PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES CONSTRUCTING AN ADDITIONAL NORTHBOUND LEFT-TURN LANE SUCH THAT ADEQUATE STORAGE DISTANCE IS AVAILABLE WHEN CONVERTING TO EXCLUSIVE PHASING IN THIS DIRECTION. THE PAVEMENT WILL BE RE-STRIPED ON THE WEST LEG IN ORDER TO RECEIVE THE DOUBLE LEFT TURN LANE. THE EXISTING MAST ARM STRUCTURE IN THE NORTHEAST QUADRANT WILL BE REPLACED. VIDEO DETECTION WILL BE INSTALLED FOR PRESENCE DETECTION ON US 301 AND OSBORNE ROAD. MICROLOOP PROBES WILL BE INSTALLED FOR PASSAGE DETECTION ON NB US 301 AND SOUTH OSBORNE ROAD. US 301 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT-TURN PHASING FOR NORTHBOUND LEFT TURN MOVEMENTS AT SOUTH OSBORNE ROAD AND EXCLUSIVE-PERMISSIVE LEFT TURN MOVEMENTS AT CROOM ROAD.

THE CABINET AT THE INTERSECTION OF US 301 AND MD 382 OPERATES AS A MASTER/LOCAL CONTROLLER FOR THE INTERCONNECT SYSTEM AND OPERATES US 301/S. OSBORNE ROAD AND US 301/MD 382 AS ONE INTERSECTION.

THE CABINET AT THE INTERSECTION OF US 301 AND S. OSBORNE ROAD OPERATES AS A TERMINAL CABINET TO HOUSE THE DETECTOR AMPLIFIERS, WIRING TERMINALS, AND SPECIAL RELAY PACKAGE.

CONTROLLER REQUIREMENTS

THE EXISTING POLE MOUNTED CONTROLLER, LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES WILL BE REMAIN AT SOUTH OSBORNE ROAD. ALL EQUIPMENT WILL REMAIN AT CROOM ROAD. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO INTERFACE EQUIPMENT WITHIN THE EXISTING POLE-MOUNTED CONTROLLER.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Majib Shakib
Assistant District Engineer - Traffic
Phone: 301-513-7358

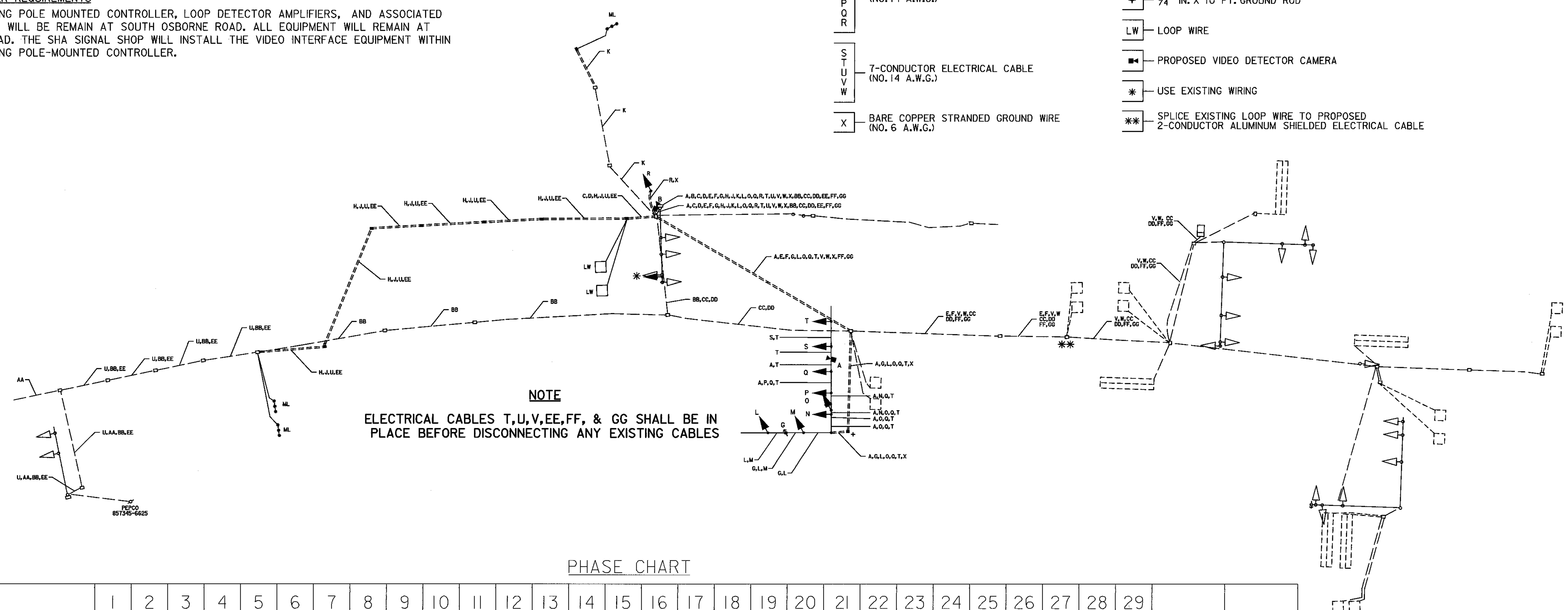
Mr. Augie Rebish
District Utility Engineer
Phone: 301-513-7350

Mr. Raleigh Medley
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Potomac Electric Power Company
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

- A, B — VIDEO DETECTOR CABLE
- C, D, E, F — 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED NO. 14 A.W.G.)
- G — 4-CONDUCTOR OPTICOM DETECTOR CABLE (NO. 20 A.W.G.)
- H, J, K — MICROLOOP LEAD-IN CABLE
- L, M, N, O, P, Q, R — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- S, T, U, V, W — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- X — BARE COPPER STRANDED GROUND WIRE (NO. 6 A.W.G.)
- AA — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) EXISTING TELEMETRY TO HEATHERMORE BOULEVARD
- BB — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) EXISTING TELEMETRY BETWEEN S. OSBORNE RD AND HIB
- CC — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) EXISTING TELEMETRY BETWEEN S. OSBORNE RD AND MD 382
- DD — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) EXISTING LOOP DETECTOR CALLS BETWEEN S. OSBORNE RD AND MD 382
- EE — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) PROPOSED TELEMETRY BETWEEN S. OSBORNE RD AND HIB
- FF — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) PROPOSED TELEMETRY BETWEEN S. OSBORNE RD AND MD 382
- GG — 12-PAIR INTERCONNECT CABLE JELLY-FILLED (NO. 19 A.W.G.) PROPOSED LOOP DETECTOR CALLS BETWEEN S. OSBORNE RD AND MD 382
- + — 3/4 IN. X 10 FT. GROUND ROD
- LW — LOOP WIRE
- PROPOSED VIDEO DETECTOR CAMERA
- * — USE EXISTING WIRING
- ** — SPLICE EXISTING LOOP WIRE TO PROPOSED 2-CONDUCTOR ALUMINUM SHIELDED ELECTRICAL CABLE



NOTE

ELECTRICAL CABLES T,U,V,EE,FF, & GG SHALL BE IN PLACE BEFORE DISCONNECTING ANY EXISTING CABLES

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	US 301 AT SOUTH OSBORNE ROAD	US 301 AT CROOM ROAD
	Y	Y	←R ←Y ←G	←R ←Y ←G	←R ←Y ←G	R Y G	R Y G	R Y G	R ←Y Y ←G G	R ←Y Y ←G G	R Y G	R Y G	R ←Y Y ←G G	R ←Y Y ←G G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G ←G	R Y G ←G	R Y G	R Y G ←G	R Y G ←G	R Y G		
PHASE 1 + 5	FL/Y	FL/Y	←G	←G	←G	R	R	R	R/←G	R/←G	R	R	R/←G	R/←G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
PHASE 1 + 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 + 6, 2 + 5 OR 2 + 6																														
PHASE 1 + 6	DARK	DARK	←G	←G	←G	G	G	G	G/←G	G/←G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
PHASE 1 + 6 CHANGE	DARK	DARK	←Y	←Y	←Y	G	G	G	G/←Y	G/←Y	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
PHASE 2 + 5	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	G/←G	G/←G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R		
PHASE 2 + 5 CHANGE	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	G/←Y	G/←Y	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R		
PHASE 2 + 6	DARK	DARK	←R	←R	←R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R		
PHASE 2 + 6 CHANGE	FL/Y	FL/Y	←R	←R	←R	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R	R	R		
PHASE 4	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G/←G	G/←G	G	R	R	R		
PHASE 4 CHANGE	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	R	R	R		
PHASE 8	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G/←G	G/←G	G		
PHASE 8 CHANGE	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y		
PRE-EMPT 1, PHASE 3	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	R	R	R	R	R	G/←G	G/←G	G		
PRE-EMPT 1, PHASE 3 CHANGE	FL/Y	FL/Y	←R	←R	←R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	R	R	R	R	Y	Y	Y		
PRE-EMPT 2, PHASE 7	FL/Y	FL/Y	←R	←R	←R	R	R	R	G	G	G	G	R	R	R	R	R	R	R	G	G	G	G	R	R	R	R	R	R		
PRE-EMPT 2, PHASE 7 CHANGE	FL/Y	FL/Y	←R	←R	←R	R	R	R	Y	Y	Y	Y	R	R	R	R	R	R	R	Y	Y	Y	Y	R	R	R	R	R	R		
FLASHING OPERATION	DARK	DARK	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R		

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

QUANTITY	CATEGORY CODE	DESCRIPTION
1 EA	900000	VIDEO INTERFACE EQUIPMENT FOR 1-4 CAMERAS
15 SF	973023	SHEET ALUMINUM SIGNS: 2 EACH - R3-5L SIGN (30 IN. X 36 IN.) MAST ARM MOUNT

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

QUANTITY	CATEGORY CODE	DESCRIPTION
1 LS	120500	MAINTENANCE OF TRAFFIC
2 CY	203030	TEST PIT EXCAVATION
120 LF	585624	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING (FOR STOP LINE)
1 LS	800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT
6 CY	801004	CONCRETE FOR SIGNAL FOUNDATION
70 LF	801106	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
32 SF	801605	SHEET ALUMINUM SIGNS
18 SF	801711	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
500 LF	802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
275 LF	805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
400 LF	805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
60 LF	805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
250 LF	805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
35 LF	805160	1 INCH LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
1 EA	810550	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
2 EA	810555	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
8 EA	811001	ELECTRICAL HANDHOLE
9 SF	813006	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES
15 SF	813015	INSTALL OVERHEAD SIGNS
2 EA	816001	VIDEO DETECTOR CAMERA
1 EA	816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
1 EA	816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
1 EA	816215	OPTICOM NO. 721 DETECTOR
1 EA	818010	14 FOOT BREAKAWAY PEDESTAL POLE
1 EA	818051	STEEL POLE WITH 50 FT./70 FT. MAST ARMS
3100 LF	822002	12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
2 EA	837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
30 EA	860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
350 LF	860288	4 CONDUCTOR OPTICOM CABLE
1 EA	860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
420 LF	861104	ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 AWG)
1100 LF	861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
3500 LF	861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
350 LF	862101	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
210 LF	862102	SAW CUT FOR SIGNAL (LOOP DETECTOR)

SS-2

ADDENDUM NO. 1
3/31/03
REPLACEMENT SHEET

STV Incorporated
engineers / architects / planners / scientists / construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
US 301 (CRAIN HIGHWAY) AND SOUTH OSBORNE ROAD/MD 382 (CROOM ROAD) GENERAL INFORMATION

DRAWN BY:	B. BIDDLE	F.A.P. NO.	SEE TITLE SHEET	TS NO. 2366-G	SHEET NO.
CHECKED BY:	M. STORCK	S.H.A. NO.	PG 2545176		
SCALE:	NONE	COUNTY:	PRINCE GEORGE'S	T.I.M.S. NO. F537	11 OF 15
DATE:	FEBRUARY 2003	LOG MILE:	16030110.34		

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DATE: 27-Mar-03 15:26