

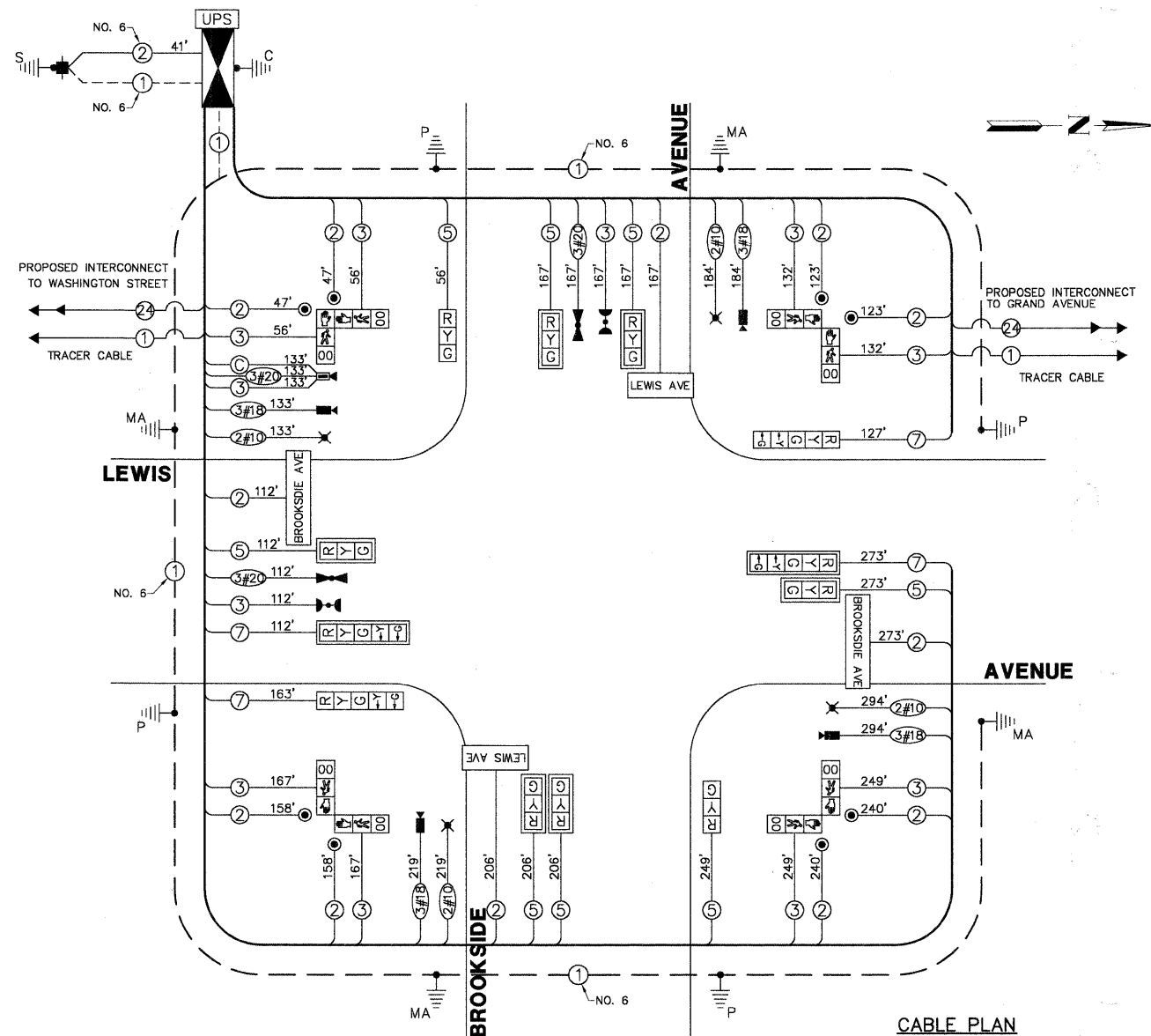
SCHEDULE OF QUANTITIES

LEWIS AVENUE AT BROOKSIDE AVENUE TRAFFIC SIGNAL MODERNIZATION

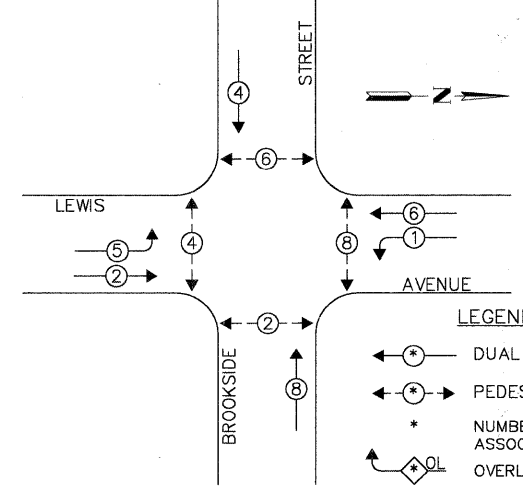
NO.	QUANT.	UNIT
1.	15	CU.YD. EARTH EXCAVATION
2.	40	SQ.YD. AGGREGATE BASE COURSE, TYPE B, 4"
3.	1,055	SQ.FT. PORTLAND CEMENT CONCRETE SIDEWALK, 5"
4.	160	SQ.FT. DETECTABLE WARNINGS
5.	80	FOOT COMBINATION CURB AND GUTTER REMOVAL
6.	700	SQ.FT. SIDEWALK REMOVAL
7.	8	EACH FRAMES AND LIDS TO BE ADJUSTED
8.	80	FOOT COMBINATION CONCRETE CURB AND GUTTER, TYPE B6.12
9.	480	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 12"
10.	85	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 24"
11.	400	SQ.FT. PAVEMENT MARKING REMOVAL
12.	19	FOOT CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL
13.	61	FOOT CONDUIT IN TRENCH, 2-1/2" DIA, GALVANIZED STEEL
14.	88	FOOT CONDUIT IN TRENCH, 3-1/2" DIA, GALVANIZED STEEL
15.	12	FOOT CONDUIT IN TRENCH, 4" DIA, GALVANIZED STEEL
16.	142	FOOT CONDUIT PUSHED, 4" DIA, GALVANIZED STEEL
17.	76	FOOT CONDUIT PUSHED, 5" DIA, GALVANIZED STEEL
18.	2	EACH HANDHOLE
19.	2	EACH DOUBLE HANDHOLE
20.	830	FOOT ELECTRIC CABLE IN CONDUIT, 600 (EPR-TYPE RHW) 2-1/2 NO. 10
21.	158	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
22.	4	EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT
23.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)
24.	1	EACH TRANSCEIVER - FIBER OPTIC
25.	1,994	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
26.	1,620	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
27.	1,436	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
28.	675	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
29.	41	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
30.	2	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 24 FT (SPECIAL)
31.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT (SPECIAL)
32.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 32 FT (SPECIAL)
33.	16	FOOT CONCRETE FOUNDATION, TYPE A
34.	4	FOOT CONCRETE FOUNDATION, TYPE C
35.	60	FOOT CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER
36.	6	EACH SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
37.	2	EACH SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
38.	2	EACH SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
39.	2	EACH SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
40.	4	EACH PEDESTRIAN COUNTDOWN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED
41.	8	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
42.	2	EACH LIGHT DETECTOR
43.	1	EACH LIGHT DETECTOR AMPLIFIER
44.	8	EACH PEDESTRIAN PUSH-BUTTON
45.	1	EACH TEMPORARY TRAFFIC SIGNAL INSTALLATION
46.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
47.	4	EACH REMOVE EXISTING HANDHOLE
48.	9	EACH REMOVE EXISTING CONCRETE FOUNDATION
49.	1	EACH SERVICE INSTALLATION, POLE MOUNT
50.	504	FOOT ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
51.	412	FOOT ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, GROUNDED
52.	133	FOOT ELECTRIC CABLE IN CONDUIT, COAXIAL
53.	830	FOOT ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18, 3C
54.	1	EACH VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)
55.	4	EACH L.E.D. INTERNALLY ILLUMINATED STREET NAME SIGN
56.	2	EACH TRAFFIC SIGNAL POST, 14 FT (SPECIAL)
57.	2	EACH TRAFFIC SIGNAL POST, 16 FT (SPECIAL)
58.	1	EACH REMOTE-CONTROLLED VIDEO SYSTEM
59.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
60.	1	EACH VIDEO ENCODER

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		12" TRAFFIC SIGNAL SECTION
		CONTROLLER CABINET
		TELEPHONE INSTALLATION
		EMERGENCY VEHICLE LIGHT DETECTOR
		PUSHBUTTON DETECTOR
		FIBER OPTIC CABLE IN CONDUIT, 24 SINGLEMODE
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H) OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		BELDEN 1694A RG-6/4 COAXIAL CABLE
		ISDN LINE
		LUMINAIRE
		VIDEO DETECTION CAMERA
		PTZ CAMERA
		VIDEO COMMUNICATIONS CABINET
		L.E.D. STREET NAME SIGN
		UNINTERRUPTIBLE POWER SUPPLY



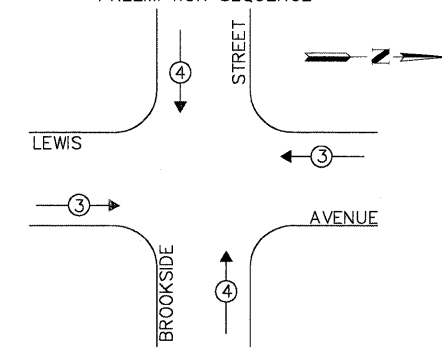
CONTROLLER SEQUENCE



LEGEND:

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	MOVEMENT
3	←
4	↑

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE NTCIP" COMPLIANT.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+1-2"
TYPE E - M/ARM POLE	15	SIGNAL POST	2	BRACKET MOUNTED	13
		CONTROLLER CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO LAMPS	WATTAGE INCAND.	L.E.D.	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	10	0.50	60.0
SIGNAL (YELLOW)	12	135	19	0.10	22.8
SIGNAL (GREEN)	12	135	11	0.40	52.4
ARROW	8	135	9	0.10	7.2
PED.SIGNAL	8	90	9	1.00	72.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	4	-	250	0.50	500.0
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
TOTAL =					1,017.4

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
 (ADDRESS) 100 N. M.L.K. JR. AVENUE
 (ADDRESS) WAUKEGAN, IL
 ENERGY SUPPLY - CONTACT: NEW BUSINESS
 PHONE: (886) 639-3552
 COMPANY: COM-ED, LIBERTYVILLE

FILE NAME = 4135.315-TR1.dwg
 USER NAME = GHA
 PLOT SCALE = 1" = .08'
 PLOT DATE = 10/19/2009

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - DPB
 DATE - 10/19/09

REVISED - 9/15/09 (LCDOT)
 REVISED - 9/25/09 (IDOT)
 REVISED - 10/19/09 (LCDOT)
 REVISED -



CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
LEWIS AVENUE AT BROOKSIDE AVENUE

SCALE: NONE SHEET NO. 23 OF 86 SHEETS STA. TO STA.

CHA #4135.800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2730	08-00259-00-TL	LAKE	86	23
				CONTRACT #: 63344

ILLINOIS FED. AID PROJECT