

PROJECT DESCRIPTION

I. General

This project involves a traffic signal modification in conjunction with geometric improvements at the intersection of MD 2 at MD 171 (Church Street)/ Ritchie Highway Shopping center in Anne Arundel County, Maryland. MD 2 is assumed to run in a north-south direction.

II. Intersection Operation

No change to the existing intersection operation is required.

III. Special Notes

1. Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 104.00-13, 104.00-19, 104.00-21 - 104.00-24, 104.17-01, 104.37-01, 104.38-01, 104.48-01, 104.81-02.

2. The following contact persons for District #5 are as follows:

Mr. Paul Armstrong District Engineer Asst. Phone #(410) 841-5450
 Mr. Lawrence Elliot District Engineer - Traffic Phone #(410) 841-5450

Mr. Chuck George Asst. District Engineer - Maintenance Phone #(410) 841-5450
 Mr. John Mays Asst. District Engineer - Utility Phone #(410) 841-5450

Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone #(410) 787-7630

EQUIPMENT LIST

EQUIPMENT TO BE REFURBISHED AND INSTALLED BY THE CONTRACTOR

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
LS	LS	104	Maintenance of traffic.
LS	LS	814	Mobilization.
2	EA.	814	Furnish and install 12 in., 1 way 3 section (R,Y,G) polycarbonate signal head -span mount.
1	EA.	814	Furnish and install 12 in., 1 way 4 section (R,Y,G,GA) polycarbonate signal head -span mount.
1	EA.	814	Furnish and install 12 in., 1 way 5 section (R,Y,YA,G,GA) polycarbonate signal head -span mount.
2	EA.	814	Furnish and install combination 8 in. / 12 in. 1 way 5 section (8 in. R,Y,G / 12 in. YA,GA) polycarbonate signal head -span mount.
1	EA.	817	Install pedestrian push button and R10-4(I) sign.
19	SF	814	Furnish sheet aluminum signs consisting of: 1 EA R10-4(I) (9 in. X 12 in.) 1 EA R10-12 (36 in. X 42 in.) 1 EA R3-5L (30 in. X 36 in.)
1	CY	205	Test pit excavation.
3	CY	801	Furnish and install concrete for signal foundation.

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EQUIPMENT TO BE REFURBISHED AND INSTALLED BY THE CONTRACTOR

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
150	LF	555	Remove of existing pavement marking - any width.
50	LF	555	Furnish and install 24 in. white thermoplastic pavement marking tape.
300	LF	555	Furnish and install 12 in. white thermoplastic pavement marking tape.
40	LF	555	Furnish and install two 5 in. yellow reflective thermoplastic pavement marking with 4 in. spacing between lines.
80	LF	555	Furnish and install 5 in. white reflective thermoplastic pavement marking.
2	EA.	814	Furnish and install 12 in., one way, 2 section (symbolic WALK / DON'T WALK) aluminum signal head -pole mount.
1	EA.	806	Furnish and install 250 WATT high pressure sodium lamp and luminaire with photo cell.
850	LF	810	Furnish and install 2 conductor electrical cable (NO. 14 AWG) aluminum shielded.
240	LF	810	Furnish and install 2 conductor electrical cable copper type T/C (NO. 12 AWG).
200	LF	810	Furnish and install 2 conductor electrical cable (NO. 14 AWG).
400	LF	810	Furnish and install 5 conductor electrical cable (NO. 14 AWG).
900	LF	810	Furnish and install 7 conductor electrical cable (NO. 14 AWG).
19	SF	814	Install overhead sign - for signals.
1	EA.	SP/818	Furnish and install a 12 in. X 30 ft. steel pole (NOTE: four - 1 3/4 in. X 90 in. anchor bolts).
20	LF	805	Furnish and install 1 in. galvanized conduit for detector wire sleeve.
400	LF	815	Furnish and install saw cut for signal loop detector.
1200	LF	810	Furnish and install loop wire encased in a 1/4 in. flexible tubing.
2	EA.	XXX	Re-ring existing span wire.
1	EA.	811	Furnish and install electrical handhole.
30	LF	805	Furnish and install 2 in. schedule 80 rigid PVC conduit -trenched
LS	LS	SP	Remove and dispose of existing signal equipment.
240	LF	819	Furnish and install 3/8 in. steel span wire.
240	LF	819	Furnish and install 1/4 in. tether wire.
1	EA	814	Relocate existing signal head -span mount.

EQUIPMENT LIST

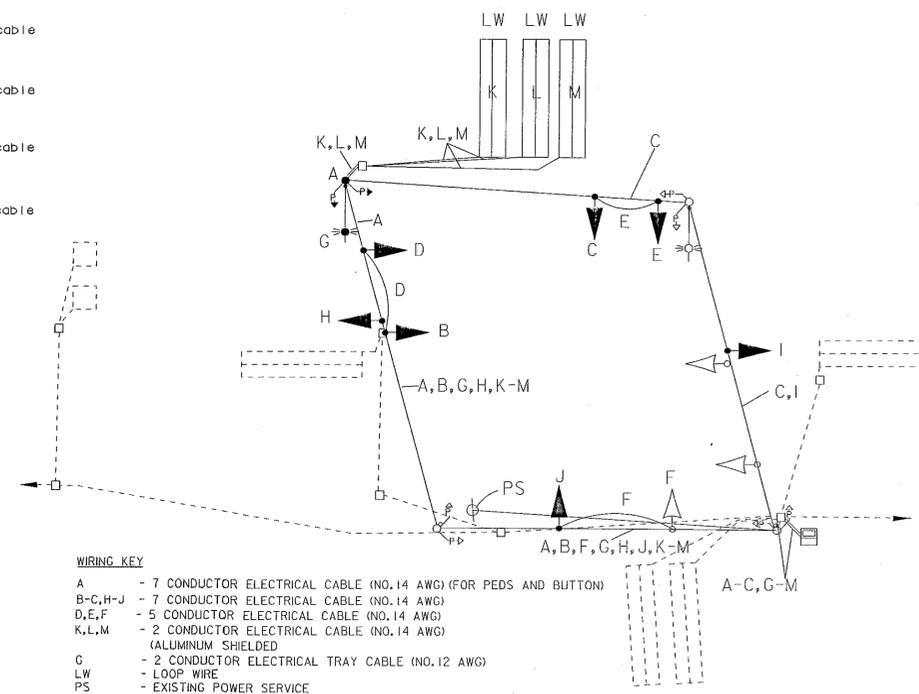
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QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
1	EA	818	Furnish and install 20 ft. lighting arm on signal structure.
20	LF	810	Furnish and install NO. 6 AWG standard bare copper ground wire.
1	EA.	804	Furnish and install ground rod - 3/4 in. diameter X 10 ft.

PHASING SEQUENCE CHART

NO CHANGE TO EXISTING OPERATIONS

WIRING DIAGRAM



WIRING KEY

- A - 7 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG) (FOR PEDS AND BUTTON)
- B-C,H-J - 7 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- D,E,F - 5 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
- K,L,M - 2 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG) (ALUMINUM SHIELDED)
- C - 2 CONDUCTOR ELECTRICAL TRAY CABLE (NO.12 AWG)
- LW - LOOP WIRE
- PS - EXISTING POWER SERVICE

WELLS & ASSOCIATES, LLC
 TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS
 Suite 600, 1420 Spring Hill Rd., McLean, Virginia 22102
 Telephone: 703/917-6620 Facsimile: 703/917-0739

REVISIONS	APPROVALS	MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION MD 2 (Governor Ritchie Highway) at MD 171 (Church Street)/ Ritchie Highway Shopping Center Entrance DATE 6/08/99	
	ASST. DIVISION CHIEF, TEDD		
	ASST. DISTRICT ENGINEER, TRAFFIC		
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION		
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	DRAWN BY: RAK	F.A.P. NO.
		CHECK BY: LES	S.H.A. NO.
		SCALE: NO SCALE	COUNTY
			T.S. NO. 795.61
			SHEET NO. 2 OF 2