PROJECT DESCRIPTION

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THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE MD 198/US 29 NORTHBOUND RAMPS INTERSECTION IN MONTGOMERY COUNTY. MD 198 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION SHALL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 198 APPROACHES RUNNING CONCURRENTLY.

EXCLUSIVE LEFT-TURN PHASING SHALL BE PROVIDED FOR EASTBOUND MD 198.

THE SIGNAL SHALL BE INTERCONNECTED TO THE MD 198/OLD COLUMBIA PIKE (PROPOSED) INTERSECTION TO THE WEST, AND THE MD 198/MCKNEW ROAD INTERSECTION TO THE EAST.

CONTROLLER REQUIREMENTS

INSTALL A FULL TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER AND ASSOCIATED EQUIPMENT IN A NEMA 6 BASE MOUNTED CABINET. THE PRESENCE AND SAMPLING DETECTION REGIONS SHALL BE MONITORED/ACTUATED WITH VIDEO-DETECTION CAMERAS.

PROJECT CONTACTS

PROJECT CONTACTS DISTRICT 3

MR. LEE STARKLOFF
ASST. DIST. ENGR. TRAFFIC
301-513-7300

MR. AUGIE REBISH
UTILITIES ENGR.
301-513-7350

MR. RALEIGH MEDLEY
ASST. DIST. ENGR. MAINTENANCE
301-513-7300

MR. DENNIS McMAHAN
ASST. DIST. ENGR. CONSTRUCTION
301-513-7336

PROJECT CONTACTS (CONTINUED)

CONTACTS FOR THE OFFICE OF TRAFFIC

MR. RICHARD DAFF
CHIEF TRAFFIC OPERATIONS
410-787-7630

MR. EUGENE BAILEY
TEAMLEADER SIGN OPERATIONS
410-787-7676

MR. ED RODENHIZER
TEAMLEADER SIGNAL OPERATION
410-787-7650

MS. DARLENE EIDE
SUPPLY OFFICER SIGNAL WAREHOUSE
410-787-7666

PROJECT CONTACTS FOR MONTGOMERY COUNTY

MR. BOB GONZALES
TRAFFIC ENGINEER MCDPW
240-777-8761

MR. KEITH LORD
MONTGOMERY COUNTY SIGNAL SHOP
301-279-1971

EQUIPMENT LIST 'A'

A. Equipment to be Furnished by the Adminstration

Category Code	Quantity	Description
900000	1 EA	Video Interface Equipment (1 - 4 Cameras)
971017	1 EA	System Controller and Cabinet - Base Mounted
973023	128 SF	Sheet Aluminum Signs (1 - W3-3(2), 3 - R3-5(L), 2 - R10-4(MOD), 1 - R3-3(2) 2 Associated Shield Assembles, 1 - R3-6(L))

EQUIPMENT LIST 'B'

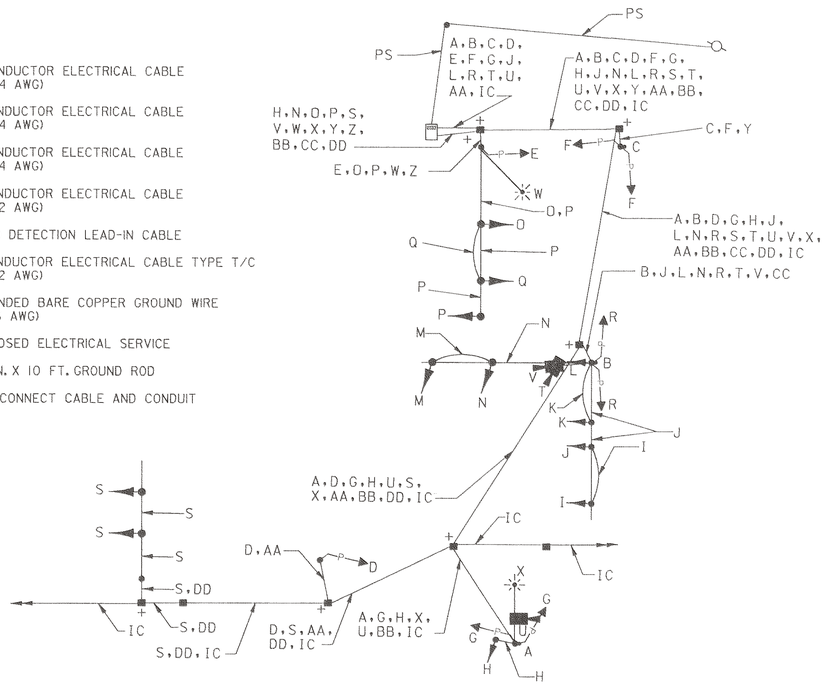
B. Equipment to be Furnished and/or installed by the Contractor

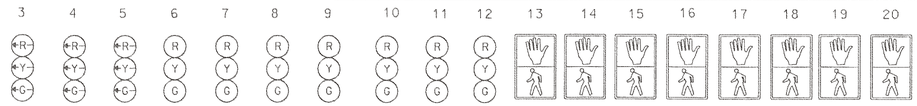
Category Code	Quantity	Description
585620	1000 LF	12 IN. Heat Applied White Permanent Preformed Thermoplastic Pavement Marking Material
585624	125 LF	24 IN. Heat Applied White Permanent Preformed Thermoplastic Pavement Marking Material
800000	170 LF	4 IN. SDR 11 HDPE Conduit - Bored
800000	600 LF	Electrical Cable - 5 Wire (No.12 AWG)
801004	23 CY	Concrete for Signal Foundation
801605	32 SF	Sheet Aluminum Signs
802501	670 LF	No. 6 AWG Stranded Bare Copper Ground Wire
805135	500 LF	3 IN. Schedule 80 Rigid PVC Conduit - Trenched
805140	245 LF	4 IN. Schedule 80 Rigid PVC Conduit - Trenched
807205	1 EA	Control and Distribution Equipment
811001	9 EA	Electrical Handhole
813010	41 SF	Band Sign to Sign Support
813015	87 SF	Install Overhead Signs
816001	3 EA	Video Detection Camera
816005	3 EA	250 FT. Video Cable to Controller
818010	2 EA	14 FT. Breakaway Pedestal Pole
818030	1 EA	Steel Pole with a Single 38 FT. Mast Arm
818041	2 EA	Steel Pole with a Single 60 FT. Mast Arm
818050	1 EA	Steel Pole with Twin 50 FT. and 60 FT. Mast Arms
831011	2 EA	250 Watt H.P.S. Lamp & Luminaire Rectangular
837001	8 EA	Ground Rod - 3/4IN. Diameter x 10 FT. Length
860272	32 EA	12 IN. Vehicular Traffic Signal Head Section
860278	6 EA	12 IN. Pedestrian Signal Head Section Pole Mount
860282	10 EA	12 IN. Pedestrian Signal Head Section Pedestal Pole Mount
860292	2 EA	Cut, Clean, Galvanize and Cap Traffic Signal Structure
861105	450 LF	Electrical Cable - 2 Conductor (No.14 AWG)
861106	300 LF	Electrical Cable - 3 Conductor (No.14 AWG)
861107	1345 LF	Electrical Cable - 5 Conductor (No.14 AWG)
861116	295 LF	Electrical Cable Type T/C - 2 Conductor (No.12 AWG)
865001	3 EA	Pushbutton and Sign
866104	3 EA	20 FT. Bracket Arm for Signal Structure
871202	1 EA	Install Controller and Cabinet - Base Mounted

WIRING DIAGRAM

WIRING KEY

A,B,C	2 CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
D,E	3-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
F,G,H,I,J,K,L,M, N,O,P,Q,R	5-CONDUCTOR ELECTRICAL CABLE (NO.14 AWG)
S	5-CONDUCTOR ELECTRICAL CABLE (NO.12 AWG)
T,U,V	VIDEO DETECTION LEAD-IN CABLE
W,X	2-CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO.12 AWG)
Y,Z,AA,BB CC,DD	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
PS	PROPOSED ELECTRICAL SERVICE
+	3/4 IN. X 10 FT. GROUND ROD
IC	INTERCONNECT CABLE AND CONDUIT





PHASE 1 & 6	G	G	G	G	G	R	R	R	R	R								
PED. CLEAR	G	G	G	G	G	R	R	R	R	R		FL	FL					
1 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R								
PHASE 2 & 6	R	R	R	G	G	G	G	R	R	R								
PED. CLEAR	R	R	R	G	G	G	G	R	R	R	FL	FL	FL	FL				
2 & 6 CHANGE	R	R	R	Y	Y	Y	Y	R	R	R								
PHASE 4	R	R	R	R	R	R	R	G	G	G								
4 CHANGE	R	R	R	R	R	R	R	Y	Y	Y								
PHASE 4 ALT.	R	R	R	R	R	R	R	G	G	G								
PED. CLEAR	R	R	R	R	R	R	R	G	G	G					FL	FL	FL	FL
4 ALT. CHANGE	R	R	R	R	R	R	R	Y	Y	Y								
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

DWG. NO. SP-06

WHITNEY BAILEY COX MAGNANI
CONSULTING ENGINEERS
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL NOTES AND PROPOSAL ITEMS

MD 198 @ US 29 NORTHBOUND RAMPS

DRAWN BY: M.E.V./J.E.H.	F.A.P. NO.	AC-NH-G-109-1(45)N	TS NO. 4230	SHEET NO. 7 OF 20
CHECKED BY: J.W.H.	S.H.A. NO.	M0867517O		
SCALE: N/A	COUNTY:	MONTGOMERY	T.I.M.S. NO. E856	
DATE: SEPTEMBER 2003	LOG MILE:	15019803.68		

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