PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 175 AND MD 713 IN ANNE ARUNDEL COUNTY. THE WORK IS NECESSITATED BY THE WIDENING ALONG MD 175 AND MD 713. MD 175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA EIGHT-PHASE, FULLY-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASES FOR ALL APROACHES. THE INTERSECTION WILL NOW OPERATE IN A NEMA EIGHT-PHASE, FULLY-ACTUATED MODE WITH A LEAD-LAG EXCLUSIVE LEFT TURN PHASES FOR ALL APROACHES.

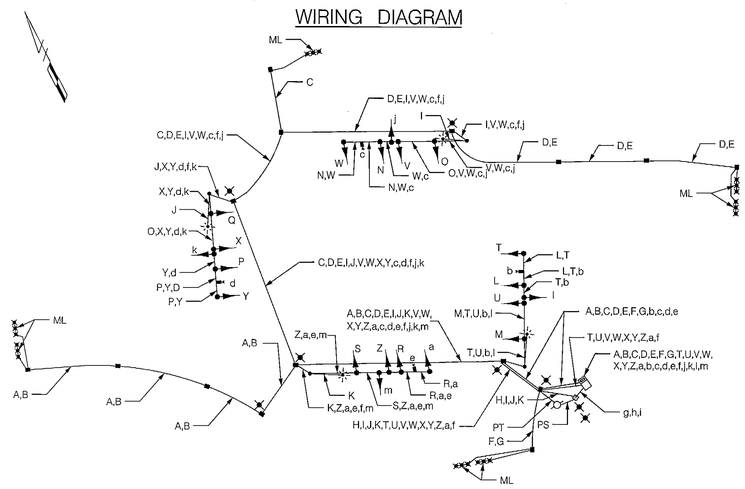
CONTROLLER REQUIREMENTS

A NEW EIGHT-PHASE, FULLY-ACTUATED CONTROLLER WITH TWO (2) FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A NEMA "6" BASE MOUNTED-CABINET WILL BE INSTALLED AT THE INTERSECTION.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

WIRING DIAGRAM



WIRING KEY

A–G	MICRO-LOOP PROBE LEAD-IN
	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
H–K	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
L–S	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
T–a	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
b–e	VIDEO DETECTION CABLE
f	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
g–i	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
j–m	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
ML	MICRO-LOOP PROBE
PS	PROPOSED ELECTRIC SERVICE
PT	PROPOSED TELEPHONE SERVICE
✕	GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
6 CY	TEST PIT EXCAVATION
210 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
60 EA	12 INCH LED SIGNAL HEAD SECTION
4 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
1 EA	MAST ARM POLE & 60 FT. MAST ARM
3 EA	MAST ARM POLE & 70 FT. MAST ARM
7 EA	MICRO-LOOP PROBE (ANY LENGTH LEAD-IN)
LS	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
4 EA	VIDEO DETECTION CAMERA AND CABLE
60 LF	1 IN FLEXIBLE LIQUID TIGHT CONDUIT
220 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN – SLOTTED
750 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN – TRENCHED
800 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN. – BORED
500 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
1 EA	METERED SERVICE PEDESTAL EMBEDDED
60 LF	ELECTRICAL CABLE 1 – CONDUCTOR NO. 4 AWG – THHN /THWN
15 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
220 LF	ELECTRICAL CABLE 5 – CONDUCTOR (NO 14 AWG)
3000 LF	ELECTRICAL CABLE 7 – CONDUCTOR (NO 14 AWG)
900 LF	ELECTRICAL CABLE 2 – CONDUCTOR (NO 12 AWG)
160 LF	SAW CUT FOR SIGNAL
1 EA	CONTROLLER AND CABINET – BASE MOUNT
22 CY	CONCRETE FOUNDATION FOR SIGNAL
1 EA	VIDEO INTERFACE EQUIPMENT
7 EA	3/4 IN. X 10 FT. GROUND ROD
4 EA	D3-2 (VAR X 16") DUAL FACE SIGN – MAST ARM MOUNT
2 EA	SHIELD ASSEMBLY (48" X 75") – POLE MOUNT
2 EA	SHIELD ASSEMBLY (30" X 51") – POLE MOUNT
8 EA	R3-5L (30" X 36") SIGN – MAST ARM MOUNT
2 EA	R3-5R (30" X 36") SIGN – MAST ARM MOUNT
2 EA	FOUR-CHANNEL, TIME- DELAY-OUTPUT LOOP DETECTOR AMPLIFIER

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 841-1003

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 841-1002

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 6	◄G►	◄G►	◄G►	G	G	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
1 & 6 CHANGE	◄Y►	◄Y►	◄Y►	Y	Y	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
PHASE 2 & 6	◄R►	◄R►	◄R►	G	G	◄R►	◄R►	◄R►	G	G	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
2 & 6 CHANGE	◄R►	◄R►	◄R►	Y	Y	◄R►	◄R►	◄R►	Y	Y	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
PHASE 2 & 5	◄R►	◄R►	◄R►	R	R	◄G►	◄G►	◄G►	G	G	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
2 & 5 CHANGE	◄R►	◄R►	◄R►	R	R	◄Y►	◄Y►	◄Y►	Y	Y	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R
PHASE 4 & 7	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄G►	◄G►	◄G►	G	G
4 & 7 CHANGE	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄Y►	◄Y►	◄Y►	Y	Y
PHASE 4 & 8	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	G	G	◄R►	◄R►	◄R►	G	G
4 & 8 CHANGE	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	Y	Y	◄R►	◄R►	◄R►	Y	Y
PHASE 3 & 8	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄G►	◄G►	◄G►	G	G	◄R►	◄R►	◄R►	R	R
3 & 8 CHANGE	◄R►	◄R►	◄R►	R	R	◄R►	◄R►	◄R►	R	R	◄Y►	◄Y►	◄Y►	Y	Y	◄R►	◄R►	◄R►	R	R
FLASHING OPERATION	FLR	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	FLR	FLR	FLR	FLR

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473
EMAIL TRAFFIC@TRAFFIC-CONCEPTS.COM

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN

MD 175 AND MD 713 ROAD
FT. MEADE, MARYLAND

SCALE NONE DATE 10-8-08 CONTRACT NO. BW996M82

DESIGNED BY T. ZAYDEL COUNTY ANNE ARUNDEL
DRAWN BY T. ZAYDEL LOGMILE 02017507.31
CHECKED BY K. SCHMID 2/9/09 T.I.M.S. NO. I- 610
F.A.P. NO. NA TOD NO.

DRAWING NO. TS-1295D GI SHEET NO. 2 OF 10

FILE PATH: J:\DATA\I610\I610GG02.dgn
DATE: Friday, January 23, 2009 AT 03:21 PM

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