F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD		2	2

PROJECT DESCRIPTION

I GENERAL

THIS PROJECT INVOLVES THE MODIFICATION TO THE EXISTING TRAFFIC CONTROL SIGNAL, SIGNING AND PAVEMENT MARKINGS AT THE INTERSECTION OF MD. 24 AND RING FACTORY RD. IN HARFORD COUNTY. EXISTING STREET LIGHTING WILL BE UTILIZED. MD. 24 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

II INTERSECTION OPERATION

THIS INTERSECTION SHALL OPERATE IN A FULL-TRAFFIC-ACTUATED SIX PHASE OPERATION. BOTH SIDES OF RING FACTORY RD. OPERATE CONCURRENTLY. EXCLUSIVE LEFT-TURN MOVEMENTS SHALL BE PROVIDED FOR S.B. AND N.B. MD. 24.

III SPECIAL NOTE

1. ALL INTERNAL WIRING TO THE CONTROLLER WILL 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. PROPER 17' TO 19' CLEARANCES ARE TO BE MAINTAINED FROM THE BOTTOM OF THE SIGNAL HEADS TO THE CROWN OF PAVEMENT.
3. CONDUIT AND LOOP DETECTORS SHALL BE INSTALLED PRIOR TO THE PAVEMENT MARKINGS.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9003	1	EA.	(CONT/CAB/ADD) "D" PANEL W/HARNESS
9007	2	EA.	(CONT/CAB/ADD) NEMA LOAD SWITCH
9000	1	EA.	DETECTOR RACK RETROFIT
9044	4	EA.	(SPAN MT) 12" 1-WAY 3 SECTION SIGNAL HEAD (RA, YA, GA) ALUMINUM
9089	60	S.F.	FLAT SHEET ALUMINUM SIGN GUIDE SHIELD ASSEMBLY POLE MT. 1- "SOUTH, MD 24, RIGHT ARROW" (30"X51") 1- "NORTH, MD 24, LEFT ARROW" (36"X75") 1- "NORTH, MD 24, RIGHT ARROW" (30"X51") 1- "SOUTH, MD 24, LEFT ARROW" (36"X75")
9090	25	S.F.	FLAT SHEET ALUMINUM SIGN SPAN WIRE MT. 1- D3-2 (16" X VAR.) DUAL FACES RING FACTORY RD./RING FACTORY RD.
9002	1	EA.	(CONT/CAB/ADD) 4 CHANNEL AMPLIFIER SHELF MOUNTED

EQUIPMENT LIST

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1001	1	EA.	MAINTENANCE OF TRAFFIC
5002	300	L.F.	F/I 6" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5003	210	L.F.	F/I 12" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5004	160	L.F.	F/I 24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5013	160	L.F.	REMOVE EXISTING PAVEMENT MARKING (ANY WIDTH)
8011	6	EA.	INSTALL SIGNAL HEAD (ANY TYPE)
8021	225	L.F.	F/I SAWCUT FOR SIGNAL (LOOP DETECTOR)
8022	20	L.F.	F/I 1" ELECTRICAL CONDUIT GALVANIZED SLEEVE
8024	30	L.F.	F/I 2" ELECTRICAL CONDUIT (SCHEDULE 80 TRENCHED)
8026	180	L.F.	F/I 2" ELECTRICAL CONDUIT (SCHEDULE 80 PUSHED)
8033	3	EA.	F/I ELECTRICAL HANDHOLE
8040	930	L.F.	F/I LOOPWIRE (NO. 14 AWG-THWN)
8041	500	L.F.	F/I ELECTRICAL CABLE 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	510	L.F.	F/I ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
8053	60	S.F.	INSTALL POLE MOUNTED SIGNS
8054	25	S.F.	INSTALL OVERHEAD SIGNS
NEG.	280	L.F.	RE-RING EXISTING SPAN WIRE
NEG.	2	EA.	CLEAN AND/OR REPAIR EXISTING HANDHOLE

WIRING KEY

A,B - 5 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

C,D - 2 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED

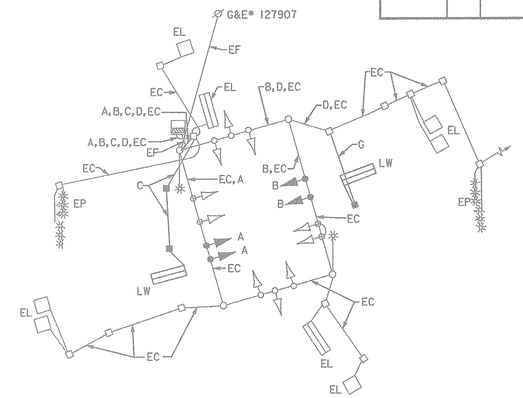
EC - EXISTING CABLE

EL - EXISTING LOOP

EF - EXISTING FEED

LW - LOOP WIRE ENCASED IN 1/4" FLEXIBLE TUBING

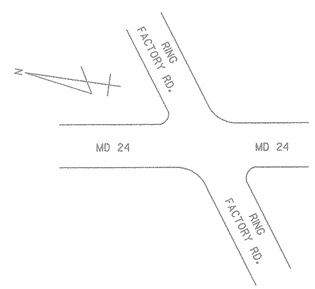
EP - EXISTING PROBE



SIGNAL WIRING DIAGRAM

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASES 1+5	G	G	R	R	G	G	R	R	R	R	R	R	R	R
1+5 CHANGE	Y	Y	R	R	Y	Y	R	R	R	R	R	R	R	R
PHASES 2+6	R	R	G	G	R	R	G	G	R	R	R	R	R	R
2+6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R
PHASES 4+8	R	R	R	R	R	R	R	R	G	G	G	G	G	G
4+8 CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	F/R	F/R	F/Y	F/Y	F/R	F/R	F/Y	F/Y	F/R	F/R	F/R	F/R	F/R	F/R



INTERSECTION SKETCH

UTILITY LEGEND	
T	TELEPHONE CABLES
G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
E	ELECTRIC CABLES
A	AERIAL CABLES
BC	BURIED CABLE
SD	STORM DRAIN

GEOMETRIC LEGEND	
	EXISTING GEOMETRICS
	PROPOSED GEOMETRICS

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
813 MAIDEN CHOICE LANE, SUITE 300
BALTIMORE, MARYLAND 21228
(410) 247-8833 FAX 247-9397

APPROVALS	REVISIONS
ASST. DIVISION CHIEF, TEDD	
ASST. DISTRICT ENGINEER, TRAFFIC	C. REVISED EQUIPMENT LOCATION 3/87 — WJR SR DAZ ETP TH
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	D. ADD INTERCONNECT EXCLUSIVE 9/97 — RS
DIRECTOR, OFFICE OF TRAFFIC & SAFETY	E. ADD SB/NB LEFT TURNS AW2123A54 SIGNAL AW 2785185 — EMM/GFP

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNALIZATION PLAN
MD. 24 @ RING FACTORY RD.
SIGNAL NO.:

DRAWN BY: B. THOMPSON	F.A.P. NO.	PLAN SHEET NO.:	SHEET NO.
CHECK BY: C.K. DODGE	S.H.A. NO. B 368X-000-485	478E-GI	2 OF 2
SCALE: 1"=20'	COUNTY HARFORD		

9/96 \\phoenix\drawings\traffic\dgn\ 10 1997 10:23:01