PROJECT DESCRIPTION:

GENERAL:

This project involves the installation of an Over Height Truck Detection Warning System for the Seagirt Marine Terminal located at Broening Highway in Baltimore City.

SYSTEM OPERATION:

This detection system will operate two sensor stations using solar powered equipment and 120VAC counter cabinet.The detector station will be installed in front of the truck canopy entrance. The attendant booths will be provided with a console indicator light box, which will flash when a violation has occured. The counter will be housed in a cabinet and installed inside the Main Terminal Office.

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).

Ⓚ 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)

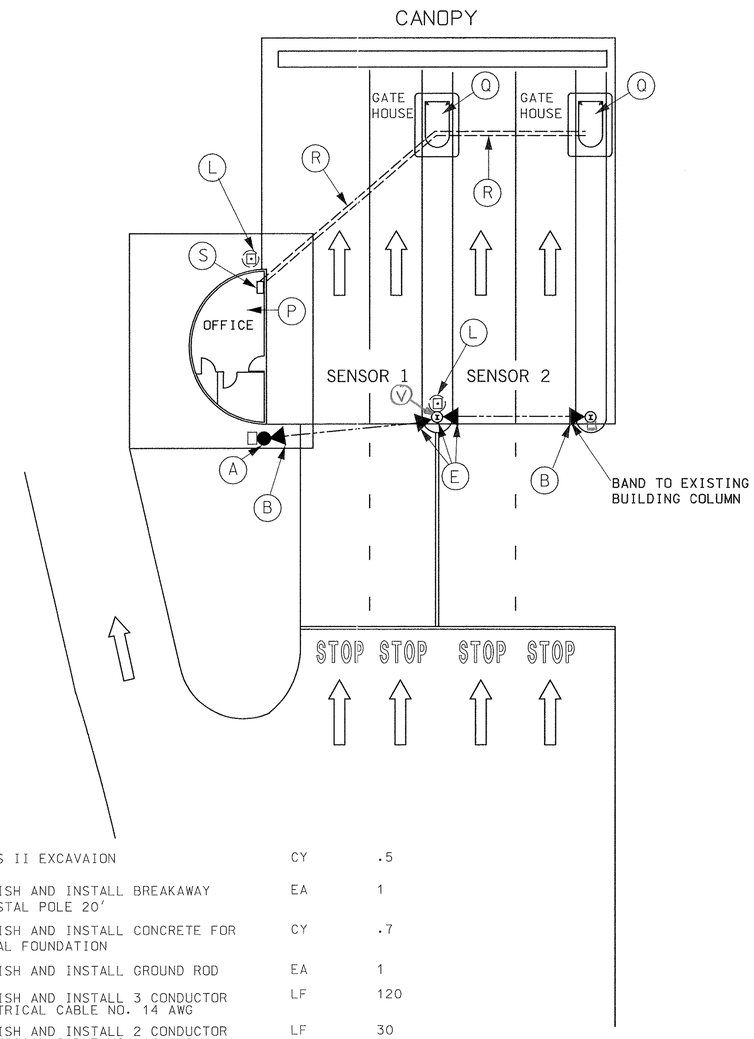
Ⓢ INSTALL COUNTER CABINET INSIDE OFFICE AND TAP POWER AND PHONE LINE FROM OFFICE.

Ⓣ 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.

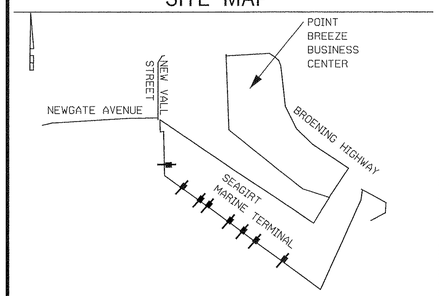
Seagirt Marine Terminal



EXISTING SIGN(S)

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

SITE MAP



MATERIALS TO BE FURNISH & INSTALLED BY THE CONTRACTOR EQUIPMENT LIST

ITEM	DESCRIPTION	UNIT	QTY.
Neg.	FURNISH AND INSTALL 3/4" GALVANIZED RIGID STEEL CONDUIT WITH NECESSARY FITTINGS (CONDUIT 'T'S' AND "LB'S") WITH HANGERS AND CLAMPS FOR MOUNTING	LF	100
Neg.	FURNISH AND INSTALL SAFETY PASS MODEL SP-D12 (TRANSMITTER & RECEIVER)	EA	2
Neg.	FURNISH AND INSTALL SOLAR ASSEMBLY FOR TRANSMITTER WITH CABINET	EA	2
Neg.	FURNISH AND INSTALL CABINET FOR COUNTER, RADIO, RECEPTACLE, AND MODEM	EA	1
Neg.	FURNISH AND INSTALL INDICATOR LIGHT BOX	EA	3
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 RG 8 COAX CABLE	LF	30
Neg.	FURNISH AND INSTALL SOLAR ASSEMBLY FOR RECIEVER WITH CABINET	EA	1
Neg.	FURNISH AND INSTALL ANTENNA AND SURGE SUPPRESOR	EA	2
Neg.	FURNISH AND INSTALL 140 db AIR HORN ALARM	EA	1
Neg.	FURNISH AND INSTALL F420-RD-10 RADIO	EA	2
2002-A	CLASS II EXCAVAION	CY	.5
8012	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE 20'	EA	1
8024	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	CY	.7
8040	FURNISH AND INSTALL GROUND ROD	EA	1
8042	FURNISH AND INSTALL 3 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	LF	120
8062-A	FURNISH AND INSTALL 2 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	LF	30

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.

REVISIONS	APPROVALS
	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION 7-10-00
	ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION 7/10/00
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION 7/11/00
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

SABRA, WANG & ASSOCIATES, INC.
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
OVERHEIGHT TRUCK DETECTION SYSTEM
SEAGIRT MARINE TERMINAL

DRAWN BY: M. RAFFLE	F.A.P. NO. N/A	TS NO.	SHEET NO.
CHECKED BY: S. RENZI Q.A.R.	S.H.A. NO. OT-1999-1	T.I.M.S. NO. D-921	6 OF 7
SCALE: NOT TO SCALE	COUNTY: BALTIMORE CITY		
DATE: JUNE, 2000	LOG MILE:		

F:\L_DRAW\SEAGIRT.DGN