PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing signal to provide for additional through lanes along US Route 1, an additional left turn lane along Sunnyside Avenue and a new median at the intersection of US Route 1 (Baltimore Avenue) and Sunnyside Avenue. The existing signal pole on the west side of the intersection will be removed and a new signal pole and mast arms will be installed. All existing loop detectors will be replaced with detection cameras except the advanced loop detectors on US Route 1 and Sunnyside Avenue, they will be replaced with micro-probes.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA 8-phase, semi-actuated mode, with the East approach running seperately.

III. CONTROLLER REQUIREMENT

1. Re-use a fully-traffic-actuated, eight-phase controller in the existing NEMA size "6" base mounted cabinet. Video interface equipment will be installed.

IV. SPECIAL NOTES

1. The Maryland State Highway Administration Signal Shop shall be responsible for installing all new equipment in the cabinet.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS
DISTRICT ENGINEER
(301) 513-7311

MR. DENNIS McMAHON
ADE CONSTRUCTION
(301) 513-7345

MR. RICHARD DAFF
DIVISION CHIEF, TOD
(410) 787-7630

MR. MAJID SHAKIB
ADE TRAFFIC
(301) 513-7358

MR. BARRY KING
CHIEF, TEDD
(410) 787-4011

MR. EDWARD RODENHIZER
CHIEF OF SIGNAL OPERATIONS
(410) 787-7652

EQUIPMENT LIST A

A. THE CONTRACTOR SHALL FURNISH THE INTERFACE EQUIPMENT FOR THE CAMERAS AND SHA SHALL INSTALL THE INTERFACE EQUIPMENT FOR THE CAMERAS.

EQUIPMENT LIST B

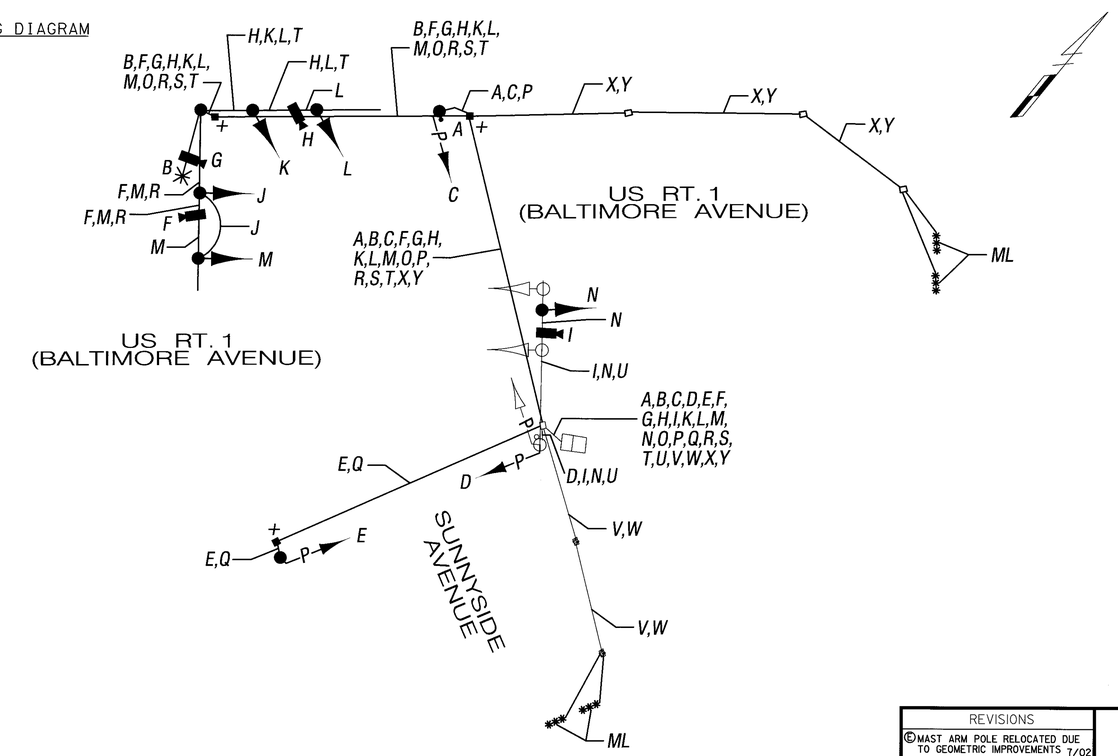
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
2 CY	TEST PIT EXCAVATION
7 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
3 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, THREE SECTION (R,Y,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING.
1 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, FIVE SECTION (R,YA,Y,GA,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING.
2 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, TWO SECTION (WALK, DON'T WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR PEDESTAL POLE MOUNTING AND CUTAWAY VISORS.
1 EACH	FURNISH AND INSTALL 12 IN./8 IN., ONE-WAY, FIVE SECTION (R,YA,Y,GA,G) BLACK-FACED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING
1 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, TWO SECTION (WALK, DON'T WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM POLE MOUNTING AND CUTAWAY VISORS.
1 EACH	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND R10-4(2) SIGN - "PUSHBUTTON TO CROSS BALTIMORE AVE.".
78 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - 1 EACH R10-12 SIGN (30" X 36") - MAST ARM MOUNT - 2 EACH R3-5R SIGN (30" X 36") - MAST ARM MOUNT - 2 EACH R3-5L SIGN (30" X 36") - MAST ARM MOUNT - 3 EACH D3-2 SIGN (VAR. X 16") - MAST ARM MOUNT
3 EACH	FURNISH AND INSTALL ¾ IN. X 10 FT. GROUND ROD
1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT./50 FT. MAST ARMS
1 EACH	FURNISH AND INSTALL 20 FT. LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE
1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL

PHASING SEQUENCE CHART

	1	2	3	4	5	6	7
PHASE 02 & 05	R	R	R ◀G–	R ◀G–	G	R	R
PHASE 02 & 05 CHANGE	R	R	R ◀Y–	R ◀Y–	G	R	R
PHASE 02 & 06	G	G	G	G	G	R	R
PHASE 02 & 06 CHANGE	Y	Y	Y	Y	Y	R	R
PHASE 04	R	R	R	R	R	G	G
PHASE 04 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R

WIRING DIAGRAM



A	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO. 12 A.W.G.)
C,D,E,F,G,H,I	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J,K,L	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
M,N	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
O,P,Q	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
R,S,T,U	POWER SERVICE FOR CAMERA
V,W,X,Y	MICRO-LOOP PROBE LEAD-IN
ML	MICRO-LOOP PROBE SET
+	¾ IN. X 10 FT. GROUND ROD

EQUIPMENT LIST B CONTINUED

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

QUANTITY	DESCRIPTION
190 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT (SLOTTED)
610 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
2 EACH	FURNISH AND INSTALL 10 FT. BREAKAWAY PEDESTAL POLE
4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
LS	REMOVE AND DISPOSE OF EXISTING MATERIALS
500 LF	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO.14 AWG)
350 LF	FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO. 14 AWG)
400 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
4 EACH	FURNISH AND INSTALL CAMERA ASSEMBLY
1050 LF	FURNISH AND INSTALL ELECTRICAL CABLE-3 CONDUCTOR (NO. 14 AWG)
130 LF	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO. 14 AWG)
230 LF	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR TYPE T/C (NO. 12 AWG)
4 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
40 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEX. CONDUIT (DETECTOR SLEEVE)
90 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
2 EACH	FURNISH AND INSTALL FOUR-CHANNEL, LOOP DETECTOR AMPLIFIER

EQUIPMENT LIST C

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

TS-2

REVISIONS

©	MAST ARM POLE RELOCATED DUE TO GEOMETRIC IMPROVEMENTS 7/02

ENGINEERING-PLANNING-EARTH SCIENCES-SURVEYING
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ROCKVILLE,MD-RALEIGH,NC-FREDERICKSBURG,VA-MECHANICSBURG,PA- ST. PETERSBURG,FL

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
Traffic Signal Plan (MOT Phases 1A, 1B & 2)
US RT. 1 (BALTIMORE AVENUE) & SUNNYSIDE AVENUE

DRAWN BY: H. KILIAN	F.A.P. NO. J-902-11221	TS NO. TS-1117E-G	SHEET NO. 18 OF 22
CHECKED BY: H. KILIAN	S.H.A. NO. P-323 C03 385		
SCALE: 1" = 20'	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. F241	
DATE: JANUARY 20, 1974	LOG MILE: 1600107.18		

J:/TRANS/DEV-7224/SIGNALS/Sunnyside2(B).dgn
December 6, 2002 10:00