PROJECT DESCRIPTION:

GENERAL:

This project involves the installation of an Over Height Truck Detection Warning System for the POV Gate Marine terminal located at Broening Hightway in Baltimore City.

SYSTEM OPERATION:

The detection system will operate using wireless solar powered and 120VAC equipment with radio communications and a counter cabinet. This location will consist of one sensor site for detecting the two approaching lanes to the Terminal Gate House.

The over height sensor's when activated will communicate a wireless signal to the Gate House. The on duty attendant will be provided with an adjustable audible alarm to serve as a warning for each violation occurrence. The counter housed in a cabinet will be mounted outside the Gate House. The power (120V) will be supplied from the existing electrical panel located inside the booth. A communication modem will be connected from the telephone panel box located inside the booth.

MATERIALS TO BE FURNISH & INSTALLED BY THE CONTRACTOR EQUIPMENT LIST

ITEM	DESCRIPTION	UNIT	QTY.
Neg.	FURNISH AND INSTALL SAFETY PASS MODEL SP-A11 120 V RECEIVER & SPD12 Trans.	EA	1
Neg.	FURNISH AND INSTALL SOLAR ASSEMBLY FOR TRANSMITTER WITH CABINET	EA	1
Neg.	FURNISH AND INSTALL F420S-RD-1 RADIO	EA	2
Neg.	FURNISH AND INSTALL ANTENNA & SURGE SUPPRESSOR	EA	2
Neg.	FURNISH AND INSTALL CABINET FOR COUNTER, RADIO, RECEPTACLE, AND MODEM	EA	2
Neg.	FURNISH AND INSTALL PIEZO ALARM FOR BOOTH	EA	1
Neg.	FURNISH AND ADR 1000 KD-14C/MB WITH AC ADAPTER, ADR MODEM CABLE, SERIAL Y CHARGING CABLE, AND LPM 14E MODEM	EA	1
Neg.	FURNISH AND INSTALL RG8 COAX CABLE	LF	40
Neg.	FURNISH AND INSTALL 2 PAIR #22 AWG WIRE FROM CABINET TO SPARE PHONE LINE IN BOOTH	LF	20
8042	FURNISH AND INSTALL 3 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	LF	15
8056-A	FURNISH AND INSTALL 3/4" TO 3" BLIND COUPLING	EA	1
8062-A	FURNISH AND INSTALL 2 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	LF	50

UTILITY LEGEND

—— E —— E ——	ELECTRIC CABLES
—— A —— A ——	AERIAL CABLES
—— T —— T ——	TELEPHONE CABLES

SYMBOL LEGEND

- PROPOSED CONCRETE BOLLARDS
- EXISTING CONCRETE BOLLARDS
- PROPOSED 20' STEEL PEDESTAL WITH BREAKAWAY BASE.
- OVERHEIGHT SENSOR
- PROPOSED CABINET/ COUNTER EQUIPMENT
- FLOW ARROW
- DETECTOR IFRARED BEAM
- EXISTING POLE LUMINAIRE
- RADIO ANTENNA.

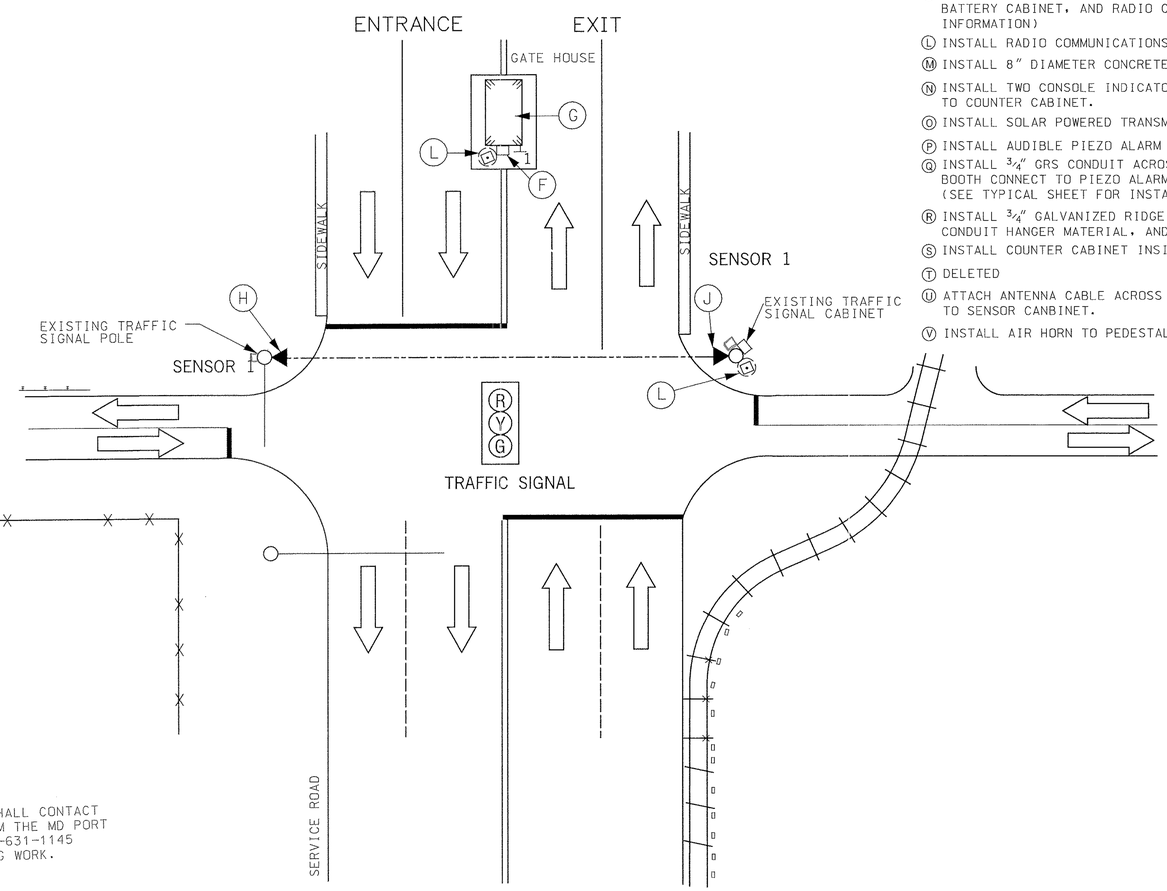
NOTE: THE CONTRACTOR SHALL CONTACT MARK KREAFLE FROM THE MD PORT AUTHORITY AT 410-631-1145 PRIOR TO STARTING WORK.

1

MD LAW
LEGAL HEIGHT
13'-6" MAX
STRICTLY ENFORCED

EXISTING SIGN

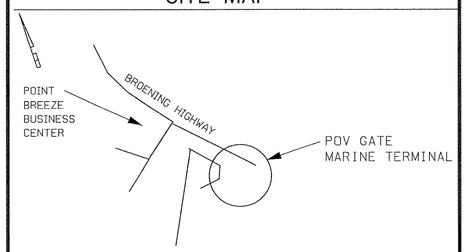
POV Gate



CONSTRUCTION DETAILS

- Ⓐ INSTALL 20' STEEL PEDESTAL POLE WITH BREAKAWAY BASE. (ONE 2" PVC CONDUIT BEND)
- Ⓑ INSTALL SOLAR POWERED TRANSMITTER SENSOR WITH SOLAR PANEL AND CABINET TO PEDESTAL POLE.
- Ⓒ INSTALL SOLAR POWERED RECEIVER(S) SENSOR WITH PANEL RADIO COMMUNICATION EQUIPMENT, CABINET AND AUDIBLE ALARM TO PEDESTAL POLE.
- Ⓓ INSTALL SOLAR POWERED RECEIVER(S) WITH SOLAR PANEL, CABINET, AND RADIO COMMUNICATION EQUIPMENT.
- Ⓔ INSTALL SOLAR POWERED RECEIVER (S) SENSOR WITH CABINET, SOLAR PANEL, AND RADIO COMMUNICATION EQUIPMENT BANDED TO EXISTING BUILDING COLUMN.
- Ⓕ INSTALL COUNTER CABINET WITH RADIO RECEIVER, COUNTER AND MODEM TO OUTSIDE WALL OF GATE HOUSE WITH 120V ELECTRIC FROM THE DISTRIBUTION BOX LOCATED INSIDE BOOTH. (SEE TYPICAL SHEETS FOR INSTALLATIONS DETAILS)
- Ⓖ INSTALL HARDWIRE PHONE LINE FROM CABINET TO EXISTING TELEPHONE TERMINAL BOX, LOCATED IN GATE HOUSE.
- Ⓗ INSTALL SOLAR POWERED TRANSMITTER WITH SOLAR PANEL, AND CABINET AND TO EXISTING TRAFFIC SIGNAL STRUCTURE.
- Ⓙ INSTALL120V RECEIVER SENSOR (SP-A11) WITH RADIO COMMUNICATIONS EQUIPMENT TO EXISTING TRAFFIC SIGNAL STRUCTURE. (POWER RECIEVER WITH 120V ELECTRIC FROM TRAFFIC SIGNAL CONTROLLER CABINET, DISCONNECT SWITCH FUSED AT 20 AMPS).(HOUSED IN POLE MOUNTED COUNTER TYPE CABINET)
- Ⓚ INSTALL GROUND MOUNTED SIGN WITH 2-6"X6" WOOD POST, WITH PANEL, STROBE BEACON(S), SOLAR PANEL, BATTERY CABINET, AND RADIO COMMUNICATIONS EQUIPMENT. (SEE SIGN DETAIL BELOW FOR MOUNTING INFORMATION)
- Ⓛ INSTALL RADIO COMMUNICATIONS ANTENNA AND WIRE COAX CABLE TO CABINET.
- Ⓜ INSTALL 8" DIAMETER CONCRETE BOLLARD. (SEE TYPICAL FOR INSTALLATION DETAILS)
- Ⓝ INSTALL TWO CONSOLE INDICATOR LIGHT BOXES FOR OVERHEIGHT SENSOR WITH TWO - 2 CONDUCTOR CABLES TO COUNTER CABINET.
- Ⓞ INSTALL SOLAR POWERED TRANSMITTER PANEL AND CABINET TO EXISTING LIGHT POLE.
- Ⓟ INSTALL AUDIBLE PIEZO ALARM IN ATTENDANT BOOTH.
- Ⓠ INSTALL 3/4" GRS CONDUIT ACROSS CANOPY CEILING AND RISER DOWN CONDUIT INSIDE THE ATTENDANT BOOTH CONNECT TO PIEZO ALARM WITH 2 CONDUCTOR # 14 AWG DAISY CHAINED TO BOOTH. (SEE TYPICAL SHEET FOR INSTALLATION DETAILS)
- Ⓡ INSTALL 3/4" GALVANIZED RIDGE STEEL CONDUIT ABOVE CEILING PANELS. ATTACH CONDUIT WITH ELECTRICAL CONDUIT HANGER MATERIAL, AND PROVIDE NECESSARY FITTING. (CONDUIT LB AND/OR "T" FITTINGS)
- Ⓢ INSTALL COUNTER CABINET INSIDE OFFICE AND TAP POWER AND PHONE LINE FROM OFFICE.
- Ⓣ DELETED
- Ⓤ ATTACH ANTENNA CABLE ACROSS CANOPY CEILING AND INTO PEDESTAL POLE TOP WITH WEATHERHEAD AND WIRE TO SENSOR CANBINET.
- Ⓥ INSTALL AIR HORN TO PEDESTAL POLE.

SITE MAP



REVISIONS	APPROVALS
	7-10-00 TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	7/10/00 ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	7/10/00 CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	7/14/00 DIRECTOR, OFFICE OF TRAFFIC & SAFETY

SABRA, WANG & ASSOCIATES, INC.
1506 JOH AVENUE
SUITE 180
BALTIMORE, MD 21227
(410) 737-6564
WWW.SABRA.WANG.COM

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
OVERHEIGHT TRUCK DETECTION SYSTEM

POV GATE MARINE TERMINAL

DRAWN BY:	A. PATEL	F.A.P. NO.	N/A	TS NO.	SHEET NO.
CHECKED BY:	S. RENZI	S.H.A. NO.	OT 1999-1		3 OF 7
SCALE:	NOT TO SCALE	COUNTY:	BALTIMORE CITY	T.I.M.S. NO.	
DATE:	JUNE, 2000	LOG MILE:		D 921	

R97-11-DWG-POVGATE.DGN