

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A TEMPORARY TRAFFIC CONTROL SIGNAL AND MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 190 (RIVER ROAD) AND I-495 RAMP 'C' IN MONTGOMERY COUNTY, MARYLAND. MD 190 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
973023	58 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 1 EACH R10-12(4) SIGN (36 IN. x 42 IN.) - SPAN MOUNT
		- 1 EACH R10-12(4) SIGN (36 IN. x 42 IN.) - MAST ARM MOUNT
		- 1 EACH R10-12(4) SIGN (36 IN. x 42 IN.) - POLE MOUNT
		- 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 495, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	3 C.Y.	TEST PIT EXCAVATION
585624	80 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
801004	1 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	435 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805115	30 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	195 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	10 L.F.	2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	275 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805160	55 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
811001	3 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	58 S.F.	INSTALL OVERHEAD SIGN
818010	1 EACH	14 FT. BREAKAWAY PEDESTAL POLE
833060	30 L.F.	3 IN. DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
837001	2 EACH	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860272	12 EACH	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860274	6 EACH	12 IN. OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD SECTION
861104	1950 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	1275 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	970 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
862101	1970 L.F.	LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	650 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
869101	55 L.F.	STEEL SPAN WIRE - 1/4 IN. DIAMETER
869102	55 L.F.	STEEL SPAN WIRE - 3/8 IN. DIAMETER
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT AS PER ASSIGNMENT
800000	2 EACH	40 FT. CLASS II WOOD POLE WITH TWO BACK GUYS

EQUIPMENT LIST "C"

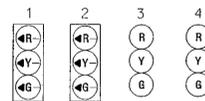
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA
ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

- STANDARD NO. MD-104.04-01 (SHOULDER WORK)
- STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)
- STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)
- STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE)
- STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)

PHASE CHART



PHASE	1	2	3	4	FLASHER
PHASE 1	← G	← G	R	R	↑
1 CHANGE	← Y	← Y	R	R	↑
PHASE 2	← FL/R	← FL/R	G	G	←
2 CHANGE	← FL/R	← FL/R	Y	Y	←
FLASHING OPERATION	← FL/R	← FL/R	FL/Y	FL/Y	←

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. LEE STARKLOFF, MONTGOMERY
PHONE: (301) 513-7368
ASSISTANT DISTRICT ENGINEER - TRAFFIC

MR. AUGIE REBISH
DISTRICT UTILITY ENGINEER
PHONE: (301) 513-7350

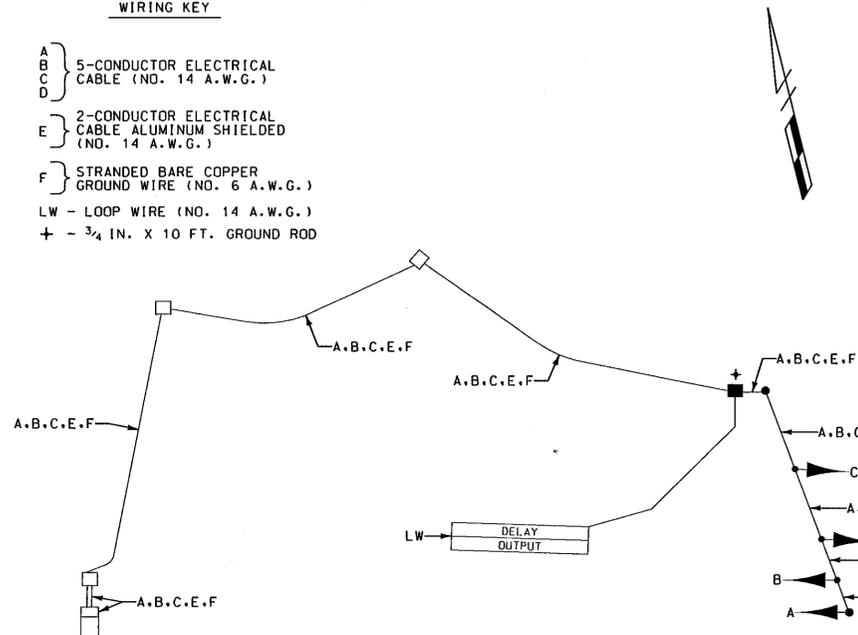
MR. WAYNE MOWDY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

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

**WIRING DIAGRAM
PHASES 1-IV CONSTRUCTION**

WIRING KEY

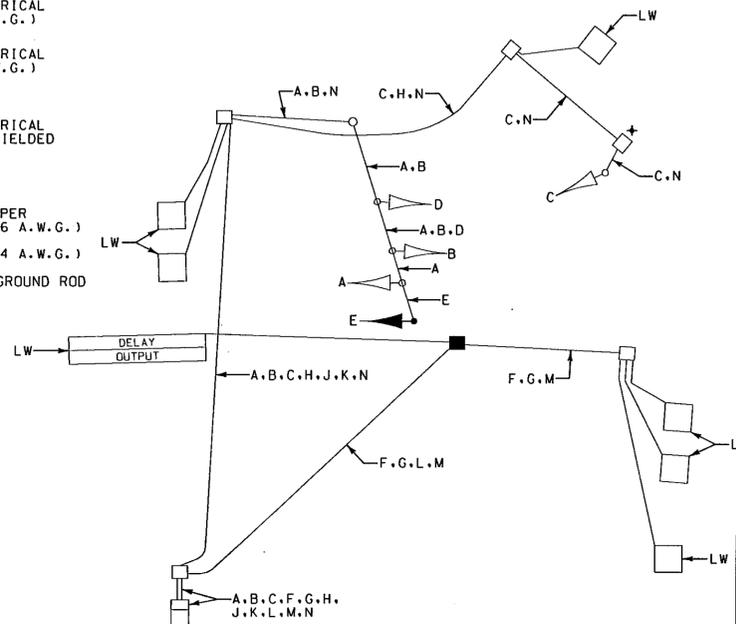
- A, B, C, D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E } 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- F } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- LW - LOOP WIRE (NO. 14 A.W.G.)
- + - 3/4 IN. X 10 FT. GROUND ROD



**WIRING DIAGRAM
ULTIMATE SIGNAL**

WIRING KEY

- A, B, C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D, E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F, G, H, J, K, L, M } 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- N } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- LW - LOOP WIRE (NO. 14 A.W.G.)
- + - 3/4 IN. X 10 FT. GROUND ROD



TSP-3

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 190 (RIVER ROAD) AND I-495 RAMP 'C'

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and Associates, LLP
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DRAWN BY: S. BLOSS	F.A.P. NO. AC-BH-1M-495-2010	TS NO. 3882B-01	SHEET NO.
CHECKED BY: N. LEARY	S.H.A. NO. M08845180	T.I.M.S. NO. F629	159 OF 168
SCALE: NONE	COUNTY: MONTGOMERY	LOG MILE: 1501901.58	
DATE: 12/10/2004			