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

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOVLES THE INSTALLATION OF PEDESTRIAN SIGNALS IN ALL DIRECTIONS, AND INSTALLING A NEW BASE MOUNTED CABINET.

MD. 924 RUNS IN A NORTH-SOUTH DIRECTION.

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
	4 EACH	12" TWO WAY, TWO SECTION SYMBOLIC PEDESTRIAN SIGNAL, MAST ARM POLE MOUNTED HARDWARE
	4 EACH	PUSHBUTTON AND R10-3C SIGN, "PUSH BUTTON TO CROSS EMMORTON RD.", 9" x 12", POLE MOUNTED HARDWARE
	1 EACH	EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A "USED" SIZE "6" BASE MOUNTED CABINET, WITH INTERSECTION MONITOR, AND BATTERY BACKUP
	* 3 EACH	FOUR CHANNEL LOOP DETECTOR AMPLIFIER WITH HARNESS

* TO BE INSTALLED BY THE SHA SIGNAL SHOP

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

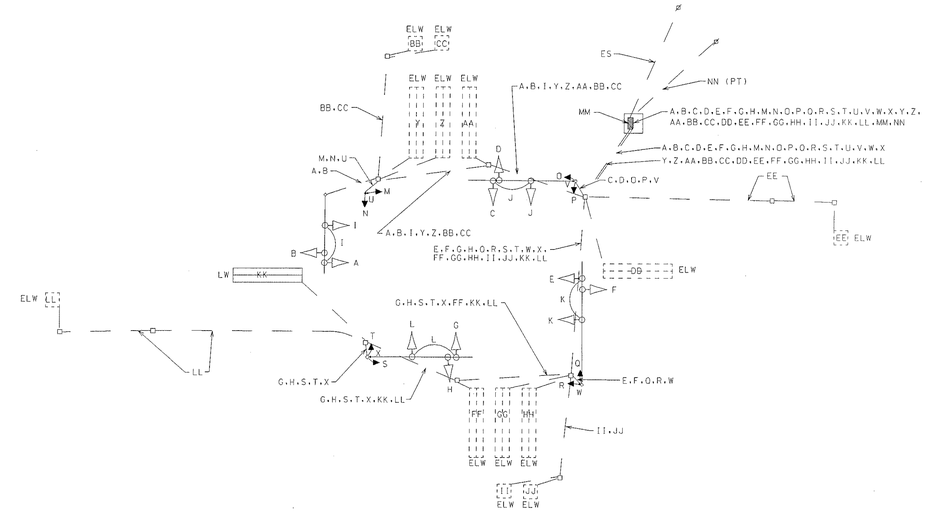
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 EACH	TEST PIT EXCAVATION
6001	24 S.F.	F & I 4" CONCRETE SIDEWALK
8001	5 C.Y.	F & I CONCRETE FOUNDATION
8003	1 EACH	F & I 10' BREAKAWAY PEDESTAL POLE AND BASE
8011	8 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8018	4 EACH	INSTALL PUSHBUTTON AND SIGN
8021	155 L.F.	F & I SAWCUT
8023	10 L.F.	F & I 1" LIQUID TIGHT NON-METALLIC CONDUIT SLEEVE
8024	100 L.F.	F & I 2" SCHEDULE 80 PVC CONDUIT - TRENCHED
8026	15 L.F.	F & I 2" SCHEDULE 80 PVC CONDUIT - BORED
8027	75 L.F.	F & I 3" SCHEDULE 80 PVC CONDUIT - TRENCHED
8029	40 L.F.	F & I 3" SCHEDULE 80 PVC CONDUIT - BORED
8030	100 L.F.	F & I 4" SCHEDULE 80 PVC CONDUIT - TRENCHED
8034	1 EACH	F & I GROUND ROD
8040	515 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING
8041	3,200 L.F.	F & I 2 CONDUCTOR (ALUMINUM SHIELDED) CABLE
8042	590 L.F.	F & I 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
8043	1,480 L.F.	F & I 3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
8045	2,000 L.F.	F & I 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
8050	30 L.F.	F & I 1 CONDUCTOR ELECTRICAL CABLE - (NO. 4 AWG)
8059	1 EACH	REMOVE CONTROLLER CABINET
8060	1 EACH	DELIVERY OF REMOVED CONTROLLER CABINET
8070	1 EACH	F & I CONTROL AND DISTRIBTUION (120/ 240 V. 1 PH. 3W)

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO 7491 CONNELLEY DRIVE, HANOVER, MARYLAND, 21076. THE SHOP SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF REMOVAL, AND CONTACT MR. DAVE SCHWARTZ AT (410) 787-7658.

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A SIZE "5" POLE MOUNTED CABINET, WITH INTERSECTION MONITOR AND LOOP DETECTOR AMPLIFIERS

WIRING DIAGRAM

A-H = 7 CONDUCTOR CABLE (NO. 14 AWG)
I-L = EXISTING 5 CONDUCTOR CABLE (NO. 14 AWG)
M-T = 3 CONDUCTOR CABLE (NO. 14 AWG)
U-X = 2 CONDUCTOR CABLE (NO. 14 AWG)
Y-LL = 2 CONDUCTOR (ALUMINUM SHIELDED) CABLE
MM = 1 CONDUCTOR CABLE (NO. 4 AWG) - 3 TIMES (FOR SERVICE)
NN = PROPOSED TELEPHONE DROP
LW = LOOP WIRE
ELW = EXISTING LOOP WIRE
ES = EXISTING SERVICE FEED
PT = PROPOSED TELEPHONE DROP



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13-16	17-20
PHASE 1 & 5	◄G-R	◄G-R	R	◄G-R	◄G-R	R	R	R	R	R	R	R	DW	DW
1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 1 & 6, OR 2 & 5, OR 2 & 6													
PHASE 1 & 6	◄G-G	◄G-G	G	R	R	R	R	R	R	R	R	R	DW	DW
1 CHANGE	◄Y-G	◄Y-G	G	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 & 5	R	R	R	◄G-G	◄G-G	G	R	R	R	R	R	R	DW	DW
5 CHANGE	R	R	R	◄Y-G	◄Y-G	G	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	DW
PED. CLEAR	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3 & 7	R	R	R	R	R	R	◄G-R	◄G-R	R	◄G-R	◄G-R	R	DW	DW
3 & 7 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 3 & 8, OR 4 & 7, OR 4 & 8													
PHASE 3 & 8	R	R	R	R	R	R	R	R	R	◄G-G	◄G-G	G	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	◄Y-G	◄Y-G	G	DW	DW
PHASE 4 & 7	R	R	R	R	R	R	◄G-G	◄G-G	G	R	R	R	DW	DW
7 CHANGE	R	R	R	R	R	R	◄Y-G	◄Y-G	G	R	R	R	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
4 & 8 ALT.	R	R	R	R	R	R	G	G	G	G	G	G	DW	WK
PED. CLEAR	R	R	R	R	R	R	G	G	G	G	G	G	DW	FL/DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	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	FL/R	DARK	DARK

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

REVISIONS

APPROVALS

ASST. DIVISION CHIEF, TEDD
ORIGINAL
ASST. DISTRICT ENGINEER, TRAFFIC
ON
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
FILE
DIRECTOR, OFFICE OF TRAFFIC & SAFETY

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

MD. 924 and BEL AIR SOUTH PARKWAY/ LAUREL BUSH ROAD

SIGNAL NO. 12092402.62 DATE 5-10-1989

DRAWN BY:
DES. BY:
CHECK BY:
SCALE:

F.A.P. NO.
S.H.A. NO. 2385STR2507519
COUNTY HARFORD

PLAN SHEET NO. TS-2520 B

SHEET NO. ___ OF ___

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