PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 28 (W. MONTGOMERY RD./KEY WEST AVE.) AND SHADY GROVE RD. IN MONTGOMERY COUNTY, MARYLAND. MD 28 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA EIGHT (8) PHASE, SEMI-TRAFFIC-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN PHASE FOR BOTH THE EAST AND WEST BOUND MOVEMENTS OF MD 28. THE MD 28 THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT ACROSS THE NORTH AND SOUTH LEGS OF THE INTERSECTION. THERE IS AN EXCLUSIVE LEFT TURN MOVEMENT FOR BOTH THE NORTH AND SOUTHBOUND MOVEMENTS OF SHADY GROVE RD. THE SHADY GROVE RD. THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH AN ACTUATED PEDESTRIAN MOVEMENT ACROSS BOTH THE EAST AND WEST LEGS OF THE INTERSECTION.

THE MEDIAN ON THE WEST LEG KEY (WEST AVENUE) WILL BE MODIFIED TO ACCOMODATE AN EASTBOUND TRIPPLE LEFT TURN MOVEMENT.

CONTROLLER REQUIREMENTS

USE EXISTING BASE MOUNTED CONTROLLER ASSEMBLY.

SPECIAL NOTES

1. ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATE D IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN THE FIELD IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOVLED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE SO THAT SHA FORCES CAN MAKE THE FINAL CONNECTIONS. ALL UNUSED SIGNAL CABLES SHALL BE REMOVED AND DISPOSED. CONTACT THE TRAFFIC SIGNAL OPERATIONS SUPERVISOR AT LEAST 72 HOURS PRIOR TO INSTALLATION.

3. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT IN DISTRICT #3 ARE AS FOLLOWS:

MR. BRIAN YOUNG
DISTRICT ENGINEER – #3
PHONE: (301) 513-7311

MR. CEDRIC WARD
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358

MR. KEVIN NOWAK
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336

MR. VERNON STINNETT
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
PHONE: (301) 513-7304

MR. RICHARD DAFF, SR.
CHIEF TRAFFIC SIGNAL OPERATIONS DIVISION
PHONE: (410) 787-7680

MR. ROBERT RICKETTS
SIGNAL SHOP (MONTGOMERY COUNTY)
PHONE: (301) 674-8965

MR. KAMAL HAMUD
MONTGOMERY COUNTY TMC CENTER
PHONE: (240) 777-8761

MR. SONNY BAILEY
CHIEF SIGN SHOP
PHONE: (410) 787-7670

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY STATE HIGHWAY ADMINISTRATION

NONE

B. EQUIPMENT TO BE FURNISHED AND /OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
120500	MAINTENANCE OF TRAFFIC	LS	1
130850	MOBILIZATION	LS	1
203030	TEST PIT EXCAVATION	CY	1
586625	24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	85
800000	CONTROL CABLE, 100 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	1
801805	SHEET ALUMINUM SIGNS 1 EACH R3-5L (30" x 36") MAST ARM MOUNTED (LEFT ONLY)	SF	35
805155	4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	160
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	1
811002	REMOVE ELECTRICAL HANDHOLE	EA	2
813006	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES	SF	8
816001	VIDEO DETECTION CAMERA WITH ARM AND CLAMP	EA	1
816015	VIDEO INTERFACE EQUIPMENT	EA	1
837001	GROUND ROD - 3/4" DIAMETER X 10 FOOT LENGTH	EA	1
860284	12" VEHICULAR SIGNAL HEAD SECTION (LED)	EA	21
861104	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)	LF	1000
873001	REMOVE AND SALVAGE EXISTING EQUIPMENT	LS	1

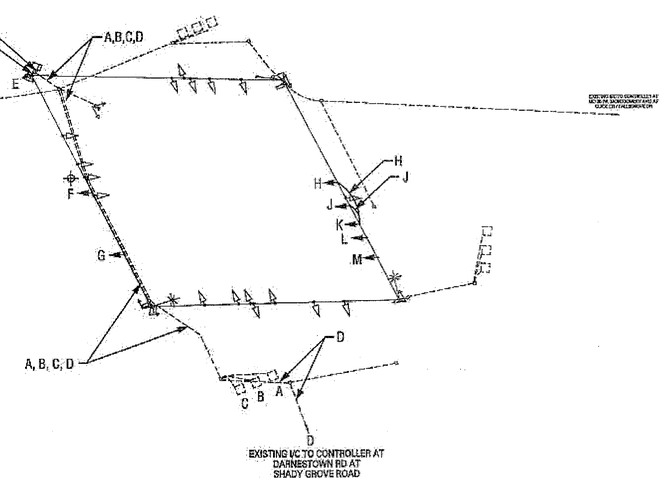
C. EQUIPMENT TO BE REMOVED AND RETURNED TO STATE HIGHWAY ADMINISTRATION

NONE

WIRING DIAGRAM LEGEND

A, B, C	2 CONDUCTOR ELECTRICAL CABLE (No. 14 AWG) ALUMINUM SHIELDED (LOOP DETECTOR SPLICE)
D	USE EXISTING COMMUNICATION CABLE
E	VIDEO DETECTION CAMERA CONTROL CABLE
F, G, K, L, M	USE EXISTING WIRE
H, J	5 CONDUCTOR ELECTRICAL CABLE (No. 14 AWG)
⏚	GROUND ROD

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25,26	27,28	29-32
PHASE 1+5	•G-	R	•G-	•G-	•G-	R	R	•G-	•G-	•G-	R	R	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	DW	DW	DW
1+5 CHANGE TO PHASE 1 & 6 OR PHASE 2 & 5 OR PHASE 2 & 6																											
PHASE 1+6	•G-	G	•G-	•G-	•G-	G	G	•R-	•R-	•R-	R	R	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	DW	WK	DW
1 CHANGE	•Y-	G	•Y-	•Y-	•Y-	G	G	•R-	•R-	•R-	R	R	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	DW	WK	DW
PHASE 2+5	•R-	R	•R-	•R-	•R-	R	R	•G-	•G-	•G-	G	G	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	WK	DW	DW
5 CHANGE	•R-	R	•R-	•R-	•R-	R	R	•Y-	•Y-	•Y-	G	G	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	WK	DW	DW
PHASE 2+6	•R-	G	•R-	•R-	•R-	G	G	•R-	•R-	•R-	G	G	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	WK	WK	DW
PED CLEAR	•R-	G	•R-	•R-	•R-	G	G	•R-	•R-	•R-	G	G	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	FL/DW	FL/DW	DW
2+6 CHANGE	•R-	Y	•R-	•R-	•R-	Y	Y	•R-	•R-	•R-	Y	Y	•R-	R	R	•R-	•R-	R	R	•R-	•R-	•R-	R	R	DW	DW	DW
PHASE 3+7	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•G-	R	R	•G-	•G-	R	R	•G-	•G-	•G-	R	R	DW	DW	DW
3 & 7 CHANGE TO PHASE 3 & 8 OR PHASE 4 & 7 OR PHASE 4 & 8																											
PHASE 3 & 8	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•G-	G	G	•G-	•G-	G	G	•R-	•R-	•R-	R	R	DW	DW	DW
3 CHANGE	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•Y-	G	G	•Y-	•Y-	G	G	•R-	•R-	•R-	R	R	DW	DW	DW
PHASE 4 & 7	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	R	R	•R-	•R-	R	R	•G-	•G-	•G-	G	G	DW	DW	DW
7 CHANGE	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	G	G	•R-	•R-	R	R	•Y-	•Y-	•Y-	G	G	DW	DW	DW
PHASE 4 & 8	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	G	G	•R-	•R-	G	G	•R-	•R-	•R-	G	G	DW	DW	DW
4 & 8 CHANGE	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	Y	Y	•R-	•R-	Y	Y	•R-	•R-	•R-	Y	Y	DW	DW	DW
PHASE ALT 4 & ALT 8	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	G	G	•R-	•R-	G	G	•R-	•R-	•R-	G	G	DW	DW	WK
PED CLEARANCE	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	G	G	•R-	•R-	G	G	•R-	•R-	•R-	G	G	DW	DW	FL/DW
ALT 4 & ALT 8 CHANGE	•R-	R	•R-	•R-	•R-	R	R	•R-	•R-	•R-	R	R	•R-	Y	Y	•R-	•R-	Y	Y	•R-	•R-	•R-	Y	Y	DW	DW	DW
FLASHING OPERATION	FL / R	FL / Y	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	FL / R	FL / R	FL / R	DARK	DARK	DARK

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 28 (W MONTGOMERY AVE / KEY WEST AVE) AT SHADY GROVE ROAD

ROCKVILLE, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 10 FEB 2011 CONTRACT NO. BW996M82

WELLS + ASSOCIATES, INC
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1420 Spring Hill Road, Suite 600, McLean, Virginia 22102
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DESIGNED BY NDG
DRAWN BY JCP
CHECKED BY LES
F.A.P. NO.
COUNTY MONTGOMERY
LOGMILE 15028019.30
T.I.M.S. NO. K410
TOD NO.

DRAWING NO. TS-1188J
SHEET NO. 2 OF 2

PLOTTED:
FILE: —

BY: WELLS + ASSOCIATES, INC.