PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL.WITH INTERCONNECT AND STREET LIGHTING AT THE INTERSECTION OF MD 2 (SOLOMONS ISLAND ROAD) AT MD 214A (PIKE RIDGE ROAD) IN ANNE ARUNDEL COUNTY. MD 2 IS ASSUMED TO RUN IN A NORTH / SOUTH DIRECTION.

INTERSECTION OPERATION

A NEMA (SIZE 6) SYSTEM READY CONTROLLER AND CABINET WITH FOUR-FOUR CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS HOUSED IN A BASE MOUNTED CABINET ARE TO BE INSTALLED AT THIS LOCATION. THE INTERSECTION IS TO OPERATED IN A NEMA 5 PHASE MODE. THERE WILL BE EXCLUSIVE LEFT FOR THE NORTHBOUND MOVEMENT OF MD 2. THE THROUGH MOVEMENTS WILL RUN CONCURRENTLY.
A CONCURRENT PEDESTRIAN CROSSING WILL BE PROVIDED FOR THE SOUTH LEG OF MD 2. A PEDESTRIAN PUSH BUTTON WILL BE PROVIDED FOR THE OF CROSSING MD 2. THE SIDE STREET 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:

MR. PAUL ARMSTRONG, DISTRICT ENGINEER
PHONE: (410) 841-5450

MR. JOHN MAYS,ASSIST.,DISTRICT ENGINEER UTILITIES
PHONE: (410) 841-5450

MR. LARRY ELLIOTT, ASSIST., DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 841-5450

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

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

EQUIPMENT LIST

A. Equipment to be supplied by the Administration.

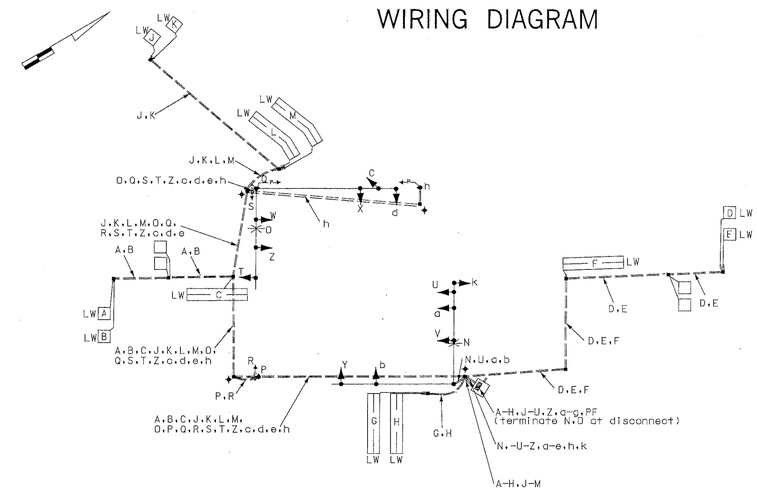
Item Code No.	Qty	Unit	Specification Section	Description
971017	1	EA	816	Eight phase (fully actuated) controller and cabinet - base mount
900000	4	EA	817	Four channel rack mounted loop detector amplifier (delay output)
973023	124	SF	813	Sheet aluminum signs consisting of: "2 EA D3-2 (16"" x var)" "1 EA R3-2 (30"" x 30"")" "1 EA R3-5L (30"" x 36"")" "1 EA R3-5R (30"" x 36"")" "1 EA R6-1 (12"" x 36"")" "2 EA Guide Shield Assembly (24"" x 51"")" "2 EA Guide Shield Assembly (30"" x 75"")" "3 EA W3-3 (36"" x 36"")" "4 EA R10 - 4(1) (9"" x 12"")"

B. Equipment to be furnished and/or installed by the Contractor.

Item Code No.	Qty	Unit	Specification Section	Description
203030	5	CY	205	Test pit excavation
	460	LF	555	Furnish and install 24 in. white reflective thermoplastic pavement markings
801004	11	CY	801	Furnish and install concrete for signal foundation
837001	4	EA	804	Furnish and install ground rod -3/4in. diameter x 10 ft.
800000	20	LF	805	Furnish and install 4 in. schedule 80 rigid PVC conduit - trenched
805155	350	LF	805	Furnish and install 4 in. schedule 80 rigid PVC conduit - slotted
800000	185	LF	805	Furnish and install 3 in. schedule 80 rigid PVC conduit - trenched
800000	560	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit - trenched
805160	65	LF	805	Furnish and install 1 in. liquid tight flexible non-metallic conduit for detector wire sleeve
831010	2	EA	806	Furnish and install 250-watt high pressure sodium lamp and luminaire with photocell
807205	1	EA	807	Furnish and install Control & Distribution Equipment
802501	450	LF	810	Furnish and install No. 6 AWG standard bare copper ground wire
861104	4430	LF	810	Furnish and install electrical cable - 2 conductor (aluminum shielded)
861105	380	LF	810	Furnish and install electrical cable - 2 conductor (No. 14 AWG)
861106	380	LF	810	Furnish and install electrical cable - 3 conductor (No. 14 AWG)
861107	410	LF	810	Furnish and install electrical cable - 5 conductor (No. 14 AWG)
861108	1620	LF	810	Furnish and install electrical cable - 7 conductor (No. 14 AWG)
862101	3260	LF	810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG)
861116	370	LF	810	Furnish and install 2-conductor - tray cable (No. 12 AWG)
811001	12	EA	811	Furnish and install electrical handhole
801104	60	EA	812	"Furnish and install sign support 4"" x 4"""
813014	82	SF	813	Install ground mounted signs
813015	49	SF	813	Install overhead sign for signals
800000	36	EA	814	Furnish and install 12 in. standard aluminum traffic signal head section
862102	950	LF	815	Furnish and install sawcut for signal
871117	1	EA	816	Install eight phase (fully actuated) controller and cabinet - base mount
865001	2	EA	817	Furnish and install pushbutton and sign
800000	1	EA	818	Furnish and install steel pole with twin 50 ft. and 60 ft. mast arms
800000	1	EA	818	Furnish and install a 27 ft. steel pole with twin 50 ft. and 70 ft. mast arms
866103	2	EA	818	Furnish and install 15 ft. lighting arm on signal structure
868003	2	EA	818	Furnish and install 10 ft. breakaway pedestal pole
806000	8	EA	814	Furnish and install 12 in. pedestrian traffic signal head section

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 AND 6	~~G~~	~~G~~	G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 6 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	DW	DW	WK	WK
PHASE 2 AND 6	R	R	G	G	G	G	G	R	R	R	R	R	DW	DW	FL/DW	FL/DW
PED CLEAR	R	R	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW
2 AND 6 CHANGE	R	R	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT AND 8	R	R	R	R	R	R	G	G	G	G	G	G	WK	WK	DW	DW
PED CLEAR	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	DW	DW
4 ALT AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL /Y	FL /Y	FL /Y	FL /Y	FL /R	FL /R	FL /R	FL /R	FL /R	FL /R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A B C D E F G H J K L M	2 CONDUCTOR (ALUMINUM SHIELDED) CABLE (NO. 14.AWG)
N O	2 CONDUCTOR TRAY CABLE (NO. 12 AWG)
P Q	2 CONDUCTOR CABLE (NO. 14 AWG)
R S	3 CONDUCTOR CABLE (NO. 14 AWG)
T U V X Y h	5 CONDUCTOR CABLE (NO. 14 AWG)
Z O b c a J K	7 CONDUCTOR CABLE (NO. 14 AWG)

e – 1 CONDUCTOR BARE COPPER GROUND WIRE (NO. 6 AWG)

f – 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

– GROUND ROD

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

GENERAL INFORMATION

MD 2 SOLOMONS ISLAND ROAD AND MD 214A (PIKE RIDGE ROAD)

SABRA, WANG & ASSOCIATES, INC.
1506 JOH AVENUE
SUITE 180
BALTIMORE, MD 21227
(410) 737-6564

DRAWN BY:	M.A. MEARS	F.A.P. NO.		GI NO. 3890	SHEET NO.
CHECKED BY:	D. PETERS	S.H.A. NO.			
SCALE:	NONE	COUNTY:	ANNE ARUNDEL	T.I.M.S. NO.	OF
DATE:	OCTOBER, 1999	LOG MILE:	02002016.68		

AF1F1-CS1GSMP14.DGN