PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF AN EMERGENCY TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 32 AND THE SHA MAINTENANCE FACILITY IN HOWARD COUNTY. MD 32 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A FLASHING MODE UNTIL ACTUATED BY A PUSHBUTTON LOCATED IN THE SHA OR THE COUNTY MAINTENANCE FACILITY. WHEN ACTUATED, THE MD 32 SIGNAL INDICATIONS TURN RED AND THE MAINTENANCE FACILITY SIGNAL INDICATIONS TURN GREEN.

A HAZARD IDENTIFICATION BEACON WILL BE INSTALLED ON MD 32 FOR EACH APPROACH TO THE INTERSECTION.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN NEMA '6' BASE MOUNTED CABINET AT THE INTERSECTION.

SPECIAL NOTES

1. 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.
2. FOR THE EXACT LOCATION OF THE PRE-EMPTION PUSHBUTTON IN THE SHA MAINTENANCE FACILITY CONTACT MR. MIKE JOHNSON, SHA RME AT (410) 531-5533.
3. FOR THE EXACT LOCATION OF THE PRE-EMPTION PUSHBUTTON IN THE COUNTY MAINTENANCE FACILITY CONTACT MR. WILLIAM MALONE AT (410) 313-7470.

EQUIPMENT LIST "A"

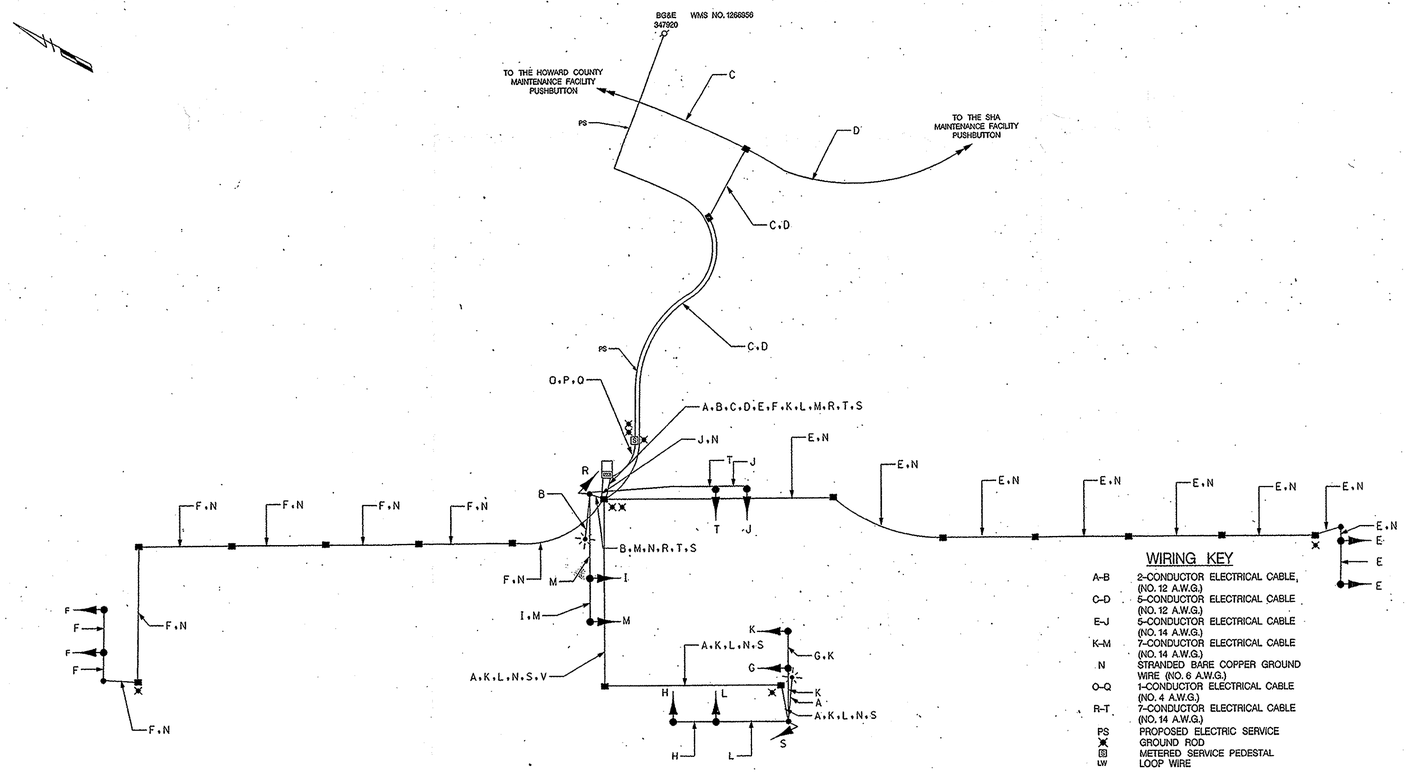
A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
9044	1 EA	EIGHT- PHASE CONTROLLER IN A NEMA SIZE '6' BASE MOUNTED CABINET
9571	144 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING:
		2 EA – R10-13 SIGN (36 IN. X 24 IN.) – MAST ARM MOUNTED
		2 EA – W3-3(2) SIGN (120 IN. X 60 IN.) – MAST ARM MOUNTED
		2 EA – W3-3 SIGN (48 IN. X 48 IN.) – MAST ARM POLE MOUNTED

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	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	Y	Y	Y	Y
NORMAL OPERATION	8" FLY	8" FLY	8" FLY	8" FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK
PRE-EMPTION WARNING	12" FLY	12" FLY	12" FLY	12" FLY	R	R	R	R	R	R	DARK	DARK	DARK	DARK
QUICK FLASH	FLR	FLR	FLR	FLR	R	R	R	Y	Y	Y	FLY	FLY	FLY	FLY
PRE-EMPTION 2	R	R	R	R	R	R	R	G	G	G	FLY	FLY	FLY	FLY
CHANGE	R	R	R	R	R	R	R	Y	Y	Y	FLY	FLY	FLY	FLY
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A–B	2-CONDUCTOR ELECTRICAL CABLE, (NO. 12 A.W.G.)
C–D	5-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
E–J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K–M	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
O–Q	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
R–T	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
PS	PROPOSED ELECTRIC SERVICE
	GROUND ROD
	METERED SERVICE PEDESTAL
LW	LOOP WIRE

1. REDLINE REVISION. 8/26/2005 - ADDITION OF RED INDICATION.

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.

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
5006	70 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
6006	275 LF	TRAFFIC BARRIER W-BEAM
6008	2 EA	W-BEAM, TYPE "C" END TREATMENT
8001	18 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8035	1500 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 12 A.W.G.)
8039	2 EA	FURNISH AND INSTALL FIREHOUSE PRE-EMPTION BUTTON
8044	2160 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
8050	460 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – BORED
8052	330 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
8053	2800 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT – TRENCHED
8058	1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL
8059	1 EA	FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT
8061	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 A.W.G.)
8067	23 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8070	144 SF	INSTALL OVERHEAD SIGN
8075	1 EA	FURNISH AND INSTALL 50 FT./50 FT. TWIN MAST ARMS AND POLE
8078	2 EA	FURNISH AND INSTALL 60 FT. MAST ARM AND POLE
8080	1 EA	FURNISH AND INSTALL 50FT./70 FT. TWIN MAST ARMS AND POLE
8084	2 EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE
8091	9 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
1. 8093	23 ~~20~~ EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8096	3 EA	CUT, CLEAN, AND CAP TRAFFIC SIGNAL STRUCTURE
8101	2200 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8102	940 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
8103	310 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.) -- TRAY CABLE
8107	2 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM
8112	1 EA	INSTALL CONTROLLER AND CABINET – BASE MOUNT
8114	4 EA	FURNISH AND INSTALL YELLOW LED SIGNAL HEAD FOR H.I.B.
8092	4 EA	FURNISH AND INSTALL 8 INCH VEHICULAR SIGNAL HEAD SECTION

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 7 ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(301) 624-8141

MR. DAVE COYNE
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(301) 624-8106

MR. ANDREA KREBS
ASSISTANT DISTRICT ENGINEER – UTILITIES
(301) 624-8115

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. MARK LENTZ
BGE REPRESENTATIVE
(410) 859-9054
WMS NO. 1266956

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

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

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

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

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
MD 32 AND SHA MAINTENANCE FACILITY ENTRANCE

SCALE NONE	DATE 3-14-05	CONTRACT NO. AT 7175185	
DESIGNED BY T. ZAYDEL		COUNTY HOWARD	
DRAWN BY T. ZAYDEL		LOGMILE 13003214.13	
CHECKED BY K. SCHMID		T.I.M.S. NO. G 409	
F.A.P. NO. N/A		TOD NO.	
DRAWING NO. TS-4378 GI	OF	SHEET NO. 3 OF 3	

DRILL HOLES
DRILL HOLES
DRILL HOLES