PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD ROUTE 28 (DARNESTOWN ROAD) AND TSCHIFFELY SQUARE ROAD IN MONTGOMERY COUNTY, MD. ROUTE 28 (DARNESTOWN ROAD) IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA, FIVE (5) PHASE, SEMI-TRAFFIC-ACTUATED MODE. THERE WILL BE AN EXCLUSIVE-PERMISSIVE LEFT TURN/U-TURN PHASE FOR BOTH THE EASTBOUND AND WESTBOUND MD 28 MOVEMENTS. THE MD 28 APPROACHES WILL OPERATE CONCURRENTLY AND THE TSCHIFFELY SQUARE APPROACH WILL OPERATE SEPARATELY. AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE WEST LEG OF MD 28 AND A CONCURRENT PEDESTRIAN PHASE WILL BE PROVIDED ACROSS TSCHIFFELY SQUARE ROAD.

AN EIGHT (8) PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH ~~TWO (2) FOUR (4)-CHANNEL LOOP DETECTOR AMPLIFIERS~~ VIDEO TRAFFIC DETECTION SYSTEM [4], L.A.U., L.A.U. PANEL, HARNESS HOUSED IN A NEMA SIZE '6' POLE MOUNTED CABINET EXISTS AT THIS LOCATION.

III. INTERCONNECTION

THE EXISTING 50 PAIR VOICE GRADE INTERCONNECT CABLE BETWEEN THE INTERSECTIONS OF MD 28 @ TSCHIFFELY SQUARE ROAD AND MD 28 @ OWENS GLEN WAY IS TO BE MAINTAINED.

IV. PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT THREE ARE AS FOLLOWS:

MR. CHARLIE WATKINS
DISTRICT ENGINEER
PHONE (301) 513-7311

MR. AUGUSTINE REBISH
UTILITY ENGINEER
PHONE: (301) 513-7350

MR. MAJID SHAKIB
ASSISTANT DISTRICT
ENGINEER-TRAFFIC
PHONE: (301) 513-7358

MR. RICHARD L. DAFF, SR.
CHEIF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

THE POWER COMPANY REPRESENTATIVE IS
POTOMAC ELECTRIC POWER COMPANY
MR. JIM SLAYTON
PHONE: (202) 872-2000

THE CONTACT PERSON FOR
MONTGOMERY COUNTY DPW-T IS:
MR. ROBERT GONZALES
PHONE: (240) 777-8761

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY THE SHA.

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
48	SF	813	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 1 EACH R3-5R (30" X 36")-MAST ARM MOUNT - 1 EACH R3-5L (30" X 36")-MAST ARM MOUNT - 1 EACH R10-12 (36" X 42")-MAST ARM MOUNT - 1 EACH R10-12 (1) (36" X 42")-MAST ARM MOUNT - 1 EACH D2-2 (TSCHIFFELY SQUARE RD - ARROW) (DUEL FACE) (VAR.' X 18') -MAST ARM MOUNT

EQUIPMENT LIST 'B'

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

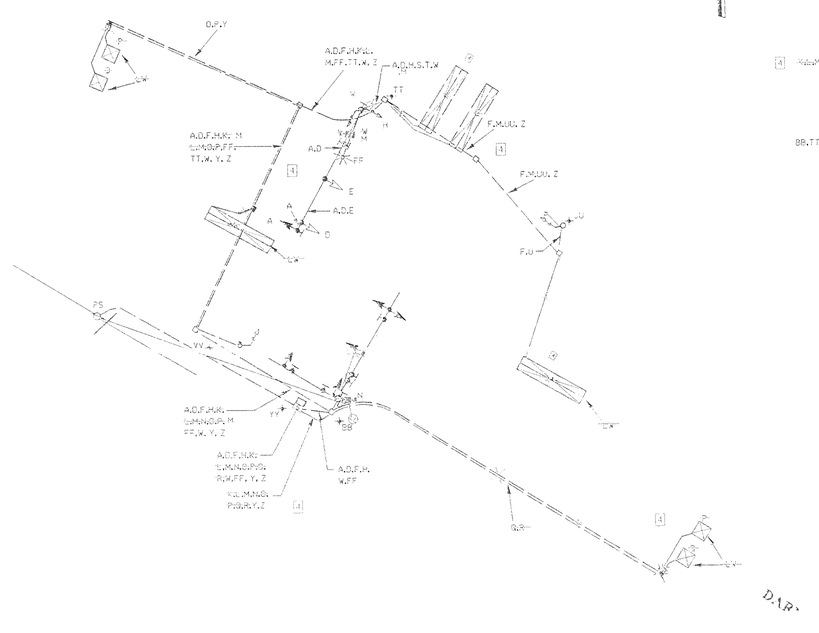
QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
400	LF	556	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING TAPE
150	LF	556	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING TAPE
48	SF	813	INSTALL OVERHEAD SIGN
3	EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
[4] ~~22~~	~~LF~~	~~805~~	~~FURNISH AND INSTALL 2-INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE~~
115	LF	805	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT- BORED
175	LF	805	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
4	EA	804	FURNISH AND INSTALL GROUND ROD-3/4 INCH DIAMETER X 10-FOOT LENGTH
420	LF	810	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
[4] ~~2085~~	~~LF~~	~~810~~	~~FURNISH AND INSTALL ELECTRICAL CABLE- 3-CONDUCTOR (ALUMINUM SHIELDED)~~
260	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO.14 AWG)

EQUIPMENT LIST 'B'

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

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
270	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 3 CONDUCTOR (NO.14 AWG)
281	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO.14 AWG)
660	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO.14 AWG)
[4] ~~2050~~	~~LF~~	~~810~~	~~FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO.14 AWG)~~
[4] ~~550~~	~~LF~~	~~815~~	~~FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)~~
310	LF	810	FURNISH AND INSTALL 2-CONDUCTOR ELECTRICAL CABLE (NO.12 AWG)
1	LS	SP	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
24	EA	814	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD
160	LF	805	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
1	LS	SP	RELOCATE EXISTING COMMUNICATION CABLE
2	EA	814	RELOCATE EXISTING SIGNAL HEAD
[4] 2	EA	SP	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION SYSTEM
[4] 325	LF	SP	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION CABLE

ULTIMATE WIRING DIAGRAM



WIRING KEY

A,D - 7-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
E,H - 5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
[4] ~~K,L,M,N,O,P,Q,R - 2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG) - ALUMINUM SHIELDED~~
F - 3-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
W - 2-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
FF - 2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO.12 AWG)
BB,TT,UU,VV,YY - STRANDED BARE COPPER GROUND WIRE (NO.6 AWG)
[4] ~~GW - GBBP-WIRE-(NO.14-AWG)~~
⏚ - 3/4 INCH x 10 FOOT GROUND ROD
Y,Z - 50 PAIR COMMUNICATION CABLE, JELLY FILLED
[4] M,N - VIDEO TRAFFIC DETECTION CABLING (NO.18 AWG)

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 5	G/R	G/R	R	G/R	G/R	R	R	R	DW	DW	DW	DW
1 & 5 CHANGE	TO PHASE 1-6 OR 2-5 OR 2-6											
PHASE 1 & 6	G/G	G/G	G	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	G/G	G/G	G	R	R	DW	DW	DW	DW
5 CHANGE	R	R	R	Y/G	Y/G	Y	R	R	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	W	W	DW	DW
PED CLEAR	G	G	G	G	G	G	R	R	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
ALT 4	R	R	R	R	R	R	G	G	DW	DW	W	W
PED CLEAR	R	R	R	R	R	R	G	G	DW	DW	FL/DW	FL/DW
ALT 4 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK

TSP 32

REVISIONS
Ⓐ 6-00 NEW
MD 28 GEOMETRICS
SHA CONT. NO. M05235271
△ ADDENDUM NO. 2
REPLACEMENT SHEET
11/ /2000
[4] REDLINE NO. 4
REPLACEMENT SHEET
9/03/2001
D.K.

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

REVISION 'A'
KCI TECHNOLOGIES
KCI TECHNOLOGIES INC.
ENGINEERS AND PLANNERS
10 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
21030-1288
(410) 316-7800

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
ULTIMATE PHASE
MD 28 (DARNESTOWN RD) AND TSCHIFFELY SQUARE RD

DRAWN BY: T. ZAYDEL	F.A.P. NO.	TS NO. 3609A-01	SHEET NO.
CHECKED BY: T. HANNAN	S.H.A. NO.		
SCALE: NONE	COUNTY: MONTGOMERY	T.I.M.S. NO. 0107	331 OF 434
DATE: 6-3-96	LOG MILE: 15002816.06		

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7/22/01 5:50:19 PM G:\PLOTTING\PST\OCP\MYLAR_HP.dgn McSendy Pierre Division: Transportation m:\1997\01970029\md28\tschiff\SP021sui.PRF