CABINET LAYOUT DETAIL (For Up To Four Lanes)

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf (equipped as shown)
   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 speed/veh. classification unit
   D. One solar panel terminal strip

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

Traffic monitoring site cabinet includes:
- One adjustable shelf (equipped as shown)
- One backplane assembly
- One J1 receptacle with mounting bracket
- All associated wiring and wiring harnesses

Basic backplane assembly consists of:
- Two inductive loop terminal strips
- One vehicle sensor terminal strip
- One speed/veh. classification unit
- One solar panel terminal strip

Note:
Bracket shall be fabricated of .090 - .125 inch thick aluminum. Dimensions may vary depending on the manufacturer of the J1 receptacle being furnished. The cabinet manufacturer will construct the mtg. bracket to fit the receptacle.
Traffic Monitoring Site

07/01/07

Traffic Monitoring Site

Equipment Cable, 5 ft. Long, Furnished Separately (Ref. Sheet No. 4)

J1 Recept. With Alum. Mtg. Bracket For Lanes 3 to 8

Surge Suppressors (Furnished Separately)

Adjustable Shelf

J1 Recept. With Alum. Mtg. Bracket For Lanes 3 to 8

Cabinet Cable

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.

Traffic monitoring site cabinet includes:
1. One adjustable shelf.
2. Two backplane assemblies (equipped as shown).
3. All associated wiring and wiring harnesses.

1. Traffic monitoring site cabinet includes:
A. One adjustable shelf;
B. Two backplane assemblies (equipped as shown);
C. Two J1 receptacles with mtg. brackets;
D. All associated wiring and wiring harnesses.

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

CABINET LAYOUT DETAIL (For More Than Four Lanes And Up To Eight Lanes)
All terminal strip contacts are on 142 Series or equal.

Use insulated fork wire terminations.

The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

*
Piezo 1 (5) (+) / blue
Piezo 1 (5) sh / orange
Piezo 2 (6) (+) / green
Piezo 2 (6) sh / red
Piezo 3 (7) (+) / black
Piezo 3 (7) sh / red/black
Piezo 4 (8) (+) / red/green
Piezo 4 (8) sh / red/yellow
Gnd / red/black

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/Classification Unit and separate equipment cable connecting to a second J1 receptacle; or
2. A single Vehicle Speed/Classification Unit capable of up to eight lanes of inputs and a single equipment cable with split ends to fit two J1 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.

NOTE:
The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.
TYPICAL FOR UP TO 4 LANES OF SENSOR LEADS PULLED TO ONE SIDE OF THE ROADWAY

NOTES:
1. Type I axle sensors shall be installed after placement of the friction course. Loops associated with axle sensors shall also be installed after placement of the friction course.
2. Inductive loop slots shall be cut 30° deep. Loop slots will be cut wide enough to allow unforced placement of the leads in the bottom of the slot. Four turns of #12 AWG Type XHHW stranded copper wire, or #14 AWG IMSA 51-7 copper wire shall be placed in the slot. Short pieces of backer rod (2" to 3" in length) shall be placed every 18" to 24" to hold the loop wire in the bottom of the slot.
3. Loop leads shall be twisted at the rate of 6 to 8 twists per foot. For loops that are within 150' of the cabinet, the twisted pair loop wire shall be extended directly to the cabinet and no shielded lead-in cable is required. For loops that are within 150' of the cabinet, the twisted pair loop wire shall be extended directly to the cabinet and no shielded lead-in cable is required. For distances over 150', #14 IMSA 50-2 shielded lead-in cable must be spliced to the loop wire twisted pair at the first pull box to which the loop wire is pulled.
4. The Contractor shall be responsible for contacting the FDOT office that maintains the traffic monitoring site in order to obtain lane mapping identification. All leads shall be labeled with permanent markers to indicate their lane number and position. For example: The leading loop (the first loop a vehicle encounters) in the lane designated as number 1, shall be marked as "P1". The trailing loop, if present, shall be marked "P2". If an axle sensor is present, the sensor will be marked as "P1" for lane #1, shall be marked as "P2". The trailing loop, if present, shall be marked "P3". No other markings are permitted.
5. See Index 17700 for pull box and apron details.
6. All splices will be performed using splice kits designed for direct burial. Splice kits will include screw on wire connectors and a housing with sufficient sealant to fully encapsulate the spliced connections. Taped splices are not permitted.
The Unit Must Be Capable Of Detecting Up To Eight Lanes Of Traffic (In Either 4 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, in accordance with the manufacturer's recommended guidelines. Offset of pole must be greater than or equal to minimum clear zone requirements.

Solar Power Pole

Drill A \( \frac{3}{4} \) To \( \frac{1}{2} \) Inch Dia. Hole In The Pole For Sensor Lead Access. Pull Leads Through Pole Cavity And Into The Cabinet.

Microwave Radar Vehicle Sensor (Type II Vehicle Sensor - Typical Mounting) Mounting Height Must Be Adjusted To Optimize The Unit's Coverage Area.

Roadway

Microwave Radar Coverage Area

Varies *

Varies *
SOLAR POWER POLE DETAIL

Pole placement shall be in accordance with section 125.4 and 125.8.2 of the Standard Specifications.

Wire for Solar Panel Array installations shall be #10 AWG stranded copper. Green insulation is THHN or THWN for ground bonding of the solar panel frame to the pole and earth.

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Pole placement shall be in accordance with section 125.4 and 125.8.2 of the Standard Specifications.

Wire for Solar Panel Array installations shall be #10 AWG stranded copper. Green insulation is THHN or THWN for ground bonding of the solar panel frame to the pole and earth.