PROJECT DESCRIPTION
GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 414 (ST. BARNABAS ROAD) AT WHEELER ROAD/WINSTON STREET IN PRINCE GEORGES COUNTY. THIS MODIFICATION CONSISTS OF CONVERTING THE LEFT-TURN PHASING ALONG EASTBOUND MD 414 FROM A FLASHING RED ARROW (E/P) TO EXCLUSIVE PHASING AND CONVERTING LEFT-TURN PHASING ALONG WESTBOUND MD 414 FROM EXCLUSIVE/PERMISSIVE TO EXCLUSIVE LEFT-TURN PHASING.

INTERSECTION OPERATION

THE EXISTING CONTROLLER NEEDS NO MODIFICATION. THE EXISTING PHASING OPERATES IN A FULLY ACTUATED MODE USING 6 NEMA PHASES.

SPECIAL NOTES

1. THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. MAJIB SHAKIB, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358
MR. DENNIS MCMAHON, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7336
MR. RALEIGH MEDLEY, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304
MR. AUGI REBISH, UTILITY ENGINEER
PHONE: (301) 513-7350
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

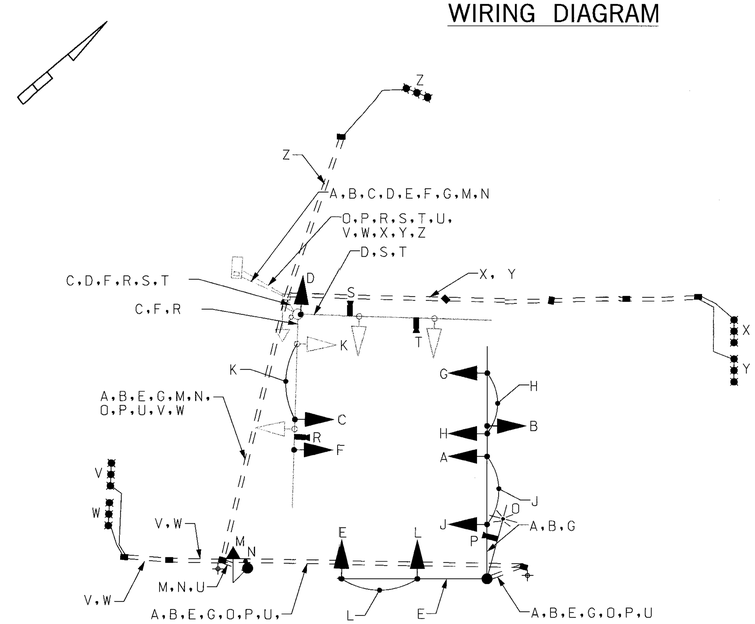
CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
973023	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	SF	167.5
	R3-5(L) (30"x36") MAST ARM MOUNT	EA	3
	D-3(2) (16" X VAR.) MAST ARM MOUNT	EA	5
	GUIDE SHIELD ASSEMBLY (30"X51")	EA	1
	GUIDE SHIELD ASSEMBLY (48"X75")	EA	2

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

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	1
585620	12 INCH HEAT APPL. WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	470
585624	24 INCH HEAT APPL. WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING	LF	125
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	6
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	195
805135	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	630
805155	4 INCH SCHED. 80 PVC CONDUIT-SLOTTED	LF	255
810550	MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE	EA	5
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	9
813015	INSTALL OVERHEAD SIGN	SF	167.5
816001	VIDEO DETECTION CAMERA	EA	4
816005	CONTROL CABLE, 250 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	3
816010	CONTROL CABLE, 500 FOOT VIDEO DETECTION CAMERA TO CONTROLLER	EA	1
818004	10 FOOT STEEL BREAKAWAY PEDESTAL POLE	EA	1
818050	STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS	EA	1
831010	250 WATT HPS LAMP AND LUMINAIRE WITH PHOTOCELL	EA	1
837001	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH	EA	2
860260	INSTALL SIGNAL HEAD - POLE MOUNT	EA	1
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	30
860282	12 INCH PEDESTRIAN SIGNAL HEAD SECTION - PEDESTAL POLE MOUNT	EA	2
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	1
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	115
861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	125
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	415
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	915
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	250
862102	SAW CUT FOR SIGNAL (LOOP DECTOR)	LF	120
865001	PUSHBUTTON AND SIGN	EA	1
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
873001	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	LS	1

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

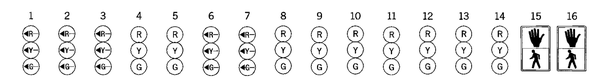
WIRING DIAGRAM



KEY

A B C D E	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
F G H J K L	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
M	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
N	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
O	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
P R S T	VIDEO DETECTION CABLE
U	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
V W X Y Z	MICRO LOOP DETECTOR CABLE LEAD-IN
⏚	GROUND ROD

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 AND 5	←G–	←G–	←G–	R	R	←G–	←G–	R	R	R	R	R	R	R	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																
PHASE 1 AND 6	←G–	←G–	←G–	G	G	←R–	←R–	R	R	R	R	R	R	R	DW	DW
1 AND 6 CHANGE	←Y–	←Y–	←Y–	Y	Y	←R–	←R–	R	R	R	R	R	R	R	DW	DW
PHASE 2 AND 5	←R–	←R–	←R–	R	R	←G–	←G–	G	G	R	R	R	R	R	DW	DW
2 AND 5 CHANGE	←R–	←R–	←R–	R	R	←Y–	←Y–	Y	Y	R	R	R	R	R	DW	DW
PHASE 2 AND 6	←R–	←R–	←R–	G	G	←R–	←R–	G	G	R	R	R	R	R	DW	DW
2 AND 6 CHANGE	←R–	←R–	←R–	Y	Y	←R–	←R–	Y	Y	R	R	R	R	R	DW	DW
PHASE 4 AND 8	←R–	←R–	←R–	R	R	←R–	←R–	R	R	G	G	G	G	G	DW	DW
4 AND 8 CHANGE	←R–	←R–	←R–	R	R	←R–	←R–	R	R	Y	Y	Y	Y	Y	DW	DW
PHASE 4 AND 8 ALT	←R–	←R–	←R–	R	R	←R–	←R–	R	R	G	G	G	G	G	WK	WK
PED CLEARANCE	←R–	←R–	←R–	R	R	←R–	←R–	R	R	G	G	G	G	G	FL/DW	FL/DW
4 AND 8 ALT CHANGE	←R–	←R–	←R–	R	R	←R–	←R–	R	R	Y	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/R	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	DARK	DARK

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

MD 414 AT WHEELER ROAD

DRAWN BY: J. WEAVER	F.A.P. NO.		TS NO. 442 C	SHEET NO.
CHECKED BY: S. RENZI	S.H.A. NO.	PG3985176		
SCALE: NONE	COUNTY:	PRINCE GEORGE'S	T.I.M.S. NO. F466	
DATE: 03/07/03	LOG MILE:	16041402.29		OF

FILE: c:\tmp\~dfTask 14\dwg\signal\460sgd01.dgn
DATE: 12-Mar-02 10:13