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

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING FULL-TRAFFIC-ACTUATED SIGNAL AT MD 210 (INDIAN HEAD HIGHWAY) AND MD 373 (LIVINGSTON ROAD) IN PRINCE GEORGES COUNTY. MD 210 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH WITH EXCLUSIVE LEFT TURN PHASES FOR EASTBOUND AND WESTBOUND MD 210.

THE SIGNAL OPERATION WILL BE REVISED TO INCLUDE A DOUBLE LEFT TURN MOVEMENT FOR WESTBOUND MD 210.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. A FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER WILL BE INSTALLED INTO THE EXISTING CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
1 EACH	12 IN., ONE-WAY, THREE-SECTION (RA,YA,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE HANGER FOR SPAN WIRE MOUNTING AND TUNNEL VISORS.
8 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : -- 1 EACH R3-5(L) SIGN (30 IN. x 36 IN.) SPAN WIRE MOUNT
* 1 EACH	FOUR-CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER.

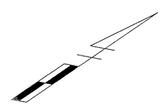
* - DENOTES EQUIPMENT TO BE INSTALLED BY SHA SIGNAL SHOP

EQUIPMENT LIST "B"

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

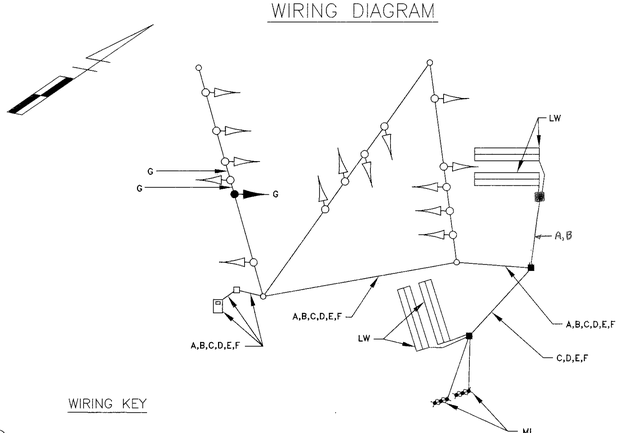
ITEM NO.	QUANTITY	DESCRIPTION
104	LUMP SUM	MAINTENANCE OF TRAFFIC
104	2 U.D.	ARROW PANEL
104	300 S.F.	TEMPORARY TRAFFIC SIGNS
108	LUMP SUM	MOBILIZATION
814	1 EACH	INSTALL SIGNAL HEAD
815	550 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
805	40 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
810	1740 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
810	1100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
810	25 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
813	8 S.F.	INSTALL OVERHEAD SIGN
---	1 EACH	USE EXISTING DISK AND AS-BUILT TRAFFIC CONTROL DEVICE
811	3 EACH	FURNISH AND INSTALL HANDHOLE
805	50 L.F.	FURNISH AND INSTALL 2 IN., SCHEDULE 40 POLYVINYL CHLORIDE ELECTRICAL CONDUIT (TRENCHED)
805	50 L.F.	FURNISH AND INSTALL 2 IN., SCHEDULE 80 POLYVINYL CHLORIDE ELECTRICAL CONDUIT (BORED)
---	2 EACH	FURNISH AND INSTALL MICROLOOP PROBE (500 FT. LEAD-IN)
---	LUMP SUM	REMOVE AND DISPOSE OF EXISTING EQUIPMENT

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G
PHASE 1 + 5	G	R	G	R	R	R	G	G	R	R	R	R	R	R
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, 2 + 5 OR 2 + 6													
PHASE 1 + 6	G	G	G	G	G	R	R	R	R	R	R	R	R	R
1 + 6 CHANGE	Y	G	Y	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 + 5	R	R	R	R	R	G	G	G	G	G	R	R	R	R
2 + 5 CHANGE	R	R	R	R	R	G	Y	Y	G	G	R	R	R	R
PHASE 2 + 6	R	G	R	G	G	G	R	R	G	G	R	R	R	R
2 + 6 CHANGE	R	Y	R	Y	Y	Y	R	R	Y	Y	R	R	R	R
PHASE 4 + 8	R	R	R	R	R	R	R	R	R	R	G	G	G	G
4 + 8 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL R	FL/Y	FL R	FL/Y	FL/Y	FL/Y	FL R	FL R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

- A, B, C, D } 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
- "F" } MICRO-LOOP PROBE LEAD-IN
- G } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- ML } MICRO-LOOP PROBE
- LW } LOOP WIRE (NO. 14 A.W.G.)

NOTE: UNLESS OTHERWISE NOTED, ALL EXISTING WIRING WILL BE USED

REVISIONS	APPROVALS	REVISIONS
	ASSISTANT DIVISION CHIEF	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHIEF, TRAFFIC ENGINEERING DESIGN DIV.	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	

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

GENERAL INFORMATION SHEET
MD 210 AND MD 373 (LIVINGSTON RD.)

DATE: 4-18-97	DRAWN BY: T. ZAYDEL	F.A.P. NO.		PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.			
APPROVED BY:	CHECKED BY: K. SCHMID	COUNTY	PRINCE GEORGES	TS-556C GI	OF