CONSTRUCTION DETAILS

A. INSTALL NEMA SIZE '6' BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT (NOTE: 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS). INSTALL CENTER OF FOUNDATION AT STA. 113+55, OFFSET 77 FT. RT.
B. INSTALL 27 FT. STEEL POLE WITH 70 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA, AND 20 FT. LIGHTING ARM WITH 250 WATT HIGH PRESSURE SODIUM LUMINAIRE WITH PHOTOCELL (NOTE: 2-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS). INSTALL CENTER OF 27 FT. STEEL POLE AT STA. 113+65, OFFSET 78 FT. LT.
C. INSTALL 14 FT. PEDESTAL POLE WITH TRAFFIC SIGNAL HEAD (NOTE: 2-3 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS). INSTALL CENTER OF 14 FT. PEDESTAL POLE AT STA. 114+25, OFFSET 5 FT. RT.
D. INSTALL HANDHOLE.
E. HANDHOLE INSTALLED UNDER INTERCONNECT PLAN.
F. INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.
G. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED.
H. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.
J. 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED INSTALLED UNDER INTERCONNECT PLAN.
K. 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED INSTALLED UNDER INTERCONNECT PLAN.
L. PROPOSED VIDEO DETECTION ZONE.
M. ABANDON EXISTING HANDHOLE.
N. EXISTING HANDHOLE REMOVED UNDER INTERCONNECT PLAN.
P. ABANDON EXISTING CONDUIT.
R. 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED INSTALLED UNDER INTERCONNECT PLAN.
S. INSTALL MICRO-LOOP PROBE SET AT STATION 117+88.
T. INSTALL 1 IN LIQUID-TIGHT, NON-METALLIC ELECTRICAL CONDUIT (DETECTOR WIRE-SLEEVE).
U. INSTALL 24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (STOP LINE).
V. INSTALL 12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (CROSSWALK).
W. INSTALL METERED SERVICE PEDESTAL.
X. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED FOR PROPOSED ELECTRICAL SERVICE.
Y. INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED FOR PROPOSED PHONE DROP.
Z. INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED FOR PROPOSED ELECTRICAL SERVICE.
AA. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED FOR PROPOSED ELECTRICAL SERVICE.
BB. INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED FOR PROPOSED PHONE DROP.
CC. INSTALL MICRO-LOOP PROBE SET AT STATION 111+48.

PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE CONSTRUCTION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE U.S. 40 (BALTIMORE NATIONAL PIKE) AND RAMP 2 (I-695 - INNER LOOP) INTERSECTION IN BALTIMORE COUNTY. U.S. 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA TWO PHASE FULL-TRAFFIC-ACTUATED MODE WITH ONLY WESTBOUND U.S. 40 AND THE LEFT TURN FROM EASTBOUND U.S. 40 BEING SIGNALIZED.

THIS INTERSECTION WILL OPERATE AS PART OF AN INTERCONNECT SYSTEM BETWEEN INGLESIDE AVENUE AND WINTERS LANE USING 12-PAIR COMMUNICATION CABLE.

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 STREET ADDRESS, ZIP CODE, AND TELEPHONE NUMBER.

CONTROLLER REQUIREMENTS

INSTALL A FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH A VIDEO DETECTION SYSTEM, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, ISOLATION BOARD, TELEMETRY EQUIPMENT, FOUR CHANNEL LOOP DETECTOR AMPLIFIERS AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-321-2781 OR 410-321-2885

MS. SUENETTE POPE
UTILITY ENGINEER
410-321-2841

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-321-2764

THE POWER COMPANY REPRESENTIVE:

MR. GARY SMITH
BGE

WMS #

CONTACT PERSONS FOR THE OFFICE OF TRAFFIC AND SAFETY ARE AS FOLLOWS:

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

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

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
410-787-7676

MR. MIKE STOCKER
SIGNAL SHOP WAREHOUSE
410-787-7696

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

SPEC. NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
816	971017	1 EA.	EIGHT PHASE (FULLY ACTUATED) CONTROLLED AND CABINET-BASE MOUNT SIZE SIX
816	963010	2 EA.	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT
---	900000	1 EA.	VIDEO INTERFACE EQUIPMENT
813	973023	9 S.F.	SHEET ALUMINUM SIGN - 1 EACH R3-3 (36" x 36")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

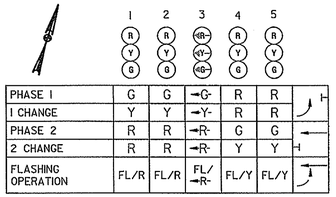
SPEC. NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
104	120500	L.S.	MAINTENANCE OF TRAFFIC
205	203030	2 C.Y.	TEST PIT EXCAVATION
556	585620	375 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS (CROSSWALK)
556	585624	100 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS (STOP LINE)
801	801004	8 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
810	802501	450 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805	805105	75 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805	805118	75 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805	805125	550 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	805135	450 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	805140	815 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	805155	150 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805	805160	35 L.F.	1 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807	807202	1 EA.	METERED SERVICE PEDESTAL
---	810555	5 EA.	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
811	811001	7 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813	813015	9 S.F.	INSTALL OVERHEAD SIGN
816	816001	1 EA.	VIDEO DETECTION CAMERA
816	816010	1 EA.	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818	818010	1 EA.	14 FOOT BREAKAWAY PEDESTAL POLE
818	818052	1 EA.	STEEL POLE WITH SINGLE 70 FOOT MAST ARM
806	831010	1 EA.	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
810	832017	60 L.F.	CABLE - 1 CONDUCTOR, NO. 4 A.W.G., TYPE USE, 600 V
804	837001	7 EA.	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
814	860272	15 EA.	12 INCH VEHICULAR SIGNAL HEAD SECTION
810	861107	1,250 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
810	861116	450 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
815	862102	450 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
818	866104	1 EA.	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
816	871117	1 EA.	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
---	800000	L.S.	REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT

EQUIPMENT LIST "C"

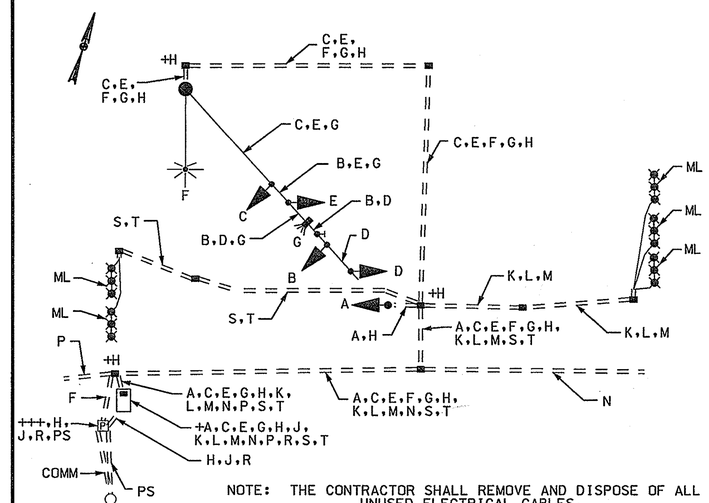
C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR

PHASE CHART



WIRE DIAGRAM



NOTE: THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UNUSED ELECTRICAL CABLES.

WIRING LEGEND

A,B,C,D,E }	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
F }	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
G }	VIDEO DETECTION CAMERA TO CONTROLLER CABLE
H }	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
J,R }	1-CONDUCTOR (NO. 4 A.W.G.)
K,L,M,S,T }	MICRO-LOOP PROBE LEAD-IN CABLE
N,P }	12-PAIR JELLY-FILLED COMMUNICATION CABLE (INSTALLED UNDER INTERCONNECT PLAN)
+ -	3/4" x 10' GROUND ROD
PS -	PROPOSED POWER SERVICE UNDERGROUND
ML -	MICRO-LOOP PROBE
COMM -	PROPOSED PHONE DROP

SG-4 OF SG-6

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BALTIMORE, MARYLAND 21217
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REVISIONS

SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
U.S. 40 & RAMP 2 (I-695 - INNER LOOP)
GENERAL INFORMATION SHEET

DRAWN BY: ADL	F.A.P. NO. SEE TITLE SHEET	TS NO. 4335	SHEET NO.
CHECKED BY: BLB	S.H.A. NO. BA3895172		
SCALE: NONE	COUNTY: BALTIMORE	T.I.M.S. NO. G 250	
DATE: AUGUST 2004	LOG MILE: 03004002.52		10 OF 101

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