

EQUIPMENT LIST

- A. S.H.A. furnished equipment material.
 - None.
- B. Equipment to be furnished 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
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
2	EA	818	12 in. x 32 ft. 2-ply steelstrain pole.
1	EA	818	27 ft. twin steelmast arm pole with a 50 ft. and 70 ft. mast arm.
1	EA	818	27 ft. steelmast arm pole with a 50 ft. mast arm.
1	EA	818	27 ft. steelmast arm pole with a 70 ft. mast arm.
1	EA	818	27 ft. steelmast arm pole (for a future 70 ft. mast arm).
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet with video detection equipment, telemetry interface, 3 four-channel rack mounted loop detector amplifiers and a 3M Opticom pre-emption system. [Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodentizer (410) 787-7650].
4	EA	---	Video detector with cable: <ul style="list-style-type: none"> 1 detector with 500 ft. cable 1 detector with 300 ft. cable 2 detectors with 150 ft. cable
4	EA	---	3M Opticom single detector eye with mast arm mounting hardware.
735	LF	---	3M Opticom detector cable model13-B.
4	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signalhead with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signalhead with span wire mounting hardware and tunnel visors.
2	EA	814	12 in., one-way, four section (R,Y,G,G) adjustable black faced traffic signalhead with mast arm mounting hardware and tunnel visors.
1	EA	814	8 in./ 12 in., one-way, four section (8 in. R,Y,G/ 12 in. GA) adjustable black faced traffic signalhead with mast arm mounting hardware and tunnel visors.
1	EA	814	8 in./ 12 in., one-way, five section in-line (8 in. R,Y,G/ 12 in. YA,GA) adjustable black faced traffic signalhead with pole mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable black faced traffic signalhead with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable black faced traffic signalhead with span wire mounting hardware and tunnel visors.
1	EA	814	12 in./ 8 in., one-way, five section (12 in. YA,GA/ 8 in. R,Y,G) adjustable black faced traffic signalhead with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in./ 8 in., one-way, five section (12 in. YA,GA/ 8 in. R,Y,G) adjustable black faced traffic signalhead with span wire mounting hardware and tunnel visors.
1	EA	813	16 in. x Var. D3-(1) DualFace sign with mast arm mounting hardware.
1	EA	813	16 in. x Var. D3-(1) DualFace sign with span wire mounting hardware.
1	EA	813	30 in. x 35 in. R 3-5(L) sign with mast arm mounting hardware.
1	EA	813	30 in. x 35 in. R 3-6(L) sign with mast arm mounting hardware.
1	EA	813	36 in. x 42 in. R 10-12 sign with mast arm mounting hardware.
1	EA	813	36 in. x 42 in. R 10-12 sign with span wire mounting hardware.
1	EA	806	20 ft. luminaire arm.
1	EA	806	250 W H.P.S. lamp and luminaire.
7	CY	205	Test pit excavation.
16	EA	811	Handhole.
75	LF	810	1-conductor electrical cable (No. 4 A.W.G.) (3 pieces).
500	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
145	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1180	LF	810	7-conductor electrical cable (No. 12 A.W.G.).
2070	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
225	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
340	LF	819	1/4in. steel tether wire.
340	LF	819	3/8in. steel span wire.
15	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
1030	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
360	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
120	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
115	LF	805	4 in polyvinyl chloride [Schedule 80] electrical conduit - bored.
33.5	CY	801	Concrete foundation for traffic signal equipment.

PROJECT DESCRIPTION

I. GENERAL

This portion of the project involves the reconstruction of an existing traffic control signal at the intersection of US Route 1 and Contee Road in Prince George's County, Maryland. US Route 1 is considered to run in a north/south direction.

The reconstruction will be handled in 6 stages to coincide with the maintenance of traffic plans to install a box culvert under the north leg of US Route 1.

Phase involves the installation of all new equipment to be used during the rest of the phases.

II. INTERSECTION OPERATION

The intersection will continue to operate in a NEMA six (6) phase, full-traffic-actuated mode. There is an exclusive/permissive left turn phase for both the north and southbound movements of US Route 1. The US Route 1 through movements operate concurrently. The Contee Rd. through movements operate in a side street split phase mode.

There is a pre-emption phase for both the north and southbound movements of US Route 1.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, telemetry interface, 3M Opticom pre-emption system and video detection equipment housed in a base mounted cabinet are to be installed at this location.

CONTACT LIST

The contact persons for District *3 are as follows:

PG - Mr. Majib Shakib
Assistant District Engineer - Traffic
PG - 301-513-7358

Mr. Augie Rebish
Assistant District Engineer - Utility
301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
301-513-7304

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

The Power Company Representative is:

BCE
7317 Parkway Dr., South
Hanover, MD 21076
410-850-4620
WMS*1299585

Quantity	Units	Specification Section	Description
8	EA	804	Ground rod - 3/4in. diameter x 10 ft. length.
1	EA	807	Electrical utility service equipment (120/240 V, one phase, three wire system) for a MD-SHA Typ. 807.05-01 underground electrical service.
3200	LF	---	12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) - jelly filled.
Lump Sum	LS	---	Relocate existing HIB cable (approximately 550 ft.).
2	EA	---	Non-invasive micro-loop probe with 500 ft. of cable (set of three).
2	EA	---	Non-invasive micro-loop probe with 1000 ft. of cable (set of three).
5	EA	---	Remove and dispose of existing concrete foundation 12 inches below grade.
1	EA	---	Back guy.
2	EA	---	Cut, clean, and cap mast arm pole.
Lump Sum	LS	---	Remove and dispose of existing signal equipment.

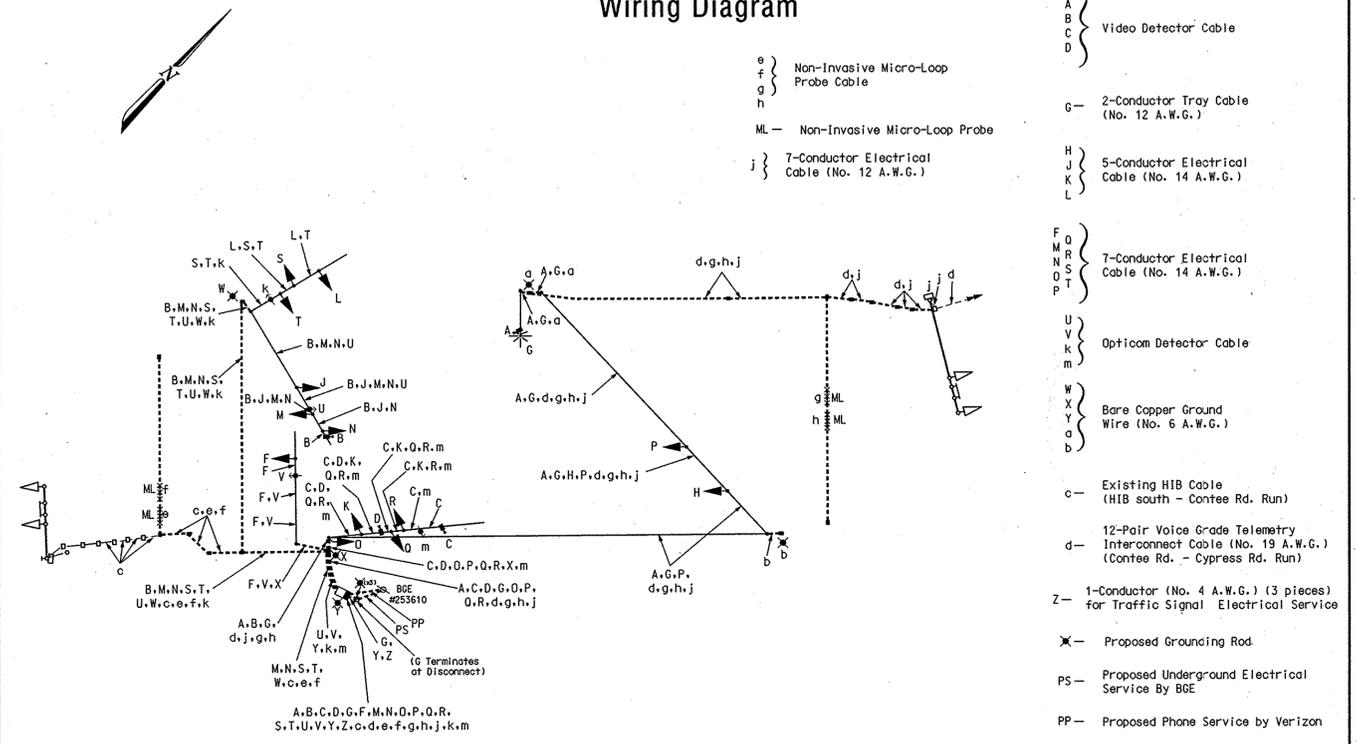
C. S.H.A. forces shall remove the controller and all auxiliary equipment from the controller cabinet. The cabinet and all other materials to be removed by the contractor shall become the property of the contractor.

Quantity	Units	Description
1	EA	Controller.

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	R	R	R
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6	G	G	G	G	G	G	G	G	G	G	G	G	G
Phase 1 & 6	G	G	G	G	R	R	R	R	R	R	R	R	R
1 Change	G	G	G	G	R	R	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	R	G	G	G	G	R	R	R	R	R
5 Change	R	R	R	R	G	G	G	G	R	R	R	R	R
Phase 2 & 6	G	G	G	G	G	G	G	R	R	R	R	R	R
2 & 6 Change	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
Phase 3	R	R	R	R	R	R	R	G	G	R	R	R	R
3 Change	R	R	R	R	R	R	R	Y	Y	Y	R	R	R
Phase 4	R	R	R	R	R	R	R	R	R	G	G	G	G
4 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y
Flashing Operation	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R						
Pre-Em Phase 1	G	G	G	G	R	R	R	R	R	R	R	R	R
1 Change	G	G	G	G	R	R	R	R	R	R	R	R	R
Pre-Em Phase 2	R	R	R	R	G	G	G	G	R	R	R	R	R
2 Change	R	R	R	R	G	G	G	G	R	R	R	R	R
Pre-Em Phase 3	R	R	R	R	R	R	R	G	G	R	R	R	R
3 Change	R	R	R	R	R	R	R	Y	Y	Y	R	R	R
Pre-Em Phase 4	R	R	R	R	R	R	R	R	R	G	G	G	G
4 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y

Wiring Diagram



MOT PHASE I

Revision "G"

The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
US Route 1 at Contee Road

TS NO.
1536G-GI-X1
SHEET NO.
2 OF 10

DRAWN BY: J. Storck	F.A.P. NO. N/A	TS NO. 1536G-GI-X1	SHEET NO. 2 OF 10
CHECKED BY: N/A	S.H.A. NO. XX1005185	T.I.M.S. NO. F-750	
SCALE: N/A	COUNTY: Prince George's	LOG MILE: 16000111.49	
DATE: May 20, 2005			

1/18/93 1899-0913A/400/09/00/01.dgn 5/20/2005