PROJECT DESCRIPTION

I. GENERAL:

THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFI CONTROL SIGNAL AT MD150 (EASTERN BLVD.) AND VIRGINIA AVENUE/ ENTRANCE TO MTA PARK & RIDE IN BALTIMORE COUNTY. THE EXISTING INTERCONNECT CABLE FROM VIRGINIA AVE. TO MARIE AVE/ TERRACE ROAD SHALL BE REPLACED.

MD 150 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION OPERATES IN A NEMA FOUR PHASE, FULL-ACTUATED MODE. MD 150 THROUGH MOVEMENTS OPERATE CONCURRENTLY. VIRIGINA AVE AND PARK & RIDE OPERATE CONCURRENTLY. A COUNTDOWN/AUDIBLE PEDESTRIAN PUSHBUTTON MOVEMENT SHALL REPLACE THE EXISTING PEDESTRAIN OPERATION CROSSING THE EAST LEG OF MD 150. VIDEO CAMERAS SHALL PROVIDE THE DETECTION.

AUDIBLE PUSHBUTTON FUNCTION AS FOLLOWS:

1. When pedestrian locates and presses pushbutton for extended time, the pushbuuton unit will be "Wait to cross Eastern Avenue"
2. When WALK phase begins, the message will be a rapid tick, which will last for the duration of the "WALK" phase.

III. CONTROLLER INFORMATION:

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

THE CONTRACTOR SHALL PURCHASE AND DELIVER OF 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.

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

EQUIPMENT LIST "C"

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

EQUIPMENT LIST "A"

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

ITEM NO.	QUANTITY	DESCRIPTION
9042/9044	1 EA	NEMA CONTROLLER ASCII WITH ALL NECESSARY EQUIPMENT WITH TELEMETRY FOR INTERCONNECT/ SIZE 6 CABINET
9086	1 EA	VIDEO DETECTOR INTERFACE UNIT
9016	1 EA	FOUR CHANNEL RACK-MOUNTED AMPLIFIER
9570	9.25 SF	SHEET ALUMINIUM SIGNS GROUND MOUNTED
		1 EA R 6-1R "RIGHT ONE WAY ARROW" (36"x 12")
		1 EA R5-1 "DO NOT ENTER" (30"x 30")
9571	29 SF	SHEET ALUMINIUM SIGNS MAST ARM MOUNTED
		2 EA R10-4(1) COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO Eastern Blvd" (9"x 15")
		2 EA D3-2 "Eastern BLVD" DUAL FACED (Var. x 16")
		2 EA D3-2 "Virginia AVE" DUAL FACED (Var. x 16")
		1 EA R3-5L "LEFT ONLY" (30"x 36")
		1 EA R3-2 "NO LEFT TURN SYMBOL" (30"x 30")
		1 EA R6-1L "LEFT ONE WAY ARROW" (36"x 16")

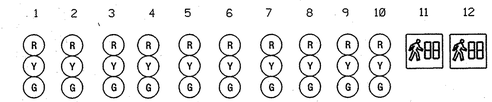
EQUIPMENT LIST "B"

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

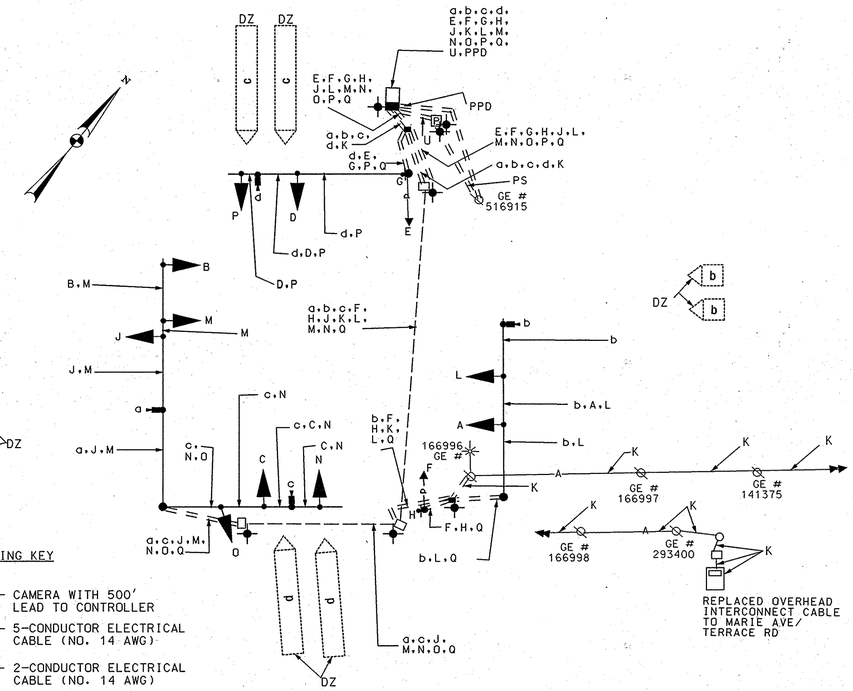
ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5002	250 LF	REMOVAL OF EXISTING PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5004	175 LF	12" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING
5005	100 LF	24" HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKING
6001	80 LF	STANDARD TYPE 'A' COMBINATION CURB AND GUTTER 12" GUTTER PAN/8" DEPTH
6002	740 SF	5" CONCRETE SIDEWALK
8001	33 EA	12" LED SIGNAL HEAD SECTION
8002	1 EA	2 WIRE CENTRAL CONTROL UNIT
8008	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGN
8009	1 EA	BREAKAWAY PEDESTAL POLE - ANY SIZE (14')
8014	2 EA	LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8019	2 EA	MAST ARM POLE WITH 50' MAST ARM ANY 'T' DIMENSION
8022	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT-PER ASSIGNMENT
8024	1 EA	TWIN MAST ARM POLE WITH 70'/50' MAST ARMS ANY 'T' DIMENSION
8026	4 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8029	710 LF	12 PAIR COMMUNICATION CABLE, SELF-SUPPORTING
8030	40 LF	3" ELECTRICAL CONDUIT- PVC RISER
8034	255 LF	UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8036	34 LF	WOOD SIGN SUPPORTS UP TO 4" x 6"
8037	40 SF	DETECTABLE WARNING SURFACES
8038	38 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN-INCLUDING ALL HARDWARE
8040	300 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8044	45 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG THHN/THWN
8046	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	240 LF	ELECTRICAL CABLE - 2 CONDUCTOR NO. 14 AWG
8055	350 LF	ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG
8056	1750 LF	ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
8064	1 EA	INSTALL CONTROLLER AND CABINET, BASE-MOUNTED

NOTE: CONCRETE FOR THE POLES AND CABINET FOUNDATIONS WITH GROUND-RODS ARE INCIDENTAL

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
Phase 2 & 6	G	G	G	G	G	R	R	R	R	R	DW	DW
2 & 6 Change	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW
Phase 4 & 8	R	R	R	R	R	G	G	G	G	G	DW	DW
4 & 8 Change	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW
ALT Phase 8	R	R	R	R	R	G	G	G	G	G	WK	WK
Ped Countdown Clearance	R	R	R	R	R	G	G	G	G	G	FL/DW	FL/DW
ALT Phase 8 Change	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK



WIRING KEY

- a,b, c,d – CAMERA WITH 500' LEAD TO CONTROLLER
- A,B,C, D,E,F – 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- G,H – 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J,L,M, N,O,P, – 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- Q – NO.6 AWG STRANDED BARE COPPER GROUND WIRE
- K – REMOVE THE EXISTING OVERHEAD INTERCONNECT CABLE AND INSTALL THE PROPOSED 12 PAIR COMMUNICATION CABLE TO THE CONTROLLER CABINET
- U – 1-CONDUCTOR ELECTRICAL CABLE NO. 4 AWG-THHN/THWN (3-WIRE)
- PPD – PROPOSED TELEPHONE DROP
- PS – PROPOSED SERVICE FEED
- DZ – CAMERA DETECTOR ZONE
- ⌖ – 3/4 IN. x 10 FT. GROUND ROD

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

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

MD 150 (EASTERN BLVD) AND VIRGINIA AVE./ENT. MTA PARK & RIDE
ESSEX, MARYLAND

GENERAL NOTE

SCALE NONE | DATE 3/26/2008 | CONTRACT NO. AT9125185

DESIGNED BY EMM | COUNTY BALTIMORE
DRAWN BY EMM | LOGMILE 03015002.61
CHECKED BY TMH | TIMS NO. J025
F.A.P. NO. SEE TITLE SHEET | TOD NO.

TS NO. 4648 | DRAWING – OF | SHEET NO. 2 OF 2

PLOTTED: Tuesday, March 25, 2008 AT 06:33 PM
FILE: O:\TRANSDWG\25000\25003.35 MD 150 @ Virigina Ave\MSG-P002 MD 150 VA GI.dgn

TOD # AT912-19
SHA# BA633A5F/B5F

BY: emilesky