PROJECT DESCRIPTION

I GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT MD 45 (YORK ROAD) AND RIDGEBROOK ROAD IN BALTIMORE COUNTY, AND A "SIGNAL AHEAD PREPARE TO STOP WHEN FLASHING" SIGN AND LED FLASHING YELLOW SIGNAL HEADS ALONG NORTHBOUND MD 45 SOUTH OF THE INTERSECTION. MD 45 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

II INTERSECTION OPERATION

MD 45 AND RIDGEBROOK ROAD

1. THE INTERSECTION IS TO OPERATE IN A NEMA THREE-PHASE, FULLY ACTUATED MODE, WITH THE MD 45 APPROACHES RUNNING CONCURRENTLY. THE EASTBOUND RIDGEBROOK ROAD APPROACH SHALL OPERATE ALONE.

2. A FULL TRAFFIC ACTUATED, EIGHT-PHASE LOCAL CONTROLLER WITH TWO (2) FOUR CHANNEL, RACK MOUNTED LOOP DETECTOR AMPLIFIERS AND ASSOCIATED HARNESS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS SITE.

III. SPECIAL NOTE

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

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-321-2781

MR. GRADON TOBERY
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-321-2821

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-321-2761

MR. SUENETTE POPE
ASSISTANT DISTRICT ENGINEER - UTILITIES
410-321-2841

MR. DAVID CASTLE
BALTIMORE GAS & ELECTRIC - ELECTRICAL SERVICE
1-800-233-1854

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

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

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS DIVISION
410-787-7630

MR. ED RODENHIZER
TEAM LEADER - SIGNAL OPERATIONS
410-787-7650

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

SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

EQUIPMENT LIST

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT. CODE NO.	QUANTITY	DESCRIPTION
963010	2 EA	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
971017	1 EA	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL LOCAL CONTROLLER, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
973023	140 SF	OVERHEAD MOUNTED SHEET ALUMINUM SIGNS TO CONSIST OF:
		2 EA D3-2 "Ridgebrook Rd." DUAL-FACE SIGN. (VARIABLE X 16") MAST ARM MOUNTED.
		1 EA D3-2 "York Rd." (VARIABLE X 16") MAST ARM MOUNTED.
		1 EA "ASSOCIATED SHIELD ASSEMBLY" SIGN (48" X 75") POLE MOUNTED.
		1 EA "ASSOCIATED SHIELD ASSEMBLY" SIGN (36" X 51") POLE MOUNTED.
		1 EA W3-3(2) "SIGNAL AHEAD PREPARE TO STOP WHEN FLASHNG" (120"x60") MAST ARM MOUNTED.
	18 SF	GROUND MOUNTED SHEET ALUMINUM SIGNS TO CONSIST OF:
		2 EA W3-3 "SIGNAL AHEAD" SYMBOL SIGN (36"X36") GROUND MOUNTED.

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7941 CONNELY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
NONE	

NOTE: 1. THE CONTRACTOR SHALL NOTIFY THE SHA AT 410-787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY
2. ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE SHALL BECOME THE PROPERTY OF THE CONTRACTOR

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS – PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

EQUIPMENT LIST (CON'T)

B. ALL EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO CONSTRUCTION.

CAT. CODE NO.	QUANTITY	DESCRIPTION
120500	LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585616	370 LF	FURNISH AND INSTALL 5 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585624	95 LF	FURNISH AND INSTALL 24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585462	220 LF	REMOVAL OF EXISTING PAVEMENT MARKINGS - ANY WIDTH
800000	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE, 3 WIRE SYSTEM).
800000	950 LF	FURNISH AND INSTALL 7-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.).
801004	16 CY	FURNISH AND INSTALL CONCRETE FOUNDATION.
802501	1,065 LF	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.).
805115	330 LF	FURNISH AND INSTALL 3" POLYVINYL CHLORIDE ELECTRICAL CONDUIT (SCHEDULE 80) (BORED).
805125	25 LF	FURNISH AND INSTALL 2" POLYVINYL CHLORIDE ELECTRICAL CONDUIT (SCHEDULE 80) (TRENCHED).
805135	785 LF	FURNISH AND INSTALL 3" POLYVINYL CHLORIDE ELECTRICAL CONDUIT (SCHEDULE 80) (TRENCHED).
805140	30 LF	FURNISH AND INSTALL 4" POLYVINYL CHLORIDE ELECTRICAL CONDUIT (SCHEDULE 80) (TRENCHED).
805160	20 LF	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT-DETECTOR WIRE SLEEVE.
810550	3 EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 500 FOOT LEAD-IN.
811001	11 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	140 SF	INSTALL OVERHEAD SIGN
813022	7 SF	REMOVE EXISTING GROUND MOUNTED SIGNS
818021	1 EA	FURNISH AND INSTALL 16' 6" STEEL POLE WITH TWIN 50'/50' MAST ARMS (WITH 15' "T").
818036	1 EA	FURNISH AND INSTALL 27' STEEL POLE WITH SINGLE 50' MAST ARM.
818041	1 EA	FURNISH AND INSTALL 16' 6" STEEL POLE WITH SINGLE 60' MAST ARM (WITH 15' "T").
837001	7 EA	FURNISH AND INSTALL GROUND ROD, 3/4" DIAMETER X 10' LENGTH.
860272	21 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACE).
860292	2 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861104	105 LF	FURNISH AND INSTALL 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) (ALUMINUM SHIELDED).
861107	75 LF	FURNISH AND INSTALL 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.).
861108	710 LF	FURNISH AND INSTALL 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.).
861117	10 LF	FURNISH AND INSTALL 3 WIRE ELECTRICAL CABLE (NO. 4 A.W.G.).
862101	915 LF	FURNISH AND INSTALL LOOP WIRE (NO. 14 A.W.G.) ENCASED IN FLEXIBLE TUBING.
862102	315 LF	FURNISH AND INSTALL SAW CUT.
871202	1 EA	INSTALL BASE-MOUNTED CABINET AND CONTROLLER.

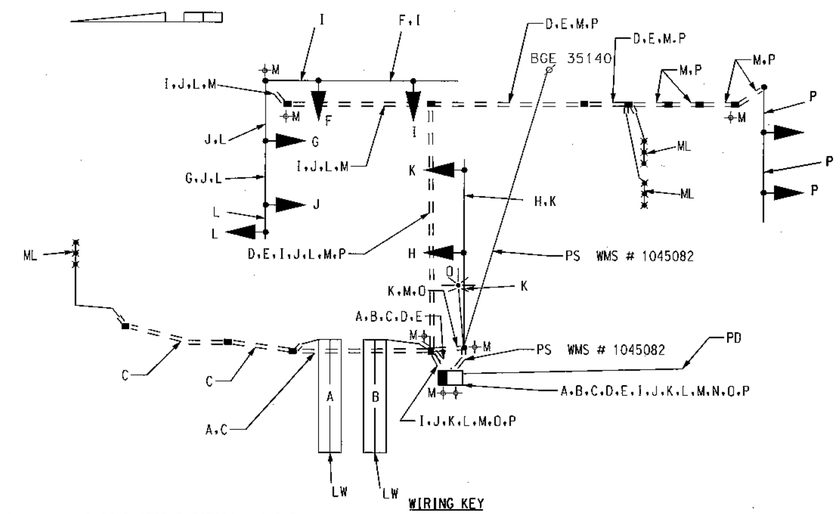
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO CONSTRUCTION.

CAT. CODE NO.	QUANTITY	DESCRIPTION
801105	32 LF	WOOD SIGN SUPPORTS 4 INCH x 6 INCH
866103	1 EA	FURNISH AND INSTALL 15' LIGHTING ARM ON SIGNAL STRUCTURE
831010	1 EA	FURNISH AND INSTALL 250 WATT H.P.S. LAMP AND LUMINAIRE
861116	85 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2 CONDUCTOR TRAY CABLE (NO. 12 AWG)
800000	2 EA	12 INCH - LED VEHICULAR YELLOW TRAFFIC SIGNAL HEAD (BLACH FACE)

PHASE CHART

1	2	3	4	5	6	7	8	9	
Y	Y	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	
PHASE 2 & 6	DARK	DARK	G	G	G	G	G	R	R	←
2 & 6 CHANGE	FL/Y	FL/Y	Y	Y	Y	Y	Y	R	R	→
PHASE 4	FL/Y	FL/Y	R	R	R	R	R	G	G	↰ ↱
4 CHANGE	FL/Y	FL/Y	R	R	R	R	R	Y	Y	
FLASHING OPERATION	DARK	DARK	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↑ ↑ ↑

WIRING DIAGRAM



WIRING KEY

A,B	- 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) (ALUMINUM SHIELDED)	P	- 7-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
C,D,E	- MICRO LOOP PROBE SET WITH 500' LEAD IN	LW	- LOOP WIRE
F,G,H	- 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	ML	- MICRO-LOOP PROBE SET
I,J,K,L	- 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	⏚	- 3/4 IN. x 10 FT. GROUND ROD
M	- STRADED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)	PS	- PROPOSED OVERHEAD SERVICE WMS # 1045082
N	- 3- WIRE ELECTRICAL CABLE (NO. 4 A.W.G.)	PD	- PROPOSED UNDER GROUND PHONE SERVICE
O	- 2-CONDUCTOR ELECTRICAL CABLE TRAY CABLE (NO. 12 A.W.G.)		

REVISIONS

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 45 AT RIDGEBROOK ROAD
LOVETON, MARYLAND

DRAWN BY: S.P.	F.A.P. NO. N/A	TS NO. 4275	SHEET NO.
CHECKED BY: T.H.	S.H.A. NO. N/A		
SCALE: 1"= 20	COUNTY: BALTIMORE	T.I.M.S. NO. F590	2 OF 2
DATE: 6-20-03	LOG MILE: 0300451I.60		

THISISWHERE$YOUR$FILENAME$WILL$PLOT THIS$SPACE$ISFORTHE$DATE