F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. General

This project insoles the installation of a new traffic control signal with street lighting, pedestrian actuation and traffic signal interconnect at the intersection of MD 28 (Darnestown Road) and Riffleford Road/Cerate Road in Montgomery County, Maryland. MD 28 is assumed to run in a east/west direction.

II. Intersection Operation

This intersection shall operate in a semi-actuated mode with the eastbound/westbound MD 28 approaches running concurrently. Pedestrian indications and actuation shall be installed on the west leg.

An eight phase, fully actuated controller with LA and (4) four two-channel loop detector amplifiers with delay output in a base mounted cabinet is to be installed at this location. The signal is to be interconnected with the signal at Quince Orchard High School.

III. Special Notes

1.) Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 105.00, 105.01, 105.02, 105.03, 105.101, 105.103, 105.107, 105.109,105.201, 105.203, 105.205, 105.207, 105.209, 105.211.

2.) The contractor shall be responsible for routing interconnect cable into base of existing cabinet and properly tag the cables. Montgomery County Department of Transportation forces shall be responsible for splicing interconnect cable. Contractor shall notify MCDOT 72 hours prior to any installation of interconnect cable.

3.) The following are contact persons for District 3:

Mr. Charlie Watkins
District Engineer
Traffic
Phone #513-7311

Mr. Maj Shakib -
Asst. District Engineer -
Traffic
Phone #513-7359

Mr.Carter Wilson
Asst. District Engineer-
Main.
Phone #513-7305

Mr. Sonny Lacer
Asst. District Engineer -
Utility
Phone #513-7351

Mr. Richard L. Daffy, S.
Chief, Traffic Operations Division
Phone # (410) 787-7650

EQUIPMENT LIST

A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
9001	4	EA	814	12 in. 1 way 5 section (R,Y,G,YA,GA) head-mast arm mount
9002	8	EA	814	12 in. 1 way 3 section (R,Y,G,) signal head-mast arm mount
9003	4	EA	814	12 in. 1 way 2 section Pedestrian signal head - pole mount
9004	2	EA	814	12 in. 1 way 2 section pedestrian signal head - pedestal mount
9005	5	EA		Two channel loop detector amplifier (delayed output)
9006	1	EA	816	Eight phased (fully actuated) controller & cabinet with LA-base mount
9007	4	EA		Micro loop probe with 500 ft. Lead-in cable
9008	2	EA	817	Pedestrian Push button & sign
9009	233	SF	813	Sheet Aluminum Signs Consisting of:
	2	EA		R10-3C (9"x 12")
	2	EA		R10-12 (36"x 42")
	4	EA		D3-2 (32"x Va)
	4	EA		W3-3 (36" x 36")
	4	EA		W11-2a (36" x 36")
	4	EA		M6-2 (15" x 21")
	4	EA		Guide Shield assembly (30"x51")

B. Equipment to be furnished and/or installed by the Contractor.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1001	1	EA	104	Maintenance of Traffic speeds * or equal to 40 MPH
5005	220	LF	555	4" yellow permanent preformed pavement marking tape
5007	660	LF	555	12" white permanent preformed pavement marking tape
5009	135	LF	555	24" white permanent preformed pavement marking tape
8001	12	CY	801	Concrete for signal foundation
8003	118	LB	SP/828	Breakaway Pedestal Pole
8005	7731	LB	SP/829	Mast arm pole and arm(s)
8008	1	EA		3 in. Weatherhead
8011	18	EA	814	Install signal head - any type
8015	4	EA	810/815	Install microloop probe set
8016	2	EA	817	Install Push button with sign
8019	1	EA	816	Install controller and cabinet - base mount
8022	620	LF	815	Sawcut for signal (loop detector)
8024	50	LF	805	1 in. Liquid tight flexible - new metallic conduit - sleeve
8025	380	LF	805	2 in. Electrical conduit P.V.C. Schedule 40 - buried (trenched)
8028	30	LF	805	3 in. Electrical conduit -P.V.C. Schedule 40 -buried (trenched)
8030	180	LF	805	3 in. Electrical conduit - P.V.C. schedule 80 - under existing paved areas (pushed/bored)
8031	70	LF	805	4 in. Electrical conduit - P.V.C. schedule 40 - buried (trenched)
8035	10	EA	811	Handhole
8036	1	EA	SP/807	Control & Distribution equipment
8037	4	EA	804	Ground rod (3/4" x 10')
8041	1000	LF	810	12 pair communication cable, self supporting (overhead)
8043	1820	LF	810	Loop wire - No. 14 AWG -THWN
8044	700	LF	810	Electrical Cable 2-conductor(No.14 AWG) - Aluminum shielded
8045	380	LF	810	Electrical Cable - 2 Conductor (No.14 AWG) - IMSA 19-1
8046	980	LF	810	Electrical Cable - 3 - Conductor No. 14 AWG - IMSA 19-1
8047	100	LF	810	Electrical Cable - 5 - Conductor No. 14 AWG - IMSA 19-1
8048	1620	LF	810	Electrical Cable -7- Conductor No. 14 AWG - IMSA 19-1
8049	440	LF	810	Electrical Cable - 2- Conductor (No. 12 AWG - Copper type TC)
8053	900	LF	810	Electrical Cable - 1 -Conductor (No. 4 AWG -THHN/THWN-Copper)
8054	140	LF	812	Wood sign support 4"x4"
8056	82	SF	813	Install ground mounted sign
8057	151	SF	813	Install overhead mounted sign
8058	1	EA	818	Install breakaway base support system for signal structure
8059	2	EA	808	250-watt HPS luminaire with photo cell
8060	2	EA	808	20' lighting arm bracket for traffic signal structure
8067	1	EA	SP	Use existing plan or disk and as-built traffic control devices.
	1	LS		Removal of 1100 L.F. of interconnect cable and rerouting of interconnect cable.

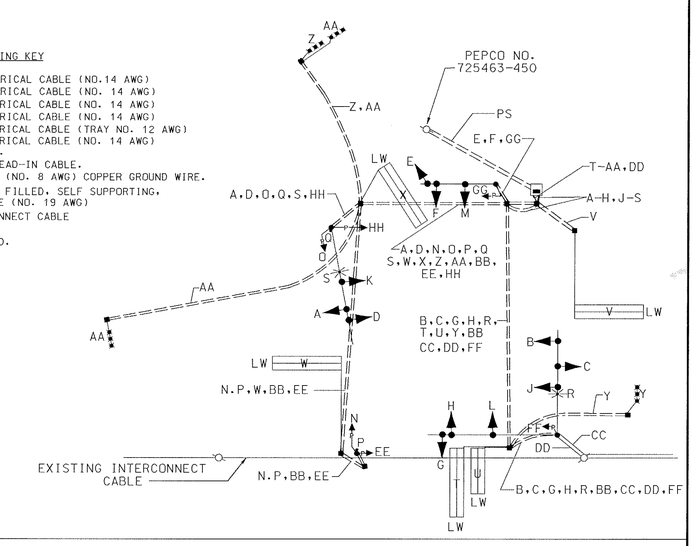
PHASING SEQUENCE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Phase 1 & 5	-G-\R	-G-\R	R	-G-\R	-G-\R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 5 Change	CHANGE TO 2&5, 2&6, OR 1&5.																	
Phase 1 & 6	-G-\G	-G-\G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 & 6 Change	-Y-\G	-Y-\G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
Phase 2 & 5	R	R	R	-G-\G	-G-\G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 & 5 Change	R	R	R	-Y-\G	-Y-\G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW
Ped Clear	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
Phase 4 ALT	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	W	W
Ped Clear	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW
4 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM

WIRING KEY

A-H - 7 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
J-M - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
N-O,EE-HH - 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
P-Q - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
R-S - 2 CONDUCTOR ELECTRICAL CABLE (TRAY NO. 12 AWG)
T-X - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) ALUMINUM SHIELDED.
Y-AA - MICROLOOP PROBE LEAD-IN CABLE.
BB - 1 CONDUCTOR CABLE (NO. 8 AWG) COPPER GROUND WIRE.
CC - PROPOSED 12 JELLY FILLED, SELF SUPPORTING, INTERCONNECT CABLE (NO. 19 AWG)
DD - EXISTING INTERCONNECT CABLE
LW - LOOP WIRE.
PS - POWER SERVICE FEED.



REVISIONS	APPROVALS
	ASST. DIV. CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DEPUTY CHIEF ENGINEER, OFFICE OF TRAFFIC

JMT
CONSULTING ENGINEERS
COLUMBIA, MARYLAND

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

ORIGINAL DRAWN BY: JAMES ALLEN Jr.
DES. BY: S. CHERNACK/D. PETERS
CHK. BY: M. Rahn

MD 28 @ RIFFLEFORD ROAD/ SEURAT DRIVE
GENERAL INFORMATION SHEET
LOGMILE #: 15002815.21 COUNTY: MONTGOMERY

DATE: 4/18/96 F.A.P. NO. STPG-000S(301) E
SCALE: NTS S.H.A. NO. AW-791-479-385
TS/FILE NO. 3602-GI
SHEET NO. 2 OF 4

FILENAME:F:\PROJECTS\9216820\DGN\SW01MD28.DGN

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