PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE UPGRADE OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 220 (McMULLEN HIGHWAY) AND MD 53 / WINCHESTER ROAD IN ALLEGANY COUNTY. US 220 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 US 220 APPROACHES OPERATING CONCURRENTLY AND THE MD 53 / WINCHESTER ROAD APPROACH OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR SOUTHBOUND US 220.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE NORTH LEG OF US 220 AND A PEDESTRIAN INDICATION OPERATING IN CONJUNCTION WITH THE US 220 GREEN PHASE IS PROVIDED ACROSS THE WEST LEG OF MD 53. ACCESSIBLE PEDESTRIAN SIGNALS (APS) WILL BE PROVIDED FOR CROSSING THE NORTH LEG. ALL PEDESTRIAN SIGNAL HEADS WILL BE COUNTDOWN TYPE.

APS MESSAGE:
WAIT: "WAIT TO CROSS MCMULLEN HIGHWAY AT WINCHESTER ROAD"
WALK: RAPID TICK
WALK: "WALK SIGN ON TO CROSS MCMULLEN HIGHWAY"

CONTROLLER REQUIREMENTS

FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL TIME-DELAY OUTPUT LOOP DETECTOR AMPLIFIER, ONE (1) TWO-WIRE CENTRAL CONTROL UNIT, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, VIDEO DETECTION INTERFACE, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

WIRING DIAGRAM

EXISTING CABLE TO BE REUSED

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

G,H,J,K,L,N } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

O } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

PROPOSED CABLE

M } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

P } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

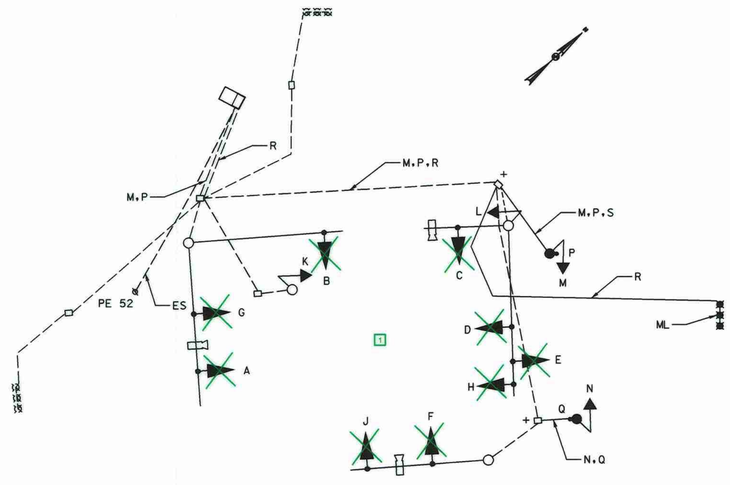
R } MICROLOOP LEAD-IN CABLE

S } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

ML - MICROLOOP PROBE

ES - EXISTING UNDERGROUND ELECTRICAL AND TELEPHONE SERVICE

+ - NEW 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: $USERNAME$

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
973023	40.5	SF	SHEET ALUMINUM SIGNS
			- 2 EACH R10-3(1) (9"x15") - POLE MOUNTED
			- 1 EACH D-3(1) (VARIABLEx16") - MAST ARM MOUNTED
			- 1 EACH ROUTE MARKER ASSEMBLY (30"x51") - POLE MOUNTED
			- 1 EACH ROUTE MARKER ASSEMBLY (44"x75") - POLE MOUNTED

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. GEORGE SMALL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 729-8444

MR. ANTHONY CRAWFORD
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 729-8457

MR. ED RODENHIZER
SUPERVISOR - SIGNAL SHOP
PHONE: (410) 787-7650

MR. DAVE FELKER
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (301) 729-8439

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

MR. MARTY DUNNINGTON
ALLEGHENY POWER
PHONE: (301) 759-5709

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	13	14b	15b
PHASE 2 + 5	R	R	G ← G	G ← G	G	R	R	R	R	WK	WK	DW	DW
2 + 5 CHANGE	R	R	G ← Y	G ← Y	G	R	R	R	R	WK	WK	DW	DW
PHASE 2 + 6	G	G	G	G	G	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	R	R	R	R	FL/DW	FL/DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	G	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	DW	DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
585620	100	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE (CROSSWALK)
1 ~~800000~~	~~3~~	~~EA~~	~~8 INCH VEHICULAR TRAFFIC LED SIGNAL HEAD SECTION~~
800000	4	EA	16 INCH PEDESTRIAN LED SIGNAL HEAD SECTION - POLE MOUNT (COUNTDOWN)
800000	2	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	1	EA	2 WIRE CENTRAL CONTROL UNIT (APS)
800000	1	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
801004	2	CY	CONCRETE FOR SIGNAL FOUNDATION
802501	50	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805011	10	LF	1 INCH GALVANIZED CONDUIT FOR DETECTOR SLEEVE
805135	25	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805150	15	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
810550	1	EA	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
813015	40.5	SF	INSTALL OVERHEAD SIGN
818004	1	EA	10 FOOT BREAKAWAY PEDESTAL POLE
821003	1	EA	BREAKAWAY BASE SUPPORT SYSTEM FOR SIGNAL STRUCTURE
837001	2	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
1 ~~860204~~	~~28~~	~~EA~~	~~12 INCH VEHICULAR TRAFFIC LED SIGNAL HEAD SECTION~~
861105	150	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	150	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
862102	300	LF	SAW CUT FOR SIGNAL (MICROLOOP PROBE WIRE)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION

NONE

1 GREENLINE REVISION NO.1 12/1/09

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

US 220 FROM MD 53 TO 0.41 MILES NORTH OF MD 636
PHASE I (CRESAPTOWN)

GENERAL INFORMATION - US 220 @ MD 53 /WINCHESTER ROAD

SCALE NOT TO SCALE DATE OCTOBER 21, 2008 CONTRACT NO. AL8795184

DESIGNED BY BSH
DRAWN BY CLY
CHECKED BY JEH
F.A.P. NO. SEE TITLE SHEET
COUNTY ALLEGANY COUNTY
LOGMILE 01022014.03
T.I.M.S. NO. G074
T.O.D. NO. N/A

T.S. NO. 516 F GI SG-04 OF SG-04 SHEET NO. 107 OF 121

PLOTTED: $DATETIME$
FILE: I:\5088\05 - US 220\DESIGN\Engineering\PlanSet\Greenline Revision 1\sSG-N002_US220.dgn