

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 40 AND MD 781 (DULANCY RD.) IN CECIL COUNTY. THE MODIFICATIONS CONSIST OF THE ADDITION OF A FOURTH LEG TO THE INTERSECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR EASTBOUND AND WESTBOUND US 40, SIDE STREET SPLIT PHASE AND RIGHT TURN OVERLAP FOR MD 781.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

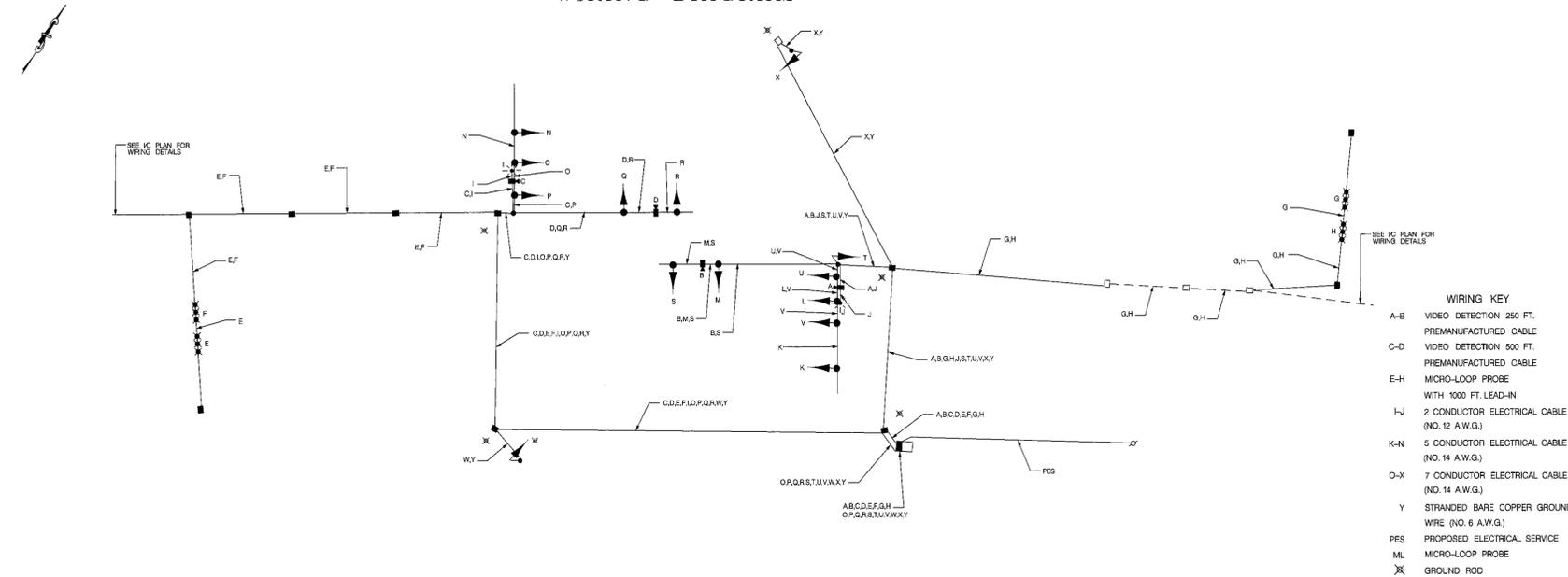
SPECIAL NOTE

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 72 HOURS PRIOR TO COMPLETION OF SIGNAL WORK FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

PHASE CHART

PHASE 1 & 5	<G-	<G-	<G-	R	R	<G-	<G-	<G-	R	R	R	R	R	R	R	R	R	R
1 & 5 CHANGE	<G-	<G-	<G-	G	G	<R-	<R-	<R-	R	R	R	R	R	R	R	R	R	R
PHASE 1 & 6	<G-	<G-	<G-	G	G	<R-	<R-	<R-	R	R	R	R	R	R	R	R	R	R
1 CHANGE	<Y-	<Y-	<Y-	G	G	<R-	<R-	<R-	R	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	R	R	R	R
5 CHANGE	<R-	<R-	<R-	R	R	<Y-	<Y-	<Y-	G	G	R	R	R	R	R	R	R	R
PHASE 2 & 6	<R-	<R-	<R-	G	G	<R-	<R-	<R-	G	G	R	R	R	R	R	R	R	R
2 & 6 CHANGE	<R-	<R-	<R-	Y	Y	<R-	<R-	<R-	Y	Y	R	R	R	R	R	R	R	R
PHASE 3	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	Y	Y	G	R	R	R	R	R
3 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	Y	Y	R	R	R	R	R	R
PHASE 4	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	R	R	R	R	R
4 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	<R-	R	R	R	R	R	R	R	R	R	R
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/R							

WIRING DIAGRAM



CONTACT PERSONS FOR DISTRICT 2 ARE AS FOLLOWS:

- | | |
|--|---|
| MR. ROBERT KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 778-3061 | MR. TERRY WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 778-3061 |
| MR. BARRY CLOTHIER
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 778-3061 | |
| CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY | |
| MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630 | MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676 |
| MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631 | MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668 |
| MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652 | |

EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE FURNISHED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
5001	2 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT)
5001	2 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW (THRULEFT)
5002	4 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTER (ONLY)
5004	220 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
5005	140 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
8001	14 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8005	4 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
8006	1 EA	FURNISH AND INSTALL VIDEO DETECTION INTERFACE EQUIPMENT
8007	2 EA	FURNISH AND INSTALL 250 FT. VIDEO CABLE TO CONTROLLER
8008	2 EA	FURNISH AND INSTALL 500 FT. VIDEO CABLE TO CONTROLLER
8011	565 LF	PULL BACK AND RE-ROUTE CABLE
8012	1 EA	ADJUST EXISTING HANDHOLE TO FINAL GRADE INCLUDING COLLAR
8014	1 EA	CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
8015	2 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM FOR SIGNAL STRUCTURE
8016	2 EA	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCCELL
8018	46 EA	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8023	2 EA	FURNISH AND INSTALL 14 FT. PEDESTAL POLE
8036	2 EA	FURNISH AND INSTALL 27 FT. TWIN MAST ARM POLE WITH TWIN 50 FT./70 FT. MAST ARMS
8041	LS	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT PER ASSIGNMENT
8047	85 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8048	140 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8050	1080 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8051	405 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8055	4 EA	FURNISH AND INSTALL NON-INVASIVE PROBE WITH 1000 FT. LEAD-IN
8063	30 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 PVC RISER
8064	1 EA	FURNISH AND INSTALL CONDUIT (UP TO 4 IN.) BEND INTO EXISTING FOUNDATION
8065	12 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8067	5 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
8068	765 LF	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8069	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G.-THHN/THWN
8070	4700 LF	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
8074	450 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.) TC
8077	80 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
8078	2225 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
8083	1 EA	FURNISH AND INSTALL CONTROLLER AND CABINET - BASE MOUNT
---	1 EA	FURNISH AND INSTALL 4-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
---	1 EA	FURNISH AND INSTALL D3-1 DUAL FACE SIGN (VAR. X 16") "DELANCY RD RT/ARROW" MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL D3-1 DUAL FACE SIGN (VAR. X 16") "DELANCY RD LT/ARROW" MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL M95-1 SIGN (72" X 24") MAST ARM MOUNT
---	3 EA	FURNISH AND INSTALL R3-5(L) SIGN (30" X 36") MAST ARM MOUNT
---	2 EA	FURNISH AND INSTALL R3-6(L) SIGN (30" X 36") MAST ARM MOUNT
---	1 EA	FURNISH AND INSTALL R3-5(R) SIGN (30" X 36") MAST ARM MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

SHA MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
US 40 AND MD 781 (DELANCY RD.)

TRAFFIC **C**ONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX (410) 923-6473 EMAIL TRACONCEPT@AOL.COM

DRAWN BY: MO	F.A.P. NO. N/A	TS NO. 3595 B-01	SHEET NO.
CHECKED BY: TZ	S.H.A. NO. BW996M82	T.I.M.S. NO. G400	
SCALE: NONE	COUNTY: CECIL	LOG MILE: .07004017.05	3 OF 5
DATE: 10/20/2004			