

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic signal at the intersection of MD 144 (Frederick Rd) and Marriottsville Road/Lancelot Cross in Howard County. MD 144 is considered to run in an East West direction.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA 5-phase, fully-actuated mode, with the eastbound left turn operating as an Exclusive Permissive left turn. The side streets shall operate as concurrent movements.
- A fully actuated, eight phase controller with video interface and all necessary equipment housed in a NEMA size 6 base mounted cabinet shall be installed at this intersection.

NOTES

- For final pavement markings, refer to the pavement marking plans, as applicable; other than those detailed on the plan. All pavement markings shall be installed in accordance with Administration standards.
- The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly label each cable.
- All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in the appropriate 800 series Standard Plates. The contractor shall verify ultimate grades prior to the installation of all signal equipment.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

CONTACTS

DISTRICT

OFFICE OF TRAFFIC AND SAFETY

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
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MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
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MS. ANDREA ABEND
ASSISTANT DISTRICT ENGINEER - UTILITIES
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MR. ROBERT SNYDER
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MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
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MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
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MR. MIKE STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

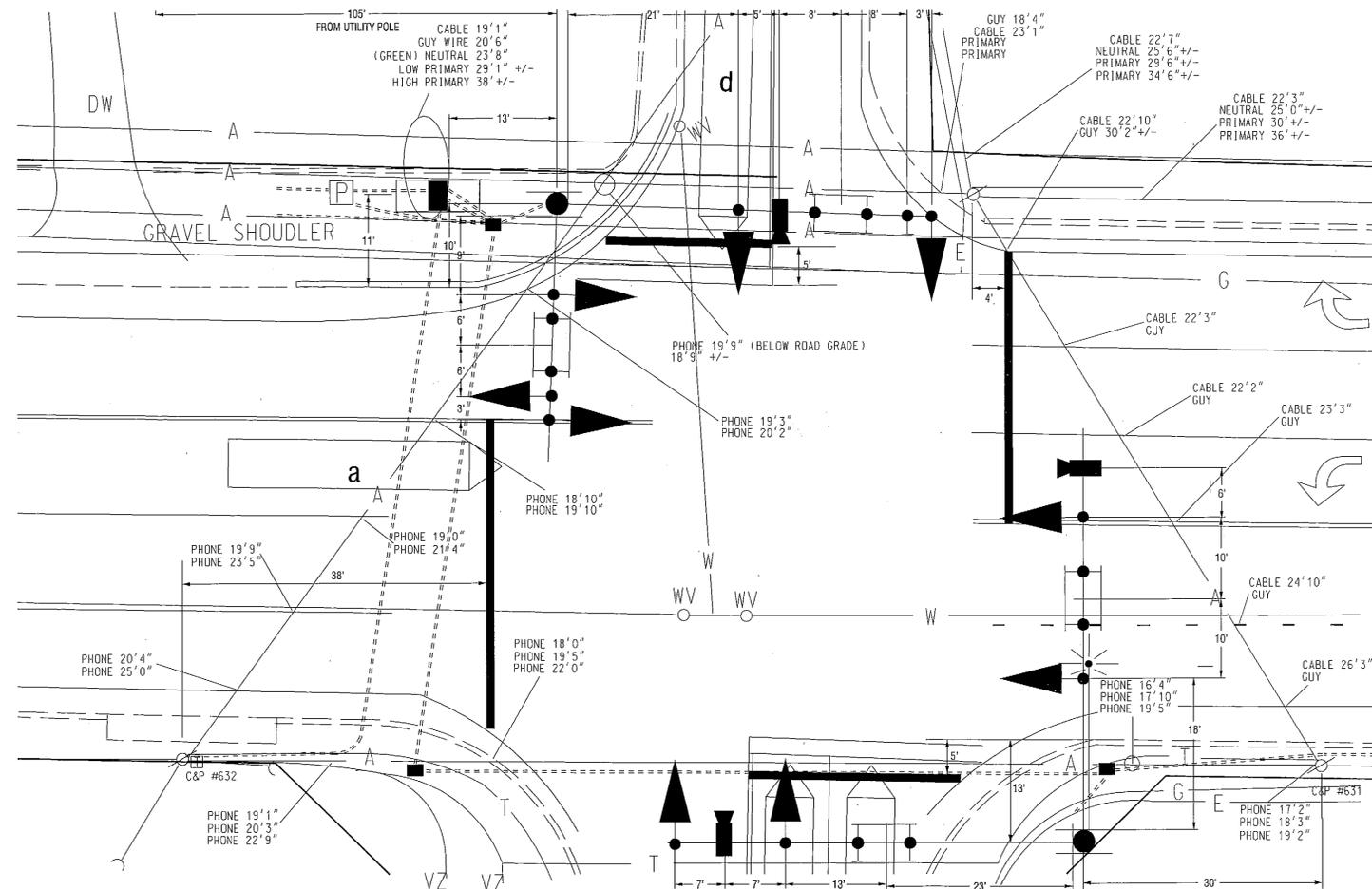
A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

ITEM #	QUANTITY	ITEM DESCRIPTION
9044	1 EA	CONTROLLER CABINET, SIZE "S" FOR UPS SYSTEM
9570	80.25 SF	SHEET ALUMINUM SIGN-GROUND MOUNTED - 2 EA 36"x36" W3-3 SIGNAL AHEAD SYMBOL WITH FLAGS - 2 EA 84"x36" D3-2(2) STREET NAME SIGN "NEXT SIGNAL" - 1 EA 30"x30" R3-7(R) RIGHT LANE MUST TURN RIGHT
9571	119 SF	SHEET ALUMINUM SIGN-MAST ARM MOUNTED - 2 EA 72"x16" D-3(1) DUAL FACED STREET NAME SIGN - 2 EA 96"x16" D-3(1) DUAL FACED STREET NAME SIGN - 2 EA 30"x51" POLE MOUNTED SHIELD ASSEMBLY - 2 EA 48"x75" POLE MOUNTED SHIELD ASSEMBLY - 1 EA 30"x36" R3-5(R) RIGHT ONLY

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

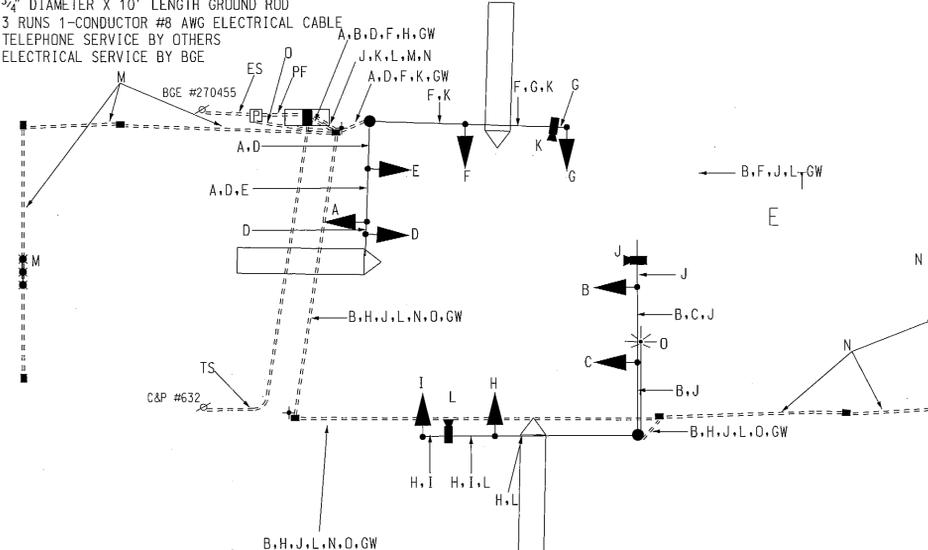
ITEM #	QUANTITY	ITEM DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
5003	90 LF	REMOVAL OF EXISTING PAVEMENT MARKING
5005	125 LF	F&I 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5006	1 EA	F&I 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGEND AND SYMBOL
6001	70 LF	F&I STANDARD TYPE A CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
8001	28 EA	F&I 12" LED SIGNAL HEAD
8004	3 EA	F&I 8" LED SIGNAL HEAD SECTION
8007	1 EA	F&I ANY SIZE LIGHTING ARM ON SIGNAL POLE W/ 250W HPS LUMINAIRE
8012	1 EA	F&I EMBEDDED METERED SERVICE PEDESTAL
8013	1 EA	F&I UNINTERRUPTIBLE POWER SUPPLY (WITHOUT CABINET)
8023	2 EA	F&I NON-INVASIVE DETECTOR (ANY LENGTH)
8024	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8025	2 EA	F&I MAST ARM POLE AND TWIN 50'/50' MAST ARMS
8028	3 EA	F&I VIDEO DETECTION CAMERA AND CABLE
8034	565 LF	F&I UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT-BORED
8036	500 LF	F&I UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8037	148 LF	F&I WOOD SIGN SUPPORTS UP TO 4"x6"
8038	199.25 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8040	225 LF	F&I #6 AWG STRANDED BARE COPPER GROUND WIRE
8043	75 LF	F&I ELECTRICAL CABLE 1-CONDUCTOR #8 AWG THHN/THWN
8044	9 EA	F&I ELECTRICAL HANDHOLE
8049	2 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8053	125 LF	F&I ELECTRICAL CABLE-5 CONDUCTOR #14AWG
8054	675 LF	F&I ELECTRICAL CABLE-7 CONDUCTOR #14AWG
8055	275 LF	F&I ELECTRICAL CABLE-2 CONDUCTOR #12AWG TRAY CABLE
8061	1 EA	INSTALLER CONTROLLER AND CABINET-BASE MOUNT

DIMENSION AND AERIAL LINE DETAILS



A,B,D,F,H 7-CONDUCTOR #14AWG ELECTRICAL CABLE
C,E,G,I 5-CONDUCTOR #14AWG ELECTRICAL CABLE
J,K,L VIDEO DETECTION CABLE
M,N MICRO LOOP PROBE LEAD IN CABLE, 500 FEET
O 2-CONDUCTOR #12AWG TRAY CABLE
GW #6 STRANDED BARE COPPER GROUND WIRE
+ 3/4" DIAMETER X 10' LENGTH GROUND ROD
PF 3 RUNS 1-CONDUCTOR #8 AWG ELECTRICAL CABLE
TS TELEPHONE SERVICE BY OTHERS
ES ELECTRICAL SERVICE BY BGE

WIRING DIAGRAM



PHASE 1&6	1	2	3	4	5	6	7	8	9
PHASES 1&6 CAN CHANGE TO TO 2&6	←	←	G	R	R	R	R	R	R
1 CHANGE	←	←	G	R	R	R	R	R	R
PHASE 2&6	G	G	G	G	G	R	R	R	R
2&6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4&8	R	R	R	R	R	G	G	G	G
4&8 CHANGE	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 144 (FREDERICK RD) @ MARIOTTSVILLE RDLANCELOT CROSS

GENERAL INFORMATION SHEET

SCALE	NA	ADVERTISED DATE	12/15/2010	CONTRACT NO.	XX3545168
DESIGNED BY	C STRAIN	COUNTY	HOWARD		
DRAWN BY	C STRAIN	LOGMILE	13014413.62		
CHECKED BY	D DODA	TIMS NO.	K662		
F.A.P. NO.	SEE TITLE SHEET	TOD NO.			
TS NO. 4781-GI	DRAWING	GI-1	OF 1	SHEET NO.	2 OF 2

TOD NO: XX354-21M
SHA NO: HO467K53
MD 144 @ Marriottsville Rd/Lancelot Cross

PLOTTED: Wednesday, December 15, 2010 at 12:30:43 PM
FILE: Test Sign.dgn

BY: cstrain