

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 97 AND OLD FREDERICK ROAD IN HOWARD COUNTY. MD 97 IS ASSUMED TO RUN IN A NORTH SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULLY-TRAFFIC-ACTUATED MODE. VIDEO CAMERA DETECTION WILL BE USED TO ACTIVATE THE SIDE ROAD AND MICROLOOP PROBES WILL BE USED FOR THE MD 97 APPROACHES.

**SPECIAL NOTE**

- UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MDSA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.
- STREET LIGHTING SHALL BE PROVIDED BY THE LOCAL UTILITY COMPANY FOR SHA LEASE LIGHTING REQUEST.

**CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY**

MR. RICHARD DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS  
(410) 787-7676

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631

MS. DARLENE EIDE  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
(410) 787-7652

**CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:**

MR. JOHN CONCANNON  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(301) 624-8140 / 8141

MR. RAYMOND F. JOHNSON  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(301) 624-8105 / 8106

MS. ANDREA ABEND  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(301) 624-8115 / 8116

**CONTACT FOR HOWARD COUNTY**

MR. JIM IRVIN  
DIRECTOR OF PUBLIC WORKS  
(410) 313-6139

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

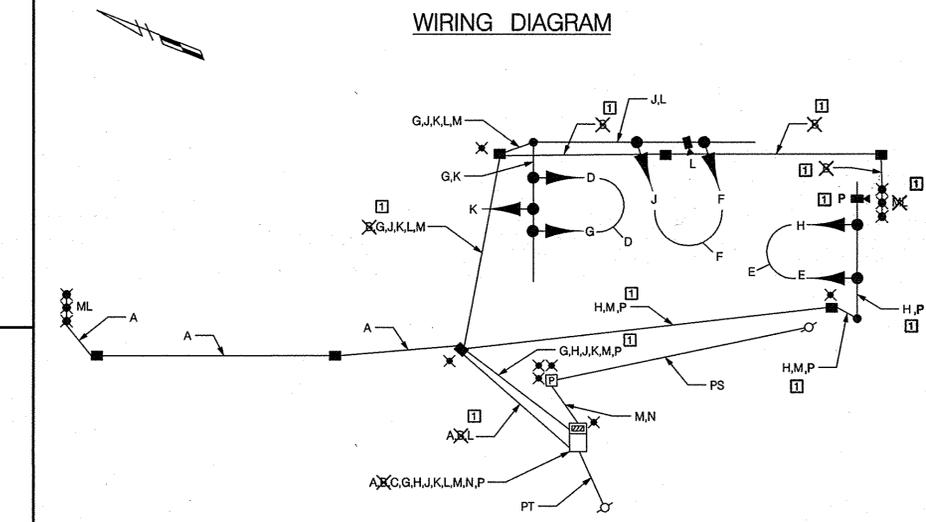
ITEM NO.	QUANTITY	DESCRIPTION
9044	1 EA	EIGHT PHASE FULLY ACTUATED NEMA TYPE 6 CABINET AND CONTROLLER EQUIPMENT
9570	39 SF 3 EA	SHEET ALUMINUM GROUND MOUNTED SIGNS W3-3 (36" X 36") WITH "NEW" PANEL (24" X 24") - GROUND MOUNT
9571	26.5 SF 1 EA 1 EA 1 EA	SHEET ALUMINUM OVERHEAD MOUNTED SIGNS M95-2 (72" X 24") SIGN - POLE MOUNT R10-11B (24" X 24") SIGN - MAST ARM MOUNT D3-2 DUAL FACE SIGN (VAR. X 16") SIGN - MAST ARM MOUNT

**EQUIPMENT LIST "B"**

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	.5 CY	TEST PIT EXCAVATION
5002	150 LF	REMOVE EXISTING PERMANENT PAVEMENT LINE MARKINGS
5005	40 LF	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
8001	21 EA	12 INCH LED SIGNAL HEAD SECTION
8016	1 EA	15 FT. SPECIAL "T" MAST ARM POLE & 38 FT. MAST ARM
8021	1 X EA	NON-INVASIVE MICRO-LOOP PROBE SET WITH 600 FT. LEAD-IN CABLE
8025	1 EA	16.5 FT. SPECIAL "T" MAST ARM POLE & 50 FT./50 FT. MAST ARMS
8027	2 X EA	VIDEO DETECTION CAMERA WITH 200 FT. LEAD IN CABLE
8036	435 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
8036	40 LF	2 IN. SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
8036	70 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT- TRENCHED
8037	185 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT- BORED
8037	40 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT- BORED
8038	35 LF	WOOD SIGN SUPPORTS UP TO 4 IN. X 4 IN.
8040	65.5 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8042	150 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8046	45 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN /THWN
8048	6 X EA	ELECTRICAL HANDHOLE
8053	3 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8057	50 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO 14 AWG)
8058	445 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO 14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

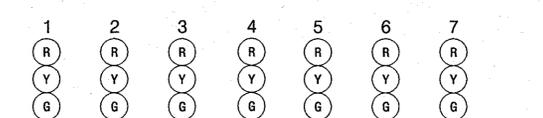
**WIRING DIAGRAM**



**WIRING KEY**

AXX	MICRO-LOOP PROBE LEAD-IN
D,E,F	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
G,H,J,K	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
L,P	VIDEO DETECTION CABLE
M	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
N	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G. 3-WIRE)
ML	MICRO-LOOP PROBE
PS	PROPOSED UNDERGROUND ELECTRIC SERVICE
PT	PROPOSED TELEPHONE
X	GROUND ROD

**PHASING CHART**



PHASE 2 & 6	G	G	G	G	G	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R
PHASE 8	R	R	R	R	R	G	G
PHASE 8 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLR	FLR

REDLINE REVISION 12/12/2008  
*John M. Pender* 12/16/08  
REGD APPROVAL

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
**GENERAL INFORMATION PLAN**  
MD 97 & OLD FREDERICK ROAD  
COOKSVILLE, MARYLAND

**TRAFFIC CONCEPTS, INC.**  
325 Gambrills Road  
Suite E  
Gambrills, MD 21054  
(410) 923-7101  
FAX: (410) 923-6473  
EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

SCALE	NONE	DATE	10-9-08	CONTRACT NO.	AX1425185
DESIGNED BY	M.ROSEN /S.RENZI	COUNTY	HOWARD		
DRAWN BY	M.ROSEN	LOGMILE	13009707.46		
CHECKED BY	S.RENZI	T.I.M.S. NO.	I-997		
F.A.P. NO.	N/A	TOD NO.			
DRAWING NO.	TS-4679 GI	SHEET NO.	2	OF	2