MD 2 IS ASSUMED TO RUN
IN A NORTH–SOUTH DIRECTION

PROJECT DESCRIPTION

I. GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT MD 2 AND MD 450 ANNE ARUNDEL COUNTY, MARYLAND. IT IS ASSUMED THAT MD 2 RUNS IN A NORTH–SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT (8) PHASE FULLY TRAFFIC ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR ALL APPROACHES AND PEDESTRIAN ACCESS CONTROL.

A NEW EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE INSTALLED.

THE INTERSECTION IS PART OF THE EXISTING MD 450 SIGNAL SYSTEM FROM MD 2 TO MD 178.

EQUIPMENT LIST

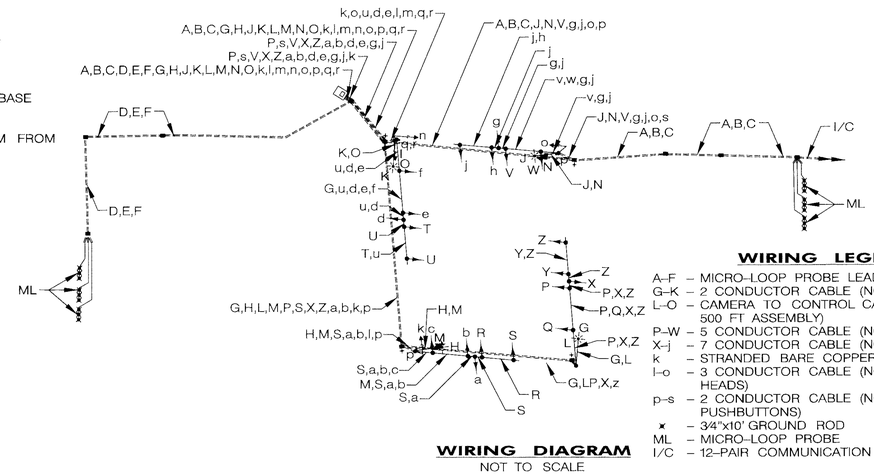
A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

CATEGORY CODE NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
971017	1	EA	816	EIGHT PHASE FULLY ACTUATED ASC II CONTROLLER HOUSED IN A BASE MOUNTED CABINET (SIZE 6) WITH VIDEO DETECTION EQUIPMENT
973023	251	SF	813	FLAT SHEET ALUMINUM SIGNS TO CONSIST OF : 2 EACH D3–2 DUAL FACE SIGN "WEST ST" (VAR x 16 IN.) 2 EACH D3–2 DUAL FACE SIGN "SOLOMONS ISLAND RD" (VAR x 16 IN.) 8 EACH R3–5L (LEFT ONLY) SIGN (30 IN. x 36 IN.) 2 EACH SHIELD ASSEMBLY SIGN (48 IN. x 75 IN.) 3 EACH SHIELD ASSEMBLY SIGN (30 IN. x 51 IN.) 1 EACH SHIELD ASSEMBLY SIGN (72 IN. x 75 IN.) 1 EACH SHIELD ASSEMBLY SIGN (60 IN. x 51 IN.) 1 EACH SHIELD ASSEMBLY SIGN (36 IN. x 75 IN.)

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

CATEGORY CODE NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
203030	5	CY	205	TEST PIT EXCAVATION
801004	22	CY	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	50	LF	810	FURNISH AND INSTALL #6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805118	493	LF	805	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID P.V.C. CONDUIT–BORED
805140	687	LF	805	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID P.V.C. CONDUIT–TRENCHED
805160	24	LF	805	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON–METALLIC CONDUIT FOR DETECTOR SLEEVE
807205	1	EA	807	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
811001	11	EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	165	SF	813	INSTALL GROUND MOUNTED SIGN
813015	86	SF	813	INSTALL OVERHEAD SIGN
818041	2	EA	818	FURNISH AND INSTALL STEEL POLE WITH A SINGLE 60 FT. MAST ARM POLE (2 PLY)
800000	2	EA	SP	FURNISH AND INSTALL STEEL POLE WITH A SINGLE 75 FT. MAST ARM POLE (2 PLY)
831010	4	EA	806	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE
837001	4	EA	804	FURNISH AND INSTALL GROUND ROD (3/4" DIAMETER x 10' LENGTH)
861105	600	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE – 2 CONDUCTOR (NO. 14 A.W.G.)
861106	700	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE – 3 CONDUCTOR (NO. 14 A.W.G.)
861107	164	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE – 5 CONDUCTOR (NO. 14 A.W.G.)
861108	2193	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE – 7 CONDUCTOR (NO. 14 A.W.G.)
861116	808	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE – 2 CONDUCTOR (NO. 12 A.W.G.)
865001	2	EA	814	FURNISH AND INSTALL PEDESTRIAN PUSH BUTTON AND SIGN (EDUCATIONAL SIGN)
866103	4	EA	818	FURNISH AND INSTALL 15 FT. LIGHTING ARM FOR SIGNAL STRUCTURE
871202	1	EA	816	INSTALL CONTROLLER AND CABINET–BASE MOUNT
800000	1	LS	SP	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT PER ASSIGNMENT
810550	3	EA	SP	FURNISH AND INSTALL MICRO–LOOP PROBE SET WITH 500 FT. LEAD–IN
810555	3	EA	SP	FURNISH AND INSTALL MICRO–LOOP PROBE SET WITH 1000 FT. LEAD–IN
816001	8	EA	SP	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION CAMERA
816005	6	EA	SP	FURNISH AND INSTALL CAMERA TO CONTROL CABINET CABLE, 250 FT. ASSEMBLY
816010	2	EA	SP	FURNISH AND INSTALL CAMERA TO CONTROL CABINET CABLE, 500 FT. ASSEMBLY
860272	60	EA	806	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	8	EA	814	FURNISH AND INSTALL 12 INCH PEDESTRIAN SIGNAL HEAD SECTION – POLE MOUNT

C.
THE STATE HIGHWAY ADMINISTRATION FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



WIRING DIAGRAM
NOT TO SCALE

WIRING LEGEND

A–F – MICRO–LOOP PROBE LEAD–IN
G–K – 2 CONDUCTOR CABLE (NO. 12 A.W.G.) (STREET LIGHTS)
L–O – CAMERA TO CONTROL CABINET CABLE (250 FT OR 500 FT ASSEMBLY)
P–W – 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
X–j – 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
k – STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
l–o – 3 CONDUCTOR CABLE (NO. 14 A.W.G.) (FOR PEDESTRIAN HEADS)
p–s – 2 CONDUCTOR CABLE (NO. 14 A.W.G.) (FOR PEDESTRIAN PUSHBUTTONS)
⁎ – 3/4"x10' GROUND ROD
ML – MICRO–LOOP PROBE
I/C – 12–PAIR COMMUNICATION CABLE

PHASING DIAGRAM

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G				
PHASE 1+5	G	G	G	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1+5 CHANGE	PHASE 1+5 MAY CHANGE TO PHASE 1+6, 2+5 OR 2+6																							
PHASE 2+5	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	WK	WK	DW	DK
PED CLEAR	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2+5 CHANGE	R	R	R	R	R	Y	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 1+6	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1+6 CHANGE	Y	Y	Y	G	G	R	R	R	R	G	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2+6	R	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEAR	R	R	R	G	G	R	R	R	R	G	R	R	R	R	R	R	R	R	R	R	FL/DW	FL/W	DW	DW
2+6 CHANGE	R	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3+7	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	G	G	G	R	R	DW	DW	DW	DW
3+7 CHANGE	PHASE 3+7 MAY BE CHANGED TO PHASE 3+8, 4+7 OR 4+8																							
PHASE 3+8	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW
3+8 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW
PHASE 4+7	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	G	G	G	G	G	DW	DW	DW	DW
4+7 CHANGE	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4+8	R	R	R	R	R	R	R	R	R	R	R	G	R	G	G	R	R	R	R	G	DW	DW	DW	DW
4+8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	Y	R	Y	Y	R	R	R	R	Y	DW	DW	DW	DW
PHASE 4 ALT.	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	DW	DW	WK	WK
PED CLEAR	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	DW	DW	FL/DW	FL/DW
4 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL R	FL R	FL Y	FL Y	FL R	FL R	FL Y	FL Y	FL R	FL R	FL R	FL R	FL R	FL R	FL R	FL R	FL R	FL R	FL R	FL R	OFF	OFF	OFF	OFF

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Westminster, Maryland 21158
A/E Job No. 99–386

REVISIONS

C	MODIFICATION OF SIGNAL FOR DOUBLE LEFT TURNS, ALL APPROACHES AA825570	03/06/02
B	NEW MAINLINE LOOPS AND ROAD GEOMETRICS AA765015/77	11/24/81
A	AS-BUILT AA384501585	07/07/78

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

MD 2 AND MD 450

GENERAL INFORMATION SHEET

DRAWN BY:	S.F.N.	F.A.P. NO.	SEE TITLE SHEET	TS NO.	TS–1383C
CHECKED BY:	F.A.C.	S.H.A. NO.	AA184501585	SHEET NO.	208 OF 266
SCALE:	NOT TO SCALE	COUNTY:	ANNE ARUNDEL	T.I.M.S. NO.	E–158X
DATE:	MARCH, 2002	LOG MILE:	–		

FILE: c:\cadd\jobs\99-386\signals\md2@md450gi.dgn
DATE: 3-14-02 18:24