

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new Traffic Control Signal with existing street lighting at the intersection of MD 276 and MD 275 in Cecil County. MD 276 is assumed to run a north-south direction. Currently, the intersection is controlled by a flasher.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA four-phase, fully-actuated mode, with the MD 276 approaches running concurrently. An Exclusive/Permissive lagging left turn phase shall be provided for the southbound approach of MD 276. An overlapping right turn phase shall be provided for the westbound approach of MD 275. The MD 275 approach shall run in its own phase.
- A full-traffic-actuated, eight-phase controller with two (2) four channel, rack mount loop detector amplifiers, with all necessary equipment housed in a NEMA size "6" existing pole-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- 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 all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9001	Detector rack power supply (To be installed by SHA forces)	1 EA
9002	NEMA load switch	4 EA
9009	12"x30' strain pole (1 3/4" x 90") anchors included)	2 EA
9016	Detector amplifier 4-channel rack mount (To be installed into the existing cabinet by S.H.A. Forces).	2 EA
9042	Controller ASC II with telemetry	1 EA
9572	Sheet aluminum signs to consist of: (span wire mount)	10.5 SF
	R10-12 "LEFT TURN YIELD ON GREEN (BALL)" sign- (36" x 42") span wire mounted.	1 EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
5005	24" white heat applied permanent preformed thermoplastic pavement marking.	45 L.F.
6005	Traffic barrier with beam.	175 L.F.
6008	Traffic barrier with beam trail end anchorage.	4 EA
8005	Adjust and re-rig existing span wire. (Each Span)	3 EA
8011	Furnish and install 12" vehicular traffic signal head section	24 EA
8013	Furnish and install 15' bracket arm for traffic signal structure.	1 EA
8014	Furnish and install 250 watt HPS Luminaire with photocell.	1 EA
8015	Furnish and install 3" weatherhead.	3 EA
8019	Furnish and install 8" vehicular traffic signal head section.	3 EA
8041	Install strain pole (12"x30').	2 EA
8043	Furnish and install non-invasive probe set with 1000' lead-in cable.	2 EA
8048	Remove and dispose of existing material and equipment per assignment.	1 EA
8051	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trenched	1020 L.F.
8057	Furnish and install concrete for signal foundation.	5 C.Y.
8060	Furnish and install No. 6 AWG stranded bare copper ground wire.	70 L.F.
8064	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - bored.	150 L.F.
8068	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeves.	30 L.F.
8072	Furnish and install electrical handhole.	13 EA
8075	Install overhead sign.	10.5 S.F.
8080	Furnish and install ground rod - 3/4" x 10'.	2 EA
8081	Furnish and install electrical cable - 2 conductor (aluminum shielded) (No. 14 AWG)	900 L.F.
8084	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	50 L.F.
8085	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	470 L.F.
8086	Furnish and install tray cable - 2 conductor (No. 12 AWG).	275 L.F.
8087	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	1500 L.F.
8088	Furnish and install saw cut for signal (loop detector).	475 L.F.
8090	Furnish and install steel span wire, 3/8" diameter.	225 L.F.

C. EQUIPMENT TO BE REMOVED

All removed signal materials are to become property of the contractor.

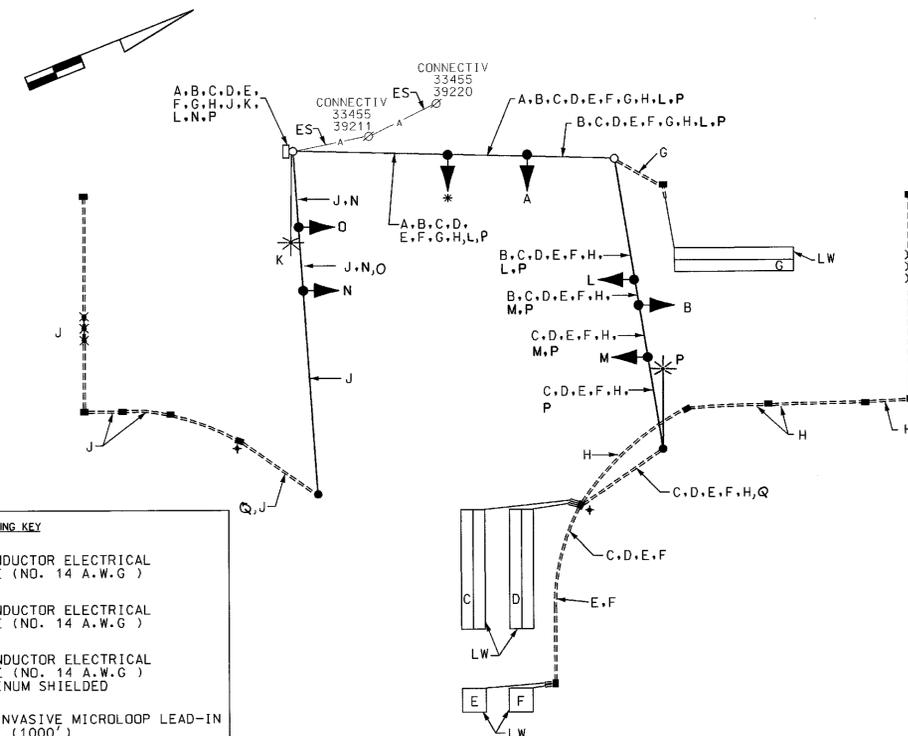
PHASE CHART

	1	2	3	4	5	6	7
PHASE 2 & 6	G	G	G	G	G	R	R
2 & 6 CHANGE	Y	Y	G	G	G	R	R
PHASE 2 & 5	R	R	G-G	G-G	G	R	R-G
2 & 5 CHANGE	R	R	Y-Y	Y-Y	Y	R	R-Y
PHASE 4	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R

The contact persons for District #2 are as follows:

- Mr. Robert Kiel
Assistant District Engineer - Traffic
Phone: (410) 810-3240
- Mr. Terry Wright
Assistant District Engineer - Maintenance
Phone: (410) 810-3250
- Mr. Barry Clothier
Assistant District Engineer - Utility
Phone: (410) 810-3060
- Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

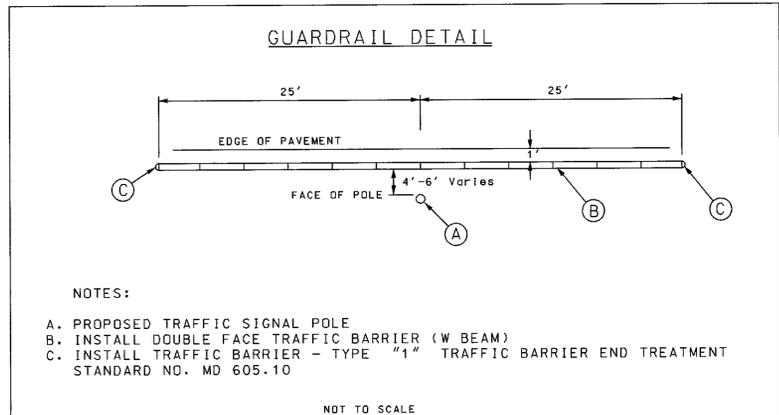
WIRING DIAGRAM



WIRING KEY

A, B, C, D, E, F, G, H, J, K, L, N, P	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
M	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C, D, E, F, G	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
H	NON-INVASIVE MICROLOOP LEAD-IN J CABLE (1000')
K	USE EXISTING 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
P	2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
Q	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
*	USE EXISTING WIRING
LW	LOOP WIRE (NO. 14 A.W.G.)
ES	EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY CONECTIV
+	GROUND ROD

GREENLINE DATE 7/06/04



- NOTES:
- PROPOSED TRAFFIC SIGNAL POLE
 - INSTALL DOUBLE FACE TRAFFIC BARRIER (W BEAM)
 - INSTALL TRAFFIC BARRIER - TYPE "1" TRAFFIC BARRIER END TREATMENT STANDARD NO. MD 605.10

NOT TO SCALE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 276 AND MD 275

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