DRILL HOLES

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PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 150 (EASTERN AVE.) AND MACE BLVD./RIVERSIDE DR. IN BALTIMORE COUNTY.
MD 150 IS ASSUMED TO RUN IN A EAST–WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA FIVE–PHASE, FULLY–ACTUATED MODE WITH AN EXCLUSIVE LEFT TURN PHASE FOR NORTHBOUND MD 150 AND SIDE STREET SPLIT PHASING. AN ALTERNATE PEDESTRIAN PHASE EXISTS ACROSS THE NORTH LEG OF MD 150. THIS PHASING WILL NOT CHANGE.

CONTROLLER REQUIREMENTS

A NEW EIGHT–PHASE, FULLY–ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WITH VIDEO INTERFACE EQUIPMENT AND 2–WIRE CENTRAL CONTROL UNIT WILL BE INSTALLED AT THE INTERSECTION.

APS NOTES

TO CROSS MD 150

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS EASTERN AT MACE & RIVERSIDE"

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

TRAFFIC SYSTEM OVERHEAD INTERCONNECT NOTE

EXISTNG INTERCONNECT FROM MD 150 & MARIE AVE. CABINET TO MD 150 & TAYLOR AVE. CABINET SHALL BE REMOVED AND REPLACED WITH NEW 12–PAIR SELF SUPPORTING CABLE USING EXISTING HARDWARE IN SAME LOCATION.

EQUIPMENT LIST "A"

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

QUANTITY	DESCRIPTION
1 EA	EIGHT–PHASE CONTROLLER AND BASE MOUNTED CABINET WITH TELEMETRY EQUIPMENT
2 EA	VIDEO INTERFACE EQUIPMENT
84.1 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING:
	1 EA – R3–5L (30" X 36") OVERHEAD MOUNT
	2 EA – D3–2 (VAR. X 16") OVERHEAD MOUNT
	2 EA – R3–4 (24" X 24") GROUND MOUNT
	1 EA – R4–7 (24" X 30") GROUND MOUNT
	1 EA – M95–1 (72" X 24") OVERHEAD MOUNT
	1 EA – SHIELD ASSEMBLY (30" X 51") GROUND MOUNT
	1 EA – SHIELD ASSEMBLY (48" X 75") GROUND MOUNT

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	1 EA	MAINTENANCE OF TRAFFIC
1005	1 LS	MOBILIZATION
2001	30 CY	CLASS 2 EXCAVATION
2002	5 CY	TEST PIT EXCAVATION
5001	120 LF	5 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5004	325 LF	12 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5005	40 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5006	4 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTERS
5007	2 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROWS
6001	30 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER
6002	875 SF	4 INCH CONCRETE SIDEWALK
8001	34 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2–WIRE CENTRAL CONTROL UNIT
8005	1 EA	ADJUST EXISTING HANDHOLE TO TO GRADE INCLUDING COLLAR
8008	2 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON
8009	2 EA	BREAKAWAY PEDESTAL POLE
8014	2 EA	L.E.D. 16 IN. COUNTDOWN PEDESTRIAN
8016	1 EA	16.5 FT. MAST ARM POLE & 38 FT. MAST ARM
8018	1 EA	16.5 FT. MAST ARM POLE & 70 FT. MAST ARM
8022	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
8026	1 EA	VIDEO DETECTION CAMERA AND CABLE (200 FT.)
8026	4 EA	VIDEO DETECTION CAMERA AND CABLE (300 FT.)
8029	3750 LF	12–PAIR COMMUNICATION CABLE
8033	15 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT– SLOTTED
8033	300 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT– SLOTTED
8034	95 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT – TRENCHED
8034	15 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT – TRENCHED
8036	20 LF	WOOD SIGN SUPPORTS – 4 IN. X 4 IN.
8037	50 SF	DETECTABLE WARNING SURFACE
8038	116 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGNS
8040	500 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8041	2 EA	FURNISH AND INSTALL 2 IN. WEATHERHEAD TO STEEL POLE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8044	120 LF	ELECTRICAL CABLE 1 – CONDUCTOR (NO. 4 A.W.G.) – THHN /THWN
8046	5 EA	ELECTRICAL HANDHOLE
8051	2 EA	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE
8053	205 LF	ELECTRICAL CABLE 2 – CONDUCTOR (NO. 14 A.W.G.)
8055	285 LF	ELECTRICAL CABLE 5 – CONDUCTOR (NO. 14 A.W.G.)
8056	1360 LF	ELECTRICAL CABLE 7 – CONDUCTOR (NO. 14 A.W.G.)
8064	1 EA	INSTALL CONTROLLER AND CABINET – BASE MOUNT
NEG.	9 EA	FURNISH AND INSTALL 12 IN. SIGNAL HEAD LOUVERS

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 4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 321–2781

MR. MICHAEL PASQUARIELLO
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 321–2841

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 321–2761

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787–7630

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

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

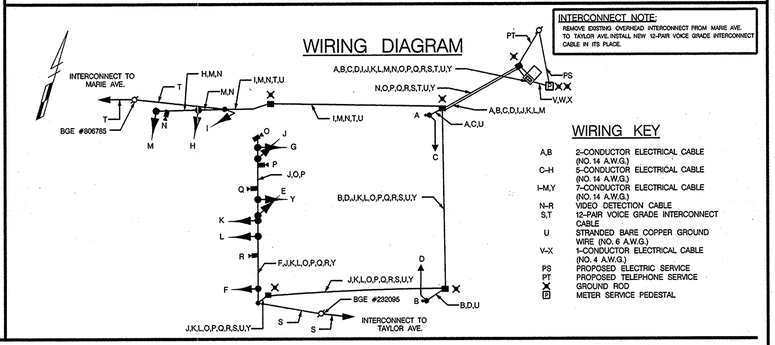
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

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

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 6	G	G	G	G	R	R	R	R	R	R	DW	DW
1 & 6 CHANGE	Y	Y	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	R	R	G	G	G	G	R	R	R	R	DW	DW
2 & 6 CHANGE	R	R	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 3	R	R	R	R	R	R	G	R	R	G	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	R	R	Y	DW	DW
PHASE 3	R	R	R	R	R	R	G	R	R	G	WK	WK
PHASE 3	R	R	R	R	R	R	G	R	R	G	FL–DW	FL–DW
3 CHANGE	R	R	R	R	R	R	Y	R	R	Y	DW	DW
PHASE 4	R	R	R	R	R	R	G	G	R	R	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	R	R	DW	DW
FLASHING OPERATION	FLR	FLR	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK

WIRING DIAGRAM



INTERCONNECT NOTE:
REMOVE EXISTING OVERHEAD INTERCONNECT FROM MARIE AVE. TO TAYLOR AVE. INSTALL NEW 12–PAIR VOICE GRADE INTERCONNECT CABLE IN ITS PLACE.

WIRING KEY

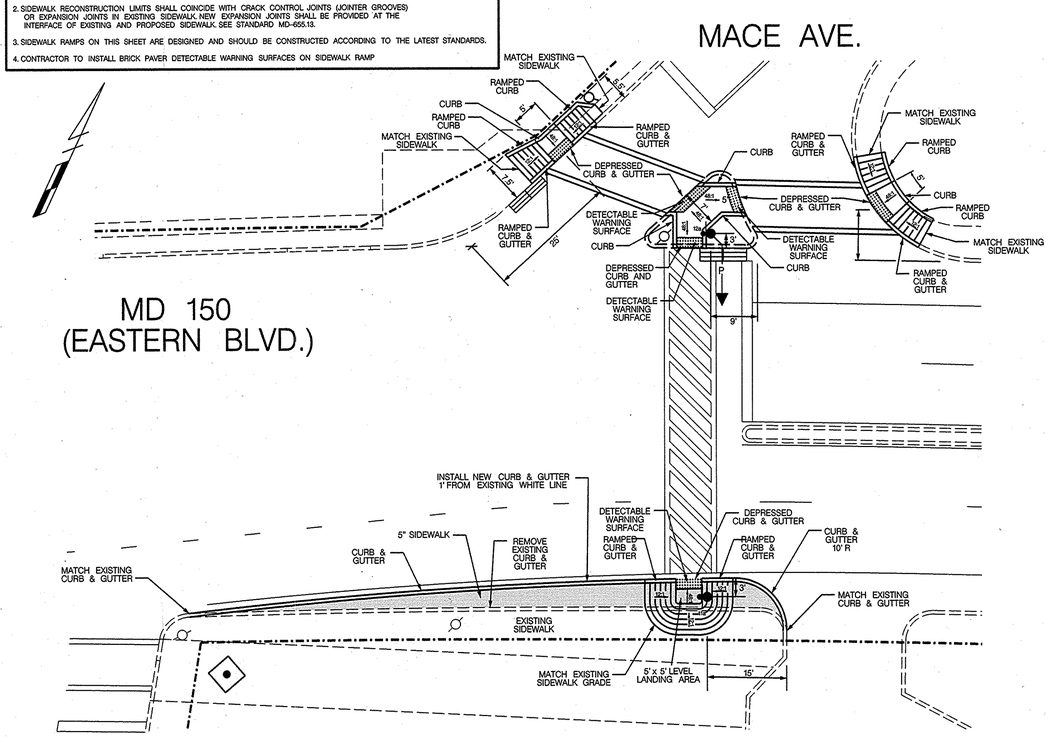
A,B	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C–H	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I–M,Y	7–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N–R	VIDEO DETECTION CABLE
S,T	12–PAIR VOICE GRADE INTERCONNECT CABLE
U	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
V–X	1–CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
PS	PROPOSED ELECTRIC SERVICE
PT	PROPOSED TELEPHONE SERVICE
X	GROUND ROD
	METER SERVICE PEDESTAL

SIDEWALK RAMP LAYOUT

NOT TO SCALE

GENERAL NOTES

1. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.
2. SIDEWALK RECONSTRUCTION LIMITS SHALL COINCIDE WITH CRACK CONTROL JOINTS (JOINTER GROOVES) OR EXPANSION JOINTS IN EXISTING SIDEWALK. NEW EXPANSION JOINTS SHALL BE PROVIDED AT THE INTERFACE OF EXISTING AND PROPOSED SIDEWALK. SEE STANDARD MD–655.13.
3. SIDEWALK RAMPS ON THIS SHEET ARE DESIGNED AND SHOULD BE CONSTRUCTED ACCORDING TO THE LATEST STANDARDS.
4. CONTRACTOR TO INSTALL BRICK PAVER DETECTABLE WARNING SURFACES ON SIDEWALK RAMP



PROPOSED SIGNS

TOD NO: AT912-20
SHA NO: BA633A5G/B5G
MD 150@ MACE/RIVERSIDE

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923–7101
FAX: (410) 923–6473
EMAIL: TRAFFIC@TRAFFIC–CONCEPTS.COM

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN

MD 150 (EASTERN BLVD.) AT MACE AVENUE / RIVERSIDE DRIVE

ESSEX, MD

SCALE	NONE	DATE	7–31–08
CONTRACT NO.	AT9125185		
DESIGNED BY	T.ZAYDEL	COUNTY	BALTIMORE
DRAWN BY	T. ZAYDEL	LOGMILE	03015003.02
CHECKED BY	S. RENZI	T.I.M.S. NO.	H422
F.A.P. NO.	NA	TOD NO.	
DRAWING NO.	TS 4678 GI	SHEET NO.	2 OF 2

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DATE: Friday, August 01, 2008 AT 09:49 AM