PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the installation of a new traffic control signal at the intersection of MD 197 and Bowie Town Center Entr. in Prince George's County, Maryland. MD 197 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA four (4) phase, full-traffic-actuated mode. There will be an exclusive left turn phase for the northbound movement of MD 197 with a concurrent right turn overlap for the Bowie Town Center Entrance to southbound MD 197 movement. The MD 197 through movements will operate concurrently. The Bowie Town Center Entr. movement will operate alone.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and three 4-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
4	EA	818	12 in. x 32 ft. 2-ply steel strain pole [Note: four 1-3/4 in. x 90 in. anchor bolts].
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, and three 4-channel loop detector amplifiers [Note: Controller and cabinet shall be supplied by Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
1	EA	814	12 in., one-way five section five section (R,Y,YA,G,GA) adjustable black faced traffic signal head with span wire mounting hardware and tunnel visors.
6	EA	814	12 in., one-way, three section (R,Y,G) adjustable, black faced traffic signal head with span wire mounting hardware and tunnel visors.
3	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable, black faced traffic signal head with span wire mounting hardware and tunnel visors.
4	EA	813	30 in. x 36 in. R 3-5(L) sign with span wire mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(R) sign with span wire mounting hardware.
4	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
1	EA	813	30 in. x 51 in. shield assembly sign for pole mounting.
1	EA	813	48 in. x 75 in. shield assembly sign for pole mounting.
3	EA	---	Micro-loop probe (set of 3) with 500 ft. lead-in cable.
3	EA	---	Micro loop probe (set of 3) with 750 ft. lead-in cable.
2	EA	806	20 ft. luminaire arm.
2	EA	806	250 W H.S.P. lamp and luminaire.

B. Equipment to be furnished and/or installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
5	CY	205	Test pit excavation.
9	EA	811	Handhole.
825	LF	815	Sawcut for signal loop detector.
2200	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
360	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
440	LF	810	2-conductor electrical tray cable (No.12.A.W.G.).
830	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
615	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
35	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
1240	LF	810	12 pair (jelly filled) Voice Grade Telemetry Cable (No.19 A.W.G.).
100	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
600	LF	819	3/8in. steel span wire.
25	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
15	LF	805	1 in. galvanized steel electrical conduit for loop detector sleeve.
120	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
215	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
110	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
105	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
19.85	CY	801	Concrete foundation for traffic signal equipment.
6	EA	804	Ground rod - 3/4in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-1 underground electrical service.
145	LF	556	24 in. wide HAPPTPM - white for stop line.
300	LF	556	12 in. wide HAPPTPM - white for crosswalk.
72	LF	812	4 in. x 6 in. wood sign support.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Charles Watkins
District Engineer
301-513-7336

Mr. Majid Shakib
Assistant District Engineer - Traffic
301-513-7344

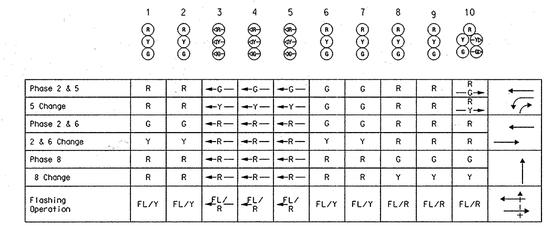
Mr. Augie Rebish
Assistant District Engineer - Utility
301-513-37336

Mr. Randy Brown
Assistant District Engineer - Maintenance
301-513-7304

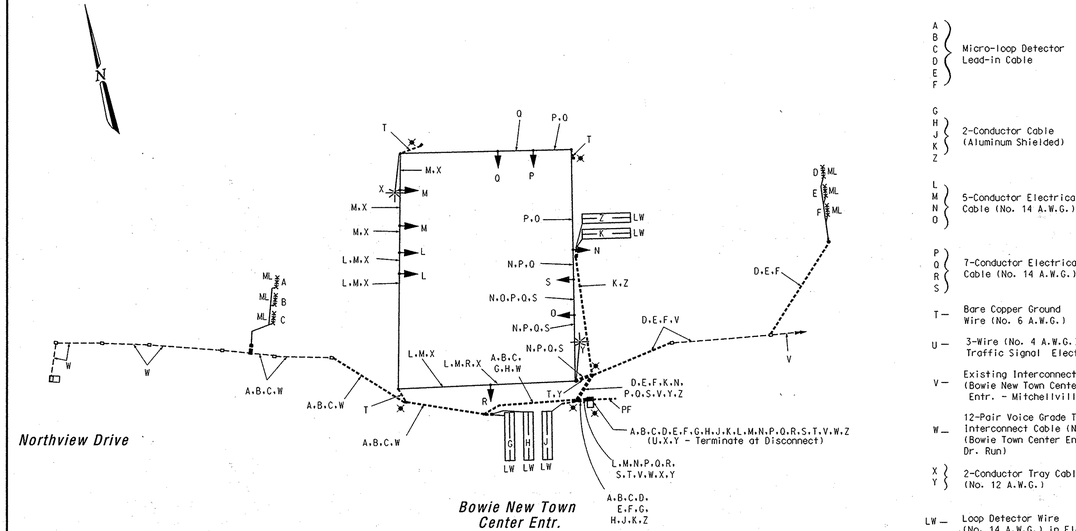
Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
Baltimore Gas and Electric Company
Ms. Debbie Hartman
7317 Parkway Drive South
Hanover, Maryland 21076
410-859-9068

Phase Chart



Wiring Diagram



The Traffic Group
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APPROVALS

TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION

ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 197 at Bowie Town Center Entr.

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS NO. 4097	SHEET NO.
CHECKED BY:	S.H.A. NO. BW996M82		
SCALE: N/A	COUNTY: Prince George's	T.I.M.S. NO. E-157	2 OF 2
DATE: April 4, 2001	LOG MILE: 16019701.00		

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