

BORDER REV. DATE: June 11, 2004
 DRILL HOLES
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 BY: \$USERNAME\$

PROJECT DESCRIPTION

GENERAL
 THIS PROJECT INVOLVES THE CONSTRUCTION OF A TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 4 (ST. ANDREWS CHURCH RD) AND MD 5 (POINT LOOKOUT RD) IN ST. MARY'S COUNTY, MD 4 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION
 THE INTERSECTION WILL OPERATE IN A NEMA 3 PHASE, FULL TRAFFIC ACTUATED MODE. EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR SOUTHBOUND MD 5 WITH FREE SOUTHBOUND THROUGH MOVEMENT. VIDEO DETECTION IS PROPOSED FOR SOUTHBOUND AND WESTBOUND APPROACHES. SETBACK DETECTION IS PROPOSED FOR NORTHBOUND MD 5. A PROPOSED PRE-EMPTION PHASE IS PROVIDED FOR ALL APPROACHES.

CONTROLLER REQUIREMENTS
 INSTALL A NEW EIGHT PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, VIDEO DETECTION INTERFACE, A DISCRIMINATOR MODULE FOUR CHANNEL NO.764, FOUR CHANNEL DETECTOR AMPLIFIER, AND ASSOCIATED HARNESSSES IN A NEMA SIZE 6" BASE MOUNTED CABINET.

PHONE DROP
 UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)-787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND THE PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

Ms. Kimberly Tran
 Assistant District Engineer - Traffic
 Phone: 410-841-1019

Mr. John Mays
 Assistant District Engineer - Utility
 Phone: 410-841-1039

Mr. Andre Futrell
 Assistant District Engineer - Maintenance
 Phone: 410-841-1013

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

Mr. Edward Rodenhizer
 Chief, SHA Traffic Signal Shop
 Phone: 410-787-7650

The Power Company Representative
 Southern Maryland Electric Cooperative
 15035 Burnt Store Road
 P.O. Box 1937
 Hughesville, Maryland 20637-1937
 1-888-440-3311

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

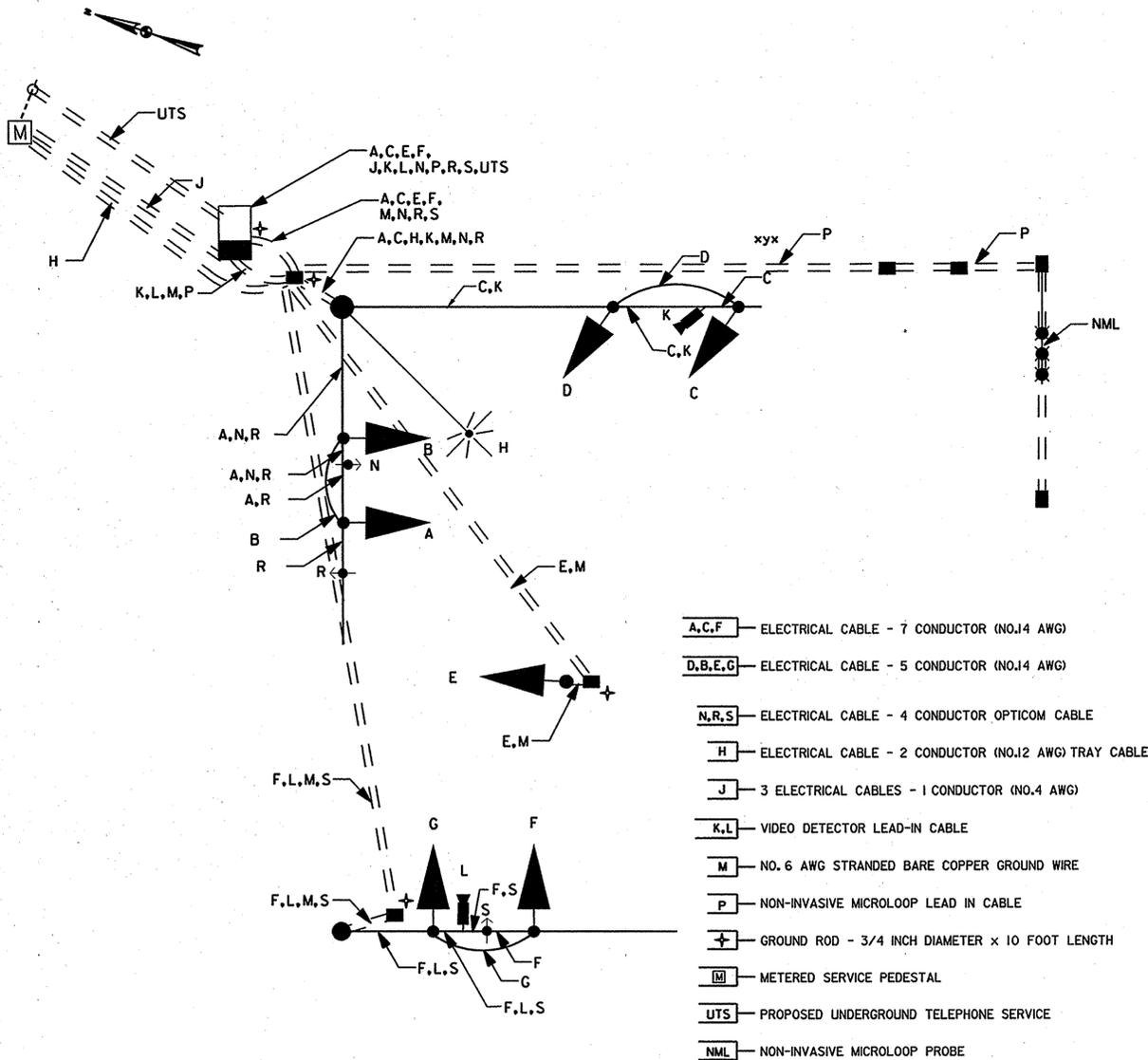
ITEM NO	QUANTITY	DESCRIPTION
9016	1 EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9042	1 EA	[UPDATED] CONTROLLER ASC II WITH TELEMETRY
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT-4 CAMERAS
9571	115 SF	[UPDATED] SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGN
		-3 EACH-W3-3 (36 IN. x 36 IN.)
		-3 EACH-D95-25 (24 IN. x 24 IN.)
		-3 EACH-D3-1 (VARIABLE x 16 IN.)
		-2 EACH-R3-2 (36 IN. x 36 IN.)
		-1 EACH-M95-1 (VARIABLE x 16 IN.)
		-1 EACH-R5-1 (36 IN. x 36 IN.)
		-1 EACH-R3-4 (30 IN. x 36 IN.)
		-1 EACH-R4-7 (24 IN. x 30 IN.)
		-1 EACH-R4-8a (24 IN. x 30 IN.)
		-1 EACH-W4-1L (36 IN. x 36 IN.)
		-1 EACH-OMI-3 (18 IN. x 18 IN.)

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5005	40 LF	24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6002	8 SF	4 INCH CONCRETE SIDEWALK
8001	21 EA	12 INCH LED SIGNAL HEAD SECTION
8007	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATTS HPS LAMP AND LUMINAIRE
8009	1 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	1 EA	MAST ARM POLE & 38FT MAST ARM ANY 'T' DIMENSION
8021	1 EA	NON-INVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8022	1 EA	REM & DISPOSE MAT AND EQUIP PER ASSIGN
8025	1 EA	TWIN MAST ARM POLE & 50FT/50 FT MAST ARMS ANY 'T' DIMENSION
8026	2 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8035	825 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	575 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8039	115 SF	INSTALL OVERHEAD AND GROUND MOUNTED SIGNS
8041	350 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	330 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8047	7 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8048	1 EA	DISCRIMINATOR MODULE, 4 CHANNEL, NO.764
8050	3 EA	OPTICOM NO.721 DETECTOR EYE
8051	450 LF	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE
8056	250 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
8057	450 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
8058	200 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG) TC
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

WIRING DIAGRAM



- A,C,F — ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
- D,B,E,G — ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
- N,R,S — ELECTRICAL CABLE - 4 CONDUCTOR OPTICOM CABLE
- H — ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG) TRAY CABLE
- J — 3 ELECTRICAL CABLES - 1 CONDUCTOR (NO.4 AWG)
- K,L — VIDEO DETECTOR LEAD-IN CABLE
- M — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- P — NON-INVASIVE MICROLOOP LEAD IN CABLE
- ⊕ — GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
- M — METERED SERVICE PEDESTAL
- UTS — PROPOSED UNDERGROUND TELEPHONE SERVICE
- NML — NON-INVASIVE MICROLOOP PROBE

PHASE CHART

	1	2	3	4	5	6	7	
	(R) (Y) (G)							
PHASE 1	R	R	G	G	R	R		↑
PHASE 1 CHANGE	R	R	Y	Y	R	R		
PHASE 2	G	G	R	R	R	R		←
PHASE 2 CHANGE	Y	Y	R	R	R	R		
PHASE 4	R	R	R	R	G	G		↓
PHASE 4 CHANGE	R	R	R	R	Y	Y		
PRE-EMPT PHASE 1	R	R	G	G	R	R		↑
PRE-EMPT PHASE 1 CHANGE	R	R	Y	Y	R	R		
PRE-EMPT PHASE 2	G	G	R	R	R	R		←
PRE-EMPT PHASE 2 CHANGE	Y	Y	R	R	R	R		
PRE-EMPT PHASE 4	R	R	R	R	G	G		↓
PRE-EMPT PHASE 4 CHANGE	R	R	R	R	Y	Y		
FLASHING OPERATION	FL/Y	FL/Y	FL/RA	FL/R	FL/R	FL/R	FL/R	⊕

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE	NONE	NONE

ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

TOD No.: AT915-09
 SHA No.: SM350A52/B52
 MD4 @ MD 5

RJM
 RJM ENGINEERING, INC.
 CONSULTING ENGINEERS
 COLUMBIA, MARYLAND
 410-730-1001

STV Incorporated
 engineers / architects / planners / construction managers
 7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 4 AT MD 5

GENERAL INFORMATION SHEET

SCALE	NONE	DATE	09/14/2006	CONTRACT NO.	AT9155185
DESIGNED BY	NK	COUNTY	ST. MARYS		
DRAWN BY	PFW	LOGMILE	18000400.00		
CHECKED BY	JR/RJM BARSTV	T.I.M.S. NO.	H410		
F.A.P. NO.		TOD NO.			
DRAWING NO.	TS-4517 GI	SHEET NO.	2	OF	2

PLOTTED: #DATETIME#
 FILE: #FILES#