

Traffic Signal Detectors:

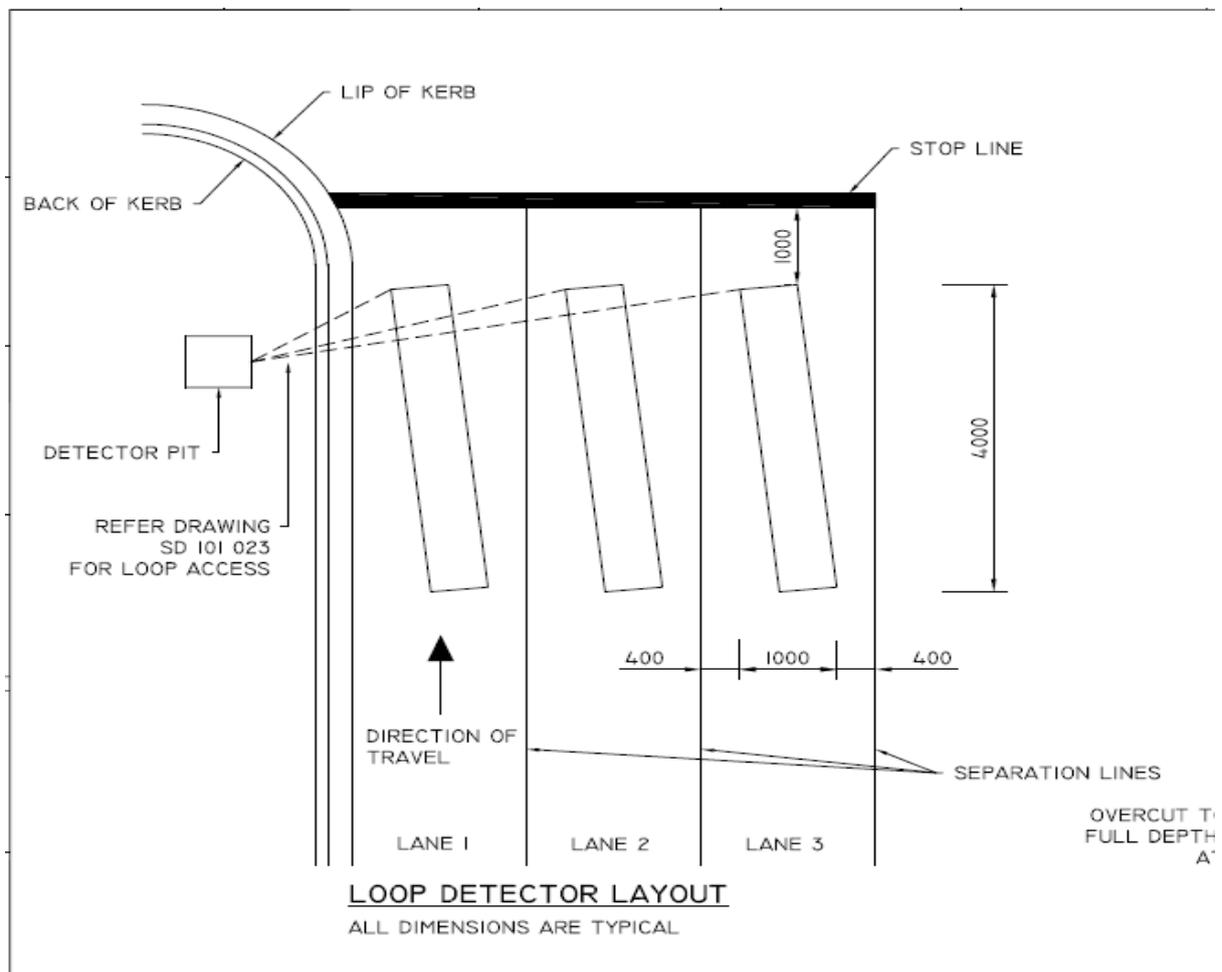
Overview:

The Department of StateGrowth (DSG) have vehicle detector assets under the road surface at **all** intersections controlled by traffic signals.

A traffic signal detector consists of a series of rectangular, wire loops imbedded in each approaching road lane. These loops detect vehicle (similar to a metal detector) and are triggered when a vehicle crosses or stops above them.

These detectors notify the traffic controller of a vehicles presence, at the stop line or on approach, this then allows the controller to call lantern changes to run the intersection safely and efficiently.

Typical stop line detector layout:



Road reseals and civil works:

During road reseals and trenching traffic signal detectors are **destroyed**, either milled, dug up or severed.

Destroyed traffic signal detectors need reinstating asap.

1. Preferred reinstatement: Ezyloop.

The preferred option is to reinstate during the reseat/trenching works. This usually involves laying an Ezy loop, a pre-fabricated detector that is laid underneath the final road surface (see pic. A & B).

The Traffic Signals Maintenance (TSM) team are keen to work in with contractors during works to reinstate detectors, however, this requires that **sufficient lead time is known**.

Advantages:

- Instant reinstatement, giving greater efficiency and safety to the travelling public.
- Delivers a smooth and uncompromised road surface, resulting in longer asset life.
- No need to “cut” a detector loop (see point 2.).
- Costs are reduced, mainly due to traffic management costs to come back to site and cut a detector loop.

Pic. A: Stopleveline Ezyloop



Pic. B: Advanced (approach) Ezyloop



2. Non-preferred reinstatement: Cutting a loop

The non-preferred option to reinstate a detector is to “cut” a loop (see pic.C). This involves revisiting a site post works, the detector loop is cut in with a road saw, three loops of detector wire are manually inserted, then the cut is back filled with hot mix.

Disadvantages:

- Safety and efficiency is compromised while detectors are inoperable.
- The site must be revisited, requiring additional resourcing, rescheduling and further disruption to road users.
- A “cut” loop greatly affects the road seal durability and integrity, it can allow water ingress and uneven wear, resulting in shorter asset life and ongoing maintenance requirements (see pic D).

Note: In certain locations, during minor road repairs and new kerb installation, the detector loop can be destroyed. In these instances, where no major resurfacing is taking place cutting a loop becomes the only option.

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Pic. C: Cutting a loop



Pic. D: Road surface post loop cut



Conclusion:

- Reinstating traffic signal detectors with Ezy loops during reseals/civil works is the preferred option.
- Some works (eg.minor road repairs, new kerb installs) may result in cutting a loop being the only option.
- Early communication, involvement and updates involving traffic intersection reseals/works are greatly appreciated by the Traffic Signals Maintenance Team (email below).

Please contact: Traffic.sig@stategrowth.tas.gov.au

Thankyou

Traffic Signals Maintenance

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