

8 Implementation

8.1 Responsibility for implementing the recommendations

The design and implementation phase may or may not form part of the CRS team's or the contractor's responsibility. This will depend upon the CRS brief, contract arrangements and whether the team is led internally or externally.

Some of the recommendations may be forwarded to the network consultant/contractor for immediate implementation. Others may need to be programmed, placed on priority lists, or require further investigation.

Education and enforcement recommendations need to be forwarded to the appropriate agencies for consideration and implementation as appropriate.

8.2 Timing/funding

Recommendations should be implemented as soon as practical. Often the implementation will be dependent upon funding sources that generally include maintenance, minor safety or capital works funds (with or without Land Transport NZ funding).

Forward programming of capital works funding is required which often results in some delay over implementation. RCAs have some discretion over how they allocate the Land Transport NZ funded minor safety contributions with most RCAs having some methodology for ranking these works. Territorial local authority (TLA) funding may also be subject to the long term council community plan (LTCCP) process. However, in considering prioritisation of CRS recommendations, it should be noted that these are locations where crashes have occurred and for which there is generally a countermeasure available with proven success and a good economic return.

Where appropriate, the CRS recommendations should be undertaken in conjunction with other maintenance works, construction projects, street upgrade or traffic scheme works, etc. It may also be appropriate to arrange the timing of implementation concurrently with associated education and enforcement initiatives.

8.3 Design, reviews and safety audits

A concept sketch included in the CRS report is not intended as a detailed design. In some instances, such as positioning a sign or relocating markings, no further design may be required. However, in most instances some further measurements, survey and detailed design will be necessary.

Although the CRS team usually has all the skills necessary to make sound considered recommendations on the appropriate treatments, the design and implementation sometimes results in changes being made that have other safety consequences, which may need further consideration. It may be appropriate that the design is referred back to the CRS team for review.

Designs of countermeasure treatments should not be considered to be immune from potentially unsafe design flaws, and it would be unfortunate if new and unforeseen crash problems developed. As such, consideration must be given to a design and/or post construction safety audit. Dependent upon the project cost and source of funding safety audits may be a Land Transport NZ and/or an RCA safety management system requirement.

Reference should be made to the Land Transport NZ *Road safety audit procedures for projects* guidelines published in November 2004. It should be noted that a road safety audit:

- is to be carried out by people who are independent of the client, designer or contractor
- is not a substitute for a design check or peer review
- is applicable to all types of projects on all types of roads and off-road areas to which the public have access

Road safety audits are typically undertaken at the following stages of a project:

- feasibility/concept
- scheme/preliminary design (these may not be required for CRS)
- detailed design
- post-construction (at opening of facility).

The road safety audit team will produce a report which can recommend changes to the project to ensure that the safety benefits of the CRS are realised.

Some longer-term CRS contracts have requirements for review of the design and implementation and even some initial monitoring of the works.

8.4 Publicity, consultation and liaison

Raising public awareness of the need for safety improvements is an important part of gaining acceptance of the countermeasures, particularly if they are of a sensitive or controversial nature.

The responsibility for publicity or consultation would normally reside with the RCA. However, this may be delegated to a consultant/contractor responsible for design and implementation. A collaborative approach to publicity with the appropriate agencies should be given to proposals incorporating enforcement and/or education measures.

If widespread publicity is not undertaken, consultation with the local community, affected property owners/occupiers, key stakeholders etc is strongly recommended and probably essential for works that alter parking, restrict access, change traffic patterns or impede service or emergency vehicle access etc.

Liaison with service authorities, network consultants/contractors etc should also be undertaken through the design and implementation process.