

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING PEDESTRIAN ACTUATED HAZARD IDENTIFICATION BEACON TO A FULL TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 547 (STRATHMORE AVENUE) AND KENILWORTH AVENUE IN MONTGOMERY COUNTY, MARYLAND. MD 547 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**INTERSECTION OPERATION**

FIVE

THE INTERSECTION WILL OPERATE IN A NEMA ~~PHASE~~ PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 547 APPROACHES OPERATING CONCURRENTLY AND THE KENILWORTH AVENUE APPROACHES OPERATING CONCURRENTLY.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED CROSS BOTH LEGS OF KENILWORTH AVENUE AND ACROSS THE WEST LEG OF MD 547.

**CONTROLLER REQUIREMENTS**

THE EXISTING POLE MOUNTED CABINET AND CONTROLLER WILL BE USED.

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAYBE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.02-01 (SHOULDER WORK)
- STANDARD NO. MD-104.02-10 (FLAGGING OPERATION)
- STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JEFF WENTZ, MONTGOMERY  
PHONE: (301) 513-7318  
ASSISTANT DISTRICT ENGINEER - TRAFFIC

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

MR. WAYNE MOWDY  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7305

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MR. AUGIE REBISH  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 513-7350

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	2 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF:
	2 S.F.	- 4 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS KENILWORTH AVENUE"
	2 S.F.	- 2 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS STRATHMORE AVENUE"
	2 EACH	R10-11b SIGN (24 IN. X 24 IN.) - MAST ARM MOUNT
	2 EACH	R3-2 SIGN (24 IN. X 24 IN.) - MAST ARM MOUNT
	2 EACH	"7 AM-7 PM" SIGN (24 IN. X 8 IN.) - MAST ARM MOUNT
	1 EACH	"7 AM-9 AM MON-FRI EXCEPT BUSES" SIGN (24 IN. X 12 IN.) - MAST ARM MOUNT
	1 EACH	"7 AM-9 AM MON-FRI" SIGN (24 IN. X 12 IN.) - MAST ARM MOUNT

**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	5 C.Y.	TEST PIT EXCAVATION
6002	130 S.F.	4 INCH CONCRETE SIDEWALK (R.Y.A.G.A.)
8001	26 EACH	12 INCH (R.Y.A.G.A.) LED SIGNAL HEAD SECTION
8004	1 EACH	3/4 INCH TO 3 INCH BLIND COUPLING FOR TRAFFIC SIGNAL STRUCT, WELDED & GALV
8010	5 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
8011	5 EACH	BREAKWAY PEDESTAL POLE (ANY SIZE)
8014	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL
8017	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8025	85 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8026	310 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8030	5 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
8033	115 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8044	2 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8046	13.63 S.F.	INSTALL OVERHEAD SIGN
8047	4 EACH	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT.
8052	5 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8056	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8058	550 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
8060	485 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
NEG.	1 EACH	2 IN. BLIND COUPLING
8036	5 L.F.	1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8057	285 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED NO 14 AWG
8062	470 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING - NO 14 AWG
8063	125 L.F.	SAW CUT FOR SIGNAL - LOOP DETECTOR

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

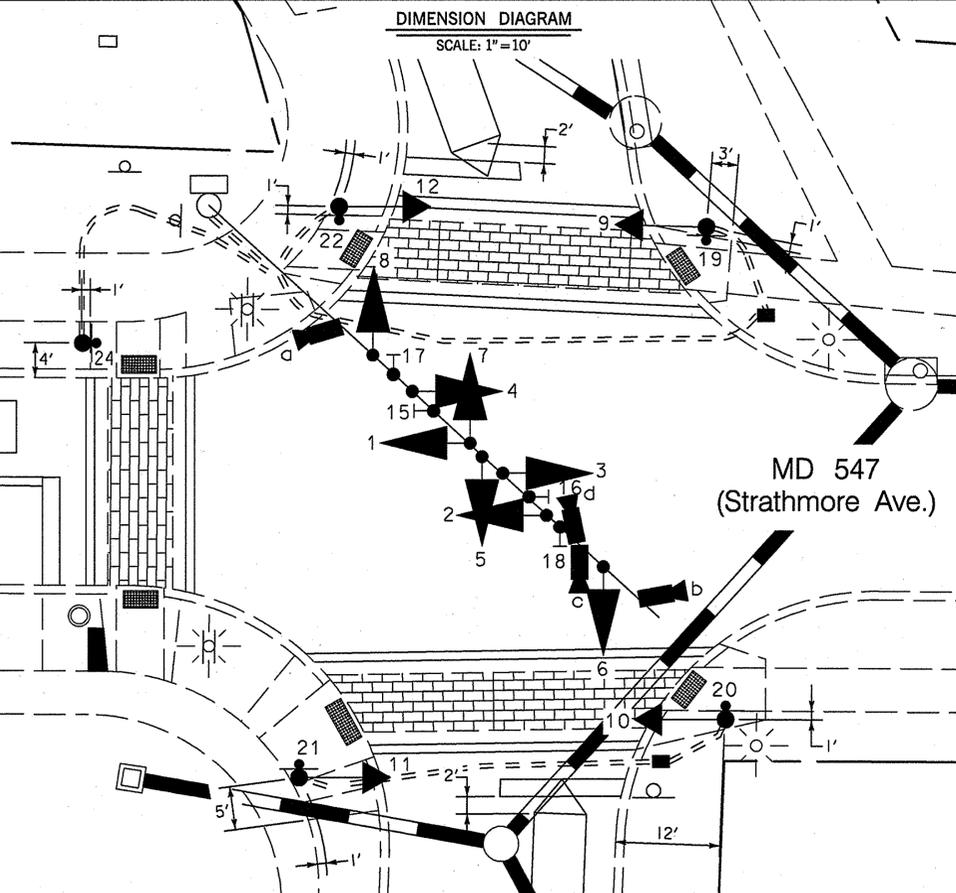
**PHASE CHART**



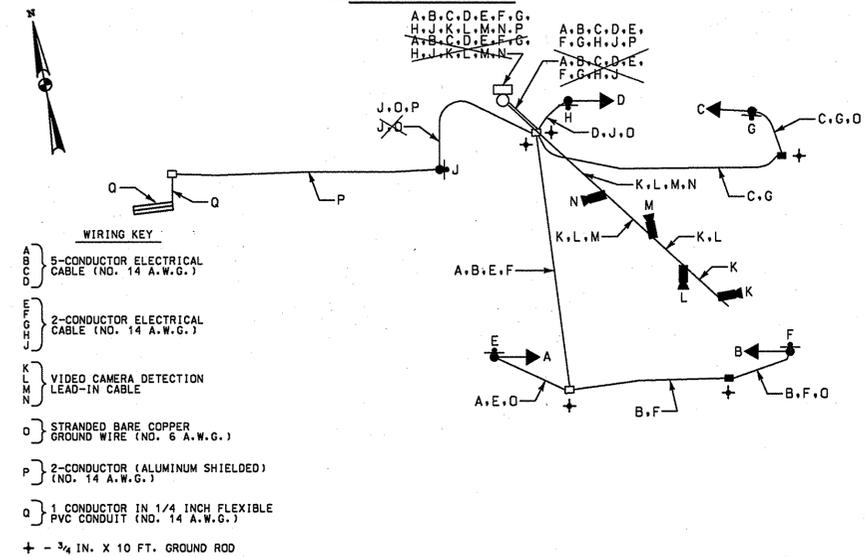
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 + 6	G	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
1 + 6 CHANGE	G	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 + 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW
PED. CLEARANCE	G	G	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK
PED. CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

**DIMENSION DIAGRAM**

SCALE: 1"=10'



**WIRING DIAGRAM**



TEDD APPROVAL RED-LINE #2 5/8/2007



Whitman, Requardt and Associates, LLP  
Engineers, Architects and Planners

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410-235-3450

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 547 (Strathmore Avenue) and  
Kenilworth Avenue

**GENERAL INFORMATION SHEET**

SCALE	NONE	DATE	3/16/2007	CONTRACT NO.	AT9255185
DESIGNED BY	S. Bloss	COUNTY	Montgomery		
DRAWN BY	S. Bloss	LOGMILE	15054700.67		
CHECKED BY	N. Leary	TIMS NO.	1420		
FAP NO.		TOD NO.			
TS NO.	3723D	DRAWING	-	OF	SHEET NO. 2 OF 2

BY: wstroud