



LEGEND

| SYMBOL | TYPE |
|--------|---------------------------|
| | ANPR Camera with pole |
| | PTZ Dome Camera with pole |
| | Wireless Antenna |
| | Field Cabinet |

INSTALLATION OF CONDUITS AND PITS IS THE RESPONSIBILITY OF THE LICENSED ELECTRICAL CONTRACTOR

NOTES:

- The piezo sensor is to be assembled and tested prior to delivery at site.
- Slots for loops and piezo sensors to be cut using conventional loop cutting or milling type equipment. Under no circumstances percussion type equipment is to be used to form the slots.
- Slots shall be cut in the pavement surface using a dry cut method and vacuumed clean prior to installation of vehicle sensors.
- The loops and brass linguini piezo sensor shall be sealed in the slots using PU200 resin.
- The quartz sensors shall be sealed in the slots using grouting compound TYPE1000 A1.
- Prior to curing, it is preferred that the resin and grouting compound should be stored in an environment around 20° Celsius. During storage, the resin must not be allowed to reach freezing point or exceed 30° Celsius.
- Refer manufacturer's instructions for the piezo sensor installation parameters.
- Loop detector and feeder cables are to be jointed in pits. Each joint to be separately insulated and sealed to prevent ingress of water.
- The piezo sensor cable is to be jointed at the length supplied by the manufacturer. Multiple joints are not permitted.
- Where possible, there shall be a minimum 500mm gap between slots cut for sensors and tails.
- Lane numbering for WIM system configuration to follow gazettal, then against-gazettal direction.
- ANPR cameras shall be installed from the trailing piezo sensor at a distance, height and offset specified by the ANPR camera manufacturer and safety guidelines for roadside objects.
- The contractor shall consult with the Principal's representative for orientation, alignment and focusing of the ANPR camera.
- Loops shall exhibit the following characteristics:
Inductance - 100uH to 250uH
Resistance - ≤ 2.5Ω
Q-factor - ~ 20 @ 40kHz.
- All dimensions in metres unless otherwise stated.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

- Standard Drawings
- Specifications

REFERENCED DOCUMENTS:

- Departmental Standard Drawings:
 - 1149 Traffic Signals/Road Lighting/ITS - Installation of Underground Electrical and Communications Conduit
 - 1314 Traffic Signals/Road Lighting - Cable Joining Pit Drainage Details
 - 1424 Traffic Signals - Detector Loops Installation Details
 - 1440 Traffic Signals/Road Lighting - Cable Joining Pit Rectangular Concrete Surround
- 1901 ITS - Traffic Monitoring Cabinet Base Installation Details
- 1902 ITS - Traffic Monitoring Surveillance Post Typical Details
- 1903 ITS - Traffic Monitoring Surveillance Post Wiring Details

Departmental Specifications:

- MRTS203 Provision of Weigh-in-Motion System
- MRTS207 Traffic Monitoring Foundation Equipment
- MRTS250 Provision of Automatic Number Plate Recognition System

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| ITS | | | |
| WIM PIEZO SENSOR INSTALLATION DETAILS | | A3 | Standard Drawing No |
| | | Not to Scale | 1906 |
| | | | Date 11/2020 |
| A | B | C | |

WEIGH IN MOTION TYPICAL SITE DETAILS