

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES RECONSTRUCTING THE TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 197 AND US 50 RAMP 3 IN PRINCE GEORGE'S COUNTY. US 50 RAMP 3 WILL BE WIDENED TO PROVIDE TWO ADDITIONAL TURN LANES. THE PROPOSED LANE CONFIGURATION WILL BE TWO LEFT-TURN LANES, A CHOICE LANE, AND TWO RIGHT-TURN LANES. STREET LIGHTS ARE PROPOSED ON THE NORTHEAST AND SOUTHWEST QUADRANTS OF THE INTERSECTION. MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG MD 197. VIDEO DETECTION IS PROPOSED FOR PRESENCE AND SETBACK DETECTION ALONG US 50 RAMP 3. THE INTERCONNECT TO THE NORTH WILL BE RE-ROUTED TO THE NEW CONTROLLER. NEW INTERCONNECT FROM NORTHVIEW DRIVE IS PROPOSED. A MAST ARM STRUCTURE TO DESIGNATE LANE USE IS PROPOSED IN ADVANCE OF THE INTERSECTION ON US 50 RAMP 3. MD 197 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER. LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES IN A NEMA SIZE "6" BASE MOUNTED CABINET. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO INTERFACE AND FOUR CHANNEL LOOP DETECTOR AMPLIFIERS WITHIN THE CABINET.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

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

Mr. Augie Reblsh
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:
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CAT CODE	QUANTITY	DESCRIPTION
900000	1 EA	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM
963010	2 EA	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
971017	1 EA	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
973023	119 SF	SHEET ALUMINUM SIGNS
	2 EACH	R3-3 (24 IN. X 24 IN.) MAST ARM MOUNT
	4 EACH	R3-5(L) (30 IN. X 36 IN.) MAST ARM MOUNT
	2 EACH	R3-5(MOD) (30 IN. X 36 IN.) MAST ARM MOUNT
	4 EACH	R3-5(R) (30 IN. X 36 IN.) MAST ARM MOUNT
	1 EACH	ASSOCIATED SHIELD ASSEMBLY *NORTH, MD 197, LEFT ARROW-90* (48 IN. X 75 IN.) POLE MOUNT
	1 EACH	ASSOCIATED SHIELD ASSEMBLY *SOUTH, MD 197, RIGHT ARROW* (30 IN. X 51 IN.) POLE MOUNT
974024	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
974029	2 EA	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM

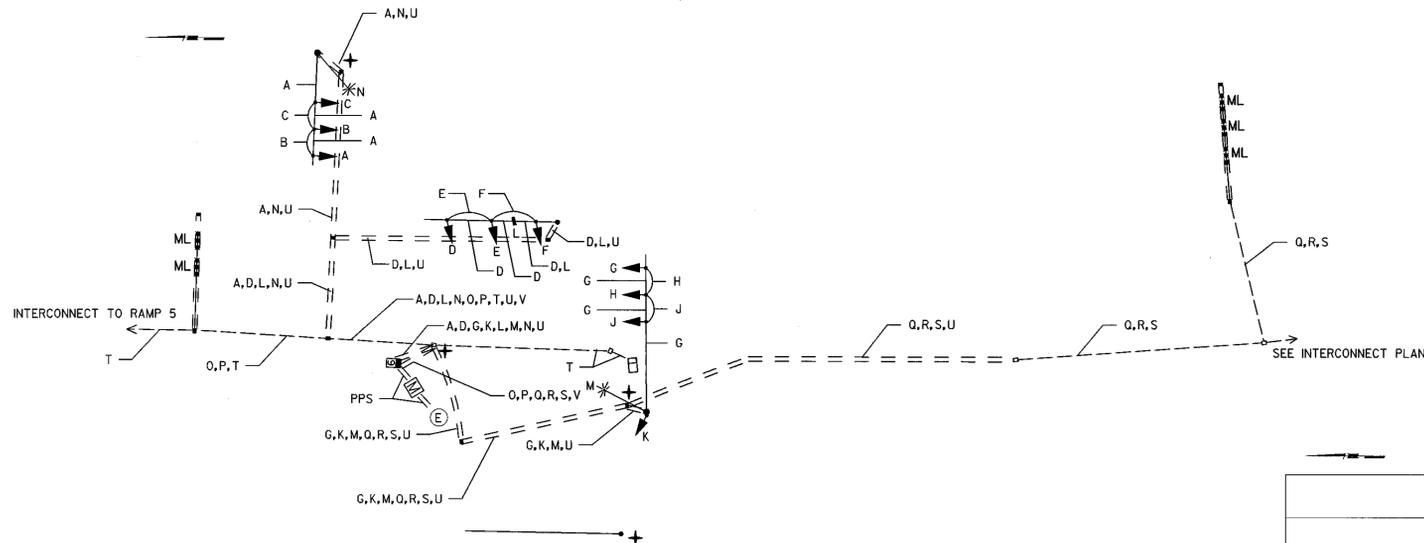
EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585424	130 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
800000	1 LS	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
800000	150 LF	PULL AND RE-ROUTE 12-PAIR COMMUNICATION CABLE, JELLY FILLED (NO.19 AWG)
801004	20 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805118	400 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	30 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	200 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	120 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807202	1 EA	METERED SERVICE PEDESTAL
810601	2 EA	NONINVASIVE DETECTOR, 500 FOOT LEAD-IN CABLE
810605	3 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	10 EA	ELECTRICAL HANDHOLE
811002	2 EA	REMOVE ELECTRICAL HANDHOLE
813015	119 SF	INSTALL OVERHEAD SIGN
816001	1 EA	VIDEO DETECTION CAMERA
816010	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
822002	2,400 LF	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
831010	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	6 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860272	30 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	1,300 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861116	500 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG), TC
866104	2 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
866204	4 EA	INSTALL STEEL POLE AND SINGLE MAST ARM, ANY SIZE
871117	1 EA	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT

NOTE: THE CONTRACTOR SHALL SUPPLY THE ANCHOR BOLTS FOR ALL STRUCTURES

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	9	10
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4	R	R	R	R	R	R	G	G	G	G
PHASE 4 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

- A, B, C, D, E, F, G, H, J, K - 5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- L - CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- M, N - 2-CONDUCTOR ELECTRICAL CABLE (NO.12 AWG), TC
- O, P, Q, R, S - MICROLOOP LEAD-IN CABLE
- T - EXISTING 12-PAIR COMMUNICATION CABLE, JELLY FILLED (NO.19 AWG) TO RAMP 5
- U - NO. 6 AWG STRANDED BARE COPPER WIRE
- V - PROPOSED RE-ROUTED 12-PAIR COMMUNICATION CABLE, JELLY FILLED (NO.19 AWG)
- ML - MICROLOOP PROBE SET
- + - 3/4 IN. x 10 FT. GROUND ROD
- PPS - PROPOSED POWER SERVICE TO BE INSTALLED BY PEPCO

BY: THOMPSON

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SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 197 (COLLINGTON ROAD) AT
US 50 (JOHN HANSON HIGHWAY)

GENERAL INFORMATION

SCALE NONE DATE 1/19/05 CONTRACT NO. PG6365130

DESIGNED BY S.D.Y. COUNTY PRINCE GEORGE'S
DRAWN BY S.D.Y. LOGMILE 16019701.53
CHECKED BY B.A.B. T.I.M.S. NO. G778
F.A.P. NO. TOD NO.

DRAWING NO. TS-2462A OF SHEET NO. 13 OF 21