

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60T94		

D-91-428-12

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- 5.-10. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
- 11.-12. TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN 79TH STREET AT STATE ROAD
13. TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM 79TH STREET AT STATE ROAD
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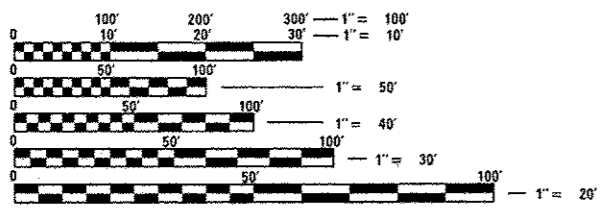
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

F.A.U. 1548 (79th St.)
DISTRICT 1
HIGHWAY SAFETY IMPROVEMENT PROJECT
79TH STREET @ STATE ROAD
COOK COUNTY
SECTION (461-Y) TS
C-91-428-12
PROJECT : HSIP - 1548(003)



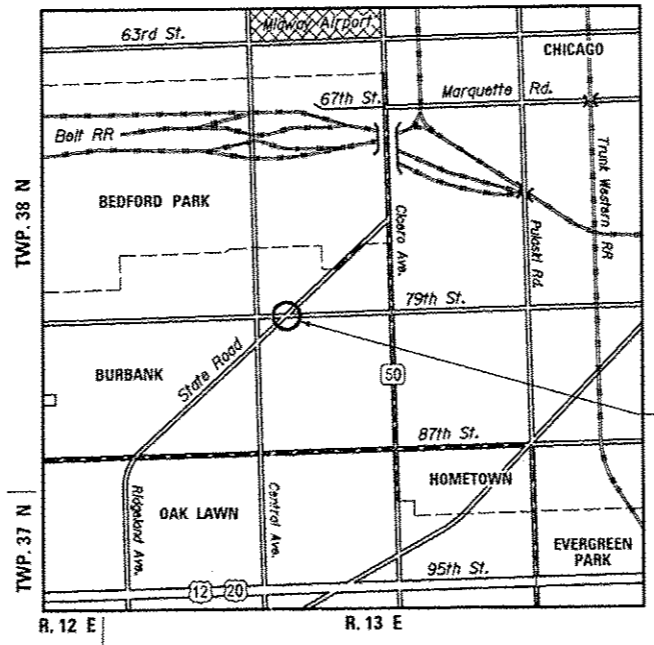
IDOT STANDARDS:

- 424006 DIAGONAL CURB RAMPS FOR SIDEWALKS
- 424031 MEDIAN PEDESTRIAN CROSSINGS
- 442201-03 CLASS C AND D PATCHES
- 606306-03 CORRUGATED PC CONCRETE MEDIANS
- 701011-03 OFF-RD OPERATIONS, 2L 2W, DAY ONLY
- 701101-03 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701601-08 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSIBLE MEDIAN
- 701701-08 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-02 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 814001-02 HANDHOLES
- 814006-02 DOUBLE HANDHOLES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 886001-01 DETECTOR LOOP INSTALLATION
- 882001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 877001-05 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-09 CONCRETE FOUNDATION DETAILS
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

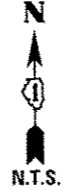


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

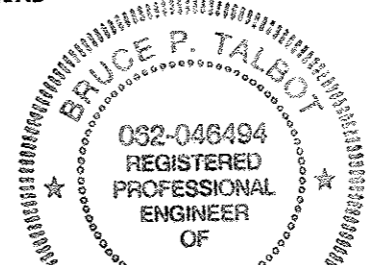
J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811



LOCATION MAP



79TH STREET @ STATE ROAD



Bruce P. Talbot
Expires 11-30-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Dec 11 2012*

John Fordson
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 22 2013
John D. Baranzelli P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

March 22 2013
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DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

BUREAU OF TRAFFIC, DISTRICT ONE: STEPHEN TRAVIA / SUDUD MAHMOUD (847) 705-4420

CONTRACT NO. 60T94

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012 (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"); THE LATEST "SUPPLEMENTAL SPECIFICATIONS" AND "RECURRING SPECIAL PROVISIONS"; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE DETAILS IN THE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
2. ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
3. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL NOTIFY THE ENGINEER AT ONCE OF ANY DISCREPANCIES.
4. THE CONTRACTOR IS REQUIRED TO ATTEND AN ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) PRECONSTRUCTION MEETING AND SHALL INFORM THE IDOT TRAFFIC ENGINEER BEFORE WORK COMMENCES.
5. THE CONTRACTOR SHALL KEEP PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE IN PROVIDING SAFE AND HEALTHFUL CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE INCURRED. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS AND 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 THE STANDARD SPECIFICATIONS 252 AND 250, RESPECTIVELY.
9. CONTROLLER CABINETS SHALL BE PLACED SO THAT a) THE DOORS OPEN AWAY FROM THE CURB OR TRAVEL WAY., b) AND THE TRAFFIC MOVEMENTS AT THE INTERSECTION ARE VISIBLE FROM THE CONTROLLER.
10. ANY CONTROLLER CABINET WHETHER NEW OR EXISTING TO RECEIVE UPS, WILL HAVE A "L" SHAPED 4 FOOT CONCRETE MAINTENANCE PAD INSTALLED. SEE PLANS FOR DETAIL. THE COST OF INSTALLATION OF CONCRETE PAD IS INCIDENTAL TO NEW CONTROLLER AND OR UPS INSTALLATIONS.
11. THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL ENGINEERING FIRM TO CONTINUOUSLY MONITOR FOR WORKER SAFETY AND SOIL CONTAMINATION AT SEVERAL AREAS. SEE SPECIAL PROVISION AND SUPPLEMENTAL SPECIFICATIONS FOR DETAILS.
12. 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 ARMS LENGTHS.
13. 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 HOURS NOTIFICATION REQUIRED).
14. 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.
15. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

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

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ Ndes
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 Gyr.

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

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

FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

PREPARED BY:
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FILE NAME *	USER NAME * JGC	DESIGNED - KK	REVISED -
\\MICROST\352104\B2-GENNOTES.DGN		DRAWN - RDS/JGC	REVISED -
	PLOT SCALE * 1"=20'	CHECKED - BPT	REVISED -
	PLOT DATE * 12-6-12	DATE - 12-6-12	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
 79TH STREET @ STATE ROAD

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	2
CONTRACT NO. 60T94			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	URBAN	
			TOTAL QUANTITY	QUANTITY
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ. FT	638	638
42400800	DETECTABLE WARNINGS	SQ. FT	170	170
44000100	PAVEMENT REMOVAL	SQ. YD	11	11
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	243	243
44000600	SIDEWALK REMOVAL	SQ. FT	435	435
44003100	MEDIAN REMOVAL	SQ FT	359	359
44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	4.4	4.4
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	11.2	11.2
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	253	253
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ. FT	467	467
60624600	CORRUGATED MEDIAN	SQ FT	218	218
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
67100100	MOBILIZATION	L SUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
72000100	SIGN PANEL - TYPE 1	SQ. FT	25.5	25.5
* 78000200	THERMOPLASTIC PAVEMENT MARKING LINE 4"	FOOT	67	67
* 78000400	THERMOPLASTIC PAVEMENT MARKING LINE 6"	FOOT	485	485
* 78000600	THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	418	418

90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	URBAN	
			TOTAL QUANTITY	QUANTITY
78000650	THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	279	279
78300100	PAVEMENT MARKING REMOVAL	SQ. FT	1292	1292
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1234	1234
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	59	59
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	167	167
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	686	686
81400100	HANDHOLE	EACH	7	7
81400200	HEAVY-DUTY HANDHOLE	EACH	2	2
81400300	DOUBLE HANDHOLE	EACH	3	3
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	344	344
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2646	2646
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3297	3297
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2772	2772
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2266	2266

* SPECIALTY ITEMS

FILE NAME *
MICROST13521041 03-SUMMARY.DGN

USER NAME * JGC
PLOT SCALE * 1"=20'
PLOT DATE * 12-6-12

DESIGNED - KK
DRAWN - RDS/JGC
CHECKED - BPT
DATE - 12-6-12

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
79TH STREET @ STATE ROAD

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

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	3

CONTRACT NO. 60T94
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

90% FEDERAL 10% STATE

90% FEDERAL 10% STATE

			URBAN	CONSTRUCTION CODE 0021
			79TH STREET AT STATE ROAD	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	QUANTITY
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3733	3733
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	149	149
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	996	996
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4	4
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2	2
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1	1
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1	1
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	1
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	24	24
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5	33.5
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	11	11
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6	6
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	4
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4	4
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6	6
88102757	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2	2
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10	10

			URBAN	CONSTRUCTION CODE 0021
			79TH STREET AT STATE ROAD	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	QUANTITY
88500100	INDUCTIVE LOOP DETECTOR	EACH	10	10
88600100	DETECTOR LOOP, TYPE I	FOOT	693	693
88800100	PEDESTRIAN PUSH-BUTTON	EACH	10	10
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1
89502380	REMOVE EXISTING HANDHOLE	EACH	16	16
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	12	12
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1272	1272
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
X4402805	ISLAND REMOVAL	SQ. FT	672	672
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1
X8620200	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1	1
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	1040	1040
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	25.7	25.7
Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1	1
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1
0 Z0076600	TRAINEES	HOUR	500	500
0 Z0076604	TRAINEES-TRAINING PROGRAM GRADUATE	HOUR	500	500
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	100	100
* 66900400	SPECIAL WASTE GROUND WATER DISPOSAL	GAL	200	200
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	4	4

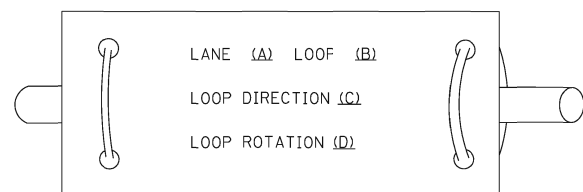
* Specialty Hems @ 0042

FILE NAME * MICROST\352104\ 84-SUMMARY.DGN	USER NAME * JGC	DESIGNED - KK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES 79TH STREET @ STATE ROAD				F.A.U. RTE. 1548	SECTION (461-Y) TS	COUNTY COOK	TOTAL SHEETS 24	SHEET NO. 4			
	PLOT SCALE * 1"=20'	DRAWN - RDS/JGC	REVISED -					SCALE: 1"=20'				SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60T94		
	PLOT DATE * 12-6-12	CHECKED - BPT	REVISED -																
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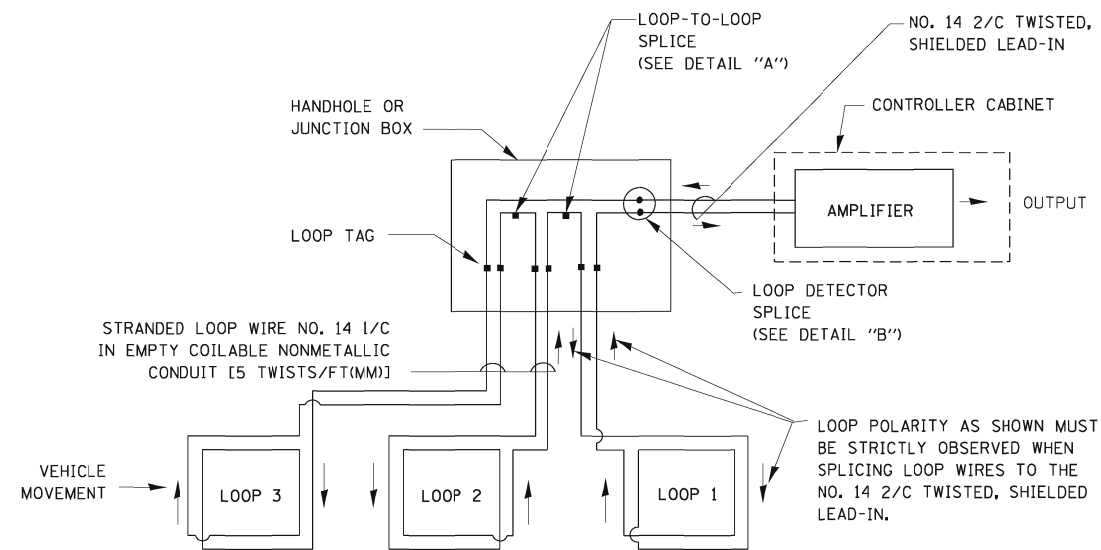
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

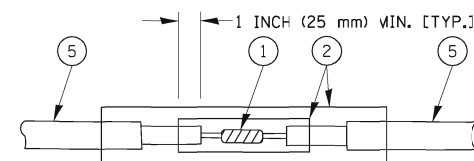


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

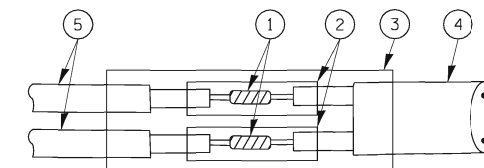


DETECTOR LOOP WIRING SCHEMATIC

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

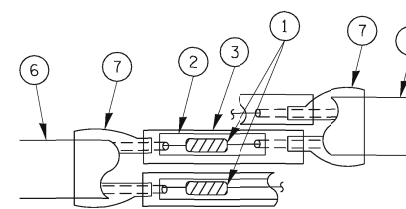


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

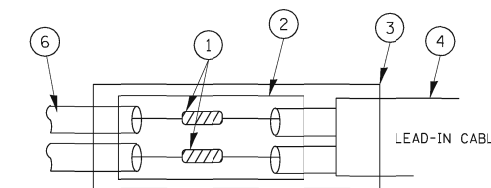


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



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



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

LOOP DETECTOR SPLICE

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

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

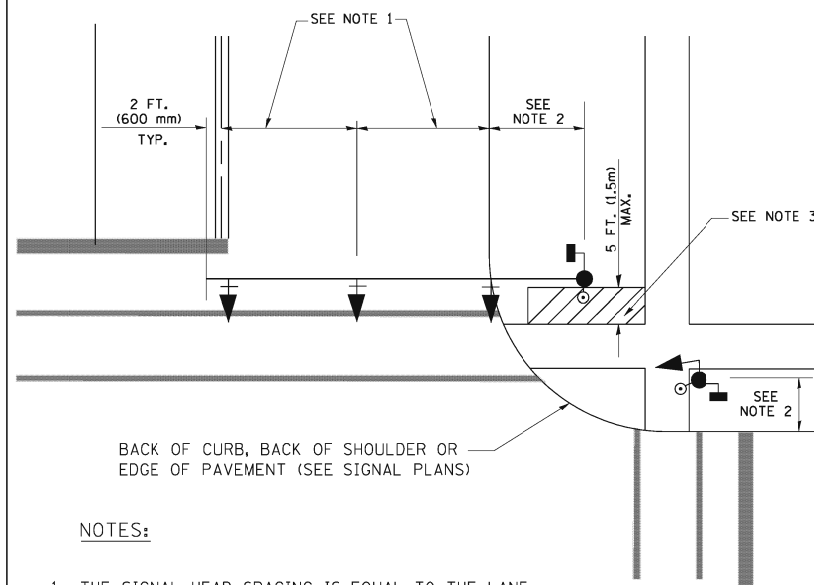
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A.U. RTE.	SECTION	COLNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	5
CONTRACT NO. 60T94				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

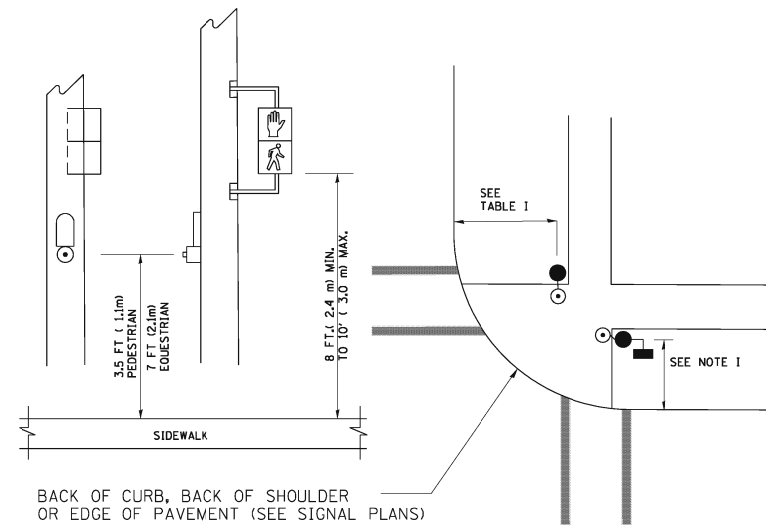
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

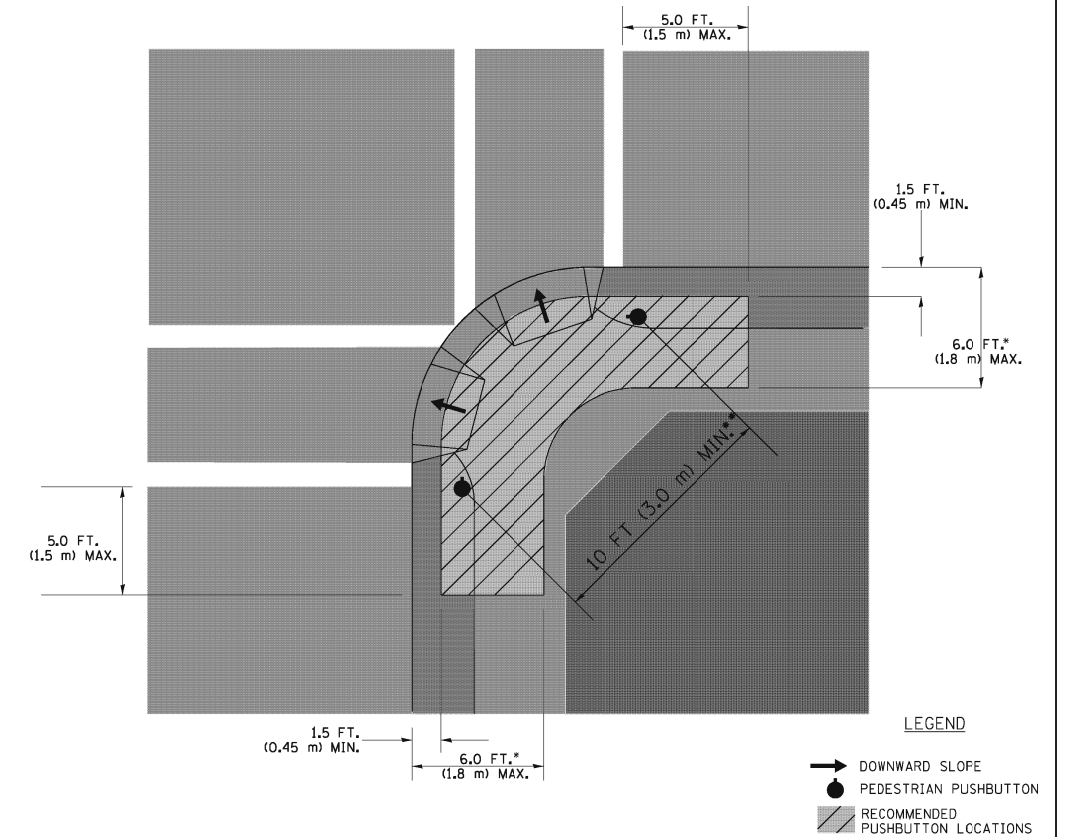
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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

NOTES:

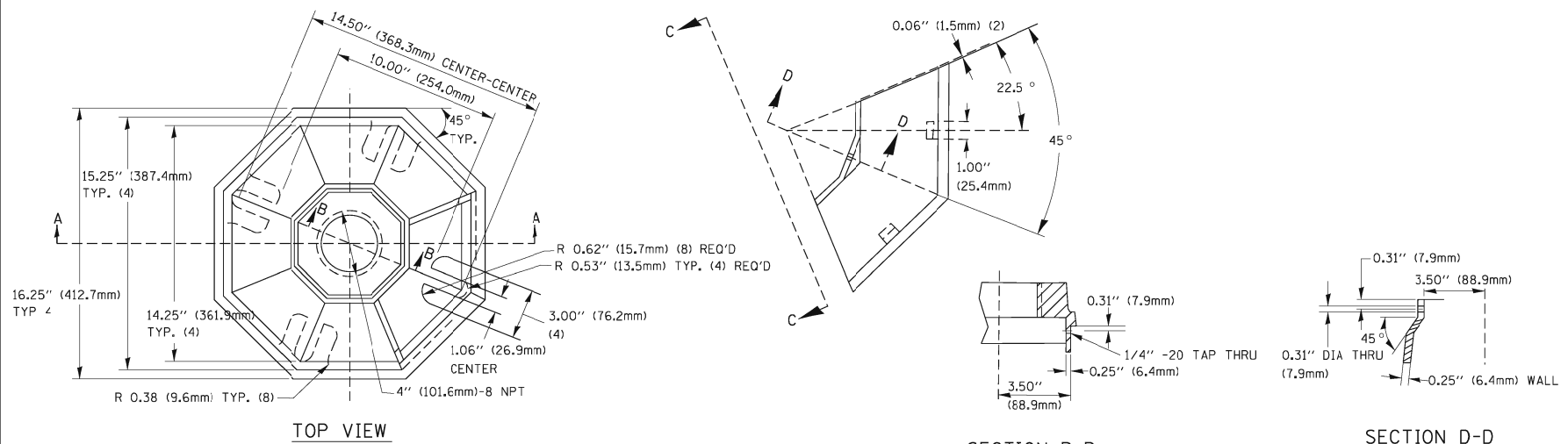
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

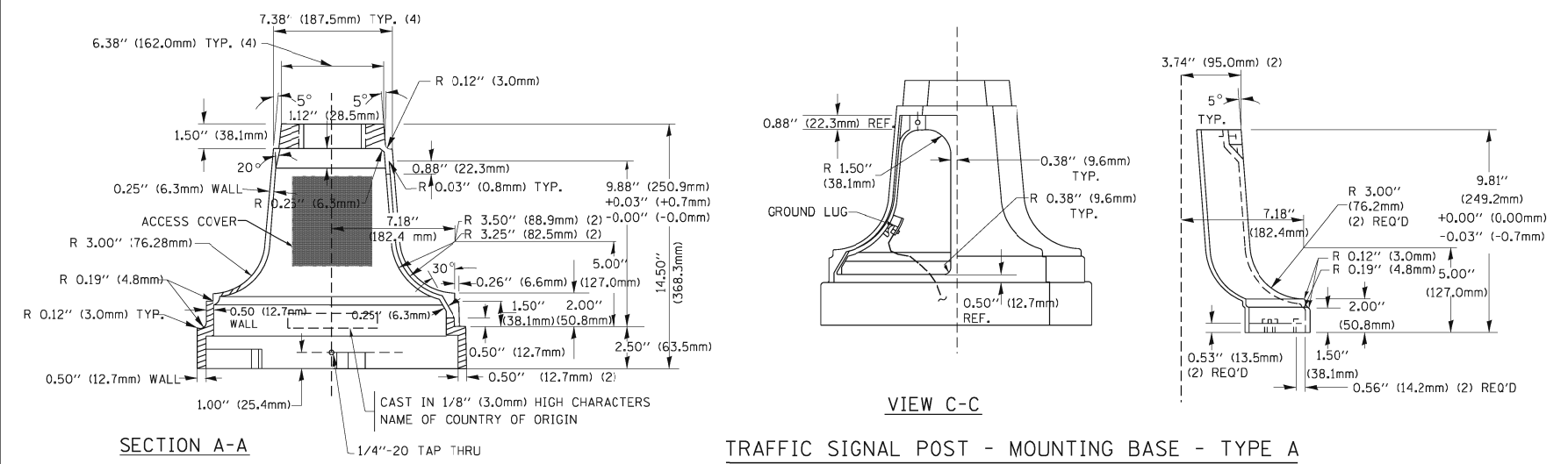
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM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



TOP VIEW

SECTION B-B

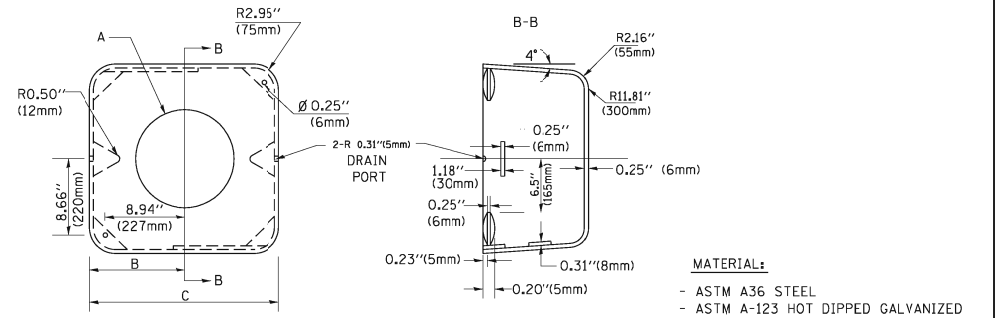
SECTION D-D



SECTION A-A

VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

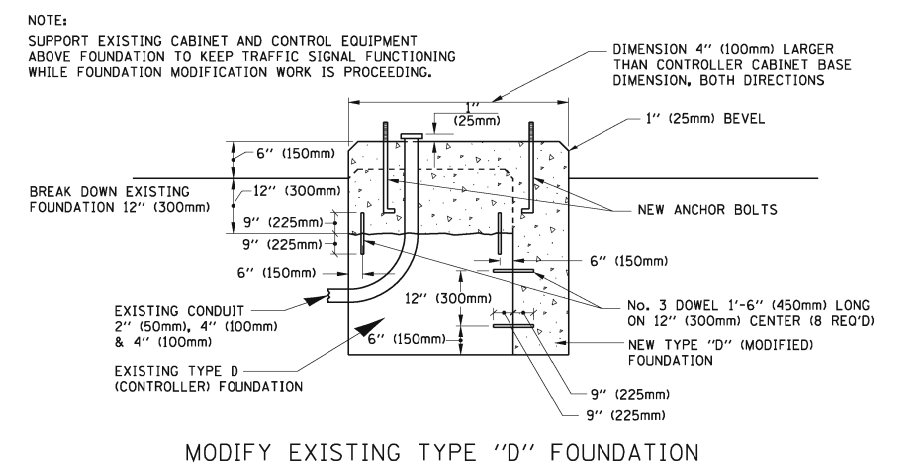


MATERIAL:
 - ASTM A36 STEEL
 - ASTM A-123 HOT DIPPED GALVANIZED

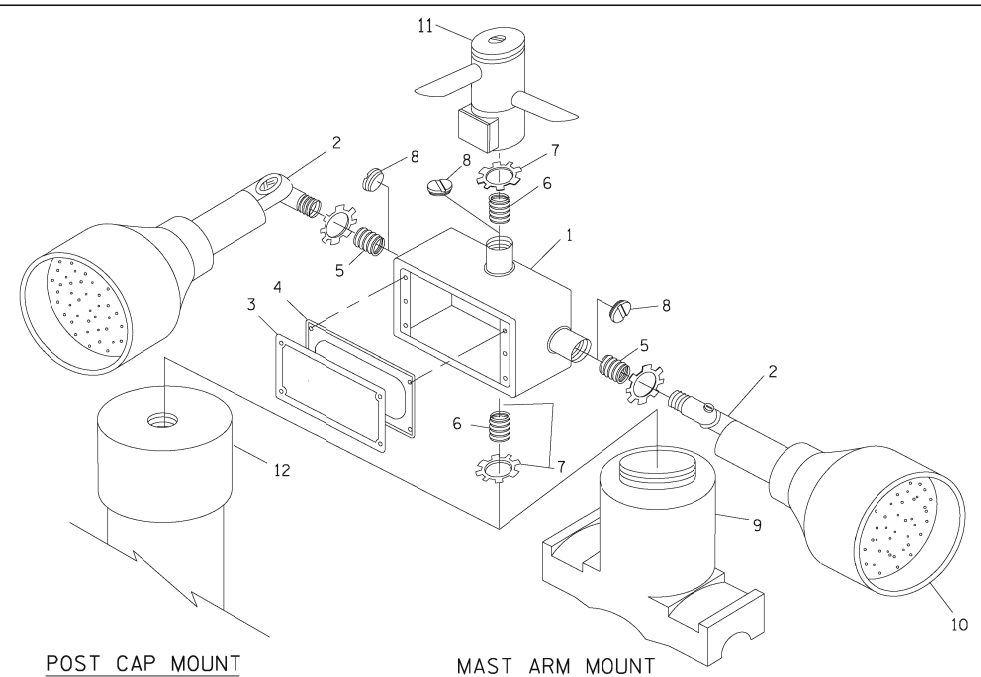
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\"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

SHROUD

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

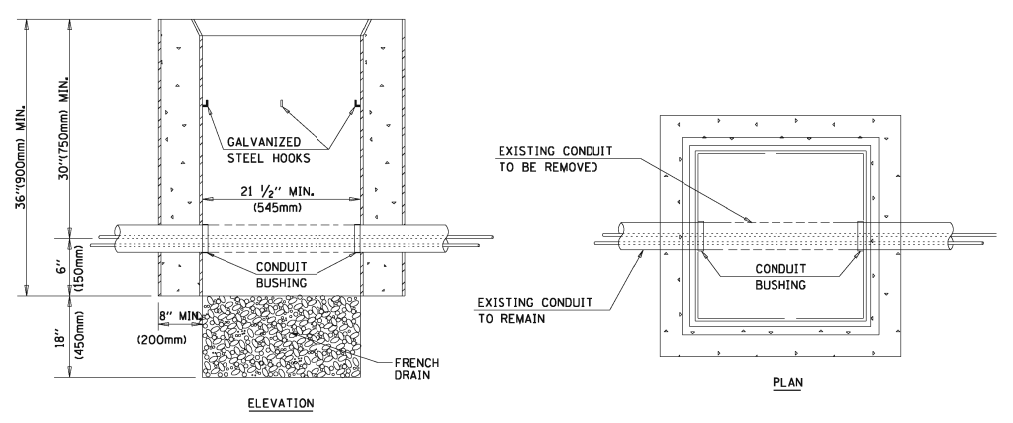


MODIFY EXISTING TYPE "D" FOUNDATION



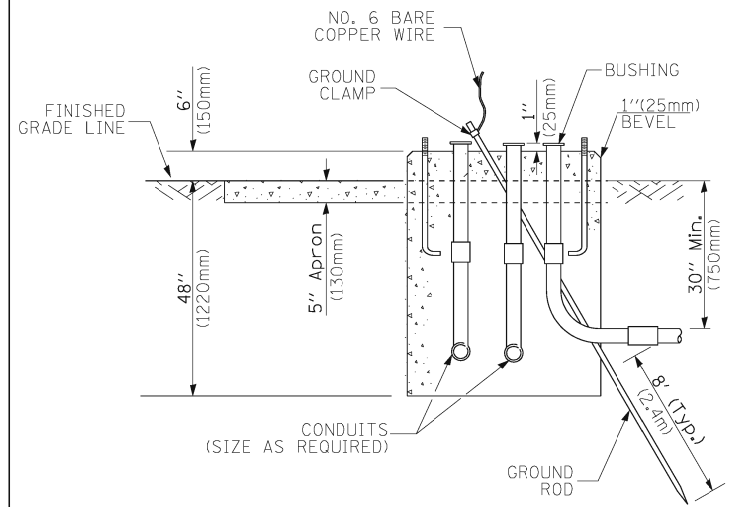
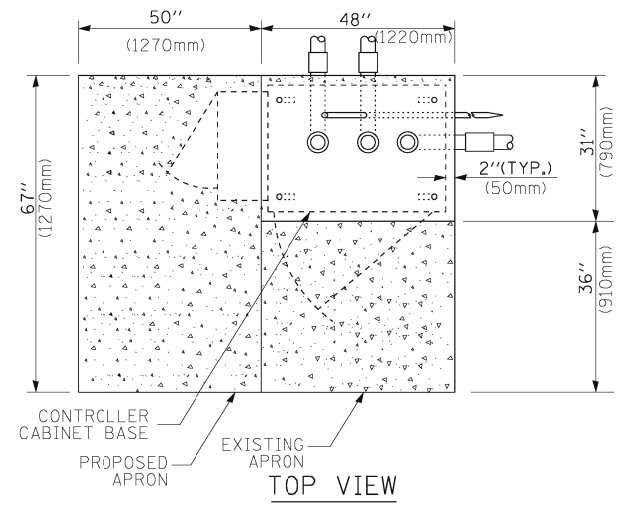
ITEM NO.	IDENTIFICATION
1	CUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	CUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR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

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

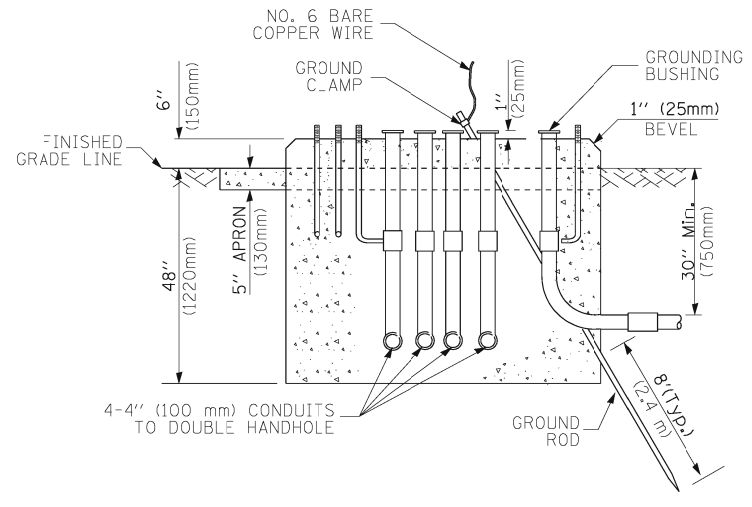
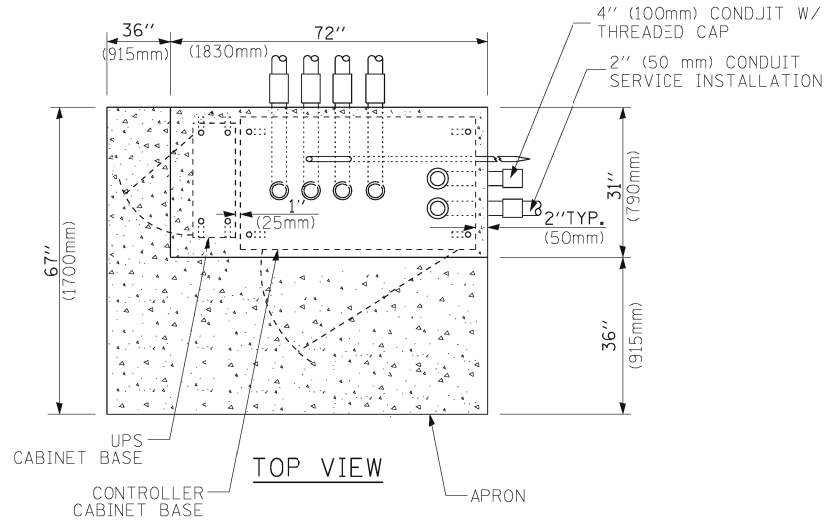


- NOTES:
1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

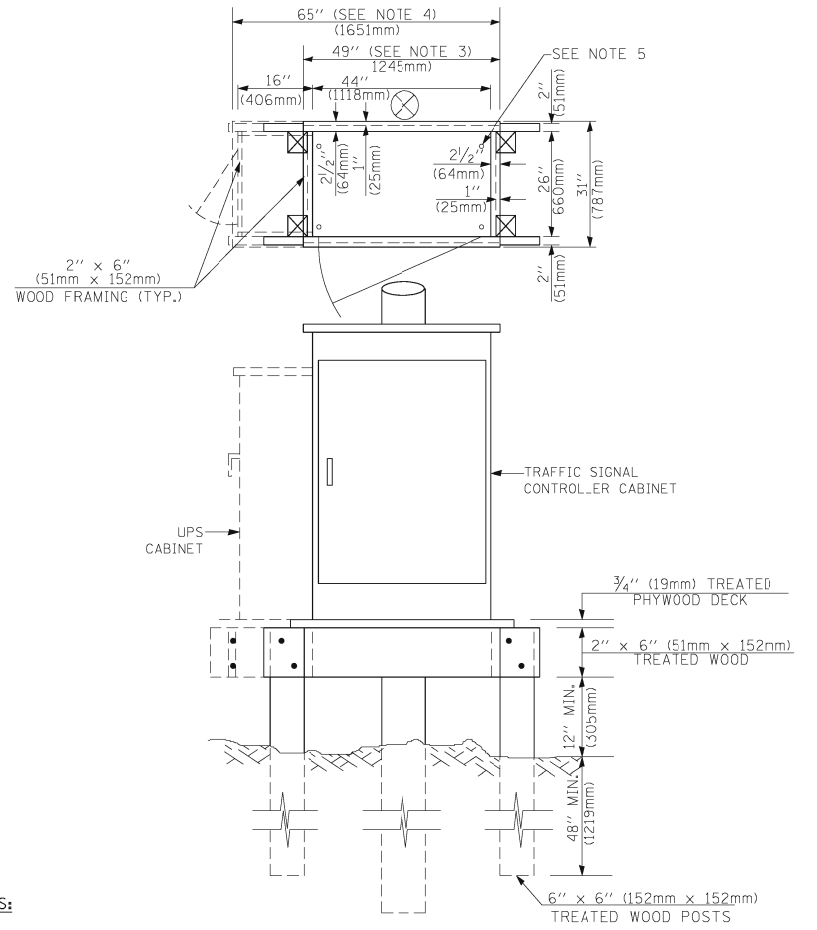
HANDHOLE TO INTERCEPT EXISTING CONDUIT



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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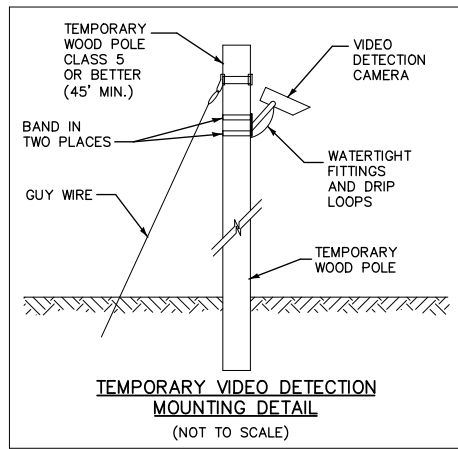
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A.U. RTE. 1548	SECTION (461-Y) TS	COUNTY COOK	TOTAL SHEETS 24	SHEET NO. 9
SCALE: SHEET NO. 5 OF 6 SHEETS		STA. TO STA.		CONTRACT NO. 60T94
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F 5M12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH			CT	GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				RAILROAD SYMBOLS			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				EXISTING		PROPOSED	
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				FLASHING SIGNAL			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSING GATE			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				CROSSBUCK			
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

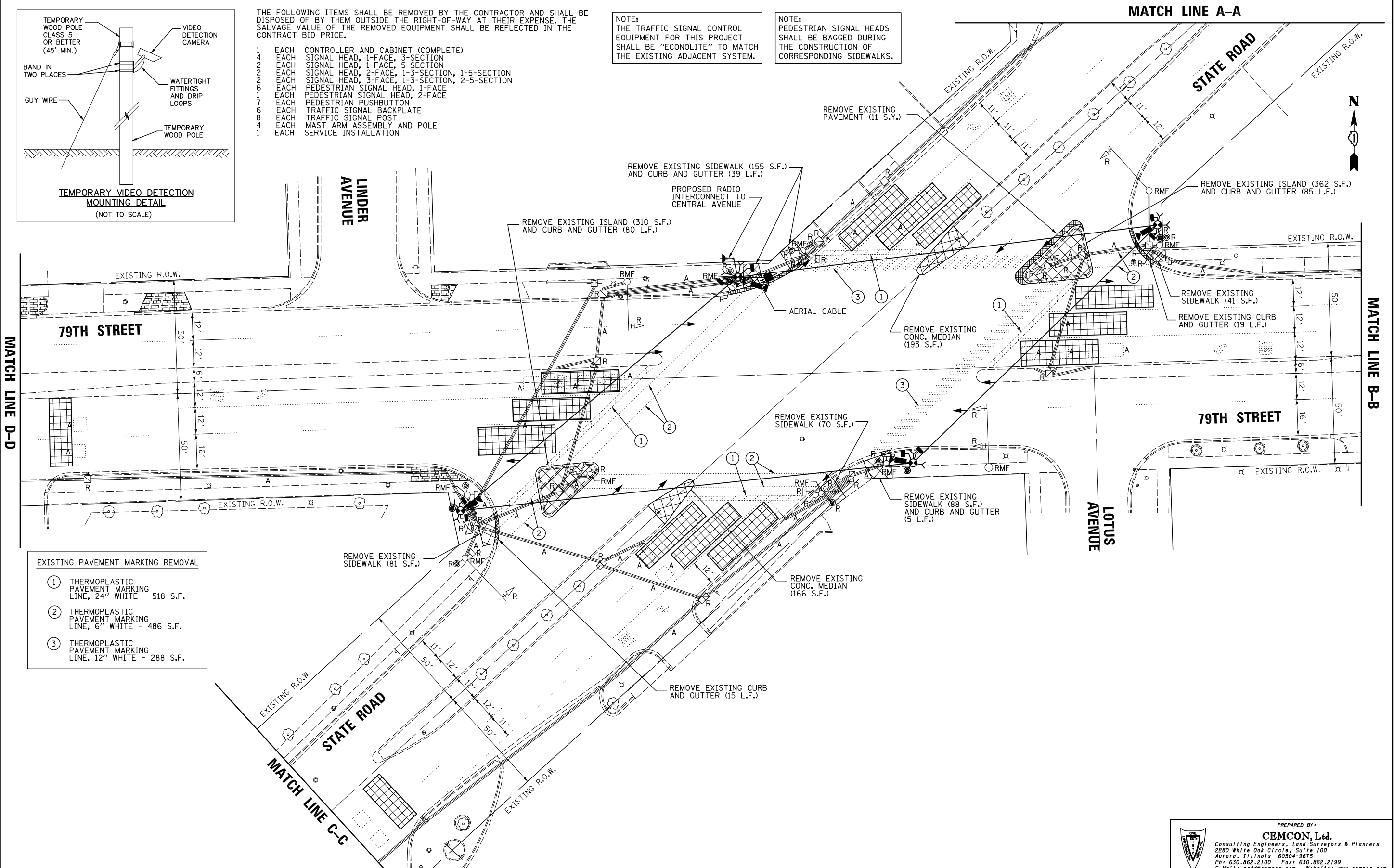


THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
- 6 EACH SIGNAL HEAD, 3-FACE, 1-3-SECTION, 2-5-SECTION
- 1 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 7 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 1 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH MAST ARM ASSEMBLY AND POLE
- 1 EACH SERVICE INSTALLATION

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

NOTE:
PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED DURING THE CONSTRUCTION OF CORRESPONDING SIDEWALKS.



- EXISTING PAVEMENT MARKING REMOVAL**
- ① THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 518 S.F.
 - ② THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE - 486 S.F.
 - ③ THERMOPLASTIC PAVEMENT MARKING LINE, 12" WHITE - 288 S.F.

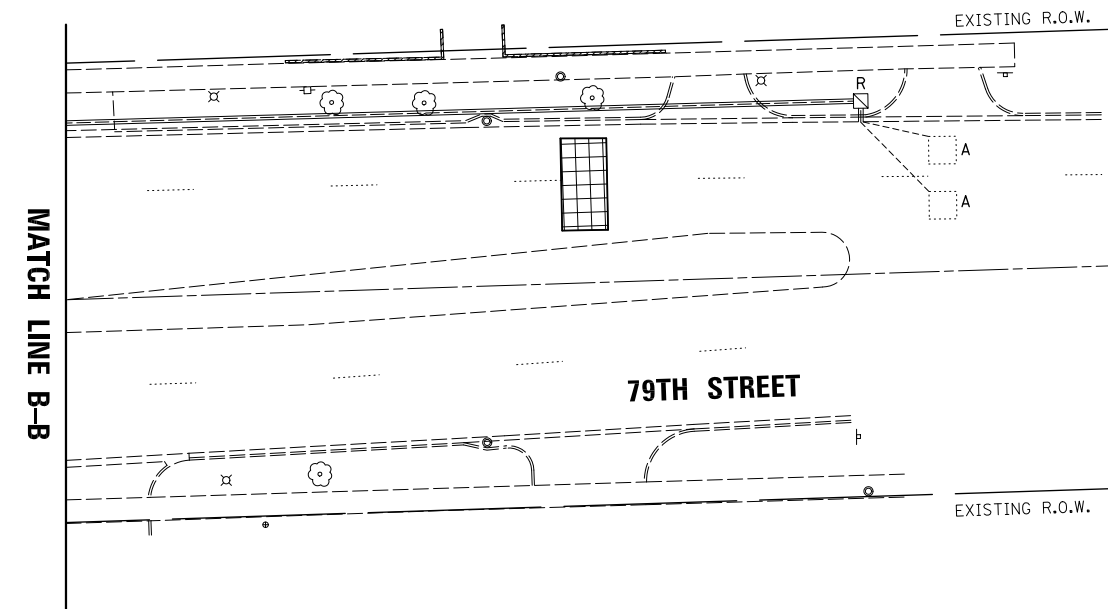
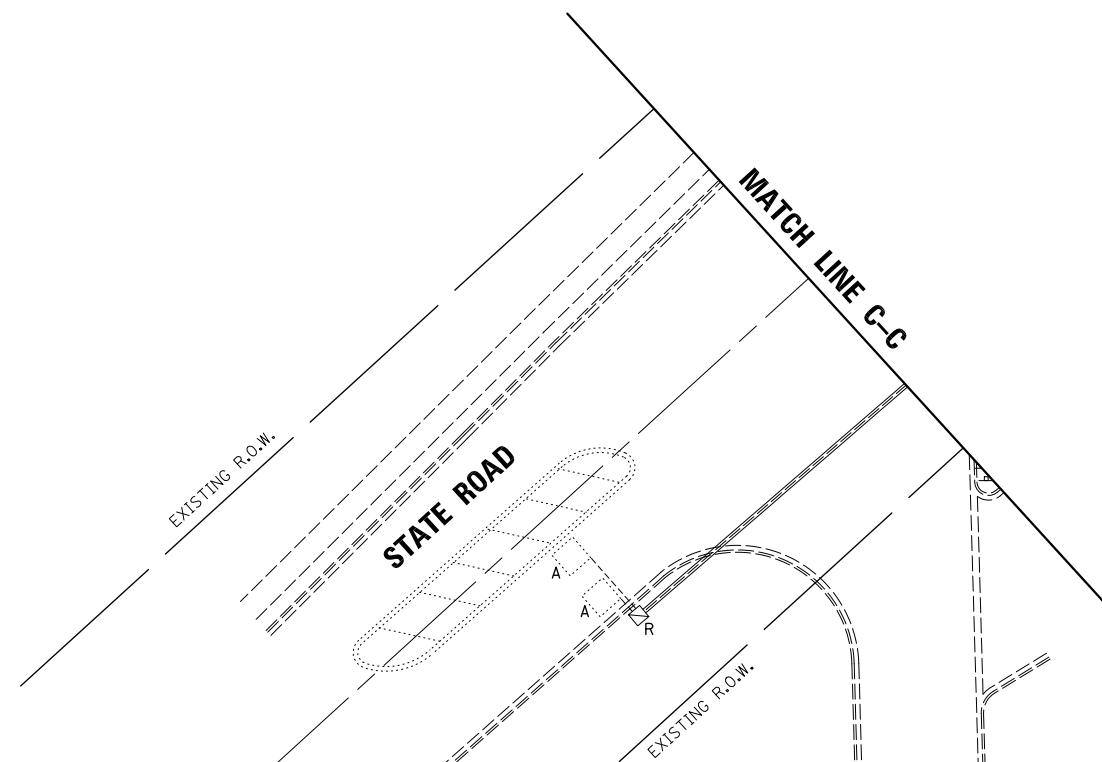
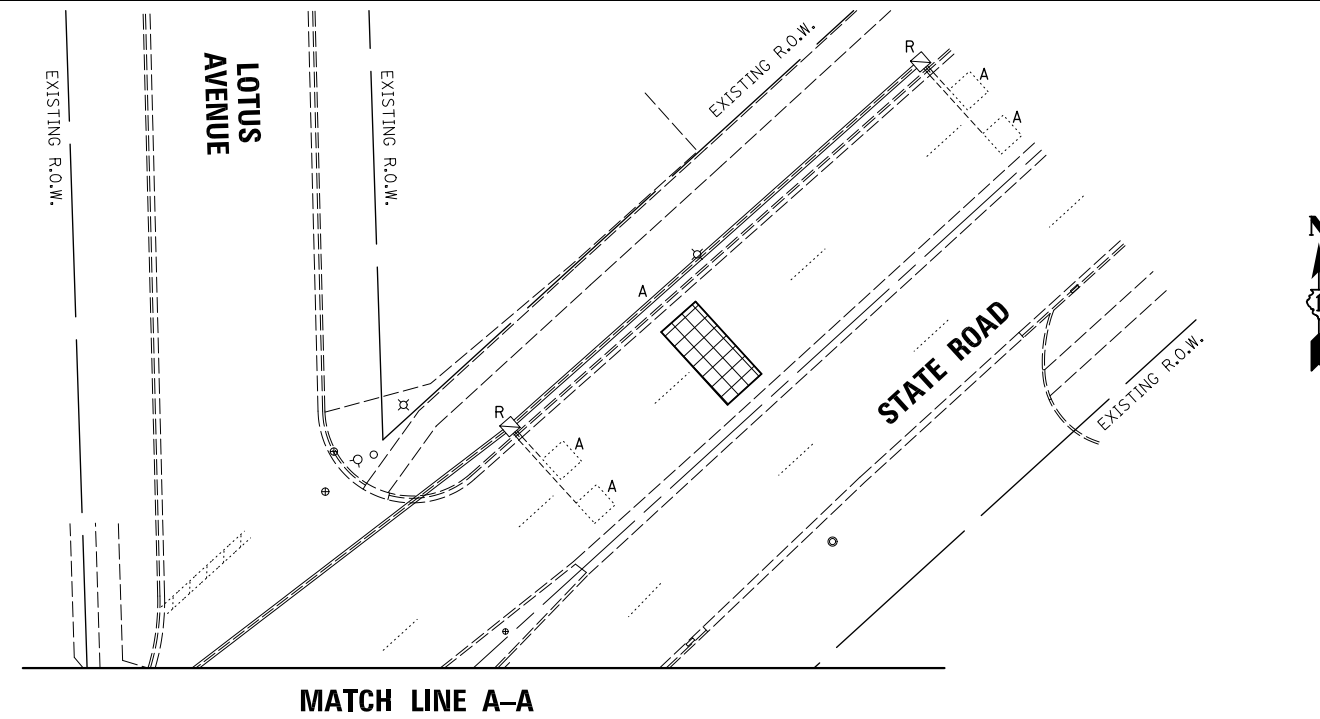
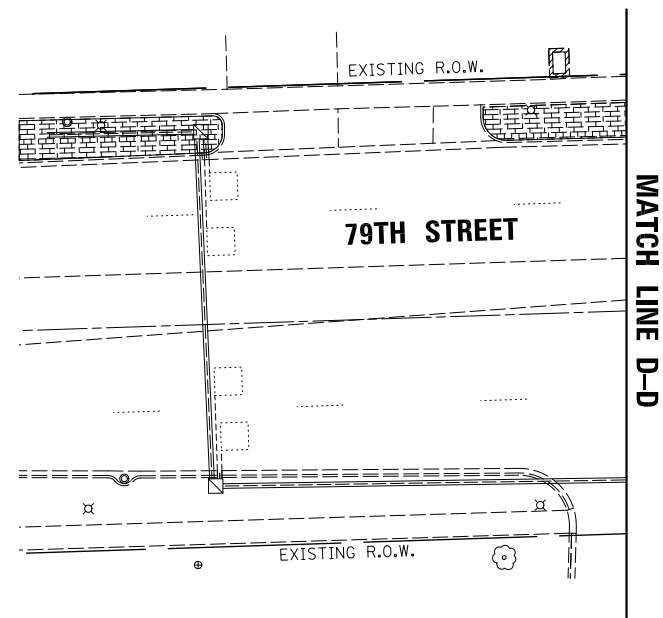
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		DRAWN - RDS/JGC	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
79TH STREET @ STATE ROAD**

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

PREPARED BY: CEMCON, Ltd. Consulting Engineers, Land Surveyors & Planners 2280 White Oak Circle, Suite 100 Aurora, Illinois 60504-9675 Ph: 630.862.2100 Fax: 630.862.2199 E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T94	



FILE NAME =
 \MICROST\352104\ 79TH @ STATE TEMP
 SIG.DGN

USER NAME = JGC
 PLOT SCALE = 1"=20'
 PLOT DATE = 12-6-12

DESIGNED - KK
 DRAWN - RDS/JGC
 CHECKED - BPT
 DATE - 12-6-12

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

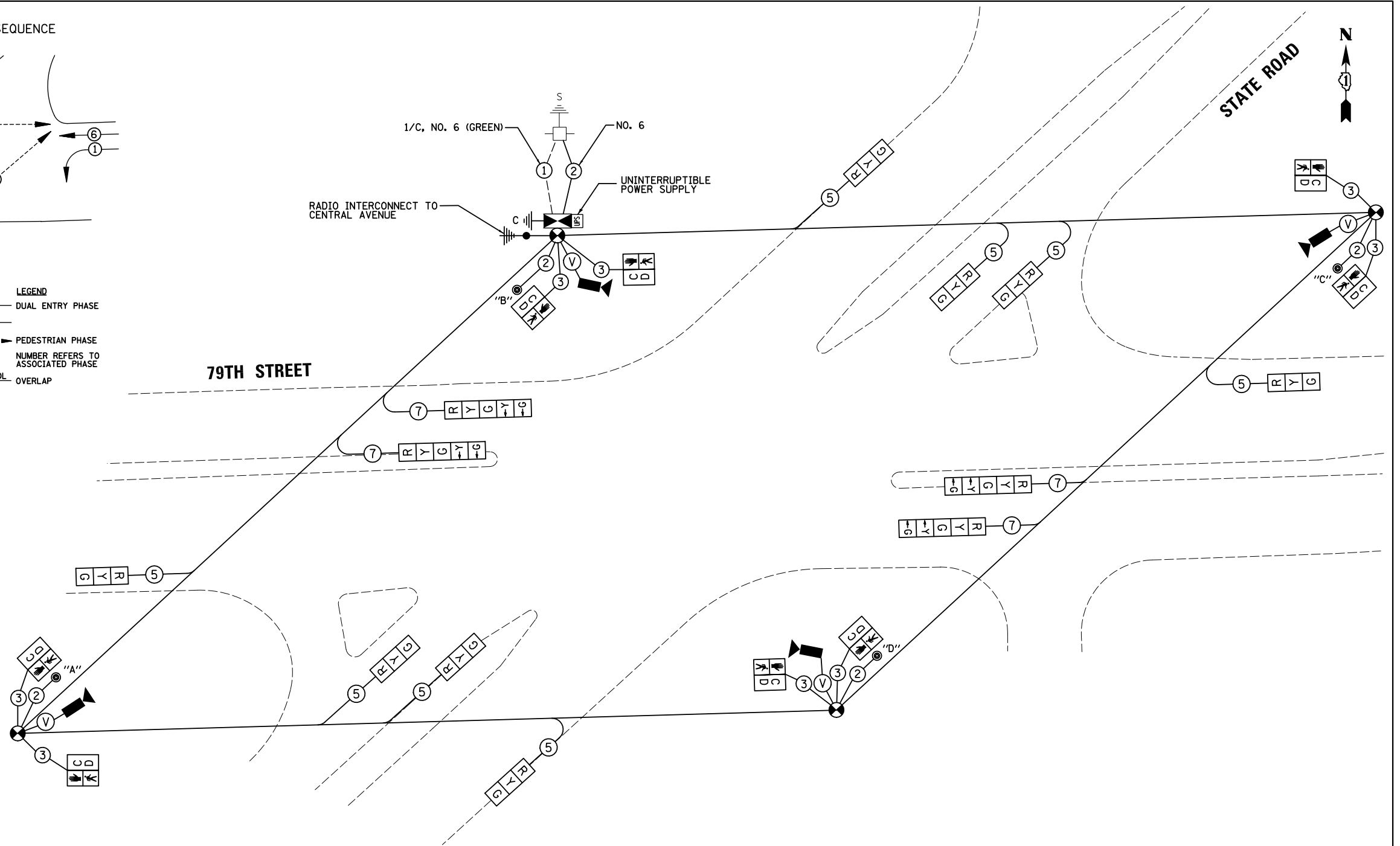
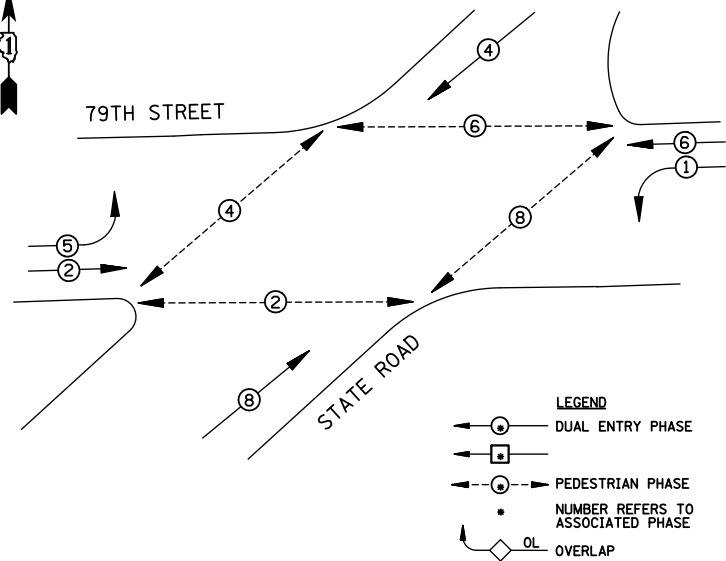
TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING
 TRAFFIC SIGNAL EQUIPMENT PLAN
 79TH STREET @ STATE ROAD

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

PREPARED BY:				
CEMCON, Ltd.				
Consulting Engineers, Land Surveyors & Planners				
2280 White Oak Circle, Suite 100				
Aurora, Illinois 60504-9675				
Ph: 630.862.2100 Fax: 630.862.2199				
E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	12
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60T94	



TEMPORARY CONTROLLER SEQUENCE



TEMPORARY CABLE PLAN

NOTES:

- PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER		135	25	0.50	
ENERGY COSTS TO: CITY OF BURBANK 6530 W. 79TH STREET BURBANK, IL 60459					TOTAL = 531.6
ENERGY SUPPLY CONTACT: DARRYL BELL PHONE: (630) 985-0410 COMPANY: COMED					
FILE NAME =	USER NAME = JGC	DESIGNED - KK	REVISED -		
\\MICROST\352184\ 79TH & STATE TEMP CAB.DGN		DRAWN - RDS/JGC	REVISED -		
	PLOT SCALE = 1"=20'	CHECKED - BPT	REVISED -		
	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
79TH STREET AT STATE ROAD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY: CEMCON, Ltd. Consulting Engineers, Land Surveyors & Planners 2280 White Oak Circle, Suite 100 Aurora, Illinois 60504-9675 Ph: 630.862.2100 Fax: 630.862.2199 E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	13
CONTRACT NO. 60T94				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PROPOSED P.C.C. ISLAND:

TOTAL STANDARD B-6.12 C&G - 77 L.F.
TOTAL DEPRESSED B-6.12 C&G - 18 L.F.
TOTAL DETECTABLE WARNINGS - 35 S.F.
TOTAL P.C.C. SIDEWALK, 5" - 117 S.F.
TOTAL CORG. MEDIAN SURFACE, 4" - 294 S.F.

CORRUGATED P.C.C. MEDIAN - 92 S.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 4" YELLOW - 29 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 53 L.F.

PROPOSED P.C.C. SIDEWALK, 5" - 60 S.F.

PROPOSED DETECTABLE WARNINGS - 18 S.F.

PROPOSED P.C.C. SIDEWALK, 5" - 59 S.F.

PROPOSED DETECTABLE WARNINGS - 18 S.F.

PROPOSED STANDARD CONC. CURB AND GUTTER, TYPE B-6.12 - 26 L.F.
PROPOSED DEPRESSED CONC. CURB AND GUTTER, TYPE B-6.12 - 13 L.F.

CLASS D PATCH, 12" - 4.4 S.Y.

THERMOPLASTIC PAVEMENT MARKING LINE, 4" YELLOW - 38 L.F.

CORRUGATED P.C.C. MEDIAN - 126 S.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 66 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 23 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE - 229 L.F.

PROPOSED DEPRESSED CONC. CURB AND GUTTER, TYPE B-6.12 - 5 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 12" WHITE - 176 L.F.

CLASS D PATCH, 12" - 11.2 S.Y.

THERMOPLASTIC PAVEMENT MARKING LINE, 12" WHITE - 200 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 60 L.F.

79TH STREET

LOTUS AVENUE

PROPOSED DETECTABLE WARNINGS - 14 S.F.

PROPOSED P.C.C. SIDEWALK, 5" - 85 S.F.

PROPOSED P.C.C. SIDEWALK, 5" - 56 S.F.

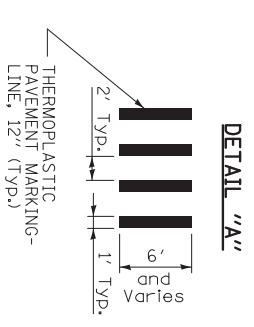
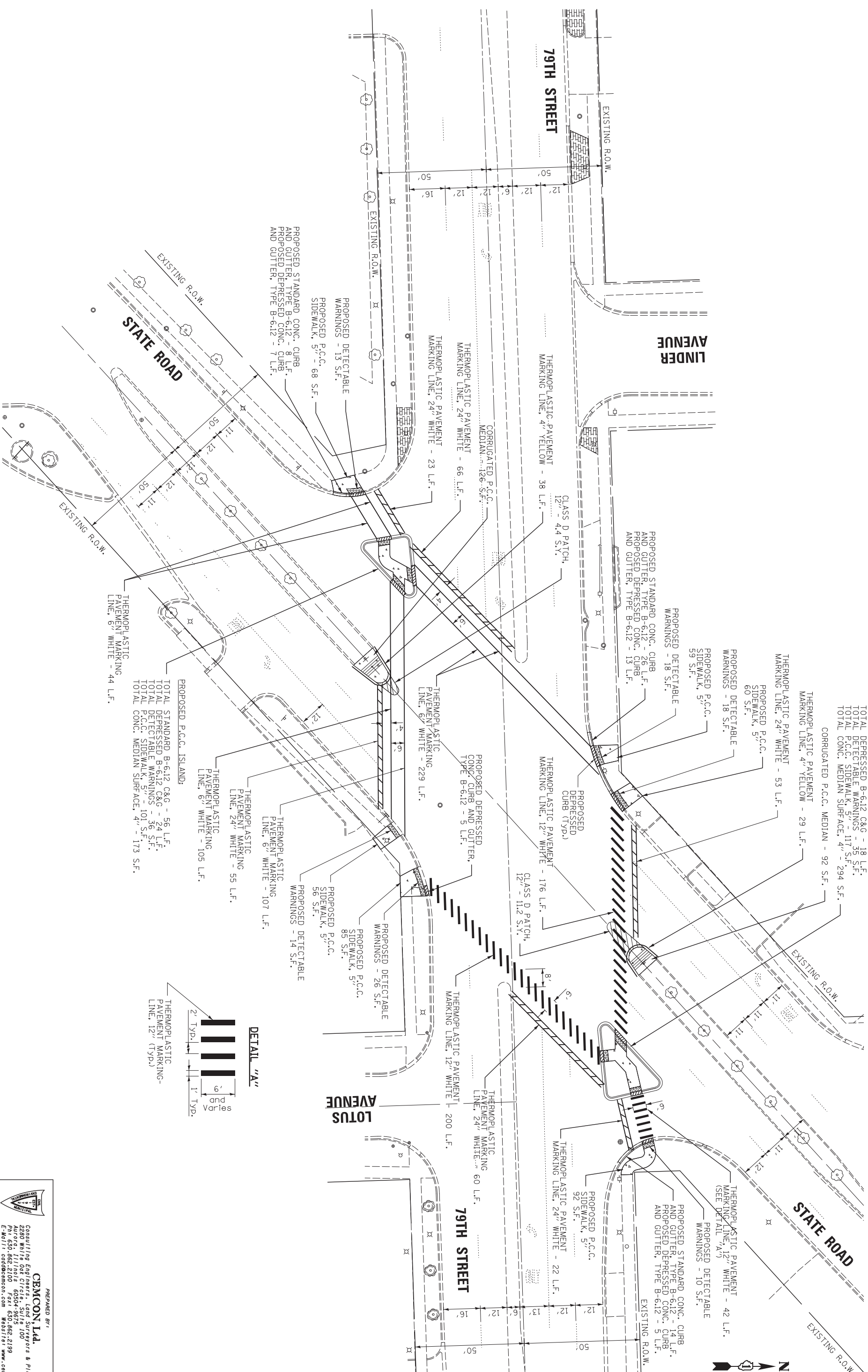
THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE - 107 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE - 105 L.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 24" WHITE - 55 L.F.


PROPOSED P.C.C. ISLAND:
TOTAL STANDARD B-6.12 C&G - 56 L.F.
TOTAL DEPRESSED B-6.12 C&G - 24 L.F.
TOTAL DETECTABLE WARNINGS - 36 S.F.
TOTAL P.C.C. SIDEWALK, 5" - 101 S.F.
TOTAL CONC. MEDIAN SURFACE, 4" - 173 S.F.

THERMOPLASTIC PAVEMENT MARKING LINE, 6" WHITE - 44 L.F.



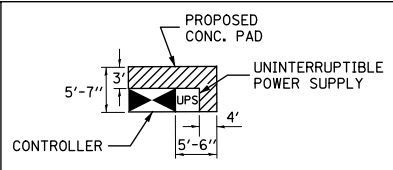
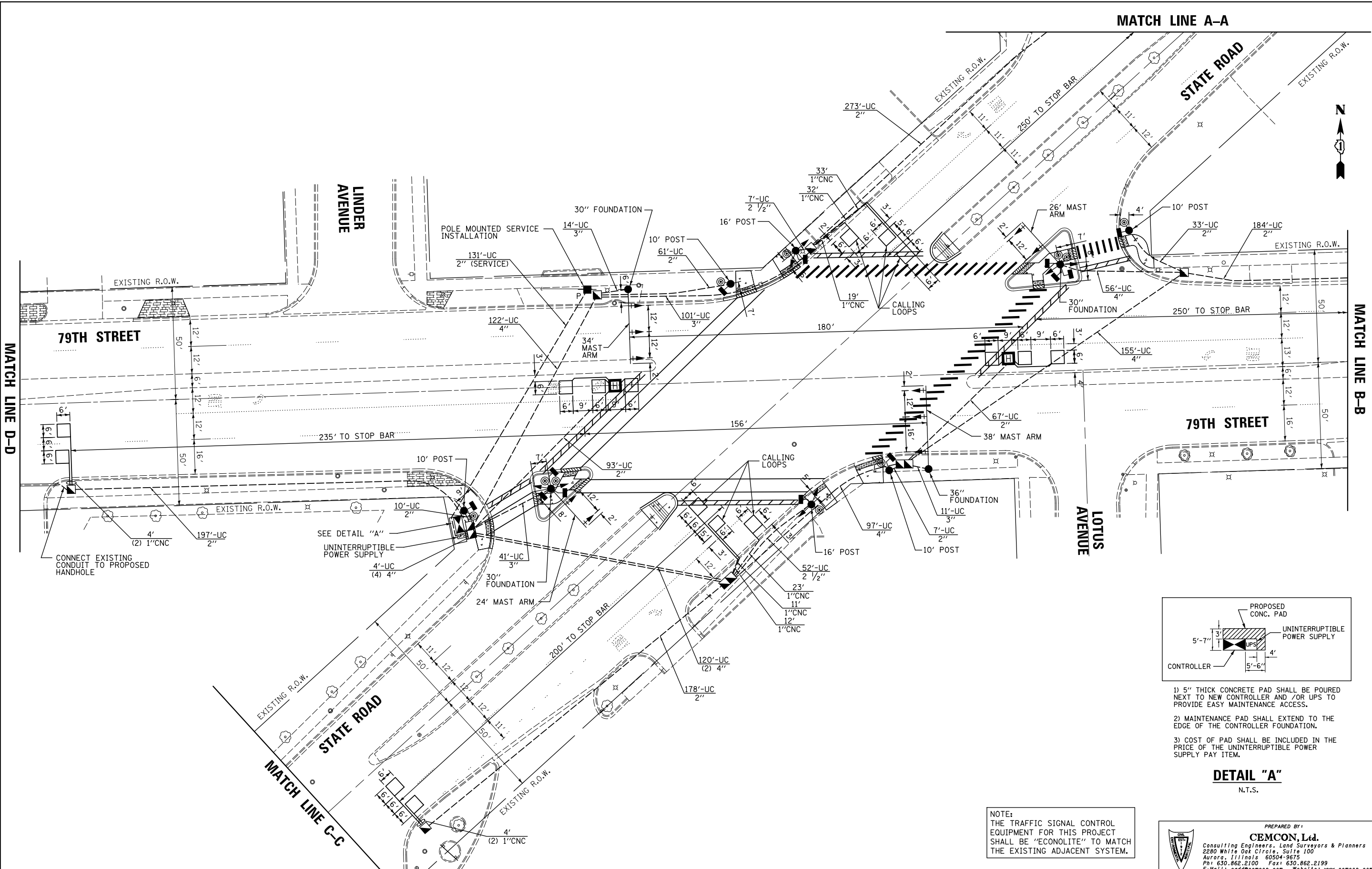
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\\MICROST\382104\79TH & STATE GEO.DWG		DRAWN = RDS/JGC	REVISED =		GEOMETRIC AND STRIPING PLAN 79TH STREET @ STATE ROAD		
PLLOT SCALE = 1"=20'		CHECKED = BPT	REVISED =				
PLLOT DATE = 12-6-12		DATE = 12-6-12	REVISED =				

PREPARED BY:



CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
4601 North Lincoln Street, Suite 100
Chicago, Illinois 60630-4967
Ph: 630.862.2100 Fax: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
1548	(461-Y) TS	COOK	24 14
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO.	60794



- 1) 5" THICK CONCRETE PAD SHALL BE POURED NEXT TO NEW CONTROLLER AND /OR UPS TO PROVIDE EASY MAINTENANCE ACCESS.
- 2) MAINTENANCE PAD SHALL EXTEND TO THE EDGE OF THE CONTROLLER FOUNDATION.
- 3) COST OF PAD SHALL BE INCLUDED IN THE PRICE OF THE UNINTERRUPTIBLE POWER SUPPLY PAY ITEM.

DETAIL "A"
N.T.S.

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

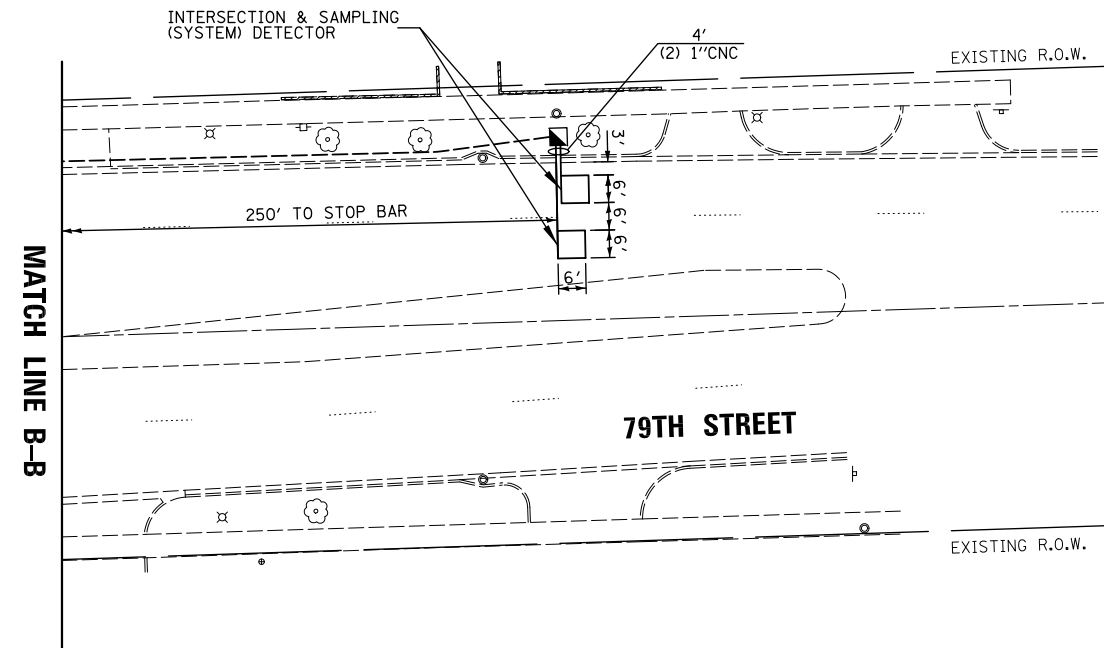
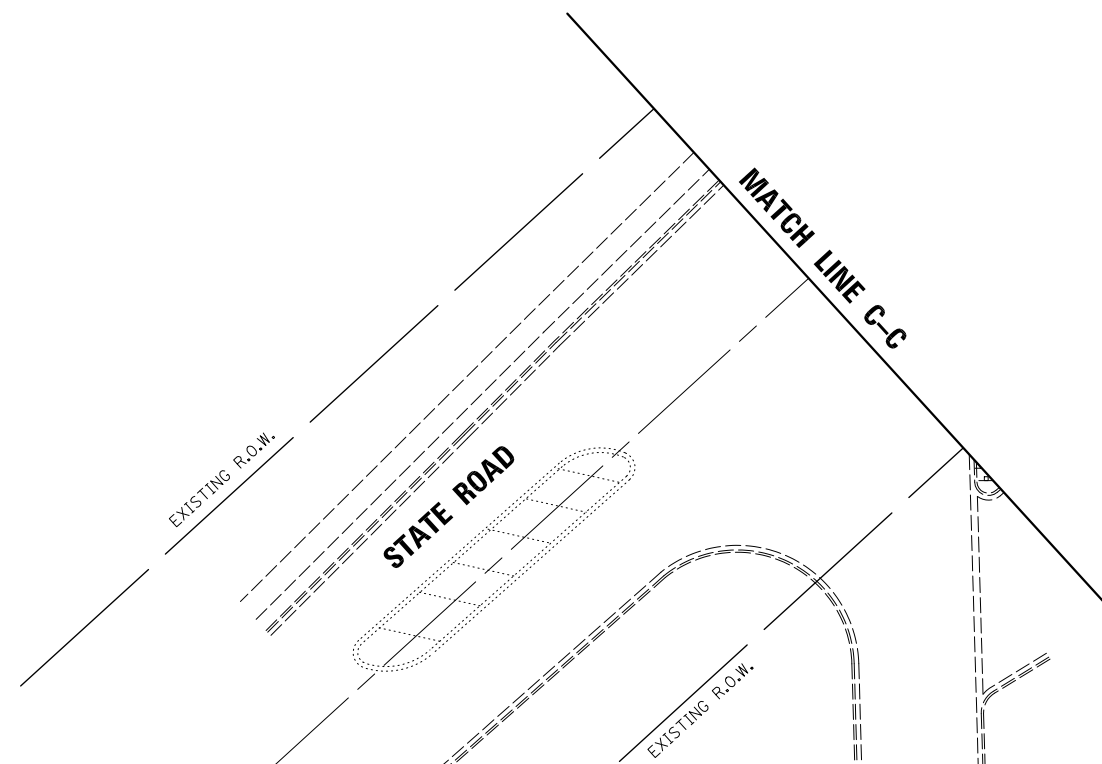
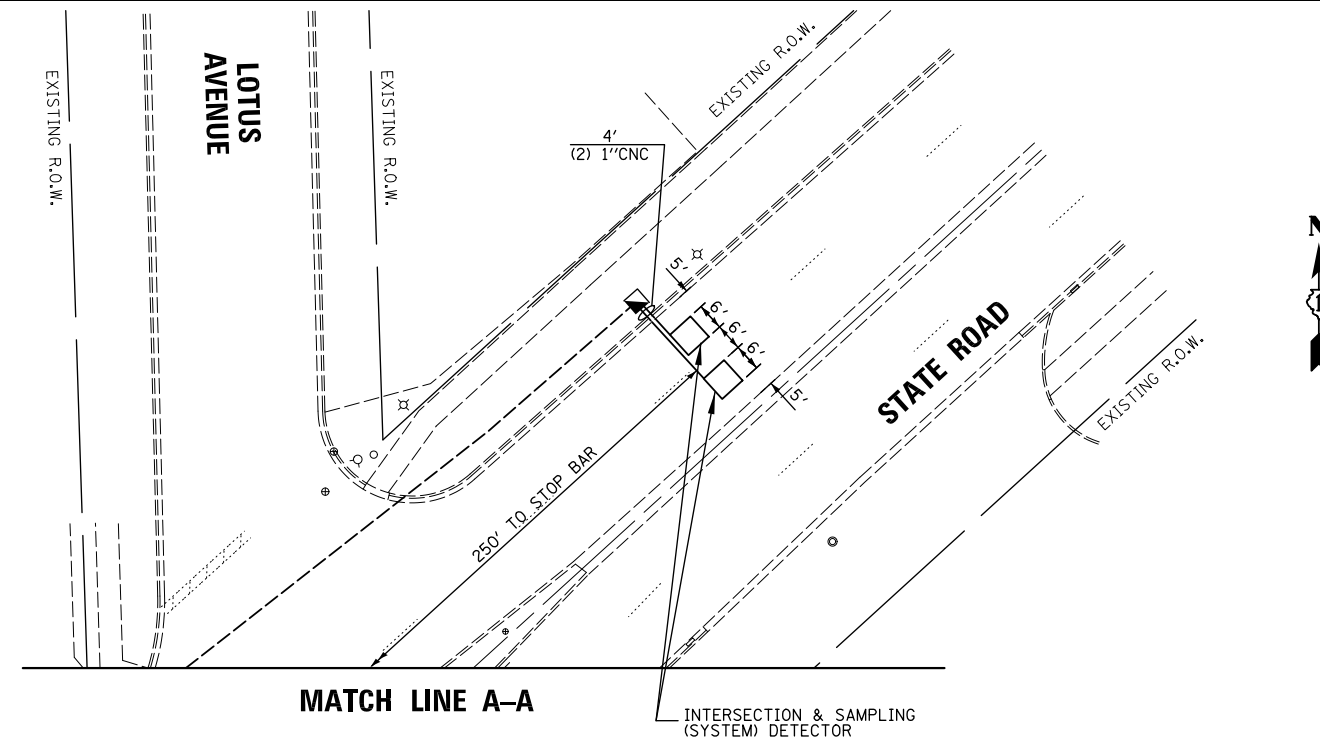
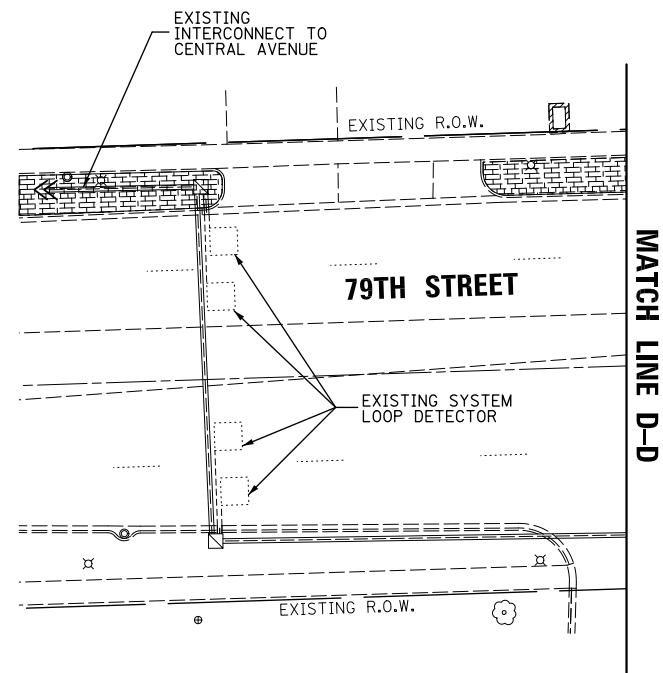
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		DRAWN - RDS/JGC	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
79TH STREET @ STATE ROAD**

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

PREPARED BY:				
CEMCON, Ltd.				
Consulting Engineers, Land Surveyors & Planners				
2280 White Oak Circle, Suite 100				
Aurora, Illinois 60504-9675				
Ph: 630.862.2100 Fax: 630.862.2199				
E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	15
CONTRACT NO. 60T94				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



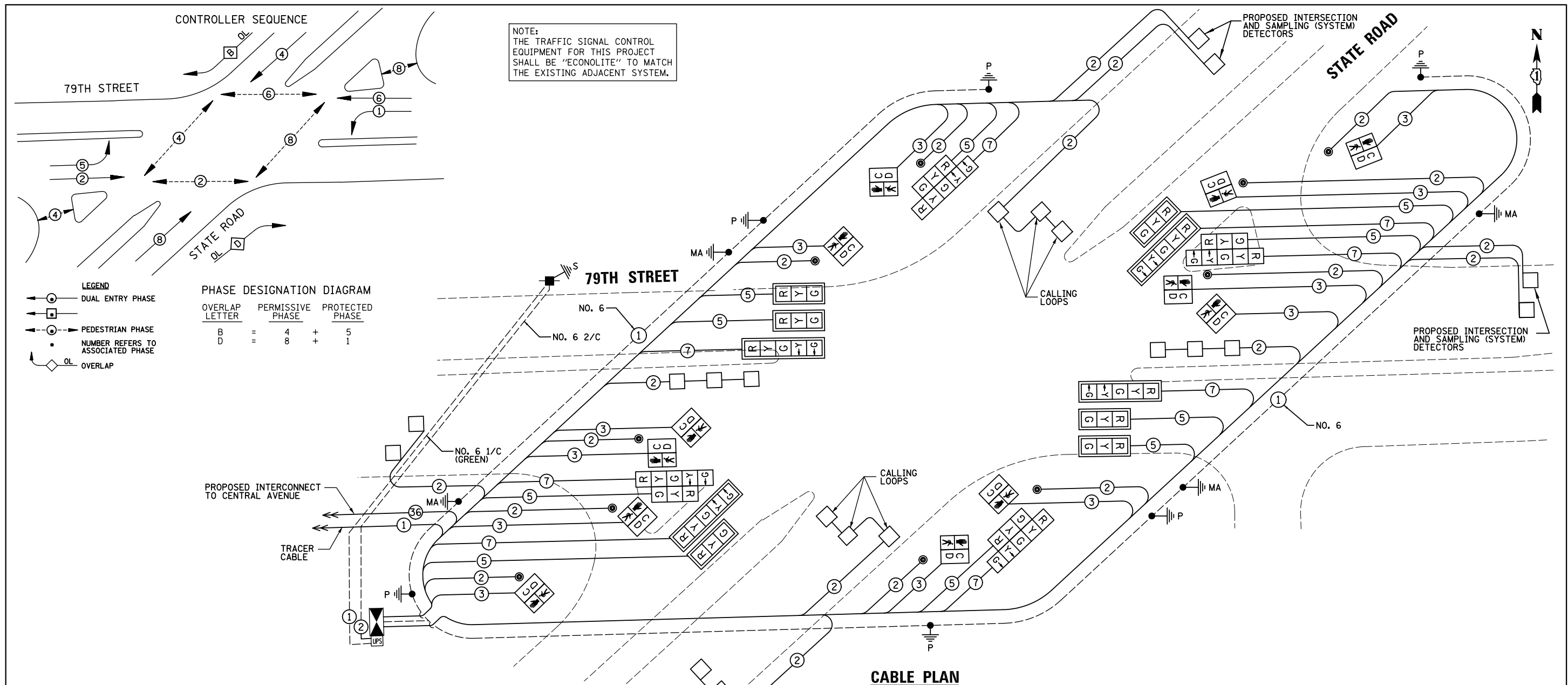
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	PLOT SCALE = 1"=20'	CHECKED - BPT	REVISED -
	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
79TH STREET @ STATE ROAD**

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

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	16
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60T94				



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY	ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ. FT	25.5	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
SERVICE INSTALLATION - POLE MOUNTED	EACH	1	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1234	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	59	INDUCTIVE LOOP DETECTOR	EACH	10
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	167	DETECTOR LOOP, TYPE I	FOOT	693
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	686	PEDESTRIAN PUSH-BUTTON	EACH	10
HANDHOLE	EACH	7	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
HEAVY-DUTY HANDHOLE	EACH	2	REMOVE EXISTING HANDHOLE	EACH	16
DOUBLE HANDHOLE	EACH	3	REMOVE EXISTING CONCRETE FOUNDATION	EACH	12
TRANSCEIVER - FIBER OPTIC	EACH	1	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2646	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3297	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2772	TEMPORARY INFORMATION SIGNING	SO FT	25.7
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2266	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3733			
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	149			
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	996			
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2			
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1			
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1			
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1			
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1			
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1			
CONCRETE FOUNDATION, TYPE A	FOOT	24			
CONCRETE FOUNDATION, TYPE C	FOOT	4			
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5			
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	11			
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6			
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4			
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4			

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	112.5
(GREEN)	18	135	15	0.25	67.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	12	90	25	1.00	300
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER		135	25	0.50	
ENERGY COSTS TO: CITY OF BURBANK 6530 W. 79TH STREET BURBANK, IL 60459					TOTAL = 752.2

ENERGY SUPPLY CONTACT: DARRYL BELL
 (630) 985-0410
 PHONE: (630) 985-0410
 COMPANY: COMED

FILE NAME =	USER NAME = JGC	DESIGNED - KK	REVISED -
\\MICROST\352104\ 79TH & STATE CAB.DGN		DRAWN - RDS/JGC	REVISED -
	PLOT SCALE = 1"=20'	CHECKED - BPT	REVISED -
	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -

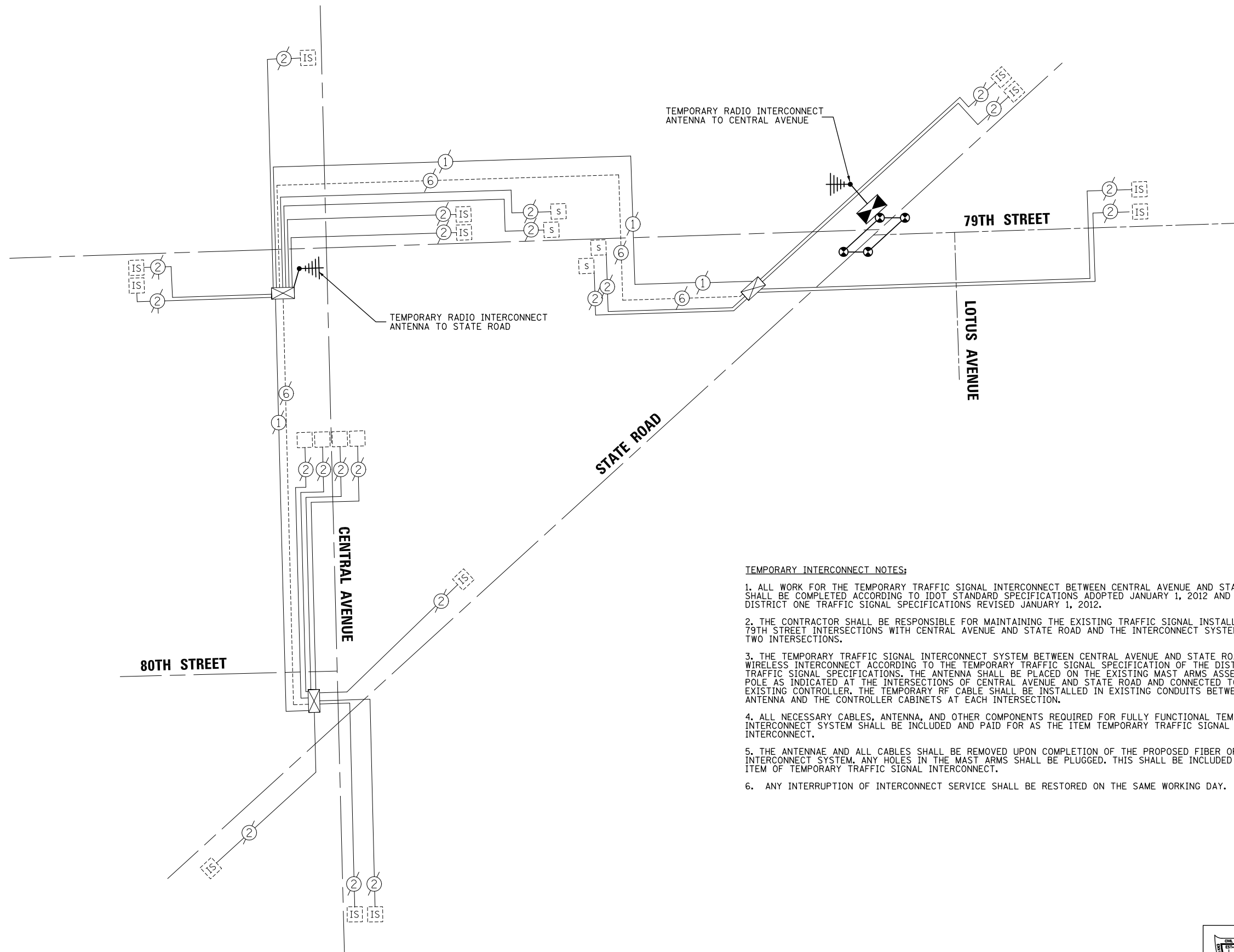
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM 79TH STREET AT STATE ROAD				
SCALE: N.T.S.	SHEET NO. OF SHEETS	STA.	TO STA.	

PREPARED BY:
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 Aurora, Illinois 60504-9675
 Ph: 630.862.2100 Fax: 630.862.2199
 E-Mail: codd@cemcon.com Website: www.cemcon.com

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	17

CONTRACT NO. 60T94
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



TEMPORARY INTERCONNECT NOTES:

1. ALL WORK FOR THE TEMPORARY TRAFFIC SIGNAL INTERCONNECT BETWEEN CENTRAL AVENUE AND STATE ROAD SHALL BE COMPLETED ACCORDING TO IDOT STANDARD SPECIFICATIONS ADOPTED JANUARY 1, 2012 AND IDOT DISTRICT ONE TRAFFIC SIGNAL SPECIFICATIONS REVISED JANUARY 1, 2012.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EXISTING TRAFFIC SIGNAL INSTALLATION AT 79TH STREET INTERSECTIONS WITH CENTRAL AVENUE AND STATE ROAD AND THE INTERCONNECT SYSTEM BETWEEN THE TWO INTERSECTIONS.
3. THE TEMPORARY TRAFFIC SIGNAL INTERCONNECT SYSTEM BETWEEN CENTRAL AVENUE AND STATE ROAD SHALL BE WIRELESS INTERCONNECT ACCORDING TO THE TEMPORARY TRAFFIC SIGNAL SPECIFICATION OF THE DISTRICT ONE TRAFFIC SIGNAL SPECIFICATIONS. THE ANTENNA SHALL BE PLACED ON THE EXISTING MAST ARMS ASSEMBLY AND POLE AS INDICATED AT THE INTERSECTIONS OF CENTRAL AVENUE AND STATE ROAD AND CONNECTED TO THE EXISTING CONTROLLER. THE TEMPORARY RF CABLE SHALL BE INSTALLED IN EXISTING CONDUITS BETWEEN THE ANTENNA AND THE CONTROLLER CABINETS AT EACH INTERSECTION.
4. ALL NECESSARY CABLES, ANTENNA, AND OTHER COMPONENTS REQUIRED FOR FULLY FUNCTIONAL TEMPORARY RADIO INTERCONNECT SYSTEM SHALL BE INCLUDED AND PAID FOR AS THE ITEM TEMPORARY TRAFFIC SIGNAL INTERCONNECT.
5. THE ANTENNAE AND ALL CABLES SHALL BE REMOVED UPON COMPLETION OF THE PROPOSED FIBER OPTIC INTERCONNECT SYSTEM. ANY HOLES IN THE MAST ARMS SHALL BE PLUGGED. THIS SHALL BE INCLUDED IN THE PAY ITEM OF TEMPORARY TRAFFIC SIGNAL INTERCONNECT.
6. ANY INTERRUPTION OF INTERCONNECT SERVICE SHALL BE RESTORED ON THE SAME WORKING DAY.

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

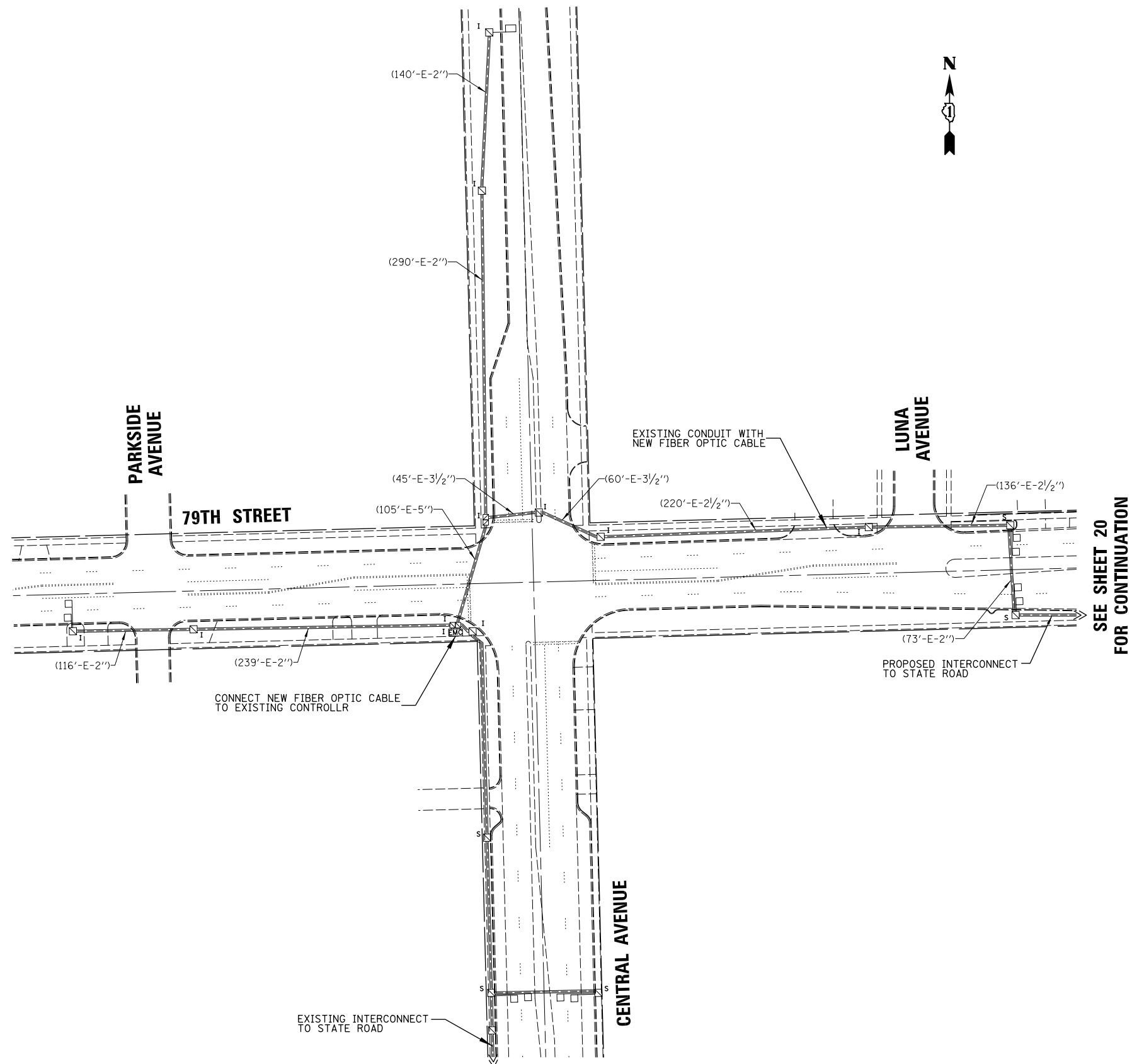
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\\MICROST\352104\ TEMP INTERCONNECT SCH.DGN		DRAWN - RDS/JGC	REVISED -
	PLOT SCALE = 1"=50'	CHECKED - BPT	REVISED -
	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT SCHEMATIC
79TH STREET**

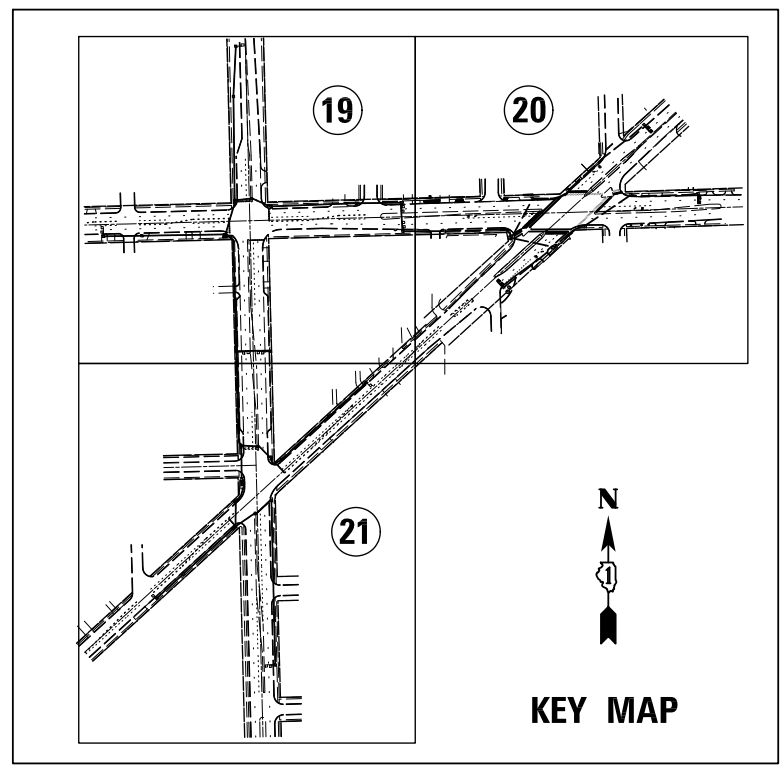
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:				
CEMCON, Ltd.				
Consulting Engineers, Land Surveyors & Planners				
2280 White Oak Circle, Suite 100				
Aurora, Illinois 60504-9675				
Ph: 630.862.2100 Fax: 630.862.2199				
E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	18
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60T94				



SEE SHEET 20
FOR CONTINUATION

SEE SHEET 21
FOR CONTINUATION



KEY MAP

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

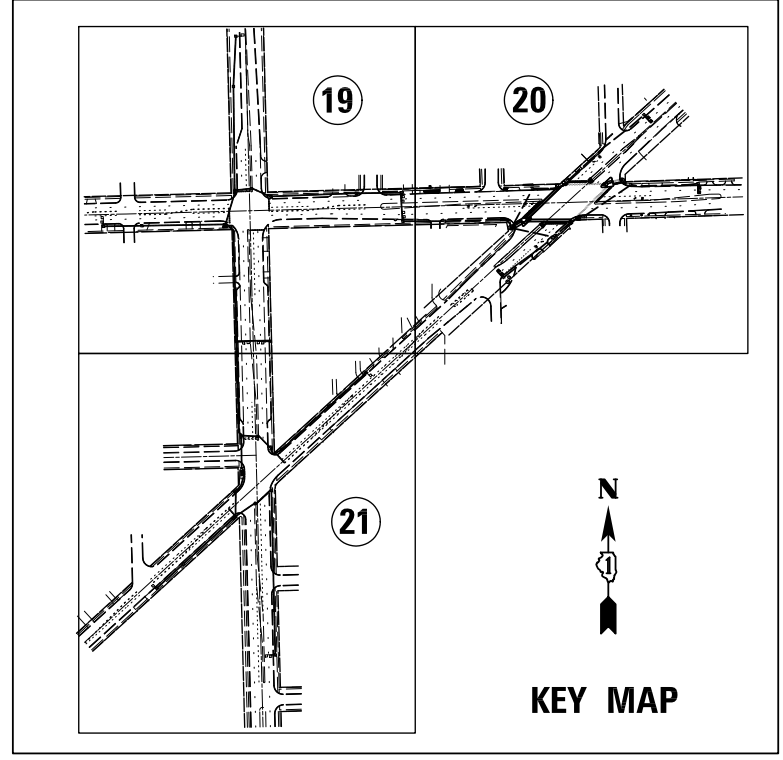
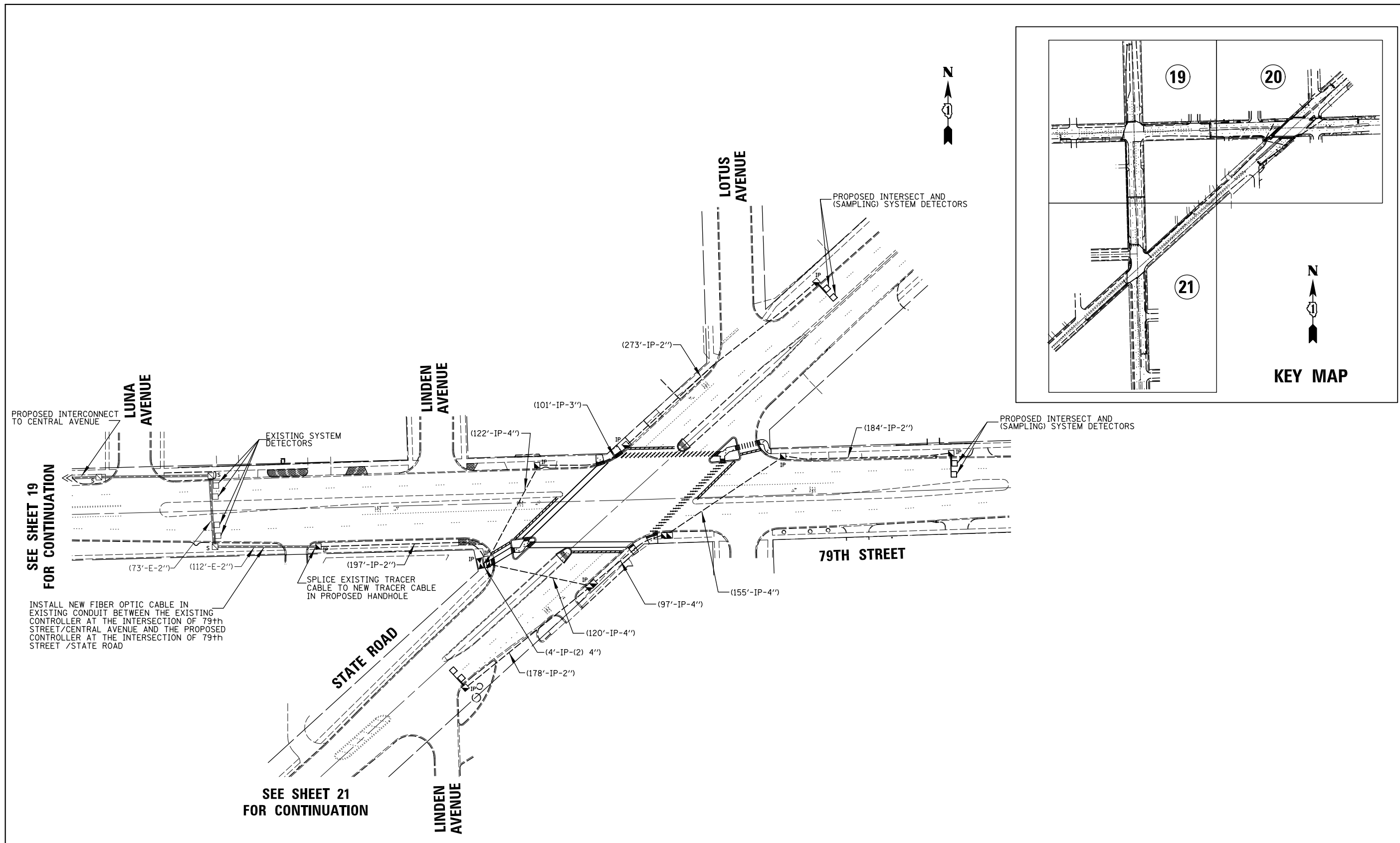
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FILE NAME = \\MICROST\352104\ 18-INTERCONNECT.DGN	USER NAME = JGC	DESIGNED - KK	REVISED -
		DRAWN - RDS/JGC	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN			
79TH STREET @ STATE ROAD			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	19
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60T94				



SEE SHEET 19
FOR CONTINUATION

SEE SHEET 21
FOR CONTINUATION

INSTALL NEW FIBER OPTIC CABLE IN EXISTING CONDUIT BETWEEN THE EXISTING CONTROLLER AT THE INTERSECTION OF 79th STREET/CENTRAL AVENUE AND THE PROPOSED CONTROLLER AT THE INTERSECTION OF 79th STREET /STATE ROAD

SPLICE EXISTING TRACER CABLE TO NEW TRACER CABLE IN PROPOSED HANDHOLE

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

FILE NAME = \\MICROST\352104\ 18-INTERCONNECT.DGN	USER NAME = JGC	DESIGNED - KK	REVISED -
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	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -

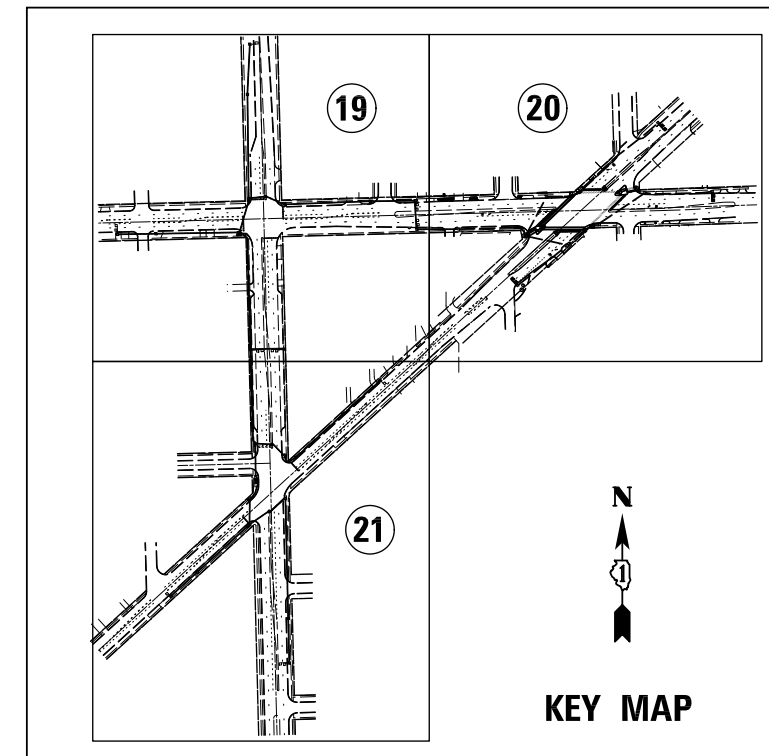
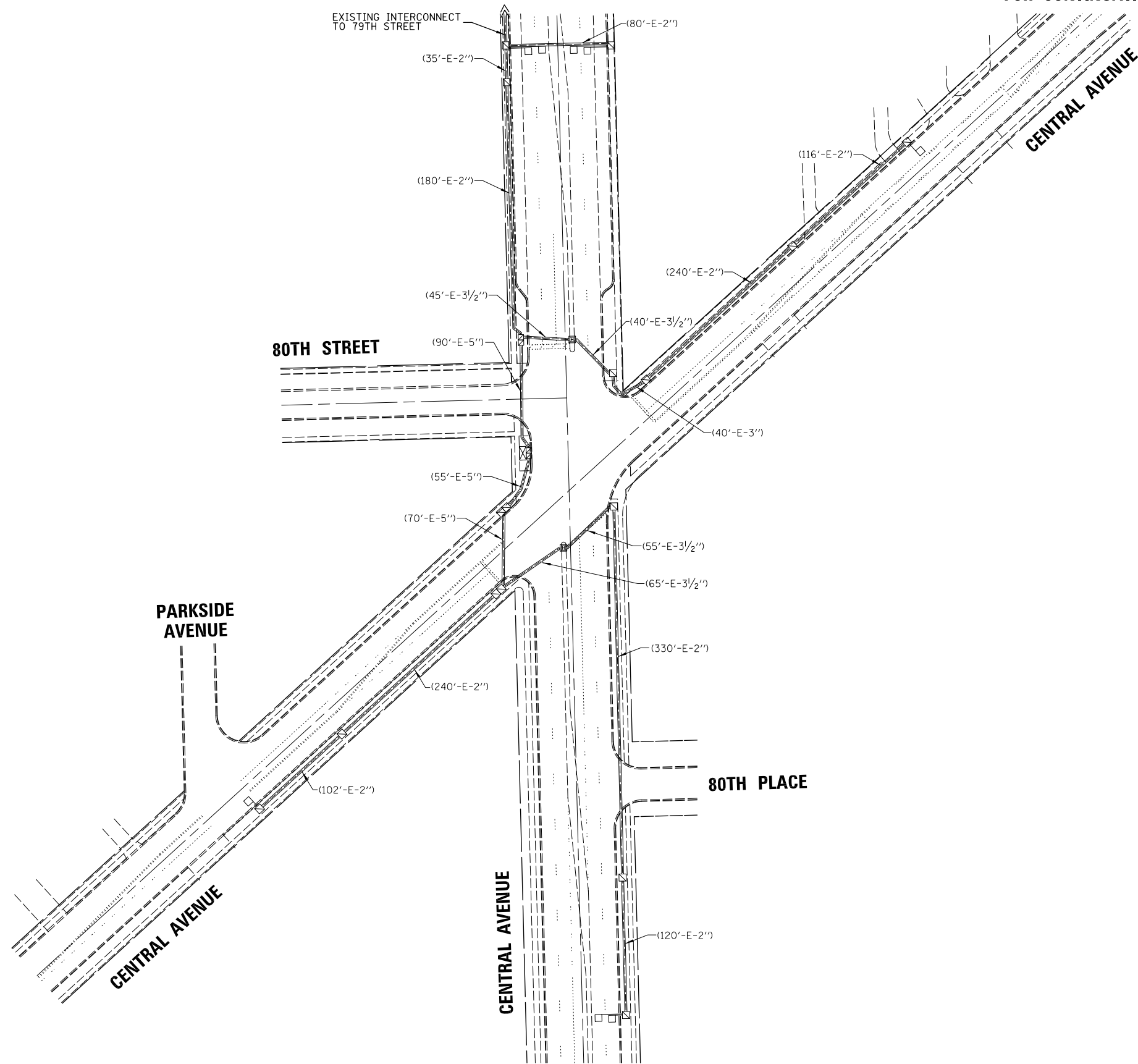
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN 79TH STREET @ STATE ROAD				
SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA. TO STA.

PREPARED BY: CEMCON, Ltd. <i>Consulting Engineers, Land Surveyors & Planners</i> 2280 White Oak Circle, Suite 100 Aurora, Illinois 60504-9675 Ph: 630.862.2100 Fax: 630.862.2199 E-Mail: codd@cemcon.com Website: www.cemcon.com				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	20
CONTRACT NO. 60T94				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SEE SHEET 18
FOR CONTINUATION

SEE SHEET 19
FOR CONTINUATION



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

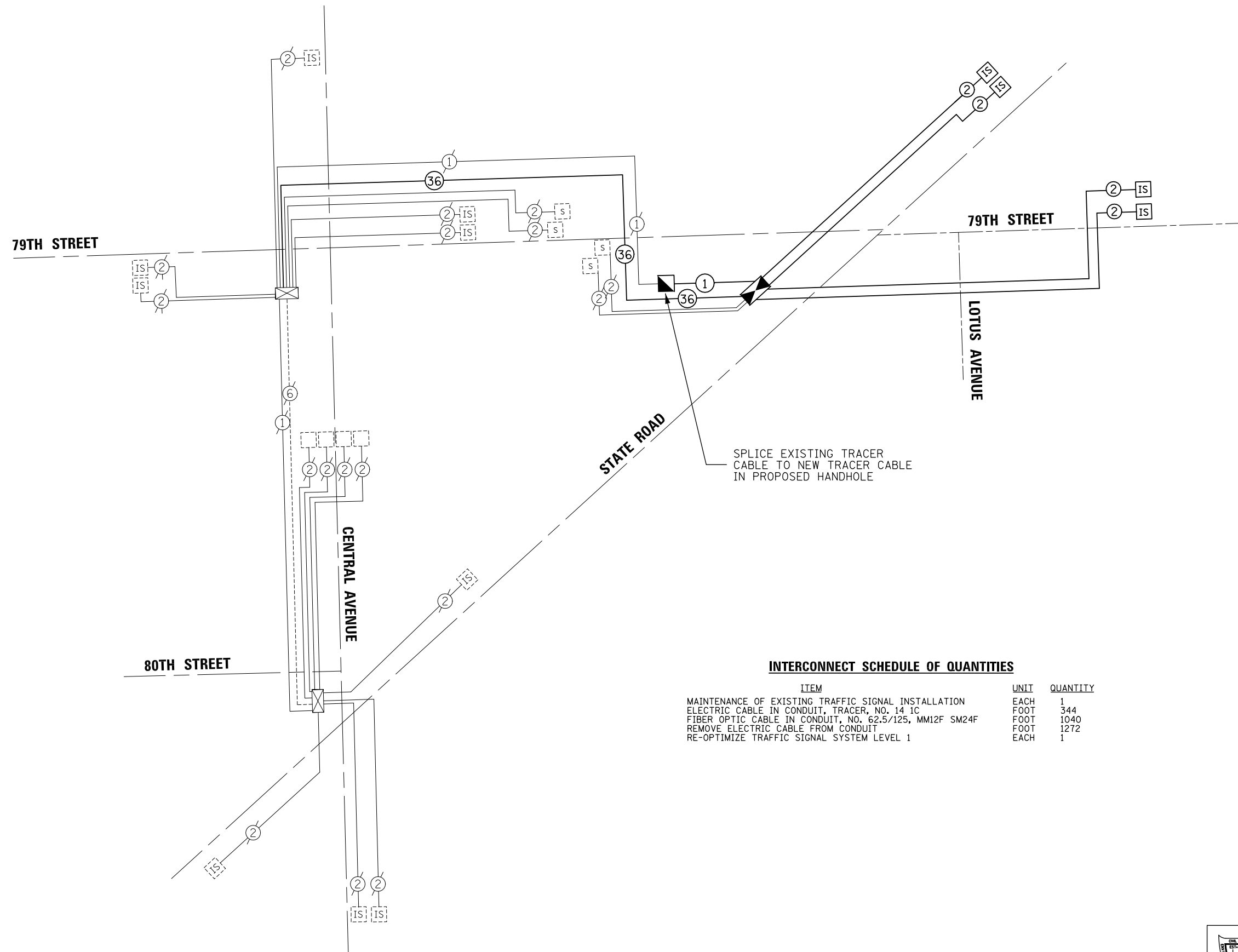
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FILE NAME = \\MICROST\352104\ 18-INTERCONNECT.DGN	USER NAME = JGC	DESIGNED - KK	REVISED -
		DRAWN - RDS/JGC	REVISED -
	PLOT SCALE = 1"=50'	CHECKED - BPT	REVISED -
	PLOT DATE = 12-6-12	DATE - 12-6-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN				
79TH STREET @ STATE ROAD				
SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	21
CONTRACT NO. 60T94				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



INTERCONNECT SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	344
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	1040
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1272
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

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

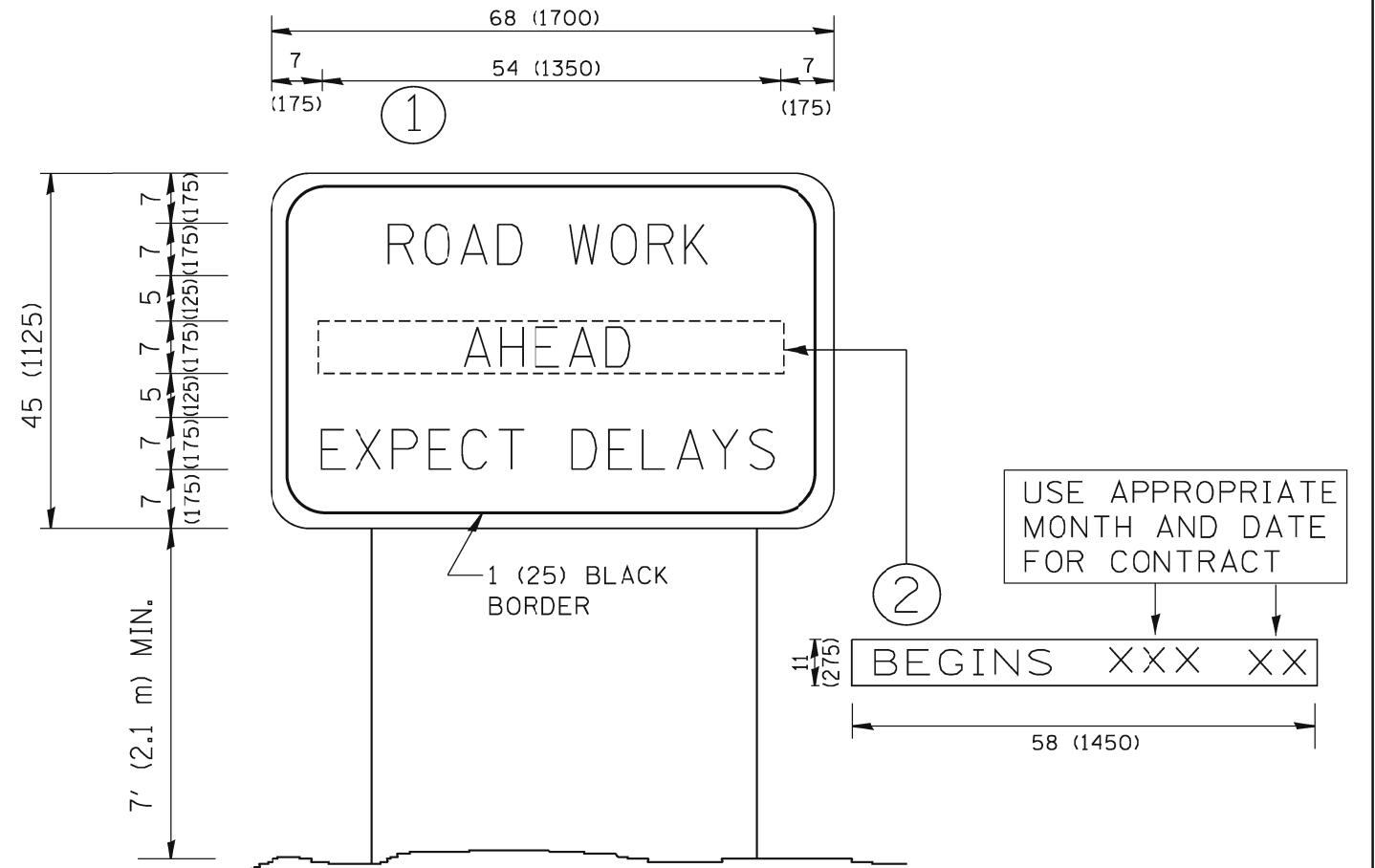
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FILE NAME = \\MICROST\352104\ INTERCONNECT SCH.DGN	USER NAME = JGC	DESIGNED - KK	REVISED -
		DRAWN - RDS/JGC	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-6-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT SCHEMATIC 79TH STREET			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	(461-Y) TS	COOK	24	22
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60T94				



NOTES:

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

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

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = geglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A.U. RTE. 1548	SECTION (461-Y) TS	COUNTY COOK	TOTAL SHEETS 24	SHEET NO. 24
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	TC-22 FED. ROAD DIST. NO. 1 ILLINOIS FEL. AID PROJECT CONTRACT NO. 60T94		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99									
		DATE -	REVISED - C. JUCIUS 01-31-07									