PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 170 (AVIATION BLVD/ TELEGRAPH RD) AND MD 176 (DORSEY RD) IN ANNE ARUNDEL COUNTY. THE STREET LIGHTING AND SHIELD ASSEMBLY SIGNS SHALL BE UPDATED.

MD 170 IS ASSUMED TO RUN IN A NORTH -SOUTH DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION WILL CONTINUE TO OPERATE IN AN EIGHT- PHASE,FULL TRAFFIC ACTUATED MODE. EXCLUSIVE LEFT TURNS ARE PROVIDE FOR THE NORTH AND SOUTHBOUND MOVEMENTS OF MD 170 WITH THE THROUGH MOVEMENTS OPERATING CONCURRENTLY. EXCLUSIVE- PERMISSIVE LEFT TURNS ARE PROVIDE FOR THE EAST AND WESTBOUND MOVEMENTS OF MD 176 WITH THE THROUGH MOVEMENTS OPERATING CONCURRENTLY. VIDEO CAMERA'S SHALL BE PROVIDED FOR THE PRESENCE DETECTION.

III. SPECIAL NOTES:

THE CONTRACTOR SHALL CONTACT MR. ROBERT SNYDER, TOD-OOTS AT 410-787-7631 TO ARRANGE FOR THE TELEPHONE DROP. THE CONTRACTOR SHALL NOTIFY MR. SNYDER AT LEAST SEVENTY- TWO (72) HOUR ADVANCE OF THE PROJECT COMPLETION AND PROVIDE THE NEAREST ADDRESS.

EQUIPMENT LIST "A"

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

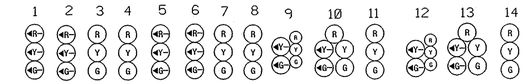
ITEM NO.	QUANTITY	DESCRIPTION
9003	2 EA	RACK MOUNTED FOUR CHANNEL AMPLIFIER
9004	1 EA	VIDEO DETECTION INTERFACE UNIT
9007	1 EA	EIGHT PHASE (FULLY -ACTUATED) CONTROLLER AND CABINET- BASE MOUNTED
9009	202 SF	SHEET ALUMINUM FOR MAST ARM MOUNTING
		1 EA D3-2 "Telegraph RD, arrow"/"arrow,Telegraph RD" (VARIABLE x 16") DUAL FACED
		1 EA D3-2 "Aviation BLVD, arrow" /"arrow, Aviation BLVD" (VARIABLE x 16") DUAL FACED
		2 EA D3-2 "Dorsey RD" (VARIABLE x 16" DUAL FACED
		1 EA D3-2 "ARROW, Aviation BLVD, LINE, AIRPORT SYMBOL Terminal" (VARIABLE x 32")
		1 EA D3-2 "ARROW, Telegraph RD" (VARIABLE x 16")
		SHIELD ASSEMBLY SIGNS
		1 EA "Airport Loop" / "EAST, MD 176, ANGLED RIGHT ARROW" (30" x 24") / (30" x 51")
		1 EA "WEST, MD 176, LEFT ARROW" (48" x 75")
		1 EA "WEST, MD 176, ANGLED RIGHT ARROW" (30" x 51")
		1 EA "EAST, MD 176 LEFT ARROW" (48" x 75")
		1 EA "SOUTH, MD 170, ANGLED RIGHT ARROW" (30" x 51")
		1 EA "Airport Loop" / "NORTH, MD 170, LEFT ARROW" (48" x 24") / (48" x 75")
		1 EA "SOUTH, MD 170, LEFT ARROW" (48" x 75")

EQUIPMENT LIST "B"

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

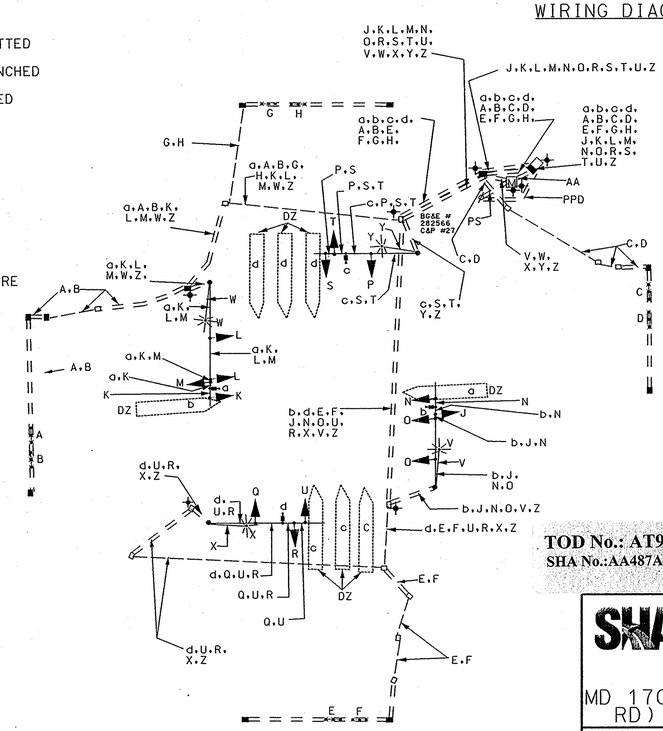
ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2001	6 CY	CLASS 2 EXCAVATION
2002	2 CY	TEST PIT EXCAVATION
5002	244 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS- ANY WIDTH
5005	145 LF	24" WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKINGS
6002	455 SF	4" CONCRETE SIDEWALK
8001	44 EA	12" LED SIGNAL HEAD SECTION
8004	6 EA	8" LED SIGNAL HEAD SECTION
8007	4 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8019	4 EA	MAST ARM POLE AND 50' MAST ARM ANY 'T' DIMENSION
8021	8 EA	NON- INVASIVE DETECTOR WITH UP TO 1000' LEAD -IN CABLE TO CONTROLLER
8022	1 EA	REMOVE & DISPOSE OF EXISTING EQUIPMENT
8026	4 EA	VIDEO DETECTION CAMERA WITH UP TO 500' LEAD -IN CABLE TO CONTROLLER
8034	260 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - SLOTTED
8035	580 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED
8036	240 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - BORED
8039	202 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGNS
8041	760 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8045	70 LF	1-CONDUCTOR ELECTRICAL CABLE NO.14 AWG THHN/THWN (3-WIRE)
8047	10 EA	ELECTRICAL HANDHOLE
8052	3 EA	CUT, CLEAN, GALVANIZED AND CAP SIGNAL STRUCTURE
8056	1200 LF	ELECTRICAL CABLE 5- CONDUCTOR NO.14 AWG
8057	3000 LF	ELECTRICAL CABLE 7- CONDUCTOR NO.14 AWG
8058	1260 LF	ELECTRICAL CABLE 2- CONDUCTOR NO.12 AWG TC
8065	1 EA	INSTALL CONTROLLER/CABINET - BASE MOUNTED

PHASING CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Phase 1 & 5	◄G-	◄G-	R	R	◄G-	◄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	◄R-	◄R-	R	R	R	R	R	R	R	R
1 Change	◄Y-	◄Y-	G	G	◄Y-	◄Y-	R	R	R	R	R	R	R	R
Phase 2 & 5	◄R-	◄R-	R	R	◄G-	◄G-	G	G	R	R	R	R	R	R
5 Change	◄R-	◄R-	R	R	◄Y-	◄Y-	G	G	R	R	R	R	R	R
Phase 2 & 6	◄R-	◄R-	G	G	◄R-	◄R-	G	G	R	R	R	R	R	R
2 & 6 Change	◄R-	◄R-	Y	Y	◄R-	◄R-	Y	Y	R	R	R	R	R	R
Phase 3 & 7	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G R	◄G R	R	◄G R	◄G R	R
3 & 7 Change	THE CONTROLLER MAY SKIP TO PHASES 3 & 8 OR 4 & 7 OR 4 & 8													
Phase 3 & 8	◄R-	◄R-	R	R	◄R-	◄R-	R	R	R	R	R	◄G G	◄G G	G
3 Change	◄R-	◄R-	R	R	◄R-	◄R-	R	R	R	R	R	◄Y G	◄Y G	G
Phase 4 & 7	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G G	◄G G	G	R	R	R
7 Change	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄Y G	◄Y G	G	R	R	R
Phase 4 & 8	◄R-	◄R-	R	R	◄R-	◄R-	R	R	G	G	G	G	G	G
4 & 8 Change	◄R-	◄R-	R	R	◄R-	◄R-	R	R	Y	Y	Y	Y	Y	Y
Flashing Operation	FL/ RA	FL/ RA	FL/Y	FL/Y	FL/ RA	FL/ RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



WIRING KEY

a,b,c,d – VIDEO DETECTION CAMERA WITH LEAD-IN TO CONTROLLER

A,B,C,D, E,F,G,H – NON-INVASIVE DETECTOR WITH LEAD-IN CABLE TO CONTROLLER

L,O,P,Q – 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

J,K,M,N, R,S,T,U – 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

V,W,X,Y – 2-CONDUCTOR (NO. 12 AWG) TRAY CABLE

Z – NO.6 AWG STRANDED BARE COPPER GROUND WIRE

AA – 1-CONDUCTOR ELECTRICAL CABLE NO. 4 AWG-THHN/THWN (3-WIRE)

PS – PROPOSED SERVICE FEED

PPD – EXISTING TELEPHONE DROP

DZ – CAMERA DETECTOR ZONE

– 3/4 IN. x 10 FT. GROUND ROD

TOD No.: AT915-06
SHA No.:AA487A52/B52

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER
TRAFFIC - 410-842-1019

MR. MARK COBLENTZ
ASSISTANT DISTRICT ENGINEER
CONSTRUCTION - 410-841-1000

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER
MAINTENANCE - 410-841-1013

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER
UTILITIES - 410-841-1039

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS DIVISION
410-787-7631

MR. ED RODENHIZER
TEAM LEADER - SIGNAL OPERATIONS
410-787-7652

EQUIPMENT LIST "C"

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

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
32 WEST ROAD
TOWSON, MARYLAND 21204

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

GENERAL INFORMATION SHEET
MD 170(Aviation BLVD/Telegraph RD) and MD 176 (Dorsey RD)

SCALE NONE DATE 7/3/2006 CONTRACT NO. AT 9195185

DESIGNED BY E.M.MILESKY
DRAWN BY EMM
CHECKED BY TROY HOLLOWAY CJW
FAP NO.

COUNTY ANNE ARUNDEL
LOGMILE 02017005.43
TIMS NO. H 427
TOD NO. TS-800 J

TS NO. 800 J | DRAWING -·- OF | SHEET NO. 2 OF 2

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BY: cward