DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of an interconnect system along MD 648 (Baltimore Annapolis Blvd) in Anne Arundel County. The following intersections are to be interconnected:

MD 648 and Wellham Ave
MD 648 and Ferndale Rd
MD 648 and Wells Ave
MD 648 and MD 97 Off Ramp
MD 648 and Eastern St
MD 648 and Cromwell Field Shp Cntr Driveway (North)
MD 648 and Cromwell Field Shp Cntr Driveway (South)
MD 648 and MD 176 (Dorsey Rd)

The existing traffic signal at the intersection of MD 648 and Wellham Ave shall be rebuilt. A single diagonal mast arm with a size "5" pole mounted cabinet with video interface shall be installed.

Video detection shall also be installed at

MD 648 and MD 97 Off Ramp
MD 648 and Cromwell Field Shopping Center D/W (South)

MD 648 (Baltimore Annapolis Blvd is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. MD 648 and Wellham Ave

The intersection is to operate in a NEMA four-phase, semi-actuated mode, with the MD 648 (Balto. Annap Blvd) approaches running concurrently. An Exclusive/Permissive left turn phase shall be provided for the southbound approach of MD 648 (Balto. Annap Blvd). The Wellham Avenue approach shall run in its own phase. A right turn concurrent phase shall also be provided for the Wellham Avenue approach operating with the southbound left turn.

2. There shall be no phasing changes to any of the intersections in this project.

3. Video interface shall be installed into the existing full-traffic-actuated, eight-phase controller housed in a NEMA size "6" base-mounted cabinet at MD 648 and MD 97 Off Ramp.

4. Video interface shall be installed into the full-traffic-actuated, eight-phase controller housed in a NEMA size "6" base-mounted cabinet at MD 648 and Cromwell Field Shp Cntr Driveway (South).

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, at the affected intersections, excluding interconnect, to the appropriate terminals and shall properly abel 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.

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
Phone: (410) 841-1019

Mr. John Mays
Assistant District Engineer - Maintenance
Phone: (410) 841-1013

Mr. Mike Huber
Assistant District Engineer - Utility
Phone: (410) 841-1039

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

Mr. Ed Rodenhizer
Manager, Signal Operations Section
410-787-7652

Mr. Sonny Bailey
Manager, Sign Shop Operations
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 S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9000	Telemetry interface panel with quick connect block w/harness.	8 EA
9043	Controller cabinet, size "5"	1 EA
9045	Controller master ASC 2M with telemetry.	1 EA
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	4 EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	42.5 SF
	D-3(1) "(arrow) Wellham Ave / Wellham Ave (arrow)" sign, (48" x 12") dual faced.	1 EA
	D-3(1) "Balt+Annap Blvd" sign, (60" x 12")	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36")	1 EA
	M1-5(5) "SOUTH (arrow)/ MD 648 / NORTH (arrow)" sign, (72" x 30").	1 EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2002	Test Pit Excavation	1 C.Y.
5005	24" white preformed thermoplastic pavement marking lines.	70 L.F.
8001	12" LED signal head section.	22 EA
8019	Mast arm pole and 60' mast arm any "T" dimension	1 EA
8021	Microloop probe (any length) leadin cable up to 1000'	2 EA
8023	Remove and dispose of material & equipment per assignment.	1 EA
8028	Video detection camera & cable	8 EA
8031	12-pair communication cable self supporting and/or jelly-filled.	7050 L.F.
8050	3 inch diameter PVC conduit schedule 80, riser	30 L.F.
8036	Schedule 80 rigid PVC conduit up to 4" - bored.	3525 L.F.
8038	Schedule 80 rigid PVC conduit up to 4" - trenched.	1675 L.F.
8040	Install overhead or ground mounted sign (including hardware).	42.5 S.F.
8042	No. 6 AWG stranded bare copper ground wire.	35 L.F.
8029	1" electrical conduit - galvanized sleeve or riser	15 L.F.
8044	Electrical utility service equipment (120/240 V, 60 amps)	1 EA
8045	Electrical cable 1-conductor No. 8 AWG THHN/THWN.	60 L.F.
8046	Furnish and install electrical handhole.	13 EA

EQUIPMENT LIST (cont.)

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

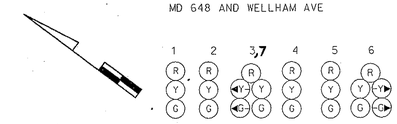
ITEM NO.	DESCRIPTION	QUANTITY
8055	Electrical cable - 5 conductor (No. 14 AWG).	125 L.F.
8056	Electrical cable - 7 conductor (No. 14 AWG).	150 L.F.
8061	Install controller and cabinet pole mount.	1 EA
8062	Install controller and cabinet base mount.	1 EA
Neg.	Furnish and install manhole in roadway patch.	6 EA

C. EQUIPMENT TO BE REMOVED

SHA Forces shall remove the controller and all auxilliary equipment from the controller cabinet at MD 648 and Wellham Ave.. The cabinet and all other removed signal materials for this project are to become property of the contractor.

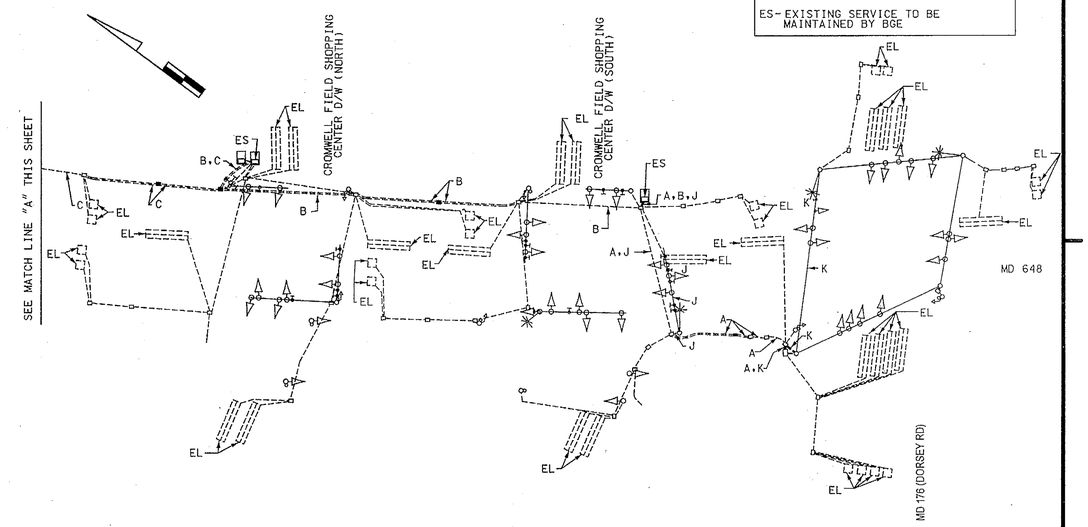
PHASE CHART

MD 648 AND WELLHAM AVE



	1	2	3,7	4	5	6	
PHASE 2 & 5	R	R	◄G-/G	G	R	R/-G►	
2 & 5 CHANGE	R	R	◄Y-/G	G	R	R/-Y►	
PHASE 2 & 6	G	G	G	G	R	R	
2 & 6 CHANGE	Y	Y	Y	Y	R	R	
PHASE 4	R	R	R	R	G	G	
4 CHANGE	R	R	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

WIRING DIAGRAM



WIRING KEY

A, B, C } 12-PAIR VOICE GRADE INTERCONNECT CABLE (JELLY FILLED)

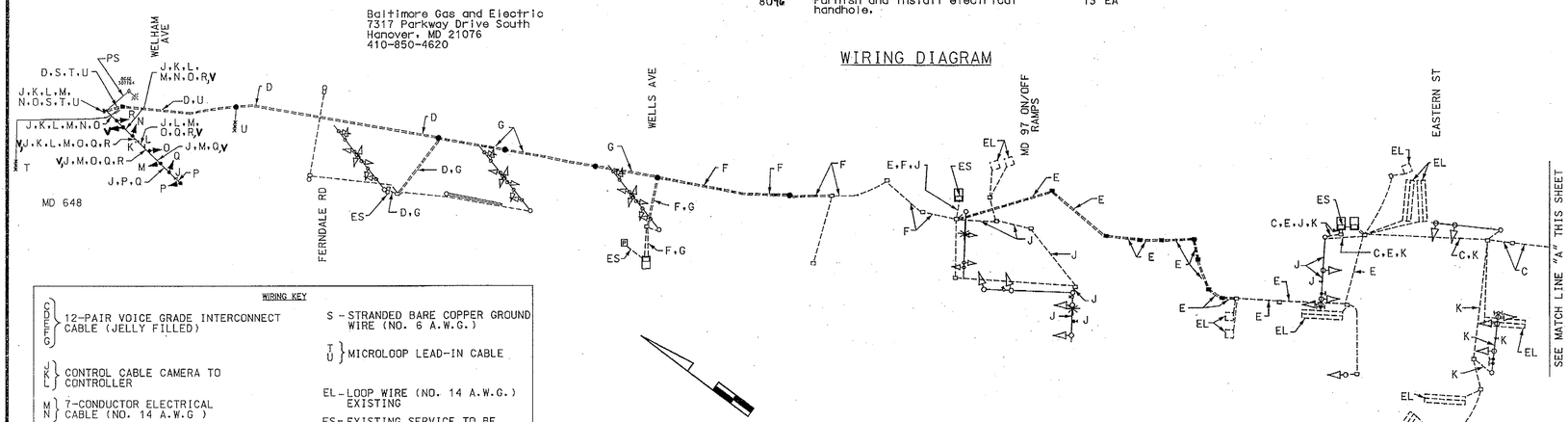
J, K } CONTROL CABLE (CAMERA TO CONTROLLER)

EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING

ES - EXISTING SERVICE TO BE MAINTAINED BY BGE

TOD NO: XX647-15
SHA NO: AA127B59
MD 648 @ MD 176 to Wellham Avenue

WIRING DIAGRAM



WIRING KEY

A, B, C } 12-PAIR VOICE GRADE INTERCONNECT CABLE (JELLY FILLED)

J, K, L } CONTROL CABLE CAMERA TO CONTROLLER

M, N } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

O, P, Q, R } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

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

T, U } MICROLOOP LEAD-IN CABLE

EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING

ES - EXISTING SERVICE TO BE MAINTAINED BY BGE

PS - PROPOSED OVERHEAD SERVICE TO BE INSTALLED BY BGE

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

5965GI.dgn T-73

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 648 (B & A BLVD): FROM WELLHAM AVE TO MD 176 (DORSEY RD)

FERNDALE, MD

GENERAL INFORMATION SHEET

SCALE NONE DATE 11-16-11 CONTRACT NO. XX647S185

DESIGNED BY R. ZACHERL
DRAWN BY R. CICCHINI
CHECKED BY
F.A.P. NO.

COUNTY ANNE ARUNDEL
LOGMILE 02E648.03.8L-04.94
TIMS NO. G799
TOD NO.

TS NO. 12555 | DRAWING NO. 7 OF 7 | SHEET NO. OF

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