

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE FINAL MODIFICATION FOR THE INSTALLATION OF ULTIMATE TRAFFIC CONTROL EQUIPMENT AT THE INTERSECTION OF MD 450 AT BELAIR DRIVE IN PRINCE GEORGE'S COUNTY. MD 450 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

NORMAL OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA-THREE-PHASE, FULLY ACTUATED MODE. THE MOVEMENTS ON MD 450 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON BELAIR DRIVE WILL OPERATE CONCURRENTLY. THE NEW CONTROLLER WILL INTERCONNECT WITH THE NEW CONTROLLERS AT THE NEW INTERSECTION MD 450 AT BOWIE HIGH SCHOOL ENTRANCE AND AT THE INTERSECTION OF MD 450 AT MILLSTREAM/STONYBROOK DRIVE.

CONTROLLER REQUIREMENTS

INSTALL A FULL TRAFFIC ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO RACK, TELEMETRY MODULE, ISOLATION BOARD AND SIGNAL RELAY HOUSED IN A NEMA SIZE *6* BASE MOUNTED CABINET.

SPECIAL NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES 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 EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
971017	816	1 EA.	EIGHT PHASE FULL TRAFFIC ACTUATED SOLID STATE DIGITAL CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE *6* BASE MOUNTED CABINET
973073	813	△ 96 S.F.	SHEET ALUMINUM SIGN TO CONSIST OF: -2 EA. R10-12 (36 IN. X 42 IN.)-MAST ARM MOUNT -1 EA. R3-5L (30 IN. X 36 IN.)-MAST SRM MOUNT -2 EA. R3-5R (30 IN. X 36 IN.)-MAST ARM MOUNT -2 EA. D3-2 (16 IN. X VAR.)-MAST ARM MOUNT -1 EA. ASSOCIATED SHIELD ASSEMBLY (30 IN. X 51 IN.)-POLE MOUNT -1 EA. ASSOCIATED SHIELD ASSEMBLY (48 IN. X 75 IN.)-POLE MOUNT
900000	807	1 EA.	△ OPTICOM DISCRIMINATOR MODULE

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
203030	205	△ 1 C.Y.	TEST PIT EXCAVATION
585624	556	△ 50 L.F.	24 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
801004	801	2 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	805	30 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
810010	810	45 L.F.	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
813015	813	△ 96 S.F.	INSTALL OVERHEAD SIGN
831010	806	2 EA.	250 WATT HPS LUMINAIRE WITH PHOTOCCELL
837001	804	1 EA.	GROUND ROD 3/4 IN. X 10 FT. LENGTH
838003	807	1 EA.	CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE, 3 WIRE SYSTEM)
860270	814	6 EA.	8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	814	38 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	810	△ 600 L.F.	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
861108	810	1910 L.F.	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
861116	810	425 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)
866104	818	2 EA.	20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
870166	805	76 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
871117	816	1 EA.	INSTALL CONTROLLER AND CABINET - BASE MOUNT
△ 800000	805	2 EA.	RELOCATE CAMERA
△ 800000	805	2 EA.	REROUTE CABLE
800000	807	1 EA.	OPTICOM DETECTOR EYE
800000	810	125 L.F.	ELECTRICAL CABLE 4-CONDUCTOR (NO. 20 AWG)
800000	XXX	1 L.S.	REMOVE AND DISPOSE OF EXISTING MATERIAL

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

~~CHARLIE WATKINS~~
~~DISTRICT ENGINEER~~
~~PHONE: 301-513-7300~~

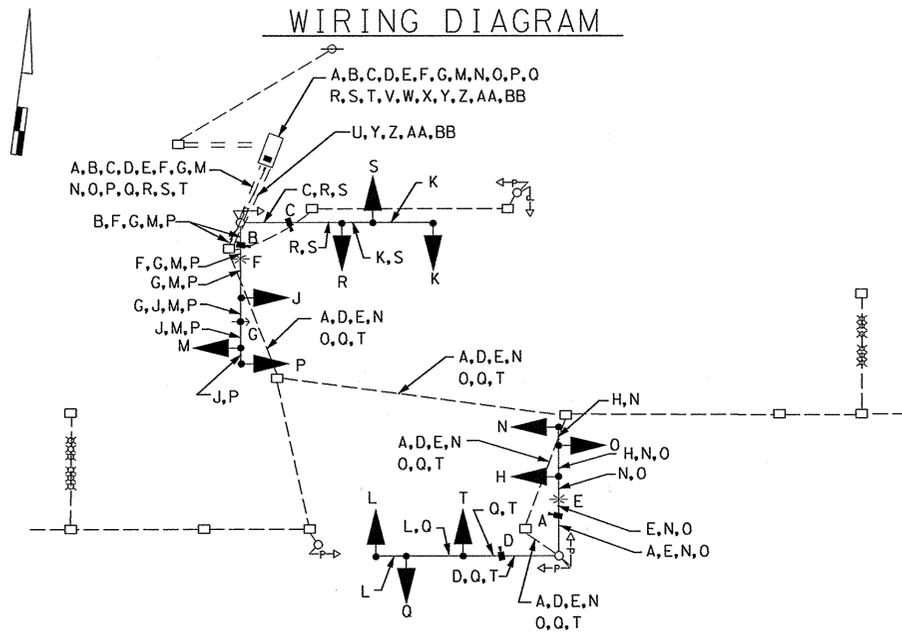
MAJID SHAKIB
 ASSISTANT DISTRICT ENGINEER-TRAFFIC
 PHONE: 301-513-7358

ROBERT SNYDER ASSISTANT DIVISION CHIEF
 TRAFFIC OPERATION DIVISION
 PHONE: 410-787-7630

AUGIE REBISH
 △ ASSISTANT DISTRICT ENGINEER-UTILITIES
 PHONE: 301-513-7350

RALEIGH MEDLEY
 ASSISTANT DISTRICT ENGINEER-MAINTENANCE
 PHONE: 301-513-7304

WIRING DIAGRAM



A,B	VIDEO DETECTOR CABLE	M,N,O	} ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
C,D		P,Q,R	
		S,T	
E,F	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)	U	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
G	ELECTRICAL CABLE 4-CONDUCTOR (NO. 20 AWG)	V,W,X	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
H,J	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)	Y,Z	MICRO-LOOP NON INVASIVE PROBE
K,L		AA,BB	LEAD IN

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	14	15	16	17	18	19
PHASE 1+5	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1+5 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2+6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
2+6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4+8	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	DW	DW	DW	DW
4+8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL	DARK	DARK	DARK	DARK	DARK	DARK											

EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET. CABINET AND ALL OTHER MATERIALS SHALL BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.

□ REDLINE NO. 1 5/16/02

△ ADDENDUM #2 10/11/2001

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET
 MD 450 - MD 193 TO STONYBROOK DRIVE
 MD 450 AT BELAIR DRIVE - ULTIMATE

THE WILSON T. BALLARD CO.
 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND

DRAWN BY: MB	F.A.P. NO. PG9005571	SEE TITLE SHEET	TS NO. TS-89B-2	SHEET NO.
CHECKED BY: STB	S.H.A. NO.	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. D 538	438 OF 545
SCALE: NONE	LOG MILE: 12.36	DATE: OCTOBER 2001		