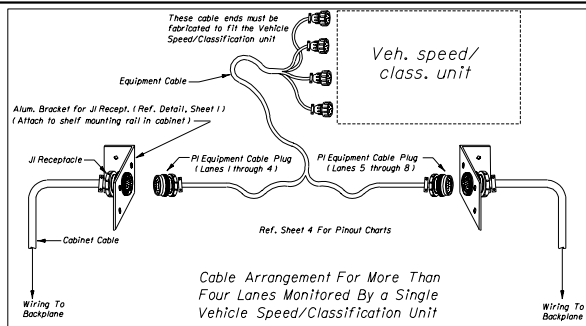
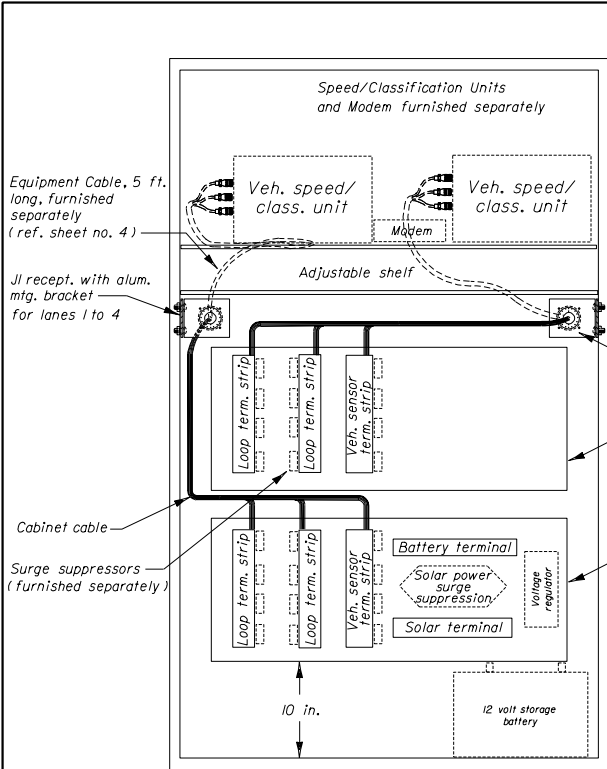


- J1 MOUNTING BRACKET**
1. Traffic monitoring site cabinet includes:
 - A. One adjustable shelf;
 - B. One backplane ass'y;
 - C. One J1 receptacle with mounting bracket;
 - D. All associated wiring and wiring harnesses.
 2. Basic backplane assembly consists of:
 - A. Two inductive loop terminal strips;
 - B. One vehicle sensor terminal strip;
 - C. One battery terminal strip;
 - D. One solar panel terminal strip.
 3. When piezoelectric axle sensors are used, the shields must be connected to earth ground.

**CABINET LAYOUT DETAIL
(For Up To Four Lanes)**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN			
TRAFFIC MONITORING SITE			
Designed By	Name	Date	Approved By
Drawn By			MT of Traffic Monitoring Site
Checked By			00 1 of 9 17900



Cable Arrangement For More Than Four Lanes Monitored By a Single Vehicle Speed/Classification Unit

1. Traffic monitoring site cabinet includes:
 - A. One adjustable shelf;
 - B. Two backplane assemblies (equipped as shown);
 - C. Two Jl receptacles with mtg. brackets;
 - D. All associated wiring and wiring harnesses.
2. Basic backplane assembly consists of:
 - A. Two inductive loop terminal strips;
 - B. One vehicle sensor terminal strip;
 - C. One battery terminal strip;
 - D. One solar panel terminal strip.
3. When piezoelectric axle sensors are used, the shields must be connected to earth ground.

CABINET LAYOUT DETAIL
(For More Than Four Lanes
And Up to Eight Lanes)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

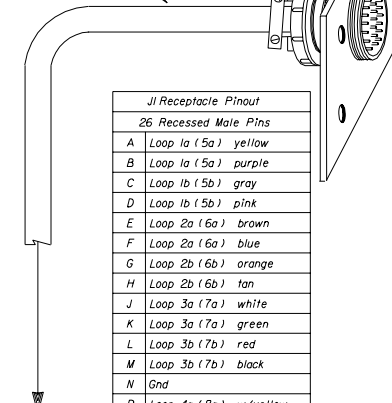
TRAFFIC MONITORING SITE

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Checked By			
			00
			2 of 9
			17900

Alum. Bracket for JI Recept.
(Attach to shelf mounting rail
in cabinet)

JI Receptacle

Cabinet Cable



Wiring To
Backplane

JI Receptacle Pinout	
26 Recessed Male Pins	
A	Loop 1a (5a) yellow
B	Loop 1a (5a) purple
C	Loop 1b (5b) gray
D	Loop 1b (5b) pink
E	Loop 2a (6a) brown
F	Loop 2a (6a) blue
G	Loop 2b (6b) orange
H	Loop 2b (6b) tan
J	Loop 3a (7a) white
K	Loop 3a (7a) green
L	Loop 3b (7b) red
M	Loop 3b (7b) black
N	Gnd
P	Loop 4a (8a) w/yellow
R	Loop 4a (8a) w/purple
S	Loop 4b (8b) w/gray
T	Loop 4b (8b) w/brown
U	Piezo 1 (5) (+) w/blue
V	Piezo 1 (5) sh w/orange
W	Piezo 2 (6) (+) w/green
X	Piezo 2 (6) sh w/red
Y	Piezo 3 (7) (+) w/black
Z	Piezo 3 (7) sh w/red/blk
a	Piezo 4 (8) (+) red/green
b	Piezo 4 (8) sh red/orange
d	Gnd red/black

PI Equipment Cable Plug	
26 Female Pin Slots	
A	Loop 1a (5a)
B	Loop 1a (5a)
C	Loop 1b (5b)
D	Loop 1b (5b)
E	Loop 2a (6a)
F	Loop 2a (6a)
G	Loop 2b (6b)
H	Loop 2b (6b)
N	Gnd
J	Loop 3a (7a)
K	Loop 3a (7a)
L	Loop 3b (7b)
M	Loop 3b (7b)
P	Loop 4a (8a)
R	Loop 4a (8a)
S	Loop 4b (8b)
T	Loop 4b (8b)
d	Gnd
U	Piezo 1 (5) (+)
V	Piezo 1 sh
W	Piezo 2 (6) (+)
X	Piezo 2 sh
Y	Piezo 3 (7) (+)
Z	Piezo 3 sh
a	Piezo 4 (8) (+)
b	Piezo 4 sh

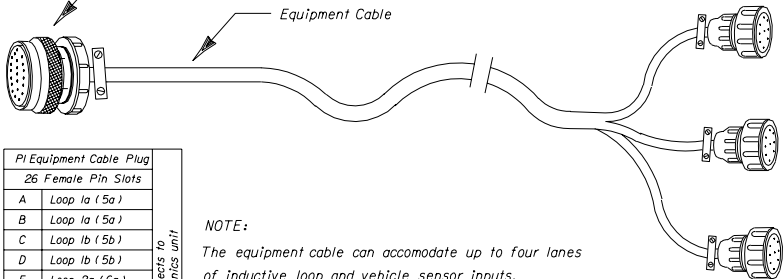
Connects to
electronics unit

Connects to
electronics unit

Connects to
electronics unit

PI Equipment Cable Plug

Equipment Cable



These cable ends must be
fabricated to fit the Vehicle
Speed/Classification unit

NOTE:

The equipment cable can accommodate up to four lanes
of inductive loop and vehicle sensor inputs.
(Ref. Sheet No. 1 for cabinet layout)

For more than four lanes and up to eight lanes of
inputs, the following options are available:

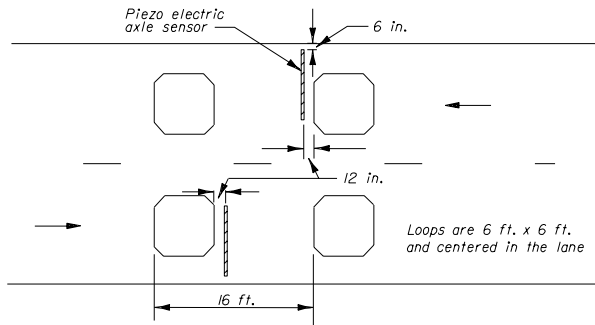
1. A second Vehicle Speed/Class. Unit and separate
equipment cable connecting to a second JI receptacle; or
2. A single Vehicle Speed/Class. Unit capable of up to eight
lanes of inputs and a single equipment cable with split ends
to fit two JI receptacles. (Ref. Sheet 2 detail)

Numbers in parenthesis in the pinout chart identify lane
numbers when a second backplane for lanes 5 through 8 is required.

EQUIPMENT CABLE DETAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN					
TRAFFIC MONITORING SITE					
Designed By	Name	Date	Approved By		
Drawn By			MFL OF TRANSPORTATION SIGNATURE		
Checked By	Blanket	Scale	Rev	4 of 9	17900

SPEED/CLASSIFICATION LOOP ASSEMBLY WITH AXLE SENSORS PLACEMENT DETAIL



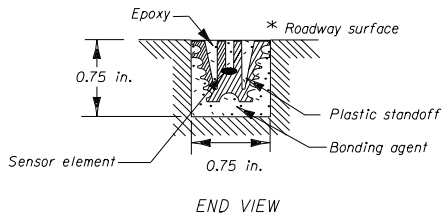
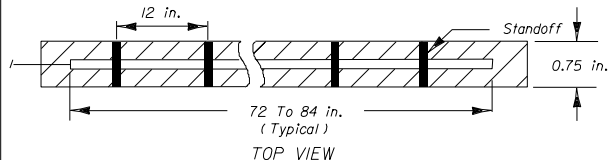
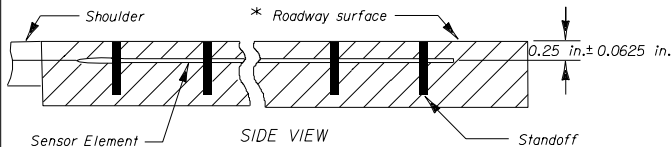
Note:

Loop slots shall be 0.25 inches wide (approx.) by 1.5 inches to 2 inches deep. Three turns of #12 AWG, type XHHW stranded copper wire shall be placed in the slot. Backer rod shall be used to hold the loop wire in the bottom of the slot.

Loop leads shall be twisted at the rate of 10 to 12 twists per foot. The twisted pair shall extend to the pull box with three feet of spare length coiled in the pull box.

All leads (inductive loop & vehicle sensor) shall be identified according to the lane numbering convention shown on sheet 8 and 9.

TYPICAL UNENCAPSULATED CLASS II VEHICLE SENSOR



* Some installations may require axle sensors to be placed in the structural course, prior to placement of the friction course.

Note:

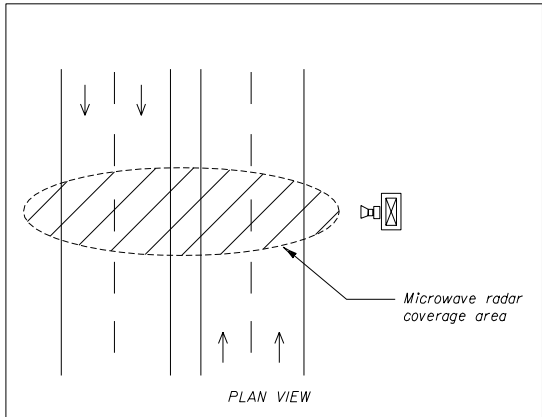
These are typical dimensions. actual dimensions, element cross-sections and standoffs may vary depending on manufacturer and model.

LOOP AND PIEZOELECTRIC VEHICLE SENSOR DETAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN

TRAFFIC MONITORING SITE

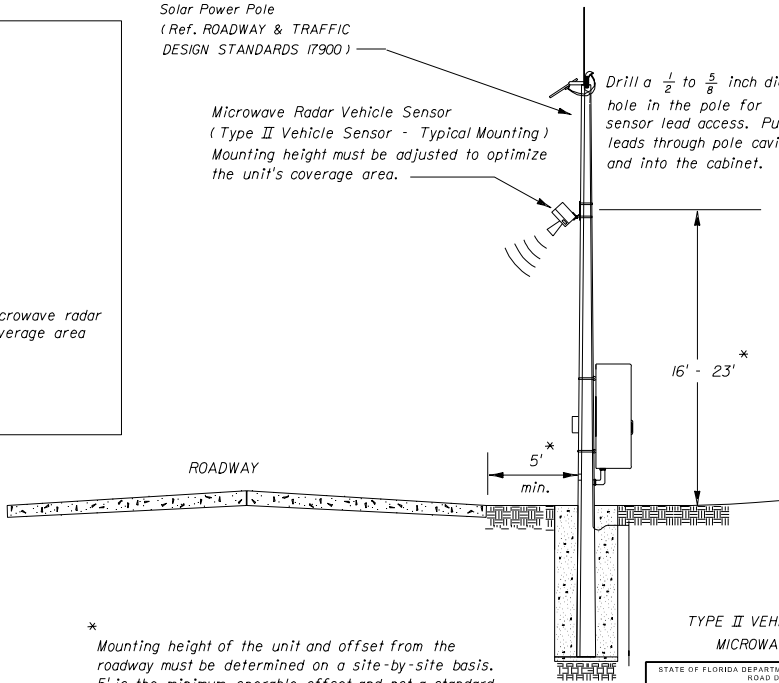
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Drawn By			MP of TRANSPORTATION
Checked By			00 5 of 9 17900



Solar Power Pole
(Ref. ROADWAY & TRAFFIC
DESIGN STANDARDS 17900)

Microwave Radar Vehicle Sensor
(Type II Vehicle Sensor - Typical Mounting)
Mounting height must be adjusted to optimize
the unit's coverage area.

Drill a $\frac{1}{2}$ to $\frac{5}{8}$ inch dia.
hole in the pole for
sensor lead access. Pull
leads through pole cavity
and into the cabinet.



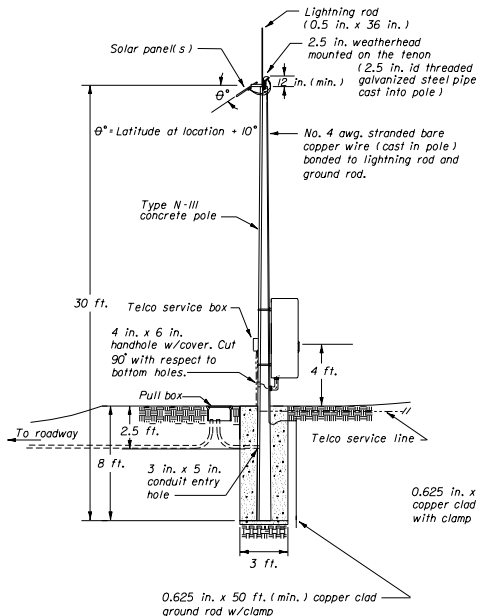
The unit must be capable of detecting up to eight lanes of traffic (in either or both directions) when mounted perpendicular to the roadway.

Coverage area of the unit is affected by the roadway geometry: distance from the travel lanes, median type and width, barrier walls, etc.

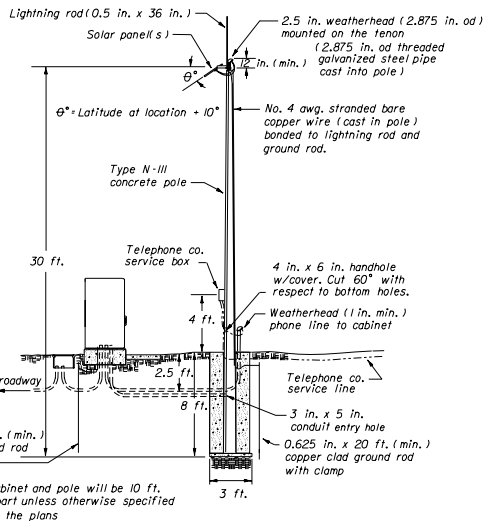
* Mounting height of the unit and offset from the roadway must be determined on a site-by-site basis. 5' is the minimum operable offset and not a standard.

TYPE II VEHICLE SENSOR
MICROWAVE RADAR
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

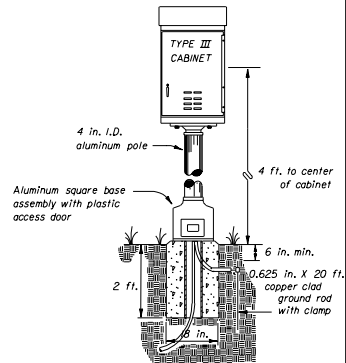
DESIGNED BY		APPROVED BY	
NAME	DATE	NAME	DATE
		<i>[Signature]</i>	
TRAFFIC MONITORING SITE			
Drawn By		Checked By	
Revised		00	6 of 9
		17900	



SOLAR POWER POLE
WITH POLE MTD. CABINET



SOLAR POWER POLE
WITH BASE MTD. CABINET



PEDESTAL MTD. CABINET

SOLAR POWER POLE DETAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

TRAFFIC MONITORING SITE

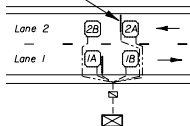
Designed By	Name	Date	Approved By
Drawn By			
Checked By			
			00 7 of 9 17900

Note: When cabinets are located on both shoulders, lane numbering begins with the outside lane.

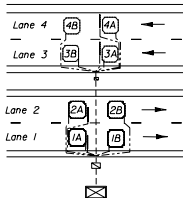
SINGLE CABINET CONFIGURATION

Vehicle sensors will be identified by, and leads marked with, the letters "VS" followed with the lane number.

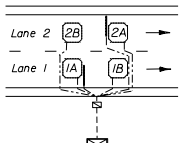
Example: "VS2"



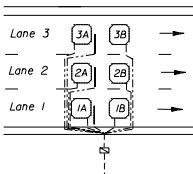
(A) TWO LANE - TWO WAY



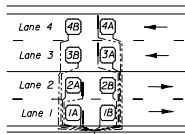
(B) FOUR LANE, DIVIDED - TWO WAY



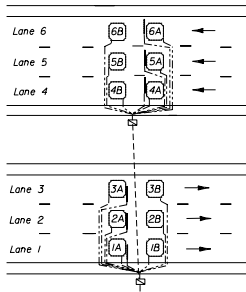
(E) TWO LANE - ONE WAY



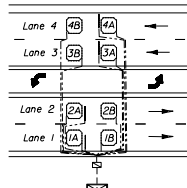
(F) THREE LANE - ONE WAY



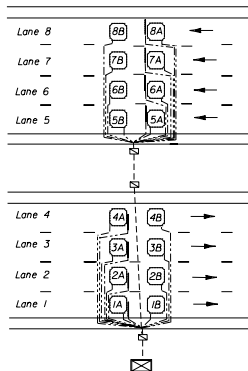
(C) FOUR LANE, UNDIVIDED - TWO WAY



(G) SIX LANE, DIVIDED - TWO WAY



(D) FOUR LANE/CONTINUOUS LEFT TURN LANE



(H) SIX LANE, DIVIDED - TWO WAY

LANE NUMBERING CONVENTION DETAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

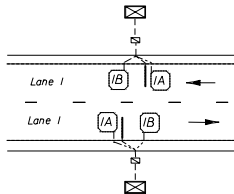
TRAFFIC MONITORING SITE

Designed By	Name	Date	Approved By
Drawn By			<i>[Signature]</i>
Checked By			MP OF TRANSPORTATION SIGNATURE
			DATE: 08/01/00
			REV: 00
			8 of 9
			17900

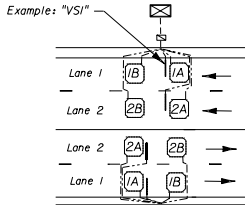
Note: When cabinets are located on both shoulders, lane numbering begins with the outside lane.

Vehicle sensors will be identified by, and leads marked with, the letters "VS" followed with the lane number.

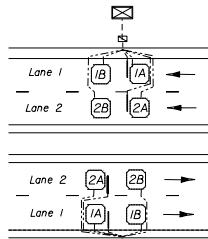
TWO CABINET CONFIGURATION



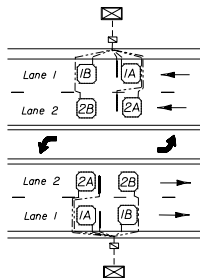
(A) TWO LANE - TWO WAY



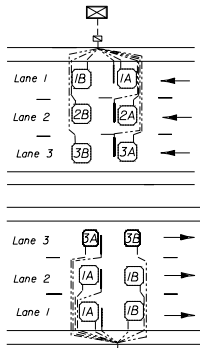
(B) FOUR LANE, UNDIVIDED TWO WAY



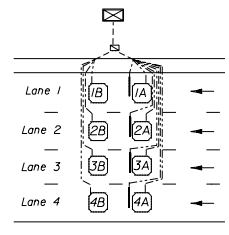
(C) FOUR LANE, DIVIDED - TWO WAY



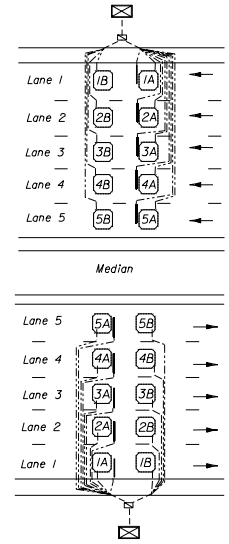
(D) FOUR LANE/CONTINUOUS LEFT TURN LANE



(E) SIX LANE, DIVIDED - TWO WAY



(F) EIGHT LANE, DIVIDED TWO WAY



(G) TEN LANE, DIVIDED TWO WAY

LANE NUMBERING CONVENTION DETAIL

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

TRAFFIC MONITORING SITE

Design By	Name	Date	Approved By
Drawn By			
Checked By			
		00	9 of 9
			17900