

I. GENERAL PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 355 (ROCKVILLE PIKE) AND EDSON LANE/WHITE FLINT MALL ENTRANCE IN MONTGOMERY COUNTY, AUDIBLE PEDESTRIAN PUSHBUTTON STATIONS, AND COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTIONS SHALL BE INSTALLED AT THE INTERSECTION ACROSS THE NORTH, EAST AND WEST LEGS OF INTERSECTION. NEW ADA RAMPS SHALL ALSO BE INSTALLED FOR ALL CROSSING OF THE INTERSECTION. ALL EXISTING TRAFFIC SIGNALS SHALL BE UPGRADED WITH NEW LED BLACKFACE TRAFFIC SIGNAL HEAD SECTIONS.

II. INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET EXISTS AT THIS LOCATION. THE INTERSECTION OPERATES IN A SEMI ACTUATED MODE USING 6 NEMA PHASES. THE SIDE STREETS FOR THIS LOCATION OPERATE UTILIZING A CONCURRENT PHASE SEQUENCE FOR THE EAST AND WEST BOUND APPROACHES OF EDSON LANE/WHITE FLINT MALL ENTRANCE. THERE IS A RIGHT TURN OVERLAP PHASE SEQUENCE FOR EDSON LANE. THE MAIN LINE OPERATES UTILIZING AN EXCLUSIVE LEFT TURN PHASING FOR BOTH NORTH AND SOUTH BOUND DIRECTIONS.

NOTES

- All pavement markings shall be installed in accordance with MDSHA standards.
- The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly label each cable.
- 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.
- 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.
- 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.
- APS will function as follows:
To cross Rockville Pike
A. When Pedestrian locates and presses pushbutton for an extended time. The message will be "Wait to cross Rockville Pike at Edson/White Flint Mall Entrance."
B. When Walk phase begins. The message will be a rapid tick which will last for the duration of the walk phase.
To cross White Flint Mall Entrance
A. When Pedestrian locates and presses pushbutton for an extended time. The message will be "Wait to cross White Flint Mall Entrance at Rockville Pike."
B. When Walk phase begins. The message will be a rapid tick which will last for the duration of the walk phase.
To cross Edson Lane
A. When Pedestrian locates and presses pushbutton for an extended time. The message will be "Wait to cross Edson at Rockville Pike."
B. When Walk phase begins. The message will be a rapid tick which will last for the duration of the walk phase.
- Pushbuttons are to be located so that they can be activated by a person in a wheelchair reaching less than 18" from a 60" x 60" level landing area with a cross slope of less than or equal to 2%.
- The 10' separation between pushbuttons is to be measured from the face of pushbutton to face of pushbutton, not center to center of pole.
- Pushbutton arrows are to be parallel to the crossing for which they are intended.
- Location of accessible pedestrian signals pushbuttons must meet location requirements of MUTCD sec. 4E.09 and figure 4E.2 and the NCHRP publication, "Accessible pedestrian signals: Guide to best practice". If not met, the contractor is to stop work on pushbutton locations until a design waiver is obtained, approved by the Director, Office of Traffic and Safety.
- The Contractor shall deliver Audible/Tactile Pedestrian Pushbutton Station and base unit to Mr. Keith Lord at Montgomery County Signal Shop two week prior to installation for programming. Montgomery County forces shall install Audible/Tactile Pedestrian Pushbutton Base Unit in the controller cabinet. The Contractor shall contact Mr. Kamal Hamud for location of existing signal equipment 72 hours in advance of any construction in Montgomery County. The large rocks in the ramp area of the southeast corner of the intersection shall be removed by the contractor prior to construction of the sidewalk ramp and replaced at the conclusion of the ramp construction to the outside of the new ramp area.

III. MAINTENANCE OF TRAFFIC

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD PLATES FOR TRAFFIC CONTROL.

CONTACTS

COUNTY	OFFICE OF TRAFFIC AND SAFETY
MR. KAMAL HAMUD CHIEF OF TRAFFIC DIVISION MCDPW&T 240-777-8761	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. KEITH LORD CHIEF OF SIGNAL SHOP MCDPW&T 240-777-8700	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650
DISTRICT	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS 410-787-7670
MR. JEFFERY WENTZ ASSISTANT DISTRICT ENGINEER - TRAFFIC 301-513-7358	MS. DARLENE EIDE SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668
MR. AUGIE REBISH ASSISTANT DISTRICT ENGINEER - UTILITIES 301-513-7350	
MR. KEVIN NOWAK & MR. DUANE BERNARD ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7336	
MR. WAYNE MOWDY ASSISTANT DISTRICT ENGINEER - MAINTENANCE 301-513-7304	

EQUIPMENT LIST

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
9570	SHEET ALUMINUM GROUND MOUNTED SIGN CONSISTING OF: SHIELD ASSEMBLY (30" X 51") GROUND MOUNTED W1-2 (36" X 36") GROUND MOUNTED W15-7(P)(12" X 9") GROUND MOUNTED W15-4(1)(12" X 9") GROUND MOUNTED	SF EA EA EA EA	34 2 3 2 1
9571	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN CONSISTING OF: SHIELD ASSEMBLY (48" X 75") POLE MOUNTED D-3(1)(VARIABLE X 16") MAST ARM POLE MOUNTED	SF EA EA	62 2 1

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

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
1001	MAINTENANCE OF TRAFFIC	EA	1
2002	TEST PIT EXCAVATION	CY	4
5002	12 IN. HEAT APPLD. WHITE PERM. PREFORM. THERM. PAVE. MARK. FOR CROSSWALKS	LF	530
5003	24 IN. HEAT APPLD. WHITE PERM. PREFORM. THERM. PAVE. MARK. FOR STOP LINES	LF	100
6002	5 INCH CONCRETE SIDEWALK	SF	2600
8001	12 INCH (R,Y,G) LED SIGNAL HEAD SECTION	EA	41
8003	2 WIRE CENTRAL CONTROL UNIT	EA	1
8010	AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGN	EA	6
8011	BREAKAWAY PEDESTAL POLE ANY SIZE	EA	5
8014	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS	EA	6
8016	REMOVE AND DISPOSE MATERIALS AND EQUIPMENT PER ASSIGNMENT	EA	1
8027	PVC SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES TRENCHED	LF	220
8028	DETECTABLE WARNING SURFACES	SF	60
8032	WOOD SIGN SUPPORTS UP TO 4 INCH X 6 INCH	LF	120
8033	NO 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	220
8045	INSTALL GROUND MOUNTED SIGN	SF	34
8046	INSTALL OVERHEAD SIGN	SF	62
8055	ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 AWG	LF	965
8057	ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG	LF	965

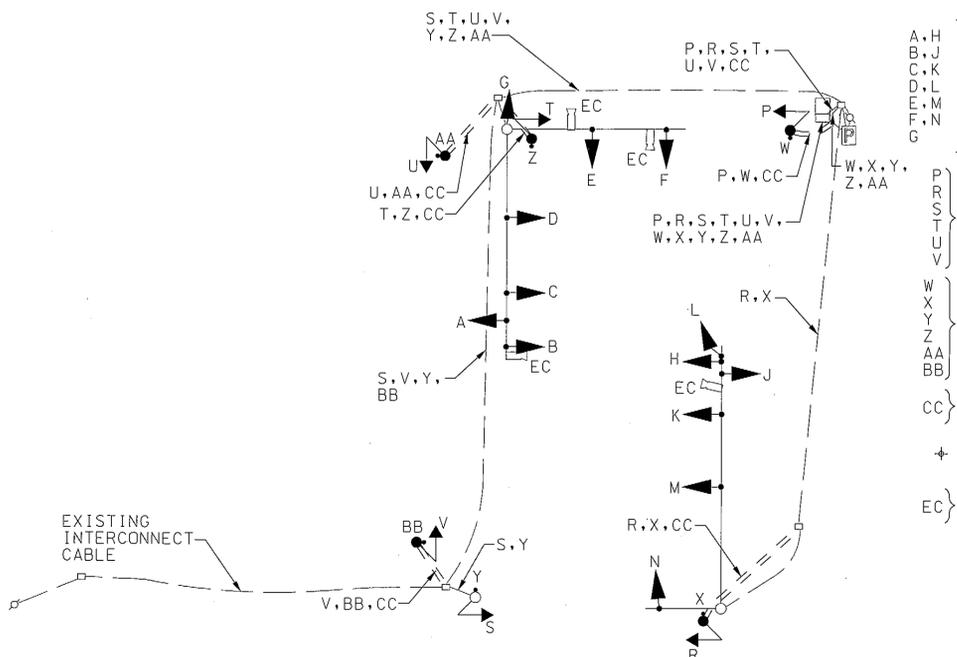
C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



PHASE CHART

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

WIRING DIAGRAM



- KEY**
- A, H, B, J, C, K, D, L, E, M, F, N, G } EXISTING WIRES TO BE REUSED BY THE CONTRACTOR FOR NEW LED SIGNAL HEADS
 - P, R, S, T, U, V } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
 - W, X, Y, Z, AA, BB } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
 - CC } 1 CONDUCTOR (NO. 6 AWG) STRANDED BARE COPPER GROUND WIRE
 - + } GROUND ROD
 - EC } EXISTING CAMERA & CABLE

TOD NO:XX449-33
SHA NO:MO205A59
MD 355 @ EDSON LA/WHITE FLINT MALL

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
**MD 355 (ROCKVILLE PIKE)
AT EDSON LANE /ENTRANCE TO
WHITE FLINT MALL**
ROCKVILLE, MARYLAND

GENERAL INFORMATION PLAN
SCALE NO. SCALE ADVERTISED DATE MAY 2009 CONTRACT NO. XX4495165

DESIGNED BY S. SMITH COUNTY MONTGOMERY
DRAWN BY S. SMITH LOGMILE 153505.68
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