

FHWA REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. GENERAL
 This project involves the reconstruction of the existing traffic control signal at US1 and I-195 Ramp B-1, Ramp D/Entrance to T.N.T. in Baltimore County. US1 is considered to run in a north/south direction.

II. INTERSECTION OPERATION
 An eight (8) phase, full-traffic-actuated, solid state digital controller, with intersection monitor and harness, battery back-up and six (6) two-channel time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

The intersection is to operate in a NEMA six (6) phase, full-traffic-actuated mode. There will be exclusive/permisive left turn movements for both north and southbound US1. US1 through movements will run concurrently. The I-195 Ramp B-1, Ramp D/Entrance to T.N.T. through movements will run concurrently.

EQUIPMENT LIST

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

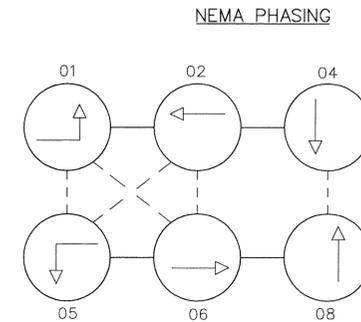
Quantity	Unit	Specification Section	Description
15	LF	810	3 wire #8 A.W.G., for intersection lighting
15	LF	810	3 wire #4 A.W.G., for power feed
40	LF	805	1" liquid tight flexible non-metallic conduit for loop detector lead-in
100	LF	805	4" polyvinyl chloride electrical conduit (Schedule 80) - trenched during construction
225	LF	805	3" polyvinyl chloride electrical conduit (Schedule 80) - pushed
475	LF	805	2" polyvinyl chloride electrical conduit (Schedule 40) - trenched
20	LF	805	4" polyvinyl chloride electrical conduit (Schedule 40) - trenched
1610	LF	104	Pavement marking 5" white line for lane line
85	LF	104	Preformed pavement markings - white 24" wide for stop line
145	LF	104	Pavement marking 5" double yellow line for center line
905	LF	810	Bare copper stranded ground wire (No. 6 A.W.G.)
1	EA	807	Control and distribution equipment (electrical service type B-6)
2	EA	813	30" x 36" R3-5 (L) Sign - mast arm mount
2	EA	813	36" x 42" R10-12 Sign - mast arm mount
2	EA	814	12", one-way, five-section (R,Y,G,YA,GA) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors
2	EA	814	8" & 12", one-way, three-section (R,Y,G,12"-YA,GA) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors
2	EA	814	12", one-way, three-section (R,Y,G) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors
5	EA	814	12", one-way, three-section (R,Y,G) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors

EQUIPMENT LIST

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE OFFICE OF TRAFFIC SIGNAL SHOP, TRAFFIC OPERATIONS DIVISION, MARYLAND STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. A TWENTY-FOUR (24) HOUR NOTICE IS REQUIRED PRIOR TO DELIVERY. PLEASE CONTACT MR. ED RODENHIZER AT (410) 787-7650.

Quantity	Unit	Description
3	EA	12", one-way three-section signalhead
1	EA	12", one-way five-section signalhead
1	EA	Controller and pole mounted cabinet
1	EA	R10-12 - sign
1	EA	Steel pole with twin mast arms

Note: All equipment and/or material not listed above will become the property of the Contractor.



1.) Phases associated by a dashed line will operate concurrently.
 2.) Phases associated by a solid line will not operate concurrently.



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	Unit	Specification Section	Description
1	EA	816	Standard MD SHA Cabinet with amplifiers and Controller (Econolite or approved equal)
2	EA	813	30" x 36" R3-5 (L) Sign - mast arm mount
2	EA	813	36" x 42" R10-12 Sign - mast arm mount
2	EA	814	12", one-way, five-section (R,Y,G,YA,GA) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors
2	EA	814	8" & 12", one-way, three-section (R,Y,G,12"-YA,GA) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors
2	EA	814	12", one-way, three-section (R,Y,G) adjustable traffic signal head having proper brackets for mast arm mounting and tunnel visors

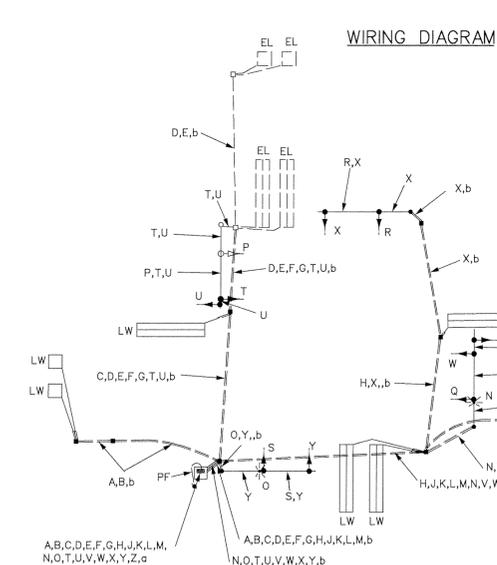
EQUIPMENT LIST

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

Quantity	Unit	Specification Section	Description
Lump Sum	LS	108	Mobilization
Lump Sum	LS	104	Maintenance of traffic (traffic control)
250	SF	104	Temporary construction signs
5	UD	104	Provide flashing arrow panel
4	CY	104 205	Test pit excavation
8	EA	811	Handhole
650	LF	815	Saw Cut
1780	LF	810	Loop detector wire (No. 14 A.W.G.) enclosed in flexible tubing
2065	LF	810	2-conductor electrical cable (aluminum shielded)
225	LF	810	2-conductor tray cable (No. 12 A.W.G.)
105	LF	810	5-conductor electrical cable (No. 14 A.W.G.)
1050	LF	810	7-conductor electrical cable (No. 14 A.W.G.)

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	↕
1 & 5 Change To Phase 1 & 6 or Phase 2 & 5	G	G	G	G	G	G	G	G	G	G	↕
Phase 1 & 6	R	R	R	R	R	R	R	R	R	R	↕
1 Change	G	G	G	G	G	G	G	G	G	G	↕
Phase 2 & 5	R	R	R	R	R	R	R	R	R	R	↕
5 Change	G	G	G	G	G	G	G	G	G	G	↕
Phase 4 & 8	R	R	R	R	R	R	R	R	R	R	↕
4 & 8 Change	G	G	G	G	G	G	G	G	G	G	↕
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	↕



- WIRING NOTES**
- D — Existing 2-Conductor Cable (Aluminum Shielded)
 - H — 2-Conductor Cable (Aluminum Shielded)
 - N — 2-Conductor Tray Cable (No. 12 A.W.G.)
 - P — Existing 5-Conductor Cable
 - Q — 5-Conductor Cable (No. 14 A.W.G.)
 - S — Existing 7-Conductor Cable
 - U — 7-Conductor Cable (No. 14 A.W.G.)
 - Z — 3-Wire #8 For Lighting Electrical Service
 - a — 3-Wire #4 For Traffic Signal Electrical Service
 - b — Bare Copper Stranded Ground Wire (No. 6 A.W.G.)
 - LW — Loop Wire (No. 14 A.W.G.) in Flexible Tubing
 - PF — Proposed Underground Electrical Service By BGE

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

GENERAL INFORMATION

US 1 AT THE ENTRANCE TO T.N.T.

DRAWN BY: M. A. MEARS
 DES. BY: M. A. MEARS
 CHK. BY: [Signature]

DATE: 08-14-95 F.A.P. NO. _____
 SCALE: 1" = 20' S.H.A. NO. BW-866-802-412

COUNTY: BALTIMORE LOG MILE: 03000100.23
 TS/STD. NO. _____ SHEET NO. _____

The Traffic Group, Inc.
 Suite 600
 40 W. Chesapeake Avenue
 Towson, Maryland 21204
 410-583-8405
 1-800-583-8411
 Fax 410-321-8458
 Job No. 86082