PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES REPLACING EXISTING TRAFFIC CONTROL SIGNALS WITH BLACK FACED SIGNAL HEADS. A VOLUME-DENSITY DETECTOR WILL BE INSTALLED TO MONITOR NORTHBOUND LEFT-TURN QUEUES. MD 500 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING FOR NORTH- AND SOUTHBOUND TRAFFIC, AND PERMISSIVE PHASING ON THE SIDE STREETS.

CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER, LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES WILL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL THE FOUR-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIER.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Charlie Watkins
District Engineer
Phone: 301-513-7311

Mr. Majib Shakib
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Rebish
District Utility Engineer
Phone: 301-513-7350

Mr. Raleigh Medley
Assistant District Engineer - Maintenance
Phone: 301-513-7304

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

The Power Company Representitive is:
Potomac Electric Power Company
Mr. Brian Already
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

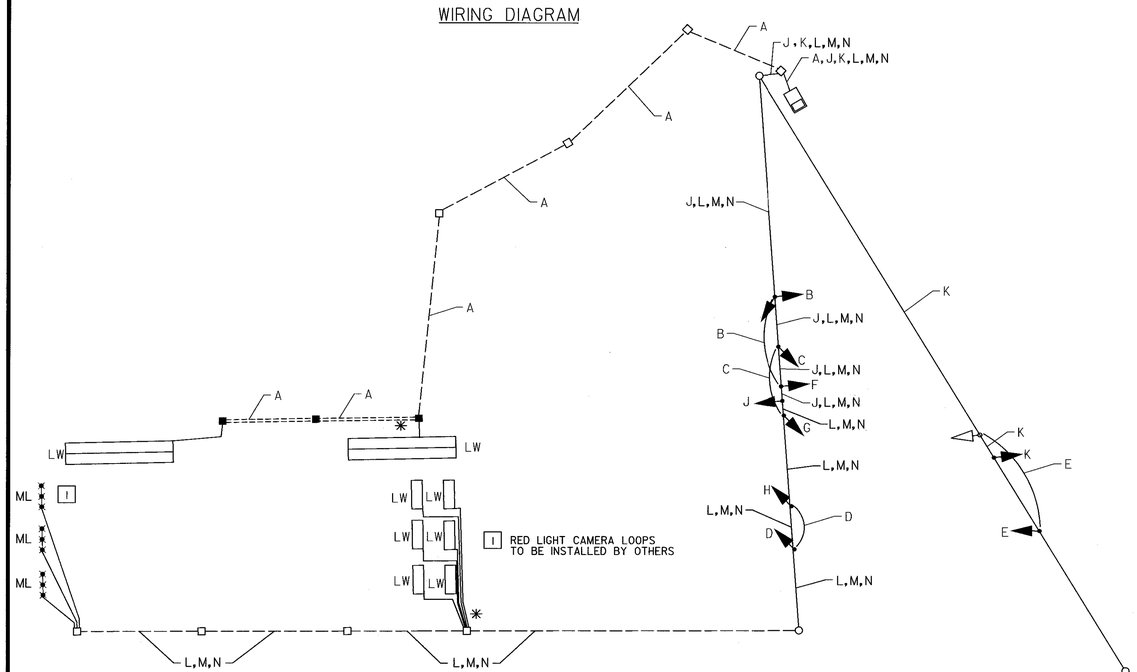
963010	1 EA	FOUR CHANNEL LOOP DETECTOR AMPLIFIER (RACK MOUNT)

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
	585624	50 L.F.	24 INCH WHITE HEAT-APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
	800000	LUMP SUM	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
	805125	270 L.F.	FURNISH AND INSTALL 2 IN. DIAMETER RIGID PVC ELECTRICAL CONDUIT (SCHEDULE 80) - TRENCHED
1	805160	50 ~~80~~ L.F.	1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
1	810555	3 EA.	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
	811001	3 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
	811002	1 EA.	REMOVE ELECTRICAL HANDHOLE
	860270	6 EA.	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACED)
	860272	27 EA.	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACED)
	861104	500 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED
	861107	100 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
	861108	300 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
1	862101	950 ~~1100~~ L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
1	862102	325 ~~470~~ L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)

WIRING DIAGRAM



✳ SPLICE EXISTING 2-CONDUCTOR (NO. 14 AWG) ALUMINUM SHIELDED ELECTRICAL CABLE TO LOOP WIRES.

A — 2-CONDUCTOR ALUMINUM SHIELDED ELECTRICAL CABLE (NO. 14 A.W.G.)

B C D E — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

1 ML — MICROLOOP PROBE

1 L M N — MICROLOOP PROBE LEAD-IN

F G H — USE EXISTING 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

J K — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

LW — LOOP WIRE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	CY CG CR	R Y CY R CR	R Y G	CY CG CR	R Y CY R CR	R Y G	R Y G	R Y G	R Y G	R Y G	R Y Y	R Y Y	R Y Y	R Y Y	R Y Y	R Y Y	✋	✋	✋	✋
PHASE 1 + 5	~~G~~ R	~~G~~ R	R	~~G~~ R	~~G~~ R	R	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 1 + 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 + 6, 2 + 5 OR 2 + 6																			
PHASE 1 + 6	~~G~~ G	~~G~~ G	G	R	R	R	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 1 + 6 CHANGE	~~Y~~ G	~~Y~~ G	G	R	R	R	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	~~G~~ G	~~G~~ G	G	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 2 + 5 CHANGE	R	R	R	~~Y~~ G	~~Y~~ G	G	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	W	W	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/DW	FL/DW	DW	DW
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	W	W
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	FL/DW	FL/DW
PHASE 4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	DW	DW	DW	DW
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	FL/Y	FL/Y	FL/Y	FL/Y	DARK	DARK	DARK	DARK

FIREHOUSE PRE-EMPTION

FIREHOUSE PRE-EMPT PHASE	R	R	R	R	R	R	G	G	R	R	FL/Y	FL/Y	R	R	R	R	DW	DW	DW	DW
PRE-EMPTION CLEARENCE	R	R	R	R	R	R	Y	Y	R	R	Y	Y	R	R	R	R	DW	DW	DW	DW

⚠ ADDENDUM NO. 1
11/20/02
REPLACEMENT SHEET

1 REDLINE REVISION NO. 1
5/30/2003

SS-2

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 500 (QUEENS CHAPEL ROAD) AND MD 410A (BELCREST ROAD)
GENERAL INFORMATION

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

DRAWN BY:	BAB	F.A.P. NO.	SEE TITLE SHEET	TS NO. 589-C	SHEET NO.
CHECKED BY:	MTS	S.H.A. NO.	PG3995176		
SCALE:	NONE	COUNTY:	PRINCE GEORGE'S	T.I.M.S. NO. F353	5 OF 8
DATE:	10/2002	LOG MILE:	16050002.08		

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DATE: 30-May-03 08:17