PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF COUNTDOWN PEDESTRIAN SIGNAL HEADS ACROSS ALL LEGS OF THE INTERSECTION OF MD 28 (DARNESTOWN ROAD) AND MD 124 (QUINCE ORCHARD ROAD) IN MONTGOMERY COUNTY. THE EXISTING PEDESTRIAN SIGNAL HEADS WILL BE REMOVED AND NEW SIGNAL HEADS AND WIRING WILL BE INSTALLED. ALL BLACK FACED VEHICULAR TRAFFIC SIGNAL HEADS ON THE MAST ARMS IN THE SOUTHEAST AND SOUTHWEST CORNERS OF THE INTERSECTION WILL BE UPGRADED TO LED. ALL YELLOW FACED VEHICULAR TRAFFIC SIGNAL HEADS ON THE MAST ARMS IN THE NORTHEAST AND NORTHWEST CORNERS OF THE INTERSECTION WILL BE REPLACED WITH BLACK FACED LED. ACCESSIBLE PEDESTRIAN INDICATIONS WILL BE PROVIDED FOR THE PEDESTRIAN CROSSINGS. MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASING FOR BOTH EASTBOUND AND WESTBOUND APPROACHES. SIDE STREET SPLIT PHASING WILL REMAIN. ALTERNATE SIDE STREET PEDESTRIAN PHASES ARE TO REMAIN AND ALTERNATE MAINLINE PEDESTRIAN PHASES ARE PROPOSED.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER AND VIDEO DETECTION INTERFACE SHALL REMAIN.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7652

The Power Company Representative is:
Potomac Electric Power Company
4061 Powder Mill Road, Suite 600
Calverton, Maryland 20705
Phone: 301-931-2880

Mr. Kamal Hamud
Montgomery County Department of Public Works
Phone: 240-777-8795

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9571	6 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN:
		4 EACH - R10-4(I) (9 IN. X 12 IN.) POLE MOUNT, (DARNESTOWN ROAD)
		4 EACH - R10-4(I) (9 IN. X 12 IN.) POLE MOUNT, (QUINCE ORCHARD ROAD)

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

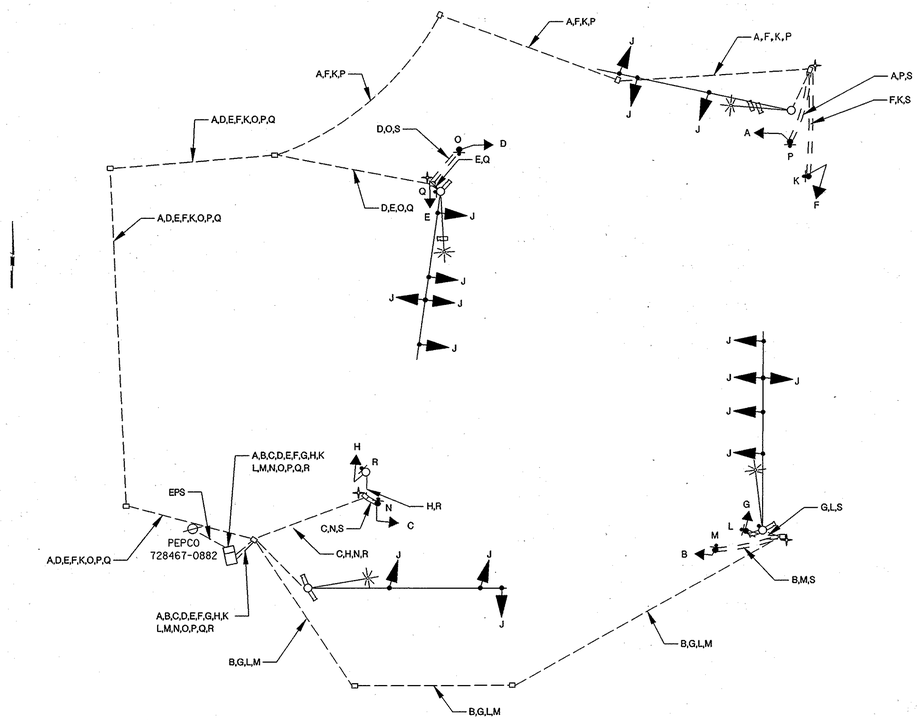
ITEM NO	QUANTITY	DESCRIPTION
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	3 CY	TEST PIT EXCAVATION
5003	1035 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8002	18 EA	12 INCH RED OR GREEN LED SIGNAL HEAD SECTION
8003	8 EA	12 INCH YELLOW LED SIGNAL HEAD SECTION
8006	1 EA	2 WIRE CENTRAL CONTROL UNIT
8014	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON
8015	6 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8024	8 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION - POLE MOUNT
8025	26 EA	LED SIGNAL HEAD MODULES (ANY SIZE)
8028	1 EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8037	80 SF	DETECTABLE WARNING SURFACES
8039	25 SF	REMOVE AND RESET DECORATIVE BRICK
8040	6 CY	CONCRETE FOR SIGNAL FOUNDATION
8043	135 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8049	125 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8064	6 SF	INSTALL OVERHEAD SIGN
8076	2450 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8078	2515 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

WIRING DIAGRAM



A B C D E F G H — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

J — USE EXISTING ELECTRICAL CABLE

K L M N O P Q R — 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

S — NO. 6 AWG STRANDED BARE COPPER WIRE

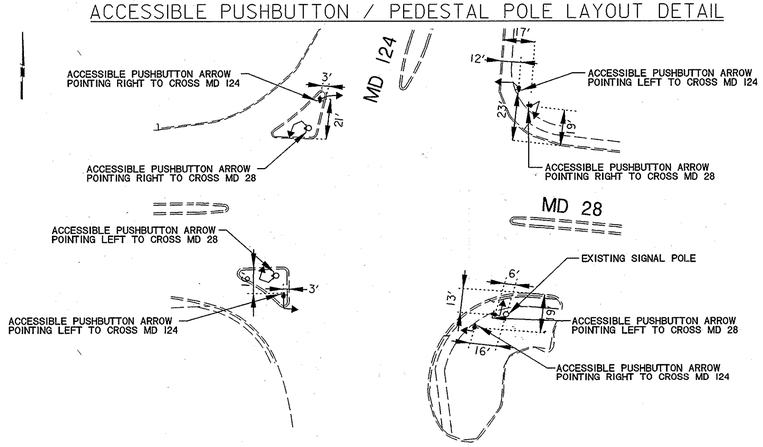
EXISTING 3/4 IN. x 10 FT. GROUND ROD

EPS — EXISTING POWER SOURCE

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PHASE 1 & 5	~~G~~	~~G~~	~~G~~	R	R	~~G~~	~~G~~	~~G~~	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 & 6, 2 & 5, OR 2 & 6																							
PHASE 1 & 6	~~G~~	~~G~~	~~G~~	G	G	~~R~~	~~R~~	~~R~~	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 CHANGE	~~Y~~	~~Y~~	~~Y~~	G	G	~~R~~	~~R~~	~~R~~	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	~~R~~	~~R~~	~~R~~	R	R	~~G~~	~~G~~	~~G~~	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 5 CHANGE	~~R~~	~~R~~	~~R~~	R	R	~~Y~~	~~Y~~	~~Y~~	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	~~R~~	~~R~~	~~R~~	G	G	~~R~~	~~R~~	~~R~~	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6 CHANGE	~~R~~	~~R~~	~~R~~	Y	Y	~~R~~	~~R~~	~~R~~	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6 ALT	~~R~~	~~R~~	~~R~~	G	G	~~R~~	~~R~~	~~R~~	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW
PHASE 2 & 6 PED. CLEARANCE	~~R~~	~~R~~	~~R~~	G	G	~~R~~	~~R~~	~~R~~	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 2 & 6 CHANGE	~~R~~	~~R~~	~~R~~	Y	Y	~~R~~	~~R~~	~~R~~	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G / ~~G~~	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 CHANGE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	R	R	R	G / ~~G~~	G / ~~G~~	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G / ~~G~~	G	R	R	R	DW	DW	DW	DW	W	W	DW	DW
PED CLEARANCE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G / ~~G~~	G	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW	DW	DW
PHASE 3 ALT CHANGE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	R	R	R	G / ~~G~~	G / ~~G~~	G	DW	DW	DW	DW	DW	DW	W	W
PED CLEARANCE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	R	R	R	G / ~~G~~	G / ~~G~~	G	DW	DW	DW	DW	DW	DW	FL/DW	FL/DW
PHASE 4 ALT CHANGE	~~R~~	~~R~~	~~R~~	R	R	~~R~~	~~R~~	~~R~~	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

ACCESSIBLE PUSHBUTTON / PEDESTAL POLE LAYOUT DETAIL



TOD No: AT782-24
SHA No: MO574A54/B54
Montgomery County

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 28 (DARNESTOWN ROAD) AND MD 124 (QUINCE ORCHARD ROAD)

GENERAL INFORMATION

SCALE 1"=20' DATE 2/2006 CONTRACT NO. AT782185

DESIGNED BY SDY
DRAWN BY CW
CHECKED BY BAB
F.A.P. NO.

COUNTY MONTGOMERY
LOGMILE 15002815.70
T.I.M.S. NO. H276
TOD NO.

DRAWING NO. **TS-1648C** OF SHEET NO. 2 OF 2

STV Incorporated
engineers / architects / planners / scientists / construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

BY: WEAVERCC

PLOTTED: WEDNESDAY, FEBRUARY 22, 2006 AT 12:25 PM
FILE: I:\PROJECTS\0312513\0312513_0003\DRAWINGS\TRA\H276GG02.DGN