

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF 45 (YORK ROAD) AND CROSS CAMPUS DRIVE / TERRACE DALE IN BALTIMORE COUNTY, MARYLAND. APS (ACCESSIBLE PEDESTRIAN SIGNALS)/CPS (COUNTDOWN PEDESTRIAN SIGNALS) WILL BE INSTALLED. MD 45 (YORK ROAD) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 45 (YORK ROAD) APPROACHES OPERATING CONCURRENTLY AND THE CROSS CAMPUS DRIVE AND TERRACE DALE DRIVE APPROACHES OPERATING SPLIT.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 45 APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE NORTH LEG OF MD 45 (YORK ROAD) AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS THE CROSS CAMPUS DRIVE AND TERRACE DALE DRIVE LEGS.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 45 (YORK ROAD) AND CROSS CAMPUS DRIVE/TERRACE DALE DRIVE- NORTH LEG - NE CORNER

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS YORK AT TERRACE DALE. WAIT." *

WALK: RAPID TICK

MD 45 (YORK ROAD) AND CROSS CAMPUS DRIVE/TERRACE DALE DRIVE- NORTH LEG - NW CORNER

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS YORK AT CROSS CAMPUS. WAIT." *

WALK: RAPID TICK

CROSS CAMPUS DRIVE AND MD 45 (YORK ROAD) - WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS CROSS CAMPUS AT YORK. WAIT." *

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
 ** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS) INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

PHONE DROP

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:

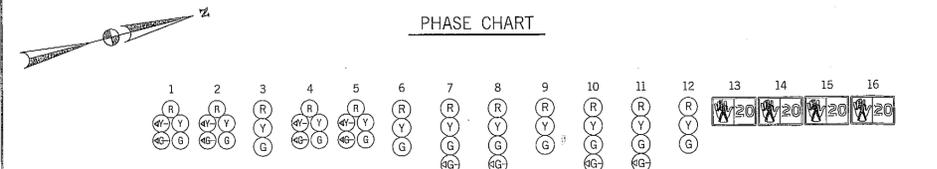
MS. ERIN KUHN
 ASSISTANT DISTRICT ENGINEER - TRAFFIC
 PHONE: (410) 229-2381

MR. MIKE PASOQUIELLO
 DISTRICT UTILITY ENGINEER
 PHONE: (410) 229-2341

MR. ANDRE FUTRELL
 ASSISTANT DISTRICT ENGINEER - MAINTENANCE
 PHONE: (410) 229-2361

MS. CORREN JOHNSON
 CHIEF, TRAFFIC OPERATIONS DIVISION
 PHONE: (410) 787-7630

PHASE CHART



PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 5 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G	DW	DW	DW	DW
PHASE 1 + 6	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
1 + 6 CHANGE	G	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	FLDW	FLDW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FLDW	FLDW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	G	G	G	R	R	R	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	G	G	G	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	FLDW	FLDW
4 ALT CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	FLR	FLR	FLY	FLR	FLR	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS), 2 FOUR-CHANNEL LOOP DETECTOR AMPLIFIERS AND INTERSECTION MONITOR HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET
9571	98 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) :
	1 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) "CROSS CAMPUS DR. LEFT ARROW" - MAST ARM MOUNT
	1 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) "CROSS CAMPUS DR. RIGHT ARROW" - MAST ARM MOUNT
	1 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) "TERRACE DALE DR. LEFT ARROW" - MAST ARM MOUNT
	1 EACH	D-3(1) SIGN (VARIABLE x 16 IN.) "TERRACE DALE DR. RIGHT ARROW" - MAST ARM MOUNT
	2 EACH	M1-5(4) SIGN (78 IN. x 36 IN.) - MAST ARM MOUNT
	1 EACH	R3-5L SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT
	1 EACH	R3-6L MOD SIGN (24 IN. x 30 IN.) - MAST ARM MOUNT
	2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS YORK ROAD"
	2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS CROSS CAMPUS DRIVE"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

EXISTING CONTROLLER AND AUXILIARY EQUIPMENT FROM THE CABINET WILL BE REMOVED AND BECOME PROPERTY OF SHA. ANY ADDITIONAL SIGNAL MATERIALS REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

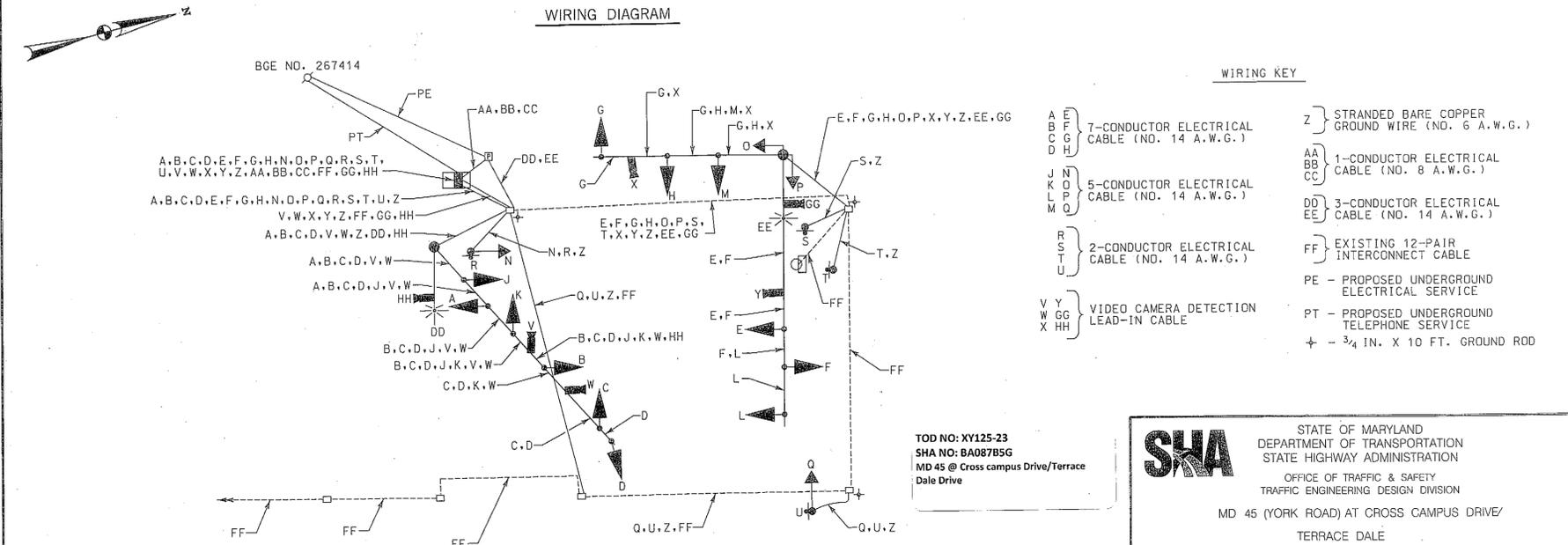
STANDARD NO. MD-104.03-01 (SHOULDER WORK)	STANDARD NO. MD-104.03-09 (INTERSECTION FAR LEFT LANE CLOSURE)
STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE)	STANDARD NO. MD-104.03-11 (INTERSECTION FAR RIGHT LANE CLOSURE)
STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)	

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	8 C.Y.	TEST PIT EXCAVATION
5003	365 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	320 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	40 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	50 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	100 S.F.	5 INCH CONCRETE SIDEWALK
6003	25 S.F.	DETECTABLE WARNING SURFACE FOR CURB RAMPS (TYPE 3 BRICK PAVERS)
8001	48 EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8008	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	4 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8014	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)
8016	4 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8019	1 EACH	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8024	1 EACH	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8027	1 EACH	TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY 'T' DIMENSION
8029	6 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8034	310 L.F.	DISCONNECT, PULL-BACK AND REROUTE CABLES
8038	175 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8040	110 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8042	98 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	235 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	60 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8055	575 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	260 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
8057	685 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	1550 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	2 EACH	FURNISH AND INSTALL LED LUMINAIRES & LAMPS

WIRING DIAGRAM



TOD NO: XY125-23
 SHA NO: BA087B5G
 MD 45 @ Cross campus Drive/Terrace Dale Drive

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 45 (YORK ROAD) AT CROSS CAMPUS DRIVE/
 TERRACE DALE

GENERAL INFORMATION SHEET

SCALE NONE	DATE MARCH 2013	CONTRACT NO. XY1255185
DESIGNED BY J. RASMUSSEN	COUNTY BALTIMORE	
DRAWN BY J. RASMUSSEN	LOGMILE 0304501.28	
CHECKED BY N. LEARY	TIMS NO. K694	
F.A.P. NO.	TOD NO.	
TS NO. 3907C	DRAWING TSP-3 OF 3	SHEET NO. 3 OF 3

WR&A
 WHITMAN, REQUARDT & ASSOCIATES, LLP
 801 South Caroline Street, Baltimore, Maryland 21231

PLOTTED: April 01, 2013
 FILE: N:\21669-141\CADD\PSG-N003_MD45_CC.dgn

BY: jrasmussen