DRILL HOLES

BORDER REV: DATE: June 1, 2004

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PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal at the intersection of MD 146 (Dulaney Valley Rd) and Seminary Ave in Baltimore County. The new Traffic Control Signal will have Video detection, LED signal heads, lighting, opticom and all existing interconnect shall be relocated. MD 146 (Dulaney Valley Rd) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. There is no change to the intersection operation.
2. A new full-traffic-actuated, eight-phase controller with video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.
3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
4. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for a phone drop. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

The contact persons for District #4 are as follows:

Ms. Erin Kuhn
Assistant District Engineer - Traffic
Phone: (410) 321-2781

Mr. Andre Futrell
Assistant District Engineer - Maintenance
Phone: (410) 321-2761

Mr. Mike Pasqualello
Assistant District Engineer - Utility
Phone: (410) 321-2841

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

Mr. Ed Rodenhizer
Chief, Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7676

The power company representative is:

Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-850-4620

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	DESCRIPTION	QUANTITY	
9042	Controller ASC II with telemetry	1	EA
9044	Controller cabinet, size "6"	1	EA
9086	Video detection interface equipment: 5-8 cameras (To be installed by signal shop).	1	EA
9571	Sheet aluminum signs to consist of: (mast arm)	108	SF
	D3-2 "Seminary Ave " dual face (variable x 16") mast arm mounted.	2	EA
	D3-2 "Dulaney Valley Rd " dual face (variable x 16") mast arm mounted.	2	EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted.	1	EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-3 "SOUTH"(30"X15") M1-5 "MD 146"(48"X36") M6-1 "left arrow "(30"X24")	1	EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-3 "SOUTH"(24"X12") M1-5 "MD 146"(30"X24") M6-1 "right arrow "(21"X15")	1	EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-1 "NORTH"(24"X12") M1-5 "MD 146"(30"X24") M6-1 "right arrow "(21"X15")	1	EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-1 "NORTH"(30"X15") M1-5 "MD 146"(48"X36") M6-1 "left arrow "(30"X24")	1	EA

EQUIPMENT LIST (cont.)

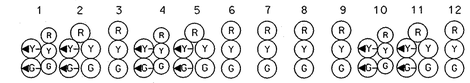
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY	
1003	Maintenance of traffic per assignment.	2	EA
2002	Test Pit Excavation	3	C.Y.
8003	8" LED signal head section.	9	EA
8004	Adjust existing handhole to grade.	1	EA
8006	Any size lighting arm on signal pole with 250 watt HPS lamp & luminaire.	1	EA
8020	Non-invasive detector (any length) lead-in cable up to 1000'.	4	EA
8021	Remove and dispose of material & equipment per assignment.	1	EA
8023	Twin mast arm pole & 50'/50' mast arms any "T" dimension.	2	EA
8025	Video detection camera & cable up to 500'	6	EA
8030	Disconnect, pull back and reroute cable.	995	L.F.
8032	Schedule 80 rigid PVC conduit up to 4" - bored.	445	L.F.
8034	Schedule 80 rigid PVC conduit up to 4" - trenched.	210	L.F.
8036	Install overhead mounted sign (including hardware).	108	S.F.
8038	No. 6 AWG stranded bare copper ground wire.	280	L.F.
8041	Metered service pedestal embedded.	1	EA
8043	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	55	L.F.
8045	Furnish and install electrical handhole.	3	EA
8046	Discriminator module, 4 channel No. 764	1	EA
8048	Opticom #721 detector eye.	1	EA
8050	12" LED signal head section.	39	EA
8051	Furnish and install 4 conductor opticom cable.	105	L.F.
8052	Cut, clean, galvanize and cap traffic signal structure.	2	EA
8056	Electrical cable - 5 conductor (No. 14 AWG).	100	L.F.
8057	Electrical cable - 7 conductor (No. 14 AWG).	1600	L.F.
8058	Electrical cable - 2 conductor (No. 12 AWG) TC.	280	L.F.
8065	Install controller and cabinet base mount.	1	EA

C. EQUIPMENT TO BE REMOVED

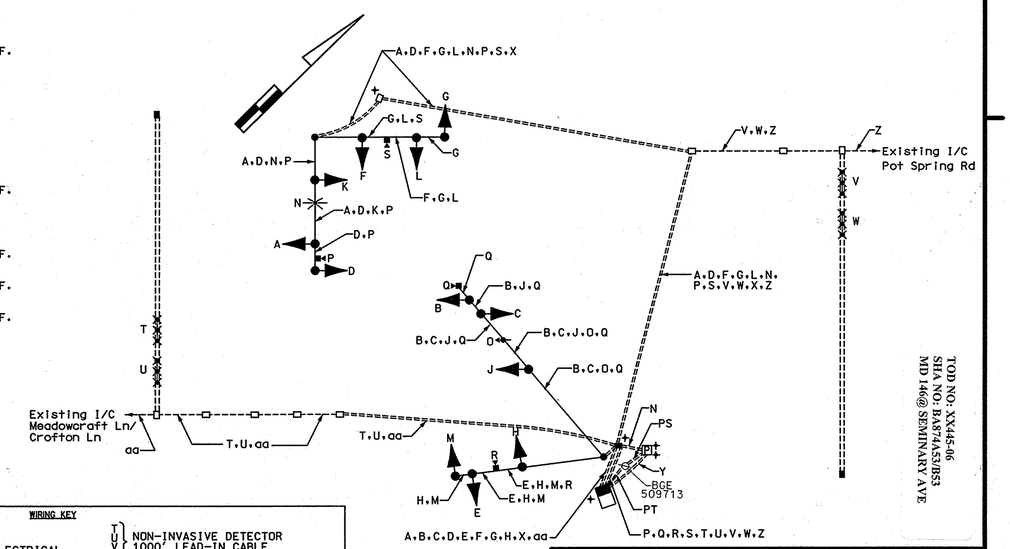
SHA Forces shall remove the controller and all auxilliary equipment from the controller cabinet. The cabinet and all other removed signal materials are to property of the contractor.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 5	G-/R	G-/R	R	R	R	R	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6												
PHASE 1 & 6	G-/G	G-/G	G	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	Y-/G	Y-/G	G	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	G-/G	G-/G	G	R	R	R	R	R	R
2 & 5 CHANGE	R	R	R	Y-/G	Y-/G	G	R	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 4 & 7	R	R	R	R	R	R	R	R	R	G-/G	G-/G	G-/G
4 & 7 CHANGE	R	R	R	R	R	R	R	R	R	Y-/G	Y-/G	Y-/G
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
PRE EMPT 1	G	G	G	R	R	R	R	R	R	R	R	R
PRE EMPT 1 CHANGE	Y	Y	Y	R	R	R	R	R	R	R	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



TOD NO: XX445-06
SHA NO: BA8714A53/B53
MD 146@ SEMINARY AVE

WIRING KEY

A,B,C,D,E,F,G,H,L,M,N,P,S,X — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

T, U, V, W — NON-INVASIVE DETECTOR 1000' LEAD-IN CABLE

X - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

A,D,F,G,L,M,N,P,S,X — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

Y - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

Z - DISCONNECT, PULL BACK, REROUTE 12 PAIR INTERCONNECT CABLE

N - 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

aa - DISCONNECT, PULL BACK, REROUTE 6 PAIR INTERCONNECT CABLE

O - 4-CONDUCTOR OPTICOM CABLE

PT - PROPOSED TELEPHONE DROP

PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY BGE

P,Q,R,S,T,U,V,W,Z — CONTROL CABLE (CAMERA TO CONTROLLER) UP TO 500'

+ - GROUND ROD

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. NW.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

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PLOTTED: $DATETIME$
FILE: $FILE$

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 146 (DULANEY VALLEY RD) AND SEMINARY AVE

LUTHERVILLE, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 10/9/08 CONTRACT NO. XX4455185

DESIGNED BY JAMES ALLEN Jr.
DRAWN BY JAMES ALLEN Jr.
CHECKED BY
F.A.P. NO.

COUNTY BALTIMORE
LOGMILE 03014601.59
TIMS NO. J119
TOD NO.

TS NO. 2278H | DRAWING NO. 2 OF 2 | SHEET NO. OF

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