



Kapiti Coast - State Highway Expressway

Urban Design Review

Final Draft
06 October 2009

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Responding to the Set of Options for SH1

This report has been prepared as a response to a set of options that have been put to the Kapiti community since August 2009 for upgrading State Highway 1 (SH1), now being described by the NZ Transport Agency (NZTA) as an 'Expressway'.

The community has been given a limited period within which to submit feedback in the form of views, comments, suggestions or preferences around options on the route for a four-lane Motorway through the Kapiti Coast, and, in particular the route between MacKay's Crossing to Peka Peka. It has been stated that community input on which alignment is best suited for the State Highway is vital before decisions are taken to proceed further.

Initially this was presented as a choice between ticking boxes for two options (August 2009), with a subsequent amendment to include three options (October 2009) and a new date set for submissions of 30 October 2009.

Each call for submissions has been accompanied by concept maps and some supporting information, although it was only on 1 October 2009 that clear guidance was provided in a public brochure as to the criteria upon which the NZTA Board will decide on a preferred route for SH1.

As well as taking into account all relevant Government and regional policies and strategies, it was stated that the NZTA Board will give careful consideration to the extent to which each option / concept:

Assists economic development

Assists safety and personal security

Improves access and mobility

Protects and promotes public health

Ensures environmental sustainability

As at 1 October 2009, the options / concepts now being put forward for SH1 from MacKays Crossing to Otaki have been set out by NZTA as follows, in this order:

Eastern Option: SH1 Expressway following the rail corridor with local supporting roads

Western Option: SH1 Expressway avoiding the Waikanae town centre with local supporting roads

Western Link Corridor Option: SH1 Expressway following the Western Link Corridor

Peka Peka to Otaki: only one option has been put forward for assessment. This option runs parallel to the SH1 and the Rail.

* For our Assessment Criteria refer to Appendix1

Purpose of this Report

In preparing this brief report, our major concern has been to retain a focus that does not obscure or obfuscate the most important elements of an integrated transport and land use solution for the Kapiti Coast. We are aware of the other expert reports prepared around this time that also retain this focus and provide a much-needed body of analysis, such as the Economic Impacts report prepared by Brent Wheeler. We are not seeking to repeat the findings or conclusions of these other reports, and trust that our report will be considered in conjunction with them.

Common Ground fully recognises that the proposed options / concepts for SH1 on the Kapiti Coast sit within the context of the priorities assigned by the Government and Minister of Transport to progressing infrastructure expenditure on seven Roads of National Significance (RoNS). It is likewise expected that the RoNS will be rolled into the National Infrastructure Plan under development, and will at some time in the future be subject to new Resource Management legislation.

At the same time it has to be noted that the pre-existing context for making decisions about the strategic functioning of SH1 supported by local arterials on the Kapiti Coast has been subject to a series of highly detailed studies, strategies and projects, particularly those around the Western Link Road project. It would be counter-productive to brush aside this context in one fell swoop.

For instance it shouldn't be forgotten that as recently as July 2008 Opus International Consultants Ltd (Opus) produced a Scoping Report, called the Kapiti State Highway 1 Strategy, to identify potential improvements to SH1 between MacKays Crossing and Pukehou Bridge, north of Otaki. The second of six strategy objectives set out in the Opus report was to: "Develop SH1 so that it supports committed Land-Use proposals and agreed Urban Design aspirations".

As was stated in the Transit NZ Planning Policy Manual (2007) it remains desirable that transport planning outcomes should ensure that our State Highways "are a legacy we can be proud of".

The expertise that Common Ground brings to bear is in direct relation to the task of integrating the Western Link Road project with planning for SH1, with all of the attendant complexities, to best serve the long-term interests of the Kapiti community.

In simple terms the over-riding problem identified from a national transport perspective on the Kapiti Coast is that the existing dominant stretch of State Highway does not adequately cater for peak traffic demand. What is now being proposed could be seen as a solution primarily driven by the goal of reducing congestion, even though this is not specifically singled out as one of the NZTA Board's criteria for considering or evaluating the SH1 options.

At this stage our contribution has been to undertake a vigorous and even-handed assessment of the 'pros and cons' of the three options. We have paid particular attention to the effects on land-use, connectivity, landscape, urban form and the urban design issues surrounding each option. We have also anticipated the undertaking from NZTA on 1 October 2009 that a "fourth" option being worked through with the Kapiti Coast District Council (KCDC) will be included in the consultation process and consideration.

What follows is, in essence, both a critique of the three options put forward by NZTA and a summary of how to arrive at a "fourth" option, one that has only recently been introduced to the debate – with supporting information and preliminary plans.

Critique of NZTA Concept Options

From an urban design and Kapiti Coast perspective a few, simple questions can be posed to help assess the relative merits of the three options:

1. Does the proposed alignment strengthen or destroy community form and identity?

2. Does the alignment support or hinder the development of an efficient local network and its ability to maximize or unlock the potential social and economic capital of the communities?

3. Do the connections maintain the separation and efficiency of the national transport network?

4. Do the connections deliver district and regional traffic directly to destinations within the community?

Whether an option can be weighed up as viable or non-viable also requires a consideration of true costings and accurate information about the parcels of potentially affected land, neither of which seem to have been presented factually in the latest NZTA material.

In July 2008 the Scoping Report by Opus recommended that SH1 and the main trunk railway line be co-located within the same regional corridor to avoid creating additional severance and a new barrier. Of the three options put forward now by NZTA, the only option that satisfies that recommendation is the Eastern Option.

Before making a case that supports some, but by no means all, of the concept for the Eastern Option, the following points need to be made about the Western Link Corridor option:

[WESTERN LINK CORRIDOR OPTION - Creation of a motorway through-pass along the Western Link designation](#)

Common Ground does NOT recommend this option.

It is not recommended because:

- ✗ This option has the veneer of simplicity. However, whilst it may move traffic swiftly through the Kapiti region it has major urban design, planning, social, cultural, economic, and environmental effects which impact upon the Kapiti community.
- ✗ This seriously divides the community. Adding in another absolute barrier, in addition to rail, to the Kapiti Coast.
- ✗ Whilst not requiring many further property purchases, as a four-lane motorway this option affects a large number of residential properties that follow the designation, particularly in Raumati, Paraparaumu, Waikanae Beach and the yet to be built Ngarara.
- ✗ It moves the disruption of State Highway from the largely already degraded commercial and urban environments along State Highway and rail to much more sensitive residential and natural environment.
- ✗ Further locks up local economic opportunities.
- ✗ Seriously effects KCDC land use planning strategy compromising recent Plan Changes aimed at increasing economic and social capital on the Coast.
- ✗ Bypasses Kapiti Town Centres with likelihood of new commercial pressure at the proposed intersections of Poplar, Otaihanga and Peka Peka.

✗ Major environmental and ecological issues with dune and wetland habitat destruction.

✗ Moving through the dune country there will be cultural issues in addition to known issues around Takamore area.

✗ Has major consenting and timing issues.

✗ By not being able to build Western Link there will be no relief to the State Highway during what will be a lengthy consenting, designation, purchasing and design phase.

✗ Is dependent upon construction of major overpasses at Raumati, Ihakara, Kapiti, Mazengarb and Te Moana to preserve minimum connectivity. These are major engineering elements that will drastically alter the local environment.

✗ It destroys KCDC's smart growth strategy.

✗ It creates two degraded land use corridors in the Coast.

✗ Has the lowest economic return for investment.

For these and many other reasons we believe this is a non-viable option for the Kapiti community or the NZTA goal of upgrading and providing relief to State Highway. We also believe that the costings are not a true reflection and would question the savings over the other options. As stated, there would need to be significant bridges or overpasses at Raumati, Ihakara, Kapiti, Mazengarb, Te Moana. There would need to be significant mitigation of social, cultural, economic and environmental effects. The land costings do not take into account new Plan Changes.

WESTERN LINK CORRIDOR OPTION



Social and Physical Separation

In urban design terms an expressway is an absolute barrier. Connectivity is reduced to a few controlled intersections that are usually not able to be pedestrian friendly.

The Western Link Corridor Option divides the Kapiti community into new disconnected neighbourhoods that lack centres, legibility and cohesiveness. This is in addition to the existing and continuing barrier of the Rail and State Highway corridors.

Economic Implications

This option:
Reduces accessibility, visibility and catchment for the existing Paraparaumu and Waikanae commercial districts;

Inhibits the full delivery of the proposed and consented Airport development by forcing commercial traffic to use limited connected local streets to access the Expressway at the Otaihangā and Raumatī interchanges;

Inhibits the ability of the proposed and consented Ngarara development to be initiated, undermining a development with a potential build-out value of up to \$1billion and KCDC's northern growth strategy;

Results in a devaluation of residential property along the corridor within the urban areas without a corresponding lift in value along the existing State Highway and Rail corridor;

Prevents the delivery of the Western Link project. According to the NZTA Technical Report any option that does not include a Western Link arterial road for Kapiti results in a total transport disbenefit of -\$230million;

Any option that places the Expressway within the community cannot allow any local connections to the Expressway without replicating the existing issues on the State Highway. Unconnected communities perform poorly economically;

Disrupts and devalues a significant number of residential properties.

KCDC Smart Growth Strategy

This Option completely undermines 10 years of smart growth planning by KCDC by:

- Undermining the Airport development;
- Undermining Paraparaumu as a CBD;
- Undermining the northern mixed use and residential growth

- zone;
- Undermining the greenbelt policy to contain urban sprawl;
- Stimulating unplanned growth towards Poplar Ave, Otaihangā and Peka Peka where connections are proposed.

Extent of Effects Within Residential Areas

Residential areas are more sensitive to the environmental effects of a motorway than commercial areas (noise, pollution, disturbance, value, etc). This Option splits existing as well as planned but unbuilt suburban residential communities from Raumatī to Waikanae. The real effects on value, amenity and lifestyle will apply to many hundreds of houses.

Kapiti Coast - State Highway Expressway

Critique of Eastern Option (NZTA option 2)

EASTERN OPTION - Allows SH1 and the main trunk railway line to be co-located within the same regional corridor to avoid creating additional severance

Common Ground recommends this option be investigated further with a view to major modifications.

It is recommended, subject to major modifications, because:

- ✓ This route is the most effective in reducing the impacts of an expressway on the local community and delivering desired travel time savings for commercial Wellington to Levin trips.
- ✓ It largely follows the existing State Highway running parallel to the main Trunk rail line.
- ✓ It follows a path that is already impacted by Rail and the State Highway.
- ✓ It passes through the main commercial areas giving visibility and accessibility if re-designed.
- ✓ It is the least environmentally damaging route.
- ✓ It leaves the Western Link project to commence giving immediate relief to the State Highway.
- ✓ It leaves existing State Highway to act as a local collector (an Eastern Link).
- ✓ The Western and Eastern links would together stimulate local businesses and also act as tourist routes.
- ✓ The consenting issues are simpler and relate mainly to private properties.
- ✓ It preserves the uniqueness of the Kapiti Coast, its dune and beach environment and follows the most degraded environment.
- ✓ The project can start immediately with the Western Link providing initial relief to the State Highway.

✓ It leaves KCDC's smart growth strategy intact

✓ Delivers a suitable fast Expressway for heavy truck movement along an existing barrier (State Highway and Rail corridor) with existing degraded adjacent land conditions without destroying the urban form and social cohesion of the Coastal Kapiti Communities.

✓ Provides for a Western and an Eastern Link improving the local network and potentially better servicing the communities that are already split by the existing rail corridor (Paraparaumu, Waikanae and Otaki), by providing safer access over and under the expressway and rail (an improvement on current connections). This increases economic development opportunities driven by well connected local east and west arterials and minimizes disruption to areas that already exist along a disruptive and existing transit corridor (Rail and State Highway 1).

✓ Gives better local access to both Paraparaumu and Waikanae Stations and can be designed for Otaki by providing over- or underpass connections between east and west communities separated by the rail corridor. There will need to be very careful design at these commercial centres to ensure that they function and thrive without adding strain to the SH1 expressway system. We have looked at these areas and believe that with good design that responds to land use and urban design criteria the negative effects of the expressway can be mitigated and connectivity enhanced.

✓ Allows a full Western Link project to be developed now which will give significant relief to the State Highway and re-focus development away from it towards the Western Link. The extensive and time consuming process of consenting, land purchase, legislation, and design is undertaken in this period of respite for the expressway delivery.

✓ In association with western and eastern local arterials, this Option improves and liberates land values and development opportunities by allowing them to focus around local roads instead of the State Highway.

✓ Creates one dedicated Expressway Bridge and East and West local Bridges over the Waikanae River. This will absolutely push local traffic onto the local network and provide alternative crossings in times of emergency.

✓ Reduces environmental and cultural destruction that would be inevitable in a 4 lane, 100 kph option along the Western Link designation.

✓ Is better placed to respond to issues such as peak oil and preserve the KCDC's smart growth strategy by leaving a better connected and cohesive local network and urban form that will facilitate the development of compact settlements with critical economic mass for a more self-reliant district economy.

✓ Has the highest economic return for investment

EASTERN LINK CORRIDOR OPTION



Social and Physical Separation

The Eastern Option follows an existing barrier (State Highway and Rail) and maintains current levels of local connectivity. In conjunction with a full Western Link connector road the existing urban districts remain intact and better connected to amenities and other neighbourhoods. As the diagram illustrates, by following the existing barrier it leaves the larger residential and commercial areas of the Coast as intact urban districts. As this Option allows for (and demands) a full Western Link connector it not only keeps the status quo but enhances both national and local transport network efficiency and has the highest cost benefit ratio.

Economic Implications

This Option:

Allows the full and anticipated completion of all the major proposed and consented developments (Airport, Ngarara, Waikanae North, CBD) providing an increase in total economic benefit of \$1.3 billion / annum and 4000 jobs by 2025 (Wheeler: Western Link Economic Study);

Allows an immediate start to the Western Link project, relieving the State Highway of local trips and thereby generating a total transport benefit of \$390 million even without an Expressway or State Highway upgrade (NZTA Technical Report);

Maintains the visibility of Paraparaumu and Waikanae commercial areas to the national network;

In combination with the Western Link, results in an overall lift in property value in Raumati, Paraparaumu and Waikanae in the order of 15% (Wheeler: Western Link Economic Study).

KCDC Smart Growth Strategy

This Option:

stimulates economic activity and development in areas consistent with KCDC's planned growth strategy;

maintains the defensibility of the northern greenbelt to contain urban sprawl.

Extent of Effects Within Residential Areas

If the Expressway largely follows the existing State Highway and Rail corridor the effects can be contained within an area that has developed with the same type and level of effects (generated by SH1 and Rail). The Expressway is simply a more efficient version of SH1.

The expressway will consolidate the barrier along the edge of the Waikanae town centre. This forces a design response for this area and represents a potential opportunity to resolve the long-standing problems of the commercial precinct.

Whilst the NZTA option on the west of the rail line directly affects Waterstone, Jade Gardens and Camelot, this is easily dealt with by moving to the east of the Rail or following the existing State Highway corridor.

Kapiti Coast - State Highway Expressway Critique of Western Option

WESTERN OPTION - SH1 Expressway avoiding Waikanae town centre with local supporting roads

Common Ground does NOT recommend this option:

Not recommended because it:

- x Ignores KCDC's Smart Growth Strategy opening up new areas to unsustainable growth pressure and affecting newly planned growth areas, in particular Ngarara in Waikanae.
- x Will destroy sensitive wetland and dune environments.
- x Has a profound effect on the culturally sensitive area of Takamore .
- x Has major consenting issues.
- x Further disaggregates the Kapiti Coast Communities introducing another barrier cutting off the coast.
- x Bypasses the existing Waikanae commercial area with effects on the local economy.
- x Limits Waikanae's visibility to the world. It is unconnected to National roading system. If a connection to expressway is made at Te Moana it will not only introduce local traffic to expressway but stimulate a new town centre taking advantage of this intersection therefore impacting on Waikanae Town Centre and the efficiency of the expressway.

WESTERN OPTION



This Option is a hybrid of the Eastern and Western Link Corridor Options. To the north of Otaihanga the effects and implications are largely as per the Western Link Corridor Option. To the South of Otaihanga the effects are largely as per the Eastern Option, though without the considerable benefits that attach to the ability to deliver the full Western Link project.

Social and Physical Separation

To the north of Otaihanga the large-scale negative effects generated are as per the Western Link Corridor Option.

To the south of Otaihanga the effects are essentially neutral as per the Eastern Option.

Economic Implications

Due to the inability of this option to deliver a full Western Link, the economic impact is negative and largely as per the Western Link Corridor Option, though it will have slightly less effect in Paraparaumu.

Similarly, the total transport benefit is, like the Western Link Corridor Option, a disbenefit of -\$230 million (NZTA Technical Report).

KCDC Smart Growth Strategy

To the north and around the Otaihanga interchange the large-scale negative effects generated are as per the Western Link Corridor Option.

To the south this Option leaves Raumatī free to develop in accordance with the Council's long-term plan.

Extent of Effects Within Residential Areas

From the residential neighbourhood of Jade Gardens northwards, the effects of the Expressway will be as per the Western Link Corridor Option.

South of this point, the effects will be minimal as per the Eastern Option.

OUR RECOMMENDATION – ‘NONE OF THE OPTIONS ABOVE’

The Eastern Option as designed by NZTA consultants is crude. However it is the option that has the least impact on Kapiti Coast and its land use planning programme.

We have looked at an alternative alignment in part for the Eastern Option that is more effective, cheaper, and reduces the negative impacts of an expressway on the coast. NZTA has referred to this as the ‘fourth’ option.

With a limited amount of time we have determined that from Kapiti Road it is possible to shift the alignment to the east of the Rail, thereby greatly reducing the number of properties immediately affected. We believe that a speed limit of 70 kph should be set within the urban areas: Poplar to Paraparaumu, Te Moana to Waikanae North, and through Otaki. We have also looked at connections to Paraparaumu, Waikanae and Otaki and have started to resolve the access issues. We would recommend:

Left-off north at Poplar;

Grade separated or roundabout at 200 State Highway, southern connection to Western Link;

Left-off north and south, left-on south at Paraparaumu;

Full grade separated at Otaihanga;

Left-off north at Te Moana;

Roundabout or grade separated at Waikanae North, northern connection to Western Link;

Full grade separated south of River at Otaki;

Left-on north and left-off south at Otaki just north of River;

Left-on/off north and left-off south to the north of Otaki.

To reduce economic and social impact a series of mitigation actions were explored and we have included them in this report.

For many years KCDC have been developing a sustainable development and growth strategy for its coastal environment communities. For too long its growth has been uncontrolled and at the same time constrained by a lack of integrating infrastructure, smart growth theories and land uses.

Recently a number of plan changes have targeted the development of Paraparaumu and Waikanae. Central to this planning has been the Western Link Road project as a local connector (east/west and south/north):

Bringing the communities together;

Focusing on retaining Town Centres liberated from State Highway 1;

Compacting settlement patterns around Rail terminals – Raumati, Paraparaumu, Waikanae and Otaki;

Preserving high quality lands for local food production;

Diversifying the commercial/business base;

Celebrating the beach, dune and hills environments.

To give effect to this planning the Western Link Road was redesigned, anticipating the four-laning of the existing State Highway with more limited access to Kapiti communities, and to this end a document was produced by Common Ground for KCDC, entitled ‘Urban Design Report: Integrated Land Use and Transport Study’.

The Western Link project, after a 10 year planning and purchasing programme, is owned, consented and all but ready to go. This project is designed to provide relief to the SH1 and will reduce volumes using it in Kapiti by at least

20%. Furthermore, the positive economic impact of the Western Link Road project has been estimated over 15 years to represent a further \$1.332 billion and a further 4000 jobs.

The Eastern Option is not incompatible with the Western Link Road project and is a good starting point that is not far from what was always planned for.

However, we hold significant reservations about the current concept design for the Eastern Option. There are many changes to the proposal we would recommend, including, but not exclusively:

Realignment from Ihakara to Lindale / Otaihanga to create more connectivity and reduce impact on property by moving expressway to east of rail line.

Moving the position of the proposed expressway shift to the east of the Rail in the vicinity of Te Horo to maintain the existing connectivity of the large rural community in this area.

Well designed pedestrian bridges and underpasses, bridges, elevated roads etc should be used as tools to achieve connectivity.

A high level of developed design and mitigation be undertaken to compensate for social dislocation, economic threat, environmental impact.

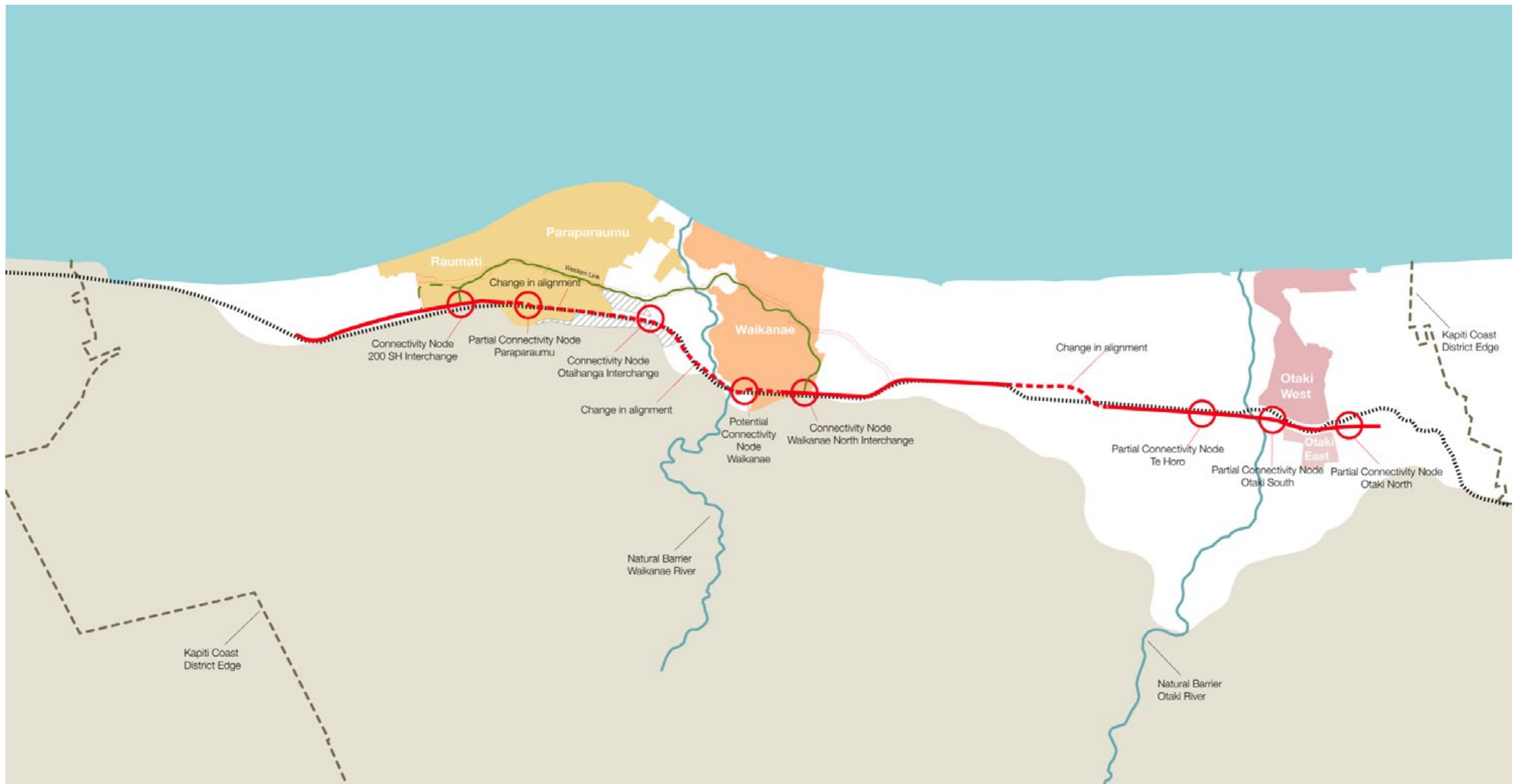
Speed should be limited to 70 kph in urban areas.

The centres of Paraparaumu, Waikanae and Otaki should have good access to SH1.

The following maps and diagrams illustrate a greater level of detail for this recommended approach which can be taken to reinforce the socio-economic health of Paraparaumu, Waikanae and Otaki whilst achieving the NZTA goals of an expressway through the district.

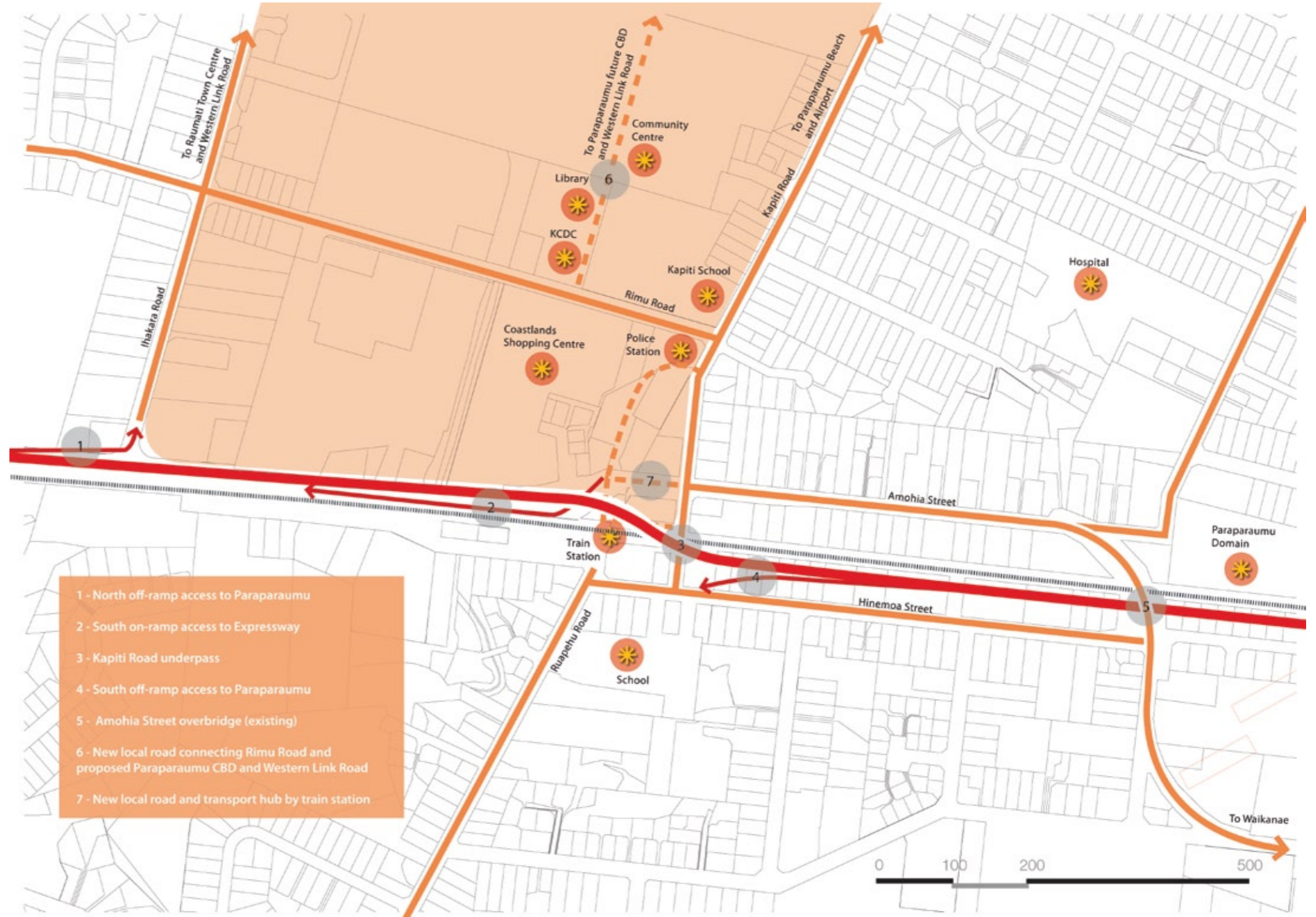
Kapiti Coast - State Highway Expressway Recommended Option

RECOMMENDED OPTION - ADJUSTED EASTERN OPTION



Kapiti Coast - State Highway Expressway
 Recommended Option - Option 4 Paraparumu Town Centre

Paraparumu - Expressway and Connections



Kapiti Coast - State Highway Expressway
Recommended Option - Option 4 Paraparaumu Town Centre

Paraparaumu Expressway - Mitigation Plan

Expressway elevated over Kapiti Road and Rail Station and crosses to east of Rail.

Boulevarding of Kapiti Road and environs.

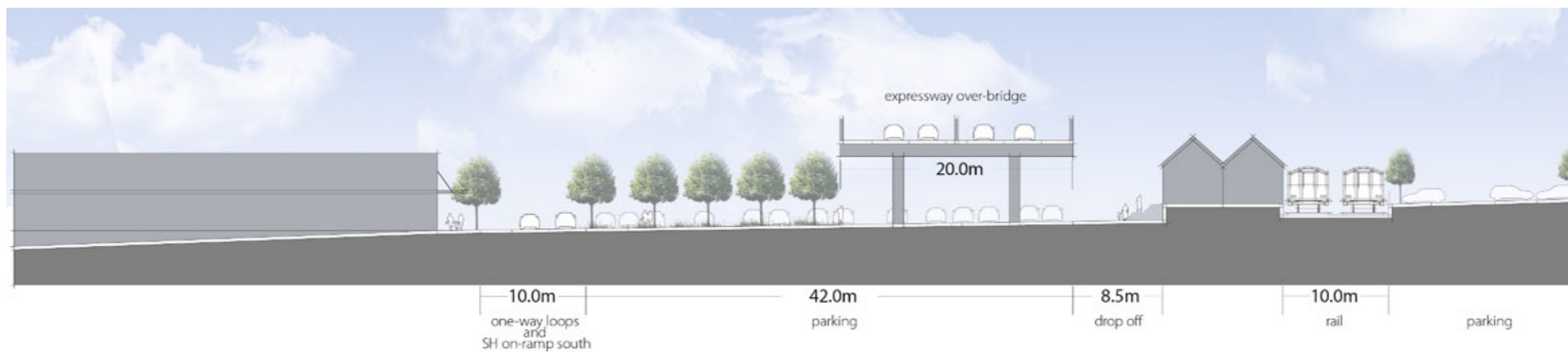
Buffer landscaping and sound barrier along expressway.
Expressway to sit lower than Hinemoa Street to pass under existing road over-bridge.

Creation of TOD (Transport Oriented Development) Centre around Rail Station and Kapiti Road – Transit Interchange.



Kapiti Coast - State Highway Expressway Recommended Option - Option 4 Paraparaumu Town Centre

Paraparaumu cross-section through elevated expressway



Elevated expressway allows for good east/west connection and uninterrupted access to Rail Station.

Creation of TOD piazza and rail commuter parking connected to Paraparaumu on the west side of the rail line.

Landscaping along expressway corridor

Kapiti Coast - State Highway Expressway
Recommended Option - Option 4 Paraparaumu Town Centre



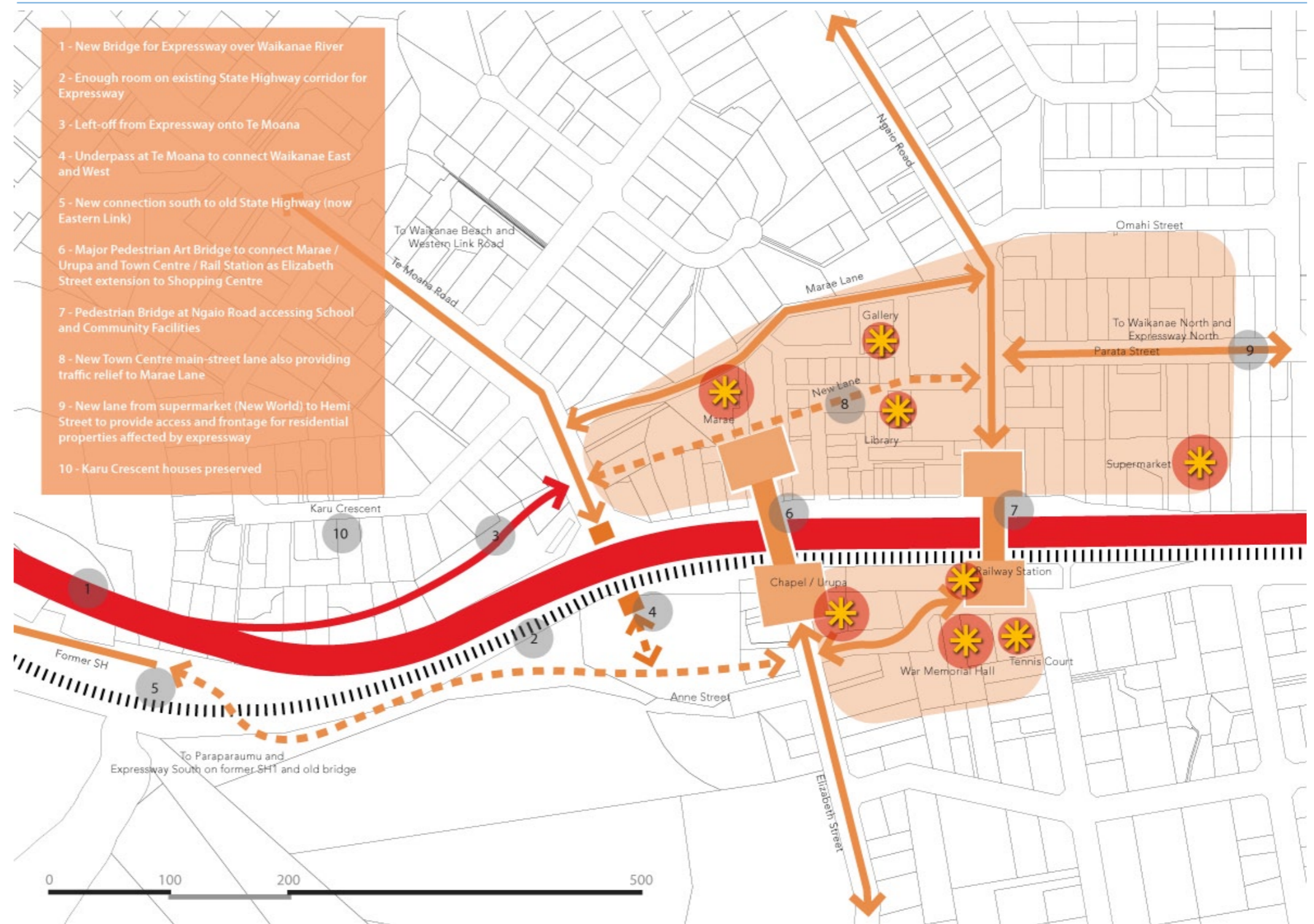
Waikanae Town Centre



Kapiti Coast - State Highway Expressway

Recommended Option - Option 4 Waikanae Town Centre

Waikanae - Expressway and Connections



Kapiti Coast - State Highway Expressway
 Recommended Option - Option 4 Waikanae Town Centre

Waikanae Expressway - Mitigation Plan

A new main-street lane and Ngaio Road to form the primary shopping streets.

Elizabeth Street continued as a pedestrian street connecting the Marae and Urupa via an over-bridge and large piazza spaces.

Northern pedestrian connection of town centre to War Memorial Hall precinct.

Opportunities for redevelopment of Town Centre buildings to increase retail and mixed use.

Boulevarding of Expressway to ease traffic speeds.

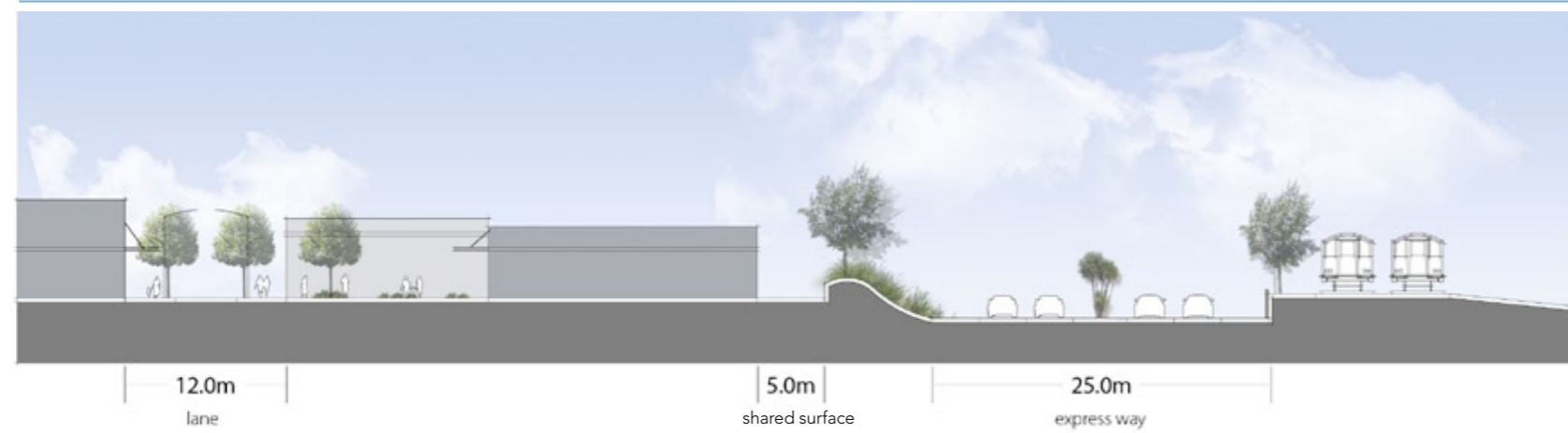
Greening of entry.



Kapiti Coast - State Highway Expressway

Recommended Option - Option 4 Waikanae Town Centre

Waikanae - Town Centre Cross-section



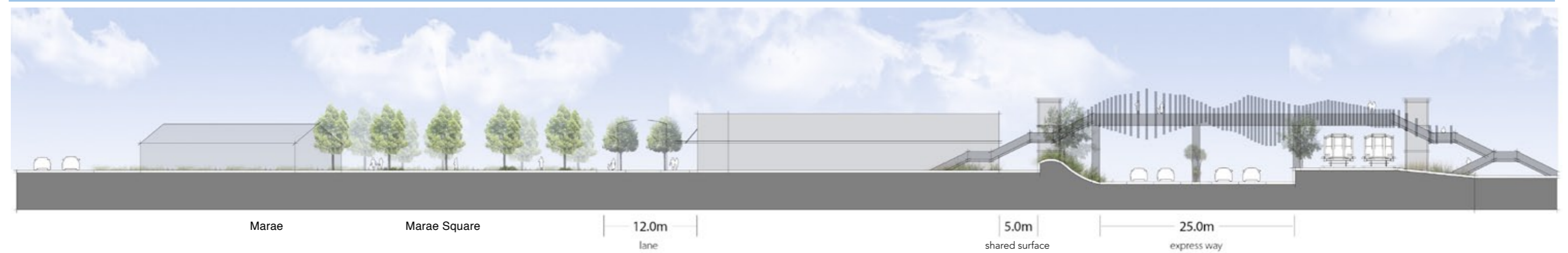
12m Main Street Lane

5m wide shared surface lane / footpath

Expressway lowered with bunding and planting

Stone retaining wall and metal permeable fence along rail

Waikanae - Town Centre Cross-section at Art Bridge



New Marae Square

Main Street Lane

Pedestrian Art Bridge across expressway

Mitigation / Sound landscaping

Shared surface 5.0m footpath/lane to existing frontage

Kapiti Coast - State Highway Expressway
Recommended Option - Option 4 Waikanae Town Centre



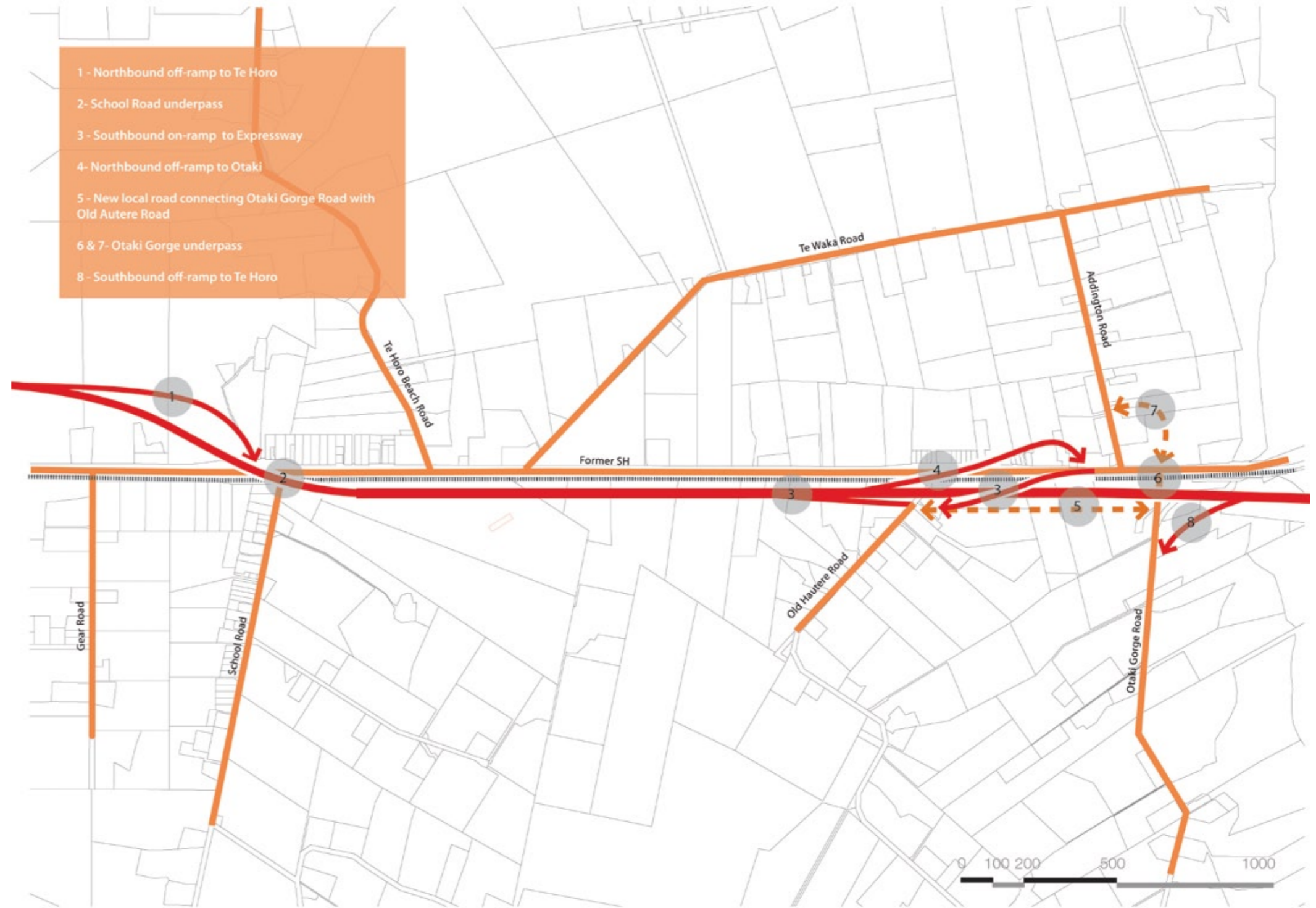
Waikanae Town Centre



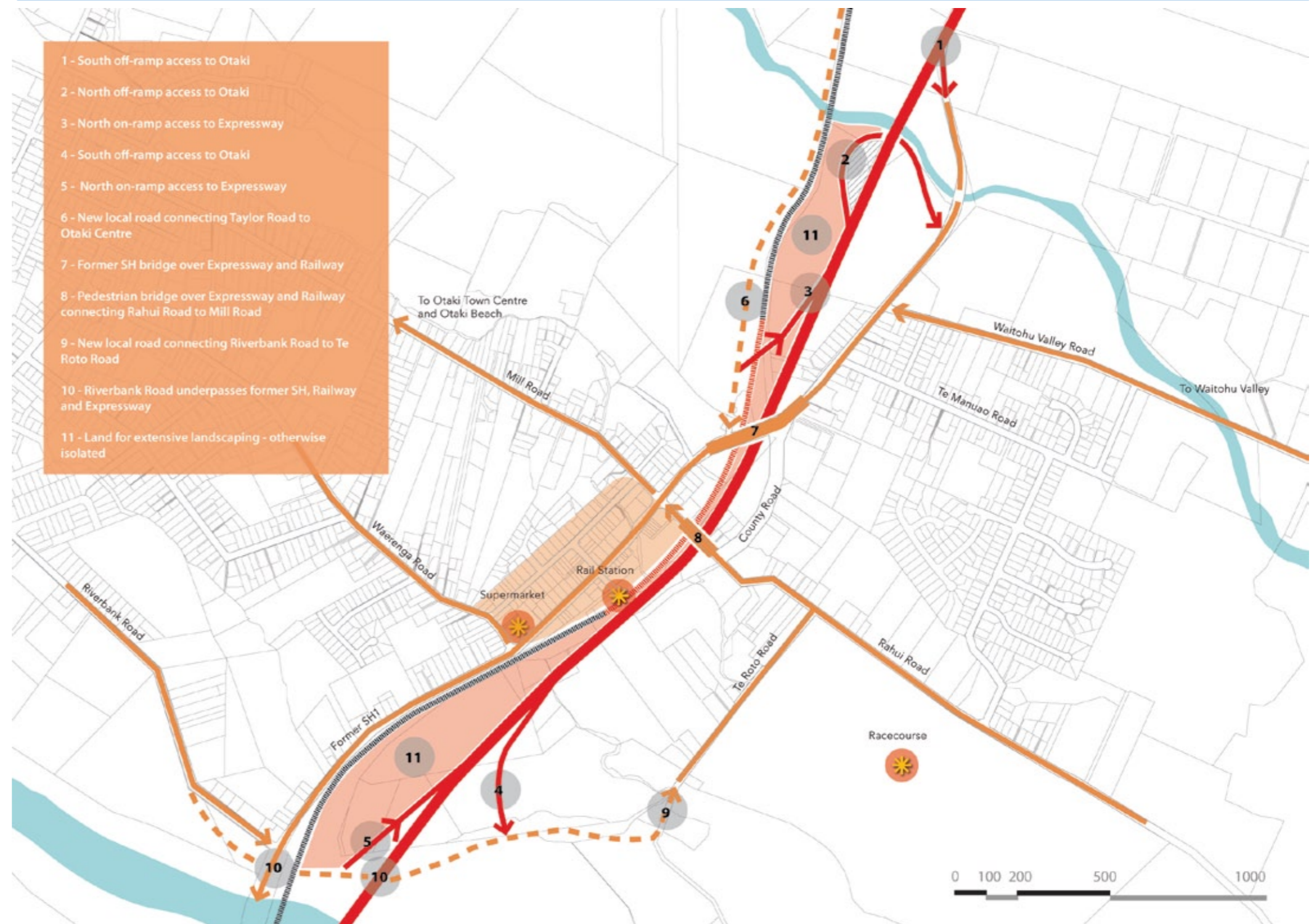
Kapiti Coast - State Highway Expressway

Recommended Option - Option 4 Te Horo / Otaki

Te Horo / Otaki - Expressway and Connections



Otaki - Expressway and Connections



Kapiti Coast - State Highway Expressway
 Recommended Option - Option 4 Te Horo / Otaki

Development of old SH as boulevarded retail main street

Focus on repositioned Rail Station

New railway square

Focus on strengthening Arthur Street

Pedestrian Bridge connecting Mill Road and Rahui Road

Mitigation planting / sound barriers along expressway

Otaki Expressway - Mitigation Plan





Otaki Retail Centre

Kapiti Coast - State Highway Expressway Way Forward

Otaki cross section for Main Street through to Expressway



Upgrading of Main Street as economic mitigation.

Relocation of historic Rail Station fronted with a Station Park.

Expressway with bunding and planting.

Way Forward

In principle, KCDC's transport vision is in tune with NZTA objectives for SH1. This alignment in thinking offers an opportunity to deliver an integrated transport outcome that meets local, regional and national aspirations, and could eventually provide a showcase example of best practice in transport planning.

It is our understanding that any upgrade to SH1 has always required an integrated transport and land use methodology to integrate with the local Kapiti network. Unfortunately the current 'expressway' options have largely ignored an integrated land use approach.

In this respect we would recommend the Minister look at the integrated approach taken by KCDC in the re-design of the Western Link Road project.

Internationally, Urban Design has been taking a vital role in managing the design process and thinking of Transport projects with particular focus on delivering solutions that integrate not only national and regional objectives but also local plans.

The NZTA has recognised the importance of Urban Design in the success of infrastructure projects. NZTA is a signatory to the National Urban Design Protocol and in several national strategy and policy documents has identified Urban Design as an important driver of Transport projects and outcomes.

We believe that given the close alignment of their shared objectives and the need to resolve the local network in an integrated way with SH1, it is disappointing that NZTA and KCDC have not been charged to work more closely together on the State Highway strategy. It would have been productive and beneficial to have both parties agree to a strategy and jointly take this to the community. There seems to have been a low level of collaboration that has marred this process at this point. It is not too late to resolve this, and indeed it needs to be resolved.

We therefore recommend that NZTA and KCDC directly engage with each other to design an "Eastern Expressway" in such a manner that it satisfies both aspirations.

Assessment Criteria / Methodology

NZTA Aim and Objectives

The scoping report prepared for NZTA by Opus was intended to identify potential improvements to SH1 between Otaki in the north and MacKays crossing in the south.

The aim for the study, as defined by NZTA was:

“Develop a long-term plan for SH1 through Kapiti that provides for the sustainability of the highway while facilitating strategic, planned connectivity with the Kapiti Community and the passenger network. The long term plan for SH1 will compliment the committed rail upgrades to achieve a balanced transport network on Wellington’s Western Transport Corridor.

The study will consider interaction with the local road network including the Kapiti Western Link Road (KWLR). Connectivity along SH1 will be planned and controlled in a way that “locks in” the SH1 benefits of the KWLR.”

To paraphrase this, any upgrade to the SH1 would require and integrated transport and land-use methodology that fits with the local Kapiti Network. We agree with this position statement and welcome the level of certainty that an integrated transport strategy will bring. In our opinion only a re-designed Option 2 fits with this goal.

The report also outline the Strategic Objectives mutually agreed between key stakeholders in January 2008 to guide the applications of this brief.

Objectives of the SH1 Expressway

1. Coherent / Integrated Transport Network

Develop the transport network so that all travel modes are mutually supportive and complementary

Transport solutions are balanced and do not favour one mode over another.

Increase the availability and attractiveness of non-car forms of travel

Encourage sustainable travel

Maximise the uptake of and provide for active forms of travel

Enhance and maintain local connections

Enhance and maintain social connections between the eastern and western sides of the District

Reduce severance caused by SH1 and the Railway

Enhance access to education, employment, services and leisure facilities

Improve the safety of the transport network

Improve the efficiency of the transport network

Reduce traffic congestion or agree to acceptable levels of connection

Develop a road network that is less susceptible to traffic incidents (i.e. Network resilience)

Improve the reliability of the transport network with development of the district and other transport infrastructure

Encourage travel to rail stations using local bus services

Enable park and ride use of rail services

2. Future Proofing

Provide for the long term

Cater, as much as possible, for unknown future conditions (adaptability / flexibility)

3. Cultural

Maintain historic connections

Avoid impacts upon local historic heritage buildings

4. Economic Benefits

Enable land use that will bring economic benefits for the district

Enable sustainable population growth

Provide for efficient access to transport hubs (e.g. ports, airport etc)

5. Environmental

Reduce or maintain the negative impacts of transport on:

Air quality

Noise

Transport related CO₂ emissions

Public amenity

6. Urban Form

Increase the length of shop frontages that have high levels of interaction between pedestrians, motorists and other form of travel (active edges)

Increase accessibility

Encourage development patterns that encourage the uptake of passenger transport and active travel modes

Reduce the numbers of properties that are accessed directly from State Highway 1

The objectives identified above for the SH1 Expressway clearly recognise that the SH1 design response should deliver a balance between land use, social, environmental, economic and transport outcomes. This intent sits in accordance with Integrated Transport Planning aims and objectives. New Zealand’s Transport Strategy (NZTS) steers in this same direction in its 2010 vision of New Zealand’s Transport.

‘By 2010 New Zealand will have an affordable, integrated, safe, responsive and sustainable transport system’

Transit New Zealand Policy Manual Version 1 – August 2007

[This vision is supported by five key NZTS objectives:](#)

Assisting economic development

Assisting safety and personal security

Improving access and mobility

Protecting and promoting public health

Ensuring environmental sustainability

These national objectives guide towards a future of sustainable progress and growth. In order to achieve the envisaged outcomes it is necessary to bridge forward thinking policies and objectives with creative and innovative design solutions. Our New Zealand experience has shown us that Transport projects with engineering led solutions have not demonstrated the ability to deliver the aims and objectives of Integrated Transport Planning.

Internationally Urban Design has been taking a vital role in managing the design process and thinking of Transport projects with particular focus in delivering solutions that integrate not only national and regional objectives but also local plans.

New Zealand Transport Agency, has recognised the importance of Urban Design in the success of infrastructure projects. NZTA is a signatory to the Urban Design Protocol and in several national strategy and policy documents has identified Urban Design as an important driver of Transport projects and outcomes.

'Urban Design outcomes need to be incorporated into the development of transport solutions from the outset. Cities and towns are, first and foremost, places of exchange. The primary objective of urban transport solutions should therefore be to maximise the benefits of exchange while simultaneously minimizing the costs of movement'

Valuing Urban Design, New Zealand Transport Agency Research Report, 2008

The NZTA study into the expressway has ignored an integrated land use approach. However only Option 2 can be made to fit with the objectives. We would recommend the minister to look at the integrated approach taken by KCDC in the re-design of the Western Link:

Urban Design Report - Integrated Land Use and Transport Study

Western Link Design Philosophy

Western Link Economic Benefit Report by Brent Wheeler

KCDC – Towards a Sustainable Transport System

Seven sustainable Transport Principles

The KCDC's report "Towards a Sustainable Transport System - A Strategy for Managing Transport on the Kapiti Coast 2007" has some clearly defined visions and objectives regarding the vision for the future of transport in the Kapiti Coast. Seven sustainable transport principles have been adopted to guide decisions about transport systems and investment.

1. A sustainable transport system is one which delivers benefit across all areas of wellbeing.

2. In moving to a sustainable transport system and as a way of reducing and spreading environmental and economic risk, emphasis must be given to the following hierarchy of transport users, until such time as each travel mode is capable of delivering balanced benefits across the four areas of wellbeing:

Pedestrians;

People with physical mobility problems;

Cyclists;

Public transport users;

People accessing health and services within and outside the District;

Commercial/ business users;

Car borne shoppers and visitors;

Car borne commuters;

Car borne general travel.

3. Communities should have access to a physical network and travel service that offers them the widest possible range of travel modes giving access to essential civic and economic centres, social infrastructure and enjoyment of the local environment.

4. Community investment to reduce constraints on travel access and mobility (such as congestion) should be based on the following hierarchy (in descending priority order):

Ensuring reliable access to basic social, civic and day to day services (such as health services, schools and local shopping facilities);

Ensuring timely and reliable access of freight and goods for processing and markets;

Ensuring reliable access of workers to employment, with a priority placed on local employment access, but a recognition of links with regional employment;

Responding to people's mobility demands in relation to local enjoyment of family, friends, the local environment and community facilities;

Responding to people's demands for unrestrained general mobility.

5. A road corridor should be able to provide for pedestrian, cycling, passenger transport and vehicle use in a way that people have equal opportunities for access to all travel modes. In the case of rural roads horse riders should have similar opportunities. This should include feeling safe to walk, cycle and ride in a situation of multiple modes in a corridor. Preferential initiatives for active transport will be explored e.g. timing at traffic lights for cyclists.

6. A transport system should function in a way that minimises the demand for and use of energy and reduces reliance on non-renewable energy.

7. A transport system and external factors directly influencing the system should operate within local and global ecosystem capacity, such that ecosystem services (local and global) are maintained.

Within the overall District vision, the primary transport objective for the Kapiti Coast is to create a physical transport system that is attractive, affordable, connected, responsive, safe and offers effective mode choice so that it enables people to act in a sustainable way.

In principle, Kapiti Coast's transport vision is in tune with NZTA objectives for the SH1. This alignment in thinking offers an opportunity to deliver an integrated transport outcome that meets local, regional and national aspirations. It has the potential to set the way forwards towards a more sustainable and positive transportation system in New Zealand.

Given the close alignment of their objectives and the need to resolve the local network including the State Highway it is surprising that NZTA and KCDC were not working closer on the State Highway strategy. In fact it is beyond comprehension. It would have been beneficial to have both parties agree to a strategy and jointly take this to the community. It is not too late to resolve this.