

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing traffic control signal at the intersection of MD 410 (East West Highway) and Toledo Terrace/Ent. to Home Depot in Prince George's County. The existing signal has no pedestrian facilities. The modification will install pedestrian crosswalks and pedestrian countdown signals with audible push buttons at the southbound approach and the westbound approach.

II. INTERSECTION OPERATION

- The intersection shall continue to operate a NEMA six-phase full-actuated mode, with MD 410 (East West Hwy) approaches continuing to run concurrently. Exclusive/permissive left-turn phases shall be provided for the eastbound and westbound approaches of MD 410 (East West Hwy). The side street shall continue to run concurrently.
- SHA signal shop shall install APS control unit into the controller cabinet. The contractor shall deliver the control unit and audible pushbuttons to the SHA signal shop for testing and programming.

III. APS WILL FUNCTION AS FOLLOWS:  
TO CROSS EAST-WEST HIGHWAY

- When a pedestrian locates and presses the pushbutton for an extended time, the pushbutton message will be "Wait to cross East-West Highway at Toledo Terrace and Home Depot".
- When the "WALK" phase begins, the message will be a rapid tick, which will last for the duration of the "WALK" phase.

TO CROSS TOLEDD TERRACE

- When a pedestrian locates and presses the pushbutton for an extended time, the pushbutton message will be "Wait to cross Toledo Terrace at East-West Highway".
- When the "WALK" phase begins, the message will be a rapid tick, which will last for the duration of the "WALK" phase.

EQUIPMENT LIST

A. EQUIPMENT LIST TO BE SUPPLIED BY THE STATE OF MARYLAND

SPEC NO.	DESCRIPTION	UNIT	QUANTITY
	NONE		

B. EQUIPMENT LIST TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

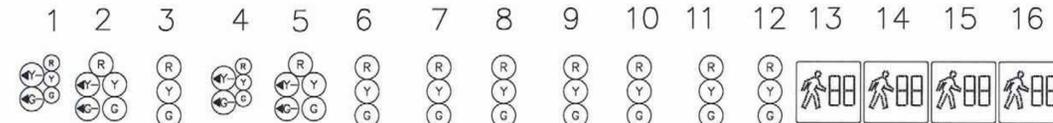
SPEC NO.	DESCRIPTION	UNIT	QUANTITY
104	Maintenance of traffic per assignment	Each	1
100	Test Pit Excavation	CY	3
556	24' White heat applied permanent preformed thermoplastic pavement marking	LF	125
556	12' White heat applied permanent preformed thermoplastic pavement marking	LF	376
816	2 wire central control unit	Each	1
817	Audible/tactile pedestrian pushbutton stations and signs.	Each	4
818	Breakaway pedestal pole (10 FT)	Each	4
814	LED 16" countdown pedestrian signal heads	Each	4
805	Schedule 80 rigid PVC conduit up to 4' - trenched	LF	400
	Detectable warning surfaces	SF	400
805	1. Schedule 80 rigid PVC conduit 4' - bored	LF	<del>20</del> 125
811	1. Electrical Handhole	Each	<del>2</del> 3
810	Electrical cable - 2 conductor (No. 14 AWG)	LF	500
810	1. Electrical cable - 5 conductor (No. 14 AWG)	LF	<del>300</del> 700
810	1. Electrical cable - 7 conductor (No. 14 AWG)	LF	<del>300</del> 700
810	1. Video Detection Camera Cable	LF	500
810	Ground Rod - 3/4" Diameter x 10' lengths	Each	4
810	Micro-loop probe	Each	3
	Relocate existing ground mounted sign	Each	1
	Relocate existing overhead mounted sign	Each	2
813	SHEET ALUMINIUM OVERHEAD MAST ARM/POLE MOUNTED SIGN	Each	10
	Pedestrian Education Sign R10-3(1) [Note: Sign to read "PUSHBUTTON TO CROSS EAST-WEST HWY"]	Each	2
	Pedestrian Education Sign R10-3(1) [Note: Sign to read "PUSHBUTTON TO CROSS TOLEDD TERRACE"]	Each	2
	R3-7 (R) (30" x 30")	Each	4
	R3-5 (R) (30" x 36")	Each	3

CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

PROJECT CONTACTS:  
 MR. BRIAN YOUNG, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
 PHONE: (301) 513-7358  
 MR. WAYNE MOWDY, ASSISTANT DISTRICT ENGINEER- MAINTENANCE  
 PHONE: (301) 513-7300  
 MR. AUGIE REBISH, UTILITY ENGINEER  
 PHONE: (301) 513-7300  
 MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7630  
 MR. ROBERT SNYDER, ASSISTANT CHIEF TRAFFIC OPERATIONS DIVISION  
 PHONE: (410) 787-7631  
 MR. ED RODENHIZER, CHIEF OF SIGNAL SHOP  
 PHONE: (410) 787-7650

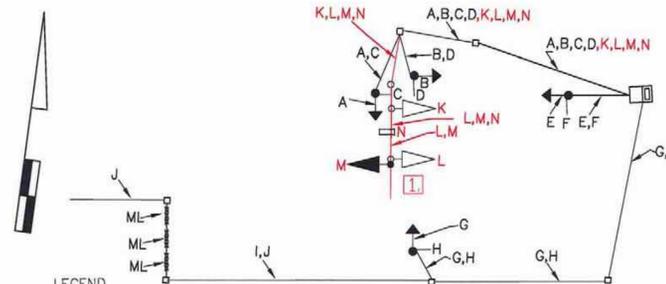
REV 04/07/2009

PHASE DIAGRAM



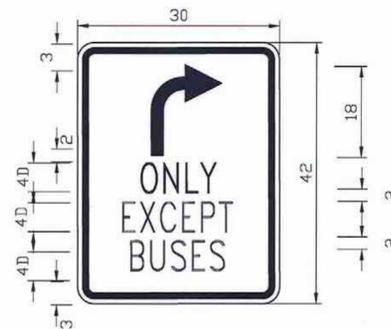
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1+5	←G-R	←G-R	R	←G-R	←G-R	R	R	R	R	R	R	R	DW	DW	DW	DW
CHANGES TO PHASE 1+6, PHASE 2+5, OR PHASE 2+6																
PHASE 1+6	←G-G	←G-G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	←Y-G	←Y-G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2+5	R	R	R	←G-G	←G-G	G	R	R	R	R	R	R	DW	DW	DW	DW
5 CHANGE	R	R	R	←Y-G	←Y-G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEAR/COUNTDOWN	G	G	G	G	G	G	R	R	R	R	R	R	FL/WK	FL/WK	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	WK	WK
PED CLEAR/COUNTDOWN	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/WK	FL/WK
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL Y	FL R	DARK	DARK	DARK	DARK										

WIRING DIAGRAM

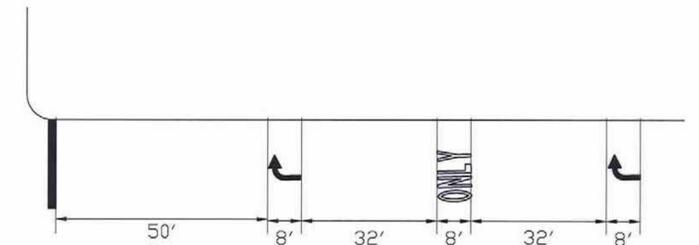


LEGEND

- A,B,E,G 5-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G) [FOR PEDS]
- C,D,F,H 2-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G) [FOR PEDS]
- I MICRO-LOOP PROBE LEAD-INS
- J INTERCONNECT CABLE
- K,L,M 7-CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G)
- N VIDEO DETECTION CAMERA LEAD-IN CABLE
- ML MICRO-LOOP PROBE
- EML EXISTING MICRO-LOOP PROBE



MAST-ARM MOUNTED DIRECTIONAL SIGNAGE  
(ALL SIZES IN INCHES)



PAVEMENT "ARROW" AND "ONLY" MARKINGS  
(TYPICAL)

REDLINE REVISION 04/07/09

TEDD APPROVAL: [Signature]

O. R. GEORGE & ASSOCIATES, INC.  
 Traffic Engineers - Transportation Planners  
 10210 Greenbelt Road, Suite 310  
 Lanham, MD 20706  
 (301) 794-7700

STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 MD 410 (EAST-WEST HIGHWAY)  
 AND  
 TOLEDO TERRACE/ENT. TO HOME DEPOT

GENERAL INFORMATION SHEET

SCALE	N.T.S.	DATE	09-09-1976	CONTRACT NO.	
DESIGNED BY	M.A. MEARS	COUNTY	PRINCE GEORGE'S		
DRAWN BY	BOB TYSON	LOGMILE	16041002.35		
CHECKED BY		TIMS NO.	1501		
F.A.P. NO.		TOD NO.			
TS NO.	278 D	DRAWING NO.	2 OF 2	SHEET NO.	OF