PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 45 (YORK ROAD) AND LUTHERVILLE ELEMENTARY SCHOOL DUE TO THE WIDENING OF MD 45. MD 45 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 45 APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 45.

UPON THE COMPLETION OF THE MD 45 WIDENING PROJECT, PEDESTRIAN INDICATIONS WILL BE PROVIDED ACROSS THE NORTH, SOUTH, EAST AND WEST LEGS. PEDESTRIAN SIGNALS WILL BE COUNTDOWN TYPE.

CONTROLLER REQUIREMENTS

FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FIVE (5) TWO-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)-787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2781

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MR. MIKE PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: (410) 321-2841

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

WIRING DIAGRAM

A,B,C,D,E — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

F,G,H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

J,K,L,M,N,P,Q,R,S,T,U,V,W,X,Y,Z — 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

AA,BB,CC,DD,EE,FF,GG,HH — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

JJ,KK — 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

LL,MM,NN — VIDEO DETECTION LEAD-IN CABLE

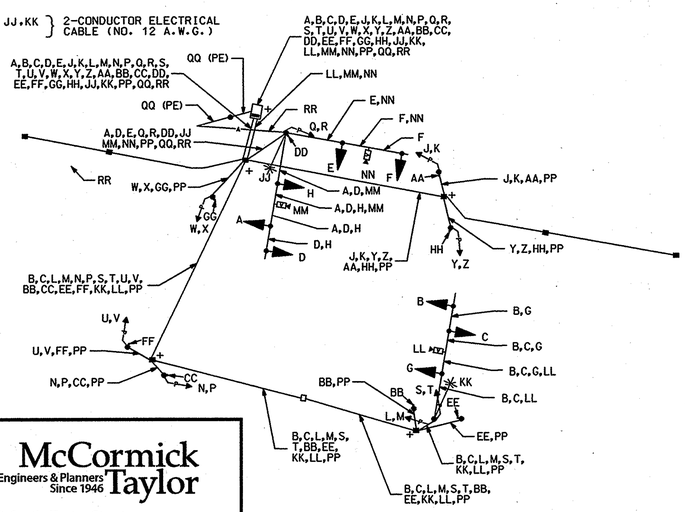
PP — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

QQ — 3-WIRE FOR ELECTRICAL SERVICE (NO. 4 A.W.G.)

RR — 12-PAIR COMMUNICATION CABLE (SEE INTERCONNECT PLANS)

PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE

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



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

BY: WJWARNER

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	1	EA	STEEL POLE WITH TWIN 50 FOOT MAST ARM
900000	2	EA	10 FOOT BREAKAWAY PEDESTAL POLE
963007	5	EA	TWO-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
971017	1	EA	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
973023	51	SF	SHEET ALUMINUM SIGNS TO CONSIST OF :
			- 1 EACH R3-5L SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
			- 1 EACH M95-1-NR (MOD) SIGN (72 IN. x 40 IN.) - MAST ARM MOUNT
			- 2 EACH S1-1 SIGN (36 IN. x 36 IN.) - MAST ARM MOUNT
			- 8 EACH R10-4(1) SIGN (9 IN. x 12 IN.) - POLE MOUNT
974024	1	EA	STEEL POLE WITH A SINGLE 50 FOOT AMST ARM

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 + 5	R	R	R	R	R	R	R	R	DARK	DARK	DARK	DARK	DARK	DARK
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6								DARK	DARK	DARK	DARK	DARK	DARK
PHASE 1 + 6	R	R	G	R	R	R	R	R	DARK	DARK	DARK	DARK	DARK	DARK
1 + 6 CHANGE	R	R	G	R	R	R	R	R	DARK	DARK	DARK	DARK	DARK	DARK
PHASE 2 + 5	R	R	R	R	R	G	R	R	DARK	DARK	DARK	DARK	DARK	DARK
2 + 5 CHANGE	R	R	R	R	R	G	R	R	DARK	DARK	DARK	DARK	DARK	DARK
PHASE 2 + 6	G	G	G	G	G	G	R	R	DARK	DARK	DARK	DARK	DARK	DARK
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DARK	DARK	DARK	DARK	DARK	DARK
PHASE 4	R	R	R	R	R	R	G	G	DARK	DARK	DARK	DARK	DARK	DARK
4 CHANGE	R	R	R	R	R	R	Y	Y	DARK	DARK	DARK	DARK	DARK	DARK
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

NOTE: PEDESTRIAN SIGNAL HEADS 9 THROUGH 14 TO BE COVERED UNTIL THE COMPLETION OF THE MD 45 WIDENING PROJECT.

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
800000	3	EA	16 INCH PEDESTRIAN LED SIGNAL HEAD SECTION - POLE MOUNT (COUNTDOWN)
800000	5	EA	16 INCH PEDESTRIAN LED SIGNAL HEAD SECTION - PEDESTAL POLE MOUNT (COUNTDOWN)
800000	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
801004	16	CY	CONCRETE FOR SIGNAL FOUNDATION
802501	500	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805050	1	EA	WEATHER HEAD, 3 INCH
805140	500	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805155	500	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
807202	1	EA	METERED SERVICE PEDESTAL
811001	6	EA	INSTALL ELECTRICAL HANDHOLE
813014	6	SF	INSTALL GROUND MOUNTED SIGN
813015	46	SF	INSTALL OVERHEAD SIGN
816001	3	EA	VIDEO DETECTION CAMERA
816005	2	EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	1	EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818004	4	EA	10 FOOT BREAKAWAY PEDESTAL POLE
821003	6	EA	BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE.
831010	2	EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	5	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860270	6	EA	8 INCH VEHICULAR TRAFFIC LED SIGNAL HEAD SECTION
860272	26	EA	12 INCH VEHICULAR TRAFFIC LED SIGNAL HEAD SECTION
860292	3	EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	1200	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861106	2200	LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	75	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	950	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	350	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
861117	50	LF	ELECTRICAL CABLE - 3 WIRE (NO. 4 AWG)
866104	2	EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
866204	1	EA	INSTALL STEEL POLE AND SINGLE MAST ARM
866205	1	EA	INSTALL STEEL POLE AND TWIN MAST ARM
871117	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
873001	1	LS	REMOVE AND DISPOSE EXISTING EQUIPMENT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET AND RELOCATE EXISTING VIDEO INTERFACE EQUIPMENT TO NEW CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE 1

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

MARYLAND 45 (YORK ROAD) WIDENING
CAVAN DRIVE TO RIDGELY ROAD

GENERAL INFORMATION - MD 45 at Lutherville Elementary School

SCALE NONE DATE 3/6/98 CONTRACT NO. BA7065171

DESIGNED BY Jamie Storck
DRAWN BY Jamie Storck
CHECKED BY M.R.
F.A.P. NO. SEE TITLE SHEET
COUNTY BALTIMORE
LOGMILE 03004504.22
T.I.M.S. NO.
TOD NO.

DRAWING NO. SS-08 OF SS-25 SHEET NO. 76 OF 137

PLOTTED: 03/02/2006
FILE: G:\4674\LB\DESIGN\ENGINEERING\PLANSET\SS08MD45.DGN