PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 940 AND DOLFIELD ROAD / DOLFIELD ROAD S. UPDATING SHIELD ASSEMBLY SIGNS AND STREET LIGHTING. MD 940 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION:

THE INTERSECTION OPERATES IN A NEMA-SIX, PHASE, FULL ACTUATED MODE. MD 940 THROUGH MOVEMENTS OPERATE CONCURENTLY WITH EXCLUSIVE/PERMISSIVE LEFT-TURNS FOR BOTH APPROACHES. DOLFIELD ROAD APPROACHES OPERATES IN A SPLIT PHASE. THE DETECTION SHALL BE PROVIDED BY VIDEO CAMERA AND PROBES.

III. SPECIAL NOTES:

1. THE CONTRACTOR IS RESPOSIBLE FOR CONTACTING MR. ROBERT SNYDER, TRAFFIC OPERATIONS DIVISION AT 410-787-7631 TO ARRANGE THE RELOCATION OF EXISTING TELEPHONE DROP. SEVENTY -TWO (72) HOURS NOTICE IS REQUIRED PRIOR TO COMPLETION OF THIS PROJECT.

2. THE TRAFFIC SIGNAL SHALL BE OPERATIONAL AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MR.EDWARD RODENHIZER, CHIEF OF SIGNAL OPERATIONS, AT 410-787-7652 AT LEAST SEVENTY-TWO HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE TRAFFIC SIGNAL SHALL BE ADJUSTED TO OPERATE IN A 'MAX-FIXED TIME' MODE AS PER SHA STANDARDS.

PROJECT CONTACT

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 410 321-2781

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 410 321-2761

MR. MIKE PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: 410-321-2841

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

MR. EDWARD RODENHIZER
CHIEF, SIGNAL OPERATIONS SECTION
PHONE: 410-787-7652

MR. DEAN RANDOLPH
PROJECT MANAGER
TRAFFIC ENGINEERING DESIGN DIVISION
PHONE: 410-787-5861

EQUIPMENT LIST "C"

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

EQUIPMENT LIST "A"

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

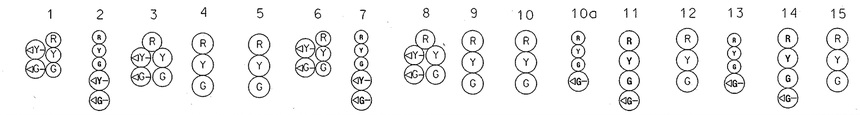
CAT.CODE	QUANTITY	DESCRIPTION
971020	1 EA	NEMA 8 PHASE CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED SIZE '6' BASE-MOUNTED CABINET
900000	4 EA	FOUR CHANNEL AMPLIFIER-RACK MOUNTED
900000	1 EA	VIDEO CAMERA INTERFACE UNIT
973023	83 SF	SHEET ALUMINIUM FOR FOR MAST ARM MOUNTING
		1 EA SHIELD ASSEMBLY SIGN (30"x51")
		1 EA SHIELD ASSEMBLY SIGN (48"x75")
		1 EA D-3(2) "Owings Mills BLVD", (VARIx16") DUAL FACED
		1 EA D-3(2) "ARROW, Dolfield RD/ Dolfield RD, ARROW", (VARIx16") DUAL FACED
		1 EA D-3(2) "ARROW, Dolfield RD S./Dolfield RD S., ARROW" (VARIx16") DUAL FACED
		3 EA R3-5L "LEFT TURN ONLY" SIGN, (30"x36")
		1 EA R3-4 "NO 'U' TURN SYMBOL " SIGN, (30"x30")

EQUIPMENT LIST "B"

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

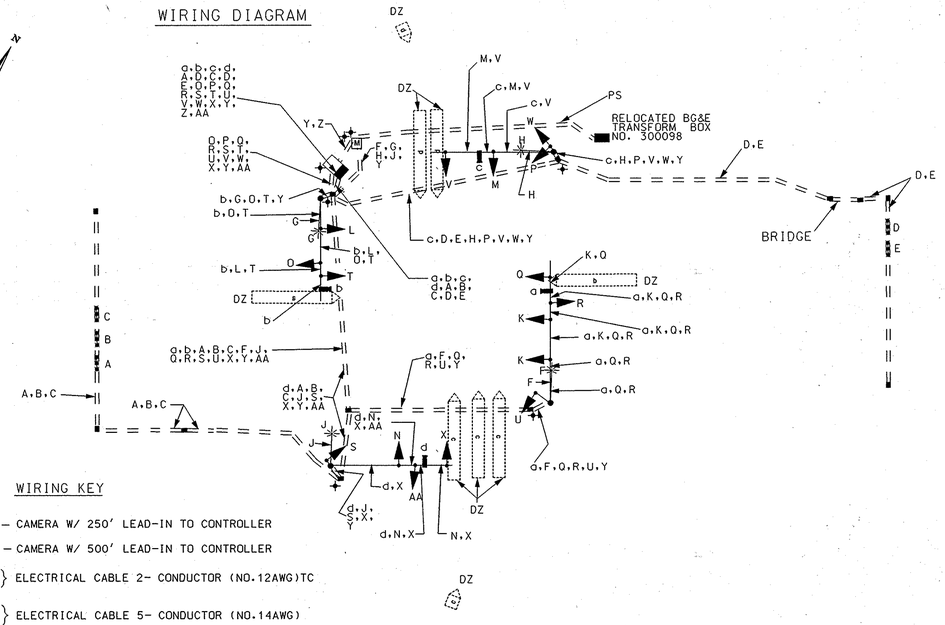
CAT.CODE	QUANTITY	DESCRIPTION
203030	4 CY	TEST PIT EXCAVATION
800000	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
871202	1 EA	INSTALL CONTROLLER AND CABINET- BASE MOUNTED
801004	20 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	550 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	50 LF	2" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- TRENCHED
805135	610 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- TRENCHED
805150	175 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- SLOTTED
805155	335 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- SLOTTED
805140	155 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- TRENCHED
811001	12 EA	ELECTRICAL HANDHOLE
813015	83 SF	INSTALL OVERHEAD SIGN
837001	7 EA	GROUND ROD 3/4" DIA. X 10' LENGTH
818036	1 EA	STEEL POLE WITH SINGLE 50' MAST ARM
818041	2 EA	STEEL POLE WITH SINGLE 60' MAST ARM
818052	1 EA	STEEL POLE WITH SINGLE 70' MAST ARM
860292	1 EA	CUT, CLEAN, CAP, AND GALVANIZE SIGNAL STRUCTURE
810605	5 EA	NON-INVASIVE DETECTOR WITH 1000'LEAD- IN TO CONTROLLER
816001	4 EA	VIDEO DETECTION CAMERA
816005	1 EA	CONTROL CABLE, 250' VIDEO DETECTION CAMERA TO CONTROLLER
816010	3 EA	CONTROL CABLE, 500' VIDEO DETECTION CAMERA TO CONTROLLER
807202	1 EA	METERED SERVICE PEDESTAL
810010	60 LF	ELECTRICAL CABLE 1-CONDUCTOR NO.4 AWG,THHN/THWN (3 WIRES)
831010	4 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
800000	18 EA	8" LED VEHICLE TRAFFIC SIGNAL HEAD SECTION
860284	43 EA	12" LED VEHICLE TRAFFIC SIGNAL HEAD SECTION
861116	900 LF	ELECTRICAL CABLE 2-CONDUCTOR NO.12 AWG TRAY CABLE
861107	140 LF	ELECTRICAL CABLE 5-CONDUCTOR NO.14 AWG
861108	2550 LF	ELECTRICAL CABLE 7-CONDUCTOR NO.14 AWG
866103	3 EA	15' LIGHTING ARM ON SIGNAL STUCTURE
866104	1 EA	20' LIGHTING ARM ON SIGNAL STUCTURE

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	10a	11	12	13	14	15	
Phase 1 & 5	◁G/R-	◁G/R-	◁G/R-	R	R	◁G/R-	◁G/R-	◁G/R-	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/G-	G	G	R	R	R	R	R	R	R	R	R	R	R	
1 Change	◁Y/G-	◁Y/G-	◁Y/G-	G	G	R	R	R	R	R	R	R	R	R	R	R	
Phase 2 & 5	R	R	R	R	R	◁G/G-	◁G/G-	◁G/G-	G	R	R	R	R	R	R	R	
5 Change	R	R	R	R	R	◁Y/G-	◁Y/G-	◁Y/G-	G	R	R	R	R	R	R	R	
Phase 2 & 6	G	G	G	G	G	G	G	G	G	R	R	R	R	R	R	R	
2 & 6 Change	Y	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	
Phase 3	R	R	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	R	R	R	Y	Y	Y
Phase 4	R	R	R	R	R	R	R	R	R	G	◁G/G-	◁G/G-	G	R	R	R	
4 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	R	R	R	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	

WIRING DIAGRAM



WIRING KEY

b — CAMERA W/ 250' LEAD-IN TO CONTROLLER

a.c.d — CAMERA W/ 500' LEAD-IN TO CONTROLLER

F.G. H.J. } ELECTRICAL CABLE 2- CONDUCTOR (NO.12AWG)TC

K.L. M.N } ELECTRICAL CABLE 5- CONDUCTOR (NO.14AWG)

D.P.Q. R.S.T. U.V.W. X.AA } ELECTRICAL CABLE 7- CONDUCTOR (NO.14AWG)

Y — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

A.B.C. D.E } NON-INVASIVE DETECTOR WITH 1000' LEAD-IN CABLE

Z — 3-WIRE ELECTRICAL CABLE 1- CONDUCTOR (NO.4AWG)

DZ — VIDEO CAMERA DETECTION ZONE

PS — PROPOSED UNDERGROUND SERVICE FEED

PD — PROPOSED PHONE DROP

+ — 3/4 " DIA. X 10 ' LENGTH GROUND ROD

CENTURY ENGINEERING
CONSULTING ENGINEERS – PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 940 (OWINGS MILLS BLVD) AND DOLFIELD ROAD/ DOLFIELD ROAD S.

SCALE None DATE 1/27/07 CONTRACT NO. BA3915187

DESIGNED BY EMM
DRAWN BY EMM
CHECKED BY TMH
F.A.P. NO.
COUNTY BALTIMORE
LOGMILE 0309400 X1.33
T.I.M.S. NO. H308
TS NO. 1917 B

DRAWING NO. SG – 2 OF 2
SHEET NO. 20 OF 27

BY: EMILESKY

PLOTTED: TUESDAY, JANUARY 30, 2007 AT 11:10 AM
FILE: G:\TRANSDWG\DOLFIELD.RD\MSG-P002_M940.DGN