

# SaferRoads



## Karori Consultation Feedback and Implementation Plan

December 2005

**Absolutely**

**POSITIVELY**

ME HEKE KI PŌNEKE  
WELLINGTON CITY COUNCIL

**Wellington**

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## Introduction

In 2003 Wellington City Council introduced a road safety project called SaferRoads that aims to **reduce the number of crashes in Wellington City by one third by the year 2010**. The SaferRoads project has been designed so the Council can make a contribution to the Government's Road Safety to 2010 strategy. Wellington is the first city in New Zealand to implement a project that links with this strategy.

SaferRoads is modelled on successful projects carried out in the United Kingdom, Scandinavia and Australia where an area-based approach has been used to reduce road accidents.

The project has been developed in conjunction with Land Transport New Zealand (LTNZ – formerly the Land Transport Safety Authority), and it is supported by the Council's key road safety partners including Transit New Zealand, Greater Wellington Regional Council and the Police.

The Council's previous road accident reduction strategies concentrated on making changes to identified black spots and defined routes. This work is now largely complete. However, analysis by LTNZ confirms that there are still a significant number of 'scattered' accident sites that are more difficult to eliminate. According to overseas research, the most effective way to reduce both concentrated and scattered accidents is by:

- managing traffic on to the right roads so that a safer distribution of traffic is achieved
- managing the speed of traffic so that it circulates more safely
- co-ordinating all work that influences road safety.

To be successful, the SaferRoads project requires the following critical elements:

- co-operative working arrangements between relevant agencies
- ongoing political support
- ongoing funding
- acceptance from local communities
- the ability to introduce measures currently outside the legislative framework.

This unique project integrates engineering, education and enforcement initiatives to reduce crashes by using an area-wide methodology; this means that whole suburbs will be targeted with the focus on total crash reduction rather than alleviating problems on a particular street.

The Implementation Plan outlines the road safety initiatives that will be put in place to reduce crashes in Karori over the next seven years as part of the SaferRoads project.

# Community Consultation

## Stakeholder Consultation

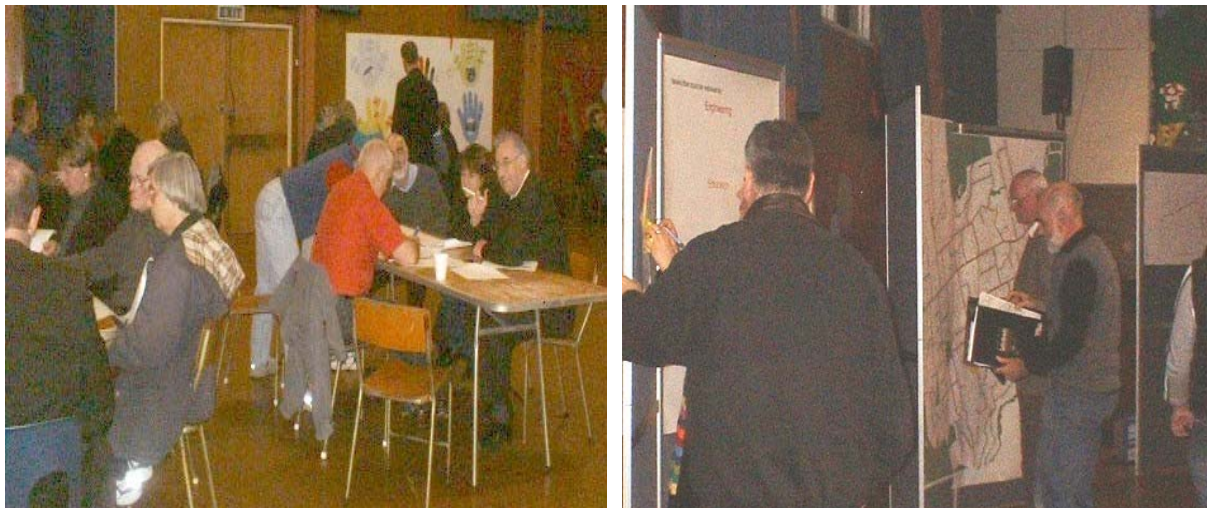
To begin the stakeholder consultation phase, the SaferRoads team went out into the Karori community and met with local groups to inform them about the project in August 2004.

Meetings were held with stakeholders including:

- Cycle Aware Wellington
- Living Streets Aotearoa (Wellington)
- Stagecoach
- utilities companies (eg telephone, gas and power companies)
- the Road Safety Reference Group.

The SaferRoads team ran a series of two workshops in August 2004 at Karori Normal School in Donald Street. These workshops provided an opportunity for the community to discuss their road safety concerns and suggest any measures they would like to see introduced to reduce the number of crashes in their community.

The response from the Karori public was very positive with over 50 people attending the workshops and other interested parties contacting the SaferRoads team directly with their comments. Detailed technical analysis was undertaken for the Karori area to assist in development of a Technical Report and Proposal containing initiatives that will help reduce the number of crashes in Wellington City by one third by the year 2010.



*Karori participants at the community workshops.*

## Karori Consultation: 8 August – 5 September 2005

Consultation commenced on 8 August 2005 and closed on 5 September 2005. During this time a summary booklet outlining the SaferRoads Proposal for Karori and a submission form were distributed to Karori residents, businesses, and community and forum groups.

The summary document was also made available at libraries, Council service centres and on the Wellington City Council website. During the consultation period advertisements were placed in the Dominion Post and community newspapers.

### Karori Public Meeting

The Karori public meeting was held at Karori Normal School, at 7pm on Tuesday 24 August 2005. The meeting was facilitated by Councillors Andy Foster, Ian McKinnon and John Morrison.

Comments were made regarding minor changes to the proposals and other road safety issues for inclusion in the Karori Implementation Plan.

The following key milestones have been completed:

| Key Formal Consultation Dates | Karori  | Status |
|-------------------------------|---|--------|
| 22 March 2005                 | SaferRoads Technical Review group meeting to discuss and review detailed concept plans. | √      |
| 8 August 2005                 | Formal consultation commences   | √      |
| 24 August 2005                | Karori public meeting   | √      |
| 5 September 2005              | Consultation ends   | √      |
| September 2005                | Submissions reviewed  | √      |

### Karori Submissions

In total 308 formal submissions were received during the consultation period for Karori:

- 50 submissions were either in full agreement with all of the proposed initiatives or they listed the specific initiatives they agreed with.
- 194 submissions were in general agreement with the proposals subject to minor alterations.
- 64 submissions were either in total opposition to all of the proposed initiatives or they listed the specific initiatives they were opposed to.
- There were also requests for additional road safety initiatives that were not in the original proposal.

A summary of the submissions are included in the back of this document. A copy of all submissions and responses is available on request. They have not been included here because of the large volume of pages.

## Basic Elements of the SaferRoads Project for Karori

A number of fundamental elements of the project for Karori are described below. These elements will form an important part of reducing crashes in the Karori area. To meet the objectives of the *Road Safety to 2010* strategy it is proposed to introduce these fundamental elements over the whole study area. Such elements include a blanket 40 km/hr speed restriction except for Karori Road, implementing a priority control on every intersection and installing traffic calming measures to provide a safer community. It is also proposed to include landscaping which will include trees and low planting on concrete islands and kerb extensions where possible. The fundamental elements for Karori include the following:

- 40 km/hr speed limit on most residential streets
- priority controlled intersections
- implementation of no stopping restrictions for at least 10 metres at intersections
- engineering, enforcement and education packages to achieve the target accident reductions.

These elements and some of the other features of the SaferRoads project for Karori are explained in more detail below.

### Proposed Speed Reduction

The Land Transport Rule: Setting of Speed Limits 2003 allows road controlling authorities to set speed limits. This differs from the previous system where Councils had to apply to the Land Transport Safety Authority for them to make any changes. The new rule now allows for limits of less than 50 km/hr to be used. The following excerpt from the rule sets out where lower limits can be applied.

*3.2(6) A road controlling authority may propose to set a speed limit of less than 50 km/h but, unless section 4 applies, may only set the proposed speed limit if:*

- (a) the calculated speed limit for the relevant road is 50 km/h; and*
- (b) the proposed speed limit would be likely to increase the safety of pedestrians, cyclists or other road users; and*
- (c) safe and appropriate traffic engineering measures are installed so that the measured mean operating speed is within 5 km/h of the proposed speed limit.*

In assessing the proposal to lower the speed limit on local roads to 40km/hr we must test against the three criterias listed above.

- (a) The calculated limit on all residential streets in the area is 50km/hr
- (b) There is plenty of evidence to show the effect of speed in a crash involving a pedestrian or cyclist ie the probability of death of a pedestrian is five percent if hit by a vehicle travelling at 32 km/hr. 45% if hit by a vehicle travelling at 48km/hr, and 85% if hit by a vehicle travelling at 64 km/hr.
- (c) Once all of the traffic calming elements have been installed the mean speeds will be measured. There may need to be some additional works undertaken in some areas if speeds are significantly above the proposed 40 km/hr

While the proposal to reduce the speed limit in residential areas from 50 km/hr to 40 km/hr was contentious and has received much media coverage, there were limited submissions in opposition, and a number of submissions in support. It is therefore planned to continue with the proposal to reduce the speed limit.

The Government's Speed Setting Rule requires road controlling authorities to follow a specific process which enables the public to comment on proposed changes.

As outlined below, a lot more consultation still has to take place before the Council makes a final decision.

The following extract contains the criteria for consultation under the Speed Setting Rule.

### ***Consultation***

*7.1(1) Before setting a speed limit, or designating or changing an urban traffic area, a road controlling authority must consult with persons that may be affected by the proposed speed limit, in accordance with this section, unless section 4, section 5 or section 10 applies.*

*7.1(2) The persons that must be consulted in accordance with 7.1(1) are:*

- (a) road controlling authorities that are responsible for roads that join, or are near, the road on which the speed limit is to be set or changed*
- (b) a territorial authority that is affected by the existing or proposed speed limit*
- (c) any local community that the road controlling authority considers to be affected by the proposed speed limit*
- (d) the Commissioner*
- (e) the Chief Executive Officer of the New Zealand Automobile Association Incorporated*
- (f) the Chief Executive Officer of the Road Transport Forum New Zealand*
- (g) any other organisation or road user group that the road controlling authority considers to be affected by the proposed speed limit*
- (h) the Director.*

*7.1(3) A road controlling authority must consult by writing to the persons in 7.1(2) advising them of the proposed speed limit and giving them a reasonable time, which must be specified in the letter, to make submissions on the proposal.*

The SaferRoads team believes that reducing the average speed in Karori will have a dramatic effect on the number of crashes in the area. Lowering the speed limit is a significant component in reducing average speeds.

Some submitters have expressed concern about perceived delays and increased travel times; however, given that the areas where speed reduction is recommended are quiet residential streets, the difference in travel time would be minimal, if any. It is therefore not considered a valid reason for not proceeding with the proposed speed limit reduction.

## Traffic Signals

One of the key engineering measures for Karori SaferRoads is the introduction of traffic signals at key locations along Karori Road and Chaytor Street. The use of traffic signals has been carefully considered along with other intersection layouts such as roundabouts. Due to the road widths and traffic patterns along this route traffic signals are recommended as the most appropriate measure to provide motorists with safe right turning facilities and meet the pedestrian needs along this route.

Any change in the current intersection layout is likely to result in delays for some road users and to be beneficial for others. Vehicles turning from side roads onto Karori Road will find right turns much safer and will experience fewer delays at these locations, while motorists travelling along Karori Road may experience slight delays at the signals.

The benefits of installing traffic signals along Karori Road will be significant. They will provide drivers with safer accessibility to Karori Road from side streets and improve facilities for pedestrians, in particular at Donald and Campbell Streets.

The proposed traffic signals can be coordinated which will improve travel times and control vehicle speeds along Karori Road.

In addition to the signals proposed as part of this SaferRoads project, new traffic signals have already been approved for the intersection of Parkvale Road and Karori Road. These signals were planned as part of the upgrade of the Karori town centre and new library development.

While it is still our belief that signals at several strategic locations will significantly reduce the crash rate along Karori Road, it is now proposed to introduce signals over a longer period. This will enable both the Council and the community to gauge their effectiveness and any potential problems that may arise.

It is proposed to install traffic signals at the following locations during 2006:

Chaytor Street – Birdwood Street

Chaytor Street – Karori Road

Karori Road – Donald Street

Karori Road – Parkvale Road

Following a review of the effectiveness of these four sets of signals in addition to the existing signals at Marsden Village, Council will assess the need to introduce the remaining signals.

## Intersection Control

A number of accidents on Wellington roads are the result of motorists failing to give way at an intersection. This is usually due to a number of reasons which include speed, poor driver observation and failing to understand the give way to the right rule. Some work on the give way to the right rule has shown that significant safety improvements could be made if this law was changed to reflect the rest of the world. As no such law change is proposed at present, we believe it is appropriate to control all intersections to better guide motorists and improve safety at intersections.

As part of the SaferRoads project for Karori, it is our intention to control all intersections with either a give way sign or a stop sign. Exceptions to this are where other intersection controls are proposed such as traffic signals and roundabouts. The cost of implementing priority controls at all intersections in Karori is relatively small compared to the safety gains.

## No Stopping Restrictions at Intersections

As well as better controls, other changes are needed to make intersections safer and easier to use. A number of submitters believed further parking restrictions around intersections were needed so motorists exiting the side roads were able to see clearly. The current legal requirement for broken yellow lines around intersections is six metres. Acknowledging the concerns raised by local residents, it is proposed to increase the length of broken yellow lines at intersections to 10 metres. This will improve the safety at intersections by improving the visibility for vehicles exiting side roads.

## Intersection Median Islands (Splitter Islands)

There were a number of submissions commenting on the use of traffic islands as a traffic calming measure. The concerns included median islands impacting on narrow roads, slow vehicles making turning more difficult, and the islands being difficult for cyclists to negotiate. There were also comments that vehicles would not be able to do u-turns at intersections which had median islands.

The SaferRoads team believes that the installation of median islands will help to reduce the number of crashes in the area by highlighting intersections, slowing down turning traffic at junctions, providing a safe refuge for pedestrians, and enabling a second give way sign to be installed in the middle of the road. With regard to cyclists, a median island should make things safer. It is safer for cyclists to use the middle of the traffic lane at the intersection rather than skirting down the left hand side of the road way. An education campaign on safe cycling at intersections is planned.

Some submitters commented that islands would slow down emergency service vehicles on their way to an incident. In the design of the median islands we have made allowances for large vehicles to turn into and out of the side streets past these islands. Furthermore, these emergency vehicles must slow down as they use these intersections due to their size and the equipment they carry. It should also be noted that even emergency vehicles need to travel at speeds considered safe in the area they are travelling through. Accordingly, we do not believe median islands will impact on the actual speed emergency vehicles would negotiate a corner with or without a median island.

Allowances will be made for pedestrians in the construction of the islands so that people can cross the road safely one lane at a time by pausing on the road between the islands. Studies have shown that the introduction of median islands at intersections improves road safety at these locations by about 40 percent.

## Collector Roads

In the process of setting up SaferRoads within this area we identified three types of roads: main roads, collector roads and local roads.

- main roads are readily identifiable and the speed limit will remain at 50 km/hr on these main roads
- local roads are those roads with residential housing which are generally not used to traverse the suburb. It is proposed that local roads will have a speed limit of 40 km/hr
- collector roads are often residential in character but these roads traverse the suburb and allow drivers to travel from local streets to main roads.

Many submitters suggested that collector roads should also be reduced to 40 km/hr. Furthermore, actual speeds on many of the potential collector roads in Karori are already around 40 km/hr. Accordingly, the introduction of a 40 km/hr area within Karori would have no noticeable difference to the existing speeds observed on these roads.

The proposed reduction in speed for all roads in Karori except for Karori Road would provide consistency across the network of local roads while at the same time improving safety.

As noted above, a reduction in the posted speed limit can have a significant effect on reducing the number of injury crashes on the road network. Overseas research shows a vehicle travelling at 50 km/hr striking a pedestrian is likely to result in an injury crash. Whereas a vehicle travelling at 40 km/hr significantly reduces the chance of an injury accident occurring.

## Driver Feedback Signs

Driver feedback signs have been used successfully overseas and in Wellington to address speed concerns and educate drivers to change their driving behaviour. These signs show approaching motorists their speed and when they are travelling too fast the feedback sign displays “Slow Now”, encouraging them to reduce their speed.

Wellington is the first city in New Zealand to introduce these signs as an alternative to speed cameras. These signs are already installed along certain arterial routes on the Wellington city road network. While the surveys regarding their effectiveness are still being carried out, early results show that there has been a significant speed reduction at these sites.

## Landscaping

An important part of the road safety improvements for Karori will include landscaping on roundabouts and some median islands. This landscaping will typically be low planting which will improve their appearance without reducing visibility. The planting will also improve the streetscape and make the residential streets appear more residential. Some landscaping features may include larger trees. The location of these trees will be such that they will not become a hazard in their own right.

## Safer Routes to School

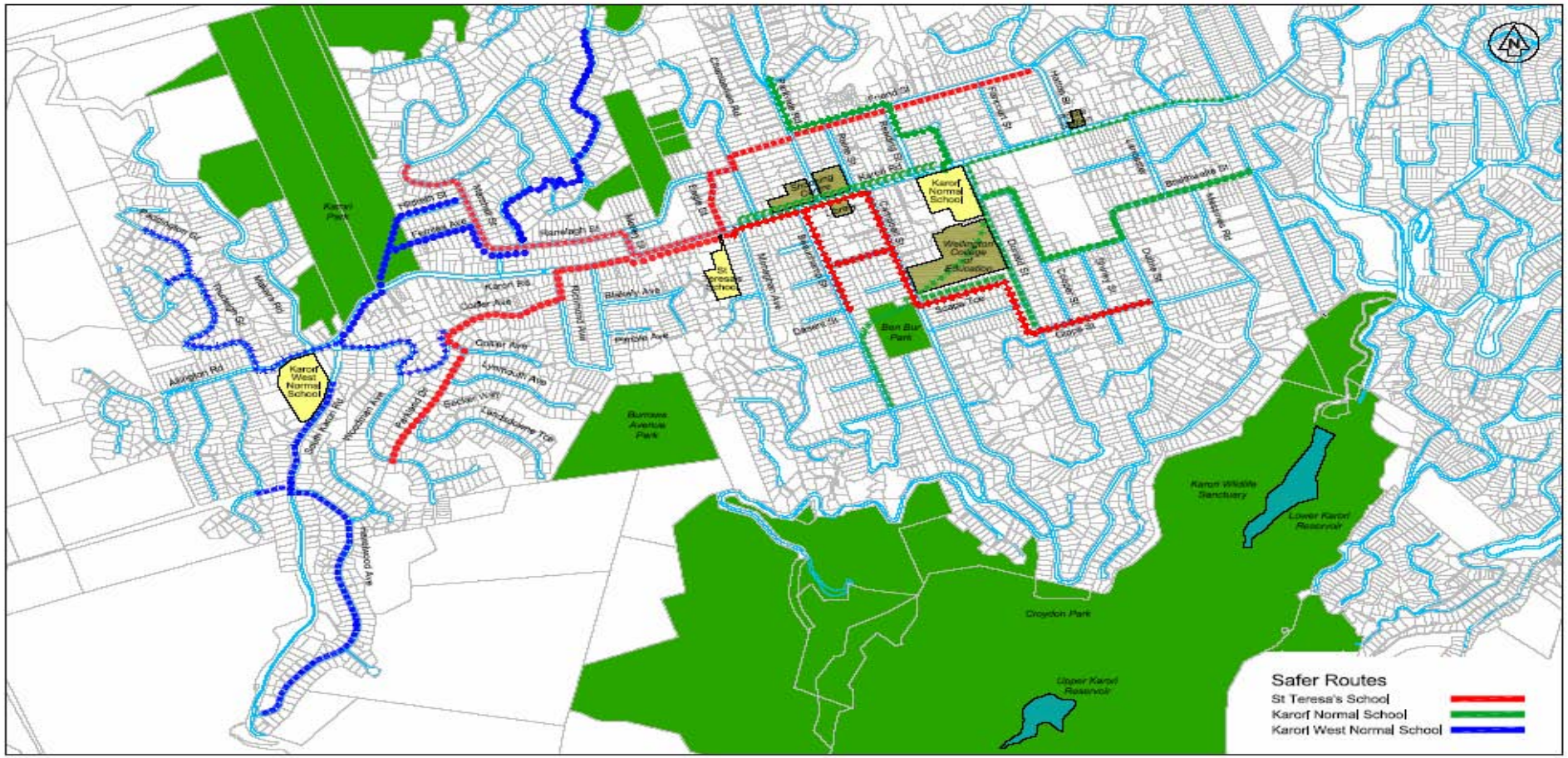
Karori Normal School, St Teresa's School and Karori West Normal School have actively been participating in the Safer Routes to School programme.

Meetings have been held with all three schools individually as well as a combined meeting. Engineering, education and enforcement issues for the school communities have been highlighted and discussed and solutions have been sought.

Council officers, representatives from the schools, parents, children, and in some cases classes of children, walked the routes. Potential hazards were identified so that changes can be made to help make each route safer.

Education and enforcement is currently ongoing as the schools continue to educate about road safety and as the Council parking enforcement officer regularly monitors parking behaviour near the school gate.

Once the engineering changes have taken place the Council will work closely with the schools to try and encourage more families to walk.



**Duffill Watts & Tse Ltd**  
CONSULTING ENGINEERS

**SAFER ROUTES  
TO SCHOOLS - KARORI  
COMBINED SCHOOLS  
15 August 2005**

**Absolutely  
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## Roundabout Education Campaigns

It is proposed to run campaigns in Karori to educate and inform the public about the road changes planned for the three intersections where roundabouts will be installed.

## Cyclist Education Campaigns

It is proposed to run campaigns in Wellington and Karori to educate both motorists and cyclists about appropriate road behaviour and safe driving practices.

## Speed Limit Change Education Campaigns

If the Council agrees to reduce speed limits as proposed, there will be extensive publicity throughout the Karori community and the wider city outlining the reasons for the changes and how they will be introduced. Publicity will continue during and after the speed limits have been introduced. Initial public notification about speed limit changes elsewhere in the city will begin early next year. A specific campaign for Karori will commence at the time of the consultation towards the end of the year.

## Parking Enforcement Campaigns

The Council employs a dedicated parking warden who works closely with schools to provide education on safe parking practices. The warden concentrates on targeting parking infringements which create a hazard rather than time related offences.

## Final Implementation Table

All initiatives with a high priority will be constructed. All initiatives that are provisional will be constructed if the high priority initiatives do not run over budget.

**DFC:** Deferred as further consultation is required.

**DBC:** Deferred due to budget constraint.

**Prov:** Provisional.

**Note:** Text in bold refers to changes made to the draft implementation plan outlined in the Karori Proposal.

## Education

| Location       | Road Safety Initiative           | Reviewed Priority | Cost Estimate |
|----------------|----------------------------------|-------------------|---------------|
| Karori schools | Safer Routes to School programme | High              | \$30,000      |
| City-wide      | Pedestrian awareness campaign    | High              | \$1000        |
| City-wide      | Cycle awareness campaign         | Medium            | \$1000        |
| Karori         | Speed limit awareness campaign   | High              | \$15,000      |

## Enforcement

| Location            | Road Safety Initiative                   | Reviewed Priority | Cost Estimate |
|---------------------|--|-------------------|---------------|
| Karori Road         | Driver feedback signs                    | High              | \$45,000      |
| All roads in Karori | Targeted road policing                   | High              | N/A           |
| City-wide           | Contribution to additional parking staff | High              | \$10,000      |

## Engineering

| Location                            | Road Safety Initiative   | Ref No. | Priority      | Cost Estimate  |
|-------------------------------------|--|---------|---------------|----------------|
| Various sites                       | Threshold pavements (coloured road surfaces)   |         |               | 80,000         |
| Most residential streets            | 50 km/hr to 40 km/hr speed reduction   |         |               | 20,000         |
| Karori Road/ Old Karori Road        | Traffic signals and median islands   | KSR01   | High          | 115,000        |
| Karori Road/ Flers Street           | Kerb extension and traffic calming ramp. <b>(Delete preferred option KSR04).</b>           | KSR02   | <b>Delete</b> |                |
| Karori Road/ Flers Street           | Kerb extension and median island. <b>(Delete preferred option KSR04).</b>                  | KSR03   | <b>Delete</b> |                |
| Karori Road/ Flers Street           | Kerb extension, median island and ramp   | KSR04   | <b>High</b>   | <b>15,200</b>  |
| Karori Road/ Lancaster Street       | Traffic signals  | KSR05   | <b>DBC</b>    | <b>91,000</b>  |
| Karori Road/ Hatton Street          | Traffic signals  | KSR06   | <b>DBC</b>    | <b>96,000</b>  |
| Karori Road/ Donald Street          | Traffic signals  | KSR07   | High          | 96,000         |
| Chaytor Street/ Birdwood Street     | Traffic signals  | KSR08   | High          | 120,000        |
| Karori Road/ Reading Street         | Median island  | KSR09   | <b>DBC</b>    | <b>3500</b>    |
| Karori Road/ Campbell/Raine Streets | Traffic signals  | KSR10   | <b>DCR</b>    | <b>135,000</b> |
| Karori Road/ Campbell/Raine Streets | Traffic signals. <b>(Delete preferred option KSR11).</b>                                   | KSR11   | <b>Delete</b> |                |
| Karori Road/ Chamberlain Road       | Kerb extension and median island   | KSR12   | High          | 17,800         |
| Karori Road/ Chamberlain Road       | Kerb extensions and median islands. <b>(Delete preferred option KSR12).</b>                | KSR13   | <b>Delete</b> | <b>8100</b>    |
| Karori Road/ Monaghan Avenue        | Give way and flush median. <b>(Also widen out intersection and install median island).</b> | KSR14   | <b>High</b>   | <b>9000</b>    |
| Karori Road/ Morley Street          | Median island  | KSR15   | High          | 2500           |
| Karori Road/ Burrows Avenue         | Give way and flush median  | KSR16   | <b>High</b>   | <b>600</b>     |

| Location                             | Road Safety Initiative   | Ref No. | Priority | Cost Estimate |
|--------------------------------------|--|---------|----------|---------------|
| Karori Road/ Burrows Avenue          | Give way, flush median and traffic calming ramp. <b>(Delete preferred option KSR16).</b>   | KSR17   | Delete   |               |
| Karori Road/ Richmond Avenue         | Give way and flush median  | KSR18   | High     | 600           |
| Karori Road/ Richmond Avenue         | Give way, flush median and traffic calming ramp. <b>(Delete preferred option KSR18).</b>   | KSR19   | Delete   |               |
| Karori Road/ Tringham Street         | Kerb extension and median island. <b>(Also widen out intersection and install median island).</b>  | KSR20   | High     | 20,000        |
| Karori Road                          | Kerb extension and median island   | KSR21   | High     | 5500          |
| Karori Road                          | Kerb extension and median island   | KSR22   | High     | 5500          |
| Karori Road/ South Karori Road       | Kerb extensions. <b>(Delete preferred option KSR24).</b>   | KSR23   | Delete   |               |
| Karori Road/ South Karori Road       | Kerb extensions  | KSR24   | DBC      | 21,300        |
| Allington Road/ Makara Road          | Kerb extension and median island. <b>(Delete the western side kerb).</b>   | KSR25   | DCR      | 16,000        |
| Allington Road/ Thurleigh Grove      | Roundabout and kerb extension. <b>(Include extension to broken yellow lines up Thurleigh Grove.)</b>   | KSR26   | High     | 26,000        |
| Allington Road/ Thurleigh Grove      | Kerb extension. <b>(Delete preferred option KSR26).</b>  | KSR27   | Delete   |               |
| Birdwood Street/ Mallam Street       | Kerb extension and median island. <b>(Include median islands 60 metres from intersection on Birdwood Street and extend the flush median).</b>    | KSR28   | Prov.    | 9700          |
| Lancaster Street/ Marsden Avenue     | Kerb extensions  | KSR29   | DBC      | 6100          |
| Lancaster Street/ Marsden Avenue     | Kerb extensions and traffic calming ramp. <b>(Delete preferred option KSR29).</b>  | KSR30   | Delete   |               |
| Braithwaite Street/ Lancaster Street | Kerb extensions and median islands. <b>(Delete preferred option KSR32 subject to detailed design).</b>   | KSR31   | Delete   |               |
| Braithwaite Street/ Lancaster Street | Roundabout and kerb extension. <b>(Subject to detailed design).</b>  | KSR32   | High     | 34,000        |
| Braithwaite Street/ Messines Road    | Kerb extension   | KSR33   | DCR      | 3500          |
| Messines Road/ Plymouth Street       | Median island  | KSR34   | Prov.    | 2500          |
| Duthie/Gipps/ Plymouth Streets       | Median islands and kerb realignment  | KSR35   | Prov.    | 14,400        |
| Duthie Street/ Vera Street           | Traffic calming ramp. <b>(Change to speed hump and allow for humps along Vera Street every 90 metres; refer to new initiatives table below).</b> | KSR36   | High     | 12,000        |
| Gipps Street/ Shirley Street         | Roundabout   | KSR37   | DCR      | 18,800        |
| Gipps Street/ Cooper Street          | Traffic calming ramp   | KSR38   | DCR      | 6100          |
| Cooper Street/ Vera Street           | Traffic calming ramp. <b>(Change ramp to speed hump. Change priority).</b>   | KSR39   | DCR      | 5500          |
| Donald Street/ Gipps Street          | Median Island  | KSR40   | High     | 5900          |
| Croydon Street/ Wrights Hill Road    | Roundabout and kerb extension. <b>(New initiatives proposed along Campbell Street. See table below).</b>   | KSR41   | Delete   |               |

| Location                               | Road Safety Initiative   | Ref No. | Priority | Cost Estimate |
|--|--|---------|----------|---------------|
| Croydon Street/<br>Versailles Street   | Give way and flush median  | KSR42   | High     | 500           |
| Scapa Terrace                          | Planted island (close street). <b>(Delete preferred option KSR44).</b>   | KSR43   | Delete   |               |
| Scapa Terrace                          | Chicane. <b>(Design will include landscaping).</b>   | KSR44   | Prov.    | 5000          |
| Lewer Street/ Campbell Street          | Kerb extensions and median island  | KSR45   | Prov.    | 17,800        |
| Campbell Street/ Scapa Terrace         | Traffic calming ramp. <b>(Delete preferred option KSR47).</b>  | KSR46   | Delete   |               |
| Campbell Street/ Scapa Terrace         | Kerb extensions and traffic calming ramp. <b>(Also widen out intersection and install median island).</b>                              | KSR47   | High     | 16,500        |
| Donald Street/ Scapa Terrace           | Traffic calming ramp. <b>(Speed hump instead of ramp).</b>   | KSR48   | DCR      | 3000          |
| Campbell Street/ Lewer Street          | Kerb extensions. <b>(Delete preferred option KSR45).</b>   | KSR49   | Delete   |               |
| Beauchamp Street/<br>Lewer Street      | Kerb extensions. <b>(Delete preferred option KSR45).</b>   | KSR50   | Delete   |               |
| Verviers Street/<br>Beauchamp Street   | Give way and flush median  | KSR51   | High     | 400           |
| Verviers Street/ Kano Street           | Roundabout   | KSR52   | DCR      | 36,700        |
| Verviers Street/<br>Campbell Street    | Give way and flush median  | KSR53   | High     | 400           |
| Monaghan Avenue/<br>Paparata Street    | Give way and flush median  | KSR54   | High     | 500           |
| Monaghan Avenue/<br>Hawick Street      | Median island. <b>(Move median island further out to assist visibility uphill).</b>  | KSR55   | High     | 2900          |
| Collier Avenue/<br>Parklands Drive     | Kerb extension. <b>(Reverse priority, install median island on Parklands Drive).</b>   | KSR56   | DCR      | 4400          |
| Parklands Drive/<br>Landsdowne Terrace | Give way and flush median  | KSR57   | High     | 400           |
| Woodhouse Avenue/<br>Parklands Drive   | Kerb extension   | KSR58   | High     | 6400          |
| Old Karori Road/<br>Rosehaugh Avenue   | One way  | KSR59   | High     | 900           |
| Whitehead Street/<br>Seaforth Terrace  | Kerb extension. <b>(Retain Seaforth as two way and provide turning area with appropriate signal T junction with Rosehaugh Avenue).</b> | KSR60   | High     | 9200          |
| Standen Street                         | Speed hump   | KSR61   | Prov.    | 3500          |
| Standen Street                         | Speed hump   | KSR62   | Prov.    | 3500          |
| Standen Street                         | Speed hump   | KSR63   | Prov.    | 3500          |
| Standen Street                         | Speed hump   | KSR64   | Prov.    | 3500          |
| Standen Street/ Cross Street           | Give way   | KSR65   | High     | 400           |
| Nottingham Street                      | Speed hump   | KSR66   | Prov.    | 3500          |

| Location  | Road Safety Initiative   | Ref No. | Priority | Cost Estimate |
|---|--|---------|----------|---------------|
| Nottingham Street                                 | Speed hump   | KSR67   | Prov.    | 3500          |
| Nottingham Street                                 | Speed hump   | KSR68   | Prov.    | 3500          |
| Nottingham Street                                 | Speed hump   | KSR69   | Prov.    | 3500          |
| Karori Road/ Homewood Avenue                      | Kerb extension and traffic calming ramp. <b>(Also consider median island and kerb realignment as part of the detailed design).</b> | KSR70   | High     | 9200          |
| Homewood Avenue/ Homewood Crescent                | Roundabout and speed hump  | KSR71   | Prov.    | 17,500        |
| Hauraki Street/ Hatton Street                     | Kerb extensions. <b>(Delete preferred design KSR73).</b>   | KSR72   | Delete   |               |
| Hauraki Street/ Hatton Street                     | Roundabout and kerb extension  | KSR73   | Prov.    | 29,700        |
| Reading Street/ Newcombe Crescent                 | Traffic calming ramp   | KSR74   | Delete   |               |
| Parkvale Road/ Friend Street/ Samuel Parnell Road | Median island  | KSR75   | DCR      | 5100          |
| Samuel Parnell Road/ Chamberlain Road             | Flush medians  | KSR76   | DCR      | 2000          |
| Darwin Street/ Eagle Street                       | Median island  | KSR77   | High     | 1700          |
| Ranelagh Street/ Morley Street                    | Median island  | KSR78   | High     | 2100          |
| Ranelagh Street/ Sunshine Avenue                  | Median island  | KSR79   | High     | 2400          |
| Tringham Street/ Ranelagh Street                  | Kerb extension and median island. <b>(Consider kerb realignment of Ranelagh Street as part of the detailed design).</b>            | KSR80   | High     | 9500          |
| Marshall Street/ Fernlea Avenue                   | Traffic calming ramp. <b>(Delete ramp and install median island).</b>  | KSR81   | Prov.    | 2100          |
| Marshall Street/ Hildreth Street                  | Traffic calming ramp. <b>(Delete ramp and install median island).</b>  | KSR82   | Prov.    | 2100          |
| Sunshine Avenue/ Percy Dyett Drive                | Pedestrian ramps   | KSR83   | High     | 2100          |
| Sunshine Avenue                                   | Kerb extensions and splitter island  | KSR84   | Prov.    | 11,700        |
| Victory Avenue/ Tobruk Street                     | Roundabout   | KSR85   | DBC      | 12,000        |
| Victory Avenue/ Montgomery Avenue                 | Kerb extensions and median island  | KSR86   | High     | 9900          |
| Parkvale Road/ Canterbury Street                  | Give way and flush median  | KSR87   | High     | 600           |
| Parkvale Road/ David Crescent                     | Speed hump. <b>(Install another two speed humps south of David Crescent at 70 metre spacings).</b>                                 | KSR88   | High     | 9000          |
| Parkvale Road/ Cornford Street                    | Kerb extension. <b>(Delete preferred option KSR88).</b>  | KSR89   | Delete   |               |
| South Karori Road                                 | Traffic calming ramp. <b>(Change to speed humps at 130 metre spacings).</b>  | KSR90   | High     | 25,000        |

| Location                               | Road Safety Initiative   | Ref No. | Priority | Cost Estimate |
|--|--|---------|----------|---------------|
| South Karori Road/<br>Hazelwood Avenue | Give way   | KSR91   | High     | 400           |
| South Karori Road                      | Traffic calming ramp. <b>(Change to speed humps at 130 metre spacings).</b>                            | KSR92   | High     | 4500          |
| South Karori Road/<br>Hazelwood Avenue | Traffic calming ramp and give way. <b>(Change to speed humps at 130 metre spacings).</b>               | KSR93   | High     | 4900          |
| Thurleigh Grove/<br>Paddington Grove   | Give way   | KSR94   | High     | 450           |
| Makara Road/ Khouri<br>Avenue          | Give way and flush median. <b>(Install flush median on Makara Road similar to KSR28).</b>              | KSR95   | High     | 1500          |
| Friend Street                          | Right hand turn bays   | KSR96   | High     | 1800          |
| Monaghan Avenue                        | Traffic calming ramp. <b>(Change to speed humps at 200 metre spacings).</b>                            | KSR97   | High     | 4500          |
| Monaghan Avenue                        | Traffic calming ramp and give way. <b>(Change to speed humps at 200 metre spacings).</b>               | KSR98   | High     | 4500          |
| Monaghan Avenue                        | Traffic calming ramp. <b>(Change to speed humps at 200 metre spacings).</b>                            | KSR99   | High     | 4500          |
| Karori Road/ Eagle<br>Street           | Traffic calming ramp and give way  | KSR100  | DBC      | 4900          |
| Karori Road/ Eagle<br>Street           | Planted island (close street). <b>(Delete preferred option KSR100).</b>                                | KSR101  | Delete   |               |
| Karori Road                            | Edgelines  | KSR102  | High     | 3000          |
| Donald Street/ Cooper<br>Street        | Traffic calming ramp, kerb extension and give way. <b>(Change to kerb widening and median island).</b> | KSR103  | High     | 7500          |
| Donald Street                          | Kerb extension and school crossing   | KSR104  | High     | 8000          |
| Donald Street/ Firth<br>Terrace        | Give way, painted median and traffic calming ramp  | KSR105  | DCR      | 2000          |
| Campbell Street/ Firth<br>Terrace      | Kerb extensions and median island  | KSR106  | Prov.    | 6000          |
| Karori Road/ Standen<br>Street         | Median island  | KSR107  | High     | 2800          |
| Karori Road/ Nottingham<br>Street      | Trimming existing median island  | KSR108  | High     | 3100          |
| Friend Street/ Raine<br>Street         | Median island. <b>(Design needs to consider large trucks from Mall).</b>                               | KSR109  | Prov.    | 3500          |
| Chaytor Street/ Curtis<br>Street       | Traffic signals  | KSR110  | DCR      | 140,000       |
| Friend Street/<br>Homewood Avenue      | Traffic calming ramp   | KSR111  | Delete   |               |
| Cargill Street/ Campbell<br>Street     | Traffic calming ramps and kerb extensions  | KSR112  | DBC      | 11,400        |
| Duthie Street/<br>Braithwaite Street   | Flush median. <b>(Delete preferred option KSR116).</b>   | KSR113  | Delete   |               |
| Duthie Street/<br>Braithwaite Street   | Flush median and speed hump. <b>(Delete preferred option KSR116).</b>                                  | KSR114  | Delete   |               |
| Duthie Street/<br>Braithwaite Street   | Flush median and median island. <b>(Delete preferred option KSR116).</b>                               | KSR115  | Delete   |               |

| Location   | Road Safety Initiative       | Ref No. | Priority | Cost Estimate |
|--|------------------------------|---------|----------|---------------|
| Duthie Street/<br>Braithwaite Street             | Flush median and speed humps | KSR116  | Prov.    | 7700          |
| Duthie Street/<br>Braithwaite to Gipps<br>Street | Speed humps                  | KSR117  | Prov.    | 7000          |

## New Initiatives

| Location                           | Road Safety Initiative   | Cost Estimate |
|------------------------------------|--|---------------|
| Karori Road                        | Gateway treatments at the end of the Karori Mall shopping precinct.  | 20,000        |
| Duthie Street                      | Speed humps every 200 metres along the route.  | 7000          |
| Vera Street                        | Change priority at the intersection from Cooper Street into Vera Street. Design must include deflection.   | 15,000        |
| Cooper Street                      | Traffic calming hump at southern end of Cooper Street where footpath ends.<br>Install three humps on Copper Street between Vera Street and the corner to the north.<br>Improvements at the end of Cooper Street and Donald Street should assist with this matter. Also the pedestrian crossing is being moved. | 25,000        |
| Beauchamp Street                   | Install two flush median islands at Lower Street with trees.<br>Install three speed humps between Tisdall Street and Dasent Street.  | 17,000        |
| Hathaway Avenue                    | Install humps at either side of blind bend.  | 5000          |
| Hatton Street/ Karori Road         | Provide edgelines for better guidance for motorists turning left.  | 200           |
| Kano Street                        | Install street trees on street south of Verviers Street.   | 15,000        |
| Makara Road/ Khouri Avenue         | Clear scrub from bank.   | 1000          |
| Marshall Street                    | Install median islands with trees. Median islands for Hildreth Street and Fernlea Avenue.  | 15,000        |
| Newcombe Crescent                  | Paint centre line and edgelines around bend on street.   | 250           |
| Ranelagh Street/ Marshall Street   | Realign southern kerb and move median island to the south.   | 15,000        |
| Voltaire Street/ Wrights Hill Road | Will try and trim banks up and down the hill and move intersection downhill to improve the visibility to the left.<br>Install median island and move to centre line to increase visibility.  | 10,000        |
| Campbell Street                    | Install median island just south of Teachers College entrance and also near number 73.<br>Construct traffic calming ramp mid block proposed treatments for Scapa Terrace.  | 20,000        |

| Location        | Road Safety Initiative   | Cost Estimate |
|-----------------|--|---------------|
| Campbell Street | Kerb extensions including landscaping from Verviers Street to Bourbon Terrace. | 10,000        |
| Campbell Street | Speed humps along section from Lewer Street to Firth Terrace.                  | 7000          |
| All initiatives | Provision for landscaping  | 100,000       |
| Total           |  | 182,450       |

## Programming

Physical construction in Karori will be carried out by Works Infrastructure Ltd under the direction and supervision of GHD Ltd. It is expected that construction will commence in April/May 2006.

The parties directly affected by the planned works will be notified by Council officers prior to construction work commencing. For more information regarding SaferRoads implementation in Karori please contact:

Craig Mason  
Contract Manager  
Phone: 801 3482  
Email: craig.mason@wcc.govt.nz

For information regarding driver feedback signs, speed limits and the consultation process, please contact:

Paul Barker  
Road Safety Manager  
Phone: 801 3266  
Email: paul.barker@wcc.govt.nz

For information on the *Safer Routes to School* programme, please contact:

Kate Brockett  
Road Safety Co-ordinator  
Phone: 801 3717  
Email: kate.brockett@wcc.govt.nz

## Budget

It is estimated that the total expenditure for Karori SaferRoads and associated projects will be \$1.5 million.

## Conclusion

The proposed road safety changes for Karori concentrate on reducing vehicle speeds on all roads using engineering, education and enforcement initiatives including:

- installing traffic features as listed in the implementation table
- increased speed education and enforcement including the installation of driver speed feedback signs and targeted road policing
- increasing parking enforcement especially around schools and shopping villages
- implementing school and community education campaigns about road safety and the dangers of excessive speed.

This Implementation Plan has been approved by the SaferRoads Steering Committee which endorses the project proceeding to implementation and construction.

Funding for the implementation of this work has been approved through the Annual Plan and was made available on 1 July 2005.

## Appendix 1 – Karori Submission Summary

(Text in bold indicates a change from the original proposal).

| Location                            | Road safety initiative                        | Ref. No. | Priority | High | Med | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation          |
|-------------------------------------|---|----------|----------|------|-----|-----|---------|-------------|--------------------------|----------------------------------|
| Various sites                       | Threshold pavements (coloured road surfacing) |          | High     |      |     | 1   | 6       |             |                          | Proceed                          |
| Most residential streets            | 50 km/hr to 40 km/hr speed restriction        |          | High     | 9    |     | 1   | 40      | 4           | 87%                      | Proceed                          |
| Karori Road/ Old Karori Road        | Traffic signals and median islands            | KSR01    | High     | 6    | 2   | 3   | 14      | 4           | 95%                      | Proceed                          |
| Karori Road/ Flers Street           | Kerb extension and traffic calming ramp       | KSR02    | Low      | 2    |     | 1   | 8       |             |                          | Delete (Preferred option KSR04)  |
| Karori Road/ Flers Street           | Kerb extension and median island              | KSR03    | Low      |      |     | 1   | 6       |             |                          | Delete (Preferred option KSR04)  |
| Karori Road/ Flers Street           | Kerb extension, median island and ramp        | KSR04    | High     | 4    |     |     | 4       |             |                          | Proceed                          |
| Karori Road/ Lancaster Street       | Traffic signals                               | KSR05    | Medium   | 2    | 1   | 5   | 25      | 3           | 91%                      | Deferred – budget constraint     |
| Karori Road/ Hatton Street          | Traffic signals                               | KSR06    | Medium   | 2    |     | 5   | 25      | 2           | 91%                      | Deferred – budget constraint     |
| Karori Road/ Donald Street          | Traffic signals                               | KSR07    | High     | 8    |     | 4   | 20      | 4           | 93%                      | Proceed                          |
| Chaytor Street/ Birdwood Street     | Traffic signals                               | KSR08    | High     | 7    |     | 1   | 21      | 4           | 93%                      | Proceed                          |
| Karori Road/ Reading Street         | Median island                                 | KSR09    | Medium   |      |     |     | 2       |             |                          | Deferred – budget constraint     |
| Karori Road/ Campbell/Raine Streets | Traffic signals                               | KSR10    | High     | 8    |     | 6   | 16      | 1           | 94%                      | Deferred – consultation required |

| Location                                  | Road safety initiative   | Ref. No. | Priority | High | Med | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation                |
|---|--|----------|----------|------|-----|-----|---------|-------------|--------------------------|--|
| Karori Road/<br>Campbell/Raine<br>Streets | Traffic signals  | KSR11    | Low      | 4    |     | 6   | 13      | 1           | 95%                      | Delete<br>(Preferred option<br>KSR11). |
| Karori Road/<br>Chamberlain Road          | Kerb extension and<br>median island  | KSR12    | High     | 2    |     | 1   | 6       |             |                          | Proceed                                |
| Karori Road/<br>Chamberlain Road          | Kerb extensions and<br>median islands  | KSR13    | Low      |      | 1   | 1   | 3       | 1           |                          | Delete<br>(Preferred option<br>KSR12). |
| Karori Road/<br>Monaghan Avenue           | Give way and flush<br>median. (Also widen<br>out intersection and<br>install median<br>island).        | KSR14    | High     |      |     |     | 2       |             |                          | Proceed                                |
| Karori Road/<br>Morley Street             | Median island  | KSR15    | High     |      | 1   |     | 1       |             |                          | Proceed                                |
| Karori Road/<br>Burrows Avenue            | Give way and flush<br>median   | KSR16    | High     |      |     |     | 1       |             |                          | Proceed                                |
| Karori Road/<br>Burrows Avenue            | Give way, flush median<br>and traffic calming<br>ramp  | KSR17    | High     |      |     |     | 3       |             |                          | Delete<br>(Preferred option<br>KSR16). |
| Karori Road/<br>Richmond Avenue           | Give way and flush<br>median   | KSR18    | High     |      |     |     | 2       |             |                          | Proceed                                |
| Karori Road/<br>Richmond Avenue           | Give way, flush median<br>and traffic calming<br>ramp  | KSR19    | High     |      |     |     | 2       | 1           |                          | Delete<br>(Preferred option<br>KSR18). |
| Karori Road/<br>Tringham Street           | Kerb extension and<br>median island. (Also<br>widen out intersection<br>and install median<br>island). | KSR20    | High     | 1    |     | 1   | 3       | 1           |                          | Proceed                                |
| Karori Road                               | Kerb extension and<br>median island  | KSR21    | High     | 1    |     | 1   | 2       |             |                          | Proceed                                |
| Karori Road                               | Kerb extension and<br>median island  | KSR22    | High     | 1    |     | 1   | 1       | 1           |                          | Proceed                                |

| Location                                | Road safety initiative  | Ref. No. | Priority | High | Med | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation  |
|---|---|----------|----------|------|-----|-----|---------|-------------|--------------------------|--|
| Karori Road/<br>South Karori Road       | Kerb extensions   | KSR23    | Low      |      | 1   | 1   | 3       |             |                          | Delete<br>(Preferred option<br>KSR24).                               |
| Karori Road/<br>South Karori Road       | Kerb extensions   | KSR24    | Medium   |      | 1   | 1   | 3       |             |                          | Deferred –<br>budget constraint                                      |
| Allington Road/<br>Makara Road          | Kerb extension and<br>median island   | KSR25    | High     | 1    | 1   |     | 3       | 1           |                          | Deferred –<br>consultation<br>required                               |
| Allington Road/<br>Thurleigh Grove      | Roundabout and kerb<br>extension. <b>(Include<br/>extension to broken<br/>yellow lines up<br/>Thurleigh Grove).</b>   | KSR26    | High     |      |     | 1   | 9       |             |                          | Proceed  |
| Allington Road/<br>Thurleigh Grove      | Kerb extension  | KSR27    | Medium   | 1    | 1   | 2   | 2       |             |                          | Delete<br>(Preferred option<br>KSR26).                               |
| Birdwood Street/<br>Mallam Street       | Kerb extension and<br>median island.<br><b>(Include median<br/>islands 60 metres<br/>from intersection on<br/>Birdwood Street and<br/>extend the flush<br/>median).</b> | KSR28    | Medium   |      |     |     | 1       | 1           |                          | Proceed  |
| Lancaster Street/<br>Marsden Avenue     | Kerb extensions   | KSR29    | Low      |      |     | 1   | 3       | 1           |                          | Deferred –<br>budget constraint                                      |
| Lancaster Street/<br>Marsden Avenue     | Kerb extensions and<br>traffic calming ramp   | KSR30    | Medium   |      |     |     | 5       |             |                          | Delete<br>(Preferred option<br>KSR29).                               |
| Braithwaite Street/<br>Lancaster Street | Kerb extensions and<br>median islands   | KSR31    | Low      | 2    |     | 1   | 7       | 1           |                          | Delete<br>(Preferred option<br>KSR32 subject to<br>detailed design). |
| Braithwaite Street/<br>Lancaster Street | Roundabout and kerb<br>extension. <b>(Subject to<br/>detailed design).</b>  | KSR32    | High     | 2    |     |     | 14      | 2           | 95%                      | Proceed  |
| Braithwaite Street/<br>Messines Road    | Kerb extension  | KSR33    | Low      | 1    |     |     | 1       | 1           |                          | Deferred –<br>consultation<br>required                               |

| Location                             | Road safety initiative   | Ref. No. | Priority | High | Med | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation   |
|--------------------------------------|--|----------|----------|------|-----|-----|---------|-------------|--------------------------|---|
| Messines Road/<br>Plymouth Street    | Median island  | KSR34    | Medium   |      |     | 1   |         | 1           |                          | Proceed   |
| Duthie/Gipps/<br>Plymouth Streets    | Median islands and<br>kerb realignment   | KSR35    | Medium   |      |     |     |         | 2           |                          | Proceed   |
| Duthie Street/<br>Vera Street        | Traffic calming ramp.<br><b>(Change to speed<br/>hump and allow for<br/>humps along Vera<br/>Street every 90<br/>metres; refer new<br/>initiatives table).</b> | KSR36    | High     | 1    |     |     | 2       | 1           |                          | Proceed   |
| Gipps Street/<br>Shirley Street      | Roundabout   | KSR37    | Medium   |      |     |     | 12      | 2           | 96%                      | Deferred –<br>consultation<br>required  |
| Gipps Street/<br>Cooper Street       | Traffic calming ramp   | KSR38    | High     |      |     |     | 5       | 1           |                          | Deferred –<br>consultation<br>required  |
| Cooper Street/<br>Vera Street        | Traffic calming ramp   | KSR39    | High     |      |     |     | 3       |             |                          | Deferred –<br>consultation<br>required  |
| Donald Street/<br>Gipps Street       | Median island  | KSR40    | High     |      |     |     | 3       |             |                          | Proceed   |
| Croydon Street/<br>Wrights Hill Road | Roundabout and kerb<br>extension   | KSR41    | Medium   |      |     |     | 5       |             |                          | Delete<br>(New initiatives<br>proposed along<br>Campbell Street.<br>See table below). |
| Croydon Street/<br>Versailles Street | Give way and flush<br>median   | KSR42    | High     |      | 1   |     |         | 2           |                          | Proceed   |
| Scapa Terrace                        | Planted island (close<br>street)   | KSR43    | High     |      |     |     | 9       | 1           |                          | Delete<br>(Preferred option<br>KSR44).  |
| Scapa Terrace                        | Chicane. <b>(Design<br/>must include<br/>landscaping).</b>   | KSR44    | Medium   |      | 1   |     | 2       | 1           |                          | Proceed   |
| Lewer Street/<br>Campbell Street     | Kerb extensions and<br>median island   | KSR45    | Medium   | 1    | 1   |     | 2       | 2           |                          | Proceed   |
| Campbell Street/<br>Scapa Terrace    | Traffic calming ramp   | KSR46    | High     | 1    |     |     | 1       |             |                          | Delete<br>(Preferred option<br>KSR47).  |

| Location                               | Road safety initiative  | Ref. No. | Priority | High | Med | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation          |
|--|---|----------|----------|------|-----|-----|---------|-------------|--------------------------|----------------------------------|
| Campbell Street/<br>Scapa Terrace      | Kerb extensions and traffic calming ramp. <b>(Also widen out intersection and install median island).</b> | KSR47    | High     | 2    |     |     | 1       |             |                          | Proceed                          |
| Donald Street/<br>Scapa Terrace        | Traffic calming ramp. <b>Speed hump instead of ramp).</b>   | KSR48    | High     | 1    |     |     | 2       |             |                          | Deferred – consultation required |
| Campbell Street/<br>Lewer Street       | Kerb extensions   | KSR49    | Medium   | 2    |     |     |         | 1           |                          | Delete (Preferred option KSR45). |
| Beauchamp Street/<br>Lewer Street      | Kerb extensions   | KSR50    | Medium   |      |     | 1   | 1       | 1           |                          | Delete (Preferred option KSR45). |
| Verviers Street/<br>Beauchamp Street   | Give way and flush median   | KSR51    | High     |      |     |     | 1       | 1           |                          | Proceed                          |
| Verviers Street/<br>Kano Street        | Roundabout  | KSR52    | Medium   |      |     | 1   | 10      | 1           | 96%                      | Deferred – consultation required |
| Verviers Street/<br>Campbell Street    | Give way and flush median   | KSR53    | High     |      |     | 1   |         |             |                          | Proceed                          |
| Monaghan Avenue/<br>Paparata Street    | Give way and flush median   | KSR54    | High     |      |     | 1   |         |             |                          | Proceed                          |
| Monaghan Avenue/<br>Hawick Street      | Median island. <b>(Move median island further out to assist visibility uphill).</b>                       | KSR55    | High     |      |     | 1   | 1       |             |                          | Proceed                          |
| Collier Avenue/<br>Parklands Drive     | Kerb extension. <b>(Reverse priority, install median island on Parklands Drive).</b>                      | KSR56    | High     |      |     |     | 4       |             |                          | Deferred – consultation required |
| Parklands Drive/<br>Landsdowne Terrace | Give way and flush median   | KSR57    | High     |      |     | 1   |         |             |                          | Proceed                          |
| Woodhouse Avenue/<br>Parklands Drive   | Kerb extension  | KSR58    | High     |      |     |     | 1       |             |                          | Proceed                          |

| Location                                    | Road safety initiative  | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation                |
|---|---|----------|----------|------|--------|-----|---------|-------------|--------------------------|--|
| Old Karori Road/<br>Rosehaugh<br>Avenue     | One way   | KSR59    | High     | 1    |        | 1   | 3       |             |                          | Proceed                                |
| Whitehead Street/<br>Seaforth Terrace       | Kerb extension.<br><b>Retain Seaforth as<br/>two ways and provide<br/>turning area with<br/>appropriate signal T<br/>junction with<br/>Rosehaugh Avenue).</b> | KSR60    | High     |      |        |     | 3       |             |                          | Proceed                                |
| Standen Street                              | Speed hump.   | KSR61    | Low      | 2    |        |     | 5       | 3           |                          | Proceed                                |
| Standen Street                              | Speed hump  | KSR62    | Low      | 2    |        |     | 5       | 3           |                          | Proceed                                |
| Standen Street                              | Speed hump  | KSR63    | Low      | 2    |        |     | 4       | 3           |                          | Proceed                                |
| Standen Street                              | Speed hump  | KSR64    | Low      |      |        |     | 4       | 3           |                          | Proceed                                |
| Standen Street/<br>Cross Street             | Give way  | KSR65    | High     |      |        | 1   | 1       | 1           |                          | Proceed                                |
| Nottingham Street                           | Speed hump  | KSR66    | Low      | 1    |        |     | 3       | 3           |                          | Proceed                                |
| Nottingham Street                           | Speed hump  | KSR67    | Low      | 1    |        |     | 3       | 3           |                          | Proceed                                |
| Nottingham Street                           | Speed hump  | KSR68    | Low      | 1    |        |     | 3       | 3           |                          | Proceed                                |
| Nottingham Street                           | Speed hump  | KSR69    | Low      | 1    |        |     | 3       | 3           |                          | Proceed                                |
| Karori Road/<br>Homewood<br>Avenue          | Kerb extension and<br>traffic calming ramp.<br><b>(Also consider<br/>median island and<br/>kerb realignment as<br/>part of detailed<br/>design).</b>          | KSR70    | High     | 2    |        |     | 3       | 1           |                          | Proceed                                |
| Homewood<br>Avenue/<br>Homewood<br>Crescent | Roundabout and speed<br>hump  | KSR71    | Medium   |      |        | 1   | 3       |             |                          | Proceed                                |
| Hauraki Street/<br>Hatton Street            | Kerb extensions   | KSR72    | Low      |      |        |     | 2       |             |                          | Delete<br>(Preferred option<br>KSR73). |
| Hauraki<br>Street/Hatton<br>Street          | Roundabout and kerb<br>extension  | KSR73    | Medium   |      | 1      |     | 2       |             |                          | Proceed                                |

| Location   | Road safety initiative   | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation                |
|--|--|----------|----------|------|--------|-----|---------|-------------|--------------------------|--|
| Reading Street/<br>Newcombe<br>Crescent            | Traffic calming ramp   | KSR74    | High     |      |        |     | 2       |             |                          | Delete                                 |
| Friend Street/<br>Parkvale/Samuel<br>Parnell Roads | Median island  | KSR75    | High     | 1    |        |     | 3       | 1           |                          | Deferred –<br>consultation<br>required |
| Samuel Parnell<br>Road/<br>Chamberlain<br>Road     | Flush medians  | KSR76    | Medium   |      | 1      |     | 2       | 1           |                          | Deferred –<br>consultation<br>required |
| Darwin Street/<br>Eagle Street                     | Median island  | KSR77    | High     |      |        |     | 1       | 1           |                          | Proceed                                |
| Ranelagh Street/<br>Morley Street                  | Median island  | KSR78    | High     |      |        |     | 1       | 1           |                          | Proceed                                |
| Ranelagh Street/<br>Sunshine Avenue                | Median island  | KSR79    | High     |      | 1      |     | 2       | 1           |                          | Proceed                                |
| Tringham Street/<br>Ranelagh Street                | Kerb extension and<br>median island.<br>(Consider kerb<br>realignment of<br>Ranelagh Street as<br>part of detailed<br>design). | KSR80    | High     | 1    |        |     | 1       | 1           |                          | Proceed                                |
| Marshall Street/<br>Fernlea Avenue                 | Traffic calming ramp.<br>(Delete ramp and<br>install median<br>island).  | KSR81    | Medium   | 3    |        | 1   | 3       | 9           |                          | Proceed                                |
| Marshall Street/<br>Hildreth Street                | Traffic calming ramp.<br>Delete ramp and<br>install median<br>island).   | KSR82    | Medium   | 1    |        |     | 5       | 11          |                          | Proceed                                |
| Sunshine<br>Avenue/<br>Percy Dyett Drive           | Pedestrian ramps   | KSR83    | High     | 1    |        |     | 1       |             |                          | Proceed                                |
| Sunshine Avenue                                    | Kerb extensions and<br>splitter island   | KSR84    | Medium   |      | 1      |     | 1       |             |                          | Proceed                                |
| Victory Avenue/<br>Tobruk Street                   | Roundabout   | KSR85    | Low      | 1    |        |     | 4       |             |                          | Deferred –<br>budget constraint        |

| Location                               | Road safety initiative  | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation          |
|--|---|----------|----------|------|--------|-----|---------|-------------|--------------------------|----------------------------------|
| Victory Avenue/<br>Montgomery Avenue   | Kerb extensions and median island   | KSR86    | High     | 1    |        |     | 2       |             |                          | Proceed                          |
| Parkvale Road/<br>Canterbury Street    | Give way and flush median   | KSR87    | High     |      |        | 1   |         |             |                          | Proceed                          |
| Parkvale Road/<br>David Crescent       | Speed hump. (Install another two speed humps south of David Crescent at 70 metre spacings). | KSR88    | High     | 1    |        |     | 3       | 1           |                          | Proceed                          |
| Parkvale Road/<br>Cornford Street      | Kerb extension  | KSR89    | Medium   |      |        |     | 1       |             |                          | Delete (Preferred option KSR88). |
| South Karori Road                      | Traffic calming ramp. (Change to speed humps at 130 metre spacings).                        | KSR90    | High     | 2    |        |     |         | 1           |                          | Proceed                          |
| South Karori Road/<br>Hazelwood Avenue | Give way  | KSR91    | High     | 1    |        |     |         | 1           |                          | Proceed                          |
| South Karori Road                      | Traffic calming ramp. (Change to speed humps at 130 metre spacings).                        | KSR92    | High     | 3    |        |     |         | 1           |                          | Proceed                          |
| South Karori Road/<br>Hazelwood Avenue | Traffic calming ramp and give way   | KSR93    | High     | 1    |        |     |         | 1           |                          | Proceed                          |
| Thurleigh Grove/<br>Paddington Grove   | Give way.   | KSR94    | High     |      |        | 2   |         |             |                          | Proceed                          |
| Makara Road/<br>Khouri Avenue          | Give way and flush median. (Install flush median on Makara Road similar to KSR28).          | KSR95    | High     | 1    |        | 1   | 1       |             |                          | Proceed                          |
| Friend Street                          | Right hand turn bays  | KSR96    | High     |      |        |     | 40      | 38          | 87%                      | Proceed                          |

| Location                       | Road safety initiative  | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation           |
|--------------------------------|---|----------|----------|------|--------|-----|---------|-------------|--------------------------|-----------------------------------|
| Monaghan Avenue                | Traffic calming ramps. (Change to speed humps at 200 metre spacings).                           | KSR97    | High     | 1    |        |     | 1       | 1           |                          | Proceed                           |
| Monaghan Avenue                | Traffic calming ramp and give way. (Change to speed humps at 200 metre spacings).               | KSR98    | High     | 1    |        |     | 2       | 1           |                          | Proceed                           |
| Monaghan Avenue                | Traffic calming ramp. (Change to speed humps at 200 metre spacings).                            | KSR99    | High     | 1    | 1      |     |         | 1           |                          | Proceed                           |
| Karori Road/ Eagle Street      | Traffic calming ramp and give way   | KSR100   | High     |      |        |     | 1       |             |                          | Deferred – budget constraint      |
| Karori Road/ Eagle Street      | Planted island (close street)   | KSR101   | Low      |      |        |     | 5       |             |                          | Delete (Preferred option KSR100). |
| Karori Road                    | Edgelines   | KSR102   | High     | 1    |        |     |         | 2           |                          | Proceed                           |
| Donald Street/ Cooper Street   | Traffic calming ramp, kerb extension and give way. (Change to kerb widening and median island). | KSR103   | High     |      |        |     | 3       |             |                          | Proceed                           |
| Donald Street                  | Kerb extension and school crossing  | KSR104   | High     |      |        |     | 1       |             |                          | Proceed                           |
| Donald Street/ Firth Terrace   | Give way painted median and traffic calming ramp  | KSR105   | Medium   |      |        |     | 2       | 1           |                          | Deferred – consultation required  |
| Campbell Street/ Firth Terrace | Kerb extensions and median island   | KSR106   | Medium   | 1    |        |     |         | 2           |                          | Proceed                           |
| Karori Road/ Standen Street    | Median island   | KSR107   | High     |      |        | 1   | 1       |             |                          | Proceed                           |
| Karori Road/ Nottingham Street | Trimming existing median island   | KSR108   | High     | 1    |        |     | 2       |             |                          | Proceed                           |

| Location                                      | Road safety initiative   | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation           |
|---|--|----------|----------|------|--------|-----|---------|-------------|--------------------------|-----------------------------------|
| Friend Street/<br>Raine Street                | Median island.<br>(Design needs to consider large trucks from Mall). | KSR109   | Medium   |      |        |     | 3       | 1           |                          | Proceed                           |
| Chaytor Street/<br>Curtis Street              | Traffic signals  | KSR110   | Low      | 2    |        |     | 9       | 1           |                          | Deferred – consultation required  |
| Friend Street/<br>Homewood Avenue             | Traffic calming ramp   | KSR111   | Low      |      |        |     | 2       |             |                          | Delete                            |
| Cargill Street/<br>Campbell Street            | Traffic calming ramps and kerb extensions                            | KSR112   | Low      |      |        |     | 2       |             |                          | Deferred – budget constraint      |
| Duthie Street/<br>Braithwaite Street          | Flush median   | KSR113   | Medium   |      |        | 1   | 4       | 1           |                          | Delete (Preferred option KSR116). |
| Duthie Street/<br>Braithwaite Street          | Flush median and speed hump  | KSR114   | Low      |      |        |     | 11      | 1           | 96%                      | Delete (Preferred option KSR116). |
| Duthie Street/<br>Braithwaite Street          | Flush median and median island                                       | KSR115   | Medium   |      | 1      |     | 6       | 1           |                          | Delete (Preferred option KSR116). |
| Duthie Street/<br>Braithwaite Street          | Flush median and speed humps   | KSR116   | High     | 1    |        |     | 9       | 2           |                          | Proceed                           |
| Duthie Street/<br>Braithwaite to Gipps Street | Speed humps  | KSR117   | Medium   |      |        |     | 11      | 1           | 96%                      | Proceed                           |
| Karori  | All kerb extensions  | All      | All      | 1    |        |     | 10      | 4           | 96%                      |                                   |
| Karori  | Signage  | All      | All      |      |        |     | 2       |             |                          |                                   |
| Karori  | Raised median islands  | All      | All      |      |        |     | 2       | 1           |                          |                                   |
| Karori  | All proposed initiatives   | All      | All      | 20   |        |     | 39      | 44          | 87%                      |                                   |
| Karori  | All proposed traffic signals   | All      | All      | 7    |        | 1   | 45      | 17          | 85%                      |                                   |
| City wide                                     | Limit lines  | All      | All      |      | 1      |     |         |             |                          |                                   |
| City wide                                     | All roundabouts  | All      | All      | 1    |        | 1   |         | 3           |                          |                                   |
| City wide                                     | All give way controls  | All      | All      | 1    |        |     | 1       |             |                          |                                   |

| Location            | Road safety initiative   | Ref. No. | Priority | High | Medium | Low | Opposed | Conditional | Assumed level of support | Officers Recommendation |
|---------------------|--|----------|----------|------|--------|-----|---------|-------------|--------------------------|-------------------------|
| Karori              | Speed humps; chicanes; kerb extensions; and other traffic calming measures | All      | All      |      |        |     | 48      | 5           | 84%                      |                         |
| <b>EDUCATION</b>    |  |          |          |      |        |     |         |             |                          |                         |
| Karori Schools      | Safer Routes to School programme   |          | High     | 3    |        |     |         |             |                          | Proceed                 |
| City wide           | Pedestrian awareness campaign  |          | High     | 3    |        |     |         |             |                          | Proceed                 |
| Karori              | Speed limit awareness campaign   |          | High     |      |        |     | 2       |             |                          | Proceed                 |
| City wide           | Cycle awareness campaign   |          | Medium   | 11   |        |     |         |             |                          | Proceed                 |
| <b>ENFORCEMENT</b>  |  |          |          |      |        |     |         |             |                          |                         |
| All roads in Karori | Targeted road policing   |          | High     |      |        |     | 2       |             |                          | Proceed                 |
| City wide           | Contribution to additional parking staff                                   |          | High     |      |        |     | 2       |             |                          | Proceed                 |
| Karori Road         | Driver feedback signs  |          | High     | 4    |        | 1   | 3       |             |                          | Proceed                 |