

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 272 AND MD 274/ENTRANCE TO CECIL COMMUNITY COLLEGE AND THE INSTALLATION OF A NEW INTERSECTION CONTROL BEACON AND STREET LIGHTING AT MD 272 AND NORTHBOUND I-95 NORTHBOUND RAMP IN CECIL COUNTY. MD 272 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

A. MD 272 AND MD 274/ENTRANCE TO CECIL COMMUNITY COLLEGE.

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE MD 272 APPROACHES OPERATING CONCURRENTLY AND THE MD 274/ENTRANCE TO CECIL COMMUNITY COLLEGE APPROACHES OPERATING WITH SPLIT PHASES. AN EXCLUSIVE/PERMISSIVE PHASE WILL BE ADDED FOR SOUTHBOUND MD 272.

B. MD 272 AND I-95 NORTHBOUND RAMP.

THE INTERSECTION WILL OPERATE IN A FLASHING MODE WITH MD 272 SIGNAL INDICATIONS FLASHING YELLOW AND I-95 NORTHBOUND RAMP INDICATIONS FLASHING RED.

**CONTROLLER REQUIREMENTS**

A. MD 272 AND MD 274/ENTRANCE TO CECIL COMMUNITY COLLEGE.

THE EXISTING POLE-MOUNTED CABINET AND EIGHT-PHASE CONTROLLER WILL BE USED.

B. MD 272 AND I-95 NORTHBOUND RAMP.

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER, PHOTO-CELL, INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

**SPECIAL NOTE**

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION AT MD 272 AND I-95 NORTHBOUND RAMP. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIPCODE AND PHONE NUMBER.

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING SHA TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THIS PROJECT.

STANDARD NO. MD-104.00 - 104.00-12

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.34 (LANE SHIFT)

**PROJECT CONTACTS**

MR. RICHARD LINDSAY  
DISTRICT #2 ENGINEER  
PHONE: (410) 778-3061

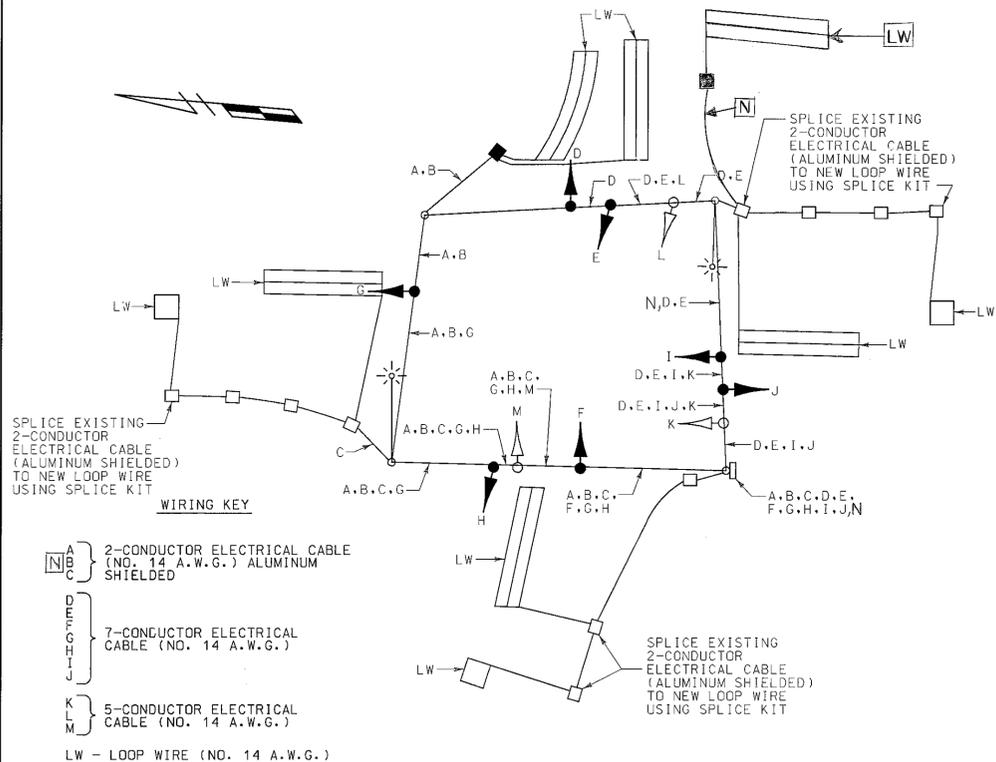
MR. DENNIS NORTH  
DISTRICT #2 UTILITIES ENGINEER  
PHONE: (410) 778-3061

MR. ROBERT KIEL  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 778-3061

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

MR. TERRY WRIGHT  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 778-3061

**WIRING DIAGRAM - MD 272 AND MD 274/ENT. TO CECIL COMM. COLL.**



**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

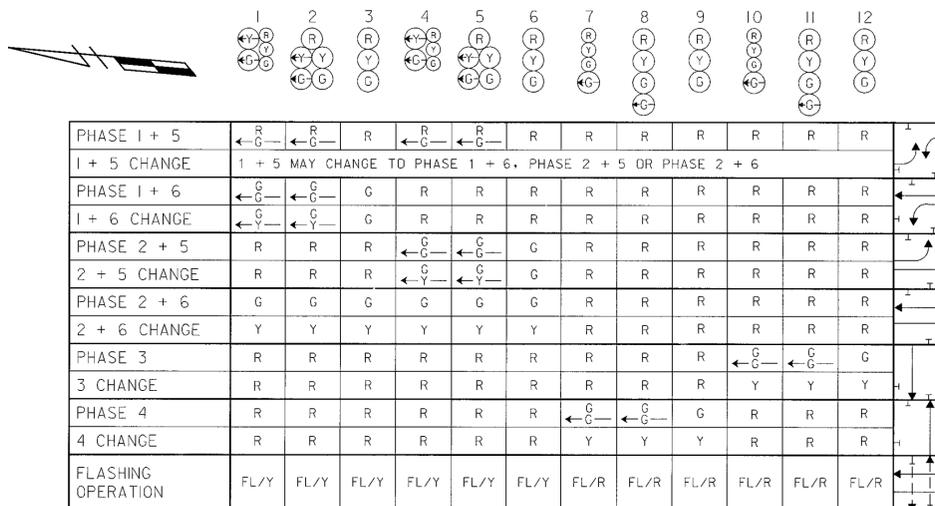
ITEM NO.	QUANTITY	DESCRIPTION
9012	4 EACH	12 IN., ONE-WAY, ONE-SECTION (Y) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9012	2 EACH	12 IN., ONE-WAY, ONE-SECTION (R) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9034	1 EACH	12 IN., ONE-WAY, ONE-SECTION (R) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SIDE OF POLE MOUNTING AND TUNNEL VISORS.
9047	2 EACH	12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE HANGER FOR SPAN MOUNTING AND TUNNEL VISORS.
9051	1 EACH	12 IN., ONE-WAY, FIVE-SECTION (R,Y,GA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE HANGER FOR SPAN MOUNTING AND TUNNEL VISORS WITH TETHER CLAMP.
9054	2 EACH	8 IN./12 IN., ONE-WAY, FIVE-SECTION (R,Y,GA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN MOUNTING AND TUNNEL VISORS WITH TETHER CLAMP.
9060	2 EACH	8 IN./12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE HANGER FOR SPAN MOUNTING AND TUNNEL VISORS.
9081	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9089	59 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 1 EACH D3-2 SIGN "NORTH EAST RD" (VARIABLE X 16 IN.) DUAL FACED SPAN MOUNT. - 1 EACH D3-2 SIGN "NORTH EAST RD" (VARIABLE X 16 IN.) - MAST ARM MOUNT. - 1 EACH R10-12 SIGN (36 IN. X 42 IN.) - SPAN MOUNT. - 1 EACH R3-5L SIGN (30 IN. X 36 IN.) - SPAN MOUNT. - 1 EACH R3-1 SIGN (36 IN. X 36 IN.) - MAST ARM MOUNT. - 1 EACH R3-2 SIGN (36 IN. X 36 IN.) - MAST ARM MOUNT.

**EQUIPMENT LIST "B"**

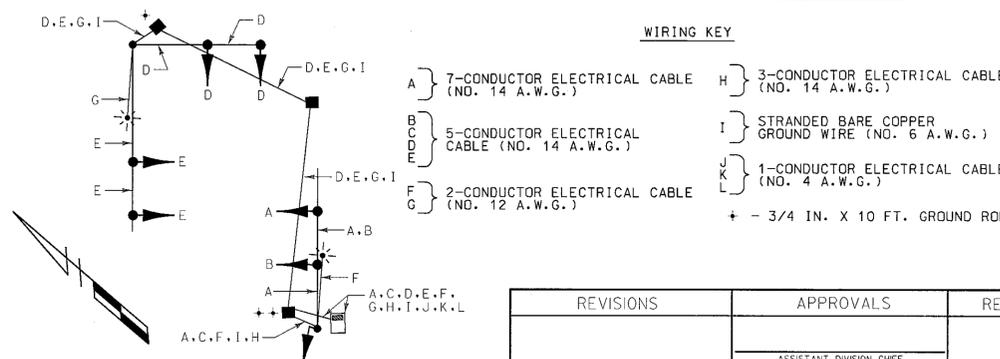
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
4 C.Y.	TEST PIT EXCAVATION
400 L.F.	6 IN. YELLOW PERMANENT PREFORMED PAVEMENT MARKING TAPE
355 L.F.	6 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
60 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
2 EACH	PERMANENT PREFORMED PAVEMENT MARKING ARROW
12 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
80 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE 1/4 IN. DIAMETER
14 EACH	INSTALL SIGNAL HEAD
1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
710 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
50 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT, FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
25 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
25 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
165 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
5 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
3 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
2700 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
750 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 A.W.G. (ALUMINUM SHIELDED)
45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
710 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
860 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
330 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
220 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1 CONDUCTOR - THHN/THWN (NO. 4 A.W.G.)
59 S.F.	INSTALL OVERHEAD SIGN
2 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
2 EACH	FURNISH AND INSTALL 20 FT. LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE
LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
2 EACH	USE EXISTING PLAN OR DISK AND AS-BUILT TRAFFIC CONTROL DEVICES
1 EACH	INSTALL 2 IN. SCHEDULE 40 CONDUIT BEND IN EXISTING BASE
1 EACH	CONTROL AND DISTRIBUTION EQUIPMENT
1 EACH	FURNISH AND INSTALL PHOTOCELL
1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 60 FT. MAST ARM
1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIII 50 FT./70 FT. MAST ARMS
11 S.F.	RELOCATE EXISTING SIGN
4 EACH	ADJUST HANDHOLE TO FINAL GRADE
1 EACH	RELOCATE EXISTING SIGNAL HEAD
5 EACH	FURNISH AND INSTALL SPLICE KIT

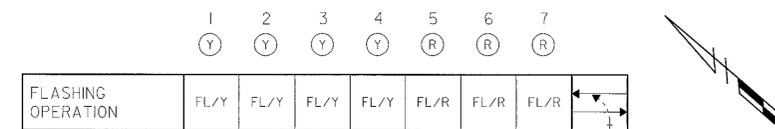
**PHASE CHART - MD 272 AND MD 274/ENT. TO CECIL COMM. COLL.**



**WIRING DIAGRAM - MD 272 AND I-95 NORTHBOUND RAMP**



**PHASE CHART - MD 272 AND I-95 NORTHBOUND RAMP**



**WR&A**  
Whitman, Reardon and Associates  
Engineers and Planners  
2315 Saint Paul Street  
Baltimore, Maryland 21218  
(410) 235-3450

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



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 272 INTERSECTIONS

DATE: 6-18-97	DRAWN BY: S. BLOSS	F.A.P. NO. KH-761-000-006	PLAN SHEET NO.:
SCALE: NONE	DESIGNED BY: N. LEARY	S.H.A. NO. 2385572507311	SHEET NO. 3 OF 3
APPROVED BY:	CHECKED BY: I. HANNAN	COUNTY: CECIL	