DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal with existing interconnect at the intersection of US 301 (Crain Hway) and Marshall Corner Rd / Willetts Crossing Rd in Charles County. US 301 (Crain Hwy) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the US 301 (Crain Hwy) approaches running concurrently. New Exclusive left turn phases shall be provided for both approaches of US 301 (Crain Hwy). The Marshall Corner Rd / Willetts Crossing Rd approaches shall continue to operate as a side street split phase.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer(at (410) 787-7650 seventy-two hours in advance of intended work.
3. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
Phone: (410) 841-1019

Mr. John Mays
Assistant District Engineer - Maintenance
Phone: (410) 841-1013

Mr. Mike Huber
Assistant District Engineer - Utility
Phone: (410) 841-1039

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

Mr. Ed Rodenhizer
Chief, Traffic Signal Operations
410-787-7652

Mr. Sonny Bailey
Chief, Sign Shop
410-787-7670

The power company representative is:

SEMCO - Charles County
Phone: (301) 645-3636

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA	CONTROLLER CABINET, TYPE "S", WITH UNINTERUPTABLE POWER SUPPLY, UPS BATTERIES ASC III EIGHT PHASE FULL TRAFFIC ACTUATED CONTROLLER AND VIDEO INTERFACE
9570	93 SF	SHEET ALUMINUM GROUND MOUNTED SIGN
	1 EA	R4-7 "KEEP RIGHT (SYMBOLIC)" SIGN, (24" x 30") GROUND MOUNTED
	1 EA	GUIDE SHIELD ASSEMBLY (30"x51") GROUND MOUNTED M3-3 "SOUTH"(24"X12") M1-4 "US 301"(30"X24") M6-1 "RIGHT ARROW" (21"X15")
	1 EA	D3-2 "(LEFT ARROW)" WILLETTS CROSSING RD/ MARSHALL CORNER RD "RIGHT ARROW" GROUND MOUNTED
	1 EA	D3-2 "LEFT ARROW" MARSHALL CORNER RD/ WILLETTS CROSSING RD "RIGHT ARROW" GROUND MOUNTED
9571	129 SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
	1 EA	D-3(1) "CRAIN HWY " DUAL FACED (VARIABLE x 16") MAST ARM MOUNTED
	1 EA	D3-2 "(LEFT ARROW)" WILLETTS XING RD/ MARSHALL CORNER RD "(RIGHT ARROW)" (VARIABLE x 16") MAST ARM MOUNTED
	1 EA	D3-2 "(LEFT ARROW) "MARSHALL CORNER RD/ WILLETTS XING RD "(RIGHT ARROW)" (VARIABLE x 16") MAST ARM MOUNTED.
	1 EA	GUIDE SHIELD ASSEMBLY (48"x72") POLE MOUNTED M3-3 "SOUTH"(30"X15") M1-4 "US 301"(48"X36") M5-1 "DOG LEG LEFT ARROW " (30"x24")

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9571	129 SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
	1 EA	GUIDE SHIELD ASSEMBLY (48"x72") POLE MOUNTED M3-1 "NORTH"(30"X15") M1-4 "US 301"(48"X36") M5-1 "DOG LEG LEFT ARROW" (30"x24")
	1 EA	GUIDE SHIELD ASSEMBLY (30"x51") POLE MOUNTED M3-1 "NORTH"(24"X12") M1-4 "US 301"(30"X24") M6-1 "RIGHT ARROW" (21"X15")

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	2 CY	TEST PIT EXCAVATION
8001	44 EA	12 INCH LED SIGNAL HEAD SECTION
8007	2 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8009	1 EA	BREAK AWAY PEDESTAL POLE (ANY SIZE)
8012	1 EA	EMBEDDED METERED SERVICE PEDESTAL
8018	1 EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8022	6 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000'
8023	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8026	1 EA	TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY 'T' DIMENSION
8028	4 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8033	400 LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8034	600 LF	ELECTRICAL CABLE - 2-CONDUCTOR (NO. 12 AWG) TYPE T/C
8036	230 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8038	1300 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8039	106 LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8040	222 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	380 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	80 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8046	17 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	30 LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
8055	1300 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8056	1225 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8062	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)

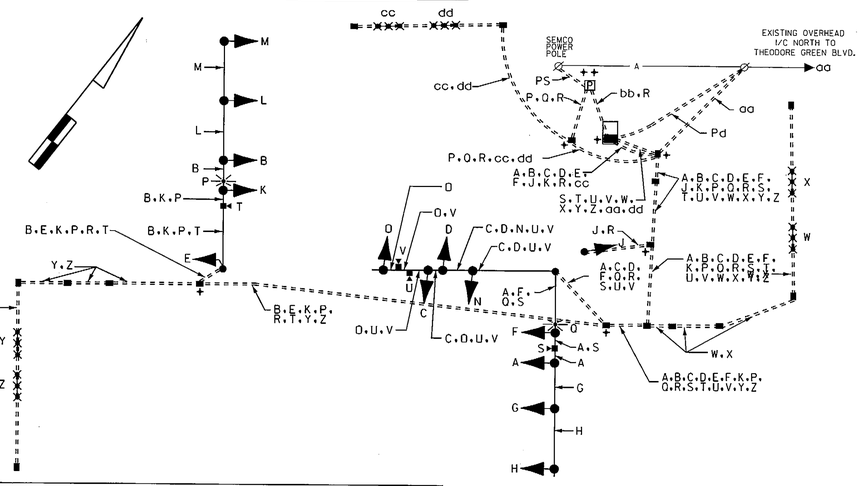
C. EQUIPMENT TO BE REMOVED

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CONTRACTOR SHALL RETURN EXISTING VIDEO CAMERAS TO THE SHA SIGNAL SHOP. THE CABINET AND ALL OTHER REMOVED SIGNAL MATERIALS ARE TO BECOME PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	◄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	R Y G ◄G-	R Y G	R Y G ◄G-	R Y G
PHASE 1 & 5	◄G-	◄G-	R	R	R	◄G-	◄G-	R	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6														
PHASE 1 & 6	◄G-	◄G-	G	G	G	◄R-	◄R-	R	R	R	R	R	R	R
1 & 6 CHANGE	◄Y-	◄Y-	G	G	G	◄R-	◄R-	R	R	R	R	R	R	R
PHASE 2 & 5	◄R-	◄R-	R	R	R	◄G-	◄G-	G	G	G	R	R	R	R
2 & 5 CHANGE	◄R-	◄R-	R	R	R	◄Y-	◄Y-	G	G	G	R	R	R	R
PHASE 2 & 6	◄R-	◄R-	G	G	G	◄R-	◄R-	G	G	G	R	R	R	R
2 & 6 CHANGE	◄R-	◄R-	Y	Y	Y	◄R-	◄R-	Y	Y	Y	R	R	R	R
PHASE 3	◄R-	◄R-	R	R	R	◄R-	◄R-	R	R	R	G ◄G-	G	R	R
3 CHANGE	◄R-	◄R-	R	R	R	◄R-	◄R-	R	R	R	Y	Y	R	R
PHASE 4	◄R-	◄R-	R	R	R	◄R-	◄R-	R	R	R	R	R	G ◄G-	G
4 CHANGE	◄R-	◄R-	R	R	R	◄R-	◄R-	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/◄R-	FL/◄R-	FL/Y	FL/Y	FL/Y	FL/◄R-	FL/◄R-	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

- A B C D E J — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- F G H K L M N O — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
- P Q — 2-CONDUCTOR ELECTRICAL CABLE TRAY (NO. 12 A.W.G)
- R - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- S T U V — CONTROL CABLE (CAMERA TO CONTROLLER) UP TO 500'
- W X Y Z aa bb dd — NONINVASIVE MICROLOOP LEAD-IN CABLE (UP TO 1000')
- aa - EXISTING RELOCATED 12-PAIR INTERCONNECT CABLE
- bb - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)
- PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY SEMCO
- Pd - PROPOSED PHONE DROP
- + - GROUND ROD

TOD NO: XX647-18
SHA NO: CH211853
US 301 @ MD 227

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

US 301 AND MD 277 (MARSHALL CORNER RD)/ WILLETTS CROSSING ROAD

LAPLATA, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 3/15/2012 CONTRACT NO. XX6475185

DESIGNED BY JAMES ALLEN Jr.
DRAWN BY JAMES ALLEN Jr.
CHECKED BY
F.A.P. NO.

COUNTY CHARLES
LOGMILE 08022713.96
TMS NO. J412
TOD NO.

TS NO.1443H | DRAWING NO. 2 OF 2 | SHEET NO. OF

REVISION "H"

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,NW.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

5643G1.dgn T-207

PLOTTED: $DATETIME$
FILE: $FILE$