

PROJECT DESCRIPTION

GENERAL
 THIS PROJECT INVOLVES THE INSTALLTION OF A TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF GARRETT HWY. (U.S. ROUTE 219) AND WAL-MART DRIVE/PARKING LOT, IN GARRETT COUNTY, MARYLAND. THE STRIPING ALONG THE NORTHBOUND APPROACH OF GARRETT HWY. (U.S. ROUTE 219) HAS ALSO BEEN REVISED TO ACCOMODATE AN EXCLUSIVE LEFT TURN LANE. GARRETT HWY. (U.S. ROUTE 219) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION
 THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH GARRETT HIGHWAY (U.S. ROUTE 219) APPROACHES OPERATING CURRENTLY AND THE WAL*MART DRIVEWAY/PARKING LOT ACCESS APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND GARRETT HIGHWAY (U.S. ROUTE 219) APPROACHES.

CONTROLLER REQUIREMENTS
 INSTALL A FULLY-TRAFFIC-ACTUATED EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER. INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

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

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.
 STANDARD NO. MD-104.00 - 104.00-30
 STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)
 STANDARD NO. MD-104.37-01 (LEFT LANE CLOSURE)
 STANDARD NO. MD-104.38-01 (RIGHT LANE CLOSURE)
 STANDARD NO. MD-104.40-01 (INTERSECTION FAR-LEFT LANE CLOSURE)
 STANDARD NO. MD-104.41-01 (INTERSECTION FAR-RIGHT LANE CLOSURE)
 STANDARD NO. MD-104.43-01 (SHOULDER WORK)

PROJECT CONTACTS

MR. GEORGE SMALL, ASSISTANT TRAFFIC ENGINEER
 PHONE: (301) 729-84444

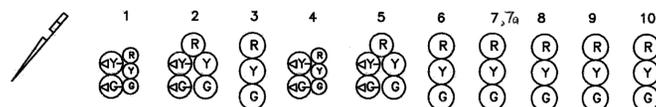
MR. JOHN TRUE, ASST. DISTRICT CONTRUCTION ENGINEER
 PHONE: (301) 729-8486

MR. BOB ROWAN, DISTRICT UTILITY ENGINEER
 PHONE: (301) 729-8439

MR. EDWARD RODENHIZER, CHIEF SHA TRAFFIC SIGNAL SHOP
 PHONE: (410) 787-7650

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

PHASING CHART



	1	2	3	4	5	6	7,7a	8	9	10	
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	↕
1 & 5 Change	←G	←G	G	G	G	G	G	G	G	G	↔
Phase 1 & 6	←G	←G	G	R	R	R	R	R	R	R	↔
1 & 6 Change	←Y	←Y	G	R	R	R	R	R	R	R	↔
Phase 5 & 2	R	R	R	←G	←G	G	R	R	R	R	↕
5 & 2 Change	R	R	R	←Y	←Y	G	R	R	R	R	↕
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	↔
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	↔
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	↕
4 & 8 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	↕

EQUIPMENT LIST "A"

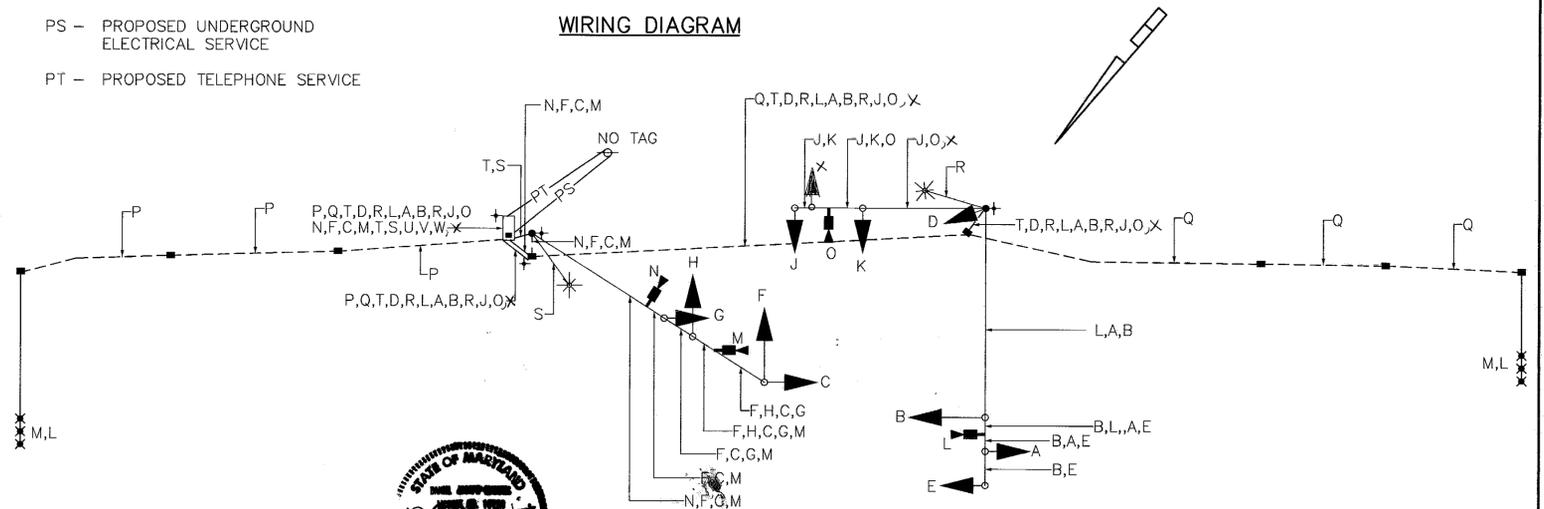
A. EQUIPMENT TO BE SUPPLIED BY THE DEVELOPER AND INSTALLED BY ITS CONTRACTOR.

CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	1 CY	TEST PIT EXCAVATION
585407	90 LF	5 INCH LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585409	410 LF	5 INCH LEAD FREE YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585462	650 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
585624	120 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801605	65 SF	FURNISH & INSTALL SHEET ALUMINUM SIGNS: - 2 EACH R10-12 SIGN (36"x42") MAST ARM MOUNT - 2 EACH W3-3 SIGN (36"x36") WITH "NEW" PANEL (30"x30") AND FLAG - GROUND MOUNT - 1 EACH M95-1 SIGN (78"x24") DUAL FACE MAST ARM MOUNT
801004	10 CY	FURNISH & INSTALL CONCRETE FOR SIGNAL FOUNDATION
801106	60 LF	FURNISH & INSTALL WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801711	7 SF	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
802501	200 LF	FURNISH & INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805010	25 LF	FURNISH & INSTALL 1 INCH ELECTRICAL CONDUIT - GALVANIZED RISER
870166	735 LF	FURNISH & INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
870167	180 LF	FURNISH & INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - BORED
870160	35 LF	FURNISH & INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807202	1 EA	SERVICE METER & DISCONNECT SWITCH
805010	15 LF	1 INCH ELECTRICAL CONDUIT - GALVANIZED RISER
807400	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
832005	50 LF	FURNISH & INSTALL DUCT CABLE - 3 CONDUCTOR, NO. 4 AWG, 600V (SERVICE CONNECTION)
811001	8 EA	FURNISH & INSTALL ELECTRICAL HANDHOLE
815191	4 EA	FURNISH & INSTALL CAMERA ASSEMBLY FOR VIDEO DETECTION
815192	4 EA	FURNISH & INSTALL VIDEO CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
815196	1 EA	FURNISH & INSTALL VIDEO INTERFACE EQUIPMENT
818050	1 EA	FURNISH & INSTALL STEEL POLE WITH TWIN 65 FOOT AND 45 FOOT MAST ARMS
818052	1 EA	FURNISH & INSTALL STEEL POLE WITH A SINGLE 65 FOOT MAST ARM
803019	2 EA	FURNISH & INSTALL 15 FOOT LIGHTING BRACKET ARM FOR TRAFFIC SIGNAL STRUCTURE
806006	2 EA	FURNISH & INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
837001	4 EA	FURNISH & INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860270	9 EA	FURNISH & INSTALL 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	32 EA	FURNISH & INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	1100 LF	FURNISH & INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	680 LF	FURNISH & INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
871117	1 EA	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
-	1 EA	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
-	2 EA	MICROLOOP PROBE SET WITH 500 FOOT LEAN-IN CABLE

WIRING KEY

- A,B,C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D,F,J } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E,G } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- H,K,X } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L,M } CONTROL CABLE FOR VIDEO DETECTION
- N,O } VIDEO DETECTION
- P,Q } MICROLOOP PROBE LEAD-IN
- R,S } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- T } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- U,V } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- W } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- ML - MICROLOOP PROBE SET
- + - 3/4" X 10 FT. GROUND ROD
- PS - PROPOSED UNDERGROUND ELECTRICAL SERVICE
- PT - PROPOSED TELEPHONE SERVICE

WIRING DIAGRAM



GREENMAN-PEDERSEN, INC.
 Engineers, Architects, Planners,
 Construction Engineers & Inspectors

105 Central Street, Suite 3100
 Stoneham, MA 02180
 (781) 279-5500

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
 Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
 GENERAL INFORMATION SHEET
 GARRETT HWY. (U.S. ROUTE 219) AND
 WAL-MART DRIVE/PARKING LOT

DRAWN BY: I. NGUY	F.A.P. NO.	TS NO.	SHEET NO.
CHECKED BY: J. Diaz	S.H.A. NO. BW996M82	4308	
SCALE: 1" = 20'	COUNTY: GARRETT	T.I.M.S. NO. F711	02 OF 02
DATE: February 3, 2004	LOG MILE:		