DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of opticom pre emption detection in the area of the Cambridge Fire House in Dorchester County. Hazard Identification Beacons shall be intalled in the immediate vicinity of the Fire Station along MD 343 - including the eastbound US 50 off ramp to MD 343.
The affected intersections are:

1) MD 343 and Pine Street
2) MD 343 and MD 341
3) US 50 and Crusader Road
4) US 50 and MD 16
5) US 50 and Bucktown Road
6) MD 343: Near Crusader Road

II. INTERSECTION OPERATION

1. MD 343 and Pine St

Pre emption shall be added to both approaches of MD 343.

An opticom 4-channel module shall be intalled into the existing NEMA size "5" pole-mounted cabinet.

2. MD 343 and MD 341

Pre emption shall be added for both approaches of MD 343.

An opticom 4-channel module shall be intalled into the existing NEMA size "5" pole-mounted cabinet.

3. US 50 and Crusader Rd

Pre emption shall be added to the northbound approach of Crusader Rd.

4. US 50 and MD 16

Pre emption shall be added to the northbound approach MD 16.

5. US 50 and Bucktown Rd

Pre emption shall be added to both approaches of US 50.

Four, 4-channel rack mounted loop detector ampliers, detector rack with power supply and an opticom 4-channel module shall be installed into the existing NEMA size "6" base-mounted cabinet. Contractor shall remove the existing 2-channel amplifiers

6. MD 343: Near Crusader Road

Pre emption shall be added in front of the Cambridge Fire House. This will activate a second opticom detector eye in front of the Cambridge Fire House. The second opticom detector eye will then send a signal to a third detector eye loacted at the eastbound US 50 off ramp to MD 343. The third detector eye will then activate the Hazard Identification Beacons located at

1) EB US 50 off ramp to MD 343
2) MD 343 eastbound approach to Cambridge Fire House Driveway
3) MD 343 westbound approach to Cambridge Fire House Driveway

A full-traffic-actuated, eight-phase controller with opticom 4-channel module and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed in this area.

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) 787-7650 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. Contractor shall deliver opticom emitters to the fire station chief Jeff Harley.

The contact persons for District #1 are as follows:

Mr. Gene Cofiell
Assistant District Engineer - Traffic
Phone: (410) 677-4040

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

Mr. Jimmy Wright
Assistant District Engineer - Maintenance
Phone: (410) 543-6715

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Bruce Poole
Assistant District Engineer - Utility
Phone: (410) 677-4082

Mr. Sonny Bailey
Sign Shop
410-787-7670

The power company representative is:

Rodney Bain
Delmarva Power
2530 N. Salisbury Blvd
Salisbury, MD 21802
Phone: 410 860-6242

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9001	Detector rack power supply (To be installed by SHA forces)	1 EA
9016	Detector amplifier 4-channel rack mount (To be installed into the existing cabinet by S.H.A. Forces).	4 EA
9042	Controller ASC II with telemetry	1 EA
9044	Controller cabinet, size "6"	1 EA
9046	Detector rack retrofit.	1 EA
9570	Sheet aluminum signs to consist of: (ground mount)	5 SF
	R2-1 "SPEED LIMIT 30" sign (24"x30").	1 EA
9571	Sheet aluminum signs to consist of: (pole mount)	68 SF
	W11-8 MOD "FIRE STATION CROSSING (SYMBOLIC)" sign, (48"X48")	3 EA
	S4-4 "WHEN FLASHING" (20"x48").	3 EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2002	Test Pit Excavation	6 C.Y.
8001	12" LED signal head section.	6 EA
8006	Adjust / rering existing span wire.	3 EA
8009	Breakaway Pedestal pole (10').	4 EA
8034	Schedule 80 rigid PVC conduit up tp 4" - trenched.	895 L.F.
8035	Schedule 80 rigid PVC conduit, up tp 4" - bored.	445 L.F.
8036	Wood sign supports up to 4" x 6".	16 L.F.
8038	Install overhead or ground mounted sign.	73 S.F.
8040	No. 6 AWG stranded bare copper ground wire.	1240 L.F.
8042	Metered service pedestal embedded.	1 EA
8044	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	60 L.F.
8046	Furnish and install electrical handhole.	10 EA
8047	Discriminator module, 4 channel #764. (opticom)	4 EA
8048	Opticom emitter system 700 series.	3 EA
8049	Opticom #721 detector eye.	10 EA
8050	Furnish and install 4-conductor opticom cable.	2380 L.F.
8054	Electrical cable - 3 conductor (No. 14 AWG).	1440 L.F.
8064	Install controller and cabinet base mount.	1 EA

C. EQUIPMENT TO BE REMOVED

Any signal equipment and materials removed by the contracor shall become property of the Contractor.

US 50 and Bucktown Rd

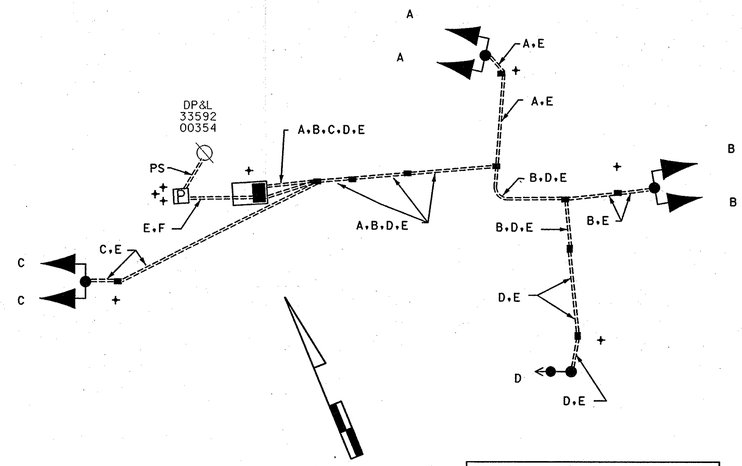
PHASE CHART

MD 343: NEAR CRUSADER ROAD

Signals shall flash "Yellow" when pre-emption is activated.
At all other times the signals shall be dark.

WIRING DIAGRAM

MD 343: NEAR CRUSADER ROAD



WIRING KEY

A, B, C } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
D- 4-CONDUCTOR CANOGA CABLE (NO. 14 A.W.G)
E-STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
F-2-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
+ - GROUND ROD
PS- PROPOSED SERVICE TO BE INSTALLED BY DELMARVA

TOD No.: AT909-05
SHA No.: DO357A51/B51
US 50, MD 343 @ Various Locations in Cambridge

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. NW.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-5537

5095B.dgn TASK T-9

PLOTTED: @DATETIME@
FILE: @FILE@

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

CAMBRIDGE FIRE HOUSE PRE EMPTION

GENERAL INFORMATION SHEET

SCALE NONE	DATE 9/14/06	CONTRACT NO. AT9095185	
DESIGNED BY J ALLEN		COUNTY DORCHESTER	
DRAWN BY R.C.		LOGMILE 09005002.92	
CHECKED BY		TIMS NO. H663	
F.A.P. NO.		TOD NO.	
TS NO. 2497A	DRAWING NO. 9 OF 9	SHEET NO. OF	