DRILL HOLES

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BORDER REV. DATE: June 1, 2004

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MIDDLETOWN ROAD AND LEXINGTON DRIVE, IN CHARLES COUNTY, MARYLAND. MIDDLETOWN ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION, AND LIGHTING WILL BE PROVIDED WITH 15 FOOT LIGHTING ARMS ATTACHED TO EACH SIGNAL POLE.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC ACTUATED MODE. WITH MIDDLETOWN ROAD APPROACHES OPERATING CONCURRENTLY

AN ALTERNATE PEDESTRIAN PHASE CROSSING LEXINGTON DRIVE IS PROVIDED.

CONTROLLER REQUIREMENTS

INSTALL A FULL TRAFFIC ACTUATED EIGHT PHASE CONTROLLER WITH TWO (2) FOUR CHANNEL LOOP DETECTOR AMPLIFIERS, VIDEO DETECTION SYSTEM, MONITOR WITH BATTERY BACK UP, AND ASSOCIATED HARNESS HOUSED IN A NEMA "6" BASE MOUNTED CABINET. INCLUDE A 2-WIRE CENTRAL CONTROL UNIT TO ACCOMMODATE THE USE OF AUDIBLE TACTICAL PEDESTRIAN PUSHBUTTONS.

THE PRESENCE AND REGIONS SHALL BE MONITORED ACTUATED WITH VIDEO DETECTION CAMERAS

THE CONTRACTOR SHALL DELIVER THE SIGNAL CABINET TO THE S.H.A. SIGNAL SHOP AT 7491 CONNELLEY DRIVE, HANOVER MARYLAND FOR WIRING AND TESTING.

CONTACT LIST

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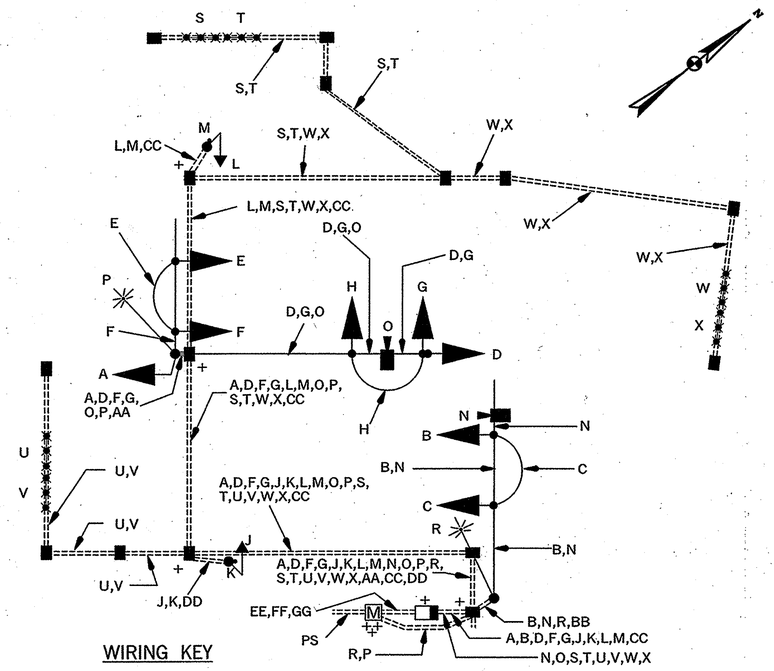
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
410-787-7631

THE POWER COMPANY REPRESENTATIVE IS:
SMECO
MR. CHUCK STONE
301-705-8686



WIRING KEY

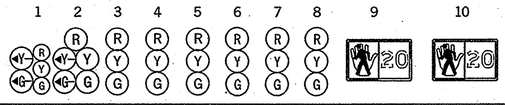
EE,FF,GG	1 – CONDUCTOR ELECTRIC CABLE (NO. 4 AWG)
P,R	2 – CONDUCTOR ELECTRIC CABLE (NO. 12 AWG) TRAY CABLE
K,M	2 – CONDUCTOR ELECTRIC CABLE (NO. 14 AWG)
C,D,E,H,J,L	5 – CONDUCTOR ELECTRIC CABLE (NO. 14 AWG)
A,B,F,G	7 – CONDUCTOR ELECTRIC CABLE (NO. 14 AWG)
N,O	VIDEO DETECTION LEAD IN CABLE
AA,BB,CC,DD	NO. 6 STRANDED BARE COPPER GROUND WIRE
S,T,U,V,W,X	NON-INVASIVE LOOP DETECTION LEAD IN CABLE
PS	PROPOSED SERVICE
+	3/4" X 10' GROUND ROD

EQUIPMENT LIST 'B'

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	UNITS	DESCRIPTION
1001	1	LS	MAINTENACE OF TRAFFIC
2001	2	CY	TEST PIT EXCAVATION
5001	480	LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMETN MARKINGS
5002	115	LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMETN MARKINGS
8001	3	EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8002	1	EA	EIGHT PHASE FULLY ACTUATED CONTROLLER AND CABINET – BASE MOUNTED
8003	2	EA	16 INCH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD
8004	2	EA	AUDIBLE TACTICAL PEDESTRIAN PUSHBUTTON AND SIGN ASSEMBLY
8005	180	LF	3 INCH NON-INVASIVE DETECTOR CARRIER PIPE – BORED
8006	1	LS	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT
8007	10	CY	CONCRETE FOR SIGNAL FOUNDATION
8008	67	SF	SHEET ALUMINUM SIGNS
8009	180	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8010	250	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT – BORED
8011	30	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED
8012	1150	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED
8013	260	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED
8014	1	EA	METERED SERVICE PEDESTAL
8015	30	LF	ELECTRICAL CABLE – 1 – CONDUCTOR, 14 AWG
8016	4	EA	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
8017	2	EA	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
8018	15	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8019	2	EA	VIDEO DETECTION CAMERA
8020	1	EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLER
8021	1	EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLER
8022	1	EA	VIDEO INTERFACE EQUIPMENT
8023	2	EA	10 FOOT BREAKAWAY PEDESTRIAN POLE
8025	1	EA	STEEL POLE WITH SINGLE 60 MAST ARM
8026	1	EA	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
8027	2	EA	250 WATT HIGH PRESURE SODIUM LAMP AND LUMINAIRE
8028	8	EA	GROUND ROD – 3/4 INCH DIAMETER X 10 FOOT LENGTH
8029	25	EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8030	385	LF	ELECTRICAL CABLE – 2 CONDUCTOR (NO. 14 AWG)
8031	950	LF	ELECTRICAL CABLE – 5 CONDUCTOR (NO. 14 AWG)
8032	1100	LF	ELECTRICAL CABLE – 7 CONDUCTOR (NO. 14 AWG)
8033	300	LF	ELECTRICAL CABLE – 2 CONDUCTOR (NO. 12 AWG)
8034	2	EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
8035	1	EA	INSTALL CONTROLLER AND CABINET – BASE MOUNTED

PHASING CHART



	1	2	3	4	5	6	7	8	9	10
PHASE 1 AND 6	←G-G	←G-G	G	R	R	R	R	R	DW	DW
1 AND 6 CHANGE	←Y-G	←Y-G	G	R	R	R	R	R	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	G	G	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FL-Y	FL-Y	FL-Y	FL-Y	FL-Y	FL-Y	FL-R	FL-R	DARK	DARK

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SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MIDDLETOWN ROAD AT LEXINGTON DRIVE WALDORF, MARYLAND

GENERAL NOTES AND INFORMATION

SCALE N.T.S. DATE 11-14-2005 CONTRACT NO.

DESIGNED BY RWE COUNTY CHARLES
DRAWN BY RWE LOGMILE 08CMID01.22
CHECKED BY MJA T.I.M.S. NO. H251
F.A.P. NO. TOD NO.

DRAWING NO. 4463-GI SHEET NO. SG 04 OF 04

PLOTTED: Tuesday, February 28, 2006 AT 11:34 AM
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