PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES INSTALLING A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 193 AND LAKECREST DRIVE IN PRINCE GEORGE'S COUNTY. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROPOSED ALONG MD 193. CONCURRENT PHASING IS PROPOSED FOR THE SIDE STREET. AUDIBLE PEDESTRIAN INDICATIONS WILL BE PROVIDED FOR THE NORTH AND EAST LEGS PEDESTRIAN CROSSING. VIDEO DETECTION IS PROPOSED FOR PRESENCE DETECTION OF LEFT TURNS ALONG MD 193, LAKECREST DRIVE, AMERICAN LEGION DRIVE, AND THE CHURCH DRIVEWAY. MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING FOR EAST- AND WESTBOUND TRAFFIC. CONCURRENT SIDE STREET PHASING IS PROPOSED. AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE NORTH AND EAST LEGS. THIS PROJECT WILL INTERCONNECT LAKECREST DRIVE TO ADJACENT SIGNAL SYSTEMS TO THE EAST AND WEST.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER AND ASSOCIATED HARNESSES IN A NEMA SIZE '6' BASE MOUNTED CABINET. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO INTERFACE WITHIN THE CABINET. NON-INVASIVE MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG MD 193.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Majib Shakib
Assistant District Engineer - Traffic
Phone: 301-513-7358

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

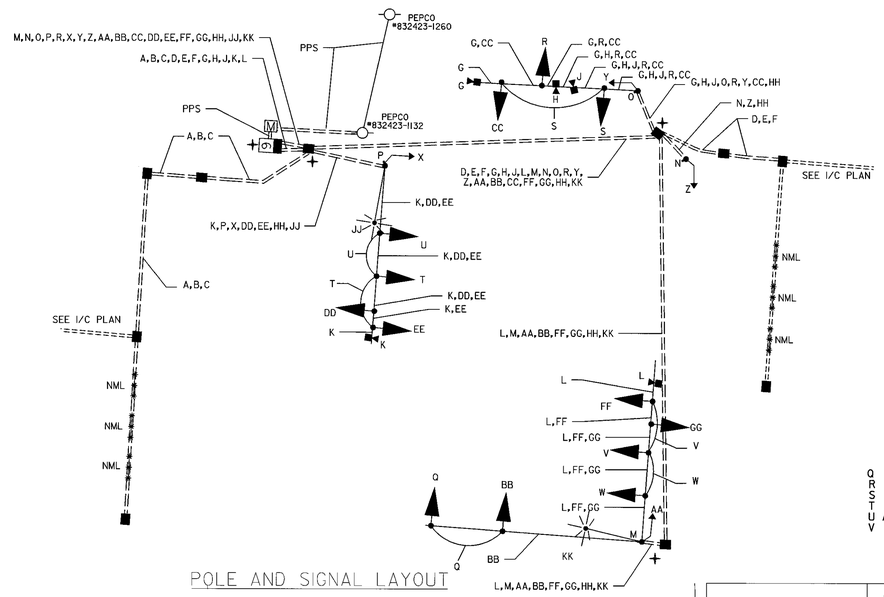
Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

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

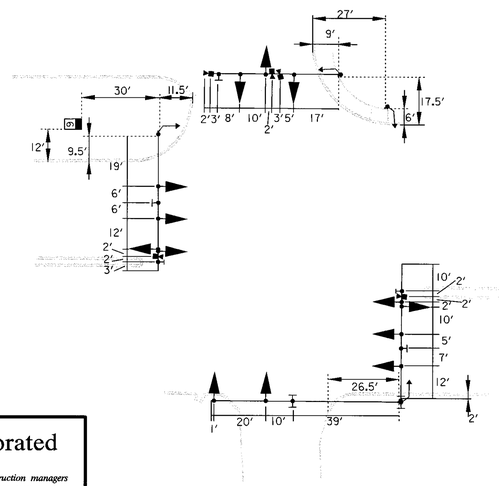
Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

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

WIRING DIAGRAM



POLE AND SIGNAL LAYOUT



EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9087	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 5-8 CAMERAS
9570	38 SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN:
		1 EACH - R1-1 (30 IN. X 30 IN.)
		2 EACH - W3-3 (36 IN. X 36 IN.) (FLOURESCENT YELLOW)
		2 EACH - D95-25 (24 IN. X 24 IN.)
		1 EACH - R10-6a (24 IN. X 30 IN.)
9571	104 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN:
		2 EACH - R10-12 (36 IN. X 42 IN.)
		2 EACH - D-3(2) (60 IN. X 16 IN.) DUAL-FACED 'GREENBELT RD'
		2 EACH - D-3(2) (66 IN. X 16 IN.) 'LAKECREST DR W/ARROW'
		2 EACH - SHIELD ASSEMBLY (36 IN. X 75 IN.)
		2 EACH - SHIELD ASSEMBLY (24 IN. X 51 IN.)

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE	NONE	NONE

A B C D E F — NON-INVASIVE MICROLOOP LEAD-IN CABLE

G H J K — CONTROL CABLE, 200 FOOT, VIDEO DETECTION

L — CONTROL CABLE, 400 FOOT, VIDEO DETECTION

M N O P — 2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)

Q R S T U V W X Y Z AA — 5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)

BB CC DD EE FF GG — 7-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)

HH — NO. 6 AWG STRANDED BARE COPPER WIRE

JJ KK — 2-CONDUCTOR ELECTRICAL CABLE (NO.12 AWG), TC

NML — NON-INVASIVE MICROLOOP PROBE SET

⏚ — 3/4 IN. x 10 FT. GROUND ROD

PPS — PROPOSED POWER SERVICE TO BE INSTALLED BY PEPCO

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PHASE 1 + 5	R/G	R/G	R	R	R/G	R/G	R	R	R	R	R	R	R	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	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1 + 6 CHANGE	Y/Y	Y/Y	Y	Y	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	R	G/G	G/G	G	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5 CHANGE	R	R	R	R	Y/Y	Y/Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6 ALT	G	G	G	G	G	G	G	G	R	R	R	R	R	W	W	DW	DW
PED CLEARANCE	G	G	G	G	G	G	G	G	R	R	R	R	R	F/DW	F/DW	DW	DW
PHASE 2 + 6 ALT CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW
PHASE 4 + 8 CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	R	R	G	G	G	G	G	DW	DW	W	W
PED CLEARANCE	R	R	R	R	R	R	R	R	G	G	G	G	G	DW	DW	F/DW	F/DW
PHASE 4 + 8 ALT CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5001	275 LF	5 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5003	385 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5004	2 EA	REMOVAL OF EXISTING PERMANENT MARKING LETTERS, SYMBOLS, ARROWS, AND NUMBERS
5005	320 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5006	165 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6002	55 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6004	655 SF	4 INCH CONCRETE SIDEWALK
8000	4 EA	FURNISH AND INSTALL 2 WIRE NAVIGATOR PUSH BUTTON STATION
8000	1 EA	FURNISH AND INSTALL 2 WIRE NAVIGATOR CENTRAL CONTROL UNIT
8001	15 CY	CONCRETE FOUNDATION
8002	8 EA	12 INCH PEDESTRIAN SIGNAL HEAD SECTION
8008	3 EA	CONTROL CABLE, 200 FOOT, VIDEO DETECTION
8009	1 EA	CONTROL CABLE, 300 FOOT, VIDEO DETECTION
8010	1 EA	CONTROL CABLE, 400 FOOT, VIDEO DETECTION
8018	1 EA	PED POLE (ANY SIZE)
8026	32 SF	DETECTABLE WARNING SURFACES
8028	30 LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
8029	36 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8030	300 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8036	670 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8037	215 SF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8038	50 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8039	2,740 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8040	25 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8045	1 EA	METERED SERVICE PEDESTAL
8052	6 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD-IN CABLE
8053	23 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8055	38 SF	INSTALL GROUND MOUNTED SIGN
8056	104 SF	INSTALL OVERHEAD SIGN
8057	5 EA	VIDEO DETECTION CAMERA
8063	2 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
8066	1 EA	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
8069	4,150 LF	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
8070	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
8074	4 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8075	9 EA	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8076	38 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8082	625 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
8084	925 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
8085	1,400 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
8086	400 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG) TC
8090	2 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
8095	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 193 (GREENBELT ROAD) AND LAKECREST DRIVE
GENERAL INFORMATION

CHN#: PGW7581083 TOD#: AT3560-20

SCALE NONE DATE 10/2004 CONTRACT NO. AT3565185

DESIGNED BY MRK
DRAWN BY MRK
CHECKED BY BAB
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16019306.56
T.I.M.S. NO. G528
TOD NO. TS-4363

DRAWING NO.

SHEET NO. 2 OF 4

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

BORDER REV: DATE: June 1, 2004

DRILL HOLES

BY: THOMPSMA

PLOTTED: 11/18/2004 08:25:50 AM
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