

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION		
SPECIFICATION NO.	DESCRIPTION	QUANTITY
816	PICK-UP AND INSTALL ADMINISTRATION FURNISHED EIGHT PHASE, FULL-TRAFFIC ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET WITH MMU	1
B. EQUIPMENT TO BE FURNISHED / INSTALLED BY THE CONTRACTOR		
SPECIFICATION NO.	DESCRIPTION	QUANTITY
104	MAINTENANCE OF TRAFFIC	1
108	MOBILIZATION	1
524	12 IN. HEAT APPLIED, PERMANENT PREFORMED PAVEMENT MARKINGS.	394
524	24 IN. HEAT APPLIED, PERMANENT PREFORMED PAVEMENT MARKINGS.	155
801	CONCRETE FOR SIGNAL FOUNDATION.	1
801	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS	2
804	GROUND ROD - 3/4 IN. DIAMETER X 10 FT.	4
804	STRANDED BARE COPPER GROUND WIRE (#6 AWG)	640
805	2 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)	5
805	3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)	45
805	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)	120
805	4 IN. SCHEDULE 80 RIGID PVC CONDUIT (SLOTTED)	110
807	INSTALL EMBEDDED METERED SERVICE PEDESTAL	1
807	REMOVAL OF EXISTING ELECTRICAL SERVICE	1
807	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/40 VOLTS 200 AMPS	1
807	THREE (1) 1-CONDUCTOR ELECTRICAL SERVICE CABLE (NO. 4 AWG THWN)	15
807	THREE NO.8 1 CONDUCTOR ELECTRICAL SERVICE CABLE	300
810	2-CONDUCTOR TRAY CABLE (NO. 12 AWG)	500
810	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	385
810	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (ALUMINUM SHIELDED)	425
810	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	475
810	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	1360
811	REMOVE EXISTING ELECTRICAL HANDHOLE	1
811	REPLACE HANDHOLE FRAME AND COVER.	1
812	6"x 6" WOOD SIGN SUPPORTS.	84
813	SHEET ALUMINUM SIGNS CONSISTING OF: 4 EA. W11-2 36"x36" (GROUND MOUNTED) 4 EA. M6-2 21"x15" (GROUND MOUNTED) 2 EA. OM1-115"x15" (GROUND MOUNTED) 1 EA. R4-7 24"x36" (GROUND MOUNTED) 2 EA. R10-3 (9) 9"x15" (POLE MOUNTED)	55
813	INSTALL SHEET ALUMINUM SIGNS	55
814	FURNISH 16" ONE WAY LED (DW / W) SYMBOLIC PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR POLE MOUNTING AND CUTAWAY VISORS. (COUNTDOWN DISPLAY)	2
814	FURNISH 12" LED TRAFFIC SIGNAL SECTION TO REPLACE EXISTING.	30
816	VIDEO DETECTION CAMERA	2
816	CONTROL CABLE, 250 FOOT. VIDEO DETECTION TO CONTROLLER	1
816	CONTROL CABLE, 500 FOOT. VIDEO DETECTION TO CONTROLLER	1
816	VIDEO INTERFACE EQUIPMENT	1
817	AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION WITH PLACARDS - 2 WIRE INSTALLATION.	2
818	10' BREAK-AWAY PEDESTAL WITH TRANSFORMER BASE	2
822	RELOCATE EXISTING SIGN.	8
	REMOVE AND SALVAGE EXISTING EQUIPMENT	1

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT#3 (MONTGOMERY COUNTY) ARE AS FOLLOWS:

MR. JEFF WENTZ
ASST. DISTRICT ENGINEER - TRAFFIC
PHONE# (301) 513-7304

MR. WAYNE MOWDY
ASST. DISTRICT ENGINEER - MAINTENANCE
PHONE# (301) 513-7358

MR. AUGUSTINE REBISH
ASST. DISTRICT ENGINEER - UTILITY
PHONE# (301) 513-7350

MR. ED RODENHIZER
SIGNAL SHOP SUPERVISOR
PHONE# (401) 787-7652

MR. SONNY BAILEY
SIGN SHOP
PHONE# (410) 787-7676

THE POWER COMPANY REPRESENTATIVE IS:

MR. STEVE CUSTER
PEPCO CUSTOMER DESIGN
201 W. GUDE DR.
ROCKVILLE, MD
PHONE# (301) 548-4333

PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE FOLLOWING IMPROVEMENTS TO THE INTERSECTION OF MD 124 (QUINCE ORCHARD ROAD) AND SIOUX LANE / ORCHARD RIDGE DRIVE:

- INSTALLATION OF ADA COMPLIANT PEDESTRIAN RAMPS
- INSTALLATION OF COUNTDOWN PEDESTRIAN SIGNAL HEADS WITH AUDIBLE PUSHBUTTONS
- REPLACEMENT OF EXISTING POLE-MOUNTED CONTROL CABINET WITH NEMA SIZE 6 BASE MOUNTED CONTROL CABINET

II. INTERSECTION OPERATION:

- MD 124 (QUINCE ORCHARD ROAD) IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.
- THE INTERSECTION WILL OPERATE IN A NEMA FOUR PHASE, SEMI-ACTUATED OPERATION WITH EAST/WESTBOUND (MD 124) APPROACHES OPERATING CONCURRENTLY. NORTHBOUND AND SOUTHBOUND APPROACHES (SIOUX LANE / QUINCE ORCHARD ROAD, RESPECTIVELY) WILL OPERATE CONCURRENTLY. A COUNTDOWN PEDESTRIAN PHASE WITH AUDIBLE PUSHBUTTON ACTUATION WILL BE PROVIDED ACROSS THE EAST LEG OF THE INTERSECTION.

III. CONTROLLER REQUIREMENTS:

- THE CONTROLLER ASSEMBLY WILL BE AN EIGHT PHASE FULLY ACTUATED NEMA CONTROLLER COMPLETE WITH SYSTEM PACKAGE AND MISCELLANEOUS AUXILIARY EQUIPMENT AS REQUIRED. A NEMA "6" BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS INTERSECTION.
- MONTGOMERY COUNTY SIGNAL SHOP SHALL INSTALL APS CONTROL UNIT INTO CONTROLLER CABINET. THE CONTRACTOR SHALL DELIVER THE CONTROL UNIT AND AUDIBLE PUSHBUTTONS TO THE MONTGOMERY SIGNAL SHOP FOR TESTING AND PROGRAMMING. CONTACT MR. ROBERT RICKETTS AT (301) 279-1291 TO COORDINATE.

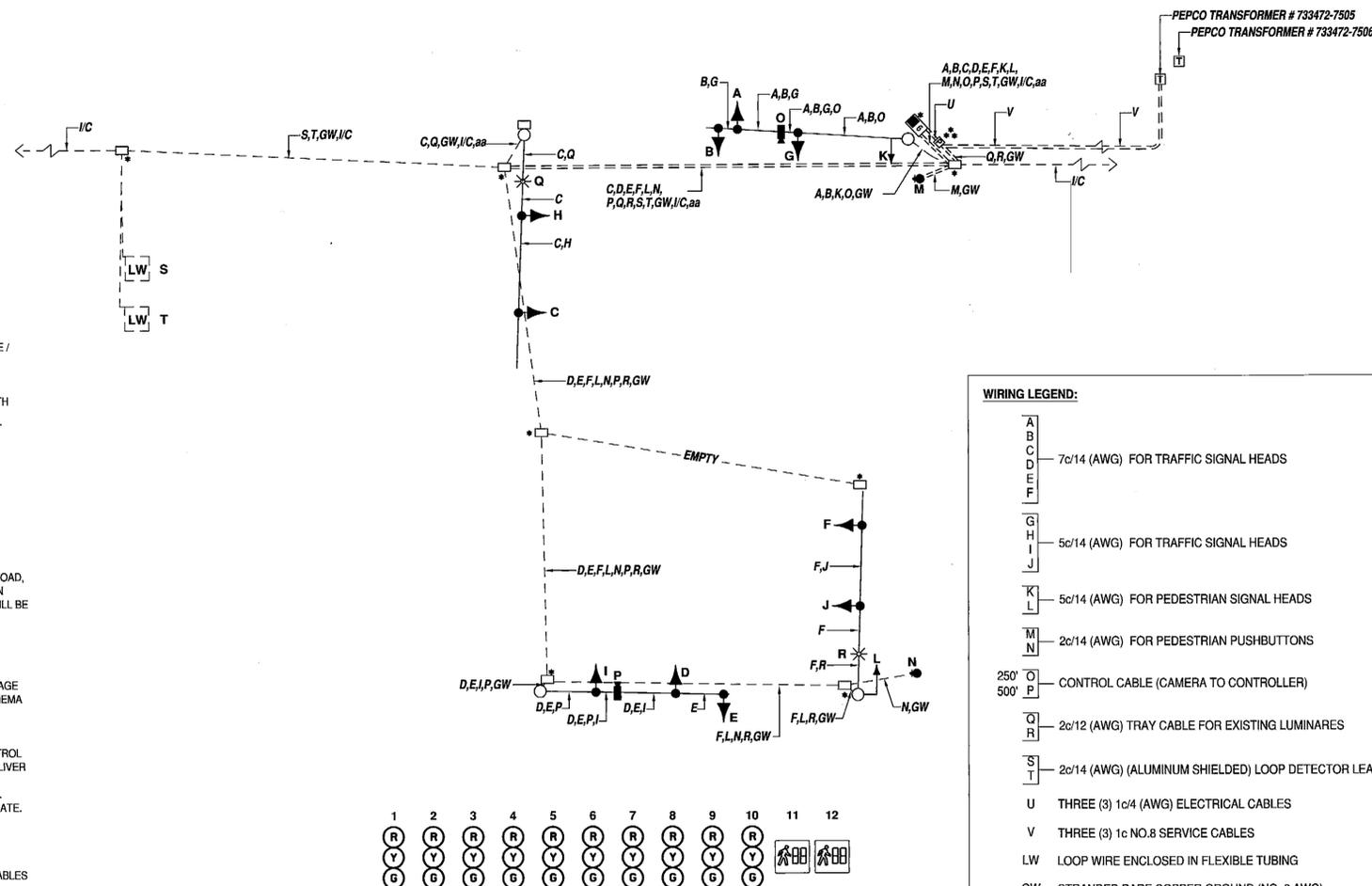
IV. SPECIAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING CABLES, EXCLUDING COMMUNICATIONS INTERCONNECT. ALL CABLES SHALL BE APPROPRIATELY LABELED.
- DISCONNECTING / TERMINATING INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN INTERCONNECT CABLE INTO THE BASE OF THE NEW CABINET AND PROPERLY TAG CABLE. ALL CONTROL CABINET WIRING WILL BE PERFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777-8761 SEVENTY TWO (72) HOURS IN ADVANCE OF INTENDED WORK.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR IDENTIFIES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT EXISTS, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED.

MD 124 IS ASSUMED TO RUN IN AN EAST / WEST DIRECTION



WIRING DIAGRAM



	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 2+6	G	G	G	G	R	R	R	R	R	R	DW	DW
2+6 CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4+8	R	R	R	R	G	G	G	G	G	G	DW	DW
4+8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4+8 ALT.	R	R	R	R	G	G	G	G	G	G	W/K	W/K
4+8 PED CLEAR	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW
4+8 ALT. CHANGE	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
FLASH	FLY	FLY	FLY	FLY	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING LEGEND:

A B C D E F	7c/14 (AWG) FOR TRAFFIC SIGNAL HEADS
G H I J	5c/14 (AWG) FOR TRAFFIC SIGNAL HEADS
K L	5c/14 (AWG) FOR PEDESTRIAN SIGNAL HEADS
M N	2c/14 (AWG) FOR PEDESTRIAN PUSHBUTTONS
250' 500' O P	CONTROL CABLE (CAMERA TO CONTROLLER)
Q R	2c/12 (AWG) TRAY CABLE FOR EXISTING LUMINAIRES
S T	2c/14 (AWG) (ALUMINUM SHIELDED) LOOP DETECTOR LEAD-IN
U	THREE (3) 1c/4 (AWG) ELECTRICAL CABLES
V	THREE (3) 1c NO.8 SERVICE CABLES
LW	LOOP WIRE ENCLOSED IN FLEXIBLE TUBING
GW	STRANDED BARE COPPER GROUND (NO. 6 AWG)
IC	PROPOSED INTERCONNECT CABLE
aa	INSTALLED BY MONTGOMERY COUNTY
*	GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNAL MODIFICATION PLAN
MD 124 (QUINCE ORCHARD ROAD) AT
SIOUX LANE / ORCHARD RIDGE DRIVE
GAITHERSBURG, MD

GENERAL INFORMATION

SCALE 1" = 20' DATE 09-29-86 CONTRACT NO. BW882-801-312
DESIGNED BY MGD COUNTY MONTGOMERY
DRAWN BY MGD LOGMILE 15012401.39
CHECKED BY DJD T. I. M. S. NO.
F. A. P. NO. TOD NO.
DRAWING NO. 2069A SHEET NO. 2 OF 2

PREPARED BY:
GOROVE / SLADE ASSOCIATES, Inc.
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