PROJECT DESCRIPTION

I. GENERAL:

THE PROJECT INVOLVES THE CONSTRUCTION OF THE NEW TRAFFIC CONTROL SIGNAL AT US 1 (BELAIR RD) AND HONEYGO BLVD. EXTENDED/ GUNVIEW ROAD IN PERRY HALL, BALTIMORE COUNTY. HONEYGO EXTENDED IS A BALTIMORE COUNTY HIGHWAY PROJECT. GUNVIEW ROAD IS A DEVELOPER PROJECT. THIS PROJECT ALSO INCLUDES THE REMOVAL OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 AND FORGE ROAD.

US 1 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION SHALL OPERATE IN A NEMA SIX- PHASE, FULL-ACTUATED MODE. US 1 THROUGH MOVEMENTS OPERATE CONCURRENTLY. A DOUBLE EXCLUSIVE LEFT TURN PHASE FOR SOUTHBOUND US1 OPERATES WITH AN EXCLUSIVE NORTHBOUND LEFT TURN AND A RIGHT TURN OVERLAP FROM THE EAST. THE SIDE STREETS OPERATE AS A SPLIT PHASE. ACCESSIBLE PUSHBUTTON SYSTEM (APS) AND COUNTDOWN PEDESTRIAN SIGNAL HEADS ARE PROVIDED TO CROSS THE SOUTH AND EAST LEGS OF THE INTERSECTION.

VIDEO CAMERAS AND NON-INVASIVE PROBES SHALL PROVIDE THE DETECTION.

III. APS WILL FUNCTION AS FOLLOWS:

WHEN A PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR EXTENDED TIME, THE MESSAGE WILL BE:

BELAIR ROAD
WAIT: "WAIT TO CROSS BELAIR ROAD AT HONEYGO"
WALK: "RAPID TICKS" AND "WALK SIGN ON TO CROSS BELAIR ROAD"

HONEYGO BLVD.
WAIT: "WAIT TO CROSS HONEYGO AT BELAIR, CROSSWALK ANGLE RIGHT"
WALK: RAPID TICKS" AND "WALK SIGN ON TO CROSS HONEYGO BLVD."

IV. CONTROLLER INFORMATION:

A NEMA CONTROLLER WITH ALL NECESSARY EQUIPMENT SHALL OPERATE IN A SIX PHASE MODE HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

THE CONTRACTOR SHALL PURCHASE AND DELIVER THE "APS" 2-WIRE CENTRAL CONTROL UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT MR. EDWARD RODENHIZER, CHIEF SIGNAL SHOP AT 410-787-7652. THREE DAYS PRIOR TO DELIVERY.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MR. ROBERT SYNDER AT 410-787-7530 TO ARRANGE FOR THE PHONE DROP. THE CONTRACTOR SHALL PROVIDE THREE DAYS ADVANCE NOTICE AND SUPPLY THE NEAREST ADDRESS TO THE INTERSECTION.

EQUIPMENT LIST 'A'

A: EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9016	2 EA	4-CHANNEL DETECTOR AMPLIFIER
9042	1 EA	NEMA CONTROLLER ASC II WITH TELEMETRY, EQUIPMENT AND HARDWARE. ADDED 2
9044	1 EA	SIZE '6' BASE MOUNTED CONTROLLER CABINET
9087	1 EA	VIDEO DETECTOR INTERFACE UNIT (5-8 CAMERAS)
9571	150 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
	1 EA	D-3(1) DUAL FACED (VAR x 16") "ARROW, Gunview RD/ Gunview RD, ARROW"
	1 EA	D-3(1) DUAL FACED (VAR x16") "Honeygo BLVD, ARROW/ ARROW, Honeygo BLVD"
	2 EA	D-3(1) DUAL FACED (VAR x16") "Belair RD"
	5 EA	R3-5L "LEFT ARROW, ONLY" (30"x36")
	1 EA	R3-6L "LEFT/THROUGH ARROW" (30"x36")
	1 EA	R3-5R(2a) "RIGHT ARROW, ONLY, NO TURN, ON RED, THIS LANE" (30"x54")
	1 EA	R3-5R(2) "RIGHT ARROW, TURN ON, RED OK, THIS LANE, ONLY (30"x54")
		SHIELD ASSEMBLY SIGNS
	1 EA	"NORTH, US 1, LEFT ARROW" (24"x51")
	1 EA	"SOUTH, US 1, LEFT ARROW" (24"x 51")
	1 EA	"SOUTH, US 1, RIGHT ARROW" (36"x75")
	1 EA	"NORTH, US 1, RIGHT ARROW" (36"x75")

EQUIPMENT LIST 'B'

2 CHANGE IN ITEM ORDER DUE TO CHANGE IN CONTACT NUMBER QUALITY CHANGES AND ADDED ITEMS ARE IDENTIFIED

B: EQUIPMENT TO BE FURNISHED AMD INSTALL BY CONTRACTOR

ITEM NO.		QUANTITY	DESCRIPTION
1003		3 EA	MAINTENANCE OF TRAFFIC
2002		6 CY	TEST PIT EXCAVATION
5001		7 EA	HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING ARRROW
5004		550 LF	12" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING
5005		200 LF	24" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING
5006		50 LF	5" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING
5007		550 LF	REMOVE EXISTING PAVEMENT MARKING ANY WIDTH
ADDED 2	6001	28 LF	TYPE 'A' STANDARD 8" CURB WITH 12" GUTTER PAN
ADDED 2	6002	75 SF	5" CONCRETE SIDEWALK
8001		1 EA	2 WIRE CENTRAL CONTROL UNIT
8003		6 EA	8" LED SIGNAL HEAD SECTION
8006		2 EA	ANY SIZE LIGHTING ARM WITH 250 WATT HPS LAMP/ LUMINAIRE
8007		4 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGN
8008		3 EA	BREAKAWAY PEDESTAL POLE - ANY SIZE (10')
8013		4 EA	LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8016		2 EA	MAST ARM POLE WITH 60' MAST ARM ANY 'T' DIMENSION
8017		1 EA	MAST ARM POLE WITH 70' MAST ARM ANY 'T' DIMENSION
8018		1 EA	MAST ARM POLE WITH 50' MAST ARM ANY 'T' DIMENSION
8020		4 EA	NON-INVASIVE DETECTOR WITH LEAD-IN UP TO 1000'
8021		1 EA	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT PER ASSIGNMENT
8025		5 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500'
2 8034	850	~~470~~ LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
2 8035	700	~~1180~~ LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8038		150 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN- INCLUDING ALL HARDWARE
8040		800 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042		1 EA	METERED SERVICE PEDESTAL EMBEDDED (100 AMPS)
8044		40 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG THHN/THWN
2 8046	10	~~12~~ EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050		45 EA	12" LED SIGNAL HEAD SECTION
ADDED 2	8052	2 EA	CUT, CLEAN, GALVANIZE, AND CAP SIGNAL STRUCTURE
8054		850 LF	ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 AWG
8056		2375 LF	ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG
8057		1020 LF	ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
8058		600 LF	ELECTRICAL CABLE - 2 CONDUCTOR NO. 12 AWG- TC
8065		1 EA	INSTALL CONTROLLER AND CABINET, BASE-MOUNTED

EQUIPMENT LIST 'C'

THE SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET AT THE INTERSECTION OF US 1 AND FORGE ROAD. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 410-321-2781/2885

MR. DON SCHAEFER
ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
PHONE: 410-321-2821

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 410-321-2761

MR. MICHAEL PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: 410-321-2841

THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFTEY:

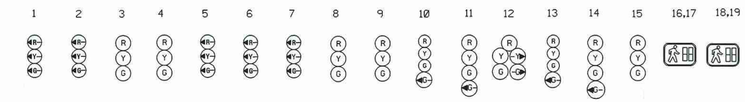
MR. ED RODENHIZER
CHIEF, SIGNAL OPERATION SECTION
PHONE: 410-787-7652

MS. DARLENE EIDE
SIGNAL WAREHOUSE
PHONE: 410-787-7668

MR. DENNIS DODA
TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
PHONE: 410-787-5858

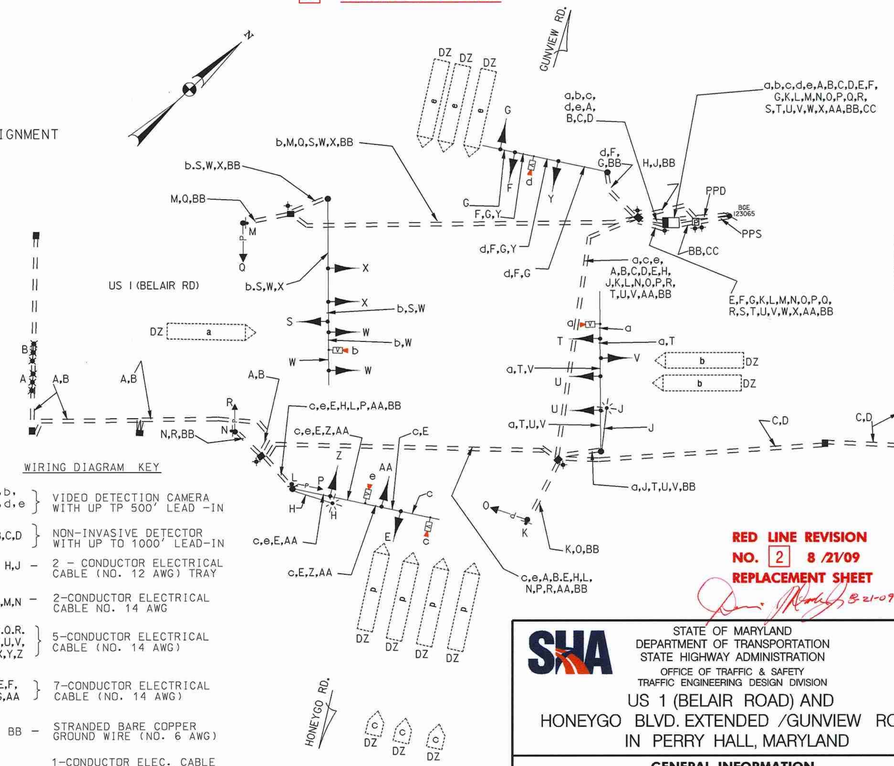
MR. GREG CARSKI
CHEIF, DESIGN SECTION
BALTIMORE COUNTY TRAFFIC ENGINEERING
PHONE: 410-887-3554

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16,17	18,19	
Phase 1 & 5	◀G-	◀G-	R	R	◀G-	◀G-	◀G-	R	R	R	R	R-G▶	R	R	R	DW	DW	
	MAY CHANGE TO PHASES 1&6 OR 2&5 OR 2&6																	
Phase 1 & 6	◀G-	◀G-	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	
1 Change	◀Y-	◀Y-	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	
Phase 2 & 5	R	R	R	R	◀G-	◀G-	◀G-	G	G	R	R	R	R	R	R	DW	DW	
5 Change	R	R	R	R	◀Y-	◀Y-	◀Y-	G	G	R	R	R	R	R	R	DW	DW	
Phase 2 & 6	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	WK	DW	
Countdown Ped. Clear	R	R	G	Y	R	R	R	G	G	R	R	R	R	R	R	FL/DW	DW	
2 & 6 Change	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R	DW	DW	
Phase 3	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G-G▶	R	R	R	DW	DW	
3 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y-Y▶	R	R	R	DW	DW	
Phase 4	R	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	DW	DW	
4 Change	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	
Alt. Phase 4	R	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	DW	WK	
Countdown Ped. Clear	R	R	R	R	R	R	R	R	R	R	R	R	◀G-	◀G-	G	DW	FL/DW	
Alt. 4 Change	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	
Flashing Operation	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

2 WIRING DIAGRAM



WIRING DIAGRAM KEY

a,b,c,d,e	VIDEO DETECTION CAMERA WITH UP TP 500' LEAD -IN
A,B,C,D	NON-INVASIVE DETECTOR WITH UP TO 1000' LEAD-IN
H,J	2 - CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY
K,L,M,N	2-CONDUCTOR ELECTRICAL CABLE NO. 14 AWG
O,P,Q,R, S,T,U,V, W,X,Y,Z	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
E,F, G,AA	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
BB	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
CC	1-CONDUCTOR ELEC. CABLE (NO. 4 AWG) THHN/THWN (2 WIRES)
PPS	PROPOSED UNDERGROUND SERVICE FEED
PPD	PROPOSED UNDERGROUND TELEPHONE DROP
P	METERED SERVICE PEDESTAL
✦	GROUND ROD (3/4"dia. x 10' length)
DZ	DETECTION ZONE

RED LINE REVISION NO. 2 8/21/09 REPLACEMENT SHEET

8-21-09

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

25003.89

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 1 (BELAIR ROAD) AND HONEYGO BLVD. EXTENDED /GUNVIEW ROAD IN PERRY HALL, MARYLAND

GENERAL INFORMATION

SCALE 1"= 20' DATE MAY 20, 2008 CONTRACT NO. XX4465185

DESIGNED BY EMM
DRAWN BY EMM
CHECKED BY TM HOLLOWAY
FAP NO.

COUNTY BALTIMORE
LOGMILE 03001021.43
TIMS NO. F331
TOD NO.

TS NO. 4654GI | DRAWING - 3 OF 3 | SHEET NO. N/A OF

PLOTTED: Thursday, August 20, 2009 AT 01:51 PM
FILE: O:\TRANSDWG\25003\25003.89 Honeygo\pSG-P002_HONEYGO GI.dgn

BY: emilesky