PROJECT DESCRIPTION

I. GENERAL

This project involves the addition of a crosswalk and pedestrian signal heads for the north leg of the intersection. A pedestrian signal head will be added to the existing pedestal pole located within the curbed island in the northwest corner of the intersection. Also, a pedestrian signal head will be added to the existing strain pole located in the northeast corner of the intersection.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA 8-phase, semi-actuated mode, with the north-south approaches running concurrently.

III. CONTROLLER REQUIREMENT

1. Re-use the existing fully-actuated, eight phase controller with two (2) four channel, time-delay-output loop detector amplifiers, and associated harnesses housed in a NEMA size "6" base mounted cabinet.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. LEE STARKLOFF
ADE TRAFFIC
(301) 513-7358

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

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

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

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

MR. BOB GONZALES
MONTGOMERY COUNTY TRANSPORTATION
MANAGEMENT CENTER
(240) 777-8761

EQUIPMENT LIST B

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

900000	1 EACH	VIDEO DETECTION INTERFACE EQUIPMENT - 1-4 CAMERAS

EQUIPMENT LIST B

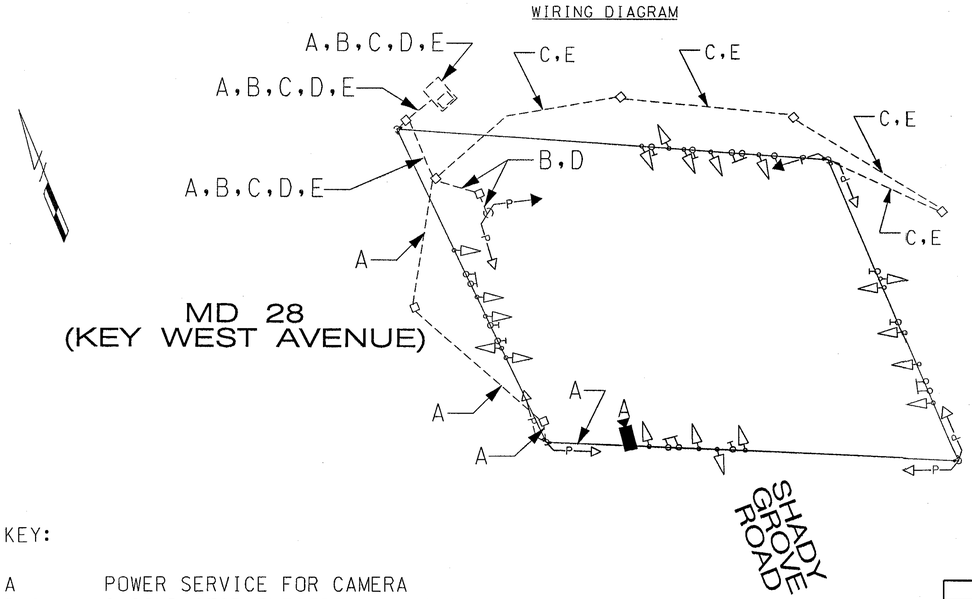
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR.

120000	LS	MAINTENANCE OF TRAFFIC.
585412	330 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
585424	100 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS.
585405	20 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED REFLECTIVE THERMOPLAST PAVEMENT MARKINGS.
800000	1 EA	TO BE NEGOTIATED-FURNISH AND INSTALL DEPRESSD CONCRETE CURB AND GUTTER.
655104	20 SF	FURNISH AND INSTALL 4 IN. CONCRETE SIDEWALK.
816001	1 EACH	FURNISH AND INSTALL VIDEO DETECTIONCAMERA .
816005	1 EACH	FURNISH AND INSTALL CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER.
800000	1 EACH	FURNISH AND INSTALL 12 IN. PEDESTRIAN SIGNAL HEAD SECTION (POLE MOUNT).
800000	1 EACH	FURNISH AND INSTALL 12 IN. PEDESTRIAN SIGNAL HEAD SECTION (PEDESTAL POLE MOUNT).
861105	420 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG).
811106	420 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG).
800000	2 EACH	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND R10-4(2) SIGN - "PUSHBUTTON TO CROSS SHADY GROVE ROAD".

PHASING SEQUENCE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	R Y G	R Y G	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	R Y G	R Y G	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	R Y G	R Y G	◄R– ◄Y– ◄G–	◄R– ◄Y– ◄G–	R Y G	R Y G								
PHASE 01 & 05	◄G–	◄G–	◄G–	R	R	◄G–	◄G–	◄G–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 01 & 05 CHANGE	◄Y–	◄Y–	◄Y–	R	R	◄Y–	◄Y–	◄Y–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 01 & 06	◄G–	◄G–	◄G–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PED CLEAR	◄G–	◄G–	◄G–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	FL/DW	FL/DW	DW	DW	DW	DW	DW
PHASE 01 & 06 CHANGE	◄Y–	◄Y–	◄Y–	Y	Y	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 02 & 05	◄R–	◄R–	◄R–	R	R	◄G–	◄G–	◄G–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PED CLEAR	◄R–	◄R–	◄R–	R	R	◄G–	◄G–	◄G–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	FL/DW	DW	DW	FL/DW	DW	DW	DW	DW
PHASE 02 & 05 CHANGE	◄R–	◄R–	◄R–	R	R	◄Y–	◄Y–	◄Y–	Y	Y	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 02 & 06	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEAR	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 02 & 06 CHANGE	◄R–	◄R–	◄R–	Y	Y	◄R–	◄R–	◄R–	Y	Y	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 03 & 07	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄G–	◄G–	◄G–	R	R	◄G–	◄G–	R	R	DW	DW	DW	DW	WK	WK	WK	WK
PHASE 03 & 07 CHANGE	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄Y–	◄Y–	◄Y–	R	R	◄Y–	◄Y–	R	R	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 04 & 08	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 04 & 08 CHANGE	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	Y	Y	◄R–	◄R–	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 04 & 08	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEAR	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	G	G	◄R–	◄R–	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 04 & 08 CHANGE	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	Y	Y	◄R–	◄R–	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/◄R–	FL/◄R–	FL/◄R–	FL/Y	FL/Y	FL/◄R–	FL/◄R–	FL/◄R–	FL/Y	FL/Y	FL/◄R–	FL/◄R–	FL/◄R–	FL/R	FL/R	FL/◄R–	FL/◄R–	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



KEY:

A POWER SERVICE FOR CAMERA
B,C 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D,E 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

TS-2

REVISIONS
(E) ADD PEDESTRIAN HEADS TO N. LEG OF INTERSECTION (SHADY GROVE ROAD) CONTRACT #M0935188 JANUARY, 2003

ENGINEERING-PLANNING-EARTH SCIENCES-SURVEYING
GREENHORNE & O'MARA, INC.
810 GLENEAGLES COURT, SUITE 106, BALTIMORE, MARYLAND 21286
(410) 583-6700
ANNAPOLIS,MD-BALTIMORE,MD-ATLANTA,GA-TAMPA,FL-FAIRFAX,VA-WEST PALM BEACH,FL
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
MD 28 (KEY WEST AVENUE) AT SHADY GROVE ROAD

DRAWN BY:	T.E.L.	F.A.P. NO.	N/A	TS NO.	1189F
CHECKED BY:	B.C.M.	S.H.A. NO.	/		
SCALE:	1" = 20'	COUNTY:	MONTGOMERY	T.I.M.S. NO.	F-547
DATE:	APRIL, 1991	LOG MILE:	15R0201.34	SHEET NO.	2 OF 2

J:/TRANS/0209/MD28 - Shady Grove Road/Signal2.dgn
January 31, 2003 10:00