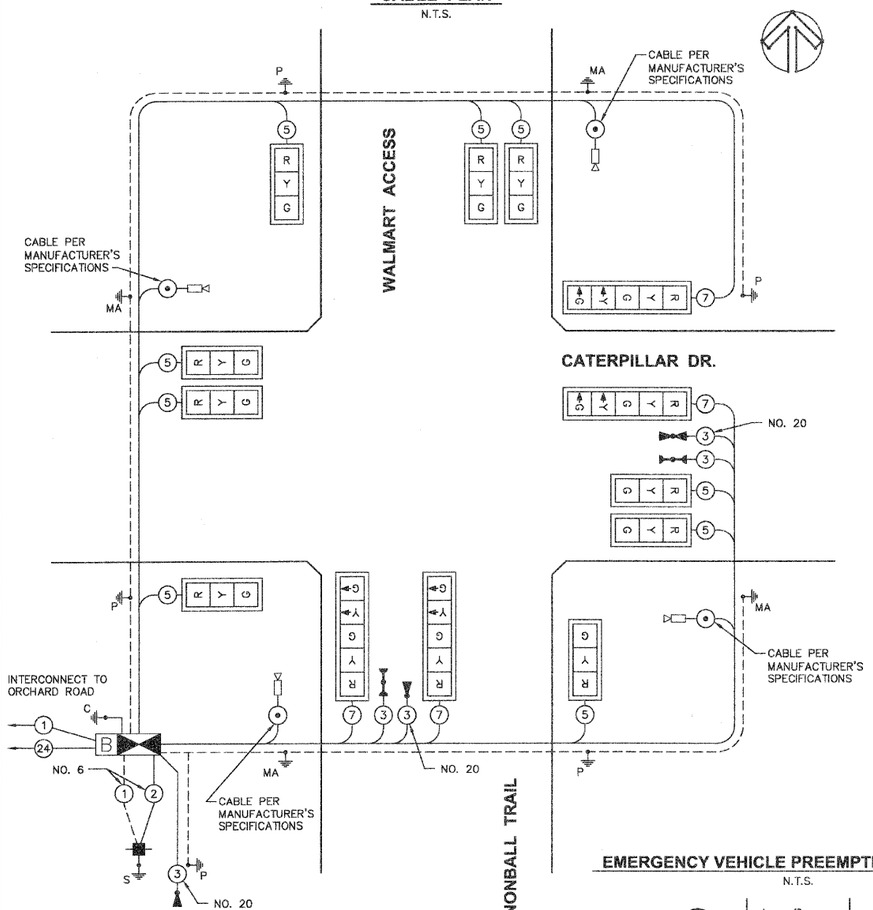
CONTRACT NO. 63207

Engineering Enterprises, Inc.	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1680	05-00038-00-PV	KANE/KENDALL	130	87
	STA.		TO STA.		
	FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	

CABLE PLAN

N.T.S.



CABLE PLAN LEGEND

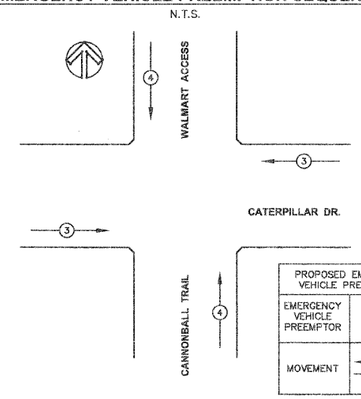
EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMERS
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		VIDEO VEHICLE SENSOR
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
R Y G G Y G "P"	R Y G G Y G "P"	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
"E"	"E"	RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H) OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
1	1	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
24	24	NO.62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE
36	36	NO.62.5/125 MM 24F & SM 12F, FIBER OPTIC CABLE
B	B	UNINTERRUPTIBLE POWER SUPPLY

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM DESCRIPTION
36	SQ FT	SIGN PANEL – TYPE 1
399	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
101	FOOT	CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
81	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
25	FOOT	CONDUIT, PUSHED 2" DIA., GALVANIZED STEEL
199	FOOT	CONDUIT, PUSHED 4" DIA., GALVANIZED STEEL
3	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
575	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	CONTROLLER CABINET TYPE V
872	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1627	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
628	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
312	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.
20	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
60	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
13	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED FORMED PLASTIC
3	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER
1	EACH	RELOCATE VIDEO VEHICLE DETECTION SYSTEM
1	EACH	SERVICE INSTALLATION – POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

N.T.S.



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

CONTROLLER SEQUENCE

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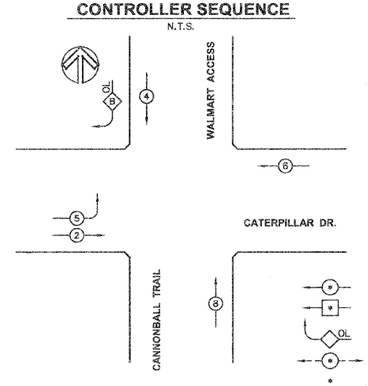

LEGEND

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

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	
SIGNAL (RED)	13		10	0.50	65.00
(YELLOW)	13		19	0.25	61.75
(GREEN)	13		11	0.25	35.75
ARROW	8		10	0.10	8.00
PED. SIGNAL	–		–	1.00	–
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	–		–	0.05	–
BATTERY BACKUP	1		25	1.00	25.00
LUMINAIRE				0.50	
FLASHER				0.50	
				TOTAL =	295.50

ENERGY COST – BILLED TO: VILLAGE OF MONTGOMERY
(ADDRESS) 200 N. RIVER STREET
MONTGOMERY, IL 60538

ENERGY SUPPLY – CONTACT: MARK SCHERIBEL
PHONE: 630-862-5160
COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A – POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.1)
D – CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2 =
E – M ARM POLE		SIGNAL POST	2 (1.0)		(6.1+L-1.0)=
36" (900MM)	15 (4.6)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
		FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CATERPILLAR DRIVE AND WALMART ACCESS/CANNONBALL TRAIL CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES

SCALE: DRAWN BY: KKP

DATE: 03-26-09 CHECKED BY: TVW

PLAN	BY	DATE
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
PROP. LINE NAME		
NOTE BOOK		
NO.		

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
B.M. NOTED		
STRUCTURE NOTATNS CH'KD		
NOTE BOOK		
NO.		

Plotted: June 26, 2009 @ 8:21 AM By: Kris Pung – Tab: 87 Cable Plan 22x34

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