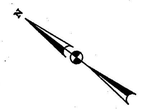


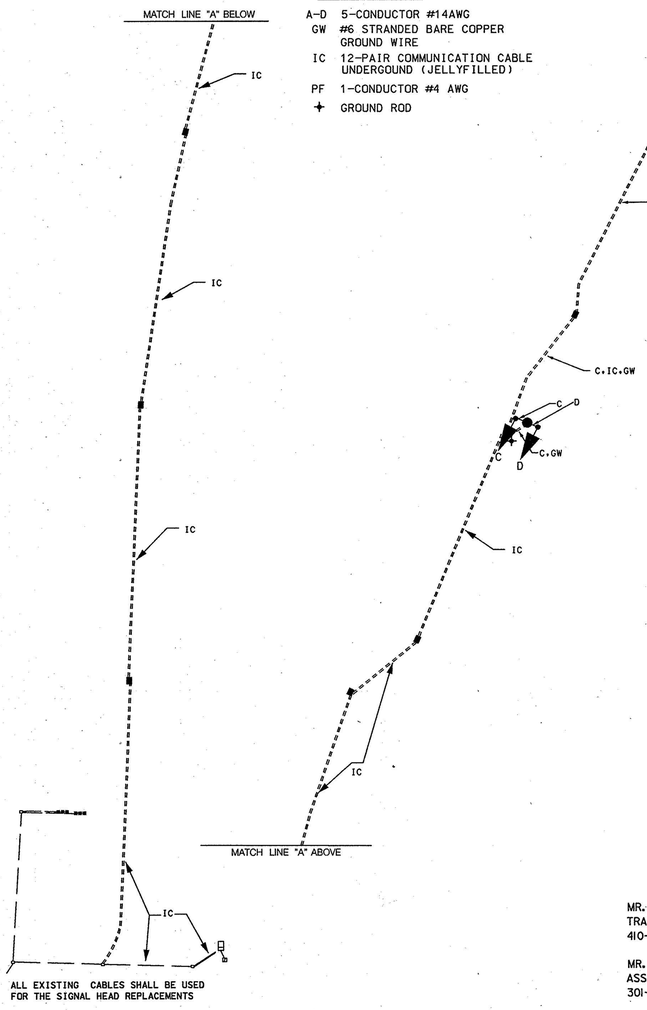
SNOWDEN RIVER PARKWAY IS CONSIDERED TO RUN IN A NORTH SOUTH DIRECTION

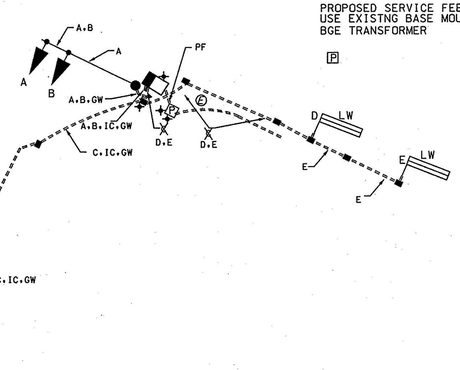
PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A RAMP METERING SIGNAL FOR THE NB SNOWDEN RIVER PKWY APPROACH. THE SIGNAL WILL PROVIDE GAPS IN THE NB TRAFFIC TO ALLOW THE WB MD 100 RAMP MOVEMENT TO ENTER THE ROUNDABOUT. THE EXISTING HEADS AT THE MD 108 @ SNOWDEN RIVER INTERSECTION WILL BE UPGRADED TO LED SIGNAL HEADS.

WIRING DIAGRAM

A-D 5-CONDUCTOR #14AWG
GW #6 STRANDED BARE COPPER GROUND WIRE
IC 12-PAIR COMMUNICATION CABLE UNDERGOUND (JELLYFILLED)
PF 1-CONDUCTOR #4 AWG
GROUND ROD





PROPOSED SERVICE FEED
USE EXISTNG BASE MOUNTED
BGE TRANSFORMER

P

PHASE CHART

	1	2	3	4	
	Y	Y	R Y ~~Y~~ Y 2	R Y ~~Y~~ Y 2	
NORMAL OPERATION	FL Y	FL Y	FLY	FLY	↑ ⊢
NORMAL CHANGE	FL Y	FL Y	QUICK FL Y	QUICK FL Y	↑ ⊢
	FL Y	FL Y	Y	Y	↑ ⊢
SPECIAL OPERATION	FL Y	FL Y	R	R	T ←

SIGNAL OPERATION

2 THIS ~~SIGNAL WILL~~ OPERATE USING A TIME OF DAY OPERATION FOR ITS INITIAL OPERATION WITH THE ~~OPTION OF~~ CONVERTING TO A TRAFFIC RESPONSIVE ~~OPERATION~~ UTILIZING QUEUE DETECTORS INSTALLED ~~ALONG THE WB MD~~ 100 OFF RAMP. THE INITIAL OPERATION WILL FLASH THE NB SNOWDEN RIVER ~~INDICATIONS~~ YELLOW ~~DURING~~ THE DAY. THEN, DURING THE PEAK PM PERIOD, THE NB INDICATIONS WILL FUNCTION IN A RED. ~~YELLOW, GREEN MODE BASED~~ ON TIMING PROVIDED FROM THE SIGNAL AT MD 108 AND SNOWDEN RIVER PARKWAY. ~~THE TIMING~~ WILL PROVIDE A GREEN INDICATION ~~FOR THE NB~~ SNOWDEN RIVER PARKWAY APPROACH TO CLEAR OUT ~~ANY NB QUEUE~~ PRIOR TO THE NB PLATOON ARRIVING FROM THE MD 108 INTERSECTION. ~~ONCE THE~~ QUEUE AND THE ~~PLATOON HAVE~~ BEEN SERVED THE NB MOVEMENT WILL BE STOPPED TO ALLOW THE WB RAMP MOVEMENT TO FLUSH.

THE CONTROLLER AT THE MD 108 INTERSECTION WILL OPERATE AS A MASTER CONTROLLER AND THE CONTROLLER AT THE RAMP WILL OPERATE AS A SLAVE CONTROLLER.

2 THIS SIGNAL WILL OPERATE AS A TRAFFIC RESPONSIVE SIGNAL SIMILAR TO A FIREHOUSE SIGNAL WITH THE SPECIAL OPERATION BEING CALLED BY QUEUE DETECTORS PLACED ON THE WESTBOUND MD 100 OFF RAMP TO SNOWDEN RIVER PARKWAY. THE NORTHBOUND SIGNAL INDICATIONS WILL FUNCTION IN A YELLOW FLASH DURING THE NORMAL OPERATION AND WILL CHANGE TO A QUICK FLASH UPON DETECTION BY THE LOOP DETECTORS. THE SIGNAL WILL THEN CHANGE TO RED FOR THE NORTHBOUND TRAFFIC ALLOWING THE RAMP TRAFFIC TO ENTER THE ROUNDABOUT. THE SIGNAL WILL RETURN TO THE YELLOW FLASH UNTIL THE QUEUE DEVELOPS AGAIN.

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

	ITEM #	QUANTITY	ITEM DESCRIPTION
2	~~9042~~	~~1 EA~~	~~CONTROLLER ACSII WITH TELEMETRY~~
	9044	1 EA	CABINET BASE MOUNTED-SIZE 6
	9571	16 SF	SHEET ALUMINUM SIGN-MAST ARM/POLE MOUNTED SIGN - 1 EA 48"X48" W3-3 "SIGNAL AHEAD SIGN" UPRIGHT POLE MOUNTED
2	9045	1 EA	CONTROLLER MASTER ASCIIM WITH TELEMETRY

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

	ITEM #	QUANTITY	ITEM DESCRIPTION
2 3 EA	1001	~~2 EA~~	MAINTENANCE OF TRAFFIC
	2002	3 CY	TEST PIT EXCAVATION
	5002	10 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS-ANY WIDTH
	5003	5 EA	REMOVAL OF EXISTING PAVEMENT MARKING LETTERS,SYMBOLS,ARROWS, AND NUMBERS
	8001	55 EA	12 INCH LED SIGNAL HEAD SECTION
	8004	6 EA	8 INCH LED SIGNAL HEAD SECTION
	8009	1 EA	BREAKAWAY PEDESTAL POLE-ANY SIZE
	8018	1 EA	MAST ARM POLE AND 70' MAST ARM
	8022	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT-PER ASSIGNMENT
	8029	1800 LF	FURNISH AND INSTALL 12 PAIR #19AWG COMMUNICATION CABLE-JELLYFILLED
2 2150 LF	8035	~~2000 LF~~	F&I SCH 80 RIGID PVC CONDUIT UP TO 4"-TRENCHED
	8036	300 LF	F&I SCH 80 RIGID PVC CONDUIT UP TO 4"-BORED
	8039	16 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
	8041	425 LF	FURNISH AND INSTALL #6 STRANDED BARE COPPER GROUND WIRE
	8043	1 EA	METERED SERVICE PEDESTAL EMBEDDED
	8045	50 LF	FURNISH AND INSTALL 1-CONDUCTOR #4AWG THHN
2 14 EA	8047	~~13 EA~~	FURNISH AND INSTALL ELECTRICAL HANDBOX
	8056	600 LF	ELECTRICAL CABLE-5 CONDUCTOR #14AWG
	8065	1 EA	INSTALL CONTROLLER AND CABINET-BASE MOUNT
	8007	1 EA	ANYSIZELIGHTING ARMON SIGNAL POLE W/ 250W HPS LAMP AND LUMINAIRE
	8058	100 LF	ELECTRICAL CABLE 2-CONDUCTOR #12AWG TC
2	8015	1 EA	LED TRAFFIC SIGNAL MODULE-ANY SIZE
2	8027	100 LF	1" GALVANIZED DETECTOR SLEEVE OR 1" WATER TIGHT
2	8053	1100 LF	2 CONDUCTOR #14AWG (ALUMINUM SHIELDED)
2	8059	850 LF	LOOP WIRE ENCASED IN 1/4" FLEXIBLE TUBING
2	8060	170 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)

C. EQUIPMENT TO BE RETURNED TO THE ADMINISTRATION

ALL EQUIPMENT REMOVED IN ACCORDANCE WITH THESE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

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SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 108 @ SNOWDEN RIVER PKWY - TS NO. 3581
MD 100W (SNOWDEN RIVER) at MD 100 Round-A-Bout - TS4930
MD 100W (SNOWDEN RIVER) at S MD 100 Round-A-Bout - TS4930
COLUMBIA, MARYLAND

SCALE 1"=60' DATE JUNE 1998 CONTRACT NO. HO-661-504-770

DESIGNED BY R. CICCHINI
DRAWN BY R. CICCHINI
CHECKED BY D.PETERS
F.A.P. NO.
COUNTY HOWARD
LOGMILE 13010813.15
T.I.M.S. NO. F 829
TOD NO.

DRAWING NO. TS 3581E - TS 4930 OF
SHEET NO. OF

PLOTTED: TUESDAY, JANUARY 09, 2007 AT 9:08:54 AM
FILE: MD 100 @ SNOWDEN RVR-REDLINE-2-GI.DGN

BY: CSTRAIN