

PROJECT DESCRIPTION

I. GENERAL
 This project involves the installation of APS and CPS on all 4 legs of the MD 332 @ Larchmont Chamber Avenue intersection. MD 332 (Central Avenue) runs in an East West direction. It will also be necessary to replace the existing pole mounted cabinet with a new base mounted due to the number of signal cables entering through the blind coupling on the pole. The existing signal heads will be upgraded to LED heads.

II. INTERSECTION OPERATION
 1. The intersection is to operate in a NEMA 4-phase, semi-actuated mode, with pushbutton activated crossings on all 4 legs of the intersection.

PUSHBUTTON OPERATION

NORTH LEG WAIT MESSAGE: WAIT TO CROSS CHAMBER AT CENTRAL
 SOUTH LEG WAIT MESSAGE: WAIT TO CROSS LARCHMONT AT CENTRAL
 EAST LEG WAIT MESSAGE: WAIT TO CROSS CENTRAL AT LARCHMONT AND CHAMBER
 WEST LEG WAIT MESSAGE: WAIT TO CROSS CENTRAL AT LARCHMONT AND CHAMBER

ALL WALK MESSAGES TO BE RAPID TICK

NOTES

- All pavement markings shall be installed in accordance with Administration standards.
- The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly label each cable.
- All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in MD 816.03, MD 818.01, MD 818.02 and MD 818.04 Standard Plates. The contractor shall verify ultimate grades prior to the installation of all signal equipment.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- The contractor shall maintain the continuous operation of all interconnect, vehicular, pedestrian detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.
- Pushbuttons are to be located so that they can be activated by a person in a wheelchair from a 60"x 60" level landing area. A level landing area is an area with a cross slope of less than or equal to 2%.
- The 10' separation between pushbuttons is to be measured from the face of the pushbutton to the face of the pushbutton, not from the face of the pole to the face of the pole.
- The pushbuttons are to be located so that a person in a wheelchair located on the level landing area does not have to reach more than 18".
- The location of Accessible Pedestrian Signal Pushbuttons, must meet the location requirements of MUTCD Sec. 4E-09 and Figure 4E-2 and the NCHRP publication, "Accessible Pedestrian Signals: Guide to Best Practice". If not met, the contractor is to stop work on pushbutton locations until the conflict is resolved. If necessary a design waiver shall be obtained signed by the Director, Office of Traffic and Safety.
- Pushbuttons shall be installed parallel to the crosswalk for which they are intended.

CONTACTS

DISTRICT	OFFICE OF TRAFFIC AND SAFETY
MR. BRIAN YOUNG ASSISTANT DISTRICT ENGINEER - TRAFFIC 1-301-513-7409	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. AUGIE REBISH ASSISTANT DISTRICT ENGINEER - UTILITIES 1-301-513-7350	MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. WAYNE MOWDY ASSISTANT DISTRICT ENGINEER - MAINTENANCE 1-301-513-7304	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650
	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS 410-787-7670
	MS. DARLENE EIDE SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

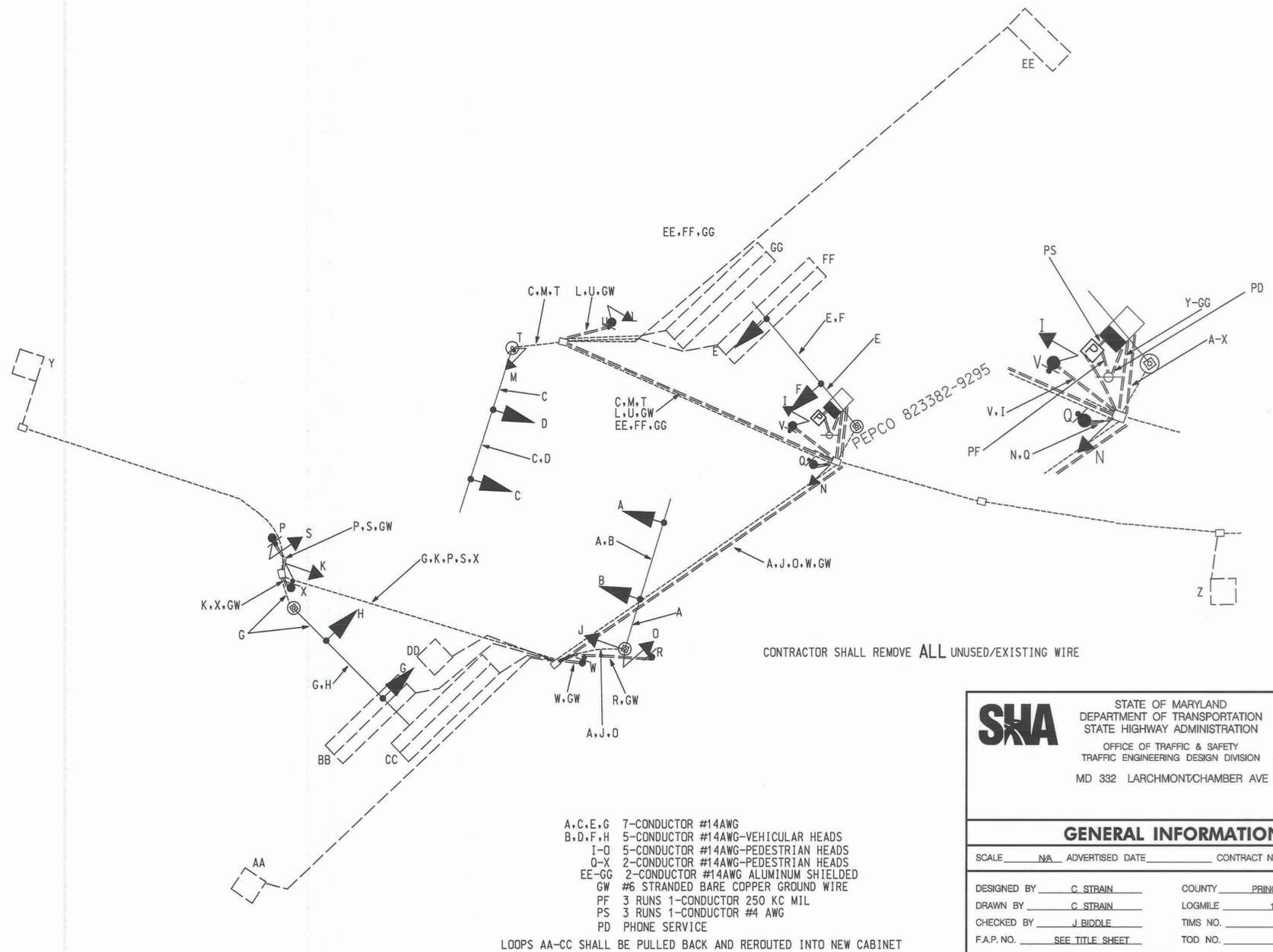
ITEM NO.	QUANTITY	DESCRIPTION
9088	3 EA	4 CHANNEL DETECTOR AMPLIFIER
9044	1 EA	CABINET, NEMA SIZE 6 BASE MOUNTED
9571	31.5 SF	SHEET ALUMINUM SIGN, GROUND MOUNTED - 2 EA 36"x36" W11-2 PEDESTRIAN CROSSING SIGN - 1 EA 15"x21" M6-2R ARROW - 1 EA 18"x30" W13-4(1) SUPPLEMENTAL PLATE "ACROSS RAMP" - 4 EA 9"x15" R10-3(1) PUSHBUTTON TO CROSS CENTRAL AVENUE - 2 EA 9"x15" R10-3(1) PUSHBUTTON TO CROSS CHAMBER AVENUE - 2 EA 9"x15" R10-3(1) PUSHBUTTON TO CROSS LARCHMONT AVENUE

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	4 CY	TEST PIT EXCAVATION
5004	550 LF	F&I 12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	100 LF	F&I 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	200 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS-ANY WIDTH

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

ITEM NO.	QUANTITY	DESCRIPTION
6002	2500 SF 2850 SF	F&I 5" CONCRETE SIDEWALK
8001	1 EA	F&I 2 WIRE CENTRAL CONTROL UNIT
8007	8 EA	F&I AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	7 EA	F&I BREAKAWAY PEDESTAL POLE-ANY SIZE
8013	8 EA	F&I LED 16" COUNTDOWN PEDESTRIAN SIGNAL HEAD
8014	24 EA	F&I LED SIGNAL HEAD MODULES (ANY SIZE)
8021	1 EA 2 EA	REMOVE AND DISPOSE OF EQUIPMENT-PER ASSIGNMENT
8031	100 LF	DISCONNECT, PULL BACK AND RE-ROUTE EXISTING CABLES
8033	155 EA	F&I UP TO 4" SCHEDULE 80 RIGID PVC-CONDUIT-BORED
8035	125 LF	F&I UP TO 4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8036	36 LF	F&I WOOD SIGN SUPPORTS 4"x6"
8037	90 SF 130 SF	F&I DETECTABLE WARNING SURFACES
8038	31.5 SF	INSTALL GROUND MOUNTED/OVERHEAD SIGN
8040	300 LF	F&I NO 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	50 LF	F&I ELECTRICAL CABLE-1 CONDUCTOR #14AWG, THWN/THHN
8053	300 LF	F&I ELECTRICAL CABLE-2 CONDUCTOR ALUMINUM SHIELDED
8054	700 LF	F&I ELECTRICAL CABLE-2 CONDUCTOR (NO 14 AWG)
8056	825 LF	F&I ELECTRICAL CABLE-5 CONDUCTOR (NO 14 AWG)
8057	650 LF	F&I ELECTRICAL CABLE-7 CONDUCTOR (NO 14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET-BASE MOUNT
8011	1 EA	INSTALL BREAKAWAY POLE ANY SIZE
6001	45 LF	F & I STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH
8004	2 EA	ADJUST EXISTING HANDHOLE TO GRADE INCLUDING COLLAR



SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 332 LARCHMONT/CHAMBER AVE

GENERAL INFORMATION

SCALE NA ADVERTISED DATE _____ CONTRACT NO. NA

DESIGNED BY C. STRAIN COUNTY PRINCE GEORGE'S
 DRAWN BY C. STRAIN LOGMILE 16033200.14
 CHECKED BY J. BIDDLE TMS NO. 1187
 F.A.P. NO. SEE TITLE SHEET TOD NO. NA

TS NO. 1838D-GI DRAWING **- 3** OF 3 SHEET NO. 3 OF 3