PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLES THE RE-CONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL WITH INTERSECTION LIGHTING. NEW INTERCONNECT WILL BE PROVIDED FROM MD 228 TO MD 373 ALONG MD 210 IN PRINCE GEORGE'S COUNTY. MD 210 RUNS IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

A SYSTEM READY CONTROLLER, AND RACK MOUNTED DETECTOR AMPLIFIERS ALL HOUSED IN A BASE MOUNTED CABINET ARE TO BE INSTALLED AT THIS LOCATION. THE INTERSECTION IS TO OPERATE IN A SEQUENTIAL PHASING MODE. (SEE TRAFFIC SIGNAL PLAN SHEET)

PROJECT CONTACTS:

MR. CHARLIE WATKINS, DISTRICT ENGINEER
PHONE: (301) 513-7300

MR. AUGIE REBISH, ASSIST., DISTRICT ENGINEER UTILITIES
PHONE: (301) 513-7300

MR. MAJIB SHAKIB ASSIST., DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 513-7300

SHA, TRAFFIC SIGNAL SHOP
MR. EDWARD RODENHIZER, CHIEF
PHONE: (410) 787-7650

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

UTILITY CONTACT
SOUTHERN MARYLAND ELECTRIC COMPANY
MR. JIM BOWLING
(301) 274-4381
15055 BURNT STORE RD.
HUGHESVILLE, MD 20637-1937

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION.

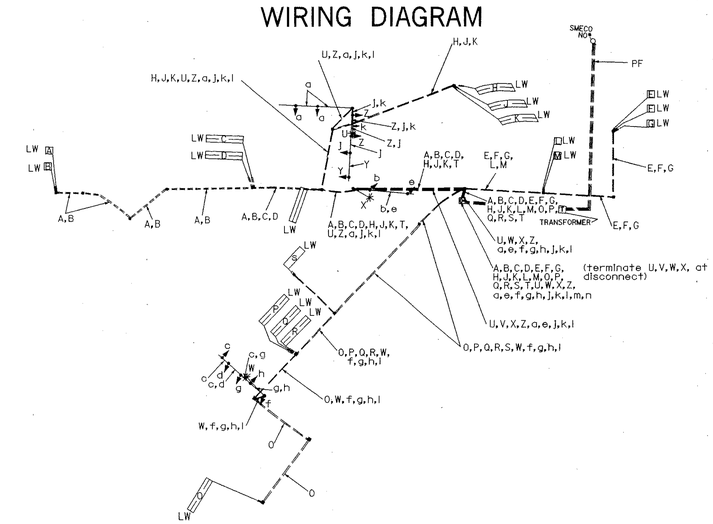
ITEM NO.:	DESCRIPTION	SPECIFICATION SECTION	UNIT	QUANTITY
	SYSTEM READY S.H.A. TRAFFIC SIGNAL CONTROLLER, MASTER/LOCAL BASE MOUNTED CABINET, TWO(2) DETECTOR PANELS AND FIVE (5) DETECTOR AMPLIFIERS RACK MOUNT	816	EA	1
	SHEET ALUMINUM SIGNS	813	SF	51.75
	30" x 36" R3-5(L) SIGN-MAST ARM MOUNT		EA	4
	30" x 30" GROUND MOUNT		EA	1
	36" x 36" R3-3 SIGN - MAST ARM MOUNTING		EA	2
	OPTICOM DETECTOR - MAST ARM MOUNTING	814	EA	1
	OPTICOM DISCRIMINATOR MODULE (752)	816	EA	1

EQUIPMENT LIST

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

ITEM NO.:	DESCRIPTION	SPECIFICATION SECTION	UNIT	QUANTITY
	MAINTENANCE OF TRAFFIC	104	LS	LUMP SUM
	TEST PIT EXCAVATION	205	CY	4
	24" PAVEMENT MARKING TAPE-FOR STOP LINE	SP	EA	142
	FURNISH AND INSTALL CONCRETE FOUNDATION FOR TRAFFIC SIGNAL STRUCTURE	801	EA	12
	FURNISH AND INSTALL 27' STEEL POLE WITH SINGLE 50' MAST ARM	SP	EA	2
	FURNISH AND INSTALL 27' STEEL POLE WITH TWIN 60' X 50' MAST ARMS	SP	EA	1
	FURNISH AND INSTALL ELECTRICAL HANDHOLE	811	LF	19
	FURNISH AND INSTALL SAWCUT FOR SIGNAL LOOP DEDECTOR	815	LF	1262
	FURNISH AND INSTALL CONDUIT SLEEVE GALVANIZED 1"	805	LF	100
	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALIC CONDUIT	805	LF	20
	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR NO. 14 AWG (ALUMINUM SHIELDED)	810	LF	4300
	FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR NO. 12 AWG TRAY CABLE	810	LF	1220
	FURNISH AND INSTALL ELECTRICAL CABLE-1 CONDUCTOR 3 WIRE NO. 4 AWG	810	LF	45
	FURNISH AND INSTALL 2" SCHEDULE 80 PVC CONDUIT-BORED	805	LF	150
	FURNISH AND INSTALL 2" SCHEDULE 80 PVC CONDUIT-TRENCHED	805	LF	720
	FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT-TRENCHED	805	LF	785
	FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT-TRENCHED	805	LF	170
	FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR NO. 14 AWG	810	LF	185
	FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR NO. 14 AWG	810	LF	2200
	FURNISH AND INSTALL BARE COPPER STRANDED GROUND WIRE NO. 6 AWG	804	LF	800
	FURNISH AND INSTALL GROUND ROD 3/4" X 10'	804	EA	9
	FURNISH AND INSTALL 250 WATT H.P.S. LAMP AND LUMINAIRE WITH PHOTOCELL	806	EA	3
	FURNISH AND INSTALL 4" SCHEDULE 80 PVC CONDUIT-BORED	805	LF	670
	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT	807	EA	1
	FURNISH AND INSTALL LOOP DETECTOR WIRE NO.14 AWG ENCASED IN FLEXIBLE TUBING	810	LF	4500
	FURNISH AND INSTALL 15' LIGHITNG ARM ON SIGNAL STRUCTURE	806	EA	1
	FURNISH AND INSTALL 20' LIGHTING ARM ON SIGNAL STRUCTURE	806	EA	2
	INSTALL OVERHEAD MOUNTED SIGN	813	SF	43
	FURNISH AND INSTALL STEEL SPAN WIRE 3/8" DIAMETER	810	LF	130
	INSTALL GROUND MOUNTED SIGN	813	SF	8.75
	FURNISH AND INSTALL 12" 1-WAY, 1-SECTION SIGNAL HEAD MAST ARM MOUNT	814	EA	24
	FURNISH AND INSTALL 12" 1-WAY, 1-SECTION SIGNAL HEAD OPTICALLY PROGRAMMED	814	EA	16
	INSTALL OPTICOM DETECTOR EYE WITH 500' LEAD-IN CABLE	814	EA	1
	REMOVAL OF EXISTING SIGNAL EQUIPMENT TO BE SALVAGED	SP	LS	LUMP SUM
	PICK UP OF ADMINISTRATION FURNISHED MATERIAL	SP	EA	1
	FURNISH AND INSTALL WOOD SIGN SUPPORT 4'x4'	812	LF	17
	REMOVAL AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT	SP	LS	LUMP SUM
	DELIVERY OF SALVAGED SIGNAL MATERIAL AND EQUIPMENT	SP	LS	LUMP SUM

WIRING DIAGRAM



WIRING KEY

A B C D E F G H J K L M O P Q R S T } 2 CONDUCTOR (ALUMINUM SHIELDED) CABLE (NO. 14.AWG)

U W X } 2 CONDUCTOR TRAY CABLE (NO. 12 AWG)

Y Z a b c d } 5 CONDUTOR CABLE (NO. 14 AWG)

e f g h j } 7 CONDUCTOR CABLE (NO. 14 AWG)

k – OPTICOM DETECTOR 500' LEAD IN CABLE

l – 1 CONDUCTOR BARE COPPER GROUND WIRE (NO. 6 AWG)

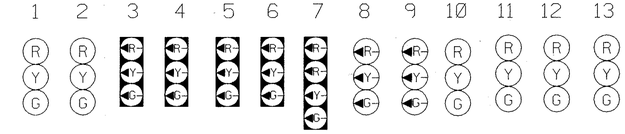
m – 3 WIRE (NO. 4 AWG) FOR TRAFFIC SIGNAL ELETRICAL SERVICE

n – 3 WIRE (NO. 8 AWG) FOR ILIGHTINR ELETRICAL SERVICE

PF – PROPOSED UNDERGROUND FEED BY SEMCO

LW – LOOP DETECTOR WIRE (NO. 14 AWG) IN FLEXIBLE TUBING

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13
SEQUENCE 1	G	G	◄R–	◄R–	G	G	◄G–	◄R–	◄R–	R	R	R	R
1 CHANGE	Y	Y	◄R–	◄R–	G	G	◄G–	◄R–	◄R–	R	R	R	R
SEQUENCE 2	R	R	◄R–	◄R–	G	G	◄G–	◄G–	◄G–	R	R	R	R
2 CHANGE	R	R	◄R–	◄R–	Y	Y	◄Y–	◄G–	◄G–	R	R	R	R
SEQUENCE 3	R	R	◄G–	◄G–	R	R	◄R–	◄G–	◄G–	G	G	G	G
3 CHANGE	R	R	◄Y–	◄Y–	R	R	◄R–	◄Y–	◄Y–	Y	Y	G	G
SEQUENCE 4	G	G	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	G	G
4 CHANGE	G	G	◄R–	◄R–	R	R	◄R–	◄R–	◄R–	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/Y	FL/Y

BUS PRE-EMPTION SHALL OPERATE IN SEQUENCE 3

SABRA, WANG & ASSOCIATES, INC.
9881 BROKEN LAND PARKWAY
SUITE 105
COLUMBIA, MD 21046

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

GENERAL INFORMATION PLAN

MD 228 AT MD 210

DRAWN BY: M.A. MEARS	F.A.P. NO. N/A	TS NO. 3334 B-GI	SHEET NO.
CHECKED BY: S. RENZI	S.H.A. NO. PG251570		
SCALE: N.T.S.	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. D-121	63 OF 97
DATE: DECEMBER 16, 1998	LOG MILE:		

MICHAEL C: 98-23 SP02M22830.DGN