



PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL WITH INTERCONNECT AT THE INTERSECTION OF MD 124 (QUINCE ORCHARD RD) AND QUINCE ORCHARD BLVD IN MONTGOMERY COUNTY. THE RECONSTRUCTION WILL REPLACE EXISTING SIGNAL POLES, SIGNAL HEADS, SIGNS, PEDESTRIAN SIGNALS, CROSSWALKS, RE-ROUTE INTERCONNECT CABLE, INSTALL LUMINAIRE, AND UPGRADE TO VIDEO DETECTION. MD 124 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

- 1. THE INTERSECTION OPERATES IN A NEMA FOUR (4) PHASE, SEMI-ACTUATED MODE. MD 124 NORTHBOUND HAS AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE. EASTBOUND QUINCE ORCHARD BLVD OPERATES ON ITS OWN PHASE WITH A RIGHT TURN OVERLAP WITH NORTHBOUND MD 124 LEFT TURN PHASE. MD 124 MAINLINE OPERATES CONCURRENTLY WITH ASSOCIATED PEDESTRIAN PHASES.
2. A PROPOSED NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER IN A NEMA SIZE "S" BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS: TO CROSS QUINCE ORCHARD BLVD.

- 1. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS QUINCE ORCHARD AT QUINCE ORCHARD, WAIT."
2. WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR (CONT'D)

Table with 3 columns: ITEM NO., QUANTITY, DESCRIPTION. Lists items like NO. 6 AWG STRANDED BARE COPPER GROUND WIRE, ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN, etc.

C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

CONTACTS

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OFFICE OF TRAFFIC AND SAFETY

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MONTGOMERY COUNTY DOT

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MR. ROBERT RICKETTS
SIGNAL SHOP
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EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

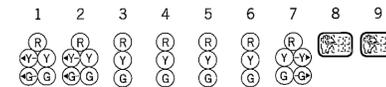
Table with 3 columns: ITEM NO., QUANTITY, DESCRIPTION. Lists items like SHEET ALUMINUM GROUND MOUNTED SIGN, SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN, CONTROLLER CABINET, etc.

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

Table with 3 columns: ITEM NO., QUANTITY, DESCRIPTION. Lists items like MAINTENANCE OF TRAFFIC (PER INTERSECTION), TEST PIT EXCAVATION, PAVEMENT MARKING LINES, TRAFFIC BARRIER, SIGNAL POLE, etc.



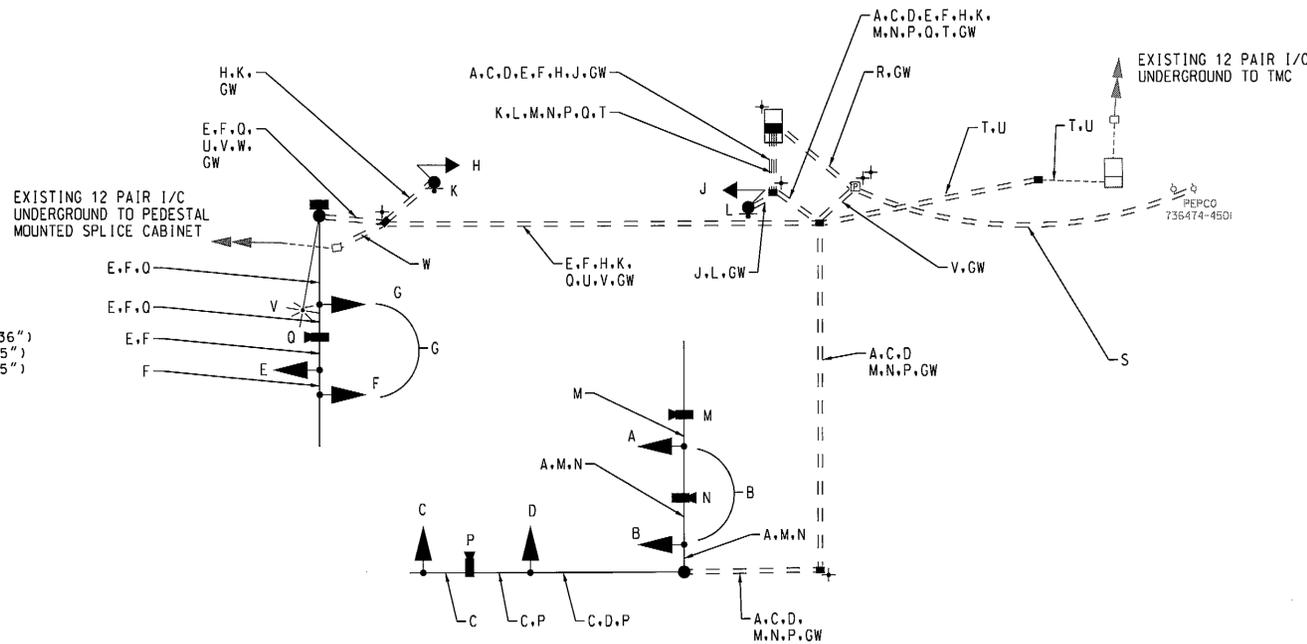
PHASE CHART



Phase chart table with columns for PHASE 1 AND 6, 1 CHANGE, PHASE 2 AND 6, PED CLEARANCE, 2 AND 6 CHANGE, PHASE 4, 4 CHANGE, FLASHING OPERATION and rows for signal phases (G, R, Y, W, etc.).



WIRING DIAGRAM



WIRING KEY:

- A.C.D.E.F - 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B.G.H.J - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K.L - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
M.N.P.Q - VIDEO DETECTION LEAD-IN CABLE
R - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.) TYPE THHN/THWN
S - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 2/0 A.W.G.) TYPE THHN
T - 12 PAIR INTERCONNECT CABLE TO EXISTING SPLICE CABINET TO PROPOSED SIGNAL CONTROLLER
U - 12 PAIR INTERCONNECT CABLE BETWEEN EXISTING BASE MOUNTED SPLICE CABINET AND POLE MOUNTED SPLICE CABINET
V - 3 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) (B.W.G.) TYPE T/C
W - RE-ROUTE EXISTING 12 PAIR INTERCONNECT CABLE TO PROPOSED POLE MOUNTED SPLICE CABINET
GW - 1 CONDUCTOR (NO. 6 A.W.G.) STRANDED BARE COPPER GROUND WIRE
+ - PROPOSED GROUND ROD

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 124 (QUINCE ORCHARD RD) AT QUINCE ORCHARD BLVD SIGNAL RECONSTRUCTION GAITHERSBURG, MD

GENERAL INFORMATION SHEET

Table with fields for SCALE, DATE, CONTRACT NO., DESIGNED BY, COUNTY, DRAWN BY, LOGMILE, CHECKED BY, TIMS NO., F.A.P. NO., TOD NO., TS NO., DRAWING, SHEET NO., OF.

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