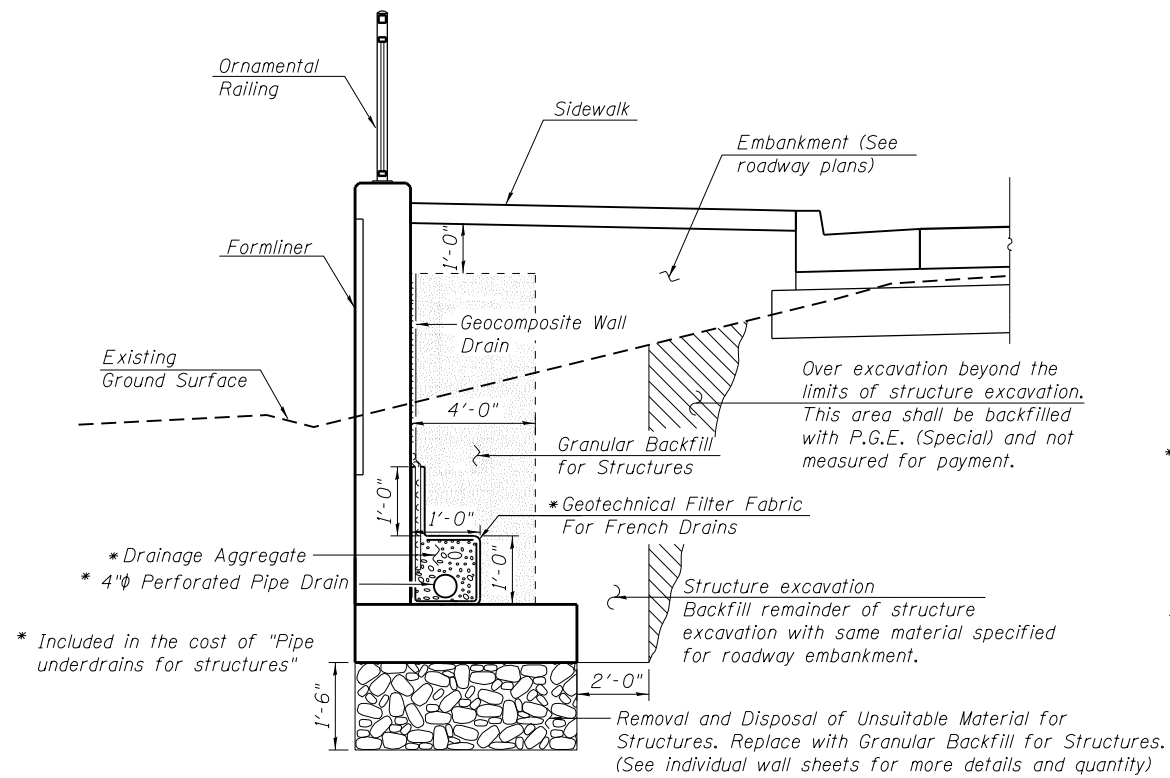
DESIGNED - MAI
CHECKED - PMH
DRAWN - MAI
CHECKED - PMH

REVISED -
REVISED -
REVISED -
REVISED -

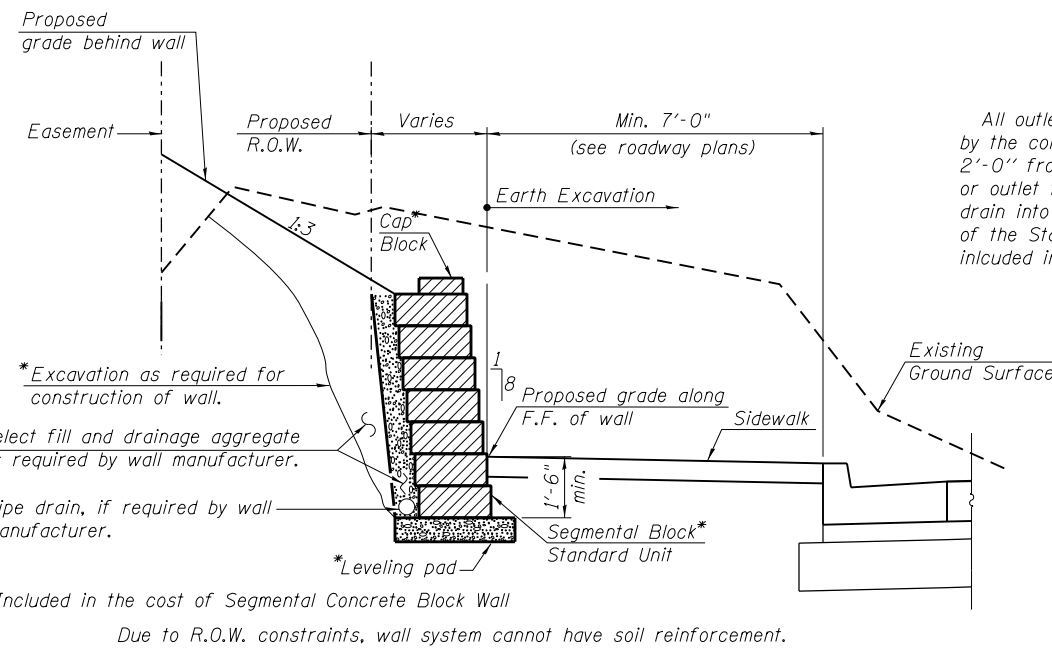
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	556
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	

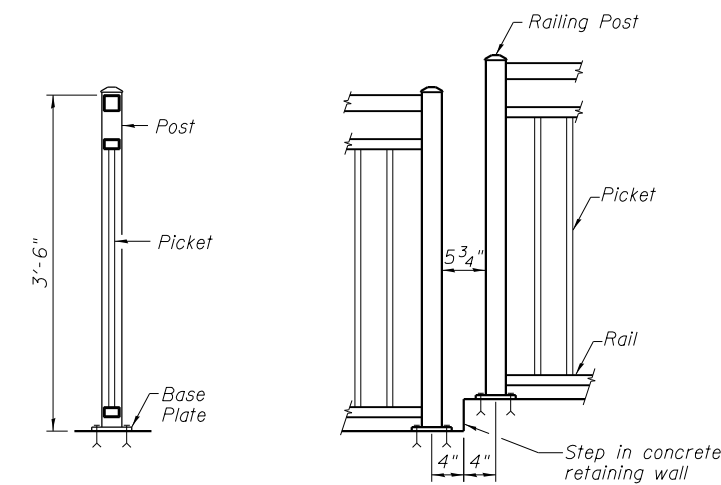


TYPICAL SECTION THRU C.I.P. WALL

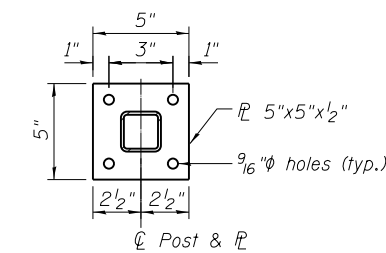


TYPICAL SECTION THRU SEGMENTAL BLOCK WALL

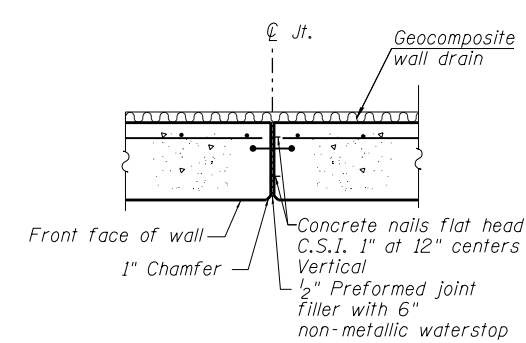
All outlets for drainage system components shall be determined in the field by the contractor and approved by the Engineer. They shall either extend 2'-0" from the end of each wall, extend until intersecting with the side slopes or outlet through a core drilled hole at low point of wall. The pipes shall 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.



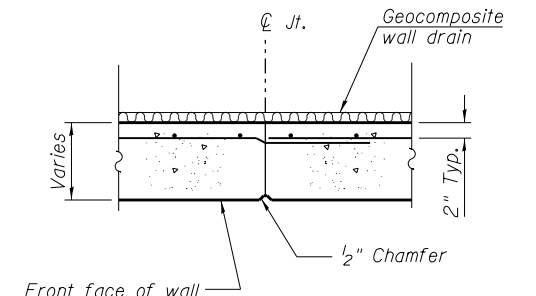
SECTION A-A



BASE PLATE DETAIL

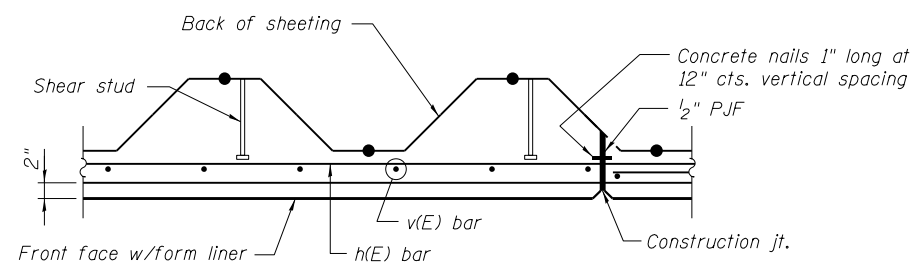


EXPANSION JOINT DETAILS

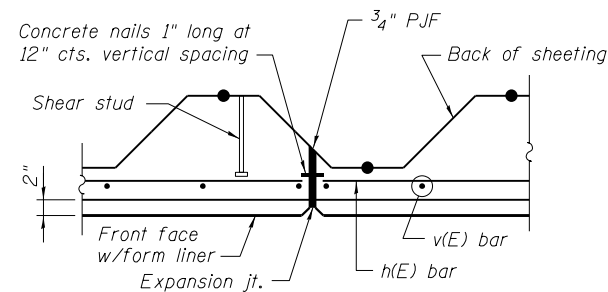


CONSTRUCTION JOINT DETAILS

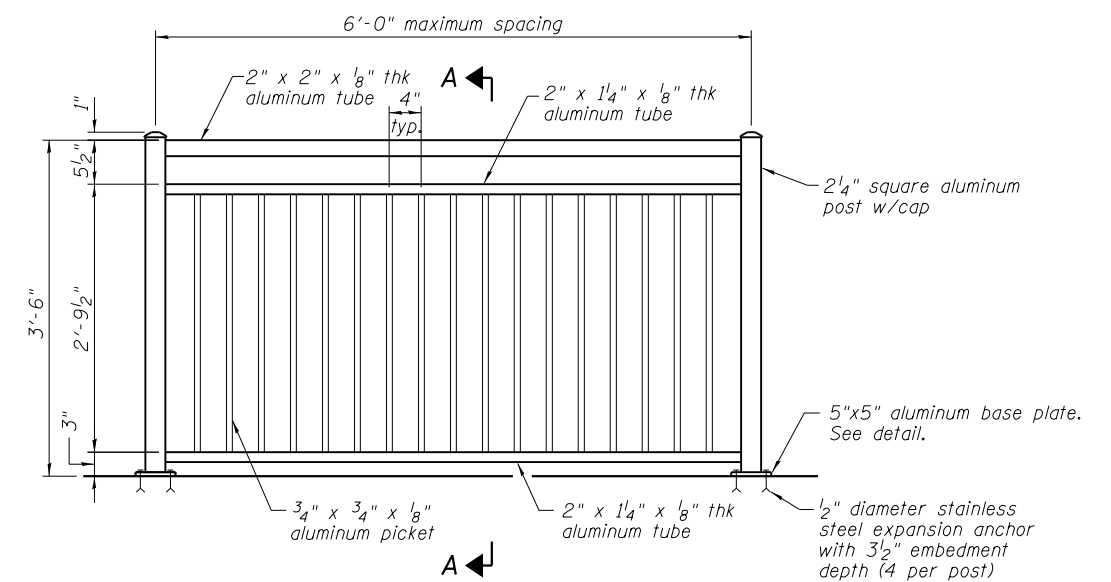
TYPICAL DETAIL AT STEP IN WALL



PLAN SECTION THROUGH SHEET PILE WALL AT CONSTRUCTION JOINT



PLAN SECTION THROUGH SHEET PILE WALL AT EXPANSION JOINT



TYPICAL ORNAMENTAL RAILING

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

FILE NAME = D160F05-SHT-Wall_Details.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
	PLOT SCALE = 2:8.0000 '1' / in.	CHECKED -	REVISED -
	PLOT DATE = 3/12/2013	DRAWN -	REVISED -
		CHECKED -	REVISED -

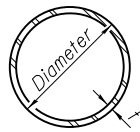
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL
TYPICAL SECTIONS & DETAILS

SHEET NO. 2 OF 41 SHEETS

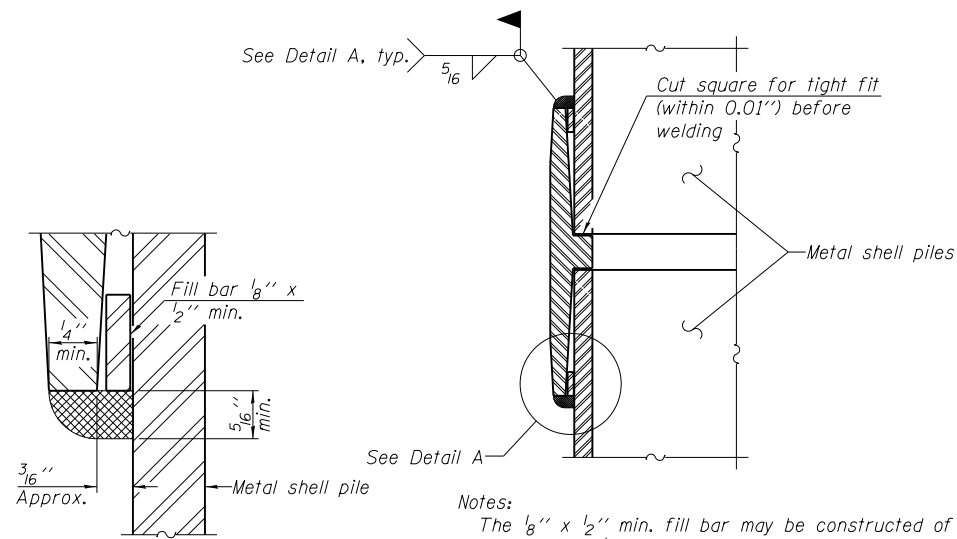
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	557
CONTRACT NO. 60F05				

ILLINOIS FED. AID PROJECT



METAL SHELL PILE TABLE

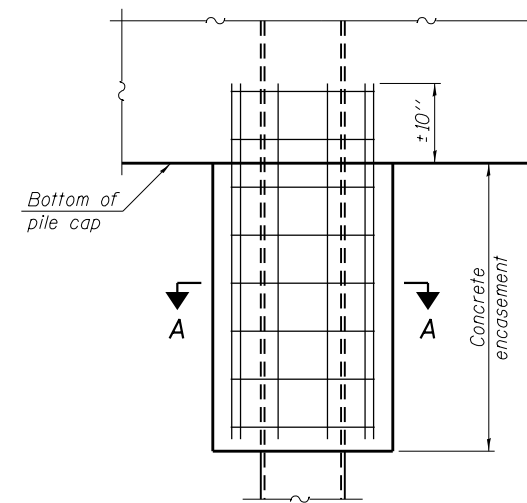
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



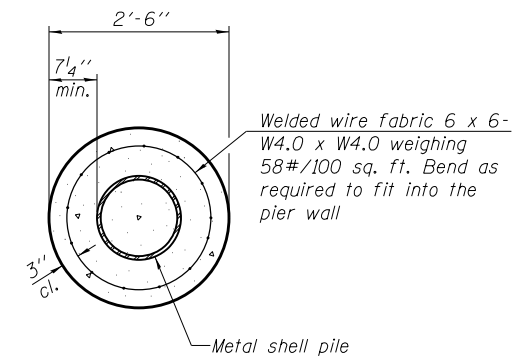
DETAIL A

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



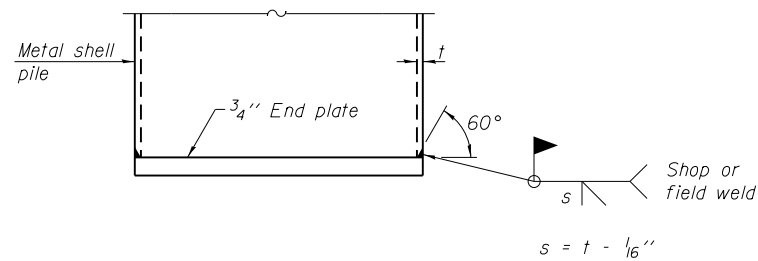
ELEVATION



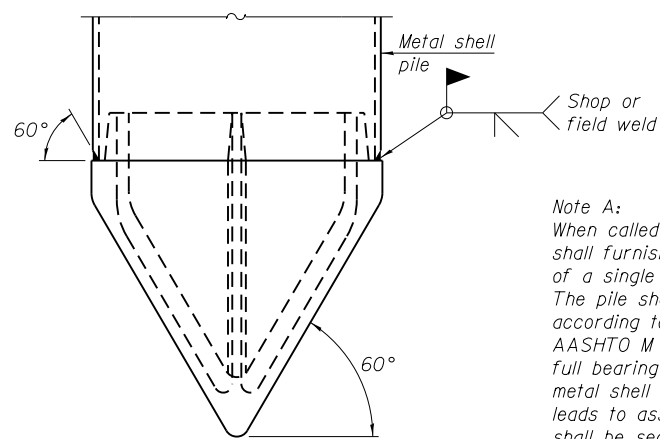
SECTION A-A

Note:
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



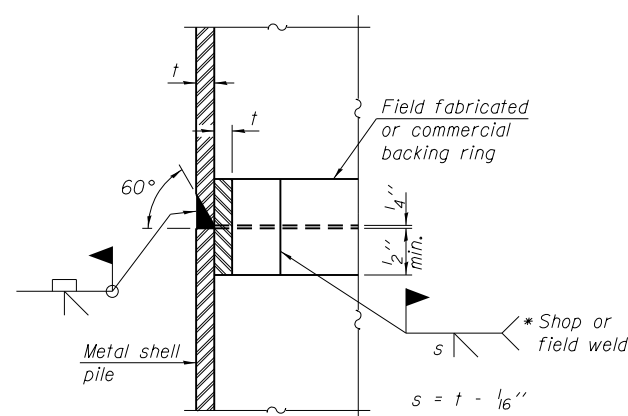
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

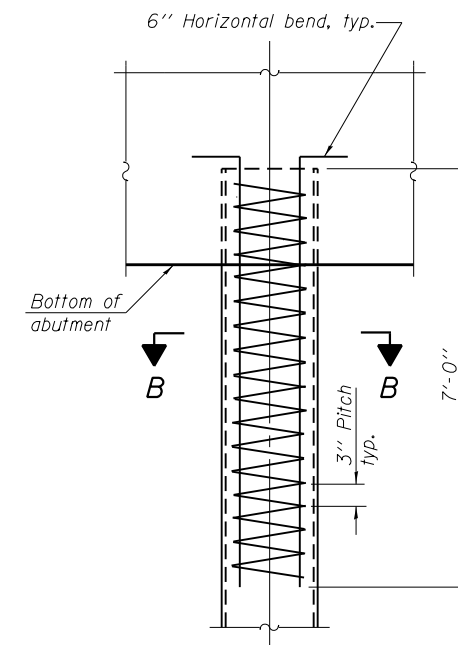
(See Note A)

Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



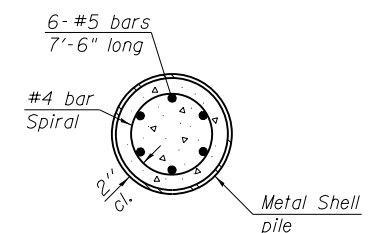
COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS

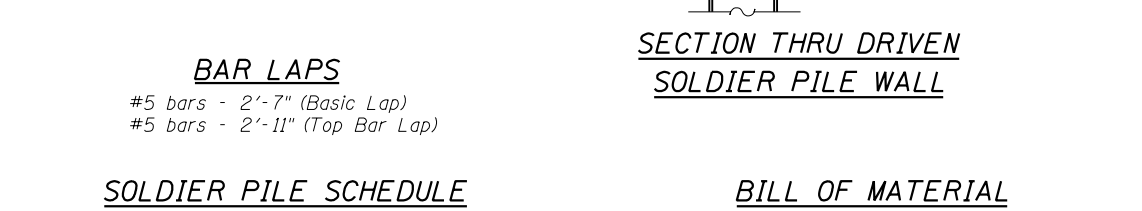
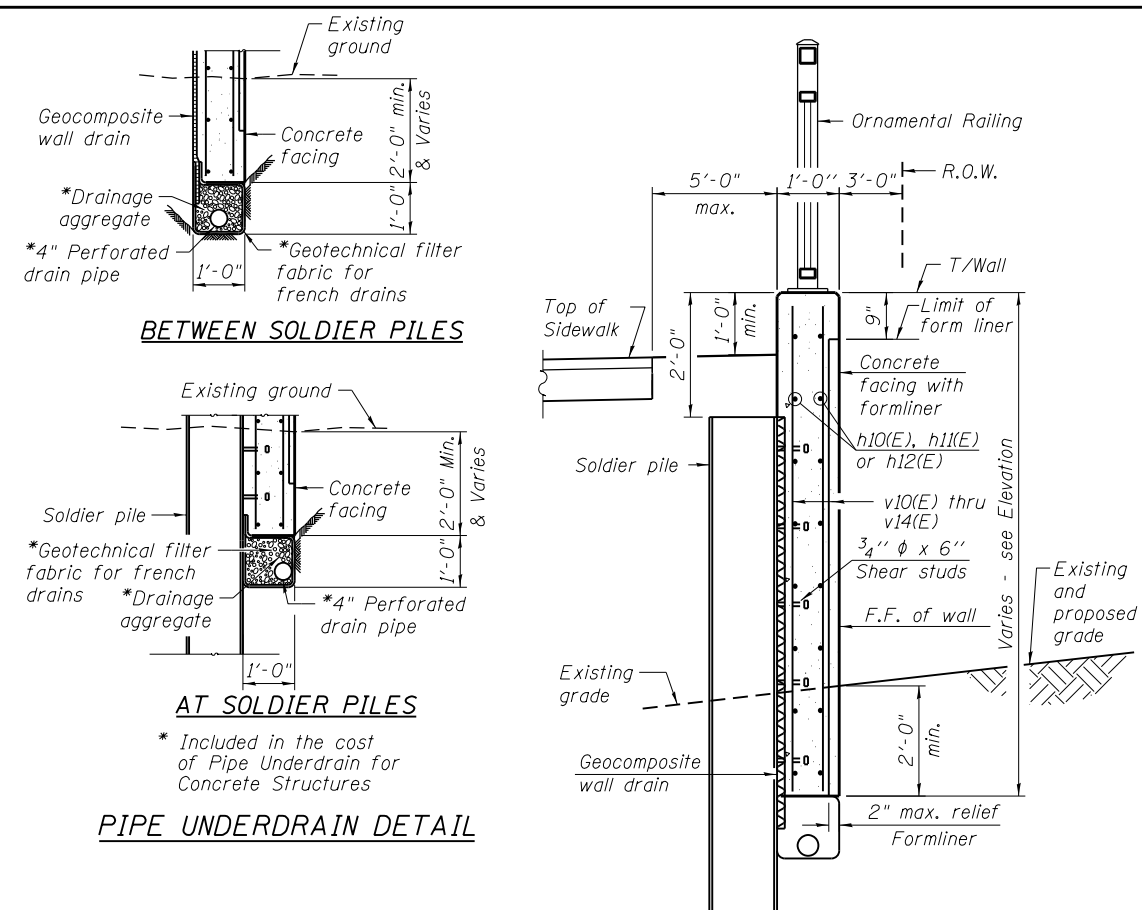
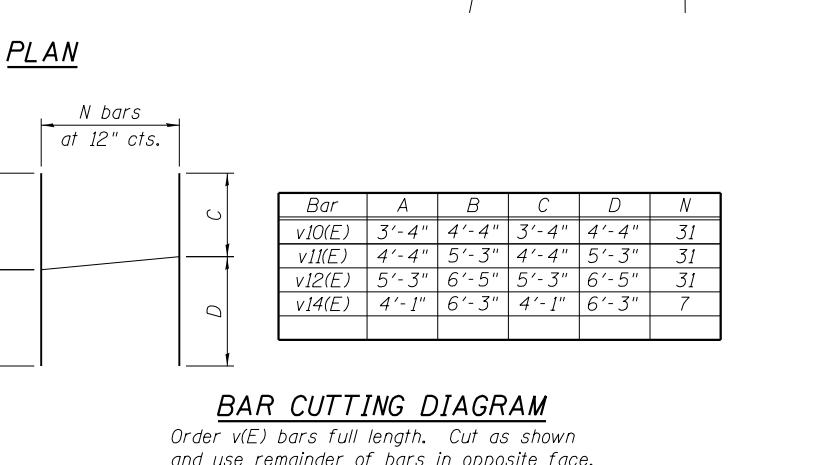
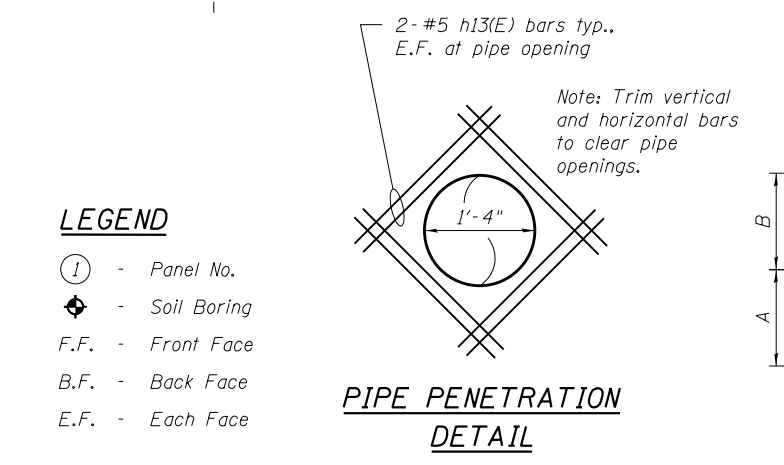
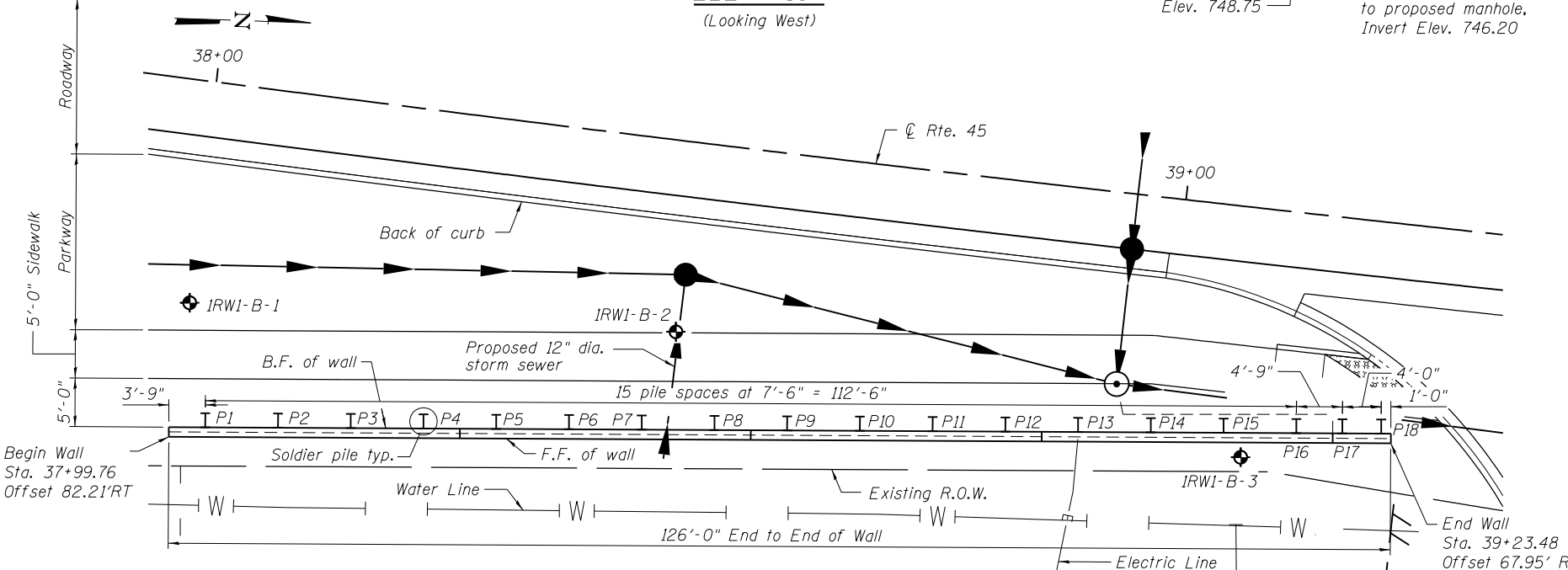
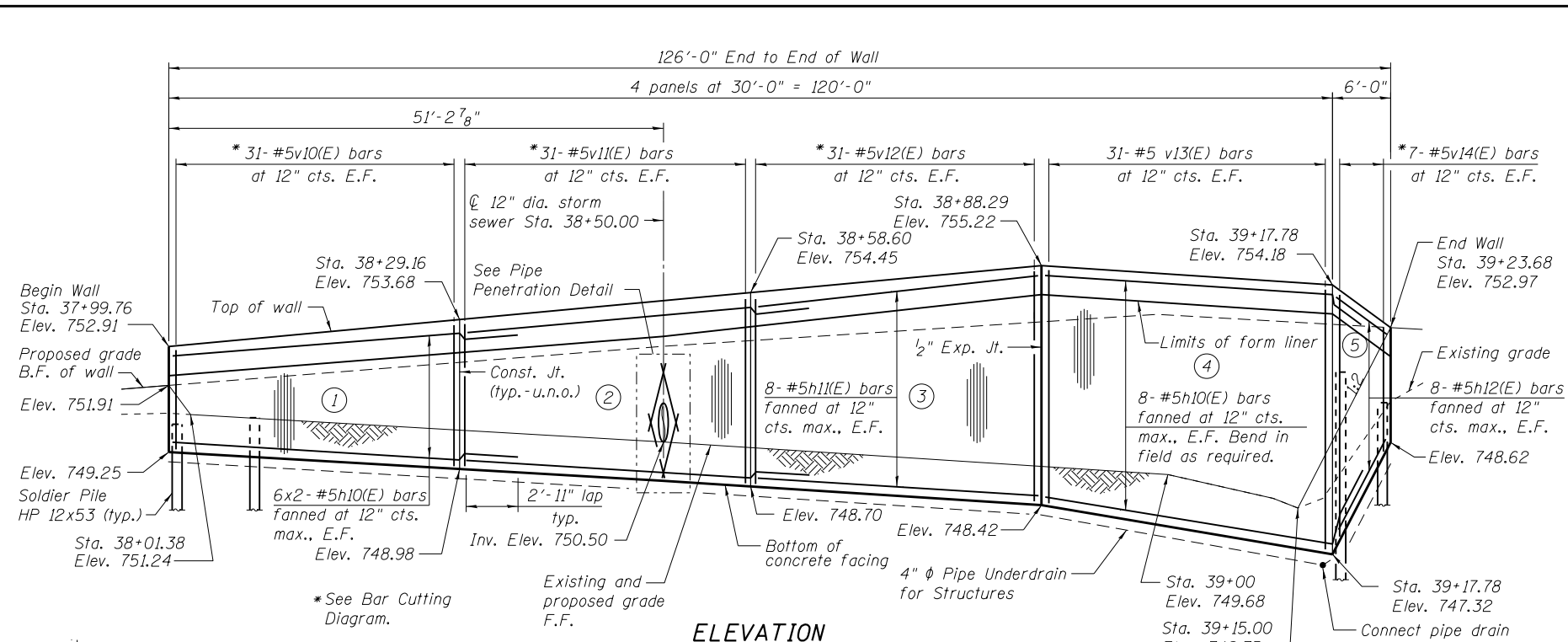


SECTION B-B

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

FILE NAME = D:\60F05-SHT-Wall_Piles.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 0:2.0000 '1' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/12/2013	CHECKED -	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	558
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	



BAR LAPS

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

SOLDIER PILE SCHEDULE

Pile	Size	Top Elev.	Bot. Elev.	Length	Studs
P1	HP12x53	751.01	736.12	14.88	2.00
P2	HP12x53	751.20	736.06	15.14	3.00
P3	HP12x53	751.39	735.99	15.40	3.00
P4	HP12x53	751.58	735.92	15.67	3.00
P5	HP12x53	751.78	735.85	15.93	3.00
P6	HP12x53	751.97	735.78	16.19	4.00
P7	HP12x53	752.16	735.71	16.45	4.00
P8	HP12x53	752.35	735.64	16.71	4.00
P9	HP12x53	752.55	735.57	16.97	4.00
P10	HP12x53	752.74	735.50	17.24	5.00
P11	HP12x53	752.93	735.43	17.50	5.00
P12	HP12x53	753.12	735.36	17.76	5.00
P13	HP12x53	753.09	735.19	17.90	5.00
P14	HP12x53	752.83	734.92	17.91	5.00
P15	HP12x53	752.57	734.64	17.93	5.00
P16	HP12x53	752.31	734.37	17.94	5.00
P17	HP12x53	751.98	734.45	17.53	5.00
P18	HP12x53	751.17	735.31	15.86	3.00

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	40	#5	32'-11"	
h11(E)	16	#5	29'-8"	
h12(E)	16	#5	5'-8"	
h13(E)	16	#5	2'-6"	
v10(E)	31	#5	7'-8"	
v11(E)	31	#5	9'-7"	
v12(E)	31	#5	11'-8"	
v13(E)	62	#5	6'-5"	
v14(E)	7	#5	10'-4"	
Structure Excavation		Cu. Yd.		75
Concrete Structures		Cu. Yd.		26.3
Form Liner Textured Surface		Sq. Ft.		615
Stud Shear Connectors		Each		73
Reinforcement Bars, Epoxy Coated		Pound		3,440
Geocomposite Wall Drain		Sq. Yd.		38
Driving Soldier Piles		Foot		303
Ornamental Railing		Foot		126
Furnishing Soldier Piles (HP Section)		Foot		303
Pipe Underdrains for Structures		Foot		152

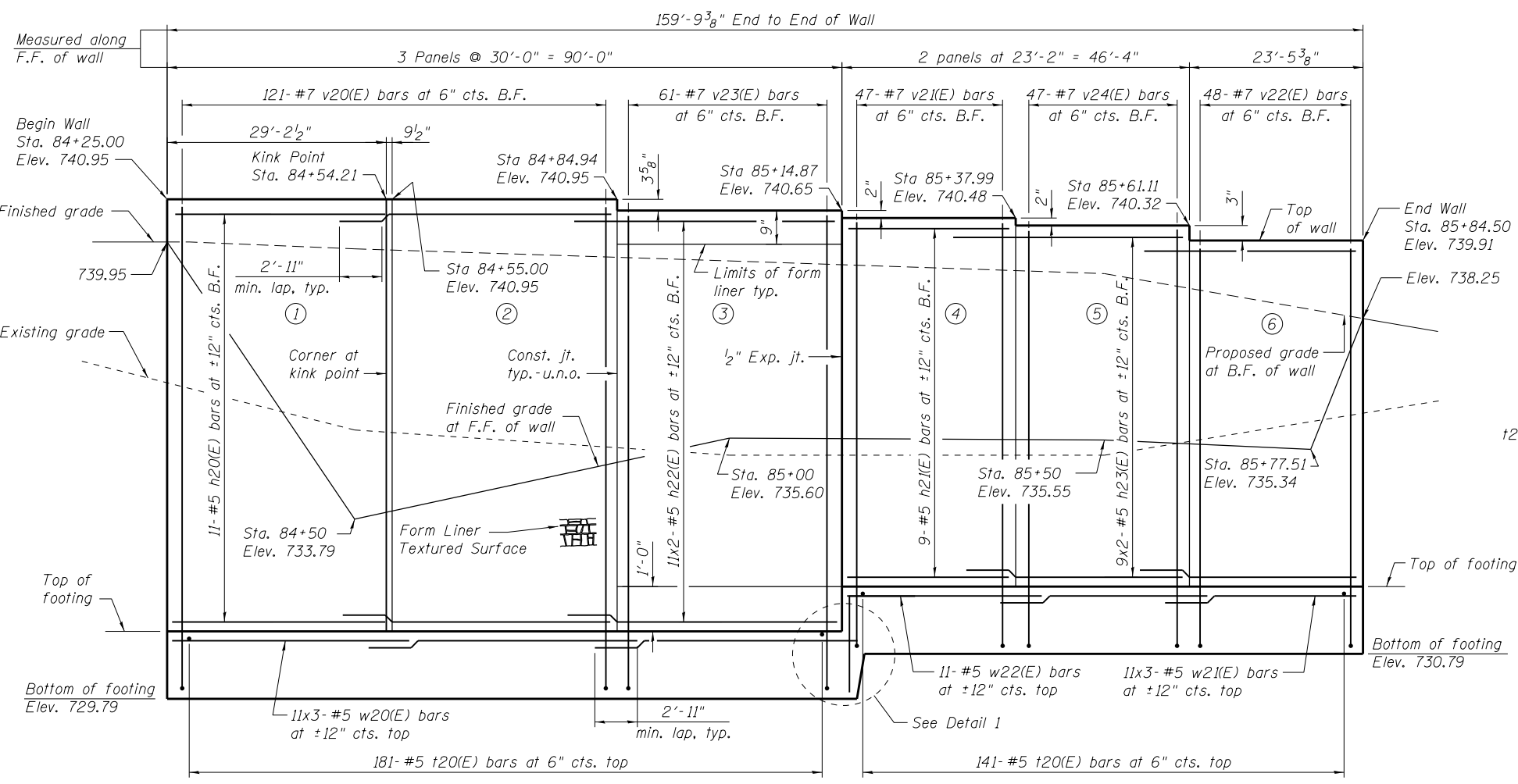
- LEGEND**
- ① - Panel No.
 - ◆ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face

- 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.
 - For storm drain details see drainage drawings.
 - The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bearing stress of 1000 psi.

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

100 S. WACKER DR.
100 S. WACKER DR.
CHICAGO, IL 60606
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URS

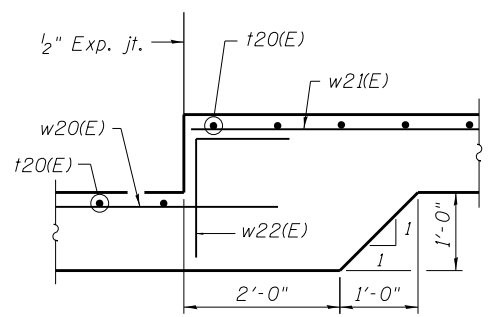


ELEVATION
(Looking West at F.F. of Wall)

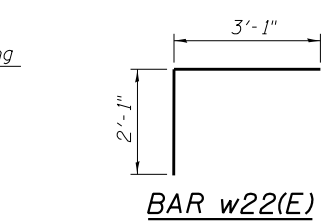
A DIMENSION

Bar	A
v20(E)	10'-8"
v21(E)	9'-3"
v22(E)	8'-8"
v23(E)	10'-5"
v24(E)	9'-1"

BARS v20(E), v21(E), v22(E), v23(E) & v24(E)



DETAIL 1



BAR w22(E)

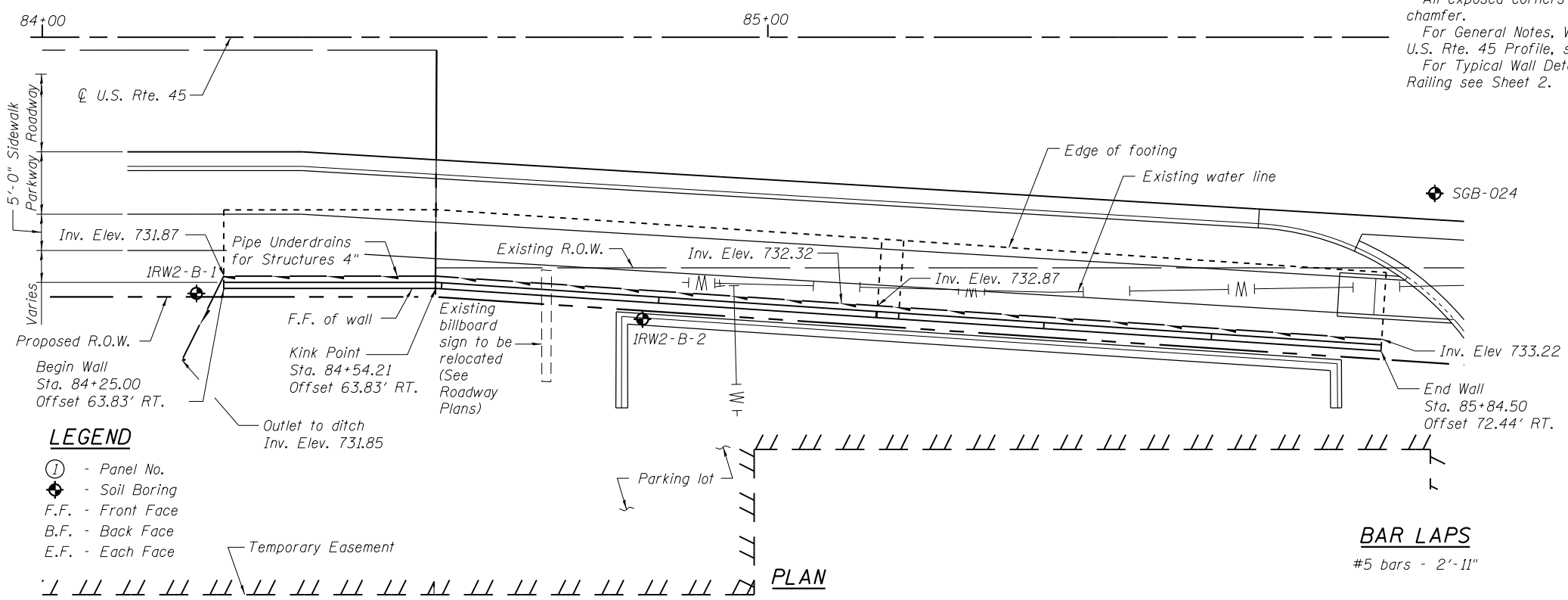
NOTES

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 U.S. Rte. 45 Profile, see Sheet 1.
For Typical Wall Details and Ornamental Railing see Sheet 2.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	11	#5	29'-8"	—
h21(E)	9	#5	22'-10"	—
h22(E)	22	#5	32'-11"	—
h23(E)	18	#5	26'-5"	—
v20(E)	121	#7	11'-6"	⌋
v21(E)	47	#7	10'-1"	⌋
v22(E)	48	#7	9'-6"	⌋
v23(E)	61	#7	11'-3"	⌋
v24(E)	47	#7	9'-11"	⌋
t20(E)	322	#5	9'-8"	—
w20(E)	33	#5	32'-9"	—
w21(E)	33	#5	25'-3"	—
w22(E)	11	#5	5'-2"	⌋
Structure Excavation			Cu. Yd.	447
Concrete Structures			Cu. Yd.	134.0
Form Liner Textured Surface			Sq. Ft.	1,136
Reinforcement Bars, Epoxy Coated			Pound	14,210
Geocomposite Wall Drain			Sq. Yd.	110
Granular Backfill for Structures			Cu. Yd.	147
Ornamental Railing			Foot	160
Pipe Underdrains for Structures 4"			Foot	164

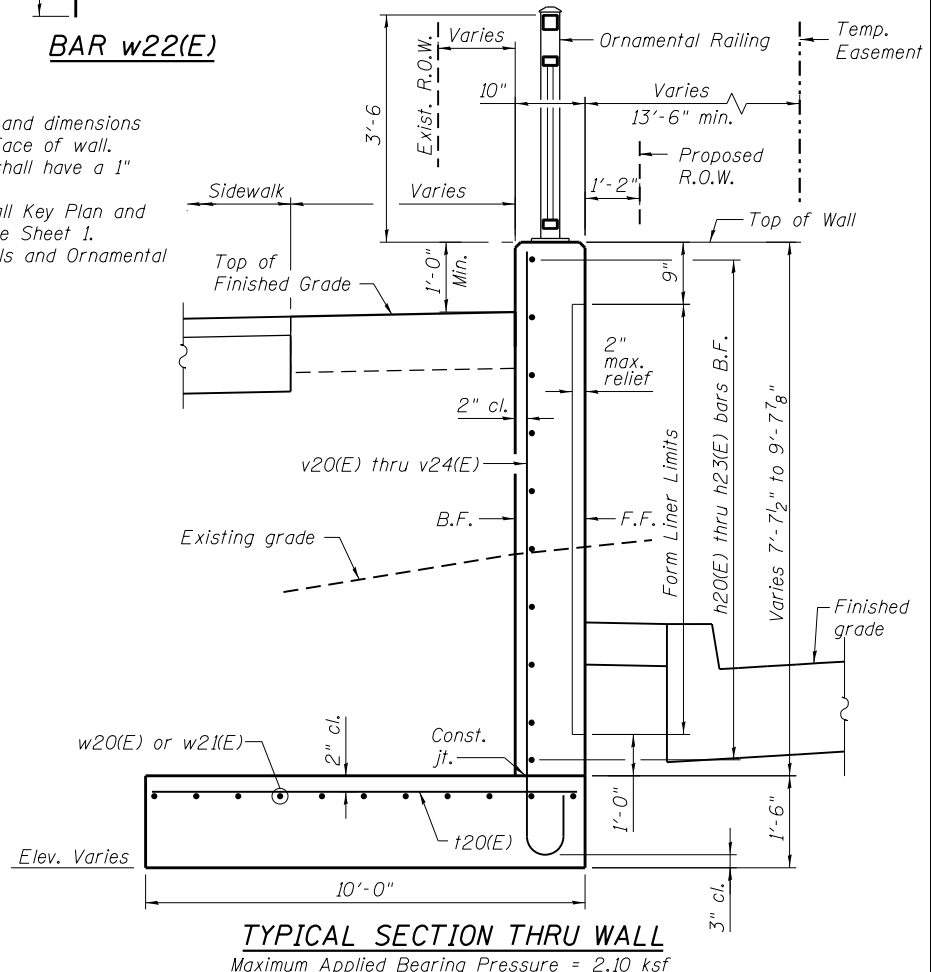
Bars indicated thus 10x2-#5 etc. indicates 10 lines of bars with 2 lengths per line.



PLAN

LEGEND

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



TYPICAL SECTION THRU WALL

Maximum Applied Bearing Pressure = 2.10 ksf

FILE NAME = D160F05-SHT-Wall.02-1.dgn

USER NAME = Anthony.Plutz	DESIGNED - MAI	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - PMH	REVISED -
PLOT DATE = 3/12/2013	DRAWN - MAI	REVISED -
	CHECKED - PMH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL NO. 2 - S.N.016-2016
STA. 84 + 25.00 TO 85 + 84.50

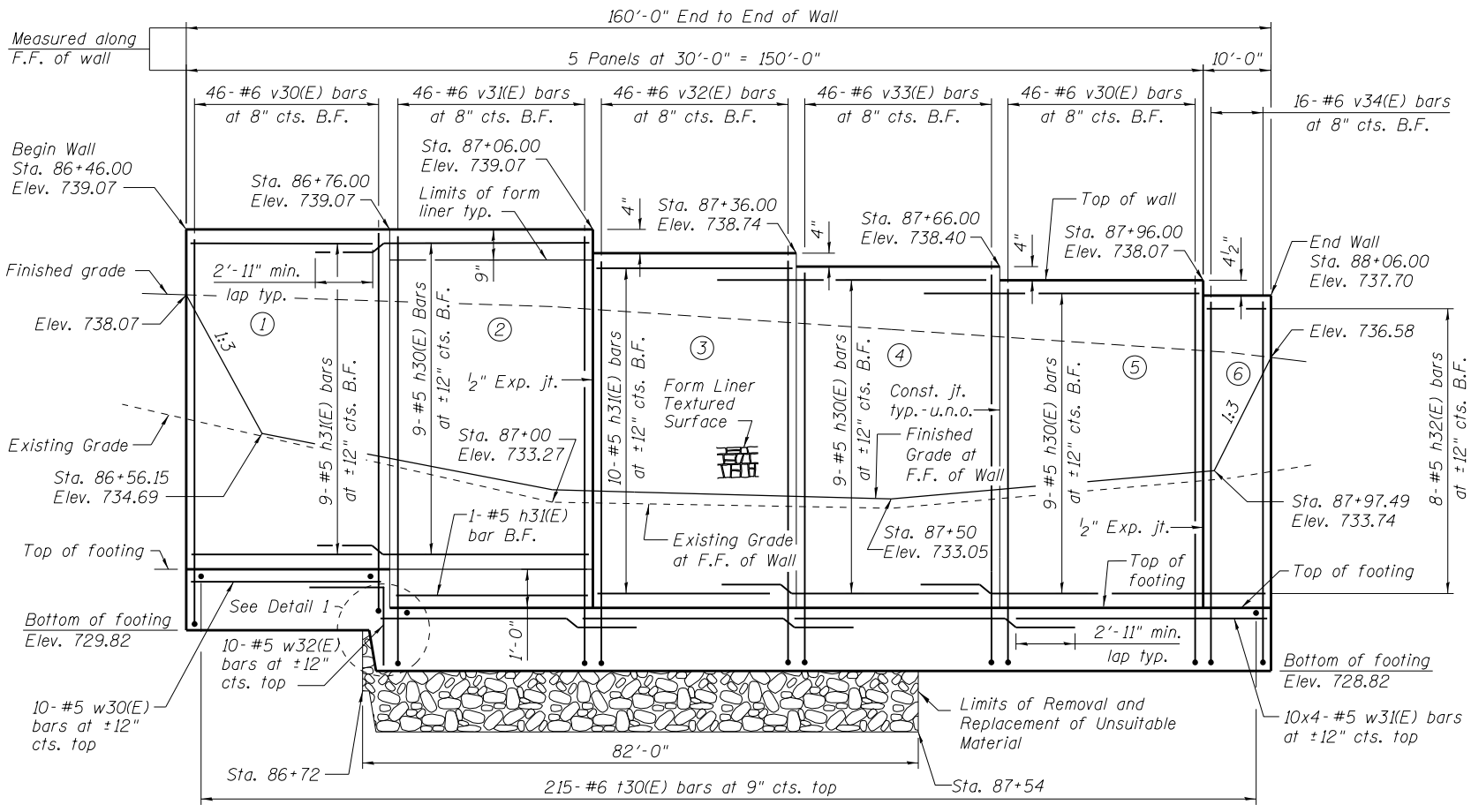
SHEET NO. 5 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	560

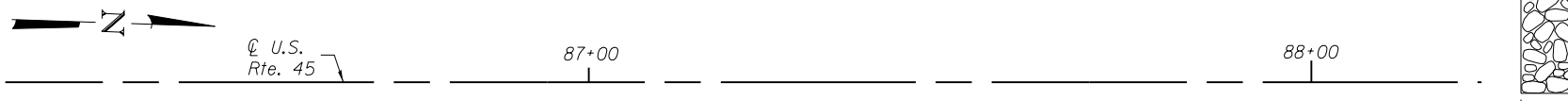
CONTRACT NO. 60F05

ILLINOIS FED. AID PROJECT

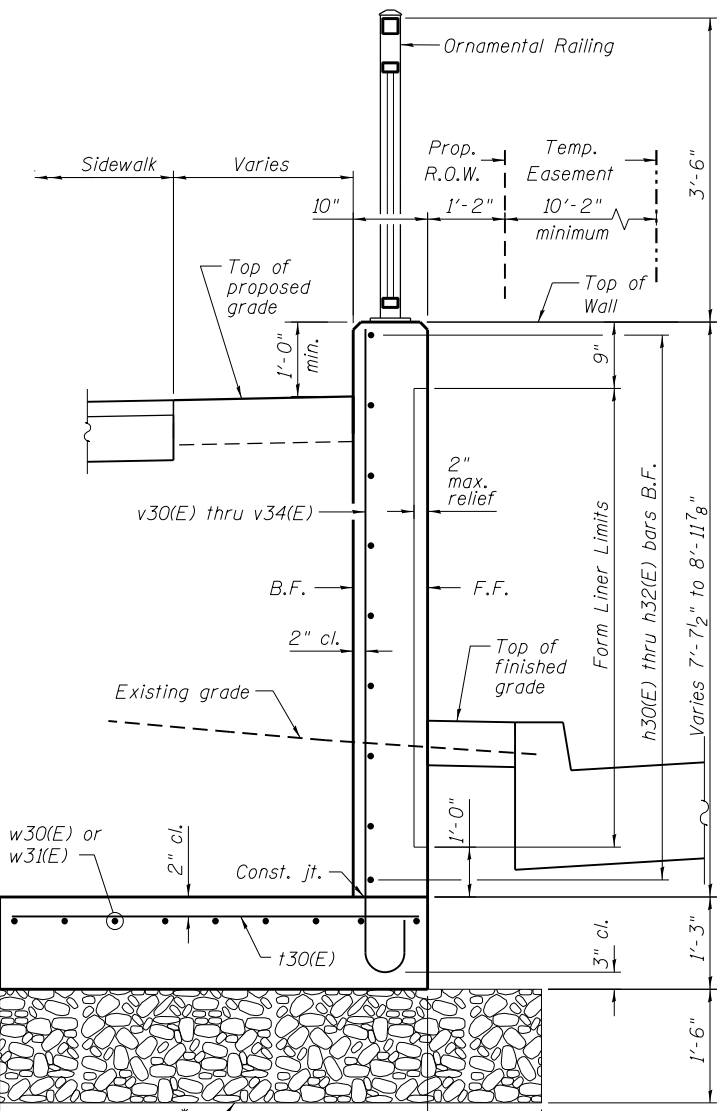




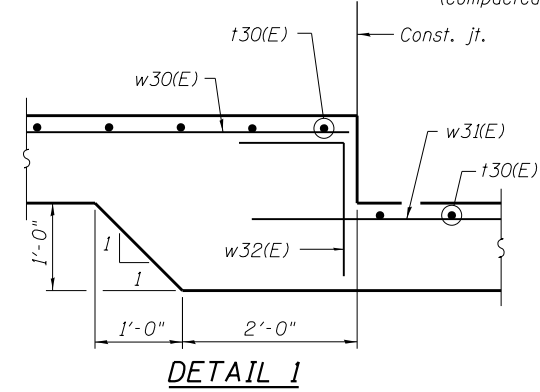
ELEVATION
(Looking West at F.F. of wall)



PLAN



TYPICAL SECTION THRU WALL
Maximum Applied Bearing Pressure = 1.80 ksf



A DIMENSION

Bar	A
v30(E)	8'-10"
v31(E)	9'-10"
v32(E)	9'-6"
v33(E)	9'-1"
v34(E)	8'-5"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	27	#5	32'-11"	
h31(E)	20	#5	29'-8"	
h32(E)	8	#5	9'-8"	
v30(E)	92	#6	9'-6"	
v31(E)	46	#6	10'-6"	
v32(E)	46	#6	10'-2"	
v33(E)	46	#6	9'-9"	
v34(E)	16	#6	9'-1"	
t30(E)	215	#6	8'-2"	
w30(E)	10	#5	29'-8"	
w31(E)	40	#5	35'-2"	
w32(E)	10	#5	4'-11"	
Structure Excavation			Cu. Yd.	328
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	57
Concrete Structures			Cu. Yd.	105.0
Form Liner Textured Surface			Sq. Ft.	1,057
Reinforcement Bars, Epoxy Coated			Pound	9,730
Geocomposite Wall Drain			Sq. Yd.	101
Granular Backfill for Structures			Cu. Yd.	135
Ornamental Railing			Foot	160
Pipe Underdrains for Structures 4"			Foot	180
Granular Embankment, Special			Cu. Yd.	57

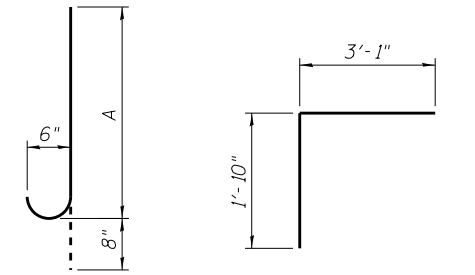
Bars indicated thus 9x4-#5 etc. indicates 9 lengths of bars with 4 bars per line.

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 U.S. Rte. 45 Profile, see Sheet 1. For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

#5 bars - 2'-11"



BARS v30(E), v31(E), v32(E), v33(E) & v34(E)

BAR w32(E)

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

URS

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

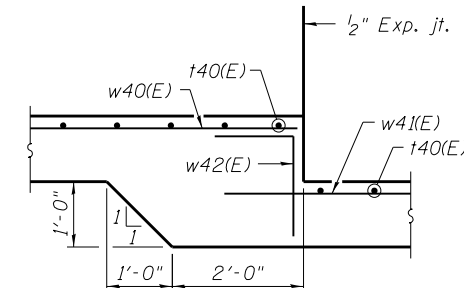
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h40(E)	10	#5	11'-8"	—
h41(E)	30	#5	29'-8"	—
h42(E)	47	#5	32'-11"	—
v40(E)	65	#6	10'-8"	—
v41(E)	46	#6	11'-0"	—
v42(E)	46	#6	10'-3"	—
v43(E)	46	#6	9'-11"	—
v44(E)	46	#6	9'-7"	—
v45(E)	46	#6	9'-3"	—
v46(E)	46	#6	8'-10"	—
v47(E)	46	#6	8'-6"	—
t40(E)	337	#6	9'-2"	—
w40(E)	11	#5	41'-8"	—
w41(E)	77	#5	33'-0"	—
w42(E)	11	#5	4'-11"	—
Structure Excavation		Cu. Yd.	599	
Concrete Structures		Cu. Yd.	177.7	
Form Liner Textured Surface		Sq. Ft.	1,697	
Reinforcement Bars, Epoxy Coated		Pound	16,190	
Geocomposite Wall Drain		Sq. Yd.	160	
Granular Backfill for Structures		Cu. Yd.	213	
Ornamental Railing		Foot	252	
Pipe Underdrains for Structures 4"		Foot	282	

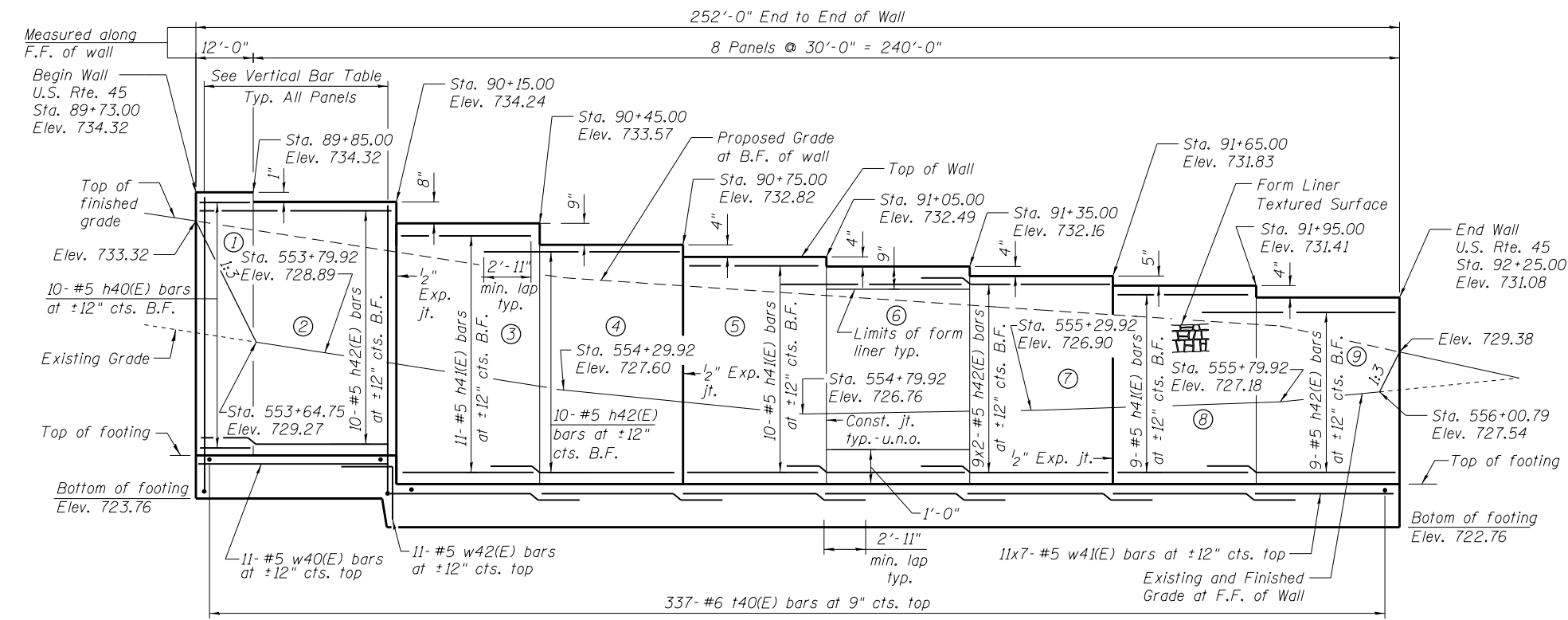
Bars indicated thus 9x2-#5 etc. indicates 9 lines of bars with 2 lengths per line.

VERTICAL BAR TABLE

Panel No.	Vertical Bars
1	19-#6 v40(E) bars at 8" cts. B.F.
2	46-#6 v40(E) bars at 8" cts. B.F.
3	46-#6 v41(E) bars at 8" cts. B.F.
4	46-#6 v42(E) bars at 8" cts. B.F.
5	46-#6 v43(E) bars at 8" cts. B.F.
6	46-#6 v44(E) bars at 8" cts. B.F.
7	46-#6 v45(E) bars at 8" cts. B.F.
8	46-#6 v46(E) bars at 8" cts. B.F.
9	46-#6 v47(E) bars at 8" cts. B.F.

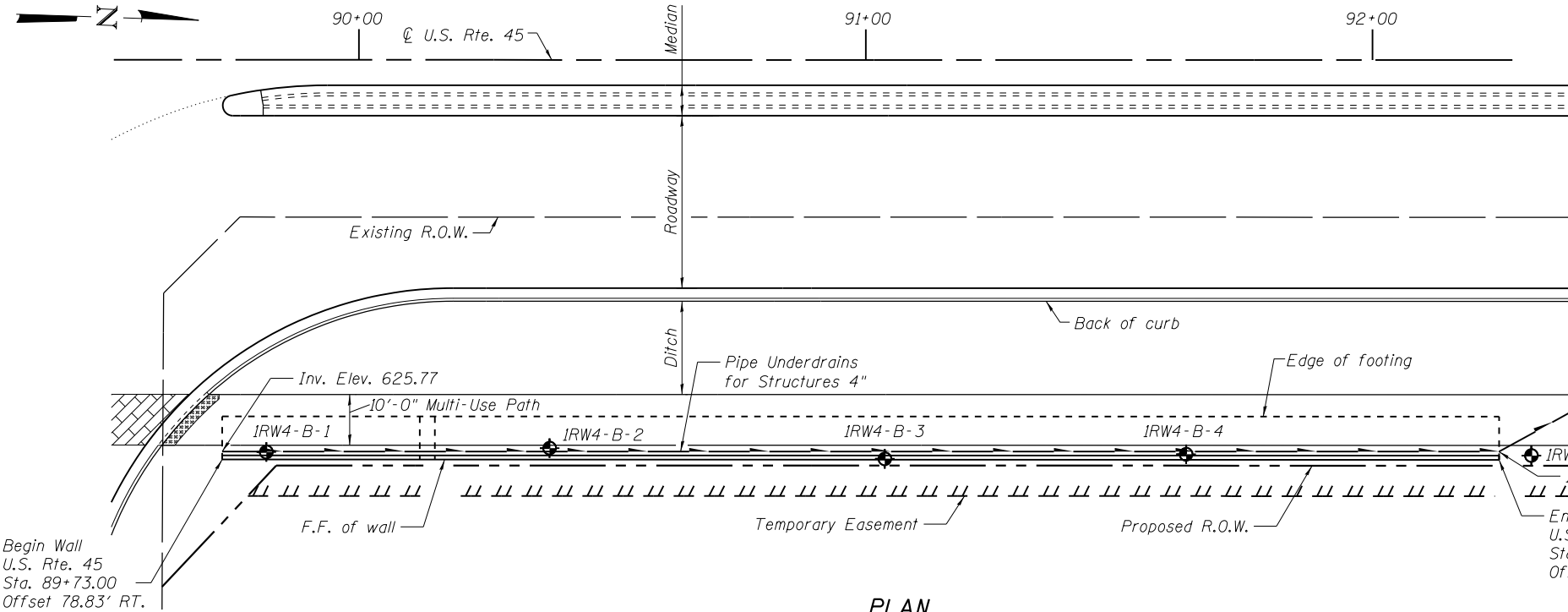


DETAIL 1

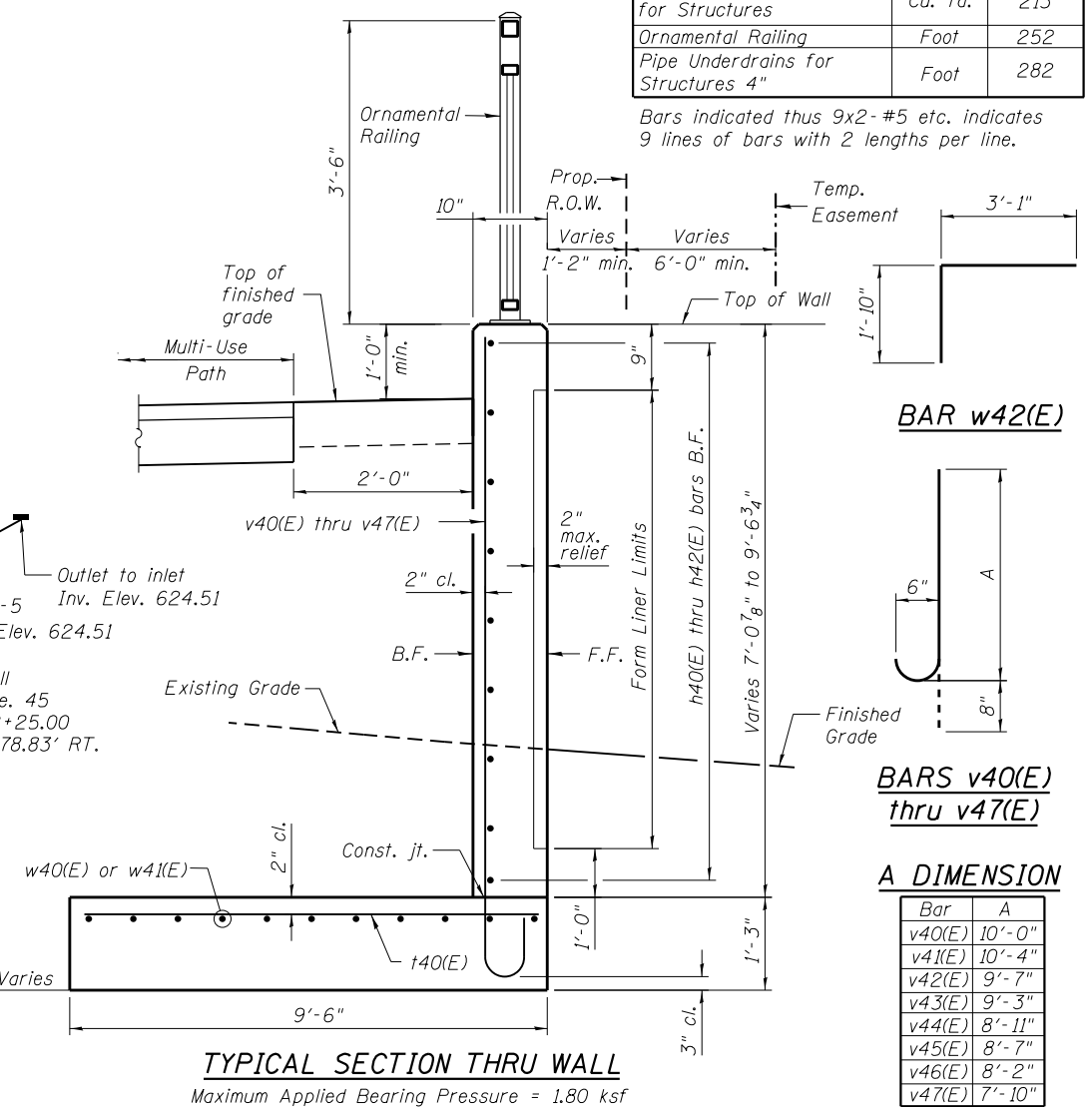


ELEVATION

(Looking West at F.F. of Wall)



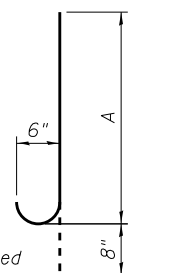
PLAN



TYPICAL SECTION THRU WALL

Maximum Applied Bearing Pressure = 1.80 ksf

BAR w42(E)



BARS v40(E) thru v47(E)

A DIMENSION

Bar	A
v40(E)	10'-0"
v41(E)	10'-4"
v42(E)	9'-7"
v43(E)	9'-3"
v44(E)	8'-11"
v45(E)	8'-7"
v46(E)	8'-2"
v47(E)	7'-10"

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 U.S. Rte. 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

#5 bars - 2'-11"

LEGEND

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

FILE NAME = D160F05-SHT-Wall.04-1.dgn

USER NAME = Anthony.Plutz
 PLOT SCALE = 32.0000' / in.
 PLOT DATE = 3/12/2013

DESIGNED - MAI
 CHECKED - PMH
 DRAWN - MAI
 CHECKED - PMH

REVISED -
 REVISED -
 REVISED -
 REVISED -

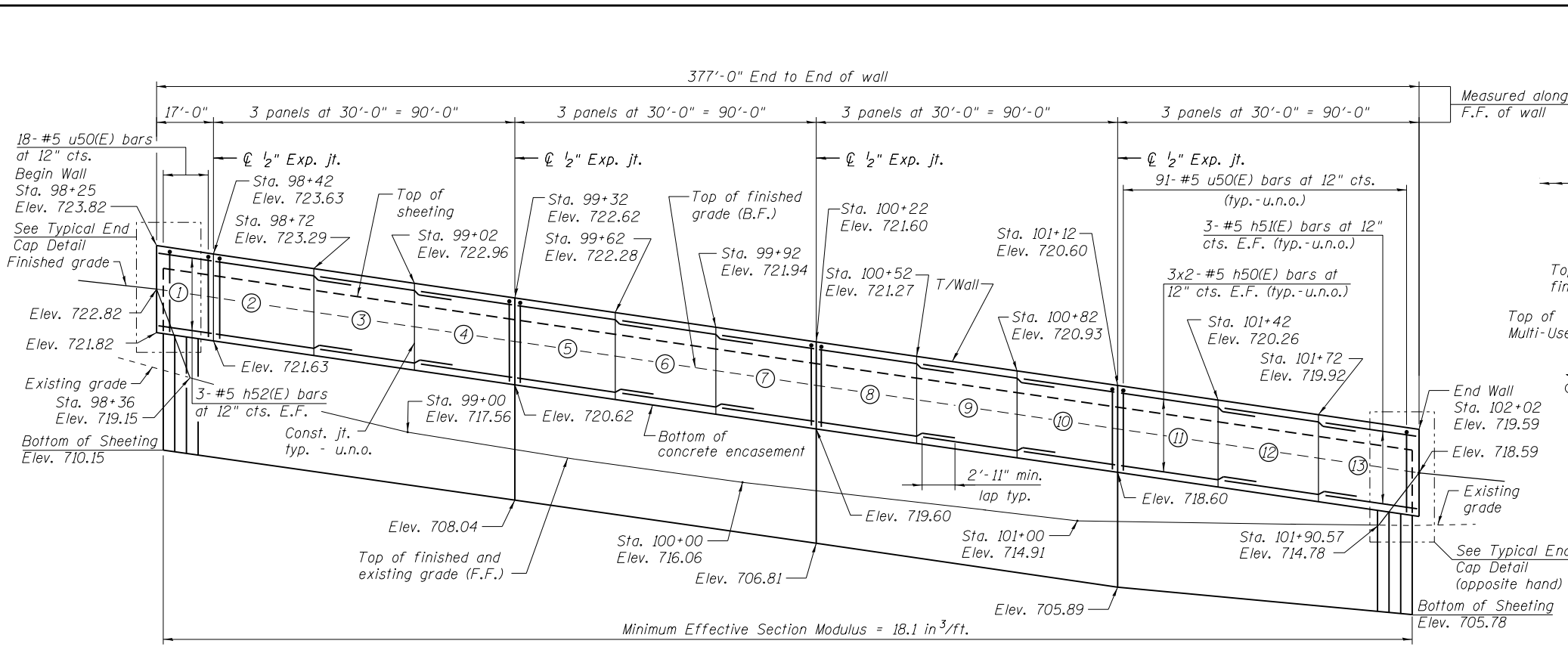
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 4 - S.N.016-2018
 STA. 89+73.00 TO 92+25.00**

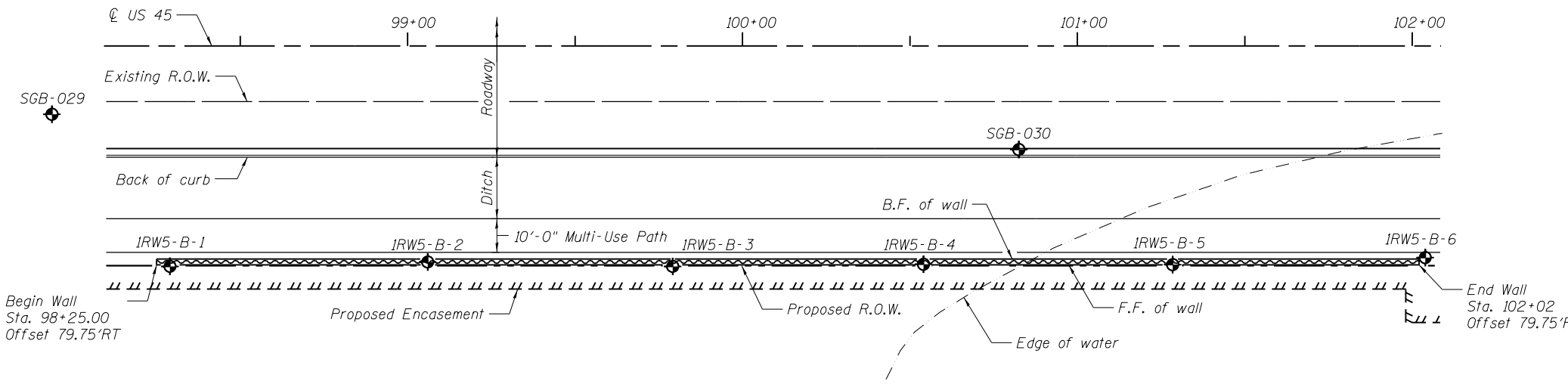
SHEET NO. 7 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	562

CONTRACT NO. 60F05
 ILLINOIS FED. AID PROJECT



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



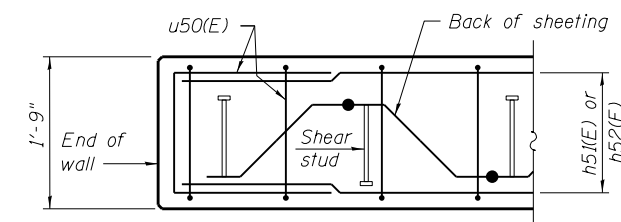
PLAN

LEGEND

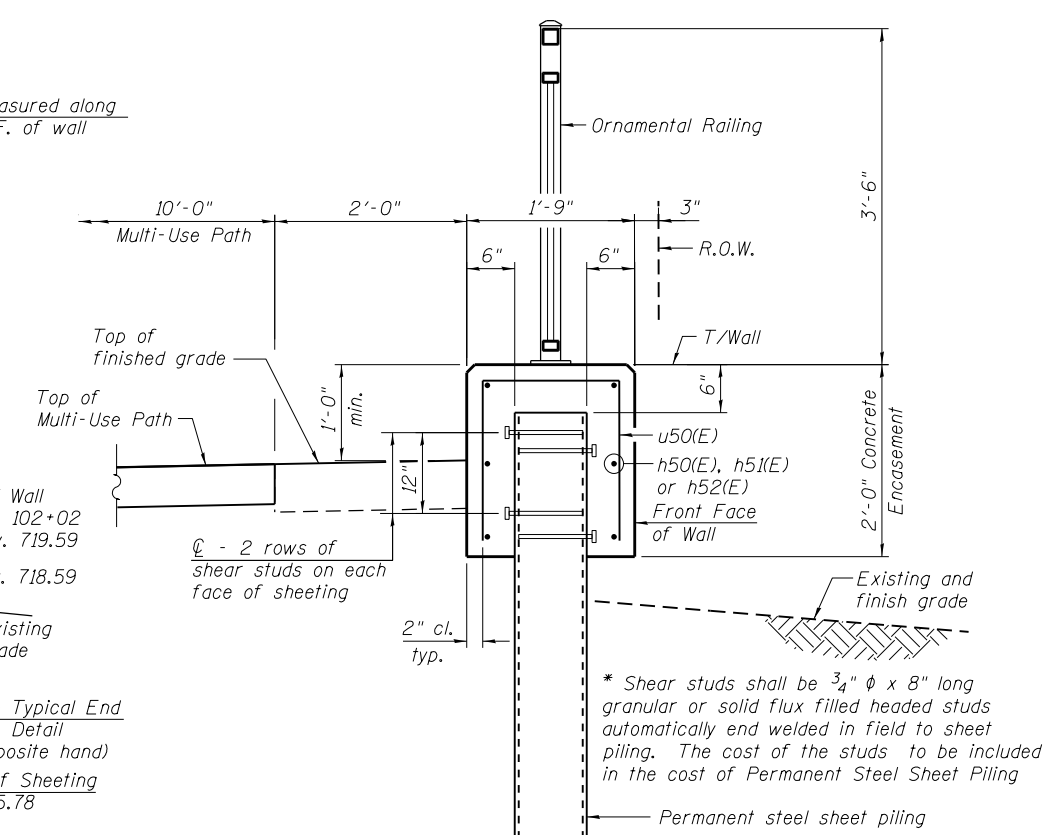
- ⊙ - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

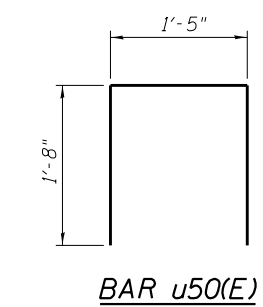
Basic Lap	Top Bar Lap
#5 bars - 2'-7"	#5 bars - 2'-11"



PLAN AT END OF WALL



TYPICAL SECTION THROUGH WALL

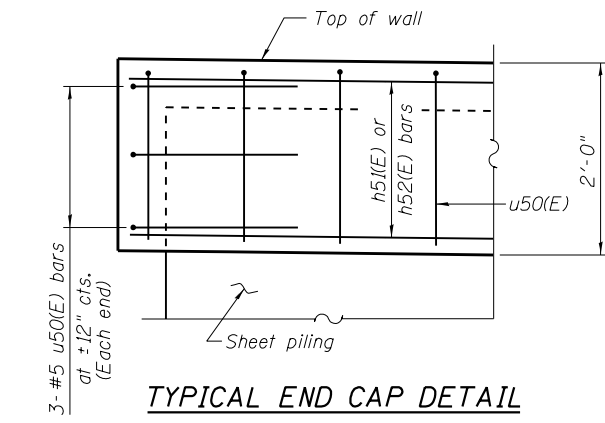


BAR u50(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h50(E)	48	#5	32'-11"	—
h5(E)	24	#5	29'-8"	—
h52(E)	6	#5	16'-8"	—
u50(E)	388	#5	4'-9"	⊏
Concrete Structures		Cu. Yd.	48.9	
Reinforcement Bars, Epoxy Coated		Pound	4,420	
Permanent Steel Sheet Piling		Sq. Ft.	5,243	
Ornamental Railing		Foot	377	

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



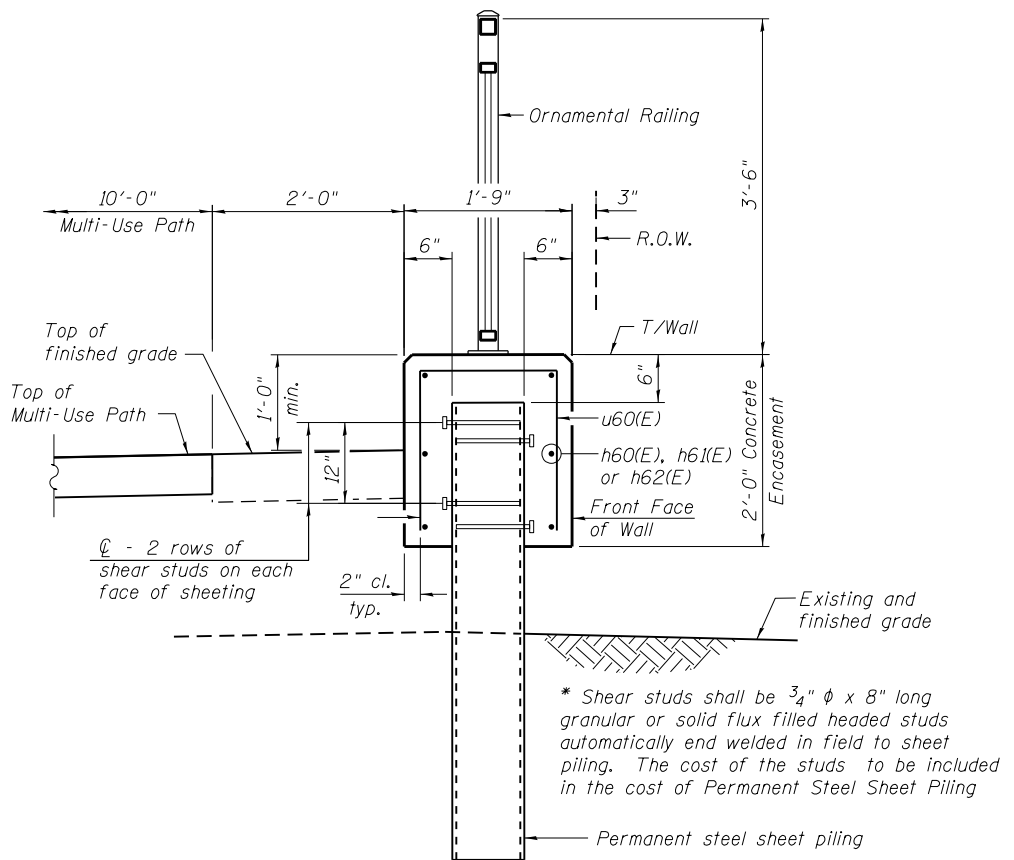
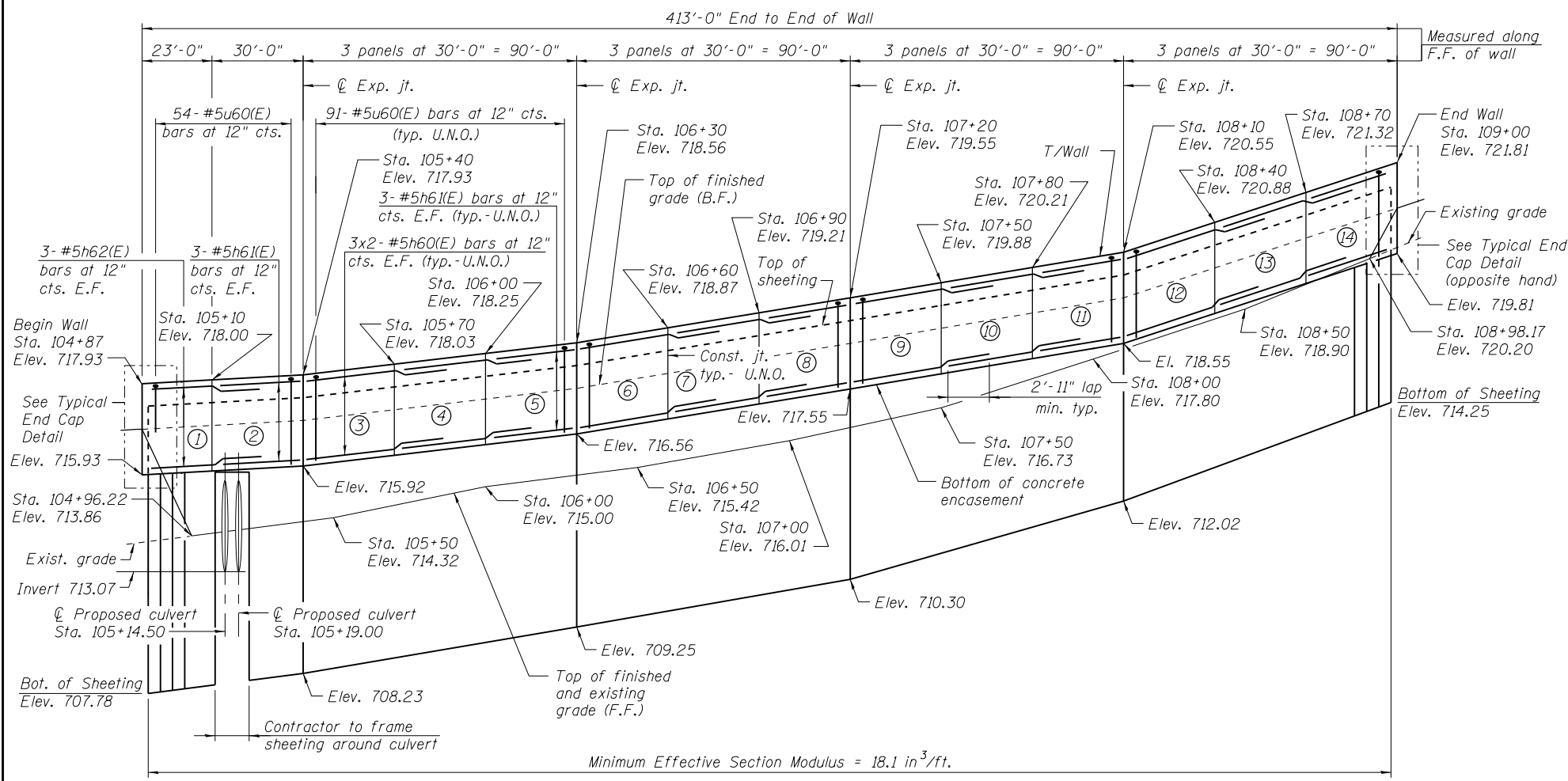
TYPICAL END CAP DETAIL

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.

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

FILE NAME = D160F05-SHT-Wall.05-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 5 - S.N.016-2019 STA. 98 + 25.00 TO 102 + 02.00	F.A.P. R.T.E. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 563
PLOT SCALE = 43.33' / in.	DRAWN -	REVISED -	SHEET NO. 8 OF 41 SHEETS			CONTRACT NO. 60F05				
PLOT DATE = 3/12/2013	CHECKED -	REVISED -	ILLINOIS FED. AID PROJECT							



TYPICAL SECTION THROUGH WALL

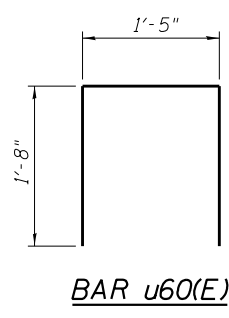
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h60(E)	48	#5	32'-11"	—
h61(E)	30	#5	29'-8"	—
h62(E)	6	#5	25'-11"	—
u60(E)	424	#5	4'-9"	□
Structure Excavation			Cu. Yd.	1
Concrete Structures			Cu. Yd.	53.6
Reinforcement Bars, Epoxy Coated			Pound	4,840
Permanent Steel Sheet Piling			Sq. Ft.	3,524
Ornamental Railing			Foot	413

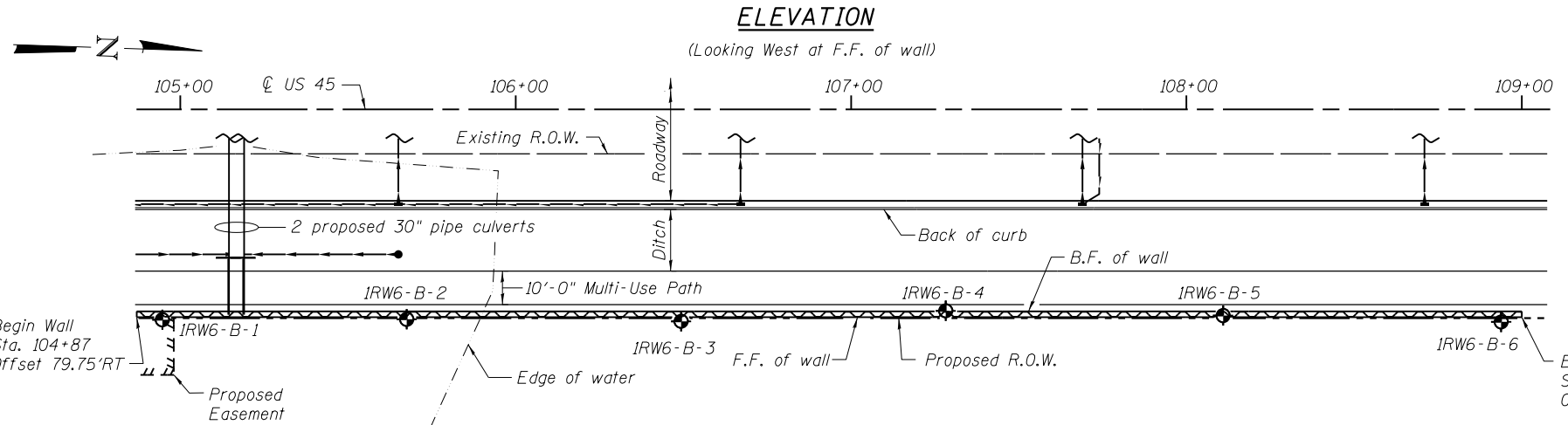
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

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.



BAR u60(E)



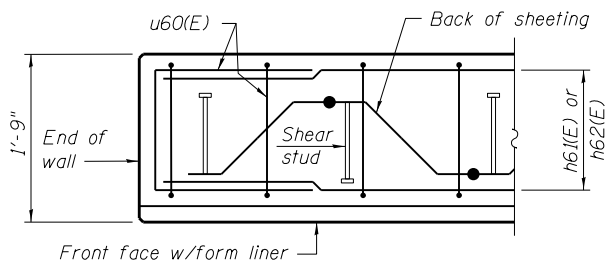
PLAN

ELEVATION

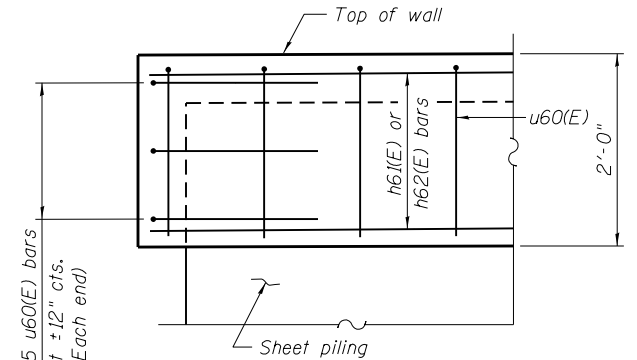
(Looking West at F.F. of wall)

BAR LAPS

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



PLAN AT END OF WALL

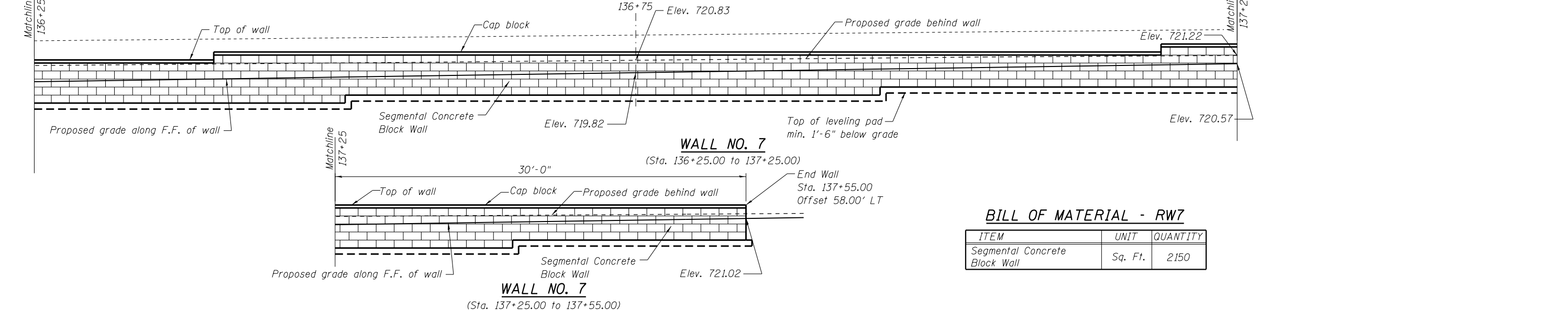
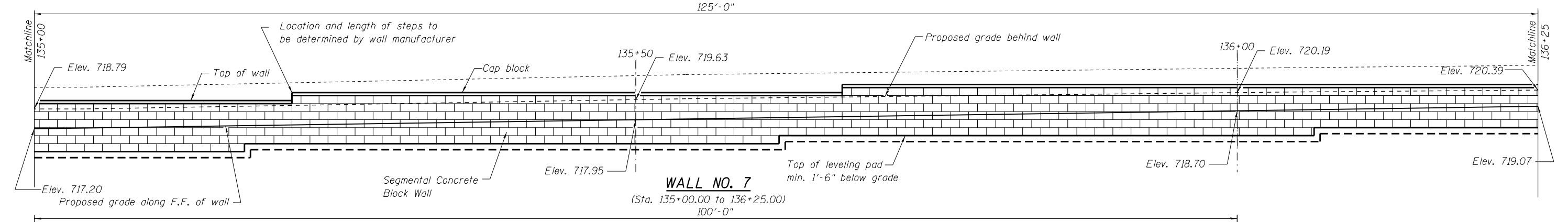
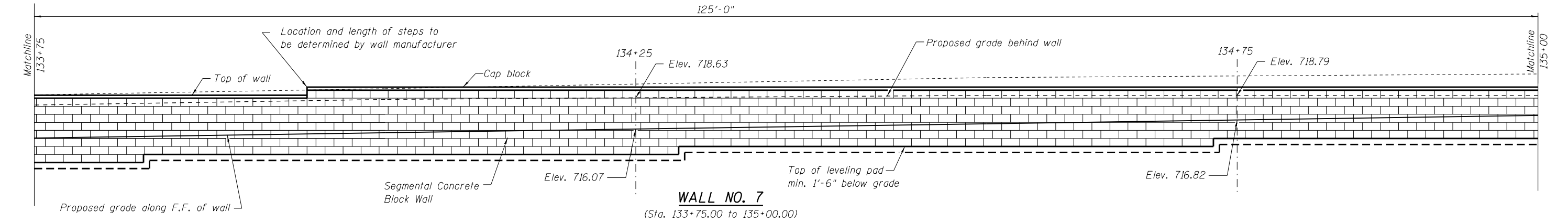
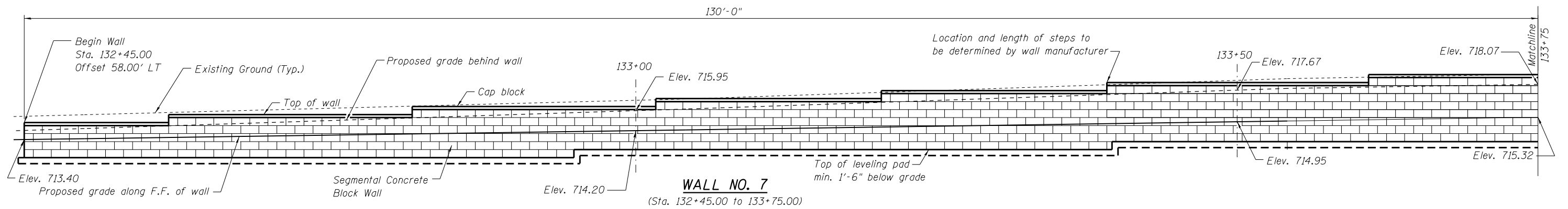


TYPICAL END CAP DETAIL

LEGEND

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

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



BILL OF MATERIAL - RW7

ITEM	UNIT	QUANTITY
Segmental Concrete Block Wall	Sq. Ft.	2150

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

URS

FILE NAME = D:\160F05-SHT-Wall.07-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 7 - S.N. 16-2021 STA. 132+45.00 TO 137+55.00	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 565
PLOT SCALE = 50:1406 1/4" = 1'	DRAWN -	REVISD -	CONTRACT NO. 60F05							
PLOT DATE = 3/12/2013	CHECKED -	REVISD -	SHEET NO. 10 OF 41 SHEETS							
						ILLINOIS FED. AID PROJECT				

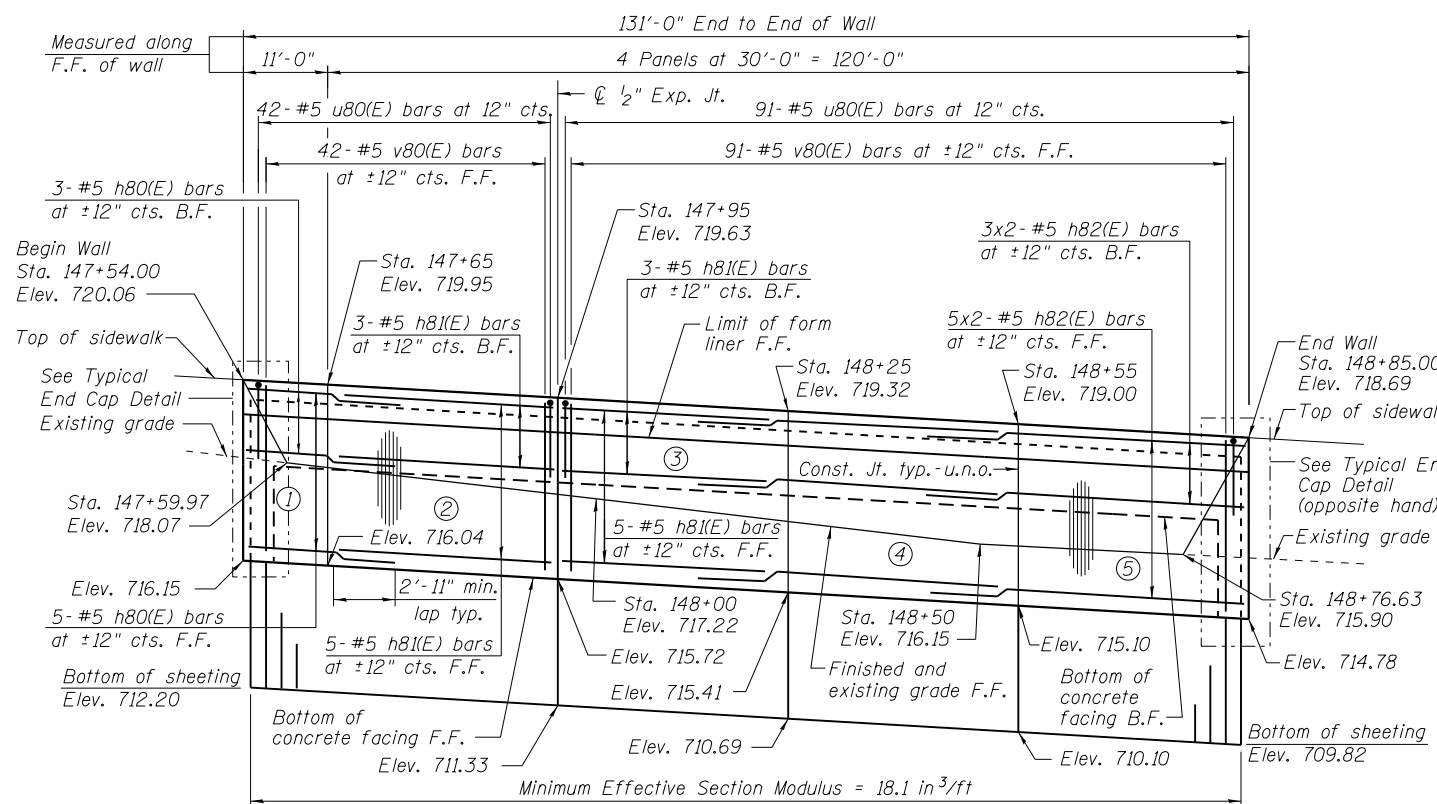
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h80(E)	8	#5	14'-3"	—
h81(E)	16	#5	29'-8"	—
h82(E)	16	#5	32'-11"	—
v80(E)	137	#5	3'-4"	—
u80(E)	143	#5	4'-9"	□
Structure Excavation		Cu. Yd.	44	
Concrete Structures		Cu. Yd.	24.6	
Form Liner Textured Surface		Sq. Ft.	337	
Reinforcement Bars, Epoxy Coated		Pound	2,350	
Permanent Sheet Piling		Sq. Ft.	1,062	
Ornamental Railing		Foot	131	

Bars indicated thus 9x2-#5 etc. indicates 9 lines of bars with 2 lengths per line.

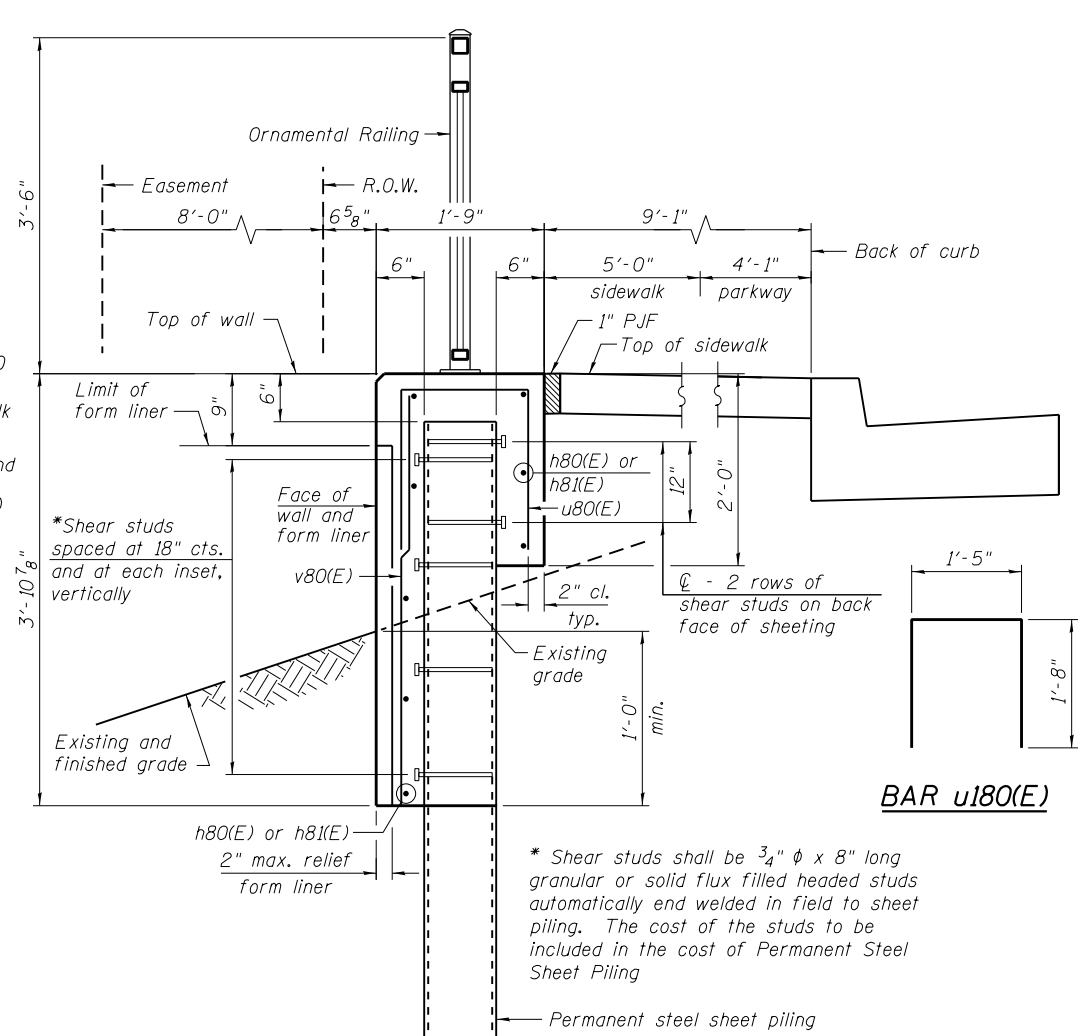
NOTES:

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.

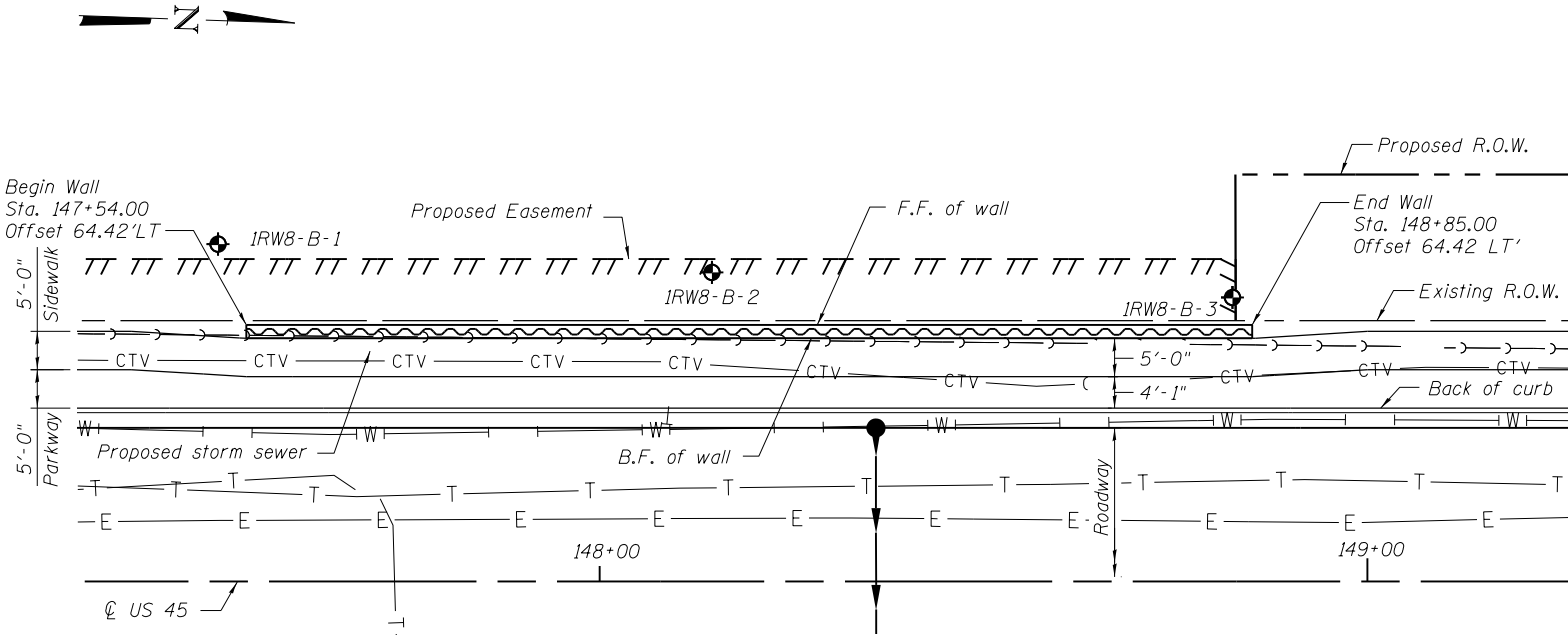


ELEVATION

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



TYPICAL SECTION THROUGH WALL



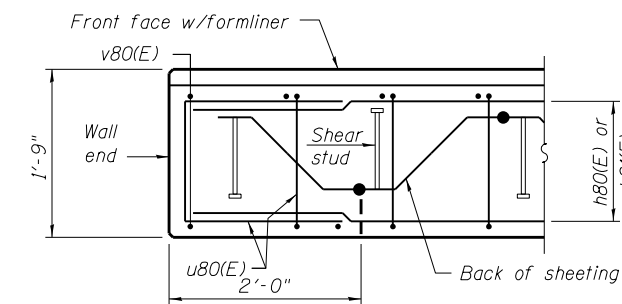
PLAN

LEGEND

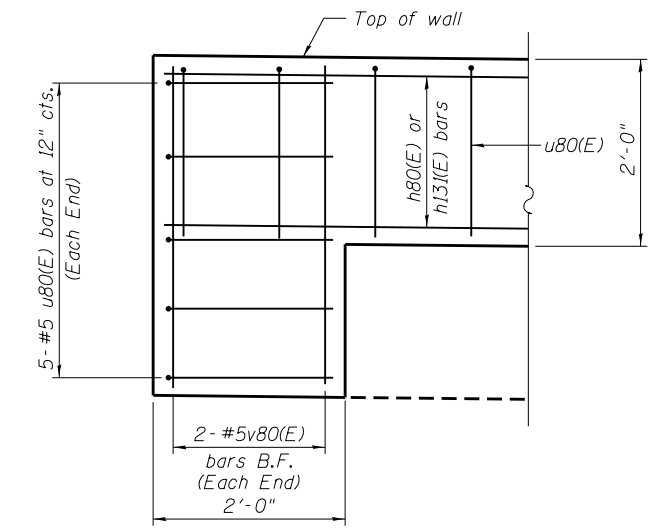
- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

BAR LAPS

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



PLAN AT END OF WALL



TYPICAL END CAP DETAIL

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

100 S. WACKER DR.
 5TH FLOOR
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D:\160F05-SHT-Wall.08-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 8 - S.N.016-2022 STA. 147+54.00 TO 148+85.00	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 566
	PLOT SCALE = 25.0000' / in.	CHECKED -	REVISD -			CONTRACT NO. 60F05				
	PLOT DATE = 3/12/2013	DRAWN -	REVISD -			ILLINOIS FED. AID PROJECT				
		CHECKED -	REVISD -			SHEET NO. 11 OF 41 SHEETS				

BILL OF MATERIAL

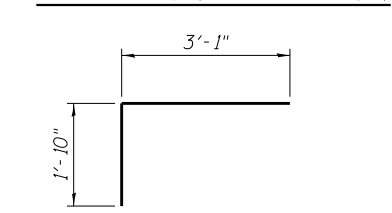
Bar	No.	Size	Length	Shape
h90(E)	10	#5	32'-8"	—
h91(E)	19	#5	32'-11"	—
h92(E)	1	#5	17'-11"	—
v90(E)	51	#6	10'-10"	⌋
v91(E)	46	#6	10'-2"	⌋
v92(E)	23	#6	9'-10"	⌋
v93(E)	23	#6	8'-10"	⌋
t90(E)	125	#6	9'-2"	—
w90(E)	30	#5	28'-9"	—
w91(E)	10	#5	14'-8"	—
w92(E)	10	#5	4'-11"	⌋
Structure Excavation			Cu. Yd.	233
Concrete Structures			Cu. Yd.	66.7
Form Liner Textured Surface			Sq. Ft.	642
Reinforcement Bars, Epoxy Coated			Pound	6,020
Geocomposite Wall Drain			Sq. Yd.	62
Granular Backfill for Structures			Cu. Yd.	82
Ornamental Railing			Foot	93
Pipe Underdrains for Structures 4"			Foot	103

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

A DIMENSION

Bar	A
v90(E)	10'-2"
v91(E)	9'-6"
v92(E)	9'-2"
v93(E)	8'-2"

BARS v90(E) THRU v93(E)



BAR w92(E)

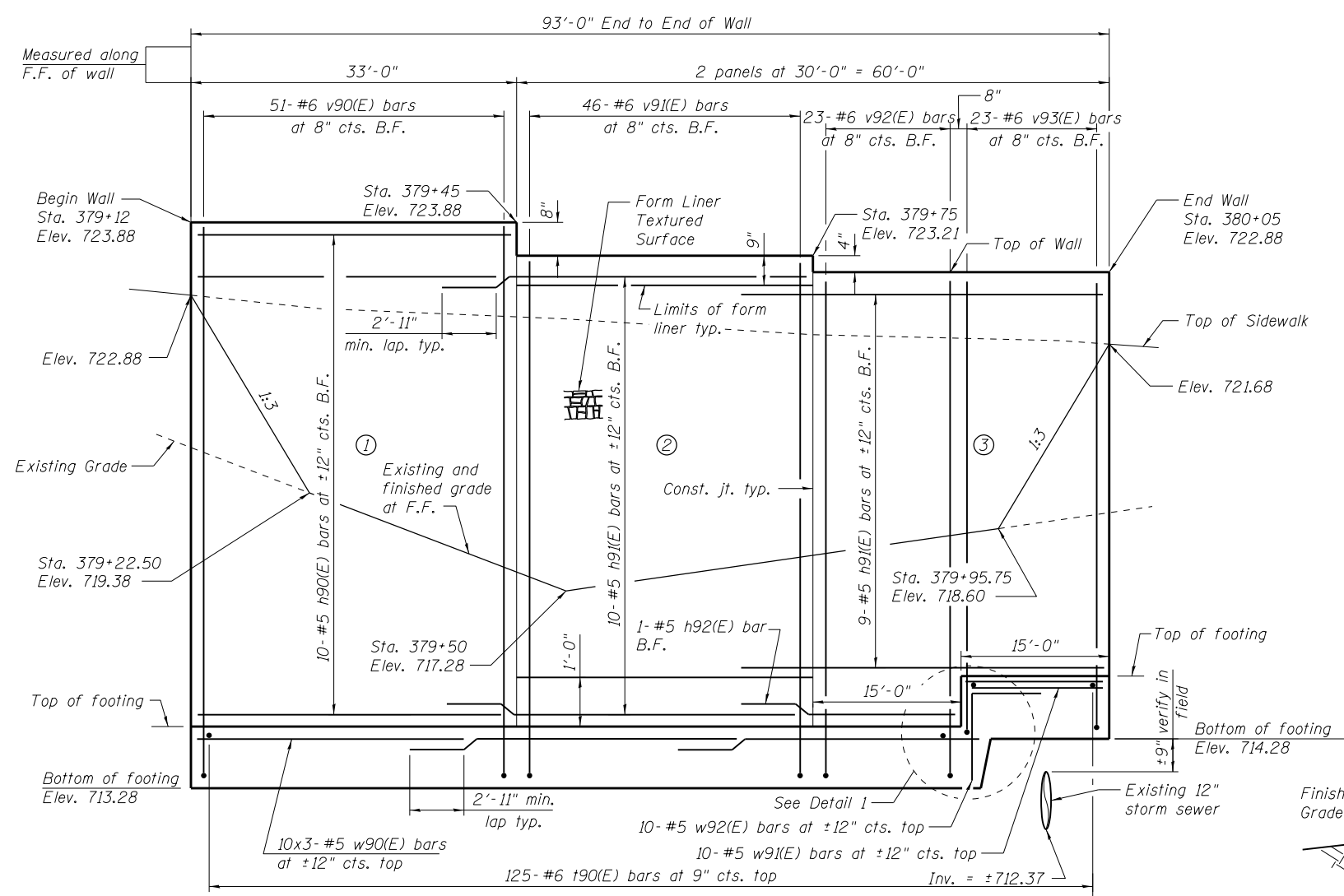


NOTES

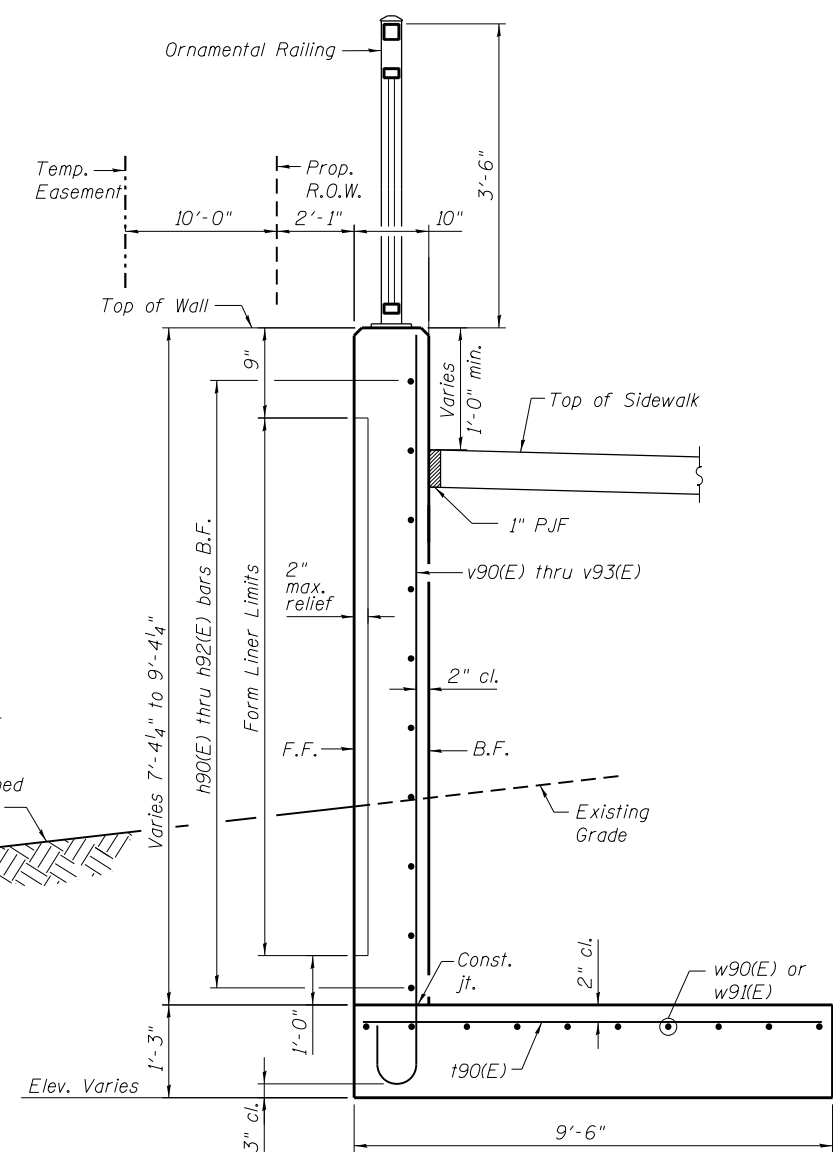
Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and 163rd St. Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

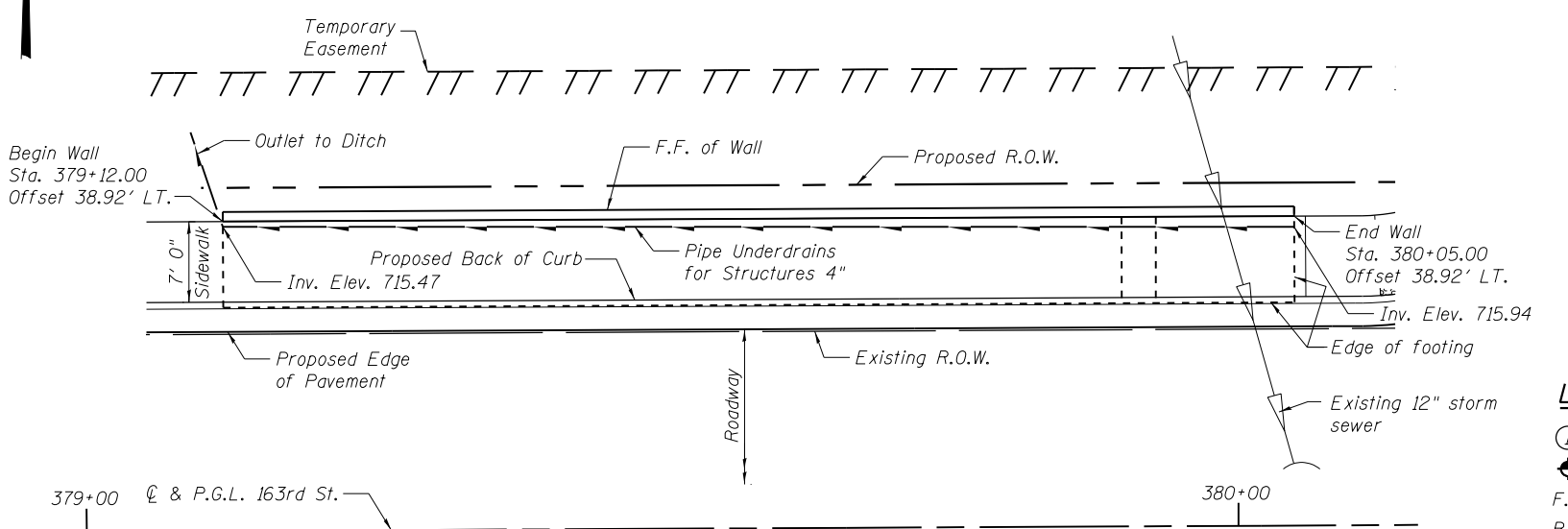
#5 bars - 2'-11"



ELEVATION
(Looking North)



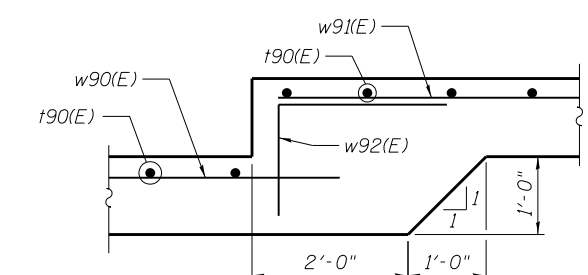
TYPICAL SECTION THRU WALL
Maximum Applied Bearing Pressure = 1.80 ksf



PLAN

LEGEND

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



DETAIL 1

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

FILE NAME = D:\160F05-SHT-Wall.09-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAI	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 9 - S.N. 016-2023 STA. 379+12 TO 380+05	F.A.P. R.T.E. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 567		
PLOT SCALE = 1/16" = 1' - 0"	DRAWN - MAI	CHECKED - PMH	REVISIONS -			CONTRACT NO. 60F05						
PLOT DATE = 3/12/2013	CHECKED - PMH	REVISIONS -	SHEET NO. 12 OF 41 SHEETS									
ILLINOIS FED. AID PROJECT												

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h100(E)	12	#5	27'-11"	—	
h101(E)	12	#5	24'-8"	—	
h102(E)	8	#5	10'-3"	—	
h103(E)	8	#5	7'-0"	—	
v100(E)	38	#8	13'-5"	—	
v101(E)	38	#8	13'-0"	—	
t100(E)	101	#6	9'-5"	—	
w100(E)	22	#5	26'-6"	—	
Removal and Disposal of Unsuitable Material for Structures				Cu. Yd.	39
Concrete Structures				Cu. Yd.	47.8
Form Liner Textured Surface				Sq. Ft.	461
Reinforcement Bars, Epoxy Coated				Pound	5,520
Geocomposite Wall Drain				Sq. Yd.	46
Granular Backfill for Structures				Cu. Yd.	62
Ornamental Railing				Foot	50
Pipe Underdrains for Structures 4"				Foot	75
Granular Embankment, Special				Cu. Yd.	39
Structure Excavation				Cu. Yd.	105

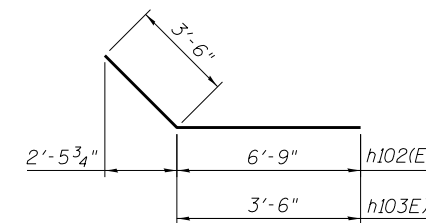
Bars indicated thus 11x2-#5 etc. indicates 11 lines of bars with 2 lengths per line.

NOTES

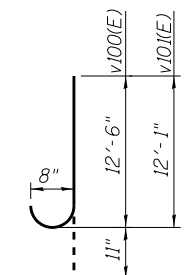
Wall stations, offsets and dimensions are measured at front face of wall.
 All exposed corners shall have a 1" chamfer.
 For General Notes, Wall Key Plan and U.S. Rte. 45 Profile, see Sheet 1.
 For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

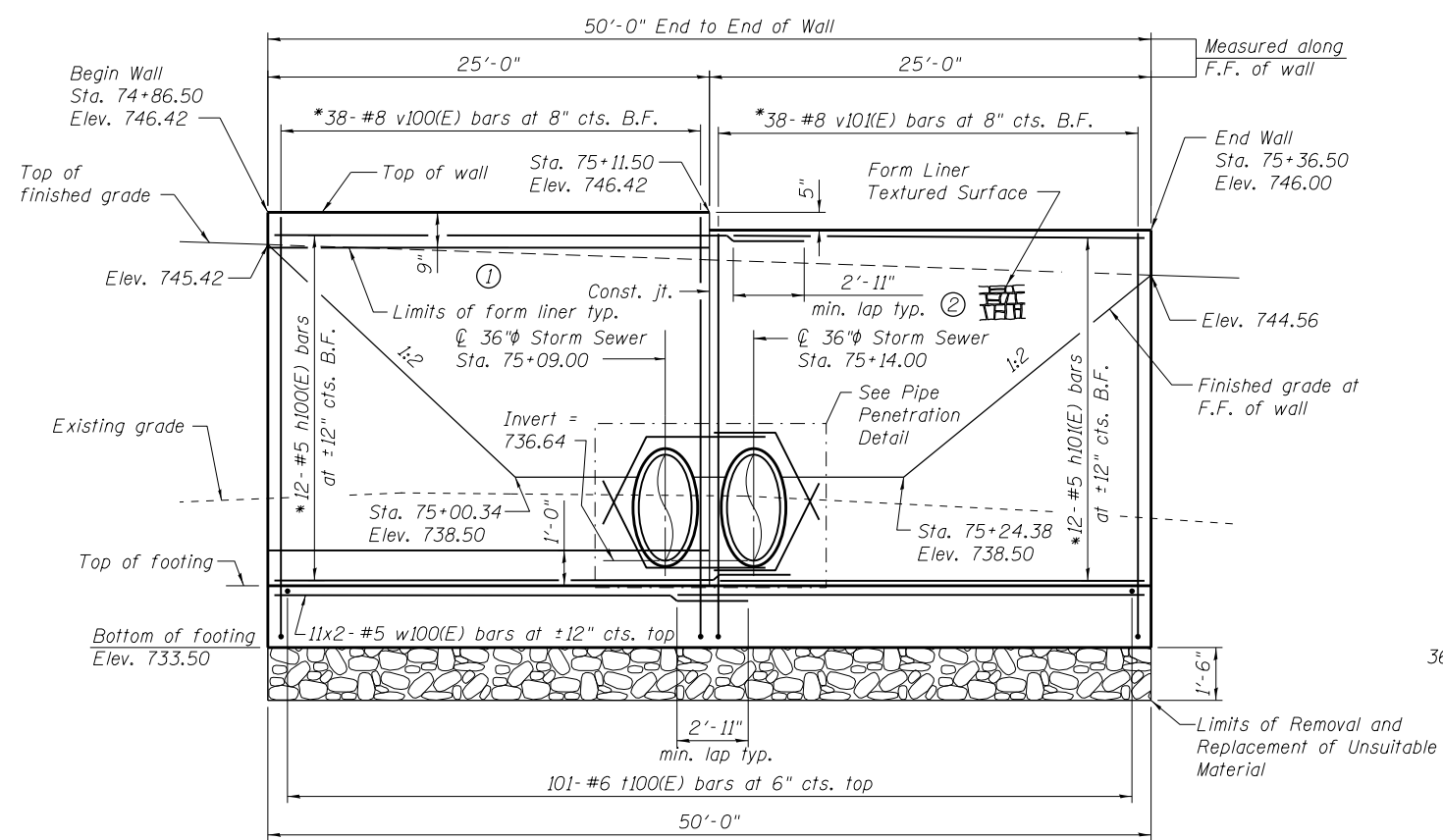
#5 bars - 2'-11"



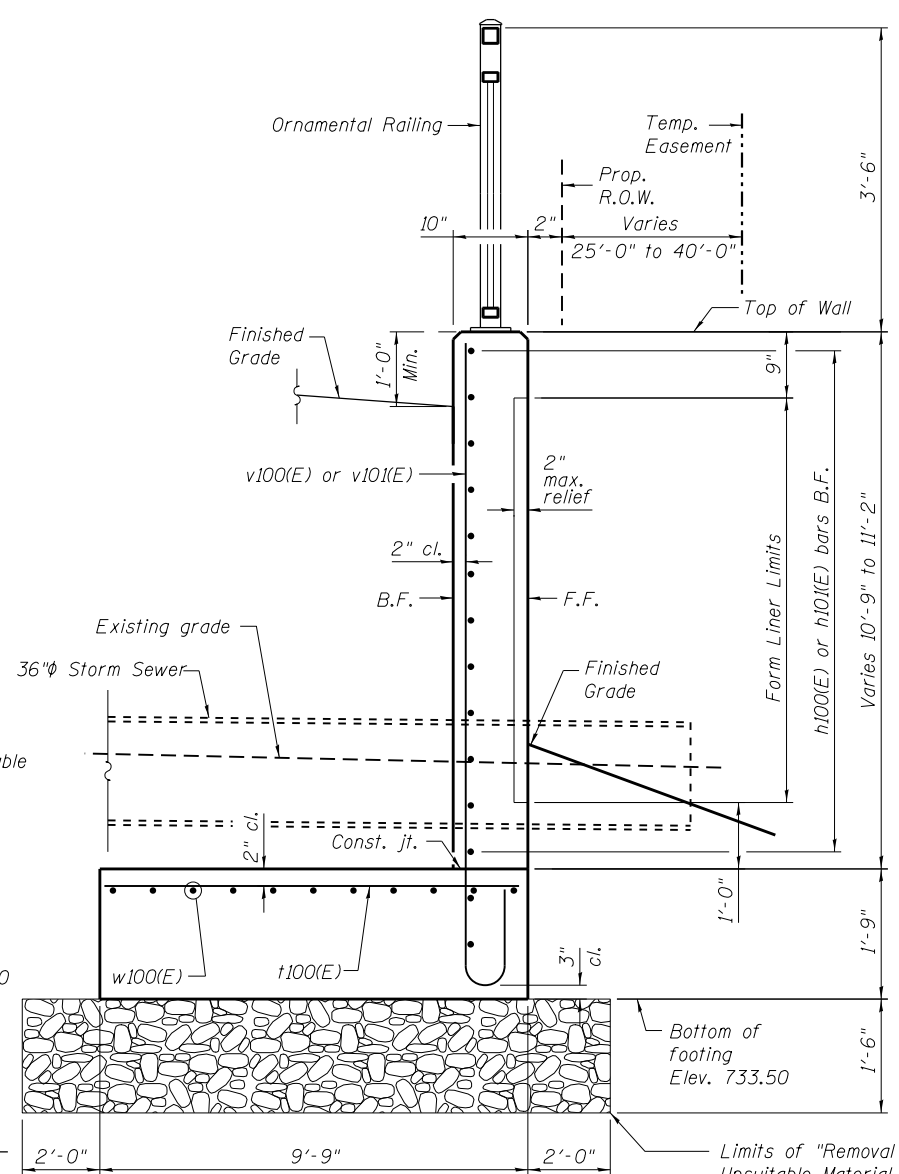
BARS h102(E) & h103(E)



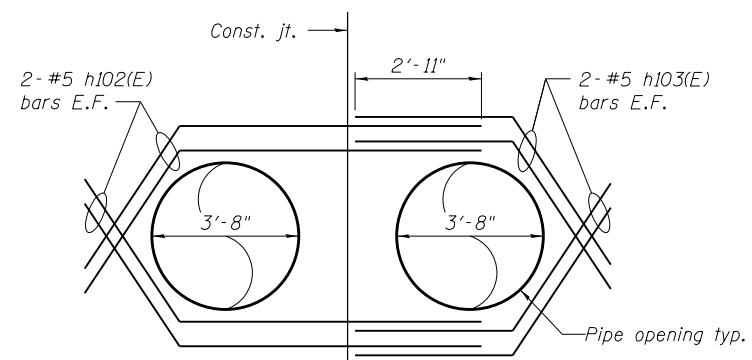
BARS v100(E) & v101(E)



ELEVATION
 (Looking West at F.F. of Wall) * Cut bars to clear opening, typ.



TYPICAL SECTION THRU WALL
 Maximum Applied Bearing Pressure = 2.30 ksf

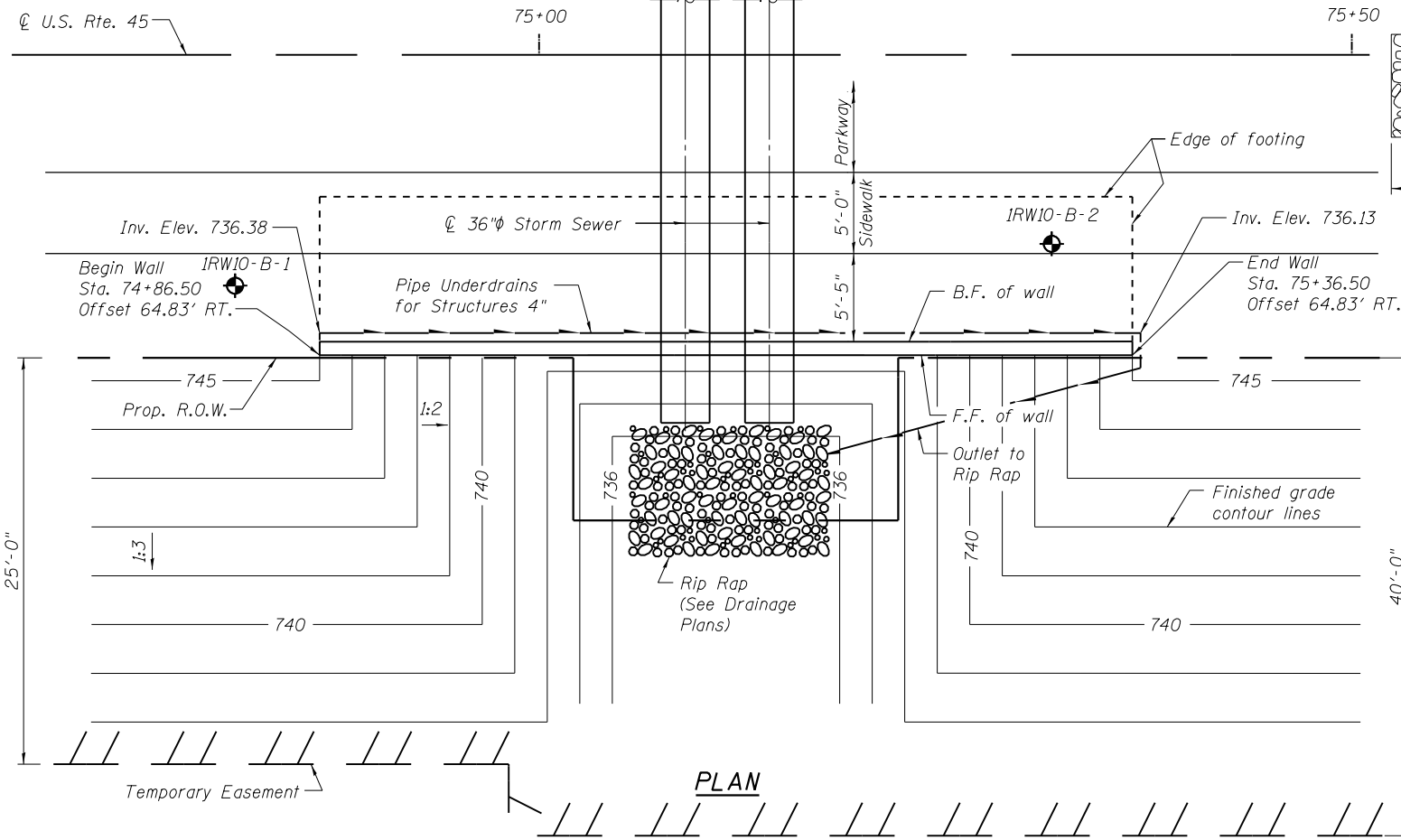


PIPE PENETRATION DETAIL

Trim vertical and horizontal bars to clear pipe openings

LEGEND

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



PLAN

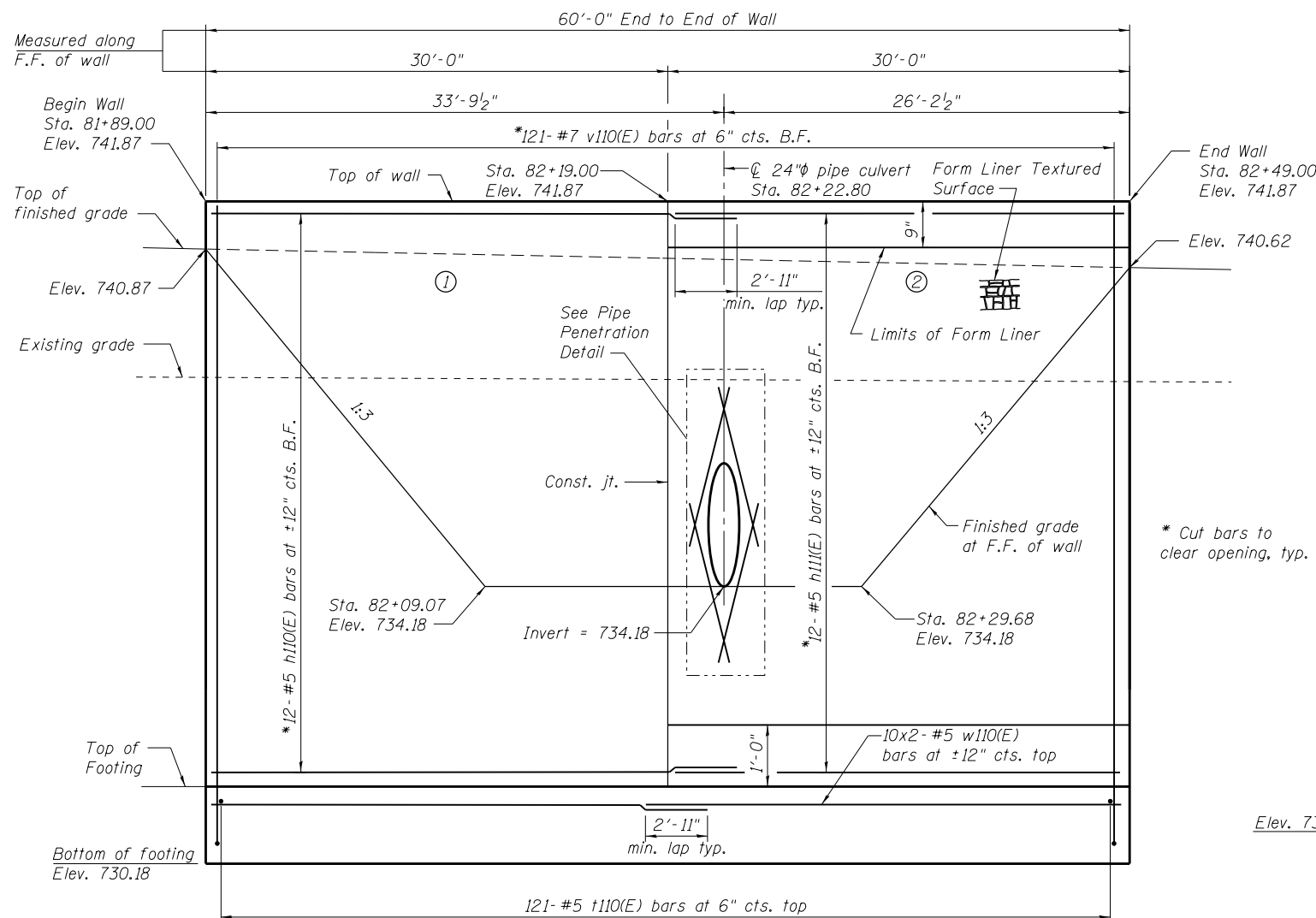
100 S. WACKER DR.
 10TH FLOOR
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D160F05-SHT-Wall.10-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAI	REVISIED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 10 - S.N. 016-2024 STA. 74 + 86.50 TO 75 + 36.50	F.A.P. R.T.E. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 568	
	PLOT SCALE = 1/8" = 1'-0"	DRAWN - MAI	REVISIED -			SHEET NO. 13 OF 41 SHEETS					
	PLOT DATE = 3/12/2013	CHECKED - PMH	REVISIED -			CONTRACT NO. 60F05					
						ILLINOIS FED. AID PROJECT					

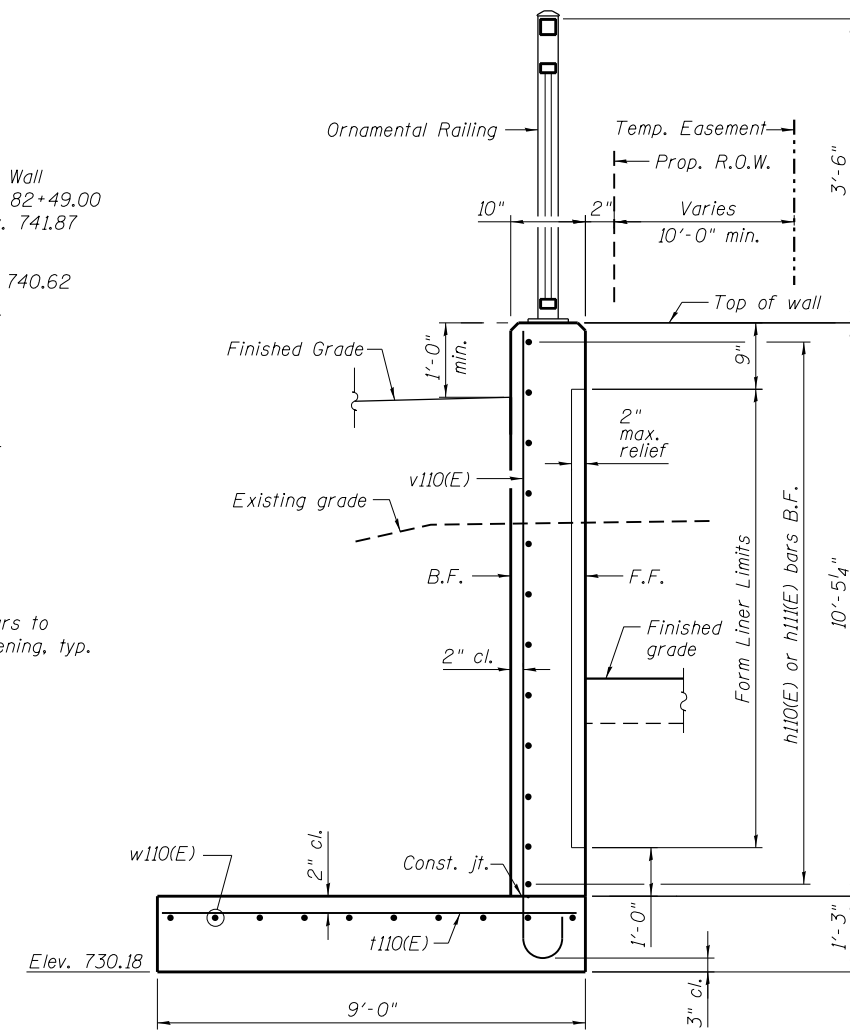
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h110(E)	12	#5	32'-11"	—
h111(E)	12	#5	29'-8"	—
h112(E)	16	#5	4'-4"	—
v110(E)	121	#7	12'-1"	—
t110(E)	121	#5	8'-8"	—
w110(E)	20	#5	31'-4"	—
Structure Excavation			Cu. Yd.	215
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	15
Concrete Structures			Cu. Yd.	44.4
Form Liner Textured Surface			Sq. Ft.	522
Reinforcement Bars, Epoxy Coated			Pound	5,600
Geocomposite Wall Drain for Structures			Sq. Yd.	53
Granular Backfill for Structures			Cu. Yd.	70
Ornamental Railing			Foot	60
Pipe Underdrains for Structures 4"			Foot	80

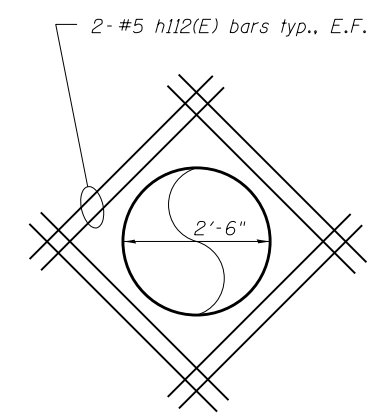
Bars indicated thus 10x2-#5 etc. indicates 10 lines of bars with 2 lengths per line.



* Cut bars to clear opening, typ.

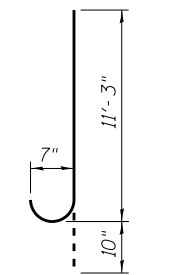


TYPICAL SECTION THRU WALL
Maximum Applied Bearing Pressure = 2.10 ksf



PIPE PENETRATION DETAIL

Trim vertical and horizontal bars to clear pipe openings



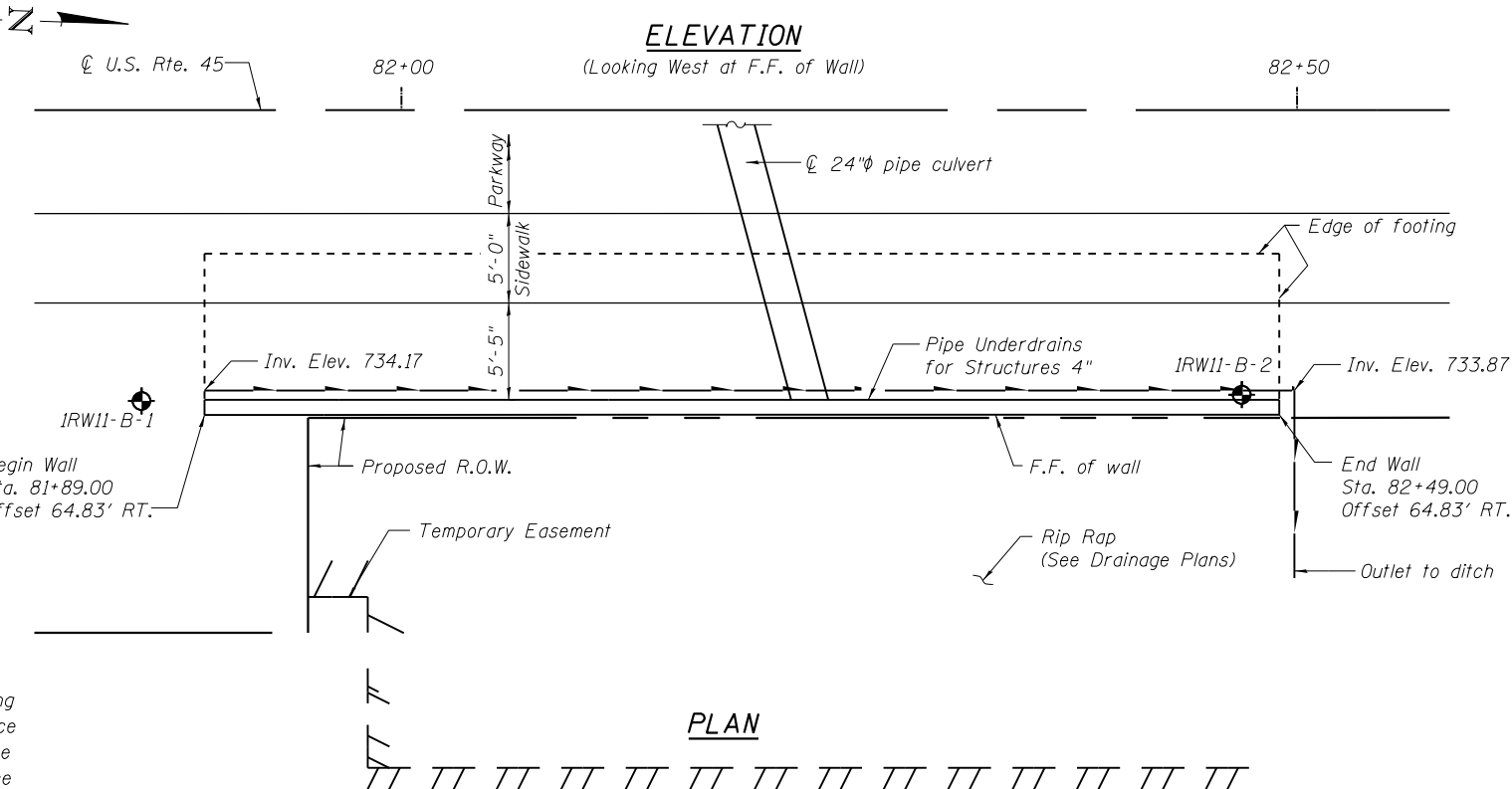
BAR v110(E)

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 U.S. Rte. 45 Profile, see Sheet 1.
For Typical Wall Details and Ornamental Railing see Sheet 2.

BAR LAPS

#5 bars - 2'-11"



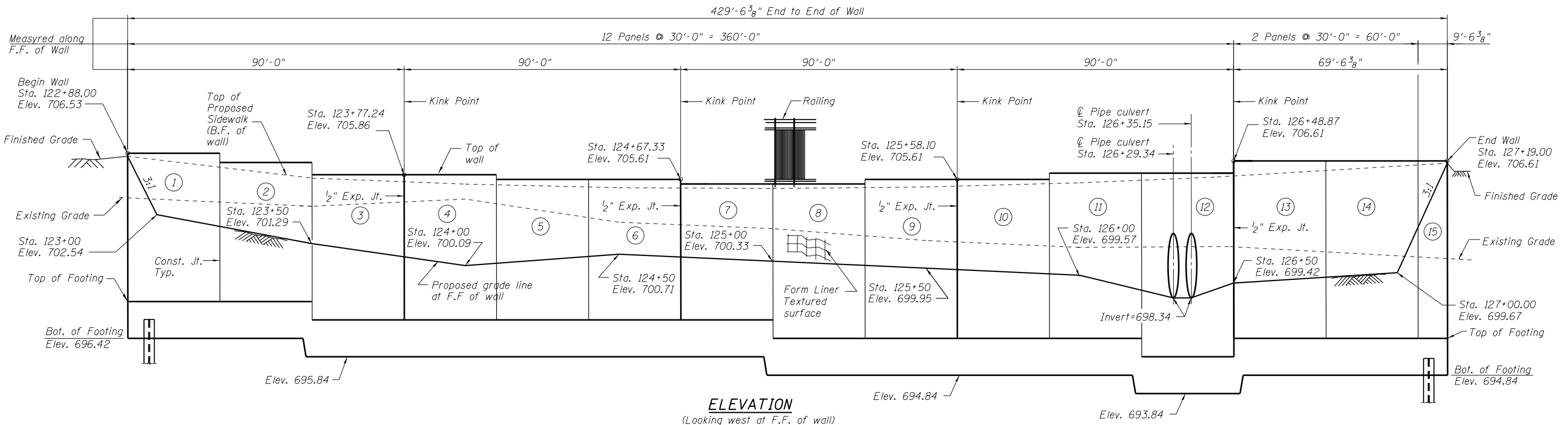
PLAN

LEGEND

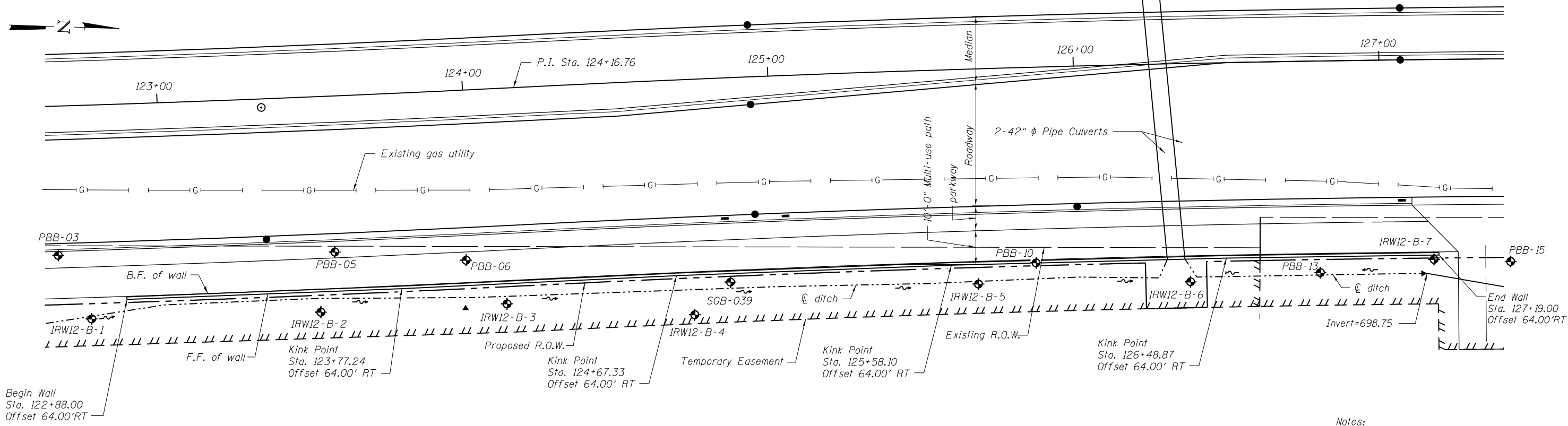
- ① - Panel No.
- ◆ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face

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

FILE NAME = D160F05-SHT-Wall.11-1.dgn	USER NAME = Anthony.Plutz	DESIGNED - MAI	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 11 - S.N. 016-2025 STA. 81+89.00 TO 82+49.00	F.A.P. RTE. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 569	
PLOT SCALE = 1/8" = 1'-0"	DRAWN - MAI	CHECKED - PMH	REVISIONS -			CONTRACT NO. 60F05					
PLOT DATE = 3/12/2013	CHECKED - PMH	REVISIONS -	REVISIONS -			SHEET NO. 14 OF 41 SHEETS					
ILLINOIS FED. AID PROJECT											



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



PLAN

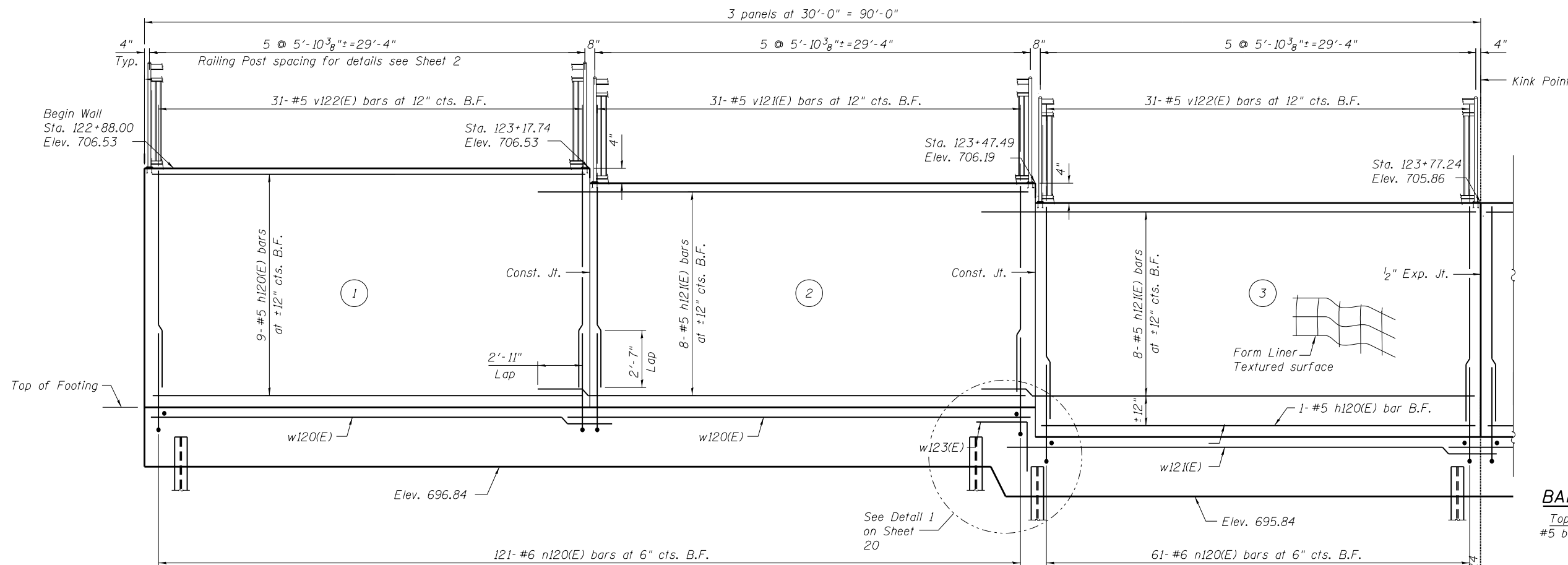
LEGEND

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

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 and Sheet 20
 Quantities, Reinforcement List and Sections shown on Sheet 20.

100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
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FILE NAME = D160F05-SHT-Wall.12-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. RTE. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 570		
	PLOT SCALE = 33.3333' / in.	CHECKED -	REVISED -			SHEET NO. 15 OF 41 SHEETS		CONTRACT NO. 60F05				
	PLOT DATE = 3/12/2013	DRAWN -	REVISED -			ILLINOIS FED. AID PROJECT						
		CHECKED -	REVISED -									



ELEVATION

(Looking west at F.F. of wall)

LEGEND

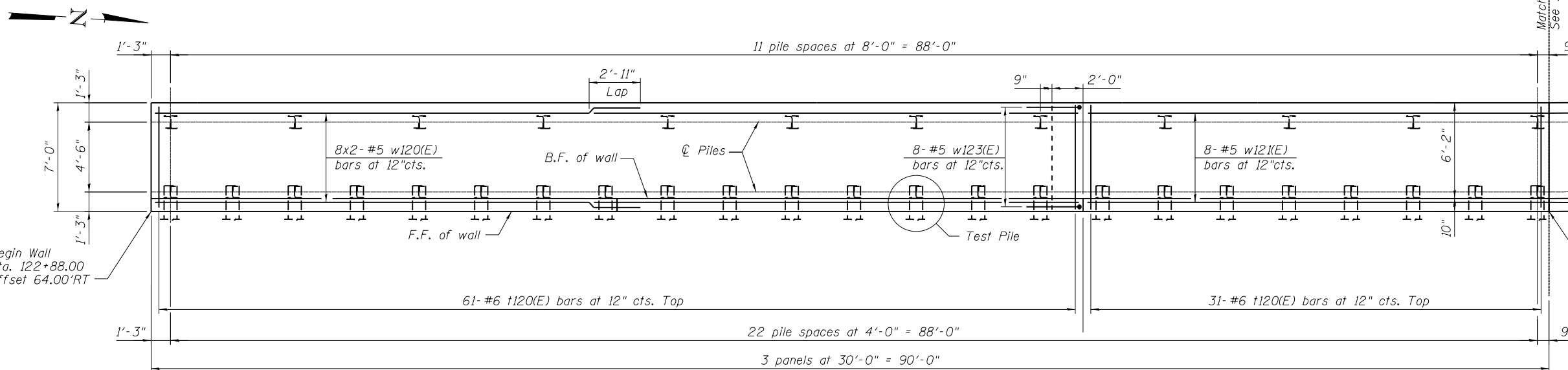
- ① - Panel No.
- ⊕ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face
- I - vertical pile
- ⊞ - battered pile

BAR LAPS

Top Bars #5 bars = 2'-11" Other Bars #5 bars = 2'-7"

NOTES

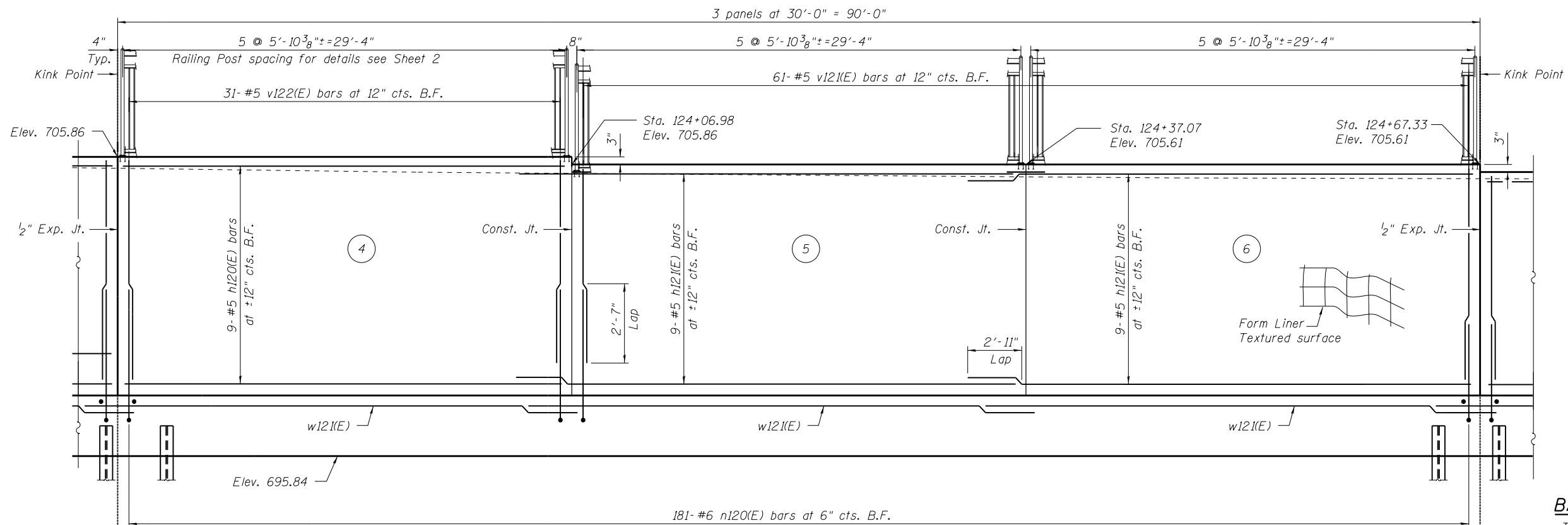
- Wall stations, offsets and dimensions are measured at front face of wall.
- All exposed corners shall have a 1" chamfer.
- For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
- For Typical Wall Details and Ornamental Railing see Sheet 2 and 20.
- Quantities and Reinforcement List and Sections shown on Sheet 20.
- Bars indicated thus 1x3-#5 etc. indicates 1 line of bars with 3 lengths per line.
- For Pile Data see Sheet 20.



PLAN

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

FILE NAME = D160F05-SHT-Wall.12-2.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 8:8.0000 '1' / in.	CHECKED -	REVISED -			330	103R-3	COOK	932	571	
	PLOT DATE = 3/12/2013	DRAWN -	REVISED -			CONTRACT NO. 60F05					
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					



ELEVATION

LEGEND

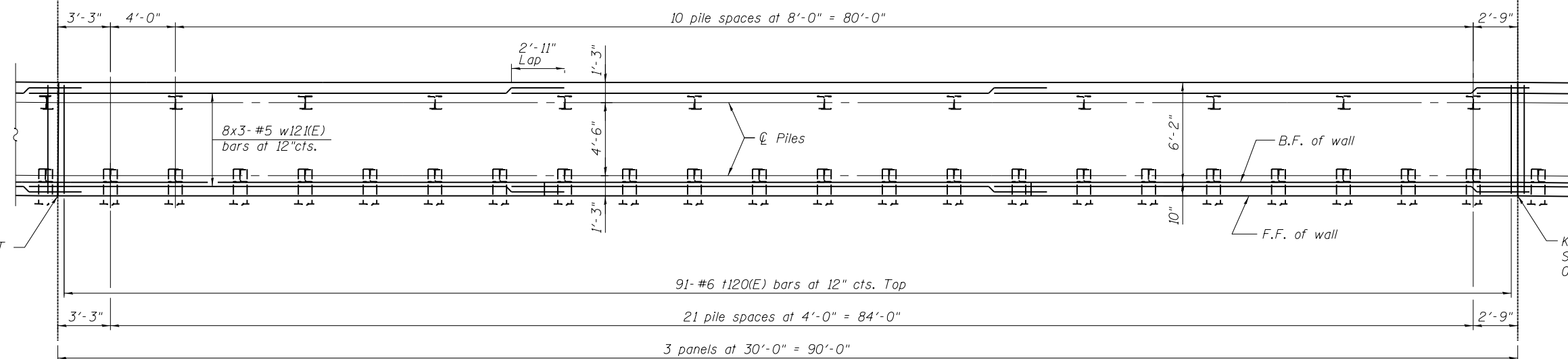
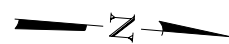
- ① - Panel No.
- ◆ - Soil Boring
- F.F. - Front Face
- B.F. - Back Face
- E.F. - Each Face
- I - vertical pile
- ⊥ - battered pile

BAR LAPS

- Top Bars #5 bars = 2'-11"
- Other Bars #5 bars = 2'-7"

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 and 20.
- Quantities and Reinforcement List and Sections shown on Sheet 20.
- Bars indicated thus 1x3- #5 etc. indicates 1 line of bars with 3 lengths per line.
- For Pile Data see Sheet 20.



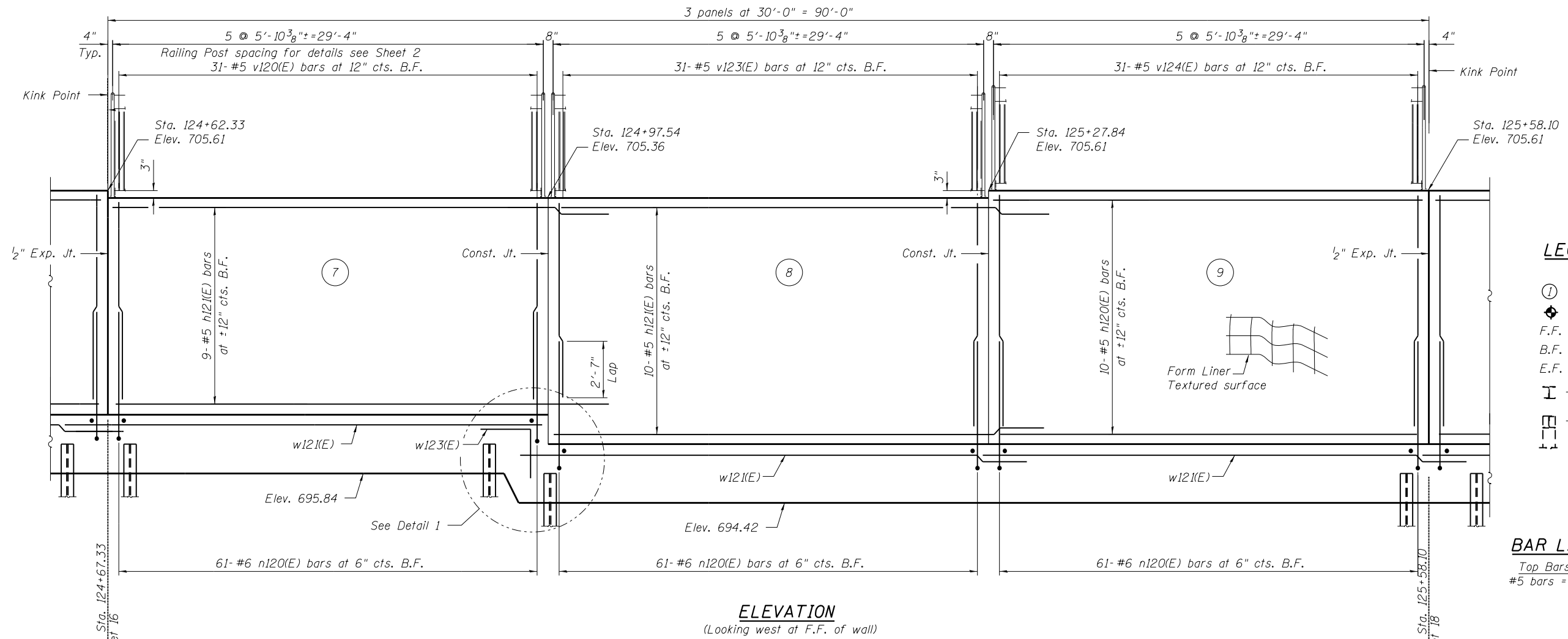
PLAN

LEGEND:

- I - vertical pile
- ⊥ - battered pile

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

FILE NAME = D:\160F05-SHT-Wall.12-3.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. R.T.E. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 572	
	PLOT SCALE = 8:8,0000 '1' / in.	DRAWN -	REVISED -			SHEET NO. 17 OF 41 SHEETS		CONTRACT NO. 60F05		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 3/12/2013	CHECKED -	REVISED -								
41											

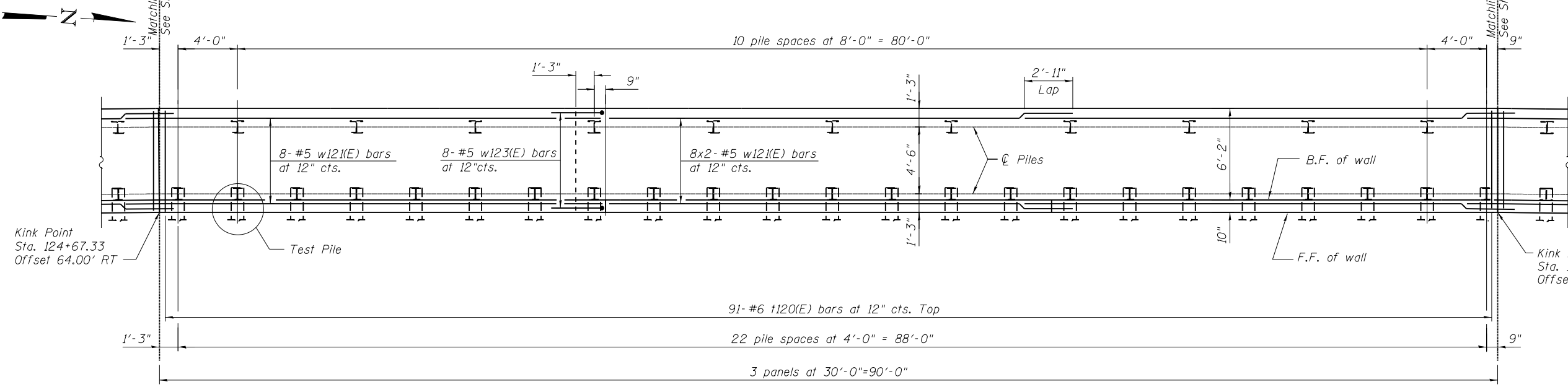


ELEVATION
(Looking west at F.F. of wall)

- LEGEND**
- ① - Panel No.
 - ⊕ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face
 - I - vertical pile
 - ⊥ - battered pile

- BAR LAPS**
- Top Bars #5 bars = 2'-11"
 - Other Bars #5 bars = 2'-7"

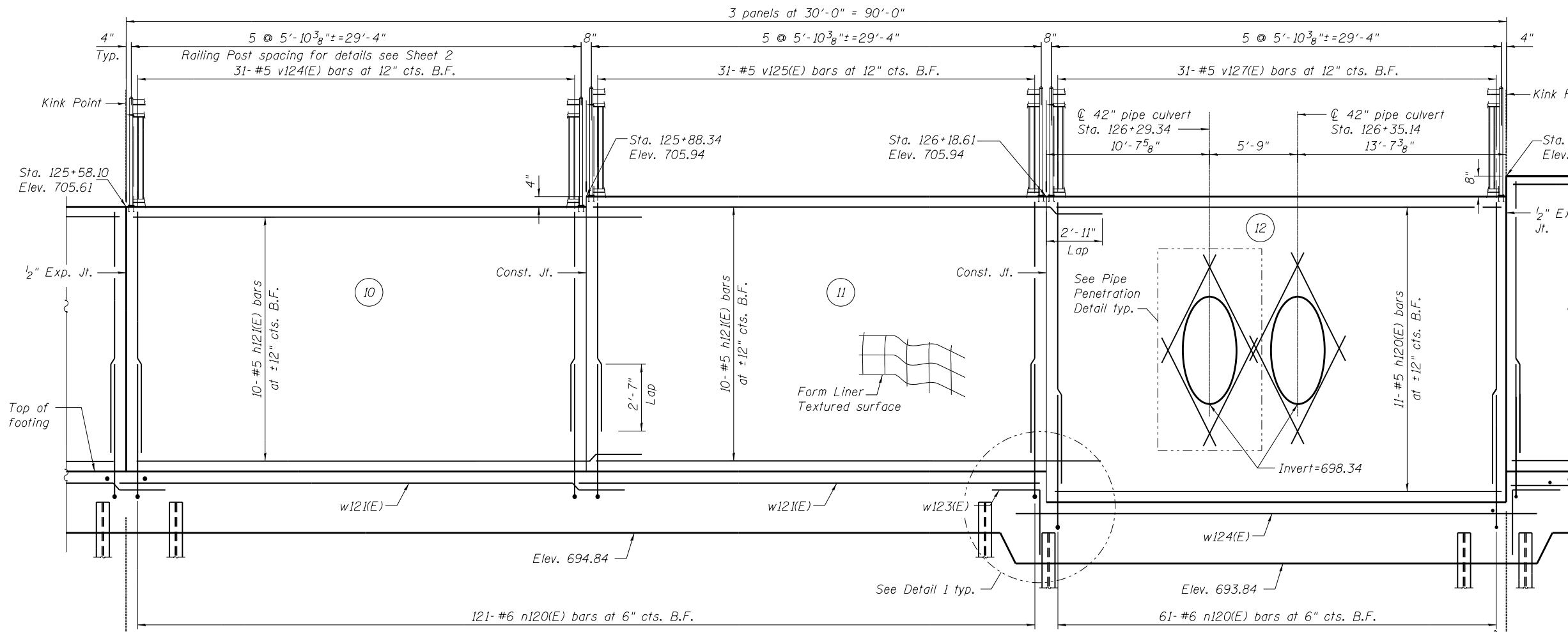
- NOTES**
- Wall stations, offsets and dimensions are measured at front face of wall.
 - All exposed corners shall have a 1" chamfer.
 - For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 - For Typical Wall Details and Ornamental Railing see Sheet 2 and 20.
 - Quantities and Reinforcement List and Sections shown on Sheet 20.
 - Bars indicated thus 1x3-#5 etc. indicates 1 line of bars with 3 lengths per line.
 - For Pile Data see Sheet 20.



PLAN

100 S. WACKER DR.
 5TH FLOOR
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D160F05-SHT-Wall.12-4.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 8:8.0000 '1' / in.	CHECKED -	REVISED -			330	103R-3	COOK	932	573
	PLOT DATE = 3/12/2013	DRAWN -	REVISED -			CONTRACT NO. 60F05				
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT				

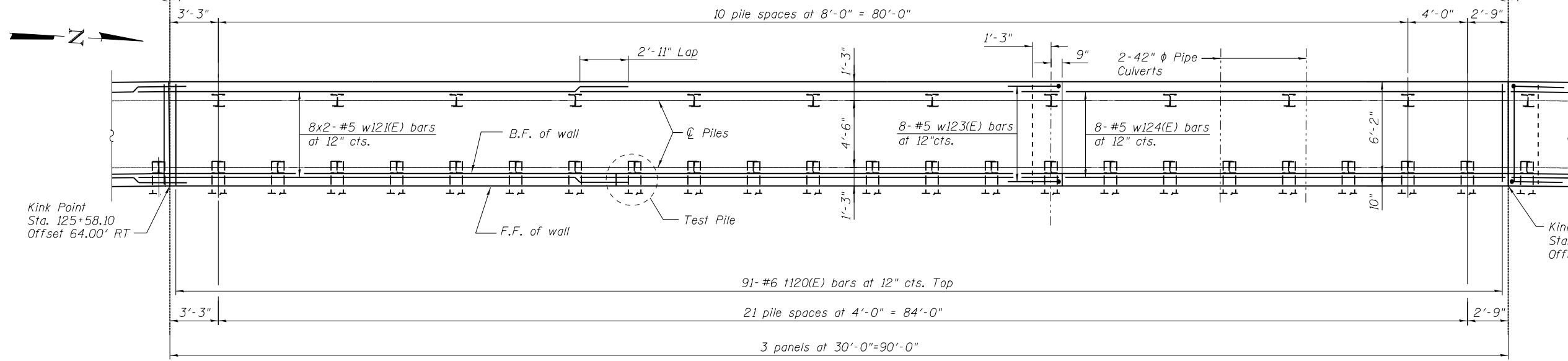


ELEVATION
(Looking west at F.F. of wall)

- LEGEND**
- ⑩ - Panel No.
 - ⊕ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face
 - I - vertical pile
 - I - battered pile

- BAR LAPS**
- Top Bars #5 bars = 2'-11"
 - Other Bars #5 bars = 2'-7"

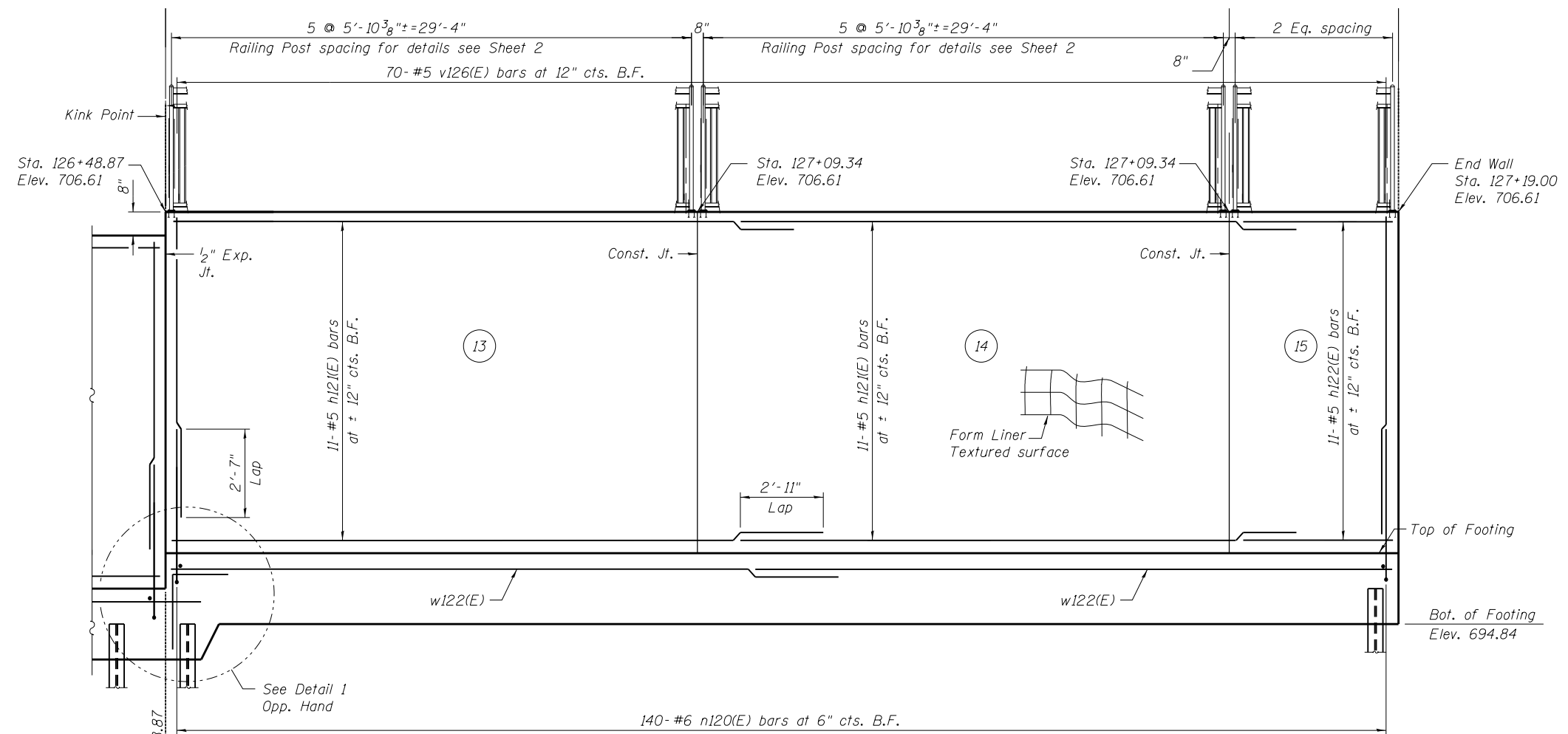
- NOTES**
- Wall stations, offsets and dimensions are measured at front face of wall.
 - All exposed corners shall have a 1" chamfer.
 - For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.
 - For Typical Wall Details and Ornamental Railing see Sheet 2 and 20.
 - Quantities and Reinforcement List and Sections shown on Sheet 20.
 - Bars indicated thus 1x3-#5 etc. indicates 1 line of bars with 3 lengths per line.
 - For Pile Data see Sheet 20.



PLAN

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

FILE NAME = D160F05-SHT-Wall.12-5.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. R.T.E. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 574
	PLOT SCALE = 8:8.0000 '1' / in.	DRAWN -	REVISED -			CONTRACT NO. 60F05				
	PLOT DATE = 3/12/2013	CHECKED -	REVISED -			SHEET NO. 19 OF 41 SHEETS				
						ILLINOIS FED. AID PROJECT				



- LEGEND**
- ① - Panel No.
 - ⊕ - Soil Boring
 - F.F. - Front Face
 - B.F. - Back Face
 - E.F. - Each Face
 - I - vertical pile
 - ⊞ - battered pile

BAR LAPS

Top Bars #5 bars = 2'-11"

Other Bars #5 bars = 2'-7"

NOTES

Wall stations, offsets and dimensions are measured at front face of wall.

All exposed corners shall have a 1" chamfer.

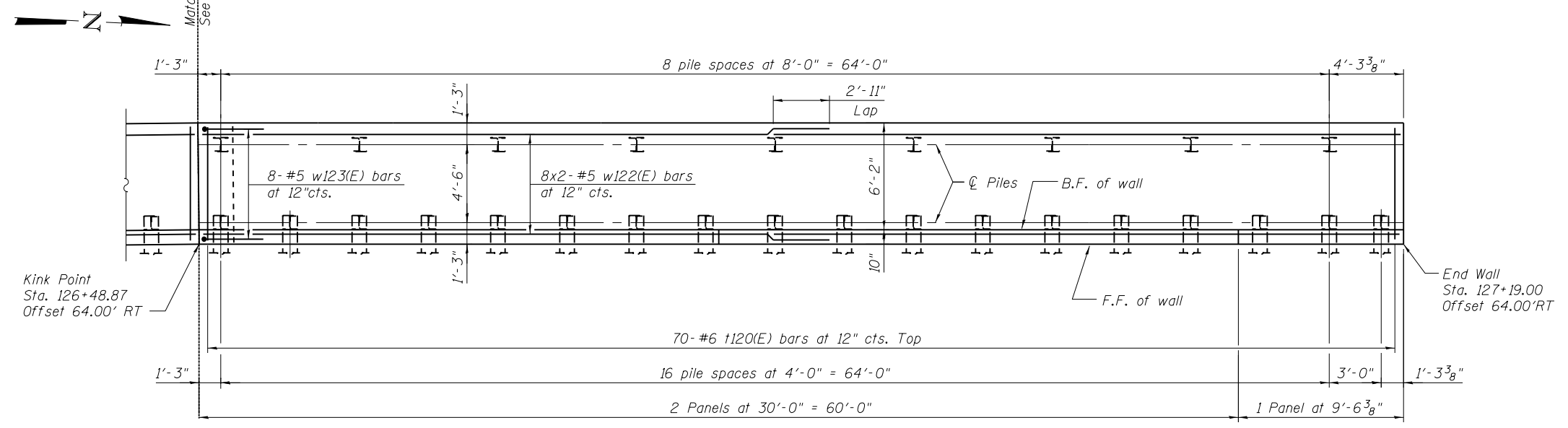
For General Notes, Wall Key Plan and US 45 Profile, see Sheet 1.

For Typical Wall Details and Ornamental Railing see Sheet 2 and 20.

Quantities and Reinforcement List and Sections shown on Sheet 20.

Bars indicated thus 1x3- #5 etc. indicates 1 line of bars with 3 lengths per line.

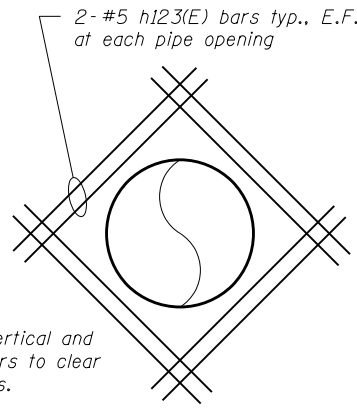
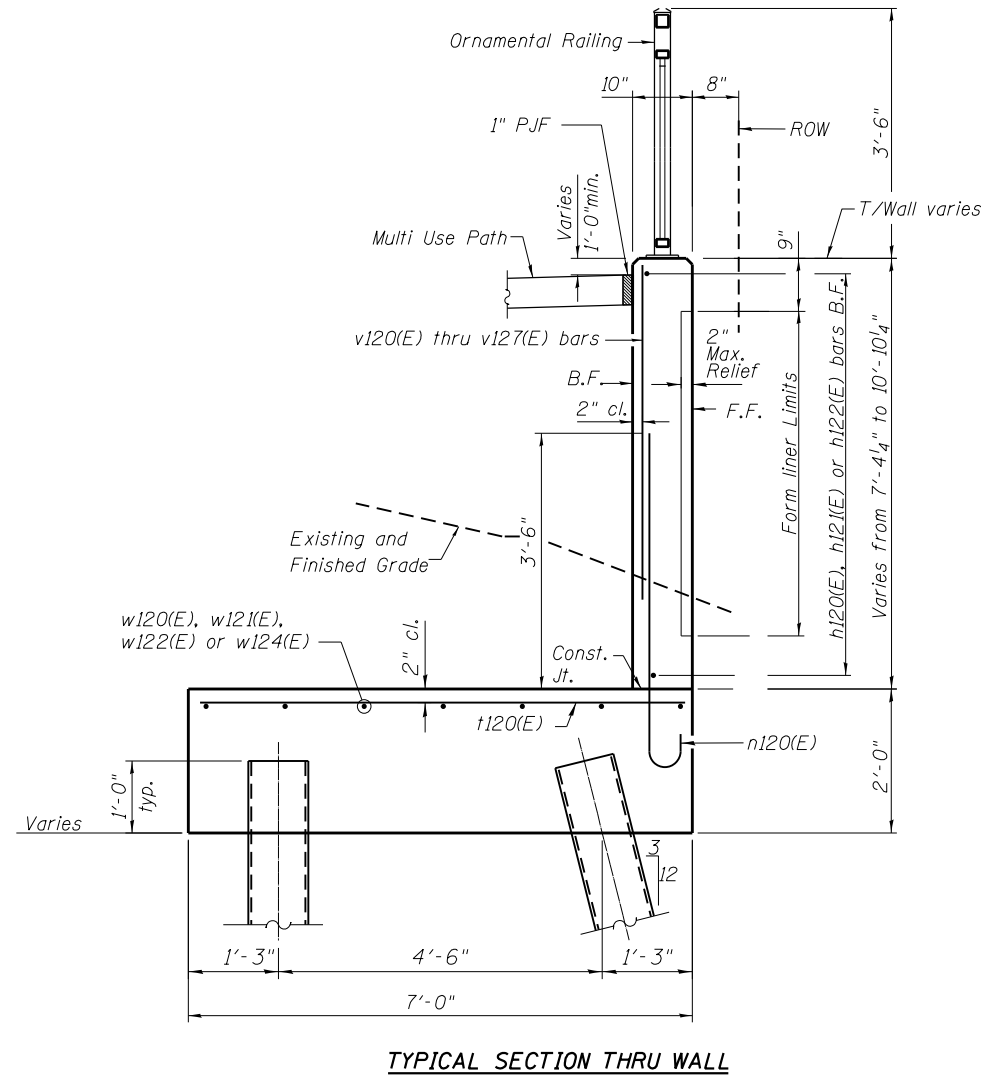
For Pile Data see Sheet 20.



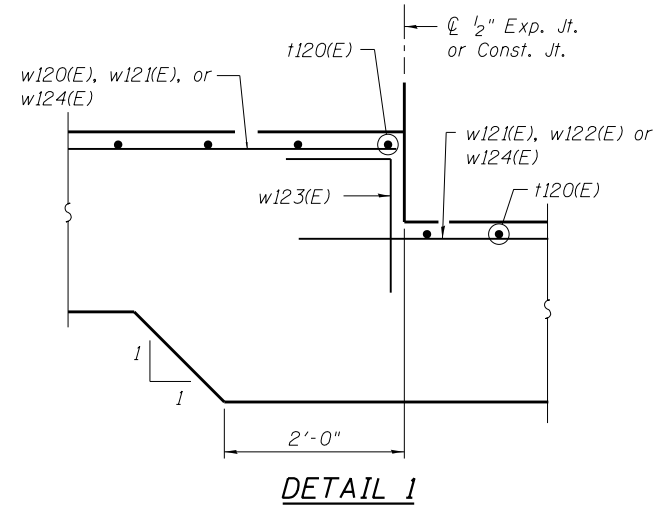
100 S. WACKER DR.
 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998
URS

FILE NAME = D160F05-SHT-Wall.12-6.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL NO. 12 - S.N. 016-2026 STA. 122 + 88.00 TO 127 + 19.00	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 8:8.0000 '1' / in.	CHECKED -	REVISED -			330	103R-3	COOK	932	575
	PLOT DATE = 3/12/2013	DRAWN -	REVISED -			CONTRACT NO. 60F05				
		CHECKED -	REVISED -			SHEET NO. 20 OF 41 SHEETS				

ILLINOIS FED. AID PROJECT



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



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h120(E)	40	#5	29'-8"	
h121(E)	95	#5	33'-1"	
h122(E)	11	#5	9'-2"	
h123(E)	32	#5	3'-8"	
n120(E)	868	#6	5'-11"	
v120(E)	31	#5	6'-9"	
v121(E)	92	#5	6'-10"	
v122(E)	43	#5	7'-2"	
v123(E)	31	#5	7'-6"	
v124(E)	62	#5	7'-9"	
v125(E)	31	#5	8'-2"	
v126(E)	70	#5	8'-9"	
v127(E)	31	#5	9'-2"	
t120(E)	435	#6	7'-8"	
w120(E)	16	#5	31'-6"	
w121(E)	72	#5	32'-4"	
w122(E)	16	#5	36'-1"	
w123(E)	32	#5	4'-8"	
w124(E)	8	#5	35'-10"	
Structure Excavation			Cu. Yd.	1,261
Concrete Structures			Cu. Yd.	333.1
Form Liner Textured Surface			Sq. Ft.	1,699
Reinforcement Bars, Epoxy Coated			Pound	24,620
Furnishing Metal Shell Piles 12" x 0.179"			Foot	3,392
Driving Piles			Foot	3,392
Test Pile Metal Shells			Each	4
Geocomposite Wall Drain			Sq. Yd.	305
Lightweight Cellular Concrete Fill			Cu. Yd.	1,600
Granular Backfill for Structures			Cu. Yd.	407
Ornamental Railing			Foot	430
Pipe Underdrains for Structures 4"			Foot	430

PILE DATA

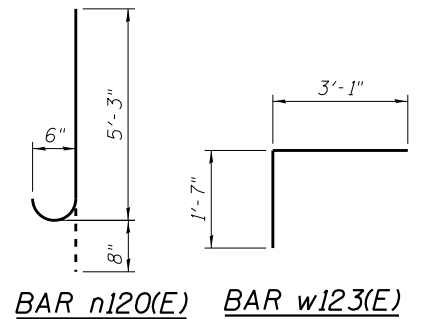
(Sta. 122+88.00 to 123+13.50 and Sta. 125+19.50 to 126+73.50)

Type : 12"φ Metal Shell Piles
Nominal Required Bearing: 120 kips
Allowable Resistance Available: 40 kips
Est. Length: 24 ft
No. Test Piles: 2

PILE DATA

(Sta. 123+13.50 to 125+19.50 and Sta. 126+73.50 to 128+00.00)

Type : 12"φ Metal Shell Piles
Nominal Required Bearing: 120 kips
Allowable Resistance Available: 40 kips
Est. Length: 18 ft
No. Test Piles: 2



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.

FILE NAME = D160F05-SHT-Wall.12-7.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 32.000' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/12/2013	CHECKED -	REVISED -

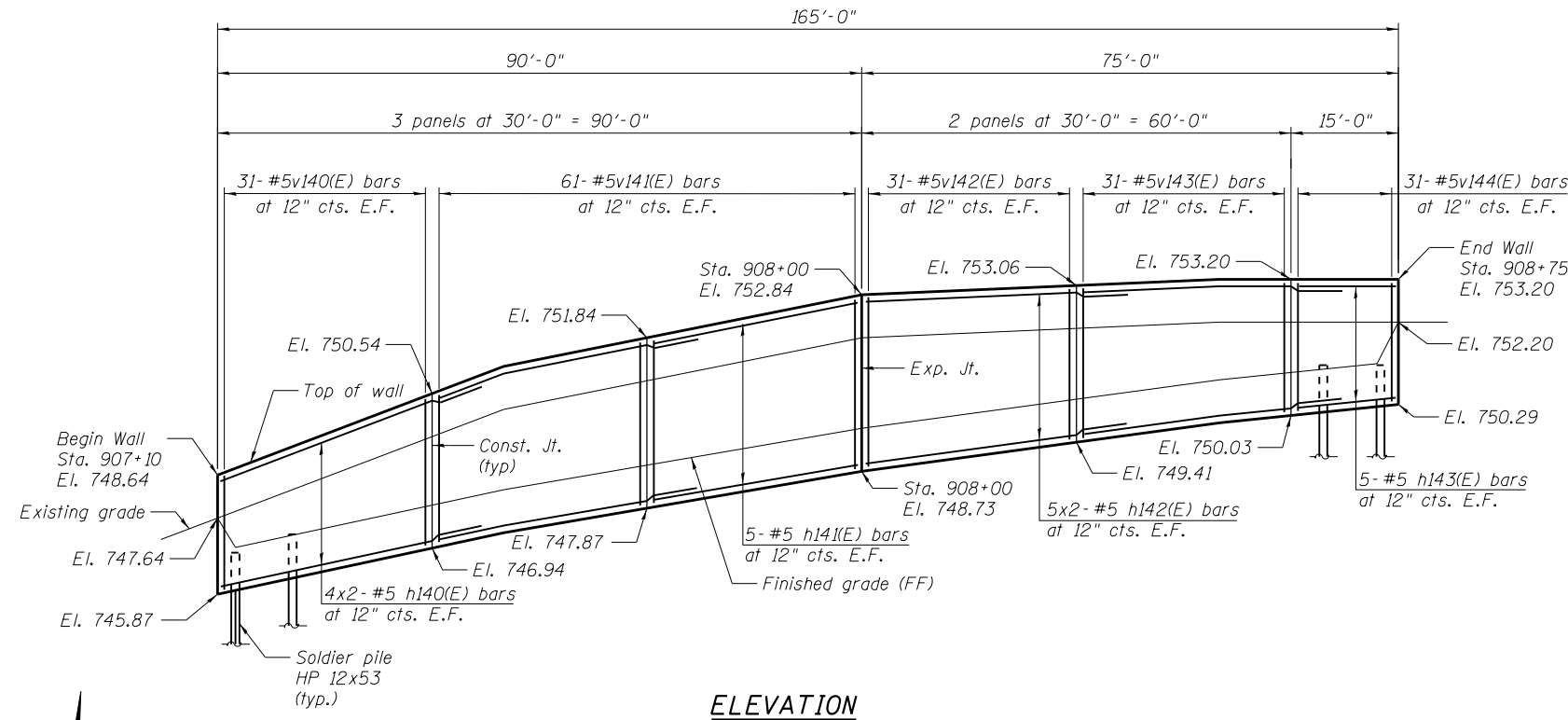
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL NO. 12 - S.N. 016-2026
STA. 122 + 88.00 TO 127 + 19.00**

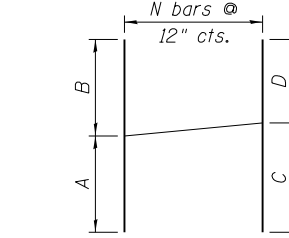
SHEET NO. 21 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	576
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	

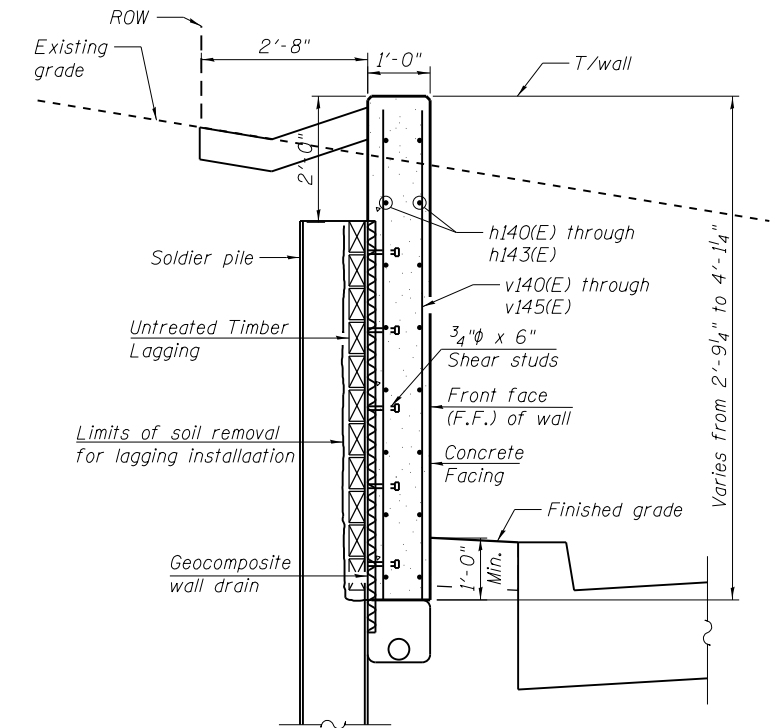
Bar	A	B	C	D	N
v140(E)	2'-10 1/4"	2'-10 1/4"	2'-5 1/2"	3'-3"	16
v142(E)	3'-6 1/2"	3'-6 1/2"	3'-9 1/4"	3'-3 3/4"	16
v143(E)	3'-1"	3'-1"	3'-4"	2'-10"	16



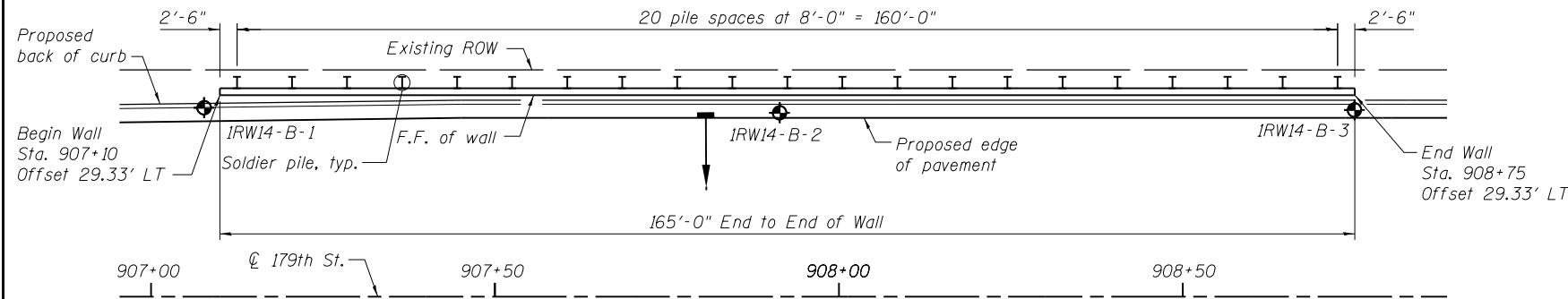
ELEVATION



BAR CUTTING DIAGRAM



SECTION THRU DRIVEN SOLDIER PILE WALL



PLAN

SOLDIER PILE SCHEDULE

Pile	Size	Top Elev.	Bot. Elev.	Length	Studs
P1	W12x53	747.80	732.96	14.84	4
P2	W12x53	748.31	733.24	15.06	6
P3	W12x53	748.81	733.53	15.28	6
P4	W12x53	749.32	733.82	15.50	6
P5	W12x53	749.74	734.08	15.66	6
P6	W12x53	750.08	734.33	15.75	6
P7	W12x53	750.43	734.58	15.85	6
P8	W12x53	750.78	734.82	15.95	6
P9	W12x53	751.06	735.06	16.00	8
P10	W12x53	751.32	735.29	16.04	8
P11	W12x53	751.59	735.52	16.08	8
P12	W12x53	751.84	735.74	16.10	8
P13	W12x53	751.90	735.92	15.98	6
P14	W12x53	751.96	736.10	15.86	6
P15	W12x53	752.02	736.29	15.73	6
P16	W12x53	752.07	736.46	15.61	6
P17	W12x53	752.11	736.63	15.48	6
P18	W12x53	752.15	736.79	15.35	6
P19	W12x53	752.18	736.96	15.23	6
P20	W12x53	752.20	737.11	15.09	6
P21	W12x53	752.20	737.01	15.19	6

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h140(E)	16	#5	33'-8"	—
h141(E)	10	#5	29'-8"	—
h142(E)	20	#5	33'-8"	—
h143(E)	10	#5	14'-8"	—
v140(E)	62	#5	5'-8 1/2"	—
v141(E)	122	#5	3'-7"	—
v142(E)	62	#5	7'-1"	—
v143(E)	62	#5	6'-2"	—
v144(E)	32	#5	2'-8"	—
Structure Excavation		Cu. Yd.		51
Concrete Structures		Cu. Yd.		36.6
Stud Shear Connector		Each		114
Reinforcement Bars, Epoxy Coated		Pound		3500
Geocomposite Wall Drain		Sq. Yd.		24
Driving Soldier Piles		Foot		329
Ornamental Railing		Foot		165
Untreated Timber Lagging		Sq. Ft.		235
Furnishing Soldier Piles (HP Section)		Foot		329

Notes:

1. Wall stations, offsets and dimensions are measured at front face of wall.
 2. All exposed corners shall have a 1" chamfer.
 3. For General Notes, Wall Key Plan and US 45 Profile see Sheet 1.
 4. For Typical Wall Details and Ornamental Railing see Sheet 2.
 5. For storm drain details see drainage drawings.
- The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bearing stress of 1000 psi.

FILE NAME = D:\60F05-SHT-Wall.14-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE = 25.0000' / in.	DRAWN -	REVISED -
	PLOT DATE = 3/12/2013	CHECKED -	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	577
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	

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BORING LOG 1RW10-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 10, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 737.70 ft
 North: 1788298.03 ft
 East: 1116060.18 ft
 Station: 74+81.32
 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 (%)
737.7	Medium stiff, black to brown CLAY to CLAY LOAM, trace organic material	1	1	4.5	0.90	32	737.7	Boring terminated at 30.00 ft	11	4	7	2.54	28
737.7		2	2	0.57	0.57	28	737.7		12	9	8	2.95	24
732.2	Stiff to very stiff, brown to gray SILTY CLAY, trace gravel	3	3	2.62	2.62	22							
		4	4	2.46	2.46	23							
		5	5	NR	NR	NR							
		6	6	2.87	2.87	19							
		7	7	1.64	1.64	21							
		8	8	1.48	1.48	23							
		9	9	1.80	1.80	22							
		10	10	1.80	1.80	21							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-12-2011	Complete Drilling	09-12-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	DRY		
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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BORING LOG 1RW10-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 10, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 737.60 ft
 North: 1788348.15 ft
 East: 1116055.90 ft
 Station: 75+31.56
 Offset: 57.99 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 (%)
737.6	Stiff, black to dark brown CLAY to CLAY LOAM, trace organic material	1	1	1.30	1.30	34	737.6	Medium dense, gray SILT	11	7	14	NP	20
732.1	Very stiff, brown to gray SILTY CLAY, trace gravel	2	2	1.07	1.07	35	732.1	Very stiff, gray SILTY CLAY	12	6	10	2.38	21
721.1	Very stiff, gray SANDY CLAY LOAM	3	3	2.95	2.95	23	721.1	Boring terminated at 30.00 ft					
718.5	Medium dense, gray SANDY LOAM	4	4	3.36	3.36	21							
		5	5	2.46	2.46	23							
		6	6	2.62	2.62	20							
		7	7	2.21	2.21	18							
		8	8	NP	NP	22							
		9	9	NP	NP	21							
		10	10	NP	NP	14							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-12-2011	Complete Drilling	09-12-2011	While Drilling	18.00 ft		
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	23.00 ft		
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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BORING LOG 1RW11-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 11, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 738.00 ft
 North: 1789001.91 ft
 East: 1116039.64 ft
 Station: 81+84.49
 Offset: 64.06 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 (%)
738.0	Hard, brown and gray CLAY LOAM, little to some gravel	1	1	4.50	4.50	19	738.0	Hard, brown and gray CLAY LOAM, little to some gravel	1	5	14	4.50	19
732.5	Stiff, brown and gray CLAY	2	2	1.50	1.50	30	732.5	Stiff, brown and gray CLAY	3	3	5	1.50	30
730.0	Stiff to hard, brown and gray SILTY CLAY, trace gravel	3	3	2.46	2.46	23	730.0	Stiff to hard, brown and gray SILTY CLAY, trace gravel	4	3	5	2.46	23
		4	4	5.90	5.90	19			5	3	8	5.90	19
		5	5	6.40	6.40	20			6	3	10	6.40	20
		6	6	4.50	4.50	19			7	6	7	4.50	19
		7	7	NP	NP	15			8	6	8	NP	15

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-08-2011	Complete Drilling	09-08-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&P	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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

FILE NAME = D:\160F05-SHT-8oring01.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 578
PLOT SCALE = 0:2.00 '1" = 10'	DRAWN - JDK	REVISED -	CONTRACT NO. 60F05							
PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -	ILLINOIS FED. AID PROJECT							
			SHEET NO. 23 OF 41 SHEETS							

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 (%)
708.1	12-inch thick, dark brown SILTY CLAY --TOPSOIL--	0	1	7 9	4.50	20	677.8	Very stiff, gray SILTY CLAY LOAM, trace gravel	0	11	5 8	2.79	12
699.3	Hard, brown CLAY LOAM, little gravel --FILL--	1	2	4 4	3.00	22	673.3	Boring terminated at 30.00 ft	1	12	5 7	2.95	13
697.8	Very stiff, dark brown SILTY CLAY --BURIED TOPSOIL--	2	3	4 4	1.48	25			2				
	Stiff to very stiff, brown and gray SILTY CLAY, trace gravel	3	4	5 3	1.72	22			3				
		4	5	5 3	2.13	15			4				
		5	6	10 8	2.50	15			5				
		6	7	8 10	2.50	15			6				
		7	8	5 8	2.54	18			7				
683.2	Wet SAND	8	9	4 3	1.39	13			8				
682.5	Stiff, gray SILTY CLAY LOAM, trace gravel	9	10	4 5	NP	12			9				
680.3	Medium dense, gray SAND, trace gravel	10							10				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-20-2011	Complete Drilling	09-20-2011	While Drilling	20.50 ft		
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	12.30 ft		
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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 (%)
700.2	Stiff, brown CLAY LOAM, little to some gravel --FILL--	0	1	6 8	1.50	26	677.2	Wet SAND	0	11	7 8	2.62	13
697.5	Very stiff, dark brown SILTY CLAY LOAM --BURIED TOPSOIL--	1	2	4 4	2.50	28	673.2	Boring terminated at 30.00 ft	1	12	6 9	2.21	13
	Medium stiff to hard, brown and gray SILTY CLAY, trace gravel	2	3	2 2	0.50	29			2				
		3	4	2 2	1.39	25			3				
		4	5	7 11	5.49	19			4				
		5	6	4 8	4.76	16			5				
		6	7	5 7	3.77	13			6				
		7	8	7 7	3.36	18			7				
682.7	Loose, gray SANDY LOAM, little gravel, laminated with silt and clay	8	9	3 3	NP	14			8				
679.4	Very stiff, gray SILTY CLAY LOAM, trace gravel	9	10	3 8	3.20	11			9				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-19-2011	Complete Drilling	09-19-2011	While Drilling	25.50 ft		
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	16.00 ft		
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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 (%)
697.5	Stiff, brown CLAY LOAM, some gravel --FILL--	0	1	7 9	1.25	28	671.5	Boring terminated at 30.00 ft	0	11	4 5	1.23	18
696.0	Medium stiff, dark brown SILTY CLAY LOAM --BURIED TOPSOIL--	1	2	3 3	0.75	31			1	12	4 4	1.23	12
	Soft to medium stiff, brown to gray SILTY CLAY LOAM --L (%)=26, P ₁ (%)=19-- --%Gravel=0.8-- --%Sand=21.6-- --%Silt=56.9-- --A-4 (4)--	2	3	2 2	0.82	29			2				
		3	4	2 2	0.41	26			3				
		4	5	2 4	1.97	22			4				
		5	6	4 4	2.30	20			5				
		6	7	3 4	1.56	22			6				
682.5	Loose, gray SANDY LOAM	7	8	3 4	NP	15			7				
681.0	Stiff to very stiff, gray SILTY CLAY, trace gravel	8	9	3 3	1.72	22			8				
		9	10	4 6	2.30	22			9				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-19-2011	Complete Drilling	09-19-2011	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		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		

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

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 (%)
695.9	Medium stiff to stiff, dark brown SILTY CLAY LOAM --TOPSOIL--	1	7	4 4 4	0.75	29	675.9	Wet SAND	11	7	4 4 4	3.03	20
695.9	Soft, gray organic SILTY CLAY --L _t (%)=62, P _t (%)=23-- --%Gravel=0.6-- --%Sand=2.5-- --%Silt=54.4-- --%Clay=52.4-- --A-7-6 (43)--	2	8	5 5 5	1.64	35	671.4	Very stiff, gray SILTY CLAY, trace gravel	12	8	5 5 5	2.05	22
688.4	Medium stiff to very stiff, gray SILTY CLAY, trace gravel	3	9	6 6 6	0.25	56	Boring terminated at 30.00 ft						
		4	10	1 1 1	0.25	66							
		5	11	2 2 2	0.49	23							
		6	12	3 3 3	0.74	21							
		7	13	4 4 4	3.03	88							
		8	14	5 5 5	3.44	20							
		9	15	6 6 6	3.03	19							
		10	16	4 4 4	3.20	18							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-19-2011	Complete Drilling	09-19-2011	While Drilling	25.50 ft		
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	13.00 ft		
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion...			Depth to Water	NA		

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 (%)
696.8	Loose, brown SILTY LOAM, some gravel --FILL--	1	4	4 4 4	NP	25	670.8	Wet SAND	11	4	4 4 4	2.30	19
696.8	Stiff, dark brown SILTY CLAY --BURIED TOPSOIL--	2	5	3 3 3	1.48	43	670.8	Boring terminated at 30.00 ft	12	5	7 7 10	2.35	13
695.3	Very soft, brown and gray SILTY CLAY, organic traces	3	1	1 1 2	0.25	41							
		4	1	1 1 2	0.25	23							
690.3	Stiff to very stiff, SILTY CLAY, trace gravel	5	6	6 6 6	1.80	22							
		6	7	5 5 3	2.62	21							
685.3	Wet SAND	7	6	6 6 7	3.44	20							
685.3	Very stiff to hard, gray SILTY CLAY LOAM, trace gravel	8	4	4 5 9	2.62	19							
		9	7	8 8 11	5.08	17							
		10	5	5 8 10	4.51	18							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-20-2011	Complete Drilling	09-20-2011	While Drilling	15.50 ft		
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	DRY		
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion...			Depth to Water	NA		

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Note:
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BORING LOG 1RW14-B-2

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 14, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 750.70 ft
 North: 178442.23 ft
 East: 1115688.49 ft
 Station: 6C7+01.37
 Offset: 26.75 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
749.7	12-inch thick brown SILTY LOAM												
	Stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel												
		4.50	1	7 11	4.50	14							
		4.92	2	8 13	4.92	17							
		4.50	3	6 11	4.50	17							
		4.84	4	4 7	4.84	17							
		5.90	5	1 3	5.90	13							
		1.97	6	1 3	1.97	19							
		1.64	7	3 4	1.64	16							
		2.38	8	3 4	2.38	15							
730.7	Boring terminated at 20.00 ft												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-07-2011	Complete Drilling	09-07-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&P	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.			

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

FILE NAME = D160F05-SHT-Boring05.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISD -			330	103R-3	COOK	932	582	
		PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK			CONTRACT NO. 60F05					
		PLOT DATE = 3/12/2013	CHECKED - JCE			SHEET NO. 27 OF 41 SHEETS		ILLINOIS FED. AID PROJECT			



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BORING LOG 1RW1-B-2

Page 1 of 1

WEI Job No.: 201-40-01

Client: **McDonough Associates Inc.**
Project: **US 45, Segment 1**
Location: **Ret. Wall 1, Cook Co., T36N, R12E**

Datum: NGVD
Elevation: 749.90 ft
North: 1784661.18 ft
East: 1116143.44 ft
Station: 38+49.73
Offset: 64.97 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
749.4	6-inch thick dark brown SILTY CLAY --TOPSOIL-- Hard, brown and gray CLAY LOAM, little gravel	0-5	1	5 5 5	4.50	17							
748.9	--FILL-- Hard, brown and gray SILTY CLAY	5-10	2	8 8 10	7.87	20							
744.4	Hard, brown and gray CLAY --L _c (%)=53, P _c (%)=22-- --%Gravel=0.3-- --%Sand=1.7-- --%Silt=37.2-- --%Clay=60.7-- --A-7-6 (34)--	10-11	3	8 10 11	5.41	23							
741.9	Hard, brown and gray SILTY CLAY	11-12	4	5 8 12	8.12	20							
		12-15	5	4 6 10	5.08	19							
		15-20	6	4 6 8	5.25	20							
734.8	Boring terminated at 15.00 ft												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-08-2011	Complete Drilling	09-08-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&P	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Time After Drilling	NA		
				Depth to Water	NA		

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

FILE NAME = D160F05-SHT-Boring05.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISD -			330	103R-3	COOK	932	583	
	PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISD -			CONTRACT NO. 60F05					
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISD -			SHEET NO. 28 OF 41 SHEETS					

ILLINOIS FED. AID PROJECT

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BORING LOG 1RW2-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 2, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 735.70 ft
 North: 1789299.10 ft
 East: 1116033.49 ft
 Station: 84+82.69
 Offset: 68.02 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 (%)
735.2	6-inch thick ASPHALT	0					735.2		0				
735.2	--PAVEMENT--	0					735.2		0				
733.7	6-inch thick CRUSHED STONE	1	1	4	3.00	24	733.7		1	1	4	3.00	24
733.7	--BASE COURSE--	1					733.7		1				
732.7	Very stiff, brown SILTY CLAY, trace plant material	2	2	5	3.36	23	732.7		2	2	5	3.36	23
732.7	--BURIED TOPSOIL--	2					732.7		2				
732.7	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	3	3	4	6.15	19	732.7		3	3	4	6.15	19
732.7		4	4	7	7.54	18	732.7		4	4	7	7.54	18
732.7		5	5	7	7.71	19	732.7		5	5	7	7.71	19
732.7		6	6	5	4.02	20	732.7		6	6	5	4.02	20
732.7		7	7	3	4.10	22	732.7		7	7	3	4.10	22
732.7		8	8	3	2.46	21	732.7		8	8	3	2.46	21
715.7	Boring terminated at 20.00 ft	20					715.7		20				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-09-2011	Complete Drilling	09-09-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▼	DRY	
Driller	R&P	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	

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BORING LOG 1RW3-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 3, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 736.00 ft
 North: 1789445.79 ft
 East: 1116042.41 ft
 Station: 86+28.99
 Offset: 81.97 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 (%)
736.0	74-inch thick ASPHALT	0					736.0		0				
736.0	--PAVEMENT--	0					736.0		0				
735.0	7-inch thick CRUSHED STONE	1	1	4	4.51	12	735.0		1	1	4	4.51	12
735.0	--BASE COURSE--	1					735.0		1				
733.0	Hard, brown CLAY LOAM, some gravel	2	2	5	3.94	21	733.0		2	2	5	3.94	21
733.0	--FILL--	2					733.0		2				
733.0	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	3	3	5	4.26	18	733.0		3	3	5	4.26	18
733.0		4	4	5	7.30	19	733.0		4	4	5	7.30	19
733.0		5	5	5	7.54	19	733.0		5	5	5	7.54	19
733.0		6	6	3	NR		733.0		6	6	3	NR	
733.0		7	7	4	3.69	21	733.0		7	7	4	3.69	21
733.0		8	8	3	3.53	21	733.0		8	8	3	3.53	21
716.0	Boring terminated at 20.00 ft	20					716.0		20				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-09-2011	Complete Drilling	09-09-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▼	DRY	
Driller	R&P	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	

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BORING LOG 1RW3-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 3, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 733.00 ft
 North: 1789533.14 ft
 East: 1116032.35 ft
 Station: 87+16.63
 Offset: 74.90 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 (%)
733.0	43-inch thick ASPHALT	0					733.0		0				
733.0	--PAVEMENT--	0					733.0		0				
732.0	8-inch thick CRUSHED STONE	1	1	3	0.75	24	732.0		1	1	3	0.75	24
732.0	--BASE COURSE--	1					732.0		1				
730.0	Medium stiff, brown CLAY LOAM, some gravel	2	2	2	0.98	31	730.0		2	2	2	0.98	31
730.0	--FILL--	2					730.0		2				
730.0	Medium stiff to hard, brown and gray SILTY CLAY, trace gravel	3	3	6	5.17	20	730.0		3	3	6	5.17	20
730.0	--L(%)=40, P _L (%)=18--	3					730.0		3				
730.0	--%Gravel=0.6--	3					730.0		3				
730.0	--%Sand=10.2--	3					730.0		3				
730.0	--%Silt=50.6--	3					730.0		3				
730.0	--%Clay=38.6--	3					730.0		3				
730.0	--A-6 (20)--	3					730.0		3				
730.0		4	4	5	5.00	20	730.0		4	4	5	5.00	20
730.0		5	5	5	4.43	19	730.0		5	5	5	4.43	19
730.0		6	6	4	4.02	22	730.0		6	6	4	4.02	22
730.0		7	7	4	2.62	20	730.0		7	7	4	2.62	20
730.0		8	8	3	2.38	21	730.0		8	8	3	2.38	21
713.0	Boring terminated at 20.00 ft	20					713.0		20				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-09-2011	Complete Drilling	09-09-2011	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▼	DRY	
Driller	R&P	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	

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

FILE NAME = D:\160F05-SHT-Boring07.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE. = 330	SECTION = 103R-3	COUNTY = COOK	TOTAL SHEETS = 932	SHEET NO. = 584
PLOT SCALE = 0:2.00' = 1" / 16'	DRAWN - JDK	REVISED -	CONTRACT NO. 60F05							
PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -	ILLINOIS FED. AID PROJECT							
SHEET NO. 29 OF 41 SHEETS										

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BORING LOG 1RW3-B-3 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 3, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 733.30 ft
 North: 1789607.13 ft
 East: 1116037.57 ft
 Station: 87+90.40
 Offset: 82.65 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 (%)
732.9	5-inch thick ASPHALT --PAVEMENT--	0											
732.9	7-inch thick CRUSHED STONE --BASE COURSE--	0.5	1	3	3.25	19							
732.9	4-inch thick, very stiff, brown CLAY LOAM (3.25 P)	1.5	2	5	8.20	18							
732.9	Very stiff to hard, brown and gray SILTY CLAY, trace to some gravel	5	3	5	6.40	18							
		10	4	5	4.59	20							
		15	5	4	5.66	20							
		20	6	5	4.18	20							
		25	7	5	NR								
		20	8	5	3.25	21							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-09-2011	Complete Drilling	09-09-2011	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&P	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	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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BORING LOG 1RW4-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 4, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 730.90 ft
 North: 1789798.13 ft
 East: 1116025.75 ft
 Station: 89+81.72
 Offset: 77.33 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 (%)
730.6	6-inch thick, brown SILTY CLAY --TOPSOIL--	0											
730.6	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	5	1	7	4.50	18							
		10	2	8	8.28	22							
		15	3	8	8.20	19							
		20	4	5	4.50	18							
		25	5	7	5.82	20							
		30	6	4	5.49	22							
		35	7	5	2.62	21							
		40	8	5	3.12	21							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011	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	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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BORING LOG 1RW4-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 4, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 728.00 ft
 North: 1789853.96 ft
 East: 1116023.08 ft
 Station: 90+37.61
 Offset: 76.56 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 (%)
727.7	4-inch thick, dark brown SILTY CLAY --TOPSOIL--	0											
727.7	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	5	1	5	4.50	15							
		10	2	8	4.50	16							
		15	3	8	4.84	19							
		20	4	5	5.66	18							
		25	5	5	5.74	20							
		30	6	5	3.12	18							
		35	7	5	2.54	21							
		40	8	4	3.28	21							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011	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	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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URS

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

FILE NAME = D:\160F05-SHT-Boring08.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 585
	PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISED -			CONTRACT NO. 60F05				
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT				
						SHEET NO. 30 OF 41 SHEETS				

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BORING LOG 1RW4-B-3 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 4, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 726.70 ft
 North: 1789920.15 ft
 East: 1116022.95 ft
 Station: 91+03.77
 Offset: 78.66 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 (%)
726.35	5-inch thick, dark brown SILTY CLAY --TOPSOIL-- Very stiff to hard, brown and gray SILTY CLAY, trace gravel	0	1	5 6 5	4.51 S	17							
		5	2	4 4 3	2.50 P	23							
		10	3	5 8 11	6.07 S	18							
		15	4	4 8 11	5.41 S	18							
		20	5	4 8 11	4.10 S	21							
		25	6	4 8 10	3.69 S	19							
		30	7	4 8 8	3.03 S	20							
		35	8	3 8 8	2.79 S	21							

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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

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BORING LOG 1RW4-B-4 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 4, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 727.00 ft
 North: 1789979.53 ft
 East: 1116020.01 ft
 Station: 91+63.21
 Offset: 77.73 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 (%)
726.74	4-inch thick, brown SILTY CLAY --TOPSOIL-- Stiff to hard, brown and gray CLAY	0	1	6 11 10	4.50 P	15							
		5	2	4 5 8	1.23 S	19							
		10	3	8 11 13	8.28 B	19							
		15	4	6 9 11	5.00 S	21							
		20	5	4 7 8	3.36 B	20							
		25	6	3 4 6	3.12 B	19							
		30	7	4 8 8	2.30 B	21							
		35	8	4 8 7	3.12 B	21							

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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

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BORING LOG 1RW4-B-5 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 4, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 727.70 ft
 North: 1790044.76 ft
 East: 1116018.22 ft
 Station: 92+28.46
 Offset: 78.16 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 (%)
727.44	4-inch thick, brown SILTY CLAY --TOPSOIL-- Very stiff to hard, brown to gray SILTY CLAY, trace gravel	0	1	7 10 13	4.50 P	14							
		5	2	7 8 11	8.12 S	17							
		10	3	11 10 14	7.54 B	18							
		15	4	4 8 10	6.64 B	18							
		20	5	5 8 9	3.77 B	19							
		25	6	4 8 6	3.61 B	20							
		30	7	3 8 8	2.95 B	20							
		35	8	3 8 8	3.28 B	21							

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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

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

FILE NAME = D:\160F05-SHT-Boring09.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 586
PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISED -	CONTRACT NO. 60F05							
PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -	ILLINOIS FED. AID PROJECT							
						SHEET NO. 31 OF 41 SHEETS				

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BORING LOG 1RW5-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 719.50 ft
 North: 1790645.05 ft
 East: 1115999.95 ft
 Station: 96+29.03
 Offset: 80.21 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 (%)
719.5	15-inch thick, brown SILTY CLAY --TOPSOIL-- Hard, brown and gray SILTY CLAY, trace gray	0-15	1	9 10 12	4.50	18	689.5		0-15	11	6 8 8	2.87	19
		15-20	2	6 7 9	6.23	18			15-20	12	6 9 9	2.46	20
		20-25	3	6 8 12	5.66	17			20-25	3	1 4 7	4.51	20
711.5	Medium dense, brown LOAM, trace gravel	25-30	4	4 4 7	NP	17			25-30	4	5 7 10	5.08	19
709.0	Very stiff, gray SILTY CLAY, trace gravel	30-35	5	4 6 8	3.69	18			30-35	5	7 10 11	4.84	18
		35-40	6	6 8 10	3.61	19			35-40	6	3 8 10	5.74	15
		40-45	7	6 8 10	2.54	22			40-45	7	3 7 9	3.77	19
		45-50	8	6 8 10	2.95	20			45-50	8	6 9 9	2.95	20
		50-55	9	6 8 10	2.46	21			50-55	9	4 7 10	3.28	22
		55-60	10	5 7 10	2.95	20			55-60	10	3 8 9	4.02	21

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-13-2011	Complete Drilling	09-13-2011	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	

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BORING LOG 1RW5-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 717.50 ft
 North: 1790721.91 ft
 East: 1115996.03 ft
 Station: 99+05.98
 Offset: 78.89 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 (%)
692.0	15-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Stiff to hard, brown and gray SILTY CLAY, trace gravel	0-15	1	7 7 7	3.50	21	687.5		0-15	11	6 8 8	2.30	15
		15-20	2	4 3 3	1.25	23			15-20	12	5 7 12	3.20	12
		20-25	3	1 4 7	4.51	20			20-25	3	4 5 7	3.61	19
		25-30	4	5 7 10	5.08	19			25-30	4	4 5 8	4.18	19
		30-35	5	7 10 11	4.84	18			30-35	5	4 5 8	1.56	19
		35-40	6	3 8 10	5.74	15			35-40	6	6 7 8	3.61	20
		40-45	7	3 7 9	3.77	19			40-45	7	4 7 10	3.77	19
		45-50	8	6 9 9	2.95	20			45-50	8	3 8 9	3.69	23
		50-55	9	4 7 10	3.28	22			50-55	9	3 8 9	2.89	20
		55-60	10	3 8 9	4.02	21			55-60	10	3 8 9	2.89	20

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-14-2011	Complete Drilling	09-14-2011	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	

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BORING LOG 1RW5-B-3 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 716.40 ft
 North: 1790795.08 ft
 East: 1115994.88 ft
 Station: 99+79.15
 Offset: 80.22 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 (%)
690.9	14-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Medium stiff, brown and gray SILTY CLAY	0-11	1	4 5 5	0.50	23	686.4		0-11	11	6 10 11	4.25	13
213.4	Medium stiff, brown and gray CLAY, trace gravel	11-17	2	2 2 3	0.75	26			11-17	12	17 9 13	4.00	13
210.9	Very stiff to hard, brown and gray SILTY CLAY, trace gravel	17-20	3	4 5 7	3.61	19			17-20	3	4 5 8	4.18	19
		20-25	4	4 5 8	4.18	19			20-25	4	4 5 8	1.56	19
		25-30	5	4 5 8	1.56	19			25-30	5	6 7 8	3.61	20
		30-35	6	6 7 8	3.61	20			30-35	6	4 7 10	3.77	19
		35-40	7	4 7 10	3.77	19			35-40	7	3 8 9	3.69	23
		40-45	8	3 8 9	2.89	20			40-45	8	3 8 9	2.89	20
		45-50	9	3 8 9	2.89	20			45-50	9	3 8 9	2.89	20
		50-55	10	3 8 9	2.89	20			50-55	10	3 8 9	2.89	20

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-14-2011	Complete Drilling	09-14-2011	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	

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

FILE NAME = D:\60F05-SHT-BoringLog.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	587	
		PLOT SCALE = 0:2.00 '1" / in.	REVISED -			CONTRACT NO. 60F05					
		PLOT DATE = 3/12/2013	REVISED -			ILLINOIS FED. AID PROJECT					

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BORING LOG 1RW5-B-4 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 715.50 ft
 North: 1790869.92 ft
 East: 1115991.70 ft
 Station: 100+54.04
 Offset: 79.57 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 (%)
715.50	2-4 inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Very stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM, trace gray	1	4	3.00	22		685.5		11	4	2.05	18	
		2	4	4.59	19				12	4	2.30	16	
		3	7	5.33	18								
		4	3	2.62	19								
705.0	Medium dense, gray LOAM, some gravel --L _c (%)=21, P _c (%)=14-- --%Gravel=9.4-- --%Sand=44.4-- --%Silt=37.8-- --%Clay=8.4-- --A-4 (0)	5	3	NP	11								
702.5	Stiff to very stiff, gray SILTY CLAY, trace gravel	6	3	2.05	20								
		7	3	1.97	22								
		8	2	1.56	22								
		9	3	2.30	20								
		10	3	2.79	20								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-14-2011	Complete Drilling	09-14-2011	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		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion.			Time After Drilling	NA		
		Depth to Water	▼	NA			

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BORING LOG 1RW5-B-5 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 714.90 ft
 North: 1790944.29 ft
 East: 1115989.31 ft
 Station: 101+28.46
 Offset: 79.70 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 (%)
709.4	--POND BOTTOM-- Stiff, brown and gray CLAY	1	4	1.64	31		684.9		11	4	2.87	21	
		2	2	1.31	25				12	4	1.79	21	
		3	4	6.07	18								
		4	6	4.92	20								
		5	4	3.20	21								
		6	4	2.57	20								
		7	4	2.30	21								
		8	4	1.56	22								
		9	4	2.87	22								
		10	6	3.36	20								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-15-2011	Complete Drilling	09-15-2011	While Drilling	▼	NA	
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	▼	NA	
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	2.75" Rotary Bit; Boring backfilled upon completion.			Time After Drilling	NA		
		Depth to Water	▼	NA			

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BORING LOG 1RW5-B-6 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 5, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 714.80 ft
 North: 1791019.58 ft
 East: 1115984.64 ft
 Station: 102+03.86
 Offset: 77.58 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 (%)
684.8	--POND BOTTOM-- Stiff to hard, brown and gray SILTY CLAY, trace gravel	1	4	2.05	31		684.8		11	4	2.21	21	
		2	4	3.28	20				12	4	3.36	22	
		3	5	4.18	19								
		4	6	3.61	19								
		5	4	1.75	21								
		6	4	1.64	22								
		7	4	2.13	22								
		8	3	2.30	22								
		9	4	2.46	21								
		10	4	1.72	22								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-15-2011	Complete Drilling	09-15-2011	While Drilling	▼	NA	
Drilling Contractor	WTS	Drill Rig	D-50 TMR	At Completion of Drilling	▼	NA	
Driller	K&K	Logger	B. Wilson	Checked by	C. Marin		
Drilling Method	2.75" Rotary Bit; Boring backfilled upon completion.			Time After Drilling	NA		
		Depth to Water	▼	NA			

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

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D160F05-SHT-BoringLog.dgn		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	588	
	PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISED -			CONTRACT NO. 60F05					
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT					

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BORING LOG 1RW6-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 715.00 ft
 North: 1791310.27 ft
 East: 1115977.72 ft
 Station: 1C4+94.62
 Offset: 80.50 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 (%)
709.5	---POND BOTTOM--- Medium stiff to stiff, brown and gray CLAY	1	1	6 5 5	1.64	25	685.0		11	6 7 8	2.79	21	
		2	2	6 5 5	0.74	33			12	4 5 7	2.54	20	
	Stiff to hard, brown to gray SILTY CLAY, trace gravel	3	3	6 8 11	4.02	20			3	6 8 11	5.08	19	
		4	4	6 9 12	4.67	18			4	6 8 11	6.15	18	
		5	5	6 5 8	2.71	20			5	6 7 9	5.00	18	
		6	6	6 5 8	2.21	21			6	4 5 8	5.00	20	
		7	7	6 3 7	1.97	20			7	4 4 6	2.94	20	
		8	8	6 5 7	2.62	19			8	4 4 6	2.62	20	
		9	9	4 6 7	2.30	21			9	4 5 8	2.54	20	
		10	10	4 6 8	2.13	19			10	5 6 9	2.46	21	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-15-2011	Complete Drilling	09-15-2011	While Drilling	NA	At Completion of Drilling	NA
Drilling Contractor	WTS	Drill Rig	D-50 TMR	Driller	K&K	Logger	B. Wilson
Checked by	C. Marin	Time After Drilling	NA	Depth to Water	NA	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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BORING LOG 1RW6-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 714.90 ft
 North: 1791383.08 ft
 East: 1115975.13 ft
 Station: 105+67.47
 Offset: 70.43 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 (%)
684.9	714-55-inch thick, brown SILTY CLAY LOAM ---TOPSOIL--- Very stiff to hard, brown to gray SILTY CLAY, trace gravel	1	1	4 4 4	2.62	21	684.9		11	6 6 6	2.79	21	
		2	2	4 4 8	5.82	21			12	6 6 9	2.62	19	
		3	3	6 8 11	5.08	19			3	6 8 11	5.08	20	
		4	4	6 8 11	6.15	18			4	6 8 11	6.15	18	
		5	5	6 7 9	5.00	18			5	6 7 9	5.00	18	
		6	6	4 5 8	5.00	20			6	4 5 8	5.00	20	
		7	7	4 4 6	2.94	20			7	4 4 6	2.94	20	
		8	8	4 4 6	2.62	20			8	4 4 6	2.62	20	
		9	9	4 5 8	2.54	20			9	4 5 8	2.54	20	
		10	10	5 6 9	2.46	21			10	5 6 9	2.46	21	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-19-2011	Complete Drilling	09-19-2011	While Drilling	DRY	At Completion of Drilling	DRY
Drilling Contractor	WTS	Drill Rig	D-50 TMR	Driller	K&K	Logger	B. Wilson
Checked by	C. Marin	Time After Drilling	NA	Depth to Water	NA	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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BORING LOG 1RW6-B-3 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 715.40 ft
 North: 1791464.88 ft
 East: 1115972.93 ft
 Station: 106+49.32
 Offset: 80.96 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 (%)
685.4	215-14-inch thick, brown SILTY CLAY LOAM ---TOPSOIL--- Very stiff to hard, brown to gray SILTY CLAY, trace gravel	1	1	6 7 9	NR	21	685.4		11	3 5 5	2.05	20	
		2	2	6 7 10	6.72	19			12	3 3 5	2.46	20	
		3	3	6 9 12	5.08	20			3	6 9 12	5.08	20	
		4	4	4 6 9	4.92	19			4	4 6 9	4.92	19	
		5	5	5 5 9	3.28	19			5	5 5 9	3.28	19	
		6	6	4 6 8	3.20	18			6	4 6 8	3.20	18	
		7	7	4 5 6	2.95	19			7	4 5 6	2.95	19	
		8	8	3 4 7	2.13	20			8	3 4 7	2.13	20	
		9	9	3 4 8	2.54	20			9	3 4 8	2.54	20	
		10	10	3 3 8	3.20	20			10	3 3 8	3.20	20	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-16-2011	Complete Drilling	09-16-2011	While Drilling	DRY	At Completion of Drilling	DRY
Drilling Contractor	WTS	Drill Rig	D-50 TMR	Driller	K&K	Logger	B. Wilson
Checked by	C. Marin	Time After Drilling	NA	Depth to Water	NA	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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

FILE NAME = D:\60F05-SHT-BoringLog2.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	589	
		PLOT SCALE = 0:2.00 '1" / in.	REVISED -			CONTRACT NO. 60F05					
		PLOT DATE = 3/12/2013	REVISED -			ILLINOIS FED. AID PROJECT					

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BORING LOG 1RW6-B-4 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 716.40 ft
 North: 1791543.63 ft
 East: 1115967.15 ft
 Station: 108+28.21
 Offset: 77.84 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 (%)
716.40	2 to 5-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Stiff to hard, brown to gray SILTY CLAY, trace gravel	0	1	7 8 9	4.50	17	686.4		0	11	4 5 7	2.51	21
		5	2	4 4 6	5.17	18			5	12	4 4 7	2.46	22
		10	3	9 11 15	9.51	17			10				
		15	4	6 10 13	8.28	17			15				
		20	5	5 5 11	5.66	18			20				
		25	6	5 5 7	3.85	20			25				
		30	7	5 5 7	2.54	21			30				
		35	8	5 5 7	1.97	21			35				
		40	9	5 5 4	2.13	23			40				
		45	10	5 5 7	2.13	22			45				
		50							50				

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-16-2011	Complete Drilling	09-16-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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

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BORING LOG 1RW6-B-5 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 718.00 ft
 North: 1791626.36 ft
 East: 1115965.75 ft
 Station: 108+10.93
 Offset: 79.24 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 (%)
718.00	2 to 4-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Very stiff to hard, brown to gray SILTY CLAY, trace gravel	0	1	7 7 8	4.50	17	688.0		0	11	4 5 7	2.62	20
		5	2	7 8 8	6.81	2			5	12	4 5 7	2.71	20
		10	3	7 11 16	7.63	19			10				
		15	4	4 6 10	7.71	19			15				
		20	5	5 5 5	5.82	21			20				
		25	6	5 5 5	7.63	23			25				
		30	7	5 5 5	4.43	21			30				
		35	8	5 5 5	2.79	21			35				
		40	9	5 5 5	3.36	21			40				
		45	10	5 5 5	2.87	19			45				
		50							50				

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-16-2011	Complete Drilling	09-16-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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

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BORING LOG 1RW6-B-6 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 6, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 720.10 ft
 North: 1791709.30 ft
 East: 1115964.86 ft
 Station: 108+93.89
 Offset: 81.16 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 (%)
720.10	2 to 9.3-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Hard, brown and gray SILTY CLAY, trace gravel	0	1	6 9 9	4.50	16	694.6		0	11	4 5 7	2.21	16
		5	2	6 6 12	8.61	17	690.1		5	12	4 6 9	2.79	22
		10	3	4 5 5	NP	19			10				
		15	4	4 5 5	NP	18			15				
		20	5	5 5 5	NP	19			20				
		25	6	5 5 5	NP	16			25				
		30	7	5 6 8	NP	14			30				
		35	8	6 6 6	NP	14			35				
		40	9	4 4 5	NP	12			40				
		45	10	5 5 9	NP	11			45				
		50							50				

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-16-2011	Complete Drilling	09-16-2011
Drilling Contractor	WTS	Drill Rig	D-50 TMR
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	8.50 ft

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

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FILE NAME = D:\60F05-SHT-Boring\3.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	590	
		PLOT SCALE = 0:2.00 '1" / in.	REVISED -			CONTRACT NO. 60F05					
		PLOT DATE = 3/12/2013	REVISED -			ILLINOIS FED. AID PROJECT					

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BORING LOG 1RW8-B-1 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 8, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 717.80 ft
 North: 1795557.23 ft
 East: 1115658.46 ft
 Station: 147+50.32
 Offset: 74.94 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 (%)
717.1	746.63-inch thick WOOD CHIPS --FILL-- 6-inch thick, dark brown SILTY CLAY LOAM --TOPSOIL-- Stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel	0	1	4 4 7	2.21	25							
		5	2	3 3 7	2.79	17							
		10	3	7 12 15	8.28	18							
		15	4	7 8 10	5.99	17							
		20	5	7 9 10	6.15	19							
		25	6	3 4 5	1.56	16							
		30	7	3 4 6	1.78	14							
		35	8	4 5 7	1.56	15							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-21-2011	Complete Drilling	09-21-2011	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		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Time After Drilling	NA		
		Depth to Water	NA				

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BORING LOG 1RW8-B-2 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 8, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 715.40 ft
 North: 1795621.66 ft
 East: 1115659.95 ft
 Station: 148+14.66
 Offset: 71.25 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 (%)
714.3	715.05-inch thick ASPHALT --PAVEMENT-- 10-inch thick CRUSHED STONE --BASE COURSE-- Very stiff to hard, brown SILTY CLAY, trace to little gravel --L ₁ (%)=39, P ₁ (%)=19-- --%Gravel=3.5-- --%Sand=10.3-- --%Silt=49.3-- --%Clay=36.8-- --A-7-6 (27)--	0	1	7 12 7	NR	20							
		5	2	8 10 8	5.74	20							
		10	3	8 8 5	5.00	14							
		15	4	4 5 4	2.95	13							
704.1	Medium dense, gray SILTY LOAM	20	5	8 8 8	NP	23							
702.4	Stiff, gray SILTY CLAY LOAM, trace gravel --Moist--	25	6	3 3 3	1.72	14							
699.9	Medium dense, gray SILTY LOAM	30	7	7 9 10	NP	14							
697.4	Very stiff, gray SILTY CLAY, trace gravel	35	8	4 5 7	3.69	20							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-21-2011	Complete Drilling	09-21-2011	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		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Time After Drilling	NA		
		Depth to Water	NA				

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BORING LOG 1RW8-B-3 Page 1 of 1

WEI Job No.: 201-40-01
 Client: McDonough Associates Inc.
 Project: US 45, Segment 1
 Location: Ret. Wall 8, Cook Co., T36N, R12E

Datum: NGVD
 Elevation: 715.40 ft
 North: 1795689.51 ft
 East: 1115660.91 ft
 Station: 148+82.43
 Offset: 67.98 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 (%)
714.3	746.23-inch thick, brown SILTY CLAY LOAM --TOPSOIL-- Medium stiff to very stiff, brown and gray SILTY CLAY LOAM, trace to little gravel	0	1	4 5 6	3.69	21							
		5	2	4 5 7	3.28	19							
		10	3	9 10 14	NR								
		15	4	4 5 5	2.38	15							
		20	5	5 6 6	2.13	14							
		25	6	3 3 4	0.82	14							
		30	7	4 10 13	1.64	14							
697.4	Medium dense, gray SILT --Moist--	35	8	5 8 11	NP	15							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	09-21-2011	Complete Drilling	09-21-2011	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		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Time After Drilling	NA		
		Depth to Water	NA				

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

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D160F05-SHT-Boring14.dgn		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	591	
	PLOT SCALE = 0:2.00 '1" = 10'	DRAWN - JDK	REVISED -			CONTRACT NO. 60F05					
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT					

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BORING LOG PBB-03
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 703.54 ft
 North: 1793081.05 ft
 East: 1115882.37 ft
 Station: 122+66.17
 Offset: 48.83 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 (%)
703.4	4-1/2 inch thick, dark brown SILTY LOAM --TOPSOIL--	0	1	4-8-0-0-0	NP	13							
701.3	Medium dense, brown SILTY LOAM --FILL--	1	2	10-10-0-0-0	0.50	21							
699.4	Medium stiff, brown and gray SILTY CLAY LOAM, little gravel	2	3	10-10-0-0-0	NP	25							
695.4	Very loose to loose, brown and gray LOAM, little gravel --MOIST to WET--	3	4	10-10-0-0-0	NP	26							
695.4	Loose to medium dense, gray, fine to coarse SAND, little gravel	4	5	10-10-0-0-0	NP	17							
691.5	Boring terminated at 12.00 ft	10	6	10-10-0-0-0	NP	16							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-24-2010	Complete Drilling	11-24-2010	While Drilling	▽	6.00 ft	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▽	6.00 ft	
Driller	R&J	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	

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BORING LOG PBB-05
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 703.31 ft
 North: 1793171.45 ft
 East: 1115878.20 ft
 Station: 123+56.04
 Offset: 51.05 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 (%)
701.6	Stiff, brown SILTY CLAY --FILL--	0	1	10-0-0-0-0	1.25	25							
699.2	Soft, black ORGANIC SILTY CLAY LOAM, trace plant material --L (%)=46, P ₁ (%)=19-- --%Gravel=0.7-- --%Sand=18.8-- --%Silt=55.5-- --%Clay=25.0-- --A-7-6 (22)--	1	2	10-0-0-0-0	0.25	30							
697.2	Loose, brown and gray SILTY LOAM, little gravel --MOIST--	2	3	10-0-0-0-0	NP	23							
695.2	Very loose, brown and gray SANDY LOAM, little gravel --WET--	3	4	10-0-0-0-0	NP	20							
693.3	Very stiff, gray SILTY CLAY, trace gravel	4	5	10-0-0-0-0	3.50	20							
	Boring terminated at 10.00 ft	10											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-24-2010	Complete Drilling	11-24-2010	While Drilling	▽	6.00 ft	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▽	7.00 ft	
Driller	R&J	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	

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BORING LOG PBB-06
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 701.82 ft
 North: 1793214.47 ft
 East: 1115879.42 ft
 Station: 123+98.53
 Offset: 55.67 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 (%)
699.7	Medium dense, brown SILTY LOAM --FILL--	0	1	3-4-7-7	NP	18							
699.7	Very stiff to hard, dark brown and black SILTY CLAY, trace plant material	1	2	4-4-6-6	4.00	20							
695.6	Soft to medium stiff, brown and gray SILTY CLAY Organic Content=4.0%	2	3	5-5-8-8	3.00	28							
691.7	Very stiff, gray SILTY CLAY, trace gravel	3	4	2-2-3-3	0.25	30							
689.8	Boring terminated at 12.00 ft	4	5	1-2-2-2	0.50	21							
		5	6	3-4-4-4	2.50	16							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-24-2010	Complete Drilling	11-24-2010	While Drilling	▽	DRY	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▽	DRY	
Driller	R&J	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	

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

FILE NAME = D:\160F05-SHT-Boring\15.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE. 330	SECTION 103R-3	COUNTY COOK	TOTAL SHEETS 932	SHEET NO. 592
PLOT SCALE = 0:2.00 '1" = 10'	DRAWN - JDK	REVISED -	CONTRACT NO. 60F05							
PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -	ILLINOIS FED. AID PROJECT							
SHEET NO. 37 OF 41 SHEETS										

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BORING LOG PBB-10
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 701.09 ft
 North: 1793400.87 ft
 East: 1115873.93 ft
 Station: 126+86.04
 Offset: 64.03 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 (%)
700.1	12-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Stiff to very stiff, black, brown and gray CLAY LOAM to SILTY LOAM, organic traces	0-1	1	4 4 2	3.00	19							
		1-2	2	4 4 4	2.00	33							
		2-3	3	5 5 4	1.00	28							
695.3	Soft, brown, gray and black CLAY, trace ORGANICS	3-4	4	2 2 2	0.25	29							
693.3	Soft, brown and gray SANDY CLAY LOAM Organic Content=6.4%	4-5	5	1 1 1	0.25	24							
690.1	Medium stiff to stiff, gray SILTY CLAY	5-6	6	2 2 2	0.75	17							
687.1	Boring terminated at 14.00 ft	6-7	7	2 2 2	1.75	21							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-03-2010	Complete Drilling	12-03-2010	While Drilling	▽	9.00 ft	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▽	9.00 ft	
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▽	NA	
<small>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</small>							

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BORING LOG PBB-13
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 701.53 ft
 North: 1793487.12 ft
 East: 1115874.21 ft
 Station: 126+72.91
 Offset: 69.17 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 (%)
700.1	12-inch thick, very stiff, dark brown CLAY LOAM --TOPSOIL-- Stiff, brown and black SILTY CLAY, trace ORGANICS	0-1	1	4 4 2	2.75	23							
		1-2	2	4 4 4	1.25	34							
		2-3	3	4 4 3	1.00	35							
694.5	Very soft, brown and gray CLAY, trace ORGANICS --L _c (%)=55, P _c (%)=27-- --%Gravel=0.1-- --%Sand=2.2-- --%Silt=61.7-- --%Clay=36.1-- --A-7-6 (32)--	3-4	4	1 1 1	0.25	43							
692.0	Very soft, gray CLAY	4-5	5	0 0 0	0.25	68							
690.2	Medium stiff to very stiff, brown and gray SILTY CLAY	5-6	6	0 0 0	0.25	32							
685.5	Boring terminated at 16.00 ft	6-7	7	0 0 0	0.75	23							
		7-8	8	0 0 0	2.50	20							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-02-2010	Complete Drilling	12-02-2010	While Drilling	▽	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▽	DRY	
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▽	NA	
<small>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</small>							

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BORING LOG PBB-15
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 701.18 ft
 North: 1793549.23 ft
 East: 1115868.43 ft
 Station: 127+35.78
 Offset: 66.28 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 (%)
698.2	Medium dense, gray CRUSHED STONE (stone size up to 5-inch) --FILL--	0-1	1	6 7 8	NP	12							
		1-2	2	4 4 4	2.00	39							
		2-3	3	4 4 4	0.50	32							
692.9	Soft, brown and gray CLAY --WET SPOON--	3-4	4	1 1 1	0.50	33							
691.1	Stiff, gray SILTY CLAY LOAM, trace gravel	4-5	5	0 0 0	0.25	35							
689.2	Boring terminated at 12.00 ft	5-6	6	3 3 3	1.50	23							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-24-2010	Complete Drilling	11-24-2010	While Drilling	▽	8.00 ft	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▽	6.00 ft	
Driller	R&J	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	
<small>The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.</small>							

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

FILE NAME = D:\60F05-SHT-Boring\6.dgn	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	593	
	PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISED -			CONTRACT NO. 60F05					
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. 38 OF 41 SHEETS					

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BORING LOG RWB-08
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 718.39 ft
 North: 1794086.85 ft
 East: 1115710.25 ft
 Station: 132+79.03
 Offset: 73.25 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 (%)
728.14	4-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Very stiff to hard, brown CLAY LOAM		1	4-5	4.50	9							
	--FILL--												
			2	3-5	3.75	23							
712.9	Very stiff to hard, brown and gray SILTY CLAY		3	3-4	2.21	28							
			4	3-5	4.51	21							
			5	3-5	2.62	27							
704.4	3-inch thick, fine, brown SAND		6	3-5	3.53	21							
	--WET--												
	Very stiff, brown to gray SILTY CLAY, trace gravel		7	3-5	2.30	18							
			8	3-5	2.62	17							
698.4	Boring terminated at 20.00 ft												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-01-2010	Complete Drilling	12-01-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

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BORING LOG RWB-09
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 719.86 ft
 North: 1794170.15 ft
 East: 1115708.15 ft
 Station: 133+62.35
 Offset: 72.51 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 (%)
719.54	4-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Very stiff, brown CLAY LOAM, trace gravel		1	3-6	3.50	23							
715.9	Very stiff to hard, brown to gray CLAY to SILTY CLAY, trace gravel		2	3-6	3.44	23							
			3	5-12	7.63	19							
			4	3-6	4.51	21							
			5	3-6	5.82	18							
			6	3-6	6.97	18							
			7	8-10	6.23	17							
			8	3-6	4.10	18							
699.9	Boring terminated at 20.00 ft												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-01-2010	Complete Drilling	12-01-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

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BORING LOG RWB-10
 WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 720.61 ft
 North: 1794273.10 ft
 East: 1115701.65 ft
 Station: 134+65.46
 Offset: 75.49 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 (%)
720.34	4-inch thick, black SILTY CLAY LOAM												
	--TOPSOIL--												
	Hard, brown and gray CLAY LOAM		1	12-13	4.50	18							
	--FILL--												
			2	6-12	4.50	17							
715.4	Very stiff to hard, brown and gray SILTY CLAY, trace gravel		3	8-10	4.50	18							
			4	4-9	5.08	18							
			5	8-10	4.92	18							
			6	3-10	4.10	18							
			7	5-7	3.94	20							
			8	3-4	2.54	20							
700.6	Boring terminated at 20.00 ft												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-02-2010	Complete Drilling	12-02-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▼	DRY	
Driller	K&K	Logger	F. Bozga	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	▼	NA	

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 SUITE 600
 CHICAGO, IL 60606
 TEL (312) 939-1000
 FAX (312) 939-4998

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

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - WEI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL SOIL BORING LOGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D:\160F05-SHT-Boring\7.dgn		CHECKED - JCE	REVISED -			330	103R-3	COOK	932	594	
	PLOT SCALE = 0:2.00 '1" / in.	DRAWN - JDK	REVISED -			CONTRACT NO. 60F05					
	PLOT DATE = 3/12/2013	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT					

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 (%)
722.33	22-33-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown and gray CLAY, trace gravel	1	10	10	7.13	17							
	--FILL-- --L _c (%)=44, P _c (%)=17-- --%Gravel=2.5-- --%Sand=13.6-- --%Silt=48.6-- --%Clay=35.2-- --A-7-6 (23)--	2	4	12	4.50	14							
717.0	Hard, brown and gray CLAY LOAM, trace gravel	3	7	10	5.82	16							
		4	4	9	5.41	19							
712.0	Very stiff, brown SILTY LOAM, trace gravel --L _c (%)=23, P _c (%)=13-- --%Gravel=4.3-- --%Sand=29.1-- --%Silt=50.0-- --%Clay=16.6-- --A-4 (4)--	5	4	6	2.38	12							
		6	7	10	2.75	11							
707.0	Very stiff, gray SILTY CLAY, trace gravel	7	3	7	3.28	19							
		8	3	6	3.50	22							
702.5	Boring terminated at 20.00 ft	20											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-01-2010	Complete Drilling	12-01-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▼	DRY	
Driller	K&K	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.			

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 (%)
722.14	22-14-inch thick, black SILTY CLAY LOAM --TOPSOIL-- Hard, brown CLAY LOAM, little gravel	1	8	8	4.50	13							
	--FILL-- Very stiff to hard, brown and gray SILTY CLAY, trace gravel	2	3	8	5.08	17							
718.4		3	12	14	7.95	18							
		4	3	6	4.18	19							
		5	6	10	5.90	18							
		6	4	7	4.43	18							
		7	5	8	3.53	18							
		8	3	6	3.28	18							
702.4	Boring terminated at 20.00 ft	20											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-01-2010	Complete Drilling	12-01-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	▼	DRY	
Driller	K&K	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.			

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 (%)
	Loose, brown SILTY LOAM --FILL--	1	4	4	NP	15							
734.1	Very stiff to hard, brown and gray gravelLY SILTY CLAY --L _c (%)=47, P _c (%)=19-- --%Gravel=17.1-- --%Sand=11.0-- --%Silt=44.4-- --%Clay=27.5-- --A-7-6 (19)--	2	3	3	3.50	24							
		3	3	3	3.00	23							
		4	2	4	2.75	22							
		5	3	4	4.50	19							
726.1	Boring terminated at 10.00 ft	10											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-17-2010	Complete Drilling	11-17-2010	While Drilling	▼	DRY	
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	▼	DRY	
Driller	R&J	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.			

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URS

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 SGB-025

WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 735.35 ft
 North: 1789627.57 ft
 East: 1116013.67 ft
 Station: 88+11.67
 Offset: 51.47 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 (%)
734.9	6-inch thick, brown SILTY CLAY --TOPSOIL-- Very stiff to hard, brown and gray SILTY CLAY, trace gravel	0	1	4 4 3	3.00	25							
		1.5	2	4 5 4	4.50	18							
		3.0	3	4 5 4	4.50	18							
		4.5	4	4 6 10	4.50	20							
		6.0	5	8 10 12	4.50	19							
725.4	Boring terminated at 10.00 ft	10.0											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-17-2010	Complete Drilling	11-17-2010	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	B-57 TMR	At Completion of Drilling	DRY		
Driller	R&J	Logger	B. Wilson	Time After Drilling	NA		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

BORING LOG SGB-039

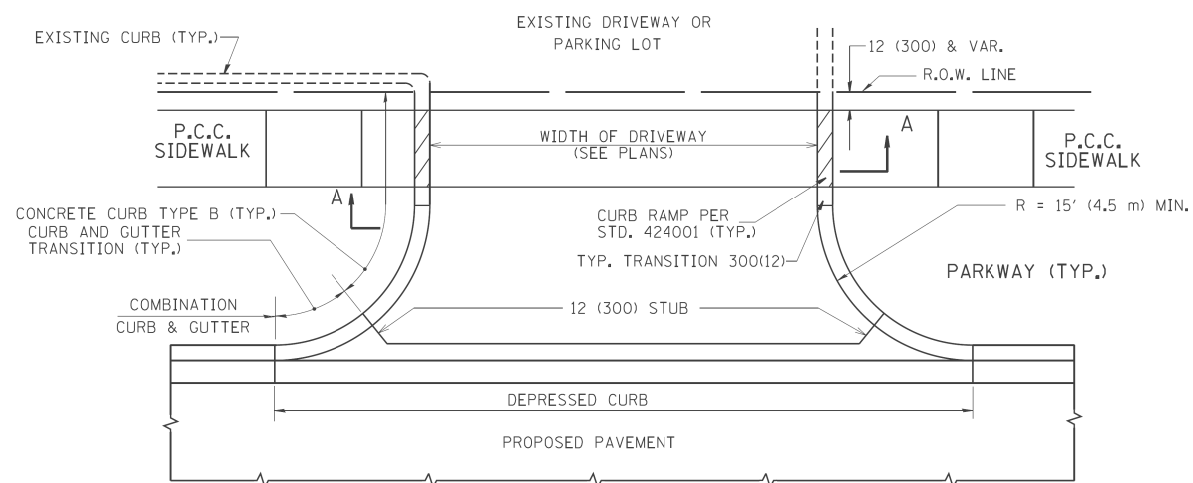
WEI Job No.: 201-40-01
 Client: **McDonough Associates Inc.**
 Project: **US 45**
 Location: **ORLAND PARK, T 36N, R 12E**

Datum: NGVD
 Elevation: 702.85 ft
 North: 1793301.16 ft
 East: 1115883.62 ft
 Station: 124+85.03
 Offset: 66.85 RT

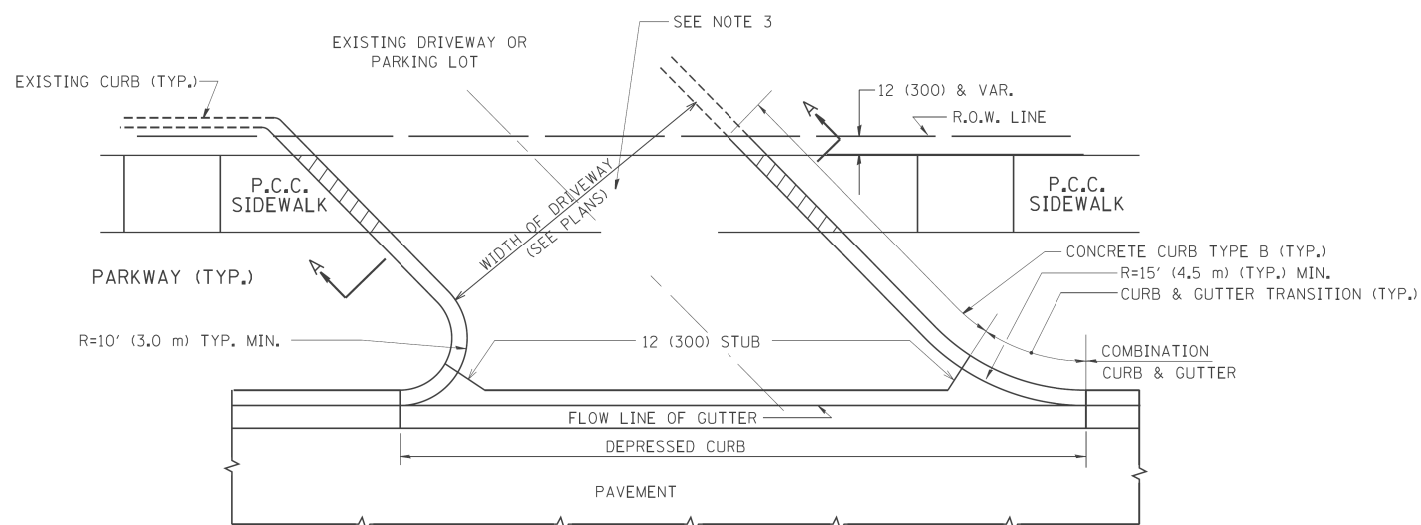
Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
701.4	Very stiff, dark brown CLAY LOAM --TOPSOIL-- Very stiff, brown and black CLAY LOAM, trace ORGANICS	0	1	4 5 2	2.25	28							
		1.5	2	4 5 5	3.75	25							
		3.0	3	4 4 4	3.50	34							
697.1	Medium stiff, brown and gray CLAY	3.0	4	4 3 2	0.75	28							
695.1	Medium stiff, brown and gray SILTY CLAY LOAM	4.5	5	4 3 2	0.50	28							
693.1	Hard, brown CLAY	6.0	6	4 7 7	4.50	19							
690.9	Boring terminated at 12.00 ft	12.0											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-03-2010	Complete Drilling	12-03-2010	While Drilling	DRY		
Drilling Contractor	WTS	Drill Rig	D-50 ATV	At Completion of Drilling	DRY		
Driller	K&K	Logger	F. Bozga	Time After Drilling	NA		
Drilling Method	3.25" IDA HSA; Boring backfilled upon completion			Depth to Water	NA		
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

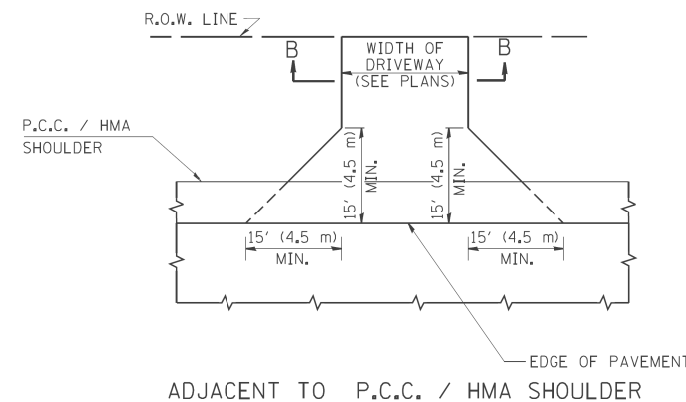
Note:
 For retaining wall key plan see sheet 1.
 For typical wall details see sheet 2.
 See individual wall sheets for boring locations.



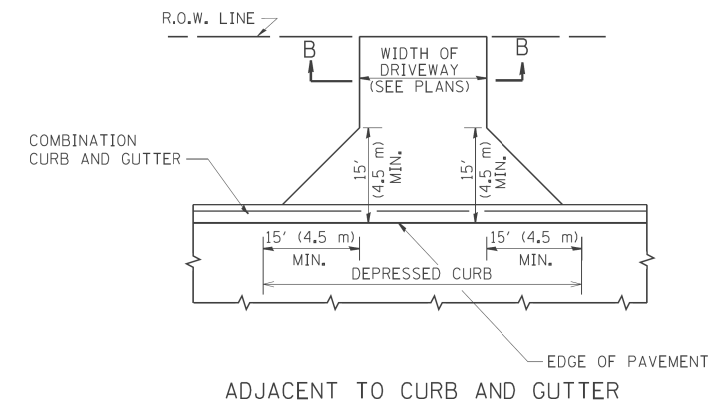
WITH CONCRETE CURB, TYPE B



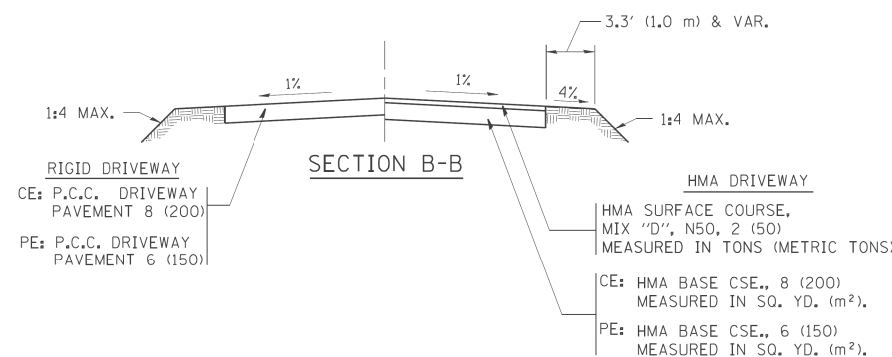
WITH CONCRETE CURB, TYPE B



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX 'D', N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

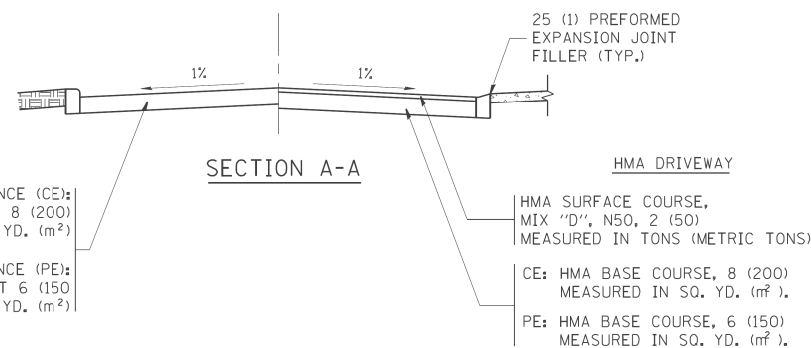
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



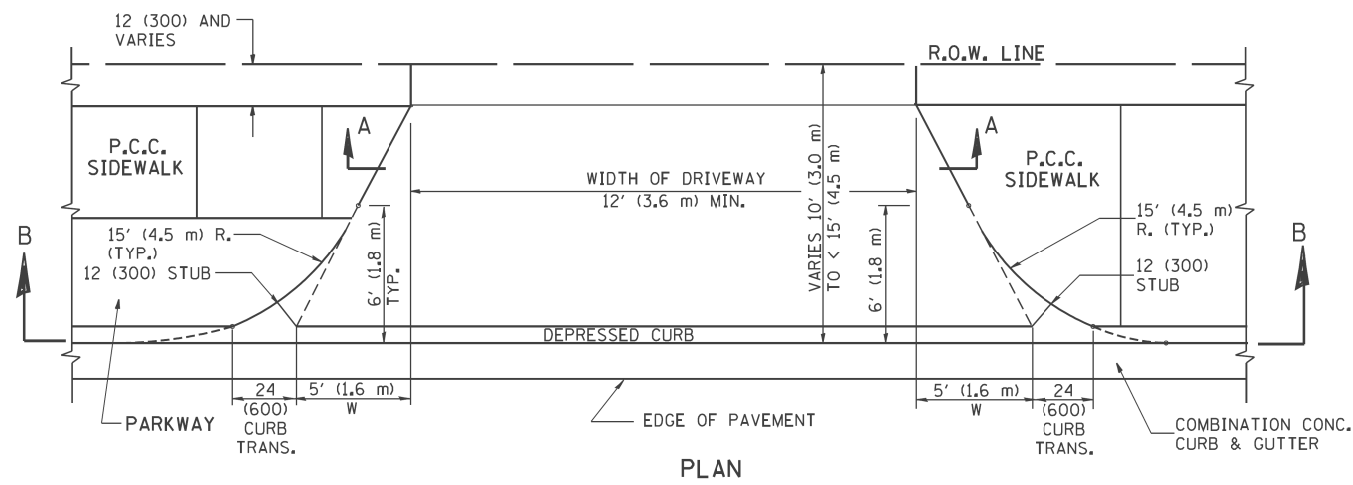
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		CHECKED -	REVISED - R. BORO 06-11-08
		DATE - 11-04-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

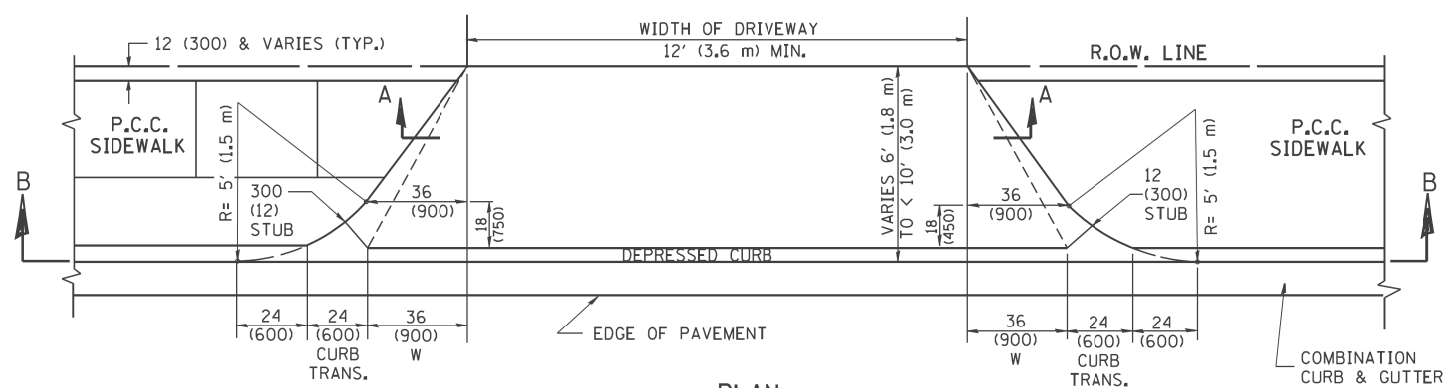
**DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.
AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)**

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

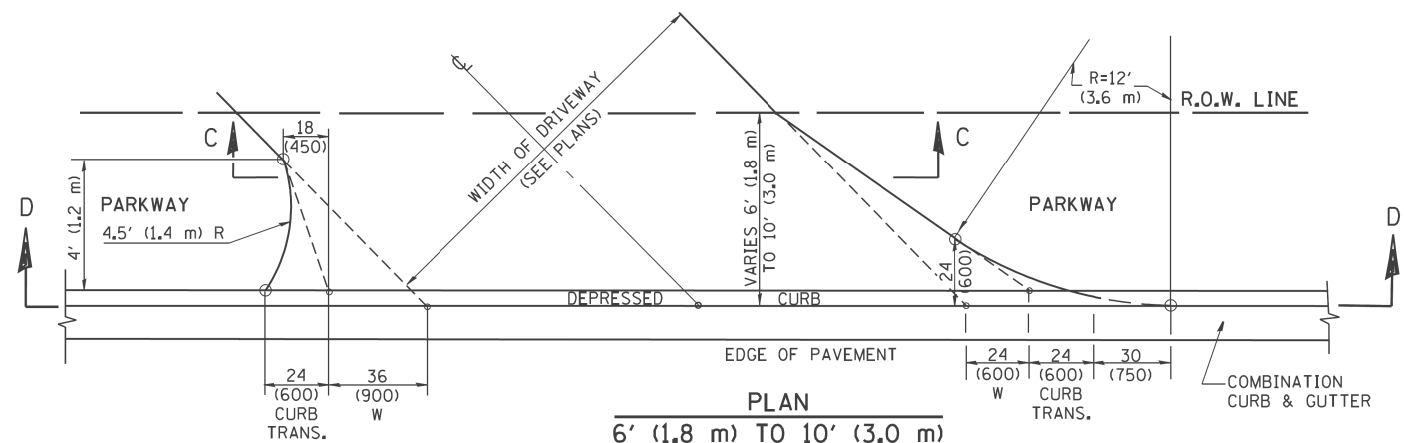
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	597
BD0156-07 (BD-01)			CONTRACT NO. 60F05	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



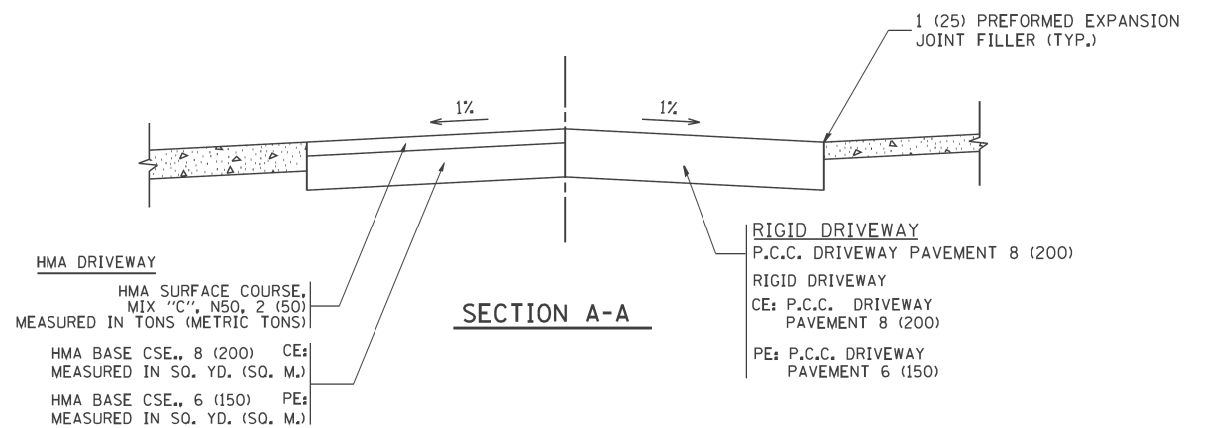
PLAN
10' (3.0 m) TO < 15' (4.5 m)



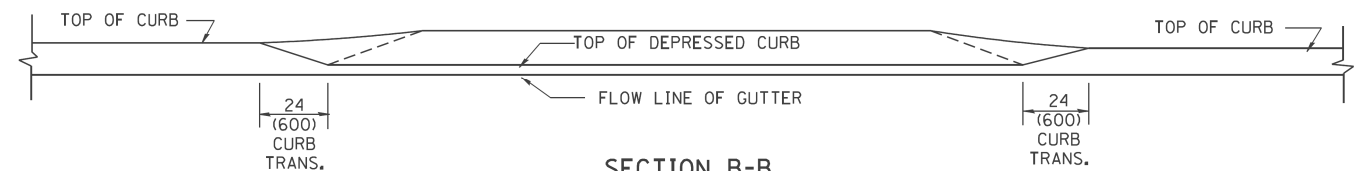
PLAN
6' (1.8 m) TO < 10' (3.0 m)



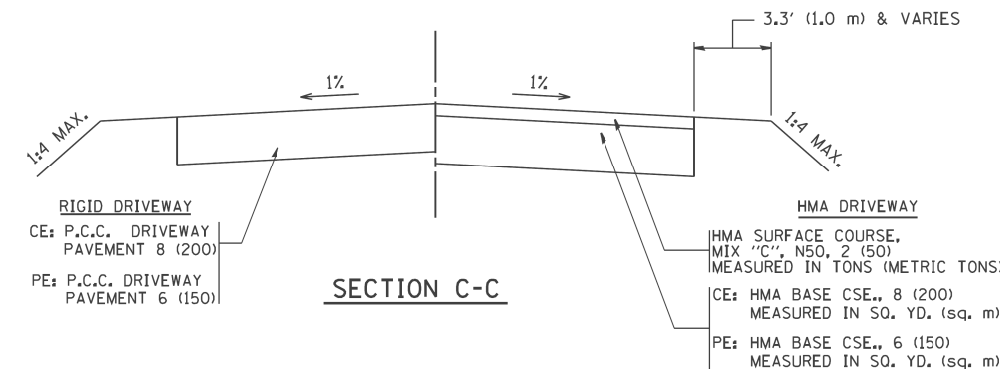
PLAN
6' (1.8 m) TO 10' (3.0 m)



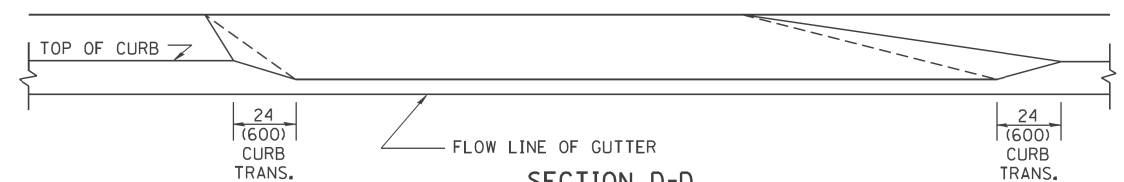
SECTION A-A
RIGID DRIVEWAY
P.C.C. DRIVEWAY PAVEMENT 8 (200)
RIGID DRIVEWAY
CE: P.C.C. DRIVEWAY PAVEMENT 8 (200)
PE: P.C.C. DRIVEWAY PAVEMENT 6 (150)



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

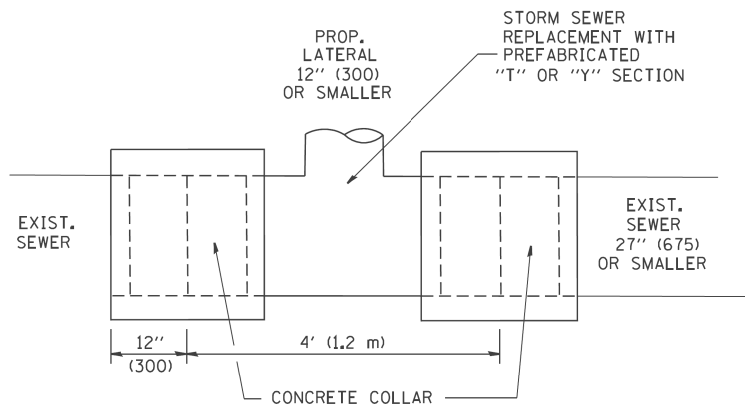
"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

FILE NAME = W:\dststd\22x34\bd02.dgn	USER NAME = geglano	DESIGNED - R. SHAH	REVISED - T. HOLTZ 04-08-97
		DRAWN -	REVISED - M. GOMEZ 04-05-01
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED - P. LOFLEUR 04-15-03
	PLOT DATE = 1/4/2008	DATE - 11-06-95	REVISED - R. BORO 01-01-07

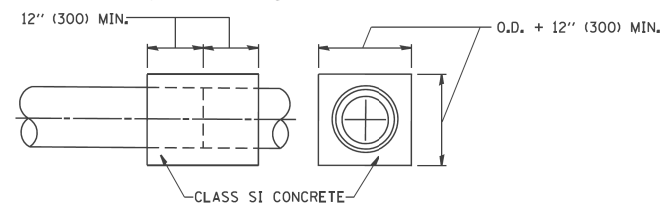
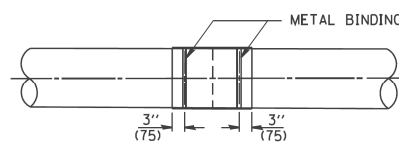
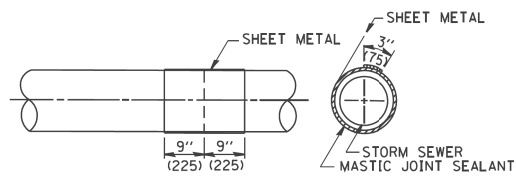
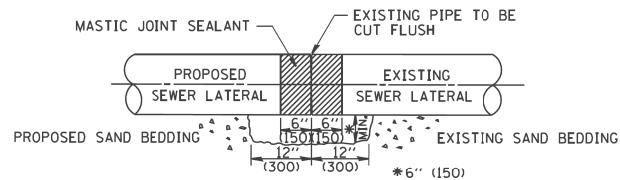
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)		330	103R-3	COOK	932	598
SCALE: NONE		BD400-02 (BD-02)		CONTRACT NO. 60F05		
SHEET NO. 1 OF 1 SHEETS		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

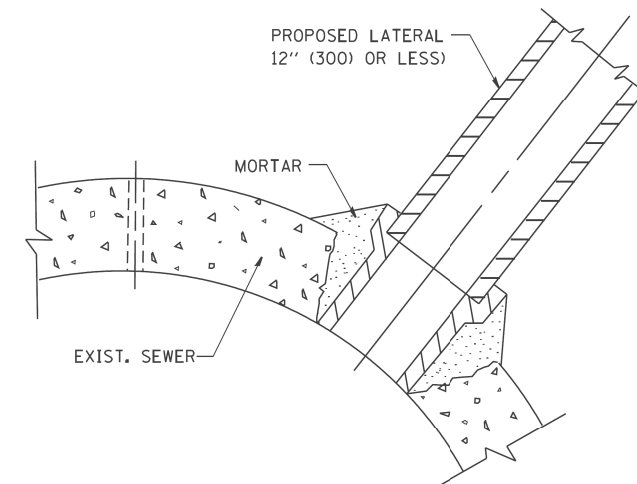


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
- WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

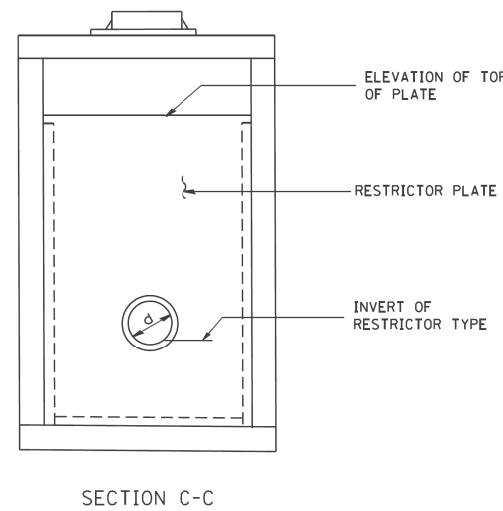
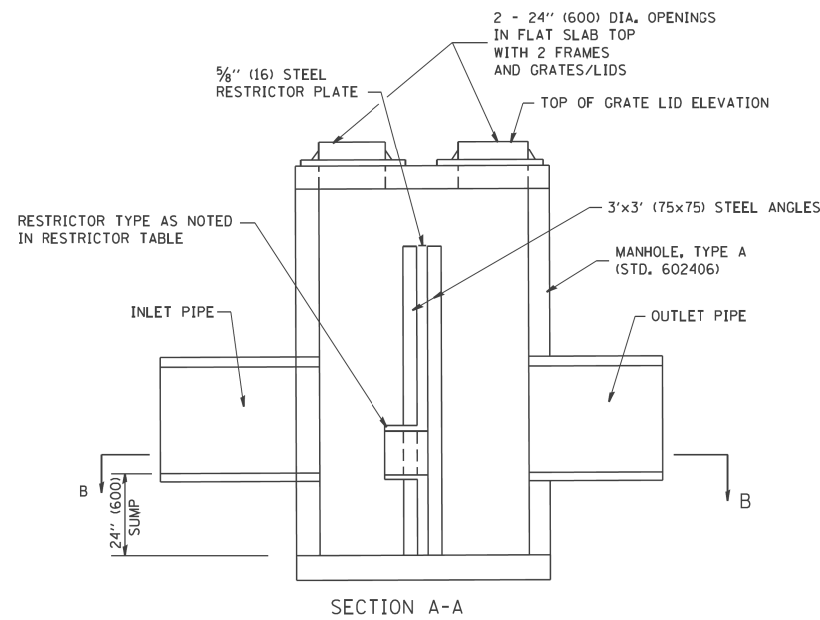
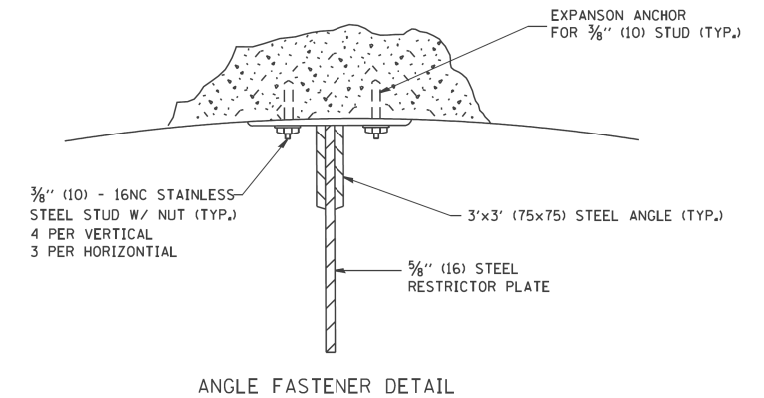
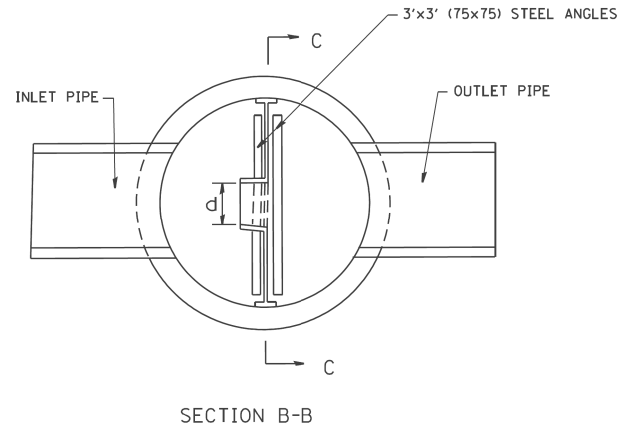
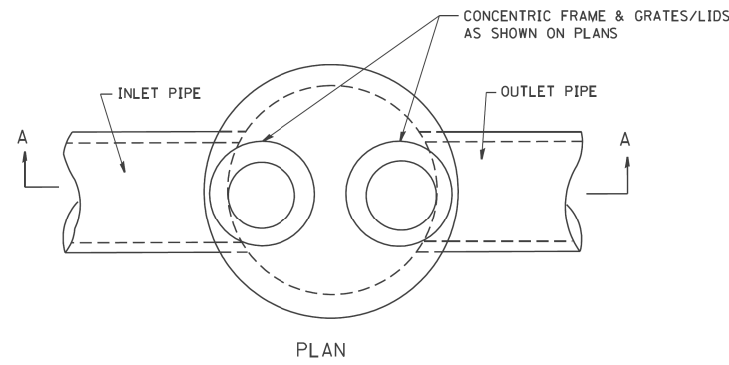
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

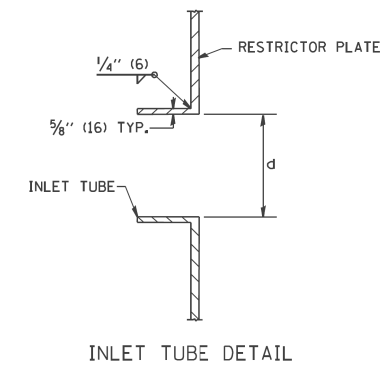
TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
D160F05-SHT-DISTANDARD-BD07.dgn		DRAWN -	REVISED -
	PLOT SCALE = 48.000091' / in.	CHECKED -	REVISED -
SHT.PLAN	PLOT DATE = 3/12/2013	DATE - 03/13/13	REVISED -

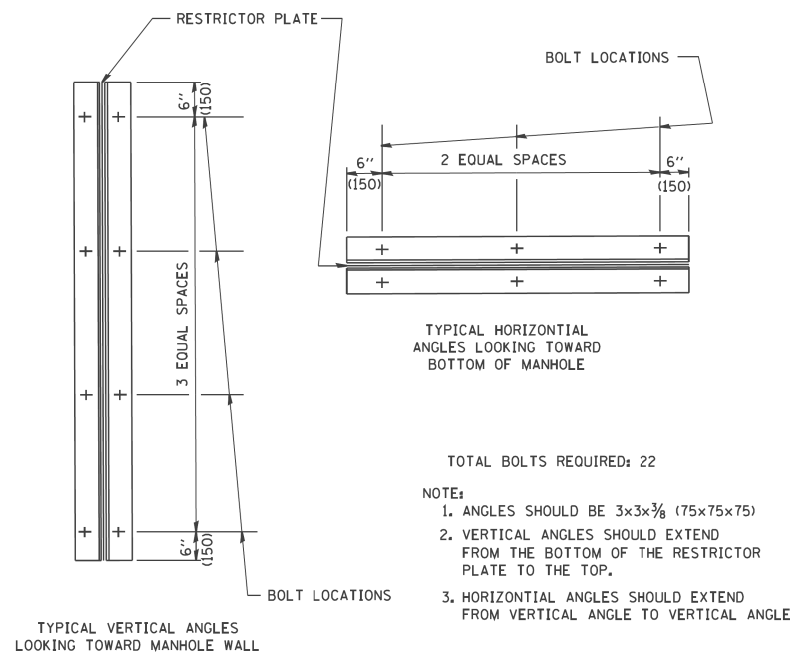
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	599
CONTRACT NO. 60F05			ILLINOIS FED. AID PROJECT	



- NOTES:
1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
 2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
 3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



MANHOLE, TYPE A WITH 2 - TYPE 1 FRAMES, CLOSED LID, RESTRICTOR PLATE	MH DIA (FT)	RIM ELEVATION (FT)	ELEVATION OF TOP OF PLATE (FT)	RESTRICTOR INVERT (FT)	INSIDE RESTRICTOR DIAMETER (INCH)	RESTRICTOR TYPE	
101	STA. 45+03.0 R	6	747.37	745.28	742.50	14.8	3
1501	STA. 45+98.0 R	6	748.14	746.00	742.50	15.5	3
301	STA. 67+75.0 R	6	759.08	756.00	753.15	12.5	3
401	STA. 75+02.0 L	6	743.00	741.00	738.35	16.0	3
501	STA. 81+83.3 L	6	739.95	737.95	735.07	16.5	3
701	STA. 104+98.0 R	6	718.74	716.74	712.85	30.0	3
1701	STA. 105+35.0 R	6	718.74	716.74	712.96	15.0	3
801	STA. 429+42.8 L	6	714.36	712.00	705.49	14.5	3
901	STA. 126+11.5 L	6	704.70	702.70	698.52	21.0	3
951	STA. 126+50.0 L	6	704.78	702.62	698.55	25.0	3
1203	STA. 159+87.0 R	6	712.36	709.58	706.20	16.2	3



RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

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

FILE NAME = W:\dststd\22x34\bd12.dgn	USER NAME = gaglanob	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - E. GOMEZ 08-28-00
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-08-01
	PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANHOLE WITH
RESTRICTOR PLATE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-3	COOK	932	600
BD600-04 (BD-12)		CONTRACT NO. 60F05		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				