Equipment Cable, 5 ft long, furnished separately (ref. sheet no. 4)

Multiple recept. with alum. mfg bracket for lanes 1 to 4

Cabinet cable

Surge suppressors (furnished separately)

Veh. speed/ class. unit

Speed/Classification Unit and Modem furnished separately

Adjustable shelf

Battery terminal

Solar power

Solar surge

Solar suppression

Solar terminal

12 volt storage battery

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf (equipped as shown)
   B. One backplane assy
   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

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.
1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf.
   B. Two backplane assemblies (equipped as shown).
   C. Two J4 receptacles with mntg 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.

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.
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/Classification Unit and separate equipment cable connecting to a second J 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 J receptacles. (Ref. Sheet 2 detail)

Numbers in parenthesis in the pinout chart identify lane numbers when a second plane change 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.
SPEED/CLASSIFICATION LOOP ASSEMBLY WITH AXLE SENSORS PLACEMENT DETAIL

LEAD-IN

SENSOR cable connection (boot)

Edge stripe

SAW Cut THE SENSOR SLOT LONG ENOUGH TO INCLUDE THE SENSOR CABLE CONNECTION.

THE CONNECTION WILL BE ENGAGED IN THE BONDING AGENT WITH THE SENSOR ELEMENT.

END OF SENSOR MOUNTS EVEN WITH INSIDE EDGE OF STRIPE

Axle Sensor

over saw

loop

1.25-inch to 2-inch slit opening drilled to loop depth
(smooth, no rough edges)

12 in.

Loops are 6 ft x 6 ft and centered in the lane

16 ft.

Note:
Loop slots shall be 0.25 inches wide (max.) by 1.5 inches to 2 inches deep. Four turns of #12 AWG type FHH8 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 lead shall extend to the pullbox with three feet of spare length coiled in the pullbox.

The contractor shall be responsible for contacting the FDOT office for lane number information and verification. All leads shall be labeled with permanent marker to indicate their lane number and position. For example: The leading loop in lane 1 is marked as "L1." The trailing loop (if present) is marked as "L2." The axle sensor (if present) is marked as "A." And so on for all lanes.

TYPICAL UNENCAPSULATED CLASS II VEHICLE SENSOR

SIDE VIEW

Typical standoff

0.75 in.

72 in.
(Typical)

0.375 in.

Typical standoff

0.75 in.

Loop wires / Hom Run cable splices

3M Part No. 1570G (or equal)
Southwest Desoldering Resin
Electrical Splice Kit Pouch

Shielded hom run cable to cabinet

Loop Leads
(Twisted Pair)
From roadway

3M Part No. 5-11 (or equal)
Closed End Electrical Crimp Sleeve

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

END VIEW

LOOP WIRE / HOMERUN CABLE SPLICES

Note:
Loop-Wire must be totally encapsulated by the splice mixture including outer insulation.

2008 FDOT Design Standards
Traffic Monitoring Site

Sheet No.
Index No.

2008 FDOT Design Standards

TRAFFIC MONITORING SITE

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

END VIEW
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, in accordance with the manufacturer's recommended guidelines and existing clear zone requirements.
No. 4 awg stranded bare copper wire (cast in pole) bonded to lightning rod and ground rod.

Modified:
Type A-III concrete pole
(Ref. Sec. 744)

Solar panel(s)

Latitude at location = 10°

0.625 in. x 40 ft. (min.) copper clad ground rod w/clamp

0.625 in. x 40 ft. (min.) copper clad ground rod w/clamp

4 in. x 6 in. handhole w/clover. Cut 90° with respect to
weatherhead (2 min.)

Cabinet and pole will be 10 ft. apart unless otherwise specified in the plans.

Note: Cabinet installed per Index 17841 except cabinet center white 4 feet above grade.

2.5 in. weatherhead mounted on the tenon
(2.5 in. steel threaded galvanized steel pipe cast into pole)

Lightning rod
(0.5 in. x 36 in.)

2.5 in. weatherhead (2.875 in. o.d.) mounted on the tenon
(2.875 in. steel threaded galvanized steel pipe cast into pole)

Lightning rod
(0.5 in. x 36 in.)

Solar panel(s)