PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROLLER AND SIGNALS WITH VIDEO TRAFFIC DETECTION AT THE NEW INTERSECTION OF MD 450 (RELOCATED) AT MD 197 IN PRINCE GEORGE'S COUNTY. MD 450 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

NORMAL OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA-FOUR-PHASE, FULLY ACTUATED MODE. THE MOVEMENTS ON MD 450 WILL OPERATE CONCURRENTLY AND THE MOVEMENTS ON MD 197 WILL OPERATE CONCURRENTLY. THE INTERSECTION CONTROLLER WILL INTERCONNECT WITH THE NEW CONTROLLERS AT THE INTERSECTION OF MD 450 AT GRENVILLE LANE AND AT INTERSECTION OF MD 450 AT ST. PIUS SCHOOL ENTRANCE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO DETECTOR RACK, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN 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
965001	806	4 EA.	PUSHBUTTON AND SIGN
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
973023	813	△2 158 S.F.	SHEET ALUMINUM SIGN TO CONSIST OF: -8 EA. R3-5L (30 IN. X 36 IN.)-MAST ARM MOUNT -1 EA. R3-5R (30 IN. X 36 IN.)-MAST ARM MOUNT -4 EA. R10-41 (9 IN. X 12 IN.)-POLE MOUNT -2 EA. D3-2 (16 IN. X VAR.) -MAST ARM MOUNT -2 EA. ASSOCIATED SHIELD ASSEMBLY (30 IN. X 51 IN.)-POLE MOUNT -2 EA. ASSOCIATED SHIELD ASSEMBLY (48 IN. X 75 IN.)-POLE MOUNT
900000	807	1 EA.	OPTICOM DISCRIMINATOR MODULE

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

~~CHARLIE WATKINS~~
[1] ~~DISTRICT ENGINEER~~
~~PHONE: 301-513-7300~~

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

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

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

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

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
203030	205	3 C.Y.	TEST PIT EXCAVATION
585620	556	△2 2000 L.F.	12 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
585624	556	250 L.F.	24 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
801004	801	20 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	805	860 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
810010	810	45 L.F.	ELECTRICAL CABLE 1-CONDUCTOR (NO.4 AWG)
811001	811	22 EA.	ELECTRICAL HANDHOLE
△2 813014	813	72 S.F.	GROUND MOUNTED SIGN
813015	813	△2 155 S.F.	INSTALL OVERHEAD SIGN
818052	818	2 EA.	27 FT. STEEL POLE WITH 70 FT. MAST ARM
831010	806	4 EA.	250 WATT HPS LUMINAIRE WITH PHOTOCELL
837001	804	5 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)
860272	814	60 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	814	16 EA.	12 IN. PEDESTRIAN SIGNAL HEAD SECTION
861107	810	1210 L.F.	ELECTRICAL CABLE 5-CONDUCTOR (NO.14 AWG)
861108	810	3575 L.F.	ELECTRICAL CABLE 7-CONDUCTOR (NO.14 AWG)
861116	810	1100 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (NO.12 AWG)
865001	806	4 EA.	INSTALL PUSHBUTTON
866104	818	4 EA.	20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
866204	818	2 EA.	27 FT. STEEL POLE WITH 60 FT. MAST ARM
870163	805	47 LF.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
870164	805	141 L.F.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-BORED
870165	805	199 L.F.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-SLOTTED
870166	805	[1] △2 ~~1252~~ L.F. 1291	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
870167	805	184 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-BORED
870168	805	198 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELCTRICAL CONDUIT-SLOTTED
871117	816	1 EA.	INSTALL CONTROLLER AND CABINET-BASE MOUNT
800000	805	1 L.S.	VIDEO TRAFFIC DETECTION SYSTEM
800000	805	4 EA.	VIDEO TRAFFIC DETECTOR 500 FT. CABLE
800000	807	1 EA.	OPTICOM DETECTOR EYE
800000	810	960 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (NO.14 AWG)
800000	810	270 L.F.	ELECTRICAL CABLE 4-CONDUCTOR (NO. 20 AWG)
800000	810	8 EA.	MICRO-LOOP NON INVASIVE PROBE SET WITH 1000 FT. LEAD IN

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	23	24	25	26	27	28	29
PHASE 1+5	◂G-	◂G-	◂G-	R	R	◂G-	◂G-	◂G-	R	R	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1+5 CHANGE	◂Y-	◂Y-	◂Y-	R	R	◂Y-	◂Y-	◂Y-	R	R	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2+6	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	DW	DW	DW	WK	DW	WK	WK	WK
	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	DW	DW	DW	FL/DW	DW	FL/DW	FL/DW	FL/DW
2+6 CHANGE	◂R-	◂R-	◂R-	Y	Y	◂R-	◂R-	◂R-	Y	Y	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3+7	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	◂G-	◂G-	◂G-	R	R	◂G-	◂G-	◂G-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3+7 CHANGE	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	◂Y-	◂Y-	◂Y-	R	R	◂Y-	◂Y-	◂Y-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4+8	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	G	G	WK	WK	WK	DW	WK	DW	DW	DW
	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	G	G	◂R-	◂R-	◂R-	G	G	FL/DW	FL/DW	FL/DW	DW	FL/DW	DW	DW	DW
4+8 CHANGE	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	R	R	◂R-	◂R-	◂R-	Y	Y	◂R-	◂R-	◂R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/◂R	FL/◂R	FL/◂R	FL/Y	FL/Y	FL/◂R	FL/◂R	FL/◂R	FL/Y	FL/Y	FL/◂R	FL/◂R	FL/◂R	FL/R	FL/R	FL/◂R	FL/◂R	FL/◂R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

EQUIPMENT LIST "C"

△2 NONE

[1] REDLINE NO. 1 5/6/02

△2 ADDENDUM #2 10/11/2001

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

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 (RELOCATED) AT MD 197 - ULTIMATE

DRAWN BY: MB	F.A.P. NO. SEE TITLE SHEET	TS NO.	SHEET NO.
CHECKED BY: STB	S.H.A. NO. PG900557I		
SCALE: NONE	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. D 538	420 OF 545
DATE: OCTOBER 2001	LOG MILE:		

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2/26/02 pcuser
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