

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE CONSTRUCTION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 639 (WILLOW BROOK ROAD) AT THE INTERSTATE 68 EASTBOUND OFF-RAMP IN ALLEGANY COUNTY. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION. NON-INVASIVE MICROLOOP PROBES ARE ALSO PROPOSED FOR SETBACK DETECTION ALONG MD 639 AS WELL AS THE INTERSTATE 68 OFF RAMP. A QUEUE DETECTOR WILL ALSO BE INSTALLED ALONG THE INTERSTATE 68 OFF RAMP. MD 639 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC ACTUATED MODE. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED ON US 40 ALT/MD 639. THE SIDE STREET WILL OPERATE WITH PERMISSIVE LEFT-TURN PHASING.

CONTROLLER REQUIREMENTS

INSTALL A NEMA SIZE 6 BASE MOUNTED TRAFFIC SIGNAL CONTROLLER WITH ALL OF THE NECESSARY EQUIPMENT AND HARNESSSES, VIDEO DETECTION CAMERA INTERFACE AS WELL AS A 4-CHANNEL LOOP DETECTOR AMPLIFIER.

PHONE DROP

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

THE CONTACT PERSONS FOR DISTRICT #6/00TS ARE AS FOLLOWS:

District #6
Mr. George Small
 Assistant District Engineer - Traffic
 Phone: 301-729-8444

Mr. David Felker
 District Utility Engineer
 Phone: 301-729-8439

Mr. Anthony Crawford
 Assistant District Engineer - Maintenance
 Phone: 301-729-8457

Mr. John True
 Assistant District Engineer - Construction
 Phone: 301-729-8411

Office of Traffic & Safety

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

Mr. Robert Snyder
 Assistant Division Chief, Traffic Operations
 Phone: 410-787-7630

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

Mr. Eugene Bailey
 Team Leader Sign Operation
 410-787-7670

The Power Company Representative is:
 Allegheny Power
 800 Cabin Hill Drive
 Greensburg, PA 15601
 Phone: 1-800-255-3443

City of Cumberland Contact is:
 Department of Public Works
 215 Bowen Street
 P.O. Box 1702
 Cumberland, MD 21502
 Phone: 301-759-6620

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT_CODE	QUANTITY	DESCRIPTION
800000	1 EA	EIGHT-PHASE FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET WITH ALL NECESSARY HARNESSSES
800000	1 EA	4-CHANNEL LOOP DETECTOR AMPLIFIER
800000	1 EA	VIDEO DETECTION CAMERA INTERFACE (1-4 CAMERAS)
800000	40 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT
		2 EA - W3-3 (36"x36")
		2 EA - D95-25 (24"x24")
		1 EA - R3-5L (30"x36")
		1 EA - R3-2 (30"x30")
800000	3 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
807202	1 EA	METERED SERVICE PEDESTAL
810601	1 EA	NON-INVASIVE MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE
810605	1 EA	NON-INVASIVE MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
816001	2 EA	VIDEO DETECTION CAMERA
816005	1 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818036	1 EA	STEEL POLE WITH 50 FOOT MAST ARM
818052	1 EA	STEEL POLE WITH TWIN 50/50 FOOT MAST ARMS
831010	1 EA	250 WATT HPS LAMP AND LUMINAIRE
860284	25 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
866104	1 EA	20 FOOT LIGHTING ARM ON TRAFFIC SIGNAL STRUCTURE

EQUIPMENT LIST 'B'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

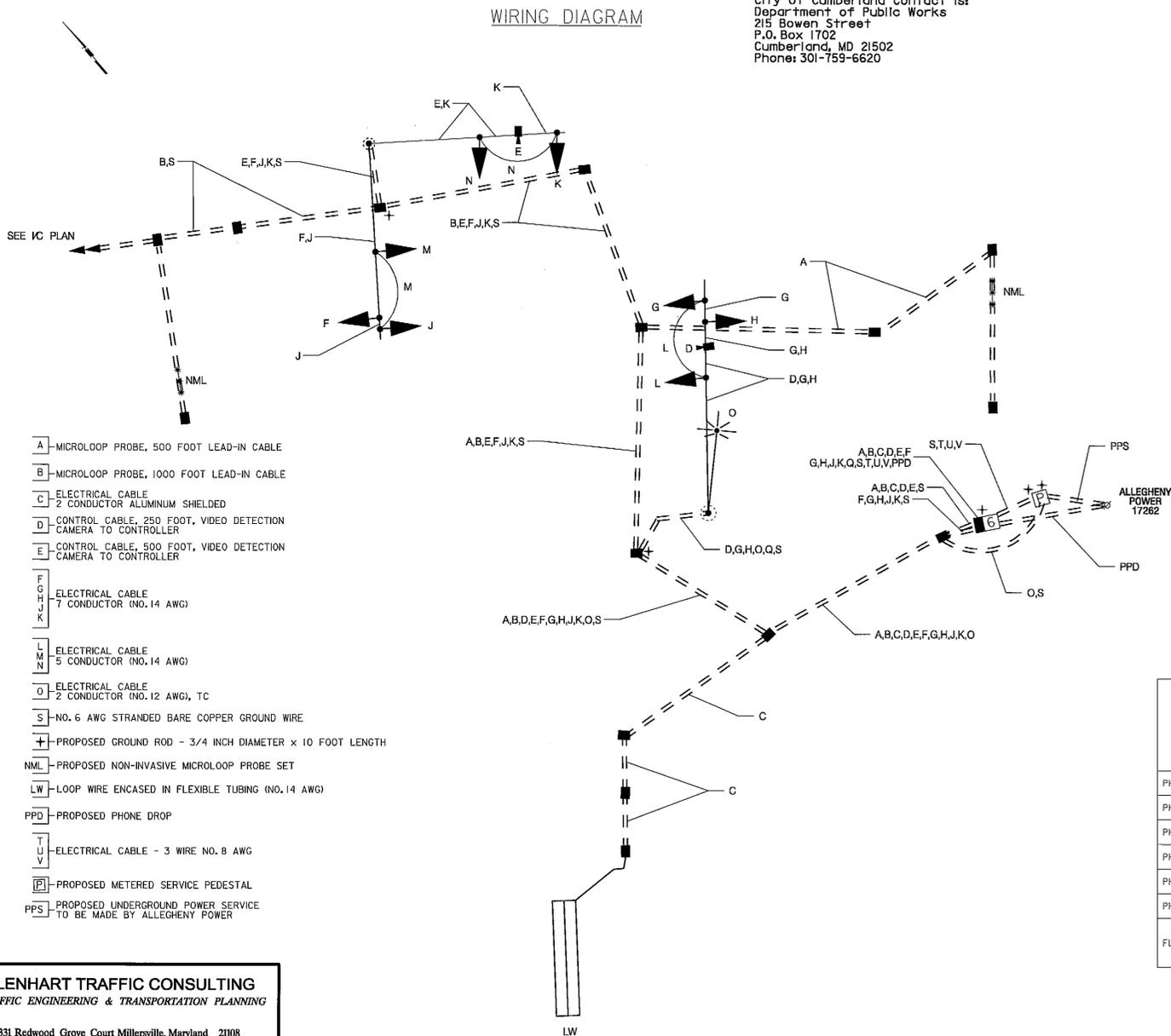
CAT_CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585412	175 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	70 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
545462	20 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
634100	10 LF	STANDARD TYPE A CURB 8 INCH X 16 INCH
634300	100 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
655105	1000 SF	5 INCH CONCRETE SIDEWALK
655120	80 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
662182	50 LF	REMOVE AND RESET EXISTING TRAFFIC BARRIER W BEAM
800000	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
801004	8 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	40 LF	WOOD SIGN SUPPORTS, 4 INCH X 6 INCH
802501	600 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	200 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805118	260 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805125	50 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135	850 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805140	210 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805160	20 LF	1 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
811001	13 EA	ELECTRICAL HANDHOLE
822500	1 EA	AS BUILT FOR SHA ON CADD
837001	5 EA	GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH
861102	60 LF	ELECTRICAL CABLE - 3 WIRE NO. 8 AWG
861104	600 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	80 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1700 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	250 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
862101	450 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
862102	130 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CAT_CODE QUANTITY DESCRIPTION

NONE - ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR



PHASE CHART

	1	2	3	4	5	6	7	8
PHASE 1 + 6	G	G	G	R	R	G	R	R
PHASE 1 CHANGE	G	G	G	R	R	G	R	R
PHASE 2 + 6	G	G	G	G	G	G	R	R
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R
PHASE 4	R	R	R	R	R	R	G	G
PHASE 4 CHANGE	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

LENHART TRAFFIC CONSULTING
 TRAFFIC ENGINEERING & TRANSPORTATION PLANNING
 331 Redwood Grove Court Millersville, Maryland 21108
 Tel: (410) 987-3888 Fax: (410) 782-2288

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
WILLOW BROOK ROAD (MD 639) AT I-68 EASTBOUND RAMPS

GENERAL INFORMATION

SCALE NONE DATE FEBRUARY 2009 CONTRACT NO. BW996M82

DESIGNED BY MML COUNTY ALLEGANY
 DRAWN BY MML LOGMILE 01063900.06
 CHECKED BY MML T.I.M.S. NO. J332
 F.A.P. NO. N/A TOD NO.

DRAWING NO. **TS-4704-G1** OF SHEET NO. OF