EXISTING SIGNALS & SIGNS

1.2.5.6 3.4.7.8.10.12 9.11 13 14.15.17 16.18

NO TURN ON RED R10-11b 24" x 24" | ONLY R3-5(L) 30" x 36" | ONLY R3-5(L) 30" x 36"

PROPOSED SIGNALS 8

1.2.5.6 3.4.7.10.12 9.11

OPTICOM DETECTOR EYE

US 40 RUNS IN A EAST-WEST DIRECTION.

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF OPTICOM PRE-EMPTION FOR EMERGENCY VEHICLES ON All APPROACHES.

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF AN RIGHT TURN OVERLAP FOR WESTBOUND US 40 TO NORTHBOUND MD 213 FOR THE INTERSECTION OF US 40 AND MD 213 IN CECIL COUNTY. AUTOSCOPE WILL ALSO BE ADDED TO NORTHBOUND AND SOUTHBOUND MD 213, AND THE EXCLUSIVE/ PERMISSIVE LEFT TURNS FOR EASTBOUND AND WESTBOUND US 40.
US 40 RUNS IN A EAST-WEST DIRECTION.

CONSTRUCTION DETAILS

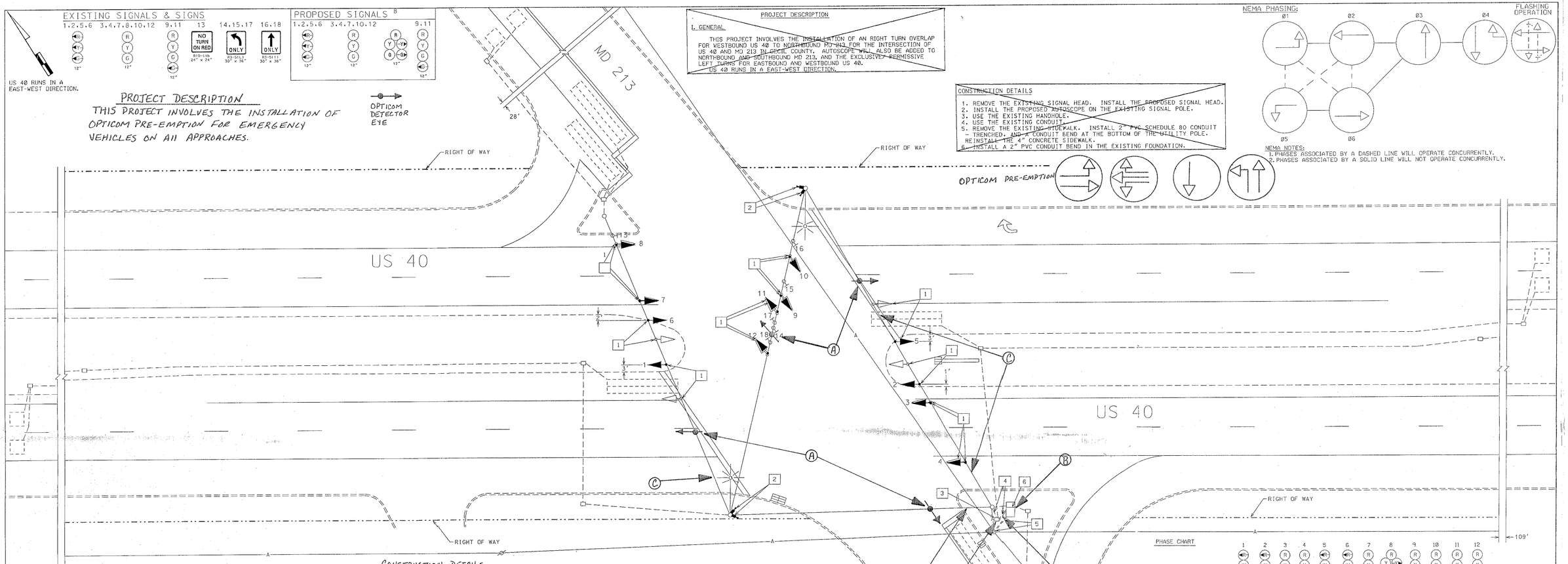
1. REMOVE THE EXISTING SIGNAL HEAD. INSTALL THE PROPOSED SIGNAL HEAD.
2. INSTALL THE PROPOSED AUTOSCOPE ON THE EXISTING SIGNAL POLE.
3. USE THE EXISTING HANDHOLE.
4. USE THE EXISTING CONDUIT.
5. REMOVE THE EXISTING SIDEWALK. INSTALL 2" PVC SCHEDULE 80 CONDUIT - TRENCHED. AND A CONDUIT BEND AT THE BOTTOM OF THE UTILITY POLE. REINSTALL THE 4" CONCRETE SIDEWALK.
6. INSTALL A 2" PVC CONDUIT BEND IN THE EXISTING FOUNDATION.

NEMA PHASING:

Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 FLASHING OPERATION

NEMA NOTES:
1. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

OPTICOM PRE-EMPTION



CONSTRUCTION DETAILS

A. INSTALL OPTICOM DETECTOR EYE. ON EXISTING SPAN WIRE
B. INSTALL RETROFIT RACK DISCRIMINATOR MODULES, 4-CHANNEL AMPLIFIERS, & POWER SUPPLY IN EXISTING CABINET.
C. USE EXISTING SPAN WIRE
D. USE EXISTING HANDBOX
E. USE EXISTING CONDUIT

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

QUANTITY	ITEM DESCRIPTION
1 EA	RETRO-FIT DETECTOR RACK
1 EA	DETECTOR RACK POWER SUPPLY
5 EA	4-CHANNEL RACK-MOUNT AMPLIFIER
1 EA	D-PANEL W/ HARNESS

* TO BE CHARGED TO STATEWIDE DETECTOR UPGRADE PROGRAM.

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

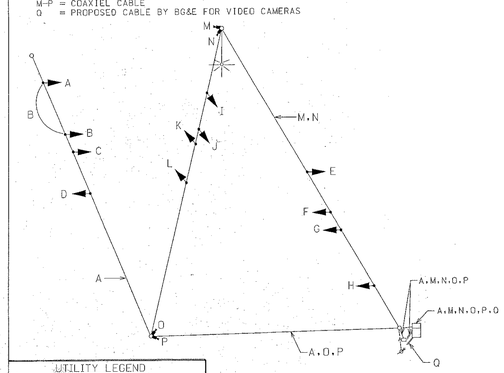
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
6004	4 S.F.	F & I 4" CONCRETE SIDEWALK
8015	43 EACH	F & I 12" BLACK FACED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8022	1 EACH	F & I CONDUIT BEND IN EXISTING BASE
8031	20 L.F.	F & I 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8063	430 L.F.	F & I ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
NEW	4 EACH	F & I VIDEO TRAFFIC DETECTION SYSTEM
NEW	630 L.F.	F & I COAXIEL CABLE

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

ITEM #	QUANTITY	ITEM DESCRIPTION
8012	4 EA	FURNISH AND INSTALL 3M OPTICOM # 721 DETECTOR EYE
8014	2 EA	FURNISH AND INSTALL 3M OPTICOM # 762 DISCRIMINATOR MODULE
8037	610 LF	FURNISH AND INSTALL 4-CONDUCTOR OPTICOM DETECTOR CABLE

WIRING DIAGRAM

A-B = 7-CONDUCTOR CABLE (NO. 14 AWG)
C-L = USE EXISTING CABLE
M-P = COAXIEL CABLE
Q = PROPOSED CABLE BY BG&E FOR VIDEO CAMERAS



UTILITY LEGEND

G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
E	ELECTRIC CABLES
A	AERIAL CABLES
T	TELEPHONE CABLES
D	STORM DRAIN

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 5	◄G-	◄G-	R	R	◄G-	◄G-	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
1 CHANGE	◄Y-	◄Y-	G	G	◄R-	◄R-	R	R	R	R	R	R
PHASE 2 & 5	◄R-	◄R-	R	R	◄G-	◄G-	G	G	R	R	R	R
5 CHANGE	◄R-	◄R-	R	R	◄Y-	◄Y-	G	G	R	R	R	R
PHASE 2 & 6	◄R-	◄R-	G	G	◄R-	◄R-	G	G	R	R	R	R
2 & 6 CHANGE	◄R-	◄R-	Y	Y	◄R-	◄R-	Y	Y	R	R	R	R
PHASE 3	◄R-	◄R-	R	R	◄R-	◄R-	R	R	◄G-G	G	R	R
3 CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R	Y	Y	R	R
PHASE 4	◄R-	◄R-	R	R	◄R-	◄R-	R	R-G►	R	R	◄G-G	G
4 CHANGE	◄R-	◄R-	R	R	◄R-	◄R-	R	R-Y►	R	R	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

REVISIONS

04/1998: RECUT LOOP DETECTORS
S.H.A. NO. CE-666-501-276
SR | SR | D.A.Z | CMP | | JH

G. 06/2000: ADDED RIGHT TURN OVERLAP TO WB US 40 TO MD 213 & ADDED AUTOSCOPE TO PROJECT
S.H.A. NO. 072000

F. 03/1998: REPLACED FAILED LOOP DETECTION
S.H.A. NO. 23855T25062
S.H.A. NO. 23859T07056
SRS | D.A.Z | | JH

E. 1-21-1998: REPLACE N.B. MD 213 DETECTION
S.H.A. NO. BW996M82
SRS | D.A.Z | | JH

H. INSTALL OPTICOM PRE-EMPTION FOR All APPROACHES.
10/00 TMS # E063
CSS | | | | | | | | | | |