MD 177 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES INSTALLING A NEW SIGNAL AT THE INTERSECTION OF MD 177 AND ELIZABETH ROAD/ MAGOTHY BEACH ROAD IN ANNE ARUNDEL COUNTY. MD 177 RUNS IN A EAST-WEST DIRECTION

II. INTERSECTION OPERATION

THE INTERSECTION IS EQUIPPED WITH EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET. IT WILL USE FOUR PHASES OUT OF EIGHT.

NOTES TO THE CONTRACTOR:

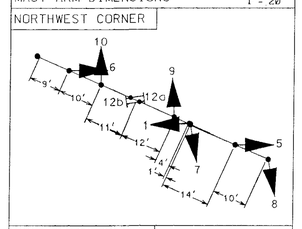
1. THE FOUNDATION FOR THE SIGNAL POLE IN THE NORTHWEST CORNER MUST BE PLACED AT GRADE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.

WIRING DIAGRAM

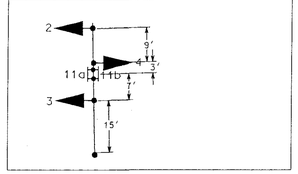
A-F	= 7-CONDUCTOR CABLE (NO. 14 AWG)
G-J	= 5-CONDUCTOR CABLE (NO. 14 AWG)
K-L	= MICROLOOP TRIPLE PROBE SET (500 FT.)
M-P	= 2-CONDUCTOR (ALUMINUM SHIELDED) CABLE
Q-R	= NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
S	= 1-CONDUCTOR (NO. 4 AWG) - THREE TIMES FOR SERVICE
T	= PROPOSED TELEPHONE SERVICE
PS	= PROPOSED SERVICE
PT	= PROPOSED TELEPHONE DROP
LW	= LOOP WIRE
PROBE	= MICROLOOP TRIPLE PROBE SET (500 FT.)
✦	= GROUND ROD

MAST ARM DIMENSIONS 1" = 20'

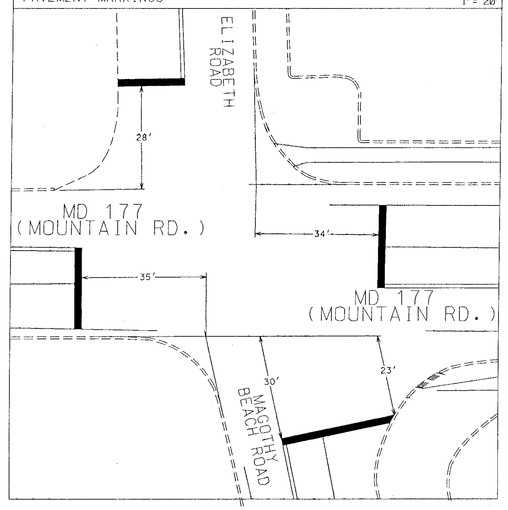
NORTHWEST CORNER

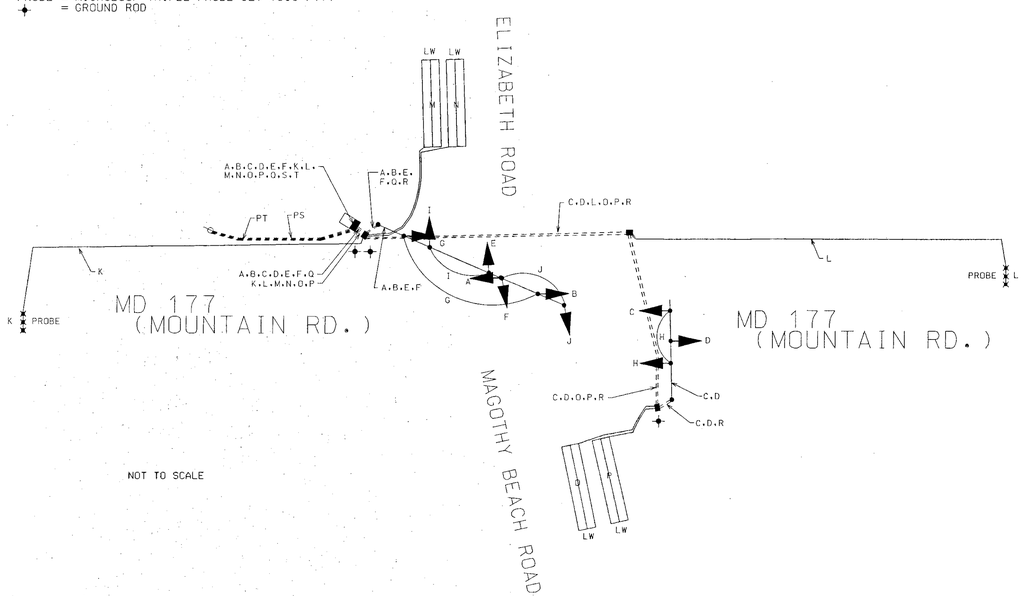


SOUTHEAST CORNER



PAVEMENT MARKINGS 1" = 20'





NOT TO SCALE

EQUIPMENT LISTS

A. EQUIPMENT TO BE FURNISHED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A SIZE "6" BASE MOUNTED CABINET W/ TWO (2) FOUR CHANNEL LOOP DETECTOR AMPLIFIERS
	206.6 S.F.	1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN, "EAST, MARYLAND 177, (RIGHT ARROW)", 30" x 51", POLE MOUNTED HARDWARE
		1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN, "WEST, MARYLAND 177, (LEFT ARROW)", 48" x 75", POLE MOUNTED HARDWARE
		1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN, "WEST, MARYLAND 177, (RIGHT ARROW)", 30" x 51", POLE MOUNTED HARDWARE
		1 EACH ASSOCIATED SHIELD ASSEMBLY SIGN, "EAST, MARYLAND 177, (LEFT ARROW)", 48" x 75", POLE MOUNTED HARDWARE
		2 EACH W3-3 "NEW" SIGN W/ FLAGS, 48" x 48", POLE MOUNTED HARDWARE
		2 EACH W3-3 "NEW" SIGN W/ FLAGS, 36" x 36", POLE MOUNTED HARDWARE
		2 EACH D3-2 SIGN, "(RIGHT ARROW) Elizabeth RD, Magothy Beach RD (LEFT ARROW)", 32" x Var., MAST ARM MOUNTED HARDWARE
		2 EACH D3-2 SIGN, "(RIGHT ARROW) Magothy Beach RD, Elizabeth RD (LEFT ARROW)", 32" x Var., MAST ARM MOUNTED HARDWARE

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

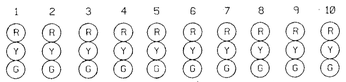
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	1 C.Y.	TEST PIT EXCAVATION
5003	4 EACH	REMOVAL EXISTING PAVEMENT LETTER OR ARROW
5005	140 L.F.	F & I 24" WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
6004	6 L.F.	F & I 4" CONCRETE SIDEWALK
8006	1 EACH	CUT, CLEAN, & CAP TRAFFIC SIGNAL STRUCTURE
8011	30 EACH	F & I 12" BLACK FACED VECHICULAR SIGNAL HEAD SECTION
8020	1 EACH	F & I CONTROL & DISTRIBUTION OF EQUIPMENT FOR SIGNAL
8022	1 EACH	F & I MAST ARM POLE (27') & 50' MAST ARM
8029	2 EACH	F & I MICROLOOP TRIPLE PROBE SET (500')
* 8038	1 EACH	F & I TWIN MAST ARM POLE (15' T) & 50'/ 70' MAST ARM
8048	1 EACH	REMOVE AND DISPOSE OF EXISTING EQUIPMENT PER ASSIGNMENT
8051	30 L.F.	F & I 3" PVC SCHEDULE 80 CONDUIT - TRENCHED
8053	20 L.F.	F & I 4" PVC SCHEDULE 80 CONDUIT - TRENCHED
8057	9 C.Y.	F & I CONCRETE FOUNDATION FOR SIGNAL FOUNDATION
8059	90 L.F.	F & I WOOD SIGN SUPPORTS - 4" x 6"
8060	215 L.F.	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8062	20 L.F.	F & I 1" ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8067	180 L.F.	F & I 4" PVC SCHEDULE 80 CONDUIT - SLOTTED
8068	20 L.F.	F & I 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8070	90 L.F.	F & I ELECTRICAL CABLE - 1-CONDUCTOR (NO. 4 AWG) - THHN/THWN
8072	3 EACH	F & I ELECTRICAL HANDHOLE
8074	121.3 S.F.	INSTALL GROUND MOUNTED SIGN
8075	85.3 S.F.	INSTALL OVERHEAD SIGN
8080	3 EACH	F & I GROUND ROD - 3/4" x 10' DIAMETER
8081	610 L.F.	F & I ELECTRICAL CABLE - 2-CONDUCTOR (ALUMINUM SHIELDED)
8084	120 L.F.	F & I ELECTRICAL CABLE - 5-CONDUCTOR (NO. 14 AWG)
8085	1,100 L.F.	F & I ELECTRICAL CABLE - 7-CONDUCTOR (NO. 14 AWG)
8087	2,010 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8088	1,200 L.F.	F & I SAW CUT FOR SIGNAL (LOOP DETECTOR)
8093	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

* - ONLY THE 70' MAST ARM WILL BE USED ON THIS PROJECT. THE 50' MAST ARM WILL BE DELIVERED TO THE SHA SIGNAL SHOP WAREHOUSE. SEE BELOW.

C. EQUIPMENT TO BE REMOVED AND RETURNED TO THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	50' MAST ARM FOR A 15' T DIMENSION MAST ARM POLE

ALL OTHER REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR



PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	←
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	→
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	↓ ↑
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	↑ ← → ↓

PROJECT CONTACTS

THE PROJECT CONTACTS ARE AS FOLLOWS:

MR. LAWRENCE E. ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

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ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 177 and ELIZABETH ROAD/ MAGOTHY BEACH ROAD
JACOBSVILLE, MARYLAND

DRAWN BY: W Mahedin	F.A.P. NO.	T.S. NO. TS-4077	SHEET NO.
CHECKED BY:	S.H.A. NO. AA 287 A 52/ 852		
SCALE: AS NOTED	COUNTY ANNE ARUNDEL	T.I.M.S. NO. E416	1 OF 1
DATE: 05/ 2001	LOG MILE 02017704.51		