PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 228 AND BUNKER HILL ROAD IN CHARLES COUNTY. THE WORK IS NECESSITATED BY THE CONSTRUCTION OF A FOURTH LEG TO THE INTERSECTION. MD 228 IS ASSUMED TO RUN IN AN EAST–WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA FIVE–PHASE, FULLY–ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR BOTH DIRECTIONS OF MD 228. THE INTERSECTION WILL NOW OPERATE IN A NEMA SIX–PHASE FULLY–ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR BOTH DIRECTIONS OF MD 228 AND CONCURRENT SIDE STREET PHASING. AN ALTERNATE PEDESTRIAN PHASE FOR THE WEST LEG OF MD 228 WILL BE ADDED.

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 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
1.5 CY	TEST PIT EXCAVATION
230 LF	12 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
50 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
18 EA	12 INCH LED SIGNAL HEAD SECTION
2 EA	L.E.D. 16 IN. COUNTDOWN PEDESTRIAN
3 EA	PEDESTRIAN PUSHBUTTON AND SIGN
3 EA	10 FT. BREAKAWAY PEDESTAL POLE
4.8 CY	CONCRETE FOR SIGNAL FOUNDATION
1 EA	27 FT. MAST ARM POLE & 50 FT. MAST ARM
2 EA	ADJUST EXISTING HANDHOLE TO GRADE
110 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT – TRENCHED
LS	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
1 EA	VIDEO DETECTION CAMERA AND CABLE (300 FT. LENGTH)
820 LF	ELECTRICAL CABLE 2 – CONDUCTOR (NO. 14 A.W.G.)
570 LF	ELECTRICAL CABLE 5 – CONDUCTOR (NO. 14 A.W.G.)
950 LF	ELECTRICAL CABLE 7 – CONDUCTOR (NO. 14 A.W.G.)
440 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
3 EA	3/4 IN. X 10 FT. GROUND ROD
1 EA	SHIELD ASSEMBLY (30" X 51") – GROUND MOUNT
1 EA	SHIELD ASSEMBLY (48" X 75") – GROUND MOUNT
1 EA	R3-6L (30" X 36") SIGN – MAST ARM MOUNT
1 EA	D3-2 (VAR. X 16") SIGN – MAST ARM MOUNT
1 EA	NEMA LOAD SWITCH
38 LF	WOOD SIGN SUPPORTS 4" X 6"
1 EA	CUT, CLEAN, GALVANIZE AND CAP

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

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 841–1019

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 841–1013

MR. JOE HORTY
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 841–1041

MR. JAMES FOLDEN
ASSISTANT DISTRICT ENGINEER – CONSTRUCTION
(410) 841–1031

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

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

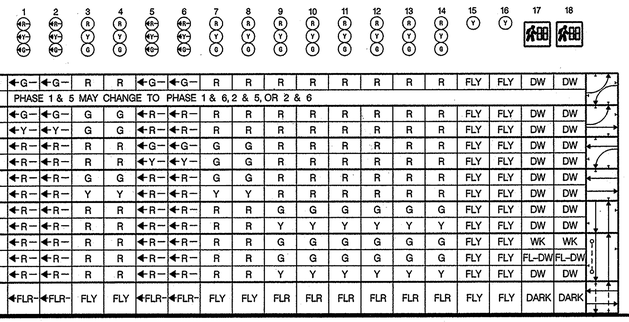
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

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

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

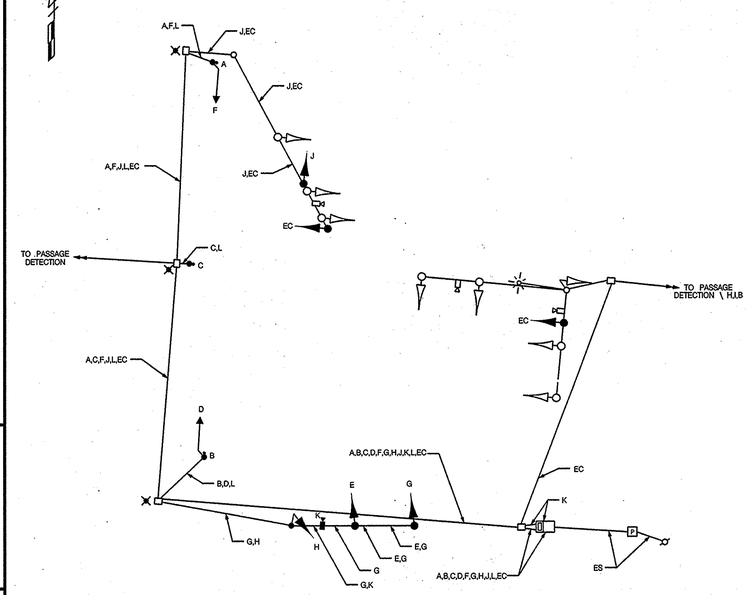
MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787–7652

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 & 5	G	G	R	R	G	G	R	R	R	R	R	R	R	R	FLY	FLY	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6																	
PHASE 1 & 6	G	G	G	G	R	R	R	R	R	R	R	R	R	R	FLY	FLY	DW	DW
1 CHANGE	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	FLY	FLY	DW	DW
PHASE 2 & 5	R	R	R	R	G	G	G	G	R	R	R	R	R	R	FLY	FLY	DW	DW
5 CHANGE	R	R	R	R	Y	Y	G	G	R	R	R	R	R	R	FLY	FLY	DW	DW
PHASE 2 & 6	R	R	G	G	R	R	G	G	R	R	R	R	R	R	FLY	FLY	DW	DW
2 & 6 CHANGE	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R	FLY	FLY	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	R	R	G	G	G	G	G	G	FLY	FLY	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	FLY	FLY	DW	DW
PHASE 4 ALT & 8	R	R	R	R	R	R	R	R	G	G	G	G	G	G	FLY	FLY	WK	WK
PED CLEAR	R	R	R	R	R	R	R	R	G	G	G	G	G	G	FLY	FLY	FL–DW	FL–DW
4 ALT & 8 CHANGE	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	FLY	FLY	DW	DW
FLASHING OPERATION	FLR	FLR	FLY	FLY	FLR	FLR	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	FLY	FLY	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A,B,C	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D,E,F	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
G,H,J	7–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K	VIDEO DETECTION CABLE
L	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EC	EXISTING CABLE
PS	EXISTING ELECTRIC SERVICE
X	GROUND ROD
P	EXISTING METER SERVICE PEDESTAL

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

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN

MD 228 AND BUNKER HILL ROAD/ SCOTLAND HEIGHTS DRIVE

SCALE	NONE	DATE	7–7–08
CONTRACT NO.	BW996M82		
DESIGNED BY	T.ZAYDEL	COUNTY	CHARLES
DRAWN BY	T. ZAYDEL	LOGMILE	08022801.47
CHECKED BY	S. RENZI	T.I.M.S. NO.	I–961
F.A.P. NO.	N/A	TOD NO.	
DRAWING NO.	TS–4462A GI	SHEET NO.	2 OF 2

FILE PATH: $FILE$
DATE: $DATE$

DRILL HOLES
DRILL HOLES
DRILL HOLES