PROJECT DESCRIPTION

I. GENERAL

This project involes the installation of a new traffic control signal at the intersection of MD 146 (Jarrettsvile Pike) at Manor Road located in Baltimore County.

II. INTERSECTION OPERATION

The intersection shall operate in a NEMA 4-phase, full-traffic-actuated mode. The MD 146 (Jarrettsvile Pike) approaches will operate concurrently and the Manor Road approaches will run concurrently.

III. CONTROLLER REQUIREMENTS

A fully-Traffic-Actuated eight phase traffic signal controller with a video detection interface equipment, intersection monitor with battery back-up for phone drop, detector rack, loop detector amplifiers housed in a NEMA size "5" pole mounted cabinet.

IV. SPECIAL NOTES

It is the responsibility of the contractor to confirm geometrics prior to placing signal equipment.

Upon completion of this project the contractor shall notify Mr. Robert Snyder of SHA at 410-787-7635 to arrange for the phone line installation. The contractor is to provide Mr. Snyder with the nearest street address, ZIP code, and telephone number.

THE FOLLOWING CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

Mr. Randall Scott
Assistant District Engineer - Traffic
410-321-2781 OR 410-321-2885

Ms. Suenette Pope
Utility Engineer
410-321-2841

Mr. Steve Marciszewski
Assistant District Engineer - Maintenance
410-321-2764

THE FOLLOWING CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

Mr. Richard L. Daff
Chief Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Chief, Signal Operations
410-787-7650

Mr. Eugene Bailey
Cheif, Sign Operations
410-787-7676

The Power Company Representative is:
Mr. Gary Smith
BG&E
410-859-9433
WMS #

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9042	1 EA	CONTROLLER ASC II WITH TELEMETRY
9043	1 EA	CONTROLLER CABINET, SIZE 5
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9016	1 EA	4 CHANNEL DETECTOR AMPLIFIER
9571	34 SF	SHEET ALUMINUM MAST ARM - POLE MOUNTED SIGNS (1) D3-2 VAR X 16" (MANOR ROAD) - MAST ARM MOUNT (2) M95-2 30" X 72" (MD 146) - POLE MOUNT
9570	~~28~~ 42 SF	SHEET ALUMINUM GROUND MOUNTED SIGNS (2) D-3(2) 48"x12" FLY (2) W3-3 36"X36" FLY (2) D95-25 24"X24"

EQUIPMENT LIST "B"

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

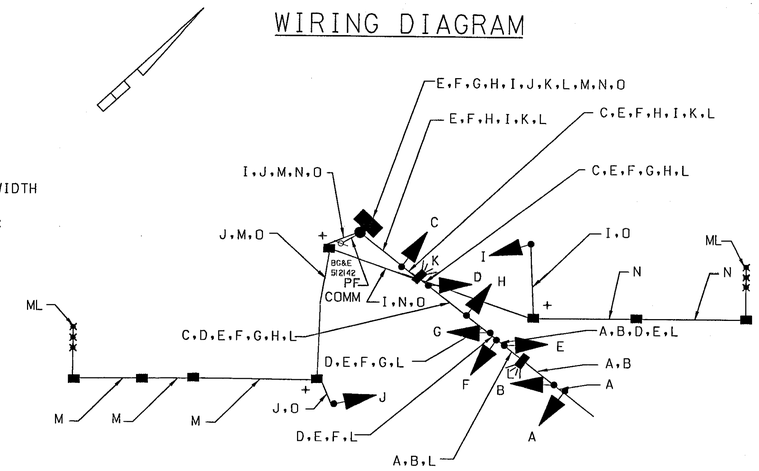
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5004	70 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5006	65 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6005	1 CY	4 INCH SIDEWALK FOR MAINTENANCE PAD
8001	8 CY	CONCRETE FOUNDATION
8013	2 EA	CONTROL CABLE, 100 FOOT, VIDEO DETECTION
8019	2 EA	INSTALL BREAKAWAY PEDESTAL POLE 14 FT.
8024	1 EA	MAST ARM POLE (15 'T) WITH 60 FT MAST ARM
8029	1 EA	REMOVE & DISPOSE MATERIALS & EQUIPMENT PER ASSIGNMENT
8043	36 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8044	230 LF	NO. 6 AWG STRANDED COPPER GROUND WIRE
8045	30 LF	1 INCH ELECTRICAL CONDUIT - GALZANIZED RISER
8047	1 EA	3 INCH WEATHER HEAD
8050	150 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8052	65 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8055	40 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8057	20 LF	1 INCH LIQIUD-TIGHT FLEXIBLE NON-METALLIC CONDUIT (DETECTOR SLEEVE)
8059	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8061	110 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN/THWN
8063	1 EA	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
8064	1 EA	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
8067	8 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8069	42 ~~28~~ SF	INSTALL GROUND MOUNTED SIGNS
8070	34 SF	INSTALL OVERHEAD SIGN
8071	2 EA	VIDEO DETECTION CAMERA
8091	3 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8093	30 EA	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8101	80 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5 -CONDUCTOR (NO. 14 AWG)
8102	500 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7 -CONDUCTOR (NO. 14 AWG)
8105	20 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8111	1 EA	INSTALL CONTROLLER & CABINET - POLE MOUNT

C. MATERIAL TO BE REMOVED AND RETURNED TO SHA

NONE

D. ALL MATERIALS REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM



WIRING KEY

A,B,C,D - 5-CONDUCTOR ELECTRICAL CABLE (No. 14 AWG)

E,F,G,H,I,J 7-CONDUCTOR ELECTRICAL CABLE (No. 14 AWG)

K,L - VIDEO DETECTION CONTROL CABLE

M,N - MICROLOOP LEAD-IN

ML - MICROLOOP PROBESET

O - STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

+ - 3/4 IN. X 10 FT. GROUND ROD

PF - OVERHEAD POWER FEED

COMM - OVERHEAD PHONE DROP

PHASE CHART

	1	2	3	4	5	6	7	8	9	10
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR

RUMMEL, KLEPPER & KAHL, LLP
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
TEL: (410) 728-2900 FAX: (410) 383-3270

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 146 (JARRETTSVILLE ROAD) AND MANOR ROAD
GENERAL INFORMATION SHEET

DRAWN BY: MRB	F.A.P. NO. AC-STPG-000A(58)E	TS NO. TS-4409	SHEET NO.
CHECKED BY: EBY	S.H.A. NO. AT7175185		
SCALE: NONE	COUNTY: BALTIMORE	T.I.M.S. NO. 6526	2 OF 2
DATE: APRIL, 2005	LOG MILE: 03146010.63		