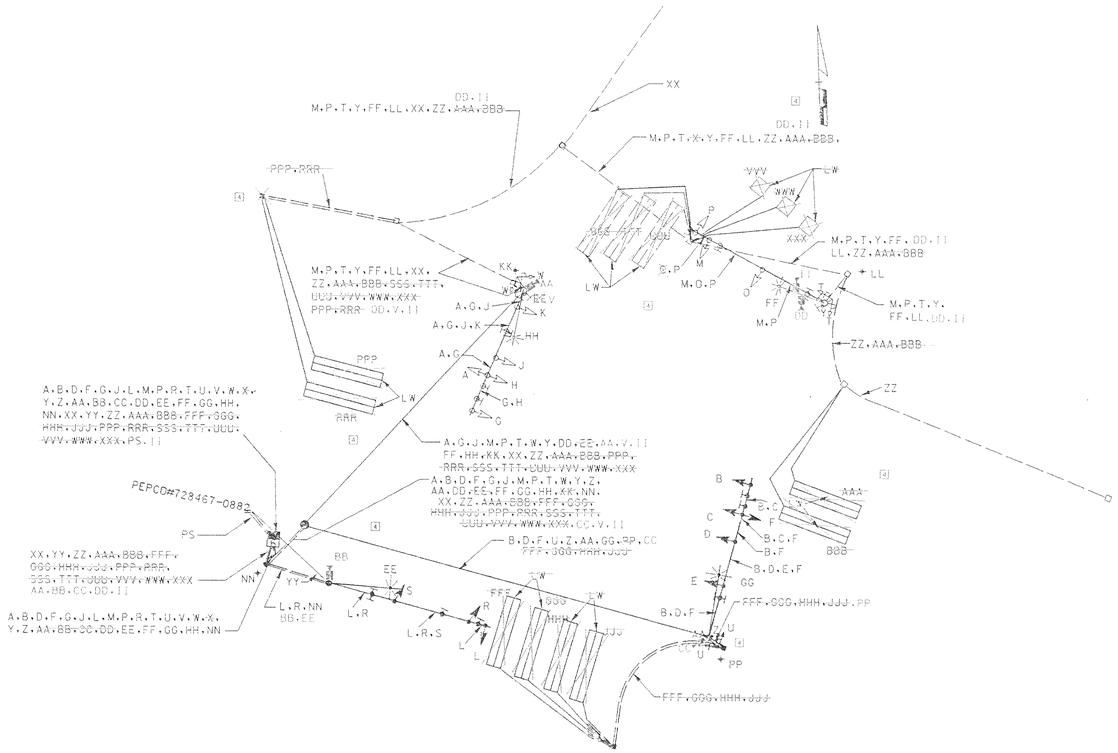
PHASE 1 WIRING DIAGRAM



WIRING LEGEND:

L.M.P.R — 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
A.B.C.D.E.F.G.H. — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
J.K.O.S.T.U.W
[4] AAA.BBB.FFF.GGG. — 2 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
HHH.JJJ.PPP.RRR.
SSS.TTT.UUU.VVV.
WWW.XXX
PS — POWER FEED - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
EE.FF.GG.HH — 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
KK.LL.NN.PP — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
[4] LW — LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
[4] Y.Z.AA.EE — 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
XX.YY.ZZ — 50 PAIR COMMUNICATION CABLE. JELLY FILLED
+ — 3/4" x 10' GROUND ROD
[4] AA.BB.CC.DD.II — VIDEO TRAFFIC DETECTION CABLE 7 CONDUCTOR (NO.18 A.W.G.)

TEMPORARY WIRING NOTES.

1.) NEW AND RELOCATED SIGNAL HEADS SHALL BE WIRED WITH SUFFICIENT CABLE TO PROVIDE REALIGNMENT IN SUBSEQUENT CONSTRUCTION PHASES.

2.) EXISTING WIRING FOR EQUIPMENT WHICH IS TO BE REMOVED OR ABANDONED SHALL BE REMOVED AND DISPOSED.

3.) EXISTING WIRING NOT DETAILED SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA	SP	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH L.A.U. AND L.A.U. PANEL WITH ASSOCIATED HARNESS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
2	EA	SP	PEDESTRIAN PUSHBUTTON AND SIGN
140	SF	813	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 3 EACH R3-5L (30" X 36")-MAST ARM MOUNT - 1 EACH R3-6L (30" X 36")-MAST ARM MOUNT - 1 EACH D3-2 (QUINCE ORCHARD RD) (DUAL FACE) (VAR." X 16")-MAST ARM MOUNT - 1 EACH D3-2 (DARNESTOWN RD) (DUAL FACE) (VAR." X 16")-MAST ARM MOUNT - 4 EACH ASSOCIATED SHIELD ASSEMBLY (24"X51") - 2 EACH ASSOCIATED SHIELD ASSEMBLY (30"X51")

EQUIPMENT LIST 'B'

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

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
3	CY	205	TEST PIT EXCAVATION
110	LF	535	24 INCH WHITE REMOVABLE PREFORMED PAVEMENT MARKING TAPE
1	EA	816	INSTALL CONTROLLER AND CABINET- BASE MOUNT
140	SF	813	INSTALL OVERHEAD SIGN
2	EA	SP	INSTALL PUSHBUTTON AND SIGN
4	EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
10	CY	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
~~[4] 90~~	~~LF~~	~~805~~	~~FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE~~
120	LF	805	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
95	LF	805	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
1	EA	807	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
2	EA	SP	CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
2	EA	806	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
4	EA	804	FURNISH AND INSTALL GROUND ROD-3/4 INCH DIAMETER X 12-FOOT LENGTH
700	LF	810	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
~~[4] 2800~~	~~LF~~	~~812~~	~~FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (ALUMINUM SHIELDED)~~
1150	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO 14 AWG)
3800	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO 14 AWG)
1450	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO 14 AWG)
120	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 1 CONDUCTOR (NO 4 AWG)
330	LF	813	FURNISH AND INSTALL STEEL SPAN WIRE 3/8 -INCH DIAMETER
1	EA	SP	FURNISH AND INSTALL 40 TEMPORARY WOOD POLE
40	LF	805	FURNISH AND INSTALL 3 INCH ELECTRICAL CONDUIT - PVC RISER

EQUIPMENT LIST 'B'

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR (CONTINUED).

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
~~[4] 4000~~	~~LF~~	~~812~~	~~FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14 AWG)~~
~~[4] 1150~~	~~LF~~	~~815~~	~~FURNISH AND INSTALL SAWCUT FOR SIGNAL LOOP DETECTOR~~
975	LF	810	FURNISH AND INSTALL 2-CONDUCTOR TRAY CABLE (NO 12 AWG)
26	EA	814	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
4	EA	814	FURNISH AND INSTALL 12 INCH PEDESTRIAN SIGNAL HEAD SECTION - PEDESTAL POLE MOUNT
2	EA	818	FURNISH AND INSTALL 20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
1	EA	SP	FURNISH AND INSTALL 21-FOOT STEEL POLE WITH A SINGLE 20-FOOT MAST ARM
1	EA	SP	FURNISH AND INSTALL 27-FOOT STEEL POLE WITH A SINGLE 20-FOOT MAST ARM
1	LS	SP	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
1	LS	SP	REMOVE AND SALVAGE EXISTING SIGNAL EQUIPMENT
1	LS	SP	DELIVERY OF SALVAGED EQUIPMENT
1	LS	SP	RELOCATE EXISTING COMMUNICATION CABLE
[4] 5	EA	SP	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION SYSTEM
[4] 1850	LF	SP	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION CABLE
[4] 1	EA	SP	FURNISH AND INSTALL SPLICE CABINET
[4] 1150	LF	SP	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE SELF-SUPPORTING OVERHEAD

NOT LISTED BELOW, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
NOTE: ALL EQUIPMENT AND/OR MATERIALS TO BE REMOVED BY THE CONTRACTOR, BUT

QUANTITY	UNIT	DESCRIPTION
1	EA	CONTROLLER AND CABINET

TSP 14

REVISION 'B'
KCI TECHNOLOGIES
KCI TECHNOLOGIES INC.
ENGINEERS AND PLANNERS
10 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
21030-1388
(410) 316-7800

REVISIONS
(B) 10-00 NEW
MD 28 GEOMETRICS
SHA CONT. NO. M05295271
(A) ADDENDUM NO. 3
NEW SHEET
12/19/2000
[4] REDLINE NO. 4
REPLACEMENT SHEET
9/07/2001
G.X.
(A) 10-94 NEW
MD 124 GEOMETRICS
SHA CONT. NO. W528-501-371
A.C. | R.D. | H.C.T. | T.H.

APPROVALS
PROJECT MANAGER, SIGNAL DESIGN DIVISION
ORIGINAL
ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
ON
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
FILE
DIRECTOR, TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
PHASE I
MD 28 (DARNESTOWN RD) AND QUINCE ORCHARD RD (MD 124)

DRAWN BY: M.G.D./N.J.R.	F.A.P. NO.		TS NO.		
CHECKED BY: H.J.A.	S.P.A. NO.	M295-501-385	16488-61X-1	SHEET NO.	
SCALE: NONE	COUNTY:	MONTGOMERY	T.I.M.S. NO.		
DATE: 1-10-79	LOG MILE:	I5002315.70	D107	313 OF 434	

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7/22/01 8:11:06 PM G:\PLOTTING\PS7\OCP\MTLAR_HP.dgn Michael Pierre Division: Transportation m:\1997\0197029\MD28\QUINCE\spo2qmo11.prt