PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE FULL RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 197 (LAUREL-BOWIE ROAD) AND CONTEE ROAD/OLD STAGE COACH ROAD IN PRINCE GEORGE'S COUNTY, MARYLAND. MD 197 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 197 APPROACHES OPERATING CONCURRENTLY AND THE CONTEE ROAD/OLD STAGE COACH ROAD APPROACHES OPERATING CONCURRENTLY. EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR THE NORTHBOUND MD 197 APPROACH AND EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR THE SOUTHBOUND MD 197 APPROACH. AN OVERLAP PHASE IS PROVIDED FOR THE EASTBOUND CONTEE ROAD RIGHT-TURN MOVEMENT TO RUN CONCURRENTLY WITH THE NORTHBOUND MD 197 LEFT-TURN.

THE PEDESTRIAN PHASE ACROSS THE NORTH LEG OF MD 197 WILL HAVE AN AUDIBLE ACTUATED PEDESTRIAN PHASE. A NEW ALTERNATED AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE WEST LEG OF CONTEE ROAD.

APS MESSAGE FOR CROSSING MD 197 (LAUREL-BOWIE ROAD):
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS LAUREL-BOWIE AT CONTEE AND OLD STAGE COACH"
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING CONTEE ROAD:
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS CONTEE AT LAUREL-BOWIE"
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

INTERCONNECT NOTE

THE EXISTING INTERCONNECT CABLE TO SNOW HILL ESTATES LANE/TOWN CENTER SHOPPING CENTER WILL BE PARTIALLY RELOCATED. THE EXISTING INTERCONNECT CABLE TO MONTPELIER ROAD WILL BE REMOVED AND NEW INTERCONNECT CABLE WILL BE INSTALLED.

CONTROLLER REQUIREMENTS

A NEW NEMA SIZE '6' BASE MOUNTED CABINET AND A FULL TRAFFIC ACTUATED EIGHT-PHASE CONTROLLER WITH ASSOCIATED EQUIPMENT WILL BE USED.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. BRIAN YOUNG
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7409

MR. VERNON STINNETT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. ED RODENHIZER
SUPERVISOR - SIGNAL SHOP
PHONE: (410) 787-7650

MR. AUGIE REBISH
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (301) 513-7350

MR. RICHARD L. DAFF
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
9016	4	EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9042	1	EA	[UPDATED] CONTROLLER ASC II WITH TELEMETRY
9044	1	EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1	EA	[UPDATED] "TERRA" VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	24	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
			- 1 EACH M1-5(6) (48"x72")
9571	113	SF	[UPDATED] SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
			- 4 EACH D-3(1) - DUAL FACED (VARIABLEx16")
			- 2 EACH R3-5L (30"x36")
			- 1 EACH R3-5R (30"x36")
			- 4 EACH R10-3(1) (9"x15")
			- 2 EACH M1-5(6) (30"x48")
			- 1 EACH M1-5(6) (48"x72")

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

CONTROLLER AND CABINET TO BE RETURNED TO SHA SIGNAL SHOP.

SIDEWALK RAMP DETAILS

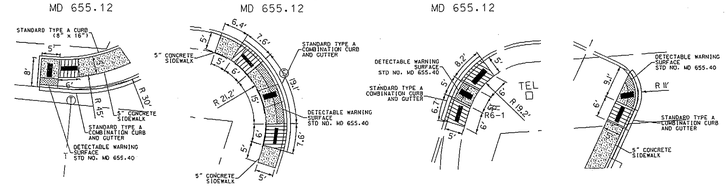
SCALE: 1" = 20'

NORTHEAST CORNER
REFER TO STANDARD NO. MD 655.12

NORTHWEST CORNER
REFER TO STANDARD NO. MD 655.12

SOUTHWEST CORNER
REFER TO STANDARD NO. MD 655.12

OLD STAGE COACH ROAD



EQUIPMENT LIST "B"

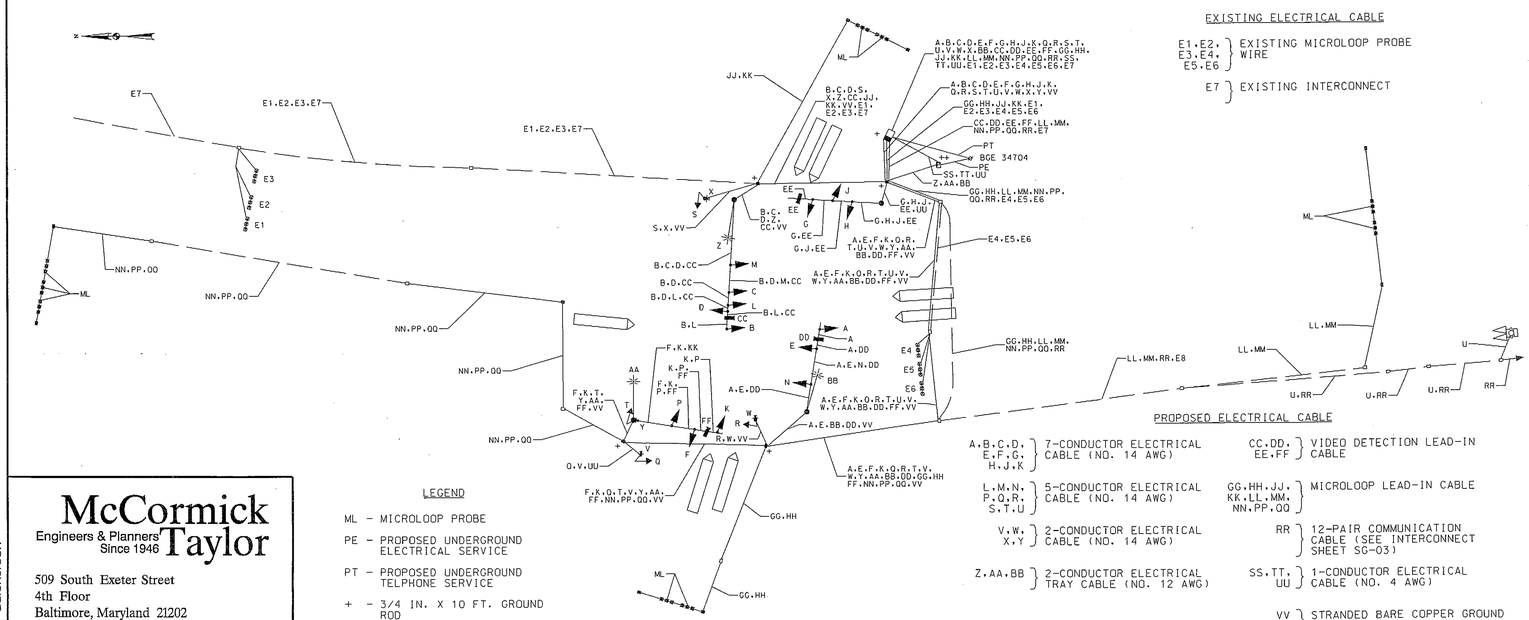
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
1003	1	EA	MAINTENANCE OF TRAFFIC
2002	4	CY	TEST PIT EXCAVATION
5004	400	LF	F & I 12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	50	LF	F & I 24" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5002	100	LF	F & I 5" HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT LINE MARKINGS
5003	1000	LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS ANY WIDTH
5006	52	SF	F & I WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
6001	200	LF	F & I STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH
6002	825	SF	F & I 5" CONCRETE SIDEWALK
6003	65	SF	F & I DETECTABLE WARNING SURFACE FOR CURB RAMPS
8002	1	EA	F & I 2 WIRE CENTRAL CONTROL UNIT
8004	3	EA	F & I 8" LED SIGNAL HEAD SECTION
8007	3	EA	F & I ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8008	4	EA	F & I AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	3	EA	F & I BREAKAWAY PEDESTAL POLE (ANY SIZE)
8016	4	EA	F & I LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEADS
8021	1	EA	F & I MAST ARM POLE & 70' MAST ARM ANY "T" DIMENSION
8019	3	EA	F & I MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8023	9	EA	F & I NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8024	1	EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8028	4	EA	F & I "TERRA" VIDEO DETECTION CAMERA AND CABLE UP TO 500'
8030	2750	LF	F & I 12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING, JELLYFILLED (UNDERGROUND)
8032	250	LF	DISCONNECT, PULL BACK & REROUTE CABLES
8034	450	LF	F & I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - BORED
8035	250	LF	F & I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - SLOTTED
8036	625	LF	F & I SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED
8037	40	LF	F & I WOOD SIGN SUPPORTS UP TO 4 X 6
8038	153	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	500	LF	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8012	1	EA	F & I METERED SERVICE PEDESTAL EMBEDDED
8043	50	LF	F & I ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG - THHN/THWN
8054	13	EA	F & I ELECTRICAL HANDHOLE
8001	45	EA	F & I 12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
~~8053~~	~~950~~	~~LF~~	~~F & I ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)~~
8051	1300	LF	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8053	2200	LF	F & I ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8054	2500	LF	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8055	1000	LF	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8061	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 + 5	←G—	←G—	←G—	R	R	R/←G—	R/←G—	R	R	R	R/—G→	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6																	
PHASE 1 + 6	←G—	←G—	←G—	G	G	R	R	R	R	R	R/—G→	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	←Y—	←Y—	←Y—	G	G	R	R	R	R	R	R/—G→	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	←R—	←R—	←R—	R	R	G/←G—	G/←G—	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	←R—	←R—	←R—	R	R	Y/←G—	Y/←G—	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	←R—	←R—	←R—	G	G	G	G	G	R	R	R	R	R	R	W	W	DW	DW
PED CLEARANCE	←R—	←R—	←R—	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	←R—	←R—	←R—	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 + 8	←R—	←R—	←R—	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 + 8 CHANGE	←R—	←R—	←R—	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	←R—	←R—	←R—	R	R	R	R	R	G	G	G	G	G	G	DW	DW	W	W
PED CLEARANCE	←R—	←R—	←R—	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	←R—	←R—	←R—	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



LEGEND

ML - MICROLOOP PROBE

PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE

PT - PROPOSED UNDERGROUND TELPHONE SERVICE

+ - 3/4 IN. X 10 FT. GROUND ROD

EXISTING ELECTRICAL CABLE

E1.E2.E3.E4.E5.E6 } EXISTING MICROLOOP PROBE WIRE

E7 } EXISTING INTERCONNECT

PROPOSED ELECTRICAL CABLE

A.B.C.D.E.F.G.H.J.K } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

L.M.N.P.Q.R.S.T.U } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

V.W.X.Y } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

Z.AA.BB } 2-CONDUCTOR ELECTRICAL TRAY CABLE (NO. 12 AWG)

CC.DD.EE.FF } VIDEO DETECTION LEAD-IN CABLE

GG.HH.JJ.KK.LL.MM.NN.PP.QQ } MICROLOOP LEAD-IN CABLE

RR } 12-PAIR COMMUNICATION CABLE (SEE INTERCONNECT SHEET SG-03)

SS.TT.UU } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG)

VV } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

TOD No: XX354-09
SHA No: PG901A54/K54
MD 197 @ Contee Rd/Old Stage Coach Rd

McCormick Taylor
Engineers & Planners Since 1946
509 South Exeter Street
4th Floor
Baltimore, Maryland 21202
(410) 662-7400

BY: ddickerson

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

MD 197 (LAUREL-BOWIE ROAD) AND CONTEE ROAD /OLD STAGE COACH ROAD

LAUREL, MARYLAND

GENERAL INFORMATION

SCALE NO SCALE DATE 08/2010 CONTRACT NO. XX3545168r

DESIGNED BY BSH
DRAWN BY ADS
CHECKED BY MAS
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16019713.07
T.I.M.S. NO. J154
T.O.D. NO.

T.S. NO. 253BGI SG-02 OF SG-02 SHEET NO. 2 OF 2

PLOTTED: Tuesday, August 24, 2010
FILE: pSG-N001_TS2539.dgn