

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF INTERCONNECT AND SYSTEM DETECTION ON U.S. 301 (CRAIN HIGHWAY) BETWEEN THE INTERSECTIONS OF TRADE ZONE AVENUE TO MARLBORO SQUARE SHOPPING CENTER IN PRINCE GEORGE'S COUNTY. U.S. 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL REMAIN THE SAME.

CONTROLLER REQUIREMENTS

- U.S. 301 & TRADE ZONE AVENUE
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. INSTALL A MASTER CONTROLLER WITH TELEMETRY IN EXISTING BASE MOUNTED CABINET AND VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). THE DETECTOR RACK WILL BE RETRO-FITTED WITH THREE (3) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS
- U.S. 301 & LEELEND ROAD
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. INSTALL VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS).
- U.S. 301 & VILLAGE DRIVE WEST
INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
- U.S. 301 & MD 725 (MARLBORO PIKE)
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. INSTALL VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS).
- U.S. 301 & CHYSLER DRIVE/CHEVY DRIVE
THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.
- U.S. 301 & MARLBORO SQUARE SHOPPING CENTER/MD 976-C
INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FOUR (4) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

WIRING NOTE
THE SHA SIGNAL SHALL PERFORM ALL INTERNAL WIRING, HOWEVER THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL FIBER OPTIC CABLE. THE SHA SIGNAL SHOP WILL INSTALL ALL FIBER OPTIC CABINET EQUIPMENT

MAINTENANCE OF TRAFFIC

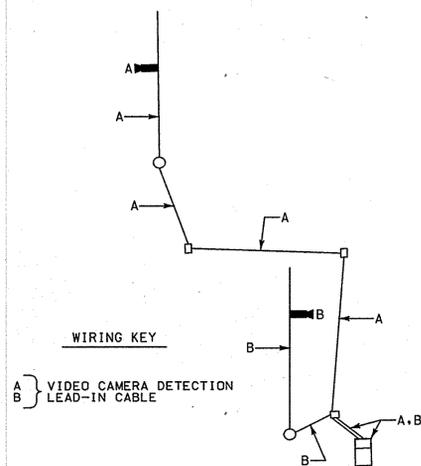
THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- | | |
|---|--|
| STANDARD NO. MD-104.04-01 (SHOULDER WORK) | STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE) |
| STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE) | STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY) |
| STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE) | |
| STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE) | |

PROJECT CONTACTS

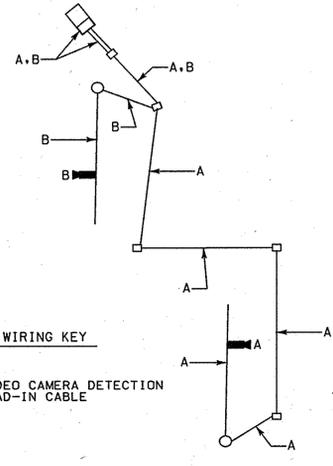
- THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:
- | | |
|---|---|
| MR. BRIAN YOUNG
PHONE: (301) 513-7318
ASSISTANT DISTRICT ENGINEER - TRAFFIC (PRINCE GEORGE'S) | MR. AUGIE REBISH
DISTRICT UTILITY ENGINEER
PHONE: (301) 513-7350 |
| MR. WAYNE MOWDY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304 | MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630 |
| | MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630 |

U.S. 301 AND TRADE ZONE AVE.



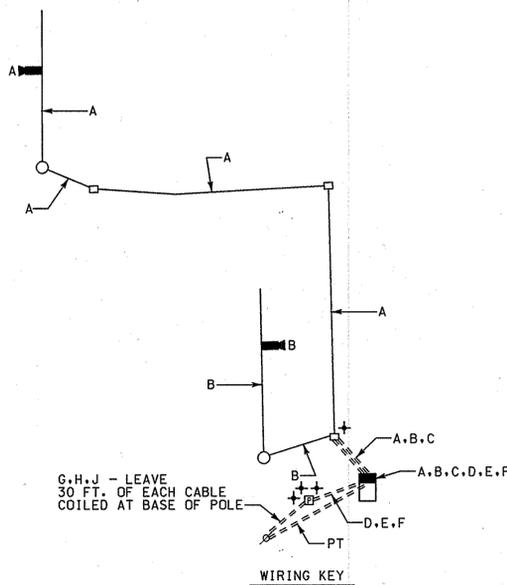
WIRING KEY
A VIDEO CAMERA DETECTION
B LEAD-IN CABLE

U.S. 301 AND LEELEND ROAD



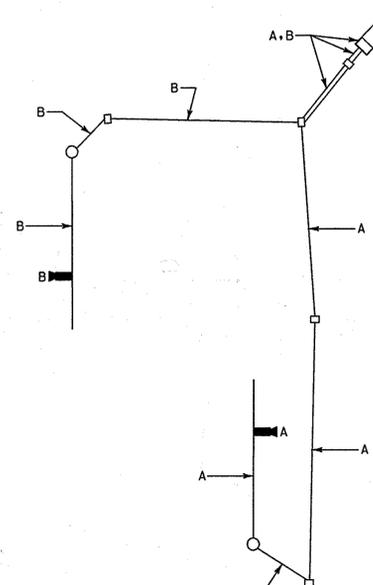
WIRING KEY
A VIDEO CAMERA DETECTION
B LEAD-IN CABLE

U.S. 301 AND VILLAGE DR. WEST



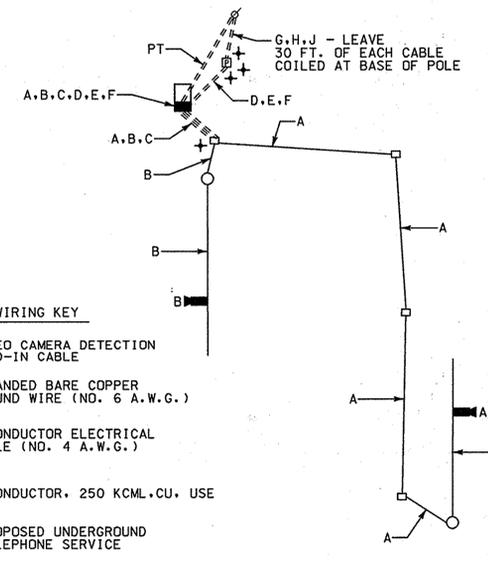
WIRING KEY
A VIDEO CAMERA DETECTION
B LEAD-IN CABLE
C STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
D 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
E 1-CONDUCTOR, 250 KCML, CU, USE
F 1-CONDUCTOR, 250 KCML, CU, USE
G 1-CONDUCTOR, 250 KCML, CU, USE
H 1-CONDUCTOR, 250 KCML, CU, USE
J 1-CONDUCTOR, 250 KCML, CU, USE
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
+ - 3/4 IN. X 10 FT. GROUND ROD

U.S. 301 AND MD 725



WIRING KEY
A VIDEO CAMERA DETECTION
B LEAD-IN CABLE

U.S. 301 AND MARLBORO SQ. SH. CTR.



WIRING KEY
A VIDEO CAMERA DETECTION
B LEAD-IN CABLE
C STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
D 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
E 1-CONDUCTOR, 250 KCML, CU, USE
F 1-CONDUCTOR, 250 KCML, CU, USE
G 1-CONDUCTOR, 250 KCML, CU, USE
H 1-CONDUCTOR, 250 KCML, CU, USE
J 1-CONDUCTOR, 250 KCML, CU, USE
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
+ - 3/4 IN. X 10 FT. GROUND ROD

SHA No: PG591A53/D53
TOD No: AT914-07
US 301: Trade Zone Avenue to Marlboro Square Shopping Center

WR&A
Whitman, Reardon and Associates, LLP
Engineers, Architects and Planners
801 South Caroline Street
Baltimore, Maryland 21231
410-235-3450

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
U.S. 301 (Crain Highway) from
Trade Zone Avenue to Marlboro Square Shopping Center

GENERAL CONNECTION SHEET

SCALE 1"=80' DATE 3/28/2008 CONTRACT NO. AT9145185
DESIGNED BY S. Bloss COUNTY Prince George's
DRAWN BY S. Bloss LOGMILE
CHECKED BY N. Leary TMS NO. H402
FAP NO. TOD NO.

TS NO. DRAWING IC-12-1C-12 OF IC-12 SHEET NO. 12 OF 12

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	RETRO FIT DETECTOR RACK
9016	9 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	2 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9045	1 EACH	CONTROLLER, MASTER ASC 10,000 WITH TELEMETRY
9086	5 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

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

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	4 EACH	MAINTENANCE OF TRAFFIC
2002	2 C.Y.	TEST PIT EXCAVATION
8001	24 EACH	FURNISH AND INSTALL 12" LED TRAFFIC SIGNAL HEAD SECTION
8004	6 EACH	FURNISH AND INSTALL 8" LED TRAFFIC SIGNAL HEAD SECTION
8005	1 EACH	ADJUST EXISTING HANDHOLE TO GRADE INCLUDING COLLAR
8011	2 EACH	EMBEDDED METERED SERVICE PEDESTAL
8022	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8027	10 EACH	VIDEO DETECTION CAMERA AND CABLE
8029	275 L.F.	CABLE-1 CONDUCTOR, 250 KCML, CU, USE 600V
8030	300 L.F.	DISCONNECT, PULL-BACK & REROUTE CABLE
8032	800 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8034	21400 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8038	30 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND
8043	200 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8044	119 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8067	2 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
NEG.	198 EACH	LED TRAFFIC SIGNAL MODULE (ANY SIZE)
NEG.	30,000 L.F.	FIBER OPTIC CABLE
NEG.	6 EACH	FIBER OPTIC BULKHEAD WITH CABLE
NEG.	6 EACH	FIBER OPTIC MODEM
NEG.	6 EACH	FIBER OPTIC MODEM CABLE
NEG.	6 EACH	FIBER OPTIC TELEMETRY MODULE
NEG.	6 EACH	FIBER OPTIC TELEMETRY INTERFACE PANEL
NEG.	6 EACH	FIBER OPTIC TELEMETRY INTERFACE CABLE

WIRING DIAGRAM