



Case Study: A249 Key Street – Emergency Central Reservation VRS Repair



Project Overview

An emergency repair request was received at 11:00am, the morning after a vehicle impact severely damaged a section of the Vehicle Restraint System on a live highway network. The client required the works to be completed within their contractual 7-day emergency repair window to maintain network safety and compliance.

Initial Response & Survey

Our team mobilised the same evening to conduct a full damage survey. The assessment identified:

- Multiple sheared and deformed posts
- Significant impact damage to the tensioned corrugated beam
- Displacement of concrete socket foundations
- Loss of containment capability across the affected length

Following the survey, we provided the client with:

- A clear, itemised damage report
- A proposed repair methodology
- A quotation based on verified site information

This rapid turnaround allowed the client to approve works immediately.

Repairs commenced within the required 7-day emergency window, with all works delivered safely over 3 consecutive night shifts to minimise traffic disruption.



Completed Works

The completed works included:

- Supply, delivery, and installation of 30 no. replacement posts
- All posts installed into concrete sockets to enable faster future maintenance
- 71m of replacement tensioned corrugated beam
- Removal and disposal of all damaged components
- Full reinstatement of system tension and alignment
- Compliance checks against current VRS standards

Execution & Methodology

Our installation team followed a structured approach:

- Supply and deliver to site 30 no. replacement post with associated fittings.
- Replacement posts concrete socketed.
- Dismantle 28 no. damaged barrier and remove 30 no. damaged post for disposal off site.
- Dismantle and replace 4 no. damaged adjuster beams with brackets, long bolts and associated fixings.
- Re-tension 71m of TCB
- Dismantle and replace damaged transition connections from double sided TCB to single sided OBB.
- Re-assemble barrier to specification.
- Removal of all waste from site

Results

The emergency repair was completed:

- Within the client's 7-day contractual requirement
- Over only 3 night shifts, minimising operational impact
- Restoring full containment capability to the VRS
- Improving future repair efficiency through the use of concrete sockets
- Ensuring compliance with relevant standards and safety criteria

Client Impact

- Immediate reinstatement of roadside safety
- Reduced risk of secondary incidents
- Clear documentation for audit and asset management
- Faster future maintenance due to upgraded socketed post design