PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 384 AND SECOND AVE. /WAYNE AVE. IN MONTGOMERY COUNTY. THE SIGNAL IMPROVEMENTS INCLUDES NEW MAST ARMS, SIGNAL HEADS, SIGNS, AUTO-SCOPE DETECTION,NEW CONDUIT,NEW CABINET/CONTROLLER AND NEW INTERCONNECT WILL BE PROVIDED FOR MD 384 AT SECOND AVE./WAYNE AVE.

MD 384 RUNS IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE PHASE, FULL TRAFFIC ACTUATED MODE. THE MD 384 APPROACHES WILL OPERATE CONCURRENTLY AND THE SECOND AVE./ WAYNE AVE. WILL OPERATE IN A SPLIT PHASE OPERATION.

EXCLUSIVE/ PREMISSIVE LEFT TURN PHASE WILL BE PROVIDE FOR EASTBOUND MD 384.

THE SIDE STREET WILL HAVE SOUTH TO WEST RIGHT TURN OVERLAP ALONG MD ROUTE 384.

A CONNCURENT PEDESTRIAN MOVEMENT WILL OPERATE ALONG THE EAST AND WEST LEGS OF THE INTERSECTION. AN ALTERNATE PEDSTRAIN MOVEMENT WILL OPERATE ALONG BOTH NORTH AND SOUTH LEGS OF THE INTERSECTION.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS:

MR. BOB GONZALES.
CHIEF, TRAFFIC ENGINEER MONTGOMERY COUNTY
PHONE: 240-777-8761

MR. MAJID SHAKIB
ASSISTANCE DISTRICT ENGINEER-TRAFFIC
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MR. RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-513-7304

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATION SECTION
PHONE: 410-787-7652

MR. AUGUSTINE REBISH
DISTRICT UTILITY ENGINEER
PHONE: 301-513-7350

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

MR. ROBERT SNYDER
ASST. CHIEF, TRAFFIC OPERATION DIVISION
PHONE: 410-787-7631

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

CAT CODE	ITEM	QUANTITY	DESCRIPTION
9000	222.1	SF	ALUMINUM SHEET SIGNS
9000	2	EA	R3-2 (NO LEFT TURN) (30"X30") GROUND MOUNTED
9000	4	EA	R10-11B (NO TURN ON RED) (24"X24") MAST ARM MOUNTED
9000	4	EA	R4-7 (KEEP RIGHT) (24"X30") GROUND MOUNTED
9000	1	EA	D-3(1) (← SECOND AVE) (VAR.X16") 1 EACH MAST ARM MOUNTED
9000	1	EA	D-3(1) (← WAYNE AVE) (VAR.X16") 1 EACH MAST ARM MOUNTED
9000	1	EA	D-3(1) (SECOND AVE->) (VAR.X16") 1 EACH MAST ARM MOUNTED
9000	1	EA	D-3(1) (WAYNE AVE ->) (VAR.X16") 1 EACH MAST ARM MOUNTED
9000	2	EA	SHIELD ASSEMBLY (EAST,WEST MD 384,LEFT,RIGHT ARROWS) (30"X51") POLE MOUNTED
9000	2	EA	SHIELD ASSEMBLY (EAST,WEST MD 384,LEFT,RIGHT ARROWS) (48"X75") POLE MOUNTED
9000	2	EA	R10-4(1) (PED. SIGN) (9"X12") POLE MOUNTED
9000	5	EA	D1-1 (BIKE ROUTE TO MONT. HILLS) (24"X30") POLE MOUNTED
9000	1	EA	SHIELD ASSEMBLY (NORTH MD 97, LEFT ARROW) (30"X51") POLE MOUNTED
9000	1	EA	R10-12 (LEFT TURN YIELD ON GREEN) (36"X42") MAST ARM MOUNTED
9000	2	EA	D-3(1) (COLESVILLE RD) (VAR.X16") MAST ARM MOUNTED
9000	1	EA	CABINET W/ TELEMETRY,CONTROLLER w/ THE NECESSARY EQUIP. FOR MONT CO.(SYS CAB) SIZE 6
9000	1	EA	CABINET "SPLICE" TYPE POLE MT

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

CAT CODE	ITEM	QUANTITY	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2001	11	CY	CLASS 2 EXCAVATION
2002	5	CY	TEST PIT EXCAVATION
6004	10	SF	4 INCH CONCRETE SIDEWALK
8000	2000	LF	PULL BACK EXISTING CABLE/WIRE
8000	1	EA	REMOVE ELECTRICAL HANDHOLE
8000	1	EA	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8001	4	EA	VIDEO CABLE TO CONTROLLER (250FT.)
8003	1	EA	VIDEO CABLE TO CONTROLLER (500FT.)
8011	59	EA	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8013	2	EA	FURNISH AND INSTALL BRAC ARM FOR SIG. STRUCT. LIGHTING ARM
8014	2	EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8020	1	EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V 1PHASE 3 WIRE SYSTEM)
8022	2	EA	FURNISH AND INSTALL MAST ARM POLE AND 50 FOOT MAST ARM
8023	1	EA	FURNISH AND INSTALL MAST ARM POLE AND 60 FOOT MAST ARM
8024	1	EA	FURNISH AND INSTALL MAST ARM POLE AND 70 FOOT MAST ARM
8032	4	EA	INSTALL PUSHBUTTON AND SIGN (R10-4)
8045	4	EA	PAINT STRUCTURE (BRONZE)
8047	4	EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCHES BELOW GRADE
8048	1	LS	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8049	5	EA	VIDEO DETECTION CAMERA
8050	1	EA	VIDEO INTERFACE EQUIPMENT
8051	75	LF	FURNISH AND INSTALL 3 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8053	105	LF	FURNISH AND INSTALL 4 INCH SCH 80 RIGID PVC CONDUIT - TRENCHED
8059	20	CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8060	70	LF	FURNISH & INSTALL WOOD SIGN SUPPORTS 4 INCH x 4 INCH
8062	650	LF	FURNISH AND INSTALL NO 6 AWG STRANDED BARE COPPER GROUND WIRE
8069	80	LF	FURNISH AND INSTALL 4 INCH SCH 80 RIGID PVC CONDUIT - SLOTTED
8072	75	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO 4 AWG THHN/THWN (TRAFFIC SIGNAL)
8073	75	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO 8 AWG THHN/THWN (LIGHTING)
8074	2	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8076	105	SF	INSTALL GROUND MOUNTED SIGN
8077	61	SF	INSTALL OVERHEAD SIGN
8078	250	LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE JELLYFILLED UNDERGROUND
8082	3	EA	FURNISH AND INSTALL GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH
8085	900	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8086	1000	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8087	1850	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8088	450	LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO 12 AWG) TYPE "TC"
8094	1	EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8095	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8000	150	LF	REMOVE AND RESET BRICK PAVERS IN SIDEWALK

NOTE: EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND BECOME THE PROPERTY OF THE MONTGOMERY COUNTY OFFICE.

EQUIPMENT LIST CONT.

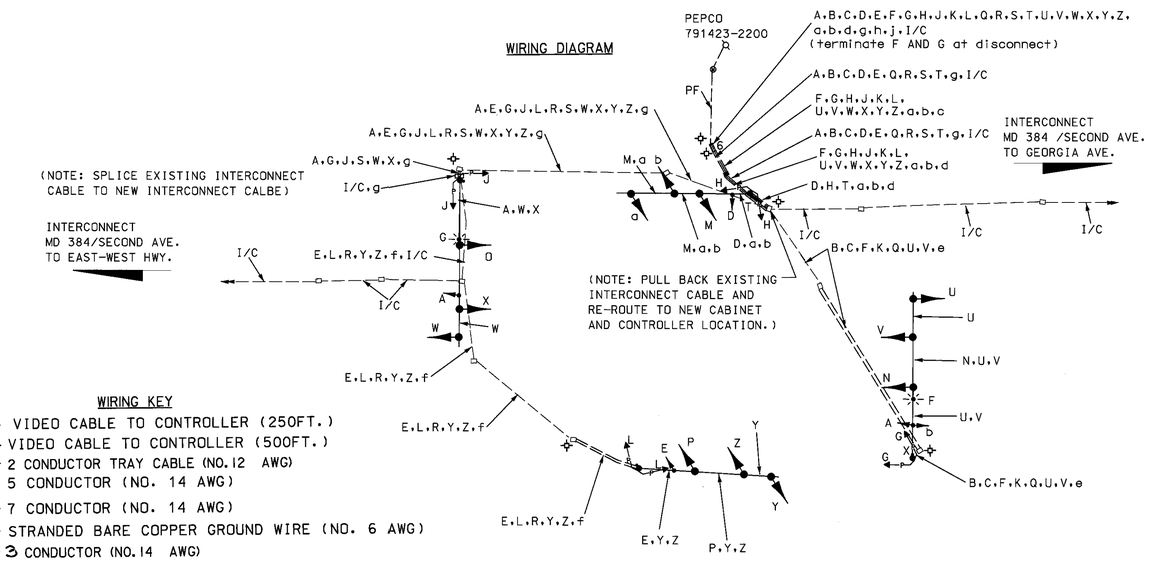
C. EXISTING EQUIPMENT REMOVED BY THE CONTRACTOR, AND DELIVERED TO 1283 - SEVEN LOCKES ROAD BUILDING "C", ROCKVILLE ,MARYLAND 20854

1	EA	CONTROLLER AND CABINET - BASE MOUNT

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13-16	17-20
Phase 1 & 6	G G-	G G-	G	R	R	R	R	R	-G▶	R	R	R	DW	DW
1 & 6 change	G -Y	G -Y	Y	R	R	R	R	R	-Y▶	R	R	R	DW	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW
2 & 6 change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK
PED Clearance	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW
2 & 6 change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
Phase 3	R	R	R	R	R	R	G G-	G G-	G	R	R	R	WK	WK
3 change	R	R	R	R	R	R	Y	Y	Y	R	R	R	FL/DW	FL/DW
Phase 3	R	R	R	R	R	R	G G-	G G-	G	R	R	R	DW	DW
PED Clearance	R	R	R	R	R	R	G G-	G G-	G	R	R	R	DW	DW
3 change	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW
Phase 4	R	R	R	R	R	R	R	R	R	R	R	R	WK	WK
4 change	R	R	R	R	R	R	R	R	R	G G-	G G-	G	FL/DW	FL/DW
Phase 4	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW
PED Clearance	R	R	R	R	R	R	R	R	R	G G-	G G-	G	DW	DW
4 change	R	R	R	R	R	R	R	R	R	G G-	G G-	G	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A-D — VIDEO CABLE TO CONTROLLER (250FT.)
E — VIDEO CABLE TO CONTROLLER (500FT.)
F,G — 2 CONDUCTOR TRAY CABLE (NO.12 AWG)
H,J,K,L,M,N,O,P— 5 CONDUCTOR (NO. 14 AWG)
U,V,W,X,Y,Z,a,b — 7 CONDUCTOR (NO. 14 AWG)
c,d,e,f — STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
Q,R,S,T — 3 CONDUCTOR (NO.14 AWG)
g — PROPOSED INTERCONNECT CABLE (12-PAIR JELLY FILLED)
I/C — EXISTING INTERCONNECT CABLE
PF — PROPOSED UNDERGROUND FEED-BY PEPCO
h — 3 WIRE (NO.: 4 AWG) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
j — 3 WIRE (NO.: 8 AWG) FOR LIGHTING ELECTRICAL SERVICE
⏚ — GROUND ROD

SG-2

BAI BRUDIS & ASSOCIATES, INC.
CONSULTING ENGINEERS
9220 RUMSEY ROAD; SUITE 110
COLUMBIA, MARYLAND 21045
(410)-884-3607

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNAL PLAN

MD 384 (COLESVILLE ROAD)
AND SECOND AVE/WAYNE AVE.

DRAWN BY: M.A.M.	F.A.P. NO.		TS NO. 2092B	SHEET NO.
CHECKED BY:	S.H.A. NO.			
SCALE: 1" = 20'	COUNTY: MONTGOMERY		T.I.M.S. NO. E763	2 OF 2
DATE: SEPT, 2001	LOG MILE: 15038400.37			