PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES A MODIFCATION TO A PARTIAL SIGNAL INSTALLATION DUE TO THE FUTURE RELOCATION OF BAKER ROAD. MD 155 AND CANVASBACK DRIVE IS LOCATED IN HARFORD COUNTY. MD 155 (Level Road) RUNS IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

A SYSTEM READY CONTROLLER, AND RACK MOUNTED DETECTOR AMPLIFERS ALL HOUSED IN A BASE MOUNTED CABINET ARE TO BE INSTALLED AT THIS LOCATION. THE INTERSECTION IS TO OPERATE IN A NEMA THREE (3) PHASE MODE. THE MD 155 THROUGH MOVEMENTS WILL RUN CONCURRENTLY, AND THE CANVASBACK DRIVE MOVEMENT WILL OPERATE ALONE.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TEMPORARY WORK ZONE TRAFFIC CONTROL STANDARDS SHALL BE USED FOR THIS PROJECT.

104.00-30	104.33-02
104.02-02	104.39-02
104.32-02	104.41-02

PROJECT CONTACTS:

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MR. JOESPH McMAHON, ASSIST., DISTRICT ENGINEER UTILITIES
PHONE: (410) 321-2841
UTILITY CONTACT
MR. DAN NARDONE
BALTIMORE GAS ELECTRIC COMPANY
2034 GREENSPRING DRIVE
BALTIMORE, MD 21903
MR. RANDALL SCOTT ASSIST., DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 321-2781

SHA, TRAFFIC SIGNAL SHOP
MR. EDWARD RODENHIZER, CHIEF
PHONE: (410) 787-7650

MR. RICHARD L. DAFF SR., CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST

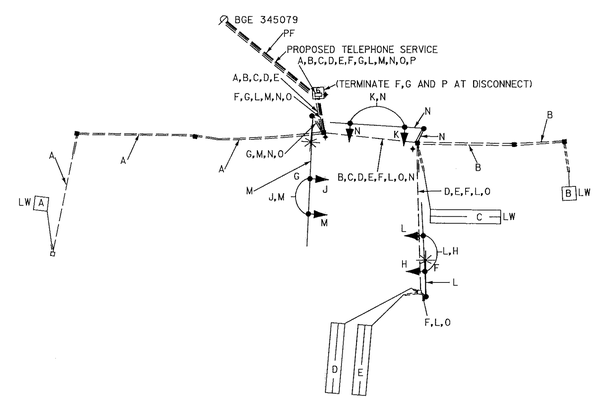
A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION.

ITEM NO.:	DESCRIPTION	SPECIFICATION SECTION	UNIT	QUANTITY
9001	12" ONE-WAY, THREE SECTION (R,Y,G) SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE	814	EA	6
9002	SYSTEM READY S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED CABINET AND RACK MOUNT DETECTOR AMPLIFIERS	816	EA	1
9003	SHEET ALUMINUM SIGNS	813	SF	48.6
	VARIABLE x 16" D3-2 SIGN DUAL FACE - MAST ARM MOUNTING HARDWARE		EA	1
	36"x 36" W3-5 SIGN WITH NEW PANEL AND FLAGS GROUND MOUNTING		EA	2
	72"x 24" M95-1 SIGN - MAST ARM MOUNTING HARDWARE		EA	1
	48"x 12" D3-(2) SIGN. (BLK/YEL) GROUND MOUNT		EA	2

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

ITEM NO.:	DESCRIPTION	SPECIFICATION SECTION	UNIT	QUANTITY
1001	MAINTENANCE OF TRAFFIC	104	LS	LUMP SUM
2001	TEST PIT EXCAVATION	205	CY	2
5002	5" PAVEMENT MARKING TAPE - WHITE FOR LANE LINE	555	LF	100
5004	24" PAVEMENT MARKING TAPE - WHITE FOR STOP LINE	555	LF	75
5013	REMOVE EXISTING PAVEMENT MARKINGS- ANY WIDTH	SP	LF	110
8001	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT	801	CY	10
8011	INSTALL SIGNAL HEADS	814	EA	6
8020	INSTALL BASE MOUNTED CONTROLLER AND CABINET	816	EA	1
8021	SAWCUT FOR SIGNAL LOOP DETECTOR	815	LF	465
8022	1" GALVANIZED STEEL ELECTRICAL CONDUIT	805	LF	30
8023	1" LIQUID TIGHT FLEXIBLE NON-METALIC CONDUIT FOR LOOP DETECTOR SLEEVE	805	LF	20
8024	2 " POLYVINYL CHLORIDE [SCHEDULE 80] ELECTRICAL CONDUIT - TRENCHED	805	LF	520
8027	3 " POLYVINYL CHLORIDE [SCHEDULE 80] ELECTRICAL CONDUIT - TRENCHED	805	LF	25
8030	4 " POLYVINYL CHLORIDE [SCHEDULE 80] ELECTRICAL CONDUIT-TRENCHED	805	LF	90
8033	HANDHOLE	811	EA	6
8034	GROUND ROD -3/4" DIAMETER x 10' LENGHT	804	EA	3
8040	LOOP DETECTOR WIRE (NO. 14 A.W.G.) ENCASED IN FLEXIBLE TUBING	810	LF	1700
8041	2-CONDUCTOR (ALUMINUM SHIELED) ELECTRICAL CABLE (No. 14 A.W.G.)	810	LF	1100
8044	5-CONDUCTOR ELECTRICAL CABLE (No. 14 A.W.G.)	810	LF	60
8045	7-CONDUCTOR ELECTRICAL CABLE (No. 14 A.W.G.)	810	LF	530
8046	2-CONDUCTOR ELECTRICAL TRAY CABLE (No. 12 A.W.G.)	810	LF	260
8049	BARE COPPER STRANDED GROUND WIRE (NO. 6 A.W.G.)	804	LF	180
8050	3-WIRE 1 CONDUCTOR (NO. 4 A.W.G.) ELECTRICAL CABLE	810	LF	20
8052	4"x 6" WOOD SIGN SUPPORTS	812	LF	32
8053	INSTALL GROUND MOUNTED SIGN	813	SF	26
8054	INSTALL OVERHEAD SIGN - MAST ARM MOUNT	813	SF	22.6
8056	250 WATT H.P.S. LAMP AND LUMINAIRE	806	EA	2
8057	15' LUMINAIRE ARM	806	EA	1
8057	10' LUMINAIRE ARM	806	EA	1
8058	REMOVE FOUNDATION 12" BELOW GRADE	SP	EA	3
8070	CONTROL AND DISTRIBUTION	807	EA	1
8081	27' STEEL POLE WITH A SINGLE 38' MAST ARM (FOUR - 1 1/2"x 60" ANCHOR BOLTS)	SP	EA	1
8082	27' STEEL POLE WITH A 50' MAST ARM (FOUR - 1 3/4"x 90" ANCHOR BOLTS)	SP	EA	2
NEG.	REMOVE AND DISPOSE OF EXISTING SIGNS	SP	LS	LUMP SUM

WIRING DIAGRAM



WIRING KEY

A, B, C, D, E }	2 CONDUCTOR (ALUMINUM SHIELDED) CABLE (NO. 14.AWG)
F, G }	2 CONDUCTOR TRAY CABLE (NO. 12 AWG)
H, J, K }	5 CONDUTOR CABLE (NO. 14 AWG)
L, M, N }	7 CONDUCTOR CABLE (NO. 14 AWG)
O –	1 CONDUCTOR BARE COPPER GROUND WIRE (NO. 6 AWG)
P –	3 WIRE (NO. 4 AWG) FOR TRAFFIC SIGNAL ELETRICAL SERVICE
PF –	PROPOSED UNDERGROUND FEED BY BGE
LW –	LOOP DETECTOR WIRE (NO. 14 AWG) IN FLEXIBLE TUBING

NOTE: TERMINATE LOOP LEAD-IN CABLE "C", IN BASE MOUNTED CABINET FOR FURTURE USE.

◆ – GROUND ROD

PHASE CHART

	1	2	3	4	5	6	
	R	R	R	R	R	R	
	Y	Y	Y	Y	Y	Y	
	G	G	G	G	G	G	
PHASE 2 AND 6	G	G	G	G	R	R	←
2 AND 6 CHANGE	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	G	G	↑
4 CHANGE	R	R	R	R	Y	Y	↑
FLASHING OPERATION	FL /Y	FL /Y	FL /Y	FL /Y	FL /R	FL /R	↔ ↕

SABRA, WANG & ASSOCIATES, INC.
9881 BROKEN LAND PARKWAY
SUITE 105
COLUMBIA, MD 21046

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION

MD 155 AND CANVASBACK DRIVE

DRAWN BY:	M.A. MEARS	F.A.P. NO.	AC-STPG-000S(589)E	GI NO. 3836A	SHEET NO.
CHECKED BY:	S. RENZI 3/9/99	S.H.A. NO.	AW2785185		
SCALE:	NONE	COUNTY:	HARFORD	T.I.M.S. NO. D-307	2 OF 2
DATE:	MARCH 25, 1999	LOG MILE:			