PROJECT DESCRIPTION

I. GENERAL

This project involves the modification to the existing traffic control signal at the intersection of MD 450/MD 178 and Annapolis Mall Entrance in Anne Arundel County, Maryland. MD 450 is considered to run in an east/west direction.

The East leg is being modified to 4 outbound lanes to include a double left. The South leg is being widened and a median is being installed.

II. INTERSECTION OPERATION

The intersection is to continue to operate in a NEMA six (6) phase, full-traffic-actuated mode. There are exclusive left turn phases for the northbound movement of MD 178 and eastbound movement of MD 450. The MD 450 westbound/Mall Entrance movements operate in a side street split phase mode.

The existing cabinet/controller will remain at this intersection.

CONTACT LIST

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
410-841-1019

Mr. John Mays
Assistant District Engineer - Utility
410-841-1039

Mr. Chuck E. George
Assistant District Engineer - Maintenance
410-841-1013

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

EQUIPMENT LIST

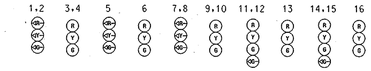
A. S.H.A. furnished equipment material.

Camera equipment in cabinet

B. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

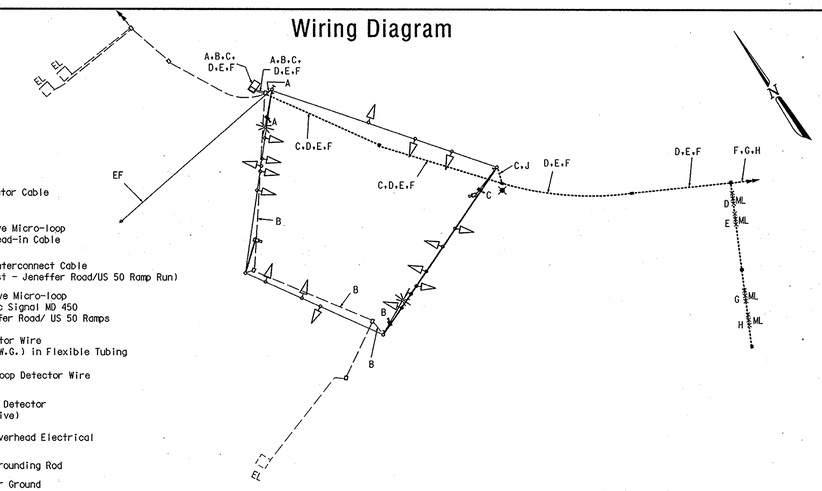
Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
7	EA	811	Handhole.
3	EA	815	Video detection camera with specified cable (1- 100 ft., (2) 250 ft. - Camera Detection in cabinet
220	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
100	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
140	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
10	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
2	EA	813	Non-Invasive Micro-loop probe (set of 3) with 750 ft. lead-in cable.
1	EA	804	Ground rod -¾in. diameter x 10 ft. length.
2	EA	---	30 in. x 36 in. R3-5(L) sign with mast arm mounting hardware.
5	EA	---	Raise existing handhole to proposed sidewalk grade.
Lump Sum	LS	---	Remove and dispose of existing traffic signal equipment.
Lump Sum	LS	---	Reroute existing fiber optic interconnect cable (approx 1100 LF.).
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

Phase Chart



	1,2	3,4	5	6	7,8	9,10	11,12	13	14,15	16
Phase 1 & 5	←G—	R	←G—	R	←G—	R	R	R	R	R
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6										
Phase 1 & 6	←G—	G	←R—	R	←R—	R	R	R	R	R
1 & 6 Change	←Y—	G	←R—	R	←R—	R	R	R	R	R
Phase 2 & 5	←R—	R	←G—	G	←G—	G	R	R	R	R
2 & 5 Change	←R—	R	←Y—	G	←Y—	G	R	R	R	R
Phase 2 & 6	←R—	G	←R—	G	←R—	G	R	R	R	R
2 & 6 Change	←R—	Y	←R—	Y	←R—	Y	R	R	R	R
Phase 3	←R—	R	←R—	R	←R—	R	R	R	←G— G	G
3 Change	←R—	R	←R—	R	←R—	R	R	R	Y	Y
Phase 4	←R—	R	←R—	R	←R—	R	←G— G	G	R	R
4 Change	←R—	R	←R—	R	←R—	R	Y	Y	R	R
Flashing Operation	FL/ ←R—	FL/Y	FL/ ←R—	FL/Y	FL/ ←R—	FL/Y	FL/R	FL/R	FL/R	FL/R

Wiring Diagram



A, B, C } Video Detector Cable

D, E } Non-Invasive Micro-loop Detector Lead-in Cable

F — Existing Interconnect Cable (MD 450 West - Jeneffer Road/US 50 Ramp Run)

G, H } Non-Invasive Micro-loop for Traffic Signal MD 450 and Jenniffer Road/ US 50 Ramps

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing

EW — Existing Loop Detector Wire

ML — Micro-loop Detector (Non-Invasive)

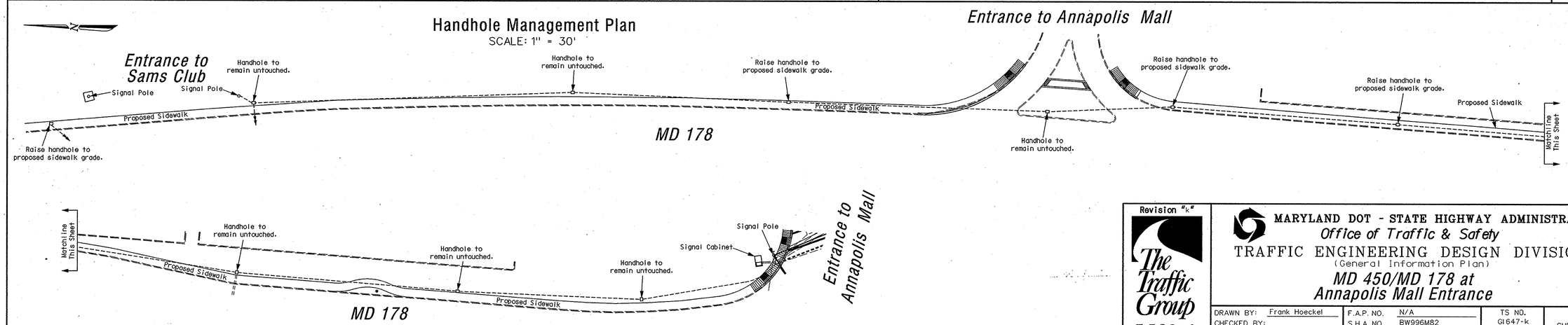
EF — Existing Overhead Electrical Service

✱ — Proposed Grounding Rod

J — Bare Copper Ground Wire (No. 6 A.W.G.)

Handhole Management Plan

SCALE: 1" = 30'



Revision "k"

The Traffic Group

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 450/MD 178 at Annapolis Mall Entrance

DRAWN BY:	Frank Hoeckel	F.A.P. NO.	N/A	TS NO.	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82	GI647-k	
SCALE:	N/A	COUNTY:	Anne Arundel County	T.I.M.S. NO.	
DATE:	May 23, 2006	LOG MILE:	02017800.00	H-574	19 OF 19

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