PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a fiberoptic blankout sign and mast arm for the southbound approach of MD 355 (Rockville Pike). Signal heads and signs from the southern most span wire will be removed and new signal heads, signs, and a proposed fiberoptic blankout sign will be installed on a new mast arm. Two additional changeable lane use signs will also be installed on two new mast arms along the southbound MD 355 approach. MD 355 is assumed to run in the north-south direction.

II. INTERSECTION OPERATION

1. The intersection is to operate in a NEMA 6-phase, semi-actuated mode, with split phase operations for the EB and WB minor street approaches. The NB approach will operate utilizing exclusive left turn phasing. The SB approach will operate utilizing exclusive lagging left turn phasing with double left turn lanes during the PM peak and exclusive/permissive (using flashing red arrow operations) concurrent leading left turn phasing with a single left turn lane at all other times.

2. An existing NEMA full-traffic-actuated, eight (8) phase controller housed in a NEMA size 6 base mounted cabinet shall be utilized at this location.

NOTES

1. For final pavement markings, refer to the pavement marking plans, as applicable; other than those detailed on the plan. All pavement markings shall be installed in accordance with Administration standards.

2. The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly labeling each cable.

3. All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in the appropriate 800 series Standard Plates. The contractor shall verify ultimate grades prior to the installation of all signal equipment.

4. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

5. The contractor shall maintain the continuous operation of all interconnect, vehicular, pedestrian detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.

6. The contractor shall contact Michael Stocker (410-787-7696) at the Office of Traffic and Safety Signal Shop to schedule drop off of the cut portion of the signal pole. The contractor shall tag and label pole "to be used for MD 355 and Jones Bridge BRAC Project".

SPECIAL NOTE

1. All unused loop detector cables shall be removed from all conduits, handholes, signal structures and the existing controller.

CONTACTS

DISTRICT 3

BRIAN YOUNG
DISTRICT ENGINEER
301-513-7311

CEDRIC WARD
ASSISTANT DISTRICT ENGINEER - TRAFFIC
301-513-7358

VICTOR GRAFTON
UTILITIES ENGINEER
301-513-7350

KEVIN NOWAK/DUANE BERNARD
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7385

VERNON STINNETT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
301-513-7304

MONTGOMERY COUNTY

ROBERT RICKETTS
SIGNAL SHOP
301-270-1972

OFFICE OF TRAFFIC AND SAFTEY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7670

MS. MATT STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

KAMAL HAMUD
TRAFFIC ENGINEER
240-777-8761

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CAT CODE	DESCRIPTION	UNITS	QUANTITY
973023	SHEET ALUMINUM SIGNS CONSISTING OF:	SF	56
	D-3(1) (VAR. X 16")	EA	2
	R3-5(L) (30" X 36")	EA	1
	R3-5a (30" X 36")	EA	2
	R10-12(2) (48" X 36")	EA	1

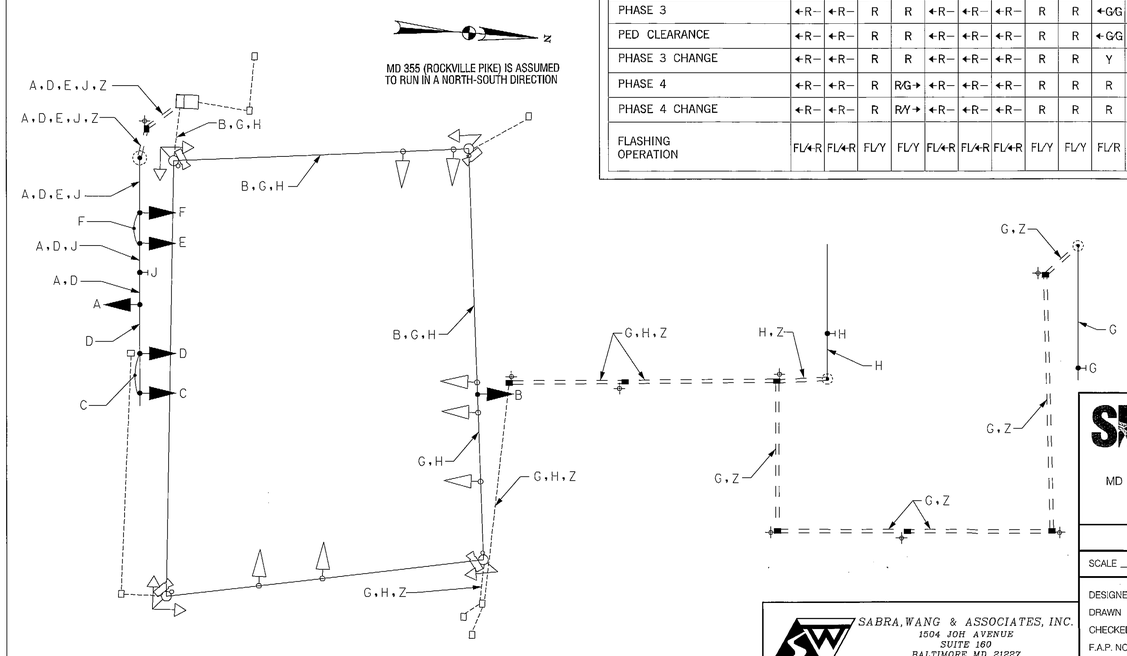
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

CAT CODE	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	3
585621	12 INCH WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	600
585625	24 INCH WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	170
800000	FURNISH AND INSTALL FIBEROPTIC BLANKOUT SIGN	EA	3
800000	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT	LS	1
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	10
801607	INSTALL SHEET ALUMINUM SIGNS	SF	56
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	1060
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	810
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	150
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	8
818036	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM	EA	2
818052	STEEL POLE WITH SINGLE 70 FOOT MAST ARM	EA	1
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	8
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	18
860292	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE	EA	3
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	2475
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	200

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

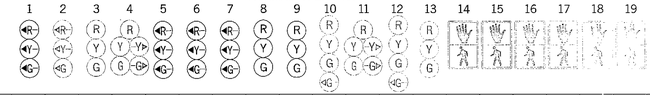
BY: khodges -

WIRING DIAGRAM



PHASE CHART

NORMAL OPERATION



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 1 AND 5	←G	←G	R	R	←G	←G	←G	R	R	R	R/G→	R	R	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE MAY CHANGE TO PHASE 1 AND 6, 2 AND 5, OR 2 AND 6																			
PHASE 1 AND 6	←G	←G	G	G	←R	←R	←R	R	R	R	R/G→	R	R	DW	WK	WK	DW	DW	DW
1 AND 6 CHANGE	←Y	←Y	G	G	←R	←R	←R	R	R	R	R/Y→	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 AND 5	←R	←R	R	R	←G	←G	←G	G	G	R	R	R	R	WK	DW	DW	WK	DW	DW
2 AND 5 CHANGE	←R	←R	R	R	←Y	←Y	←Y	G	G	R	R	R	R	WK	DW	DW	WK	DW	DW
PHASE 2 AND 6	←R	←R	G	G	FL/←R	FL/←R	FL/←R	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEARANCE	←R	←R	G	G	FL/←R	FL/←R	FL/←R	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 AND 6 CHANGE	←R	←R	Y	Y	←R	←R	←R	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	←R	←R	R	R	←R	←R	←R	R	R	←G/G	G	R	R	DW	DW	DW	DW	WK	WK
PED CLEARANCE	←R	←R	R	R	←R	←R	←R	R	R	←G/G	G	R	R	DW	DW	DW	DW	FL/DW	FL/DW
PHASE 3 CHANGE	←R	←R	R	R	←R	←R	←R	R	R	Y	Y	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	←R	←R	R	R/G→	←R	←R	←R	R	R	R	R	←G/G	G	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	←R	←R	R	R/Y→	←R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	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	DARK	DARK	DARK	DARK	DARK	DARK

DOUBLE LEFT TURN (PM PEAK)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PHASE 1 AND 6	←G	←G	G	G	←R	←R	←R	R	R	R	R/G→	R	R	DW	WK	WK	DW	DW	DW
1 AND 6 CHANGE	←Y	←Y	G	G	←R	←R	←R	R	R	R	R/Y→	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 AND 6	←R	←R	G	G	←R	←R	←R	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEARANCE	←R	←R	G	G	←R	←R	←R	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 AND 6 CHANGE	←R	←R	Y	Y	←R	←R	←R	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	←R	←R	R	R	←G	←G	←G	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW
2 AND 5 CHANGE	←R	←R	R	R	←Y	←Y	←Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	←R	←R	R	R	←R	←R	←R	R	R	←G/G	G	R	R	DW	DW	DW	DW	WK	WK
PED CLEARANCE	←R	←R	R	R	←R	←R	←R	R	R	←G/G	G	R	R	DW	DW	DW	DW	FL/DW	FL/DW
PHASE 3 CHANGE	←R	←R	R	R	←R	←R	←R	R	R	Y	Y	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	←R	←R	R	R/G→	←R	←R	←R	R	R	R	R	←G/G	G	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	←R	←R	R	R/Y→	←R	←R	←R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	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	DARK	DARK	DARK	DARK	DARK	DARK

KEY

C,D,F, G,H,J — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

A,B,E — 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

Z — 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE

GROUND ROD

SHA

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

MD 355 (ROCKVILLE PIKE) AT JONES BRIDGE ROAD /CENTER DRIVE

BETHESDA, MARYLAND

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE MAY 2011 CONTRACT NO. MO5935770

DESIGNED BY K. HODGES
DRAWN BY K. HODGES
CHECKED BY A. GRIFFIN
F.A.P. NO. SEE TITLE SHEET

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TS NO. 2706B | DRAWING NO. pSG OF N001 | SHEET NO. 95 OF 129

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