

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 140 AND CHEVRO DRIVE /GRAND DRIVE IN CARROLL COUNTY. THE WORK WILL CONSIST OF DETECTOR REPLACEMENT AND THE INSTALLATION OF PEDESTRIAN PHASES. MD 140 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULLY-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASES FOR MD 140 AND AN ALTERNATE PEDESTRIAN PHASE ACROSS THE EAST LEG OF THE INTERSECTION. THE PHASING WILL BE CHANGED TO INCLUDE CONCURRENT PEDESTRIAN PHASES FOR THE NORTH AND SOUTH LEGS OF THE INTERSECTION.

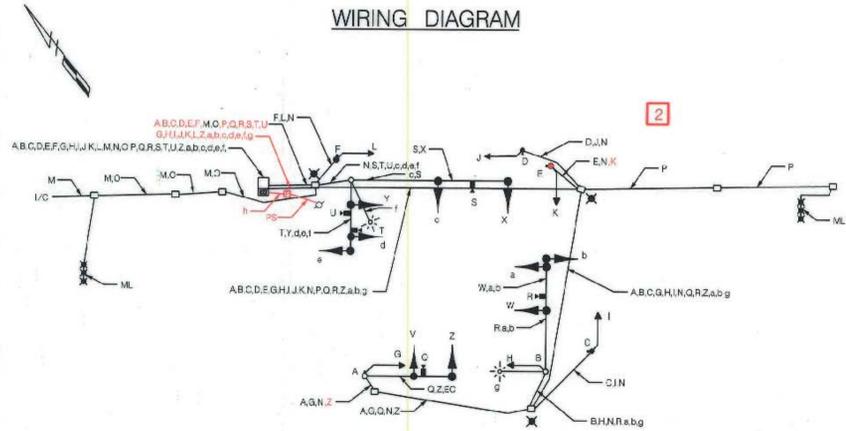
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE AND PHONE NUMBER.

WIRING DIAGRAM



NOTE: REMOVE ALL UNUSED CABLE

NOTE: ADEQUATE WIRE SHALL BE PROVIDED TO ALLOW SIGNAL HEAD RELOCATION DURING MAINTENANCE OF TRAFFIC.

WIRING KEY

- A-F 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G-L 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- M 12-PAIR VOICE GRADE INTERCONNECT CABLE
- N STRANDED BARE COPPER GROUND WIRE (NO. 8 A.W.G.)
- O-P MICRO-LOOP PROBE LEAD-IN
- Q-U VIDEO DETECTION CABLE
- V-Y 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- Z-a 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- f-g 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) - TRAY CABLE
- X GROUND ROD
- ML MICRO-LOOP PROBE
- EC EXISTING CABLE
- PS PROPOSED SERVICE
- h 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.) 3-WIRE

EQUIPMENT LIST "A"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
971017	1 EA	BASE MOUNTED CABINET AND CONTROLLER WITH TELEMETRY
373023	44 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: 2 EA - M85-1/D0-2 SIG (70" X 40") - MAST ARM MOUNT
90000	2 EA	VIDEO INTERFACE EQUIPMENT
963010	1 EA	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER - RACK MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	2 CY	TEST PIT EXCAVATION
585620	330 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
585624	120 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
816005	3 EA	FURNISH AND INSTALL 250 FT. VIDEO DETECTION CABLE
816010	2 EA	FURNISH AND INSTALL 500 FT. VIDEO DETECTION CABLE
800000	6 EA	FURNISH AND INSTALL 16 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	32 EA	FURNISH AND INSTALL 12 IN. L.E.D. VEHICULAR SIGNAL HEAD
800000	6 EA	FURNISH AND INSTALL 8 IN. L.E.D. VEHICULAR SIGNAL HEAD
810010	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 A.W.G.)
810560	2 EA	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
800000	4 X EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE
800000	8 EA	FURNISH AND INSTALL AUDIBLE-TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
873001	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
816001	3 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
905135	150 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
801004	5.7 X CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	320 LF	FURNISH AND INSTALL NO. 8 AWG STRANDED BARE COPPER WIRE
800000	4 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
861105	1220 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 A.W.G.)
861107	1320 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR (NO. 14 A.W.G.)
861108	1200 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
800000	10 LF	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT, NON METALLIC CONDUIT
862102	60 LF	FURNISH AND INSTALL SAWCUT
800000	1 EA	RELOCATE EXISTING OVERHEAD SIGN
861116	330 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.)-TRAY CABLE
871202	1 EA	INSTALL BASE MOUNTED CABINET AND CONTROLLER
813015	44 SF	INSTALL OVERHEAD SIGN
960265	20 EA	RELOCATE EXISTING SIGNAL HEADS (DURING MAINTENANCE OF TRAFFIC)
905140	40 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
807410	1 EA	FURNISH AND INSTALL ELECTRIC SERVICE UTILITY EQUIPMENT - 120/240 VOLTS, 230-AMPS
800000	1 EA	FURNISH AND INSTALL 2-WIRE CENTRAL CONTROL UNIT
800000	4 EA	ADJUST EXISTING HANDHOLE FRAME AND COVER TO FINAL GRADE
807101	1 EA	METERED SERVICE PEDESTAL - EMBEDDED

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 624-8141

MR. RAY JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 624-8105

MS. ANDREA ABEND
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 624-8110

CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

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

MS. DARLENE EIDE
SIGNAL OPERATIONS
SIGNAL SHOP WAREHOUSE
(410) 787-7688

MR. ED ROSENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

CONTACT FOR THE POWER COMPANY

ALLEGHENY POWER
P.O. BOX 1392
FAIRMONT, WV, 26554
(304) 367-3370

PHASING CHART

2 REDLINE REVISION NO. 2
2008

Juanita W. Brubaker 9/2/2008

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SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN
MD 140 AND CHEVRO DRIVE /
GRAND DRIVE

SCALE	NONE	DATE	9-26-07	CONTRACT NO.	CL6955185
DESIGNED BY	T. ZAYDEL	COUNTY	CARROLL		
DRAWN BY	T. ZAYDEL	LOGMILE	06014020.36		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	H 545		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS-3447B GI	SHEET NO.	205 OF		