PROJECT DESCRIPTION

I. GENERAL:

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL DUE TO THE RECONSTRUCTION OF THE EXISTING INTERSECTION OF MD 80 (FINGERBOARD ROAD) AND IJAMSVILLE ROAD/BIG WOODS ROAD IN FREDERICK COUNTY. STREET LIGHTING AND SHIELD ASSEMBLY SIGNS SHALL BE PROVIDED.

MD 80 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION SHALL OPERATE IN A NEMA SIX PHASE, FULL- ACTUATED MODE. MD 80 THROUGH MOVEMENT OPERATE CONCURRENTLY, WITH AN EXCLUSIVE/PERMISSIVE LEFT TURN FOR BOTH APPROACHES. VIDEO CAMERA DETECTION SHALL BE PROVIDED FOR ALL FOUR LEGS OF THE INTERSECTION. IJAMSVILLE ROAD/BIG WOODS ROAD MOVEMENTS OPERATE CONCURRENTLY.

A NEMA EIGHT-PHASE, FULL-ACTUATED CONTROLLER WITH VIDEO DETECTION INTERFACE UNIT, ONE- FOUR CHANNEL RACK MOUNTED AMPLIFIER, AND ALL NECESSARY EQUIPMENT HOUSED IN A BASE-MOUNTED CABINET SHALL BE INSTALLED AT THE INTERSECTION.

III. SPECIAL NOTES:

THE CONTRACTOR SHALL CONTACT MR. ROBERT SNYDER, AT 410-787-7631 TO ARRANGE FOR PHONE DROP, PROVIDING THE NEAREST STREET ADDRESS, PHONE NUMBER AND ZIP CODE. A SEVENTY-TWO (72) HOUR ADVANCE NOTICE IS REQUIRED PRIOR TO THE COMPLETION OF CONSTRUCTION.

PROJECT CONTACTS:

THE CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. DAVID COYNE
DISTRICT ENGINEER
PHONE: (301) 624-8101

MR. JOHN CONCANNON
ASSISTANT DISTRICT
ENGINEER - TRAFFIC
PHONE: (301) 624-8140

MR. ERIC ECKHARDT
ASSISTANT DISTRICT
ENGINEER - CONSTRUCTION
PHONE: (301) 624-8200

MS. ANDREA ABEND
ASSISTANT DISTRICT
ENGINEER - UTILITIES
PHONE: (301) 624-8115

THE CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFTEY:

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATION SECTION
PHONE: 410-787-7652

MR. ROBERT SNYDER
ASST. CHIEF, TRAFFIC OPERATION DIVISION
PHONE: 410-787-7631

PROJECT MANGER, TRAFFIC
ENGINEERING DESIGN DIVISION
PHONE: 410-787-5816

ALLEGANY POWER
MR. CHRIS HIXON
FREDERICK SERVICE CENTER
421 EAST PATRICK STREET
FREDERICK, MARYLAND 21705

NOTE: THE CONTRACTOR SHALL CONTACT MR. TONY WETZEL, FREDERICK COUNTY DPW TO OBTAIN A UTILITY PERMIT PRIOR TO THE BEGINNING OF CONTRUCTION.
PHONE: 301- 694-1562: CELL: 301-748-7251

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA AND INSTALLED BY THE CONTRACTOR.

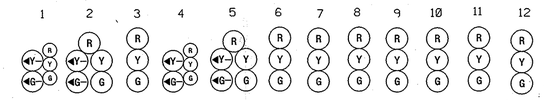
CAT CODE	QUANTITY	DESCRIPTION
971017	1 EA	NEMA EIGHT PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH TELEMETRY, AND ALL NECESSARY EQUIPMENT HOUSED IN A BASE MOUNTED CABINET.
900000	1 EA	VIDEO DETECTION INTERFACE UNIT (1 TO 4 CAMERAS)
963010	1 EA	4-CHANNEL RACK-MOUNTED AMPLIFIER
973023	196.5 SF	SHEET ALUMINUM FOR MAST ARM MOUNTING
	1 EA	SHIELD ASSEMBLY M3-4 "EAST", M1-5 "MD 80", M6-1R "ARROW"
	1 EA	SHIELD ASSEMBLY M3-2 "WEST", M1-5 "MD 80", M6-1R "ARROW"
	1 EA	SHIELD ASSEMBLY M3-4 "EAST", M1-5 "MD 80", M6-1L "ARROW"
	1 EA	SHIELD ASSEMBLY M3-2 "WEST", M1-5 "MD 80", M6-1L "ARROW"
	1 EA	D3-2 "ARROW, Ijamsville RD/ Ijamsville RD, ARROW" (VAR x 16") DUAL FACED
	1 EA	D3-2 "Big Woods RD, ARROW/ ARROW, Big Woods RD" (VAR x 16") DUAL FACED
	3 EA	R3-5R "RIGHT TURN" SIGN (30" x 36")
	4 EA	R3-5L "LEFT TURN" SIGN (30" x 36")
		GROUND MOUNTED
	2 EA	W3-3 "SIGNAL AHEAD SYMBOL" (36" x 36"), M95-25 "NEW" (24" x 24")
	2 EA	W3-3 "SIGNAL AHEAD SYMBOL" (48" x 48"), M95-25 "NEW" (24" x 24")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND SUPPLIED BY THE CONTRACTOR.

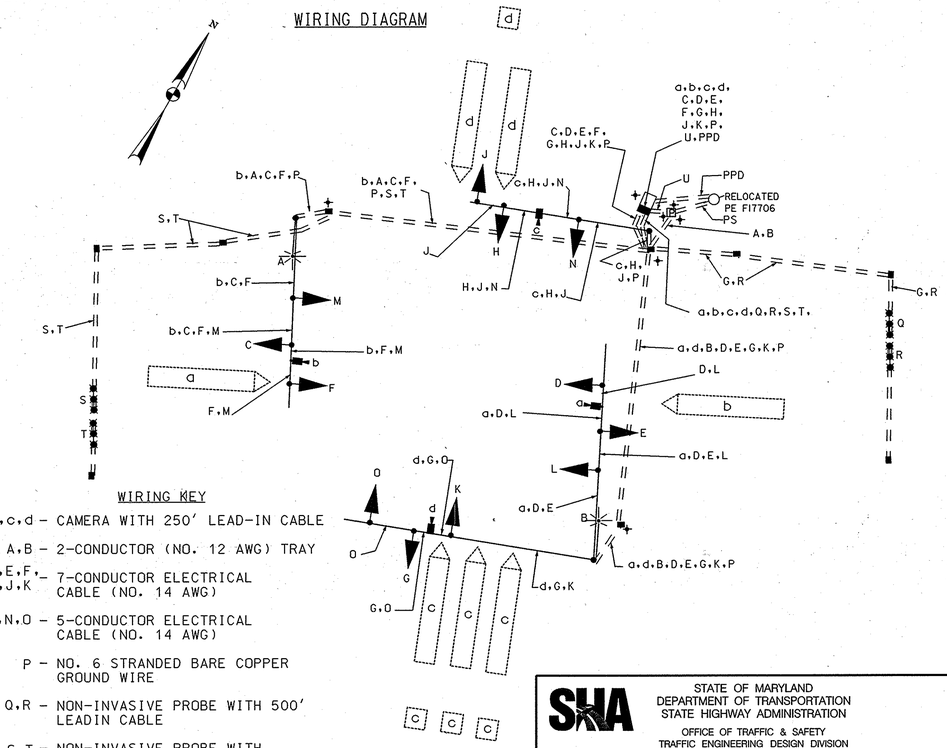
CAT CODE	QUANTITY	DESCRIPTION
203030	4 CY	TEST PIT EXCAVATION
585624	175 LF	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
801004	16 CY	CONCRETE FOUNDATION FOR SIGNAL STRUCTURE
860284	38 EA	12" LED VEHICULAR SIGNAL HEAD SECTIONS
800000	6 EA	8" LED VEHICULAR SIGNAL HEAD SECTIONS
816001	4 EA	VIDEO DETECTION CAMERA
816005	4 EA	CONTROL CABLE-250' FROM VIDEO CAMERA TO CONTROLLER
811001	9 EA	ELECTRICAL HANDHOLE
813014	66 SF	INSTALL GROUND MOUNTED SIGNS
813015	130.5 SF	INSTALL OVERHEAD MOUNTED SIGNS
807202	1 EA	METERED SERVICE PEDESTAL
801106	100 LF	WOOD SIGN SUPPORTS 4"x6"
805125	52 LF	2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	900 LF	3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	37 LF	4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805115	140 LF	3" SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	170 LF	4" SCHEDULE 80 RIGID PVC CONDUIT - BORED
818036	2 EA	27' MAST ARM POLE AND 50 FOOT MAST ARM
818050	1 EA	27' MAST ARM POLE AND TWIN (50 FOOT/60 FOOT) MAST ARMS
810601	2 EA	NON-INVASIVE PROBE DETECTOR, W/500' LEAD IN CABLE
810605	2 EA	NON-INVASIVE PROBE DETECTOR, W/ 1000' LEAD-IN CABLE
837001	7 EA	GROUND ROD 3/4"DIA. X 10' LENGTH
802501	310 LF	NO.6 AWG STRANDED BARE COPPER GROUND WIRE
810010	45 LF	1-CONDUCTOR (NO. 4 AWG) THHN/THWN ELECTRICAL CABLE (3 WIRES)
861116	385 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)TRAY
861107	110 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1335 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
866104	2 EA	20' LIGHTING ARM ON SIGNAL STURCTURE
831010	2 EA	250 WATT HPS LAMP AND LUMINAIRE
871202	1 EA	INSTALL BASE-MOUNTED CABINET AND CONTROLLER

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1 & 5	G-R	G-R	R	G-R	G-R	R	R	R	R	R	R	R
1 & 5 Change	THE CONTROLLER MAY SKIP TO PHASES 1 & 6 OR 2 & 5 OR 2 & 6											
Phase 1 & 6	G-G	G-G	G	R	R	R	R	R	R	R	R	R
1 Change	Y-G	Y-G	G	R	R	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	G-G	G-G	G	R	R	R	R	R	R
5 Change	R	R	R	Y-G	Y-G	G	R	R	R	R	R	R
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G
4 & 8 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

a,b,c,d - CAMERA WITH 250' LEAD-IN CABLE

A,B - 2-CONDUCTOR (NO. 12 AWG) TRAY

C,D,E,F, G,H,J,K - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

L,M,N,O - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

P - NO. 6 STRANDED BARE COPPER GROUND WIRE

Q,R - NON-INVASIVE PROBE WITH 500' LEADIN CABLE

S,T - NON-INVASIVE PROBE WITH 1000' LEAD-IN CABLE

U - 1 CONDUCTOR (NO. 4 A.W.G.) THHN/THWN ELECTRICAL CABLE /3 WIRES

PPD - PROPOSED UNDERGROUND PHONE DROP

PS - PROPOSED UNDERGROUND SERVICE FEED

P - METERED SERVICE PEDESTAL

✦ - GROUND ROD 3/4"DIA. X 10' LENGTH

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (410) 823-8070 Fax: (410) 823-2184

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 80 AND IJAMSVILLE RD/ BIG WOODS RD

GENERAL INFORMATION PLAN

SCALE NONE DATE 2-12-2008 CONTRACT NO. FR4785176

DESIGNED BY EMM
DRAWN BY EMM
CHECKED BY T. HOLLOWAY
FAP NO.

COUNTY FREDERICK
LOGMILE 10008007.32
TIMS NO. G 687
TOD NO.

TS NO. 4544 | DRAWING - 2 OF 2 | SHEET NO. 29 OF 39

PLOTTED: Friday, December 07, 2007 AT 01:23 PM
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BY: maujohnson