

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9000	4	EA.	NEMA LOAD SWITCH
9029	2	EA.	12 INCH, 2 WAY, 2 SECTION SIGNAL PEDESTAL MT.
9037	2	EA.	12 INCH, 2 WAY, 2 SECTION SIGNAL SIDE OF POLE MT.
9089	67	S.F.	FLAT SHEET ALUMINUM SIGN - YELLOW - ORANGE & SILVER ASSOCIATED SHIELD ASSEMBLY
			1 - NORTH, MD. 140, RIGHT ARROW* POLE MOUNTED (30"x51")
			1 - NORTH, MD. 140, LEFT ARROW* POLE MOUNTED (48"x75")
			1 - SOUTH, MD. 140, RIGHT ARROW* POLE MOUNTED (48"x75")
			1 - SOUTH, MD. 140, LEFT ARROW* POLE MOUNTED (30"x51")
			2 - R3-5 (30" X 36") 1 LEFT, 1 RIGHT MAST ARM MT.
			2 - R3-6 (30" X 36") 1 LEFT, 1 RIGHT MAST ARM MT.
9096	4	EA.	PUSHBUTTON & RIO-3C SIGN (SIGNS TO READ: *PUSHBUTTON TO CROSS REISTERSTOWN RD.')

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1001	1	EA.	MAINTENANCE OF TRAFFIC
2001	1	CY.	TEST PIT EXCAVATION
2003	2	CY.	CLASS 2 EXCAVATION
5003	550	L.F.	F/1 12' WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5004	50	L.F.	F/1 24' WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5005	8	EA.	F/1 PERMANENT PREFORMED PAVEMENT MARKING - LETTER
5006	12	EA.	F/1 PERMANENT PREFORMED PAVEMENT MARKING - ARROW
5013	50	L.F.	REMOVE EXISTING PAVEMENT MARKINGS
6001	145	S.F.	F/1 4" CONCRETE SIDEWALK
8001	1.4	C.Y.	F/1 CONCRETE FOR SIGNAL FOUNDATION
8003	2	EA.	F/1 BREAKAWAY PEDESTAL POLE (ANY SIZE)
8011	4	EA.	INSTALL SIGNAL HEAD (ANY TYPE)
8018	4	EA.	INSTALL PUSHBUTTON WITH SIGN
8021	230	L.F.	F/1 SAWCUT FOR SIGNAL (LOOP DETECTOR)
8022	20	L.F.	F/1 1 INCH ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8024	100	L.F.	F/1 2 INCH ELECTRICAL CONDUIT PVC SCHEDULE 80 - TRENCHED
8026	70	L.F.	F/1 2 INCH ELECTRICAL CONDUIT PVC SCHEDULE 80 - BORED
8033	2	EA.	F/1 ELECTRICAL HANDHOLE
8034	2	EA.	F/1 GROUND ROD (3/4" X 10')
8040	925	L.F.	F/1 LOOPWIRE NO. 14 AWG THWN
8041	100	L.F.	F/1 ELECTRICAL CABLE 2 CONDUCTOR (ALUMINUM SHIELDED)
8042	250	L.F.	F/1 ELECTRICAL CABLE 2 CONDUCTOR (NO. 14 AWG)
8044	225	L.F.	F/1 ELECTRICAL CABLE 5 CONDUCTOR (NO. 14 AWG)
8049	200	L.F.	F/1 NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8057	67	S.F.	INSTALL OVERHEAD SIGNS
8055	2	EA.	INSTALL BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE
8058	1	EA.	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12' BELOW GRADE (CONTINGENT)
NEG.	3	EA.	CLEAN OUT EXISTING HANDOLE (OLD PIPES, MUD, DEBRIS)
NEG.	7	EA.	BLOW OPEN EXISTING CONDUIT RUNS
NEG.	2	EA.	REBUILD WALLS OF EXISTING HANDHOLE
NEG.	4	EA.	REPLACE LID AND FRAME ON EXISTING HANDHOLE

PROJECT DESCRIPTION

I GENERAL
THIS PROJECT INVOLVES THE INSTALLATION OF PEDESTRIAN SIGNAL HEADS, SIGNS AND CROSSWALKS AT THE INTERSECTION OF MD.140 AND CHERRY VALLEY ROAD/HAMMERSHIRE RD. IN BALTIMORE COUNTY. THE STOP LINES AND LOOP DETECTORS WILL BE MODIFIED TO ACCOMODATE THE ADDITION OF THE PEDESTRIAN MOVEMENTS. ROUTE SIGNS SHALL ALSO BE INSTALLED AT THE INTERSECTION. MD.140 IS ASSUMED TO TRAVEL IN A NORTH-SOUTH DIRECTION.

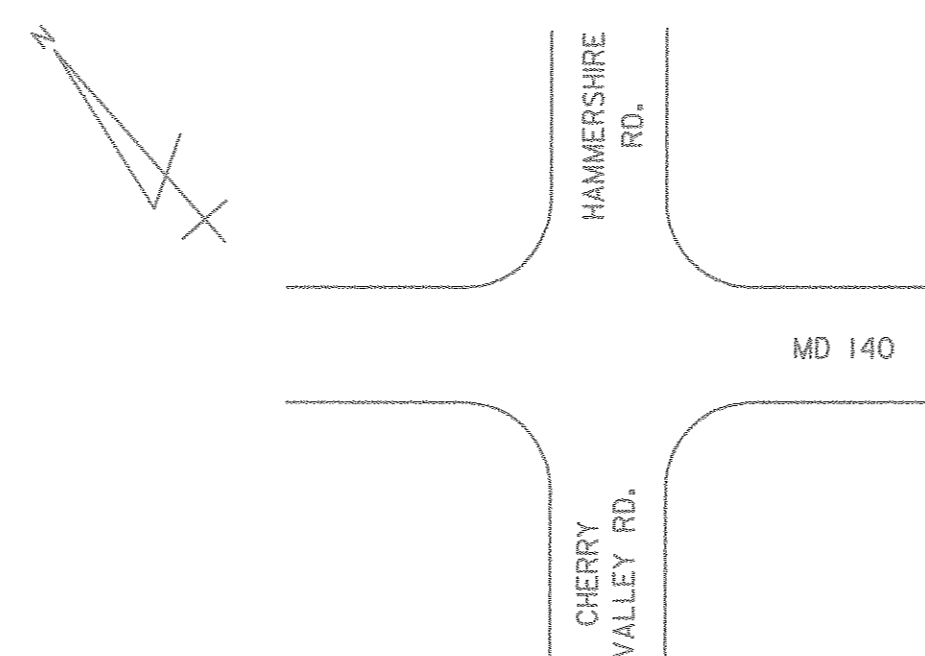
II INTERSECTION OPERATION
THIS INTERSECTION SHALL OPERATE IN A FULL-TRAFFIC-ACTUATED SIX PHASE OPERATION. MD.140 HAS N.B. AND S.B. EXCLUSIVE/PERMISSIVE LEFT TURN PHASES. THE SIDE ROADS OPERATE CONCURRENTLY. PEDESTRIAN INDICATIONS ARE PROVIDED ALL AROUND. CHERRY VALLEY AND HAMMERSHIRE ROADS, PEDESTRIAN MOVEMENTS SHALL BE PUSHBUTTON ACTUATED.

III SPECIAL NOTE
1. ALL INTERNAL WIRING TO THE CONTROLLER SHALL BE PERFORMED BY THE SIGNAL SHOP. CONTACT MR. ED RODENHIZER AT (410) 787-7652, SEVENTY-TWO (72) HOURS IN ADVANCE OF THE INTENDED WORK.
2. THE EXISTING PAVEMENT MARKINGS SHALL BE REMOVED AND THE NEW CONDUIT AND LOOP DETECTORS SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF THE NEW STOP LINES AND CROSSWALKS.
3. PEDESTAL POLE AND HANDHOLE IN NORTHWEST QUADRANT SHALL BE INSTALLED PRIOR TO THE FINISHED SIDEWALK AND RAMP.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASES 1+5	G ^R	G ^R	R	G ^R	G ^R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
1+5 CHANGE	CONTROLLER MAY SKIP TO PHASES 1+6, 2+5 OR 2+6										DW	DW	DW	DW	DW	DW	DW	DW
PHASES 2+5	G ^G	G ^G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
2+5 CHANGE	Y ^G	Y ^G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
PHASES 1+6	R	R	R	G ^G	G ^G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
1+6 CHANGE	R	R	R	Y ^G	Y ^G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
PHASES 2+6	G	G	G	G	G	G	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	FL/WK	FL/WK	FL/WK	FL/WK	DW	DW	DW
2+6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW
PHASES 4+8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW
4+8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW
PHASE 4+8 ALT.	R	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	FL/W	FL/W	FL/W
4+8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	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	DARK	DARK	DARK	DARK	DARK	DARK	DARK

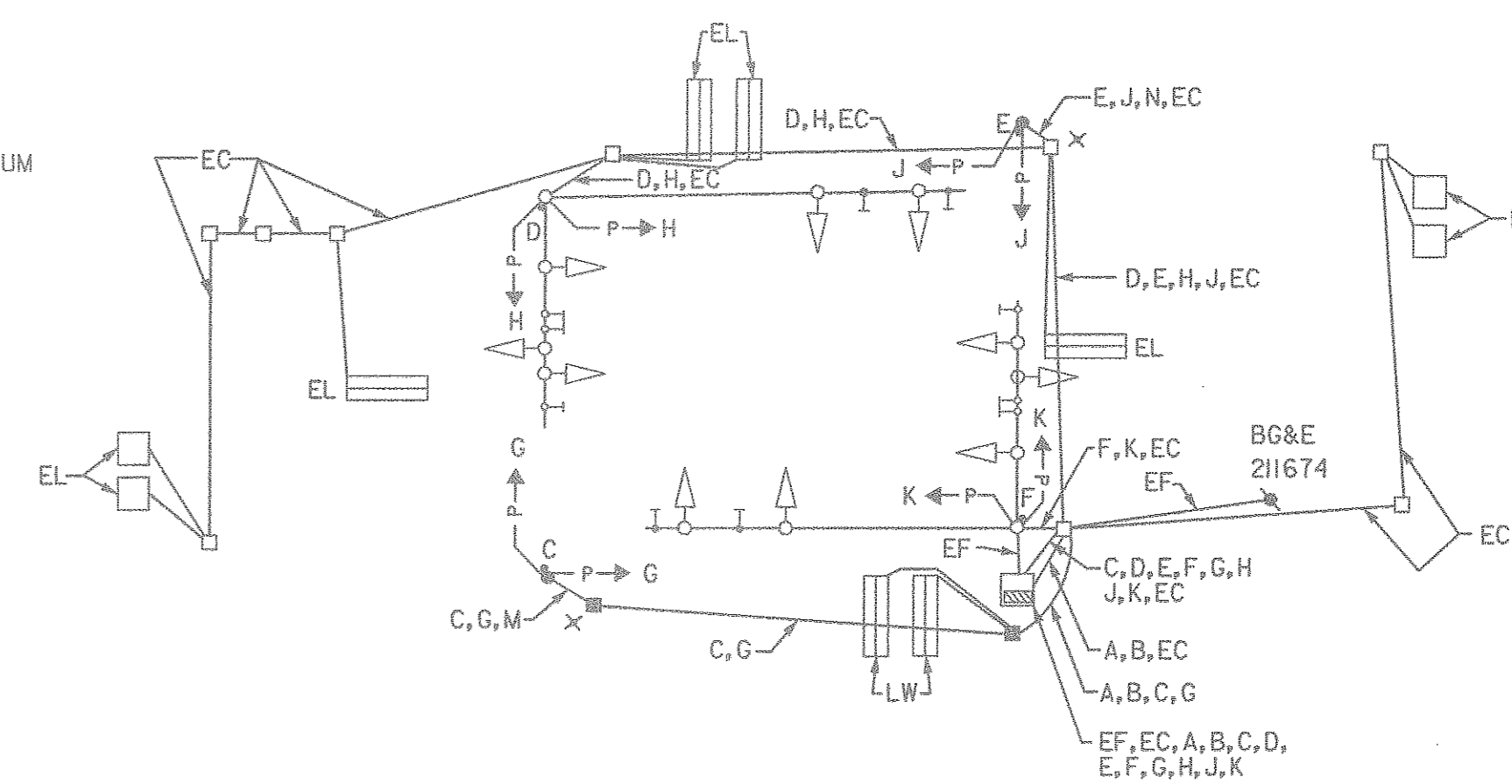
INTERSECTION SKETCH



WIRING KEY

- EC - EXISTING CABLE
- LW - LOOP WIRE (NO. 14 AWG)
- EL - EXISTING LOOP
- EF - EXISTING FEED
- ⊕ 3/4" X 10' GROUND ROD
- A 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) ALUMINUM SHIELDED
- B 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- D 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- E 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- F 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- G 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- H 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- I 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- K 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- L 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- M STRANDED BARE COPPER
- N GROUND WIRE (NO. 6 AWG)

WIRING DIAGRAM



UTILITY LEGEND

- G — G — GAS MAIN
- W — W — WATER MAIN
- S — S — SEWER MAIN
- E — E — ELECTRIC CABLES
- A — A — AERIAL CABLES
- T — T — TELEPHONE CABLES

PHOENIX ENGINEERING, INC.
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REVISIONS		APPROVALS	
		ORIGINAL	
		CHIEF, ORIGINAL DESIGN SECTION	
		ON	
		ASST. DISTRICT ENGINEER, TRAFFIC	
		FILE	
		CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	
		DIRECTOR, OFFICE OF TRAFFIC & SAFETY	

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

DRAWN BY: G.F.P.
DES. BY: _____
CHK. BY: M. RUCKER 11-15-94

GENERAL INFORMATION SHEET
MD 140 AT CHERRY VALLEY ROAD/HAMMERSHIRE ROAD
SIGNAL NO.: 03014007.61 COUNTY: BALTO.

DATE: 11-94 F.A.P. NO. N/A TS/STD. NO. _____ SHEET NO. 2 OF 2
SCALE: 1"=20' S.H.A. NO. N/A TS-664C-GI