

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 218 (SUITLAND ROAD) AND EWING AVENUE/SHADYSIDE AVENUE IN PRINCE GEORGE'S COUNTY. MD 218 IS ASSUMED TO RUN IN AN EAST - WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH CONCURRENT MAINLINE PHASING. DUE TO THE LAYOUT OF THE SIDE STREET APPROACHES, THEY WILL OPERATE UNDER SEPERATE PHASES.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER AND ASSOCIATED HARNESSSES IN A NEMA SIZE '6' BASE MOUNTED CABINET. INSTALL ONE (1) NEW 4-CHANNEL DETECTOR AMPLIFIER AND ONE (1) VIDEO DETECTION INTERFACE FOR 1-4 CAMERAS.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Brian Young
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
4061 Powder Mill Road, Suite 600
Colverton, Maryland 20705
Phone: 301-931-2880

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9000	12 EA	12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
9016	1 EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	51 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN: 1 EACH - R3-5(L) (30 IN. X 36 IN.) 1 EACH - R3-5(R) (30 IN. X 36 IN.) 1 EACH - SHIELD ASSEMBLY (30 IN. X 51 IN.) 'WEST, MD 218, RIGHT ARROW' 1 EACH - SHIELD ASSEMBLY (48 IN. X 75 IN.) 'EAST, MD 218, LEFT ARROW'

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

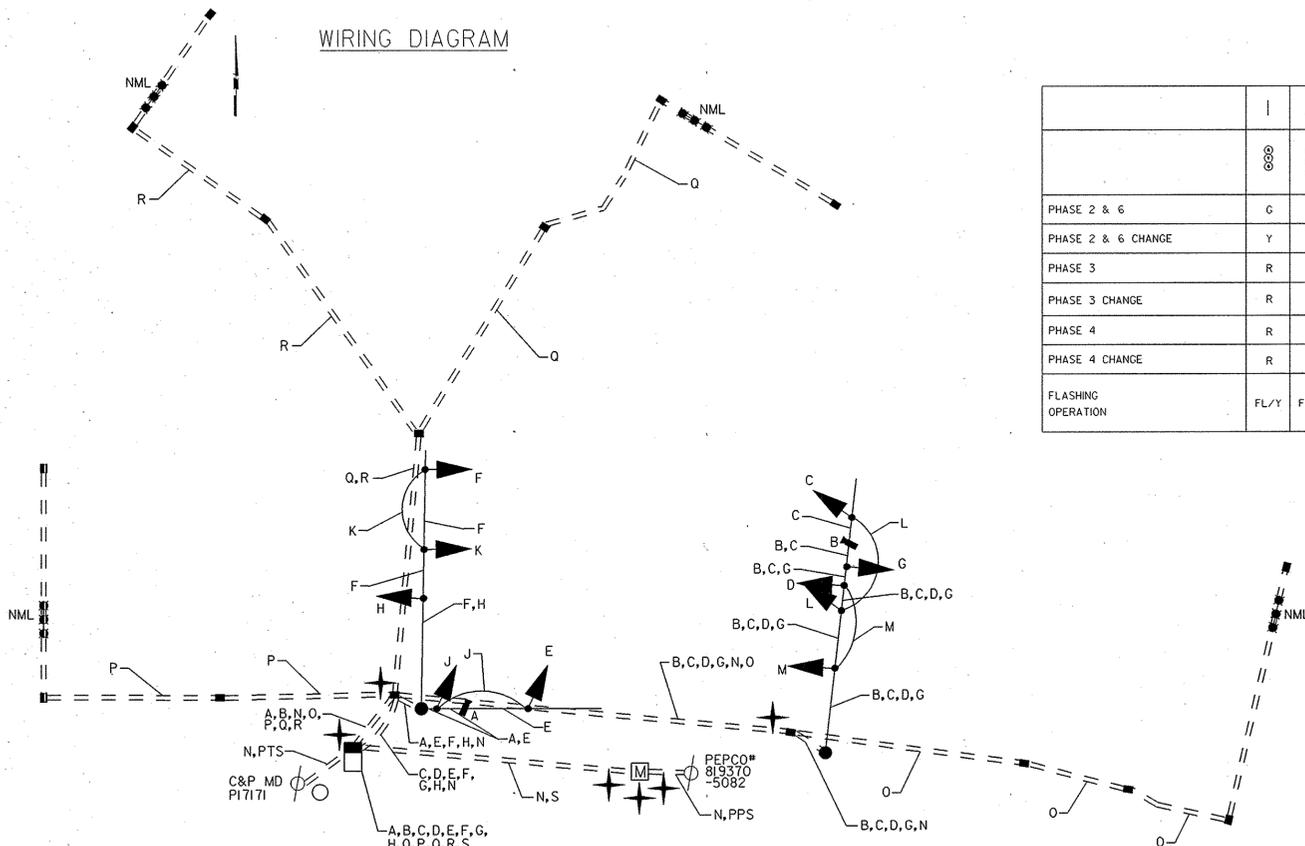
ITEM NO	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	2 CY	TEST PIT EXCAVATION
5005	85 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	2 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROWS
6002	100 SF	4 INCH CONCRETE SIDEWALK
8000	12 EA	INSTALL 12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
8001	12 EA	12 INCH LED SIGNAL HEAD SECTION (R,Y,G)
8004	6 EA	8 INCH LED SIGNAL HEAD SECTION
8017	1 EA	MAST ARM POLE & 60 FT MAST ARM
8021	4 EA	NONINVASIVE DETECTOR (ANY LENGTH)
8022	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT
8023	1 EA	TWIN MAST ARM POLE & 50 FT/60 FT MAST ARMS ANY 'T' DIMENSION
8026	4 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8031	70 LF	CABLE - 1 CONDUCTOR, 250 KCML, CU, USE
8034	125 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8035	925 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	135 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8037	20 LF	WOOD SIGN SUPPORTS UP TO 4 X 6
8039	51 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8041	170 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	1 EA	METERED SERVICE PEDESTAL
8047	16 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8052	2 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8056	100 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	750 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE	NONE	NONE

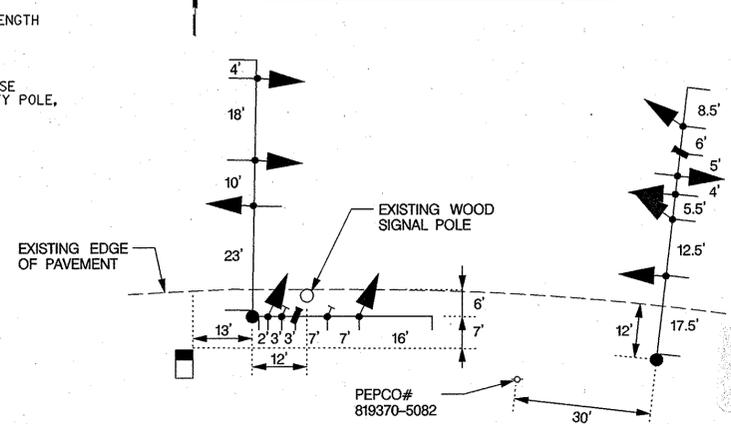
ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR



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 3	R	R	R	R	R	R	G	G	R	R	→
PHASE 3 CHANGE	R	R	R	R	R	R	Y	Y	R	R	→
PHASE 4	R	R	R	R	R	R	R	R	G	G	→
PHASE 4 CHANGE	R	R	R	R	R	R	R	R	Y	Y	→
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	→

SIGNAL POLE DETAIL LAYOUT



- A - CONTROL CABLE, 200 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- B - CONTROL CABLE, 300 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- C - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- D - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- E - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- F - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- G - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- H - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- I - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- K - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- L - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- M - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- N - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- O - NON-INVASIVE MICROLOOP PROBE LEAD-IN
- P - 3 RUNS - ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCML, CU, USE
- Q - 3 RUNS - ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCML, CU, USE
- R - 3 RUNS - ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCML, CU, USE
- S - 3 RUNS - ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCML, CU, USE
- T - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS
- U - PROPOSED METERED SERVICE PEDESTAL
- V - PROPOSED GROUND ROD 3/4 IN. DIAMETER x 10 FT. LENGTH
- W - PROPOSED POWER SOURCE (ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCML, CU, USE 3 RUNS WITH 3'-30" COILS OF SLACK CABLE AT UTILITY POLE, FINAL SERVICE SHALL BE MADE BY PEPCO).
- X - NON-INVASIVE MICROLOOP PROBE SET
- Y - NON-INVASIVE MICROLOOP PROBE SET

TOD No.: AT910-04
SHA No.: PG573A52/B52
MD 218 @ Shadyside Avenue

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 218 (SUITLAND ROAD) AND
EWING AVENUE/SHADYSIDE AVENUE

GENERAL INFORMATION

SCALE	NONE	DATE	9/2006	CONTRACT NO.	AT9105185
DESIGNED BY	SDY	COUNTY	PRINCE GEORGE'S		
DRAWN BY	AMT	LOGMILE	16021801.23		
CHECKED BY	BAB	T. I. M. S. NO.	H217		
F. A. P. NO.		TOD NO.			
DRAWING NO.	TS-2252B	OF		SHEET NO.	2 OF 2

BY: WEAVERCC