Inductive Loop Detectors Basic Layout

Inductive loops work by detecting metal objects such as motor vehicles when the frequency of the loop is disturbed by the passing or presence of a vehicle.

There are two basic ways to form a driveway inductive loop. In both cases the nearest wire to the surface

1) A saw cut loop buried directly in the traffic lane and the saw cut filled with a flexible resin. (Typically a concrete or tarmac surface)

2) With a preformed loop made from conduit
The loop itself is a continuous run of wire that enters and exits from the same point.

A typical size of the loop in a single traffic lane would be 2.5m x 1m and the wire should go three or four times around the loop before exiting at the same point.

The two ends of wire that exit the loop and return to the loop control box should be twisted together.