

Before a Board of Inquiry
MacKays to Peka Peka Expressway Proposal

under: the Resource Management Act 1991

in the matter of: Notice of requirement for designation and resource consent applications by the NZ Transport Agency for the MacKays to Peka Peka Expressway Proposal

applicant: **NZ Transport Agency**
Requiring Authority

Statement of rebuttal evidence of **Marc Baily** (Urban Planning) for the NZ Transport Agency

Dated: 26 October 2012

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**STATEMENT OF REBUTTAL EVIDENCE OF MARC BAILY
FOR THE NZ TRANSPORT AGENCY**

- 1 My full name is Marc Nicholas Baily.
- 2 I have the qualifications and experience set out at paragraphs 2-9 of my statement of evidence in chief, dated 7 September 2012 (*EIC*).
- 3 With respect to paragraph 2 of my *EIC*, I note that I am no longer on the National Committee of the New Zealand Urban Design Forum, having elected voluntarily not to stand for a further 3 years, due to other time commitments.
- 4 I repeat the confirmation given in my *EIC* that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses (Consolidated Practice Note 2011).
- 5 In this statement of rebuttal evidence, I respond to the evidence of:
 - 5.1 Ian Munro, on behalf of Kāpiti Coast District Council (*KCDC*) [682];
 - 5.2 Graeme McIndoe, on behalf of Save Kāpiti Incorporated (*Save Kāpiti*) [505]
 - 5.3 James Lunday, on behalf of Save Kāpiti [505];
 - 5.4 Melanie Dixon, on behalf of Raumati South Residents Association Inc [707];
 - 5.5 Michael Mellor, on behalf of Living Streets Aotearoa [503];
 - 5.6 Sarah Lindsay on behalf of Highway Occupants Group [542];
 - 5.7 Sue Smith, on behalf of Waikanae On One (*WOO*) [514];
 - 5.8 Gerard Thompson, on behalf of St Heliers Capital Limited [644]; and
 - 5.9 Bianca Begovich, on behalf of herself [669].
- 6 The fact that this rebuttal statement does not respond to every matter raised in the evidence of submitter witnesses within my area of expertise should not be taken as acceptance of the matters raised. Rather, I rely on my earlier Technical Reports (5 and 6), my *EIC* and this rebuttal

statement to set out my opinion on what I consider to be the key urban planning matters for this hearing.

- 7 Consistent with my EIC, I have referred to the MacKays to Peka Peka Expressway Project as "the Project" in this rebuttal evidence.

EXECUTIVE SUMMARY

- 8 I have read all of the statements of evidence provided by submitters in relation to urban planning. As a result, I recommend changes to the designation conditions (or inclusion of advice notes) to provide for a number of matters. These include:

- 8.1 Future east-west connections: To provide a process for determining the need for future east-west connections across the proposed Expressway;
- 8.2 Nga Manu access: To provide for future capacity of the proposed access road to enable it to connect in future to the North Waikanae growth area;
- 8.3 Site Specific Urban Design Plans (*SSUDPs*): To provide a process by which detailed design matters for each of the locations where the Project interacts with local road crossings/intersections (including pedestrian bridges) can be resolved; and
- 8.4 Cycle and Walking Paths: To provide minimum dimension requirements and commitments.

- 9 Nothing in the evidence of submitters has caused me to depart from the conclusions of my Technical Reports (5 and 6) or my EIC. However, I accept that further reinforcement to achieve the outcomes sought in the Technical Reports would be beneficial and the conditions proposed are intended to provide for that.

SUBMITTERS' EVIDENCE

- 10 I have read all of the statements of evidence provided by submitters in relation to urban planning. I have responded below to particular points raised by witnesses where I consider further comment is appropriate, or where conditions are proposed to address the matters raised. I will discuss the points from each of the relevant witnesses' evidence in turn, using sub-headings for each one.

Ian Munro (on behalf of KCDC [682])

- 11 Mr Munro supports the approach taken by the NZ Transport Agency (*the NZTA*) to urban design and planning issues,

subject to several points at issue which I will address in turn below.¹

Managing Strategic Access

- 12 Mr Munro supports the proposal that full access points to the proposed Expressway should not be provided, except at Kāpiti Road and Te Moana Road.² He sees this as 'going a long way'³ to inhibiting the potential for unwanted commercial growth away from centres where that growth is planned for.
- 13 However, he also seeks, in support of the KCDC submission, more 'active restrictions' at Poplar Avenue and Peka Peka Road. He proposes a condition that limits the provision by NZTA of any vehicle access or road links within 1km of the Expressway to any land use activity, other than as agreed with KCDC (my abridged wording).⁴
- 14 Mr Munro is of the view⁵ that the Kāpiti Coast District Plan (*the District Plan*) is not sufficiently reliable to manage land use change pressures at the unplanned growth nodes of the District and that an additional active restriction is required.
- 15 I consider that any management of land use change induced by the new order of State Highway junctions in the District is best implemented by a *combination* of District Plan provisions, landownership, intersection configuration and potentially other tools, such as those proposed by Mr Munro and KCDC in terms of limiting access.
- 16 My view is that the District Plan is the principal tool for managing land use, albeit that it is one of a combination of possible methods. I consider that the District Plan can and should have strong policy and regulatory controls on access (such as, for example, limited access frontages), as well as on commercial land use, within the immediate vicinity of interchanges.
- 17 If a change to the District Plan were to be seen as a desirable tool to add, this could be achieved relatively expediently under section 86B of the Resource Management Act 1991 (*RMA*), whereby any rules could be made operative after decisions are made on submissions.

¹ Paragraph 3.6.

² Paragraph 5.5.

³ Paragraph 6.2.

⁴ Paragraph 6.1.

⁵ Paragraph 6.3.

- 18 I understand from discussion with Mr Munro⁶ that the intent of the condition he proposes is to inhibit access for unplanned growth from any NZTA owned land that may become surplus (to the designation requirements) in the future.
- 19 The tools for managing this unplanned growth (in addition to the District Plan zoning and policy) could include some form of separation strips to the edges of designated land or other mechanism such as a title covenant to prevent access to any adjacent local road. This type of condition is in principle acceptable to me (from an urban design perspective) as it applies to the intersection locations where unplanned land uses may be an issue. I also appreciate however, that there may be legal considerations in this respect, given that it is the Crown which would own the land, and not the NZTA as requiring authority.
- 20 I understand that the NZTA has concerns about Mr Munro's proposal and these are discussed further in the evidence of **Mr Andrew Quinn**.

Future East/West Linkages

- 21 Mr Munro considers that east-west local road connections over the Expressway in the north Waikanae (Ngarara) area, including connections to Ferndale, are required.⁷ He also considers a cross-Expressway east-west connection is also needed at Leinster Avenue. He is of the opinion that these east-west connections will be required in the future at such time as urban development occurs there (although not needing to be constructed as part of the Expressway on 'day 1').
- 22 I have noted in my EIC⁸ that NZTA and KDCDC have a separate Project Agreement (that sits outside this consent process) which provides a process for considering the need for additional bridges over the Expressway at an appropriate time in the future. A copy of that agreement is appended as **Annexure A** to my evidence.
- 23 In discussing this issue with Mr Munro I understand he is seeking some balance of expectation that the links will occur, unless the process initiated to determine them proves they are not required.
- 24 I suggest that an advice note be attached to the designation conditions, which refers to the Project Agreement between

⁶ On 16 October 2012, Mr Munro and I met to discuss the issues raised in his evidence. Any reference in this evidence to discussions with Mr Munro refers to that meeting.

⁷ Paragraph 7.5.

⁸ Paragraph 104.

KCDC and the NZTA. The advice note could explain that the Project Agreement provides a process for determining additional bridges over the Expressway at an appropriate time in the future and a process for determining indicative funding sources for any such future crossing.

- 25 I do note also that Annexure 2 to Mr Munro's evidence describes a future connection at Ferndale. In my opinion, the form and capacity function of this connection will need to be carefully considered to ensure that it fits with the design of the Ferndale development and expectations about increased traffic flow there.
- 26 In my view, the process outlined in the Project Agreement would be the better way of determining the best location of future connections and the design of these in terms of traffic volume and transport network planning. This agreement also includes three plans that identify the general vicinity for each of the connections. I am of the opinion these are a better point of reference for the consideration of the location of new connections.

Nga Manu connection

- 27 With reference to Mr Munro's comments about access to Nga Manu⁹ I support a condition that enables this access road to be built to a standard now that would allow it to be used, in future, as a connection to the North Waikanae development area (the land east of the Project and contiguous with the current SH1). However, I understand that KCDC recognises that enabling this future connection may require additional capacity to be provided for initially than is warranted at this time (i.e. arising from this Project) and accordingly a cost share arrangement has been agreed. **Mr Noel Nancekivell** discusses this matter further in his evidence.

Pedestrian overbridges

- 28 Mr Munro generally supports the location and distribution of the Project's proposed pedestrian bridges.¹⁰ However, he raises some particular design matters, such as ensuring that the bridges are integrated into the local road and pedestrian networks.¹¹
- 29 With respect to Mr Munro's comments on pedestrian overbridges, I agree that it is important that the design of these is appropriately undertaken.

⁹ Paragraphs 8.1-8.5.

¹⁰ Paragraph 9.2.

¹¹ Paragraph 9.8.

- 30 For this and other urban design matters, I now propose a condition which requires SSUDPs to be prepared for certain places. I alluded to such a condition in my EIC (paragraph 179) and now offer this in a more specific form (see **Annexure B** to my evidence).
- 31 My intention is that this condition would operate such that the detailed design of pedestrian bridges (and other important urban design structural elements) would be considered to ensure the detailed design is appropriate to function, context and the opportunities for architectural design. The design process will include a Crime Prevention Through Environmental Design (*CPTED*) audit to recognise the importance of the safety in the design of these crossings.¹²
- 32 This condition is not intended to apply to the whole of the Project. The condition is also not intended to address any of the fundamental decisions that have already been made about the Expressway design such as split of open bridges, under or over bridges, widths of local roads, and the provision of the cycleway.
- 33 The intent of the condition is to enable a process by which the key design experts would engage with KCDC to resolve urban design detail at specific points where the Expressway interacts with local roads in particular, for the form of pedestrian bridges and the cycleway/walkway/bridleway (*CWB*). The specific matters to be addressed in these specific locations are noted in the proposed condition (refer to Condition DC.59A(g)) and are recognised in the ULDF design considerations (section 5).
- CWB***
- 34 Mr Munro recognises the benefits of the proposed *CWB*.¹³ He seeks confirmation of the dimensions for the *CWB* and local roads in terms of cycle and walking facilities. He also seeks confirmation of the QE Park section of the *CWB* and he raises the matter of *CPTED* as it relates to the *CWB*.¹⁴
- CWB Dimensions*
- 35 The minimum dimension provision for the *CWB* is for a formed 3m wide two way *CWB* with a grassed edge. This edge can be used by horse riders.¹⁵ The surface of the *CWB* will be either asphalt or a chip surface to match the character of areas it traverses. It has been designed to enable ease of use by of a range of abilities following AUSTRROADS Part 6A

¹² DC.59A(f).

¹³ Paragraph 10.2.

¹⁴ Paragraph 14.2(f).

¹⁵ Refer to Technical Report 5, Figures 109 and 110.

Pedestrian and Cyclist Paths and Cycle Trail Design Guide. These dimensions can be referenced in conditions as proposed for the design detailing of the CWB as one of the SSUDPs (refer to Condition DC.59A(e))

Interaction with local roads

- 36 In respect of Mr Munro's opinion concerning the dimensions (minimums) for local roads as they pass beneath the Expressway,¹⁶ I note that these have already been determined in conjunction with KCDC. They include provision (typically both sides of the local road) for a 2m wide footpath, 1.5m cycleway (on road) and variable berm widths (depending on the space remaining after vehicle carriageway design). These are the dimensions that will be provided for within the design.
- 37 I note that sufficient local road reserve widths have been provided where new Project bridges are required, such that CWB functionality can be provided. At some locations, there is currently no local road footpath on both sides, or on-road cycle lanes, to join into, so the Project may not provide for these on 'day one'.
- 38 I intend by the condition that I have recommended above that a SSUDP would be prepared, for each of the road crossings, so that these details will be addressed. This would be prepared in consultation with KCDC. I support Mr Munro's recommendation for a condition specifying the provision of sufficient space at the local road crossings to allow for those dimensions (refer Condition DC.59A(d)).
- QE Park section of the CWB*
- 39 I can confirm, as stated in my EIC¹⁷ that there is a side agreement as between the NZTA, KCDC and Greater Wellington Regional Council (GWRC) under which the QE Park section of the CWB is to be provided. This part of QE Park is not within the designation. However, I understand this facility will be addressed as part of works funded by NZTA and implemented by GWRC.
- 40 Mr Munro seeks a condition¹⁸ that overtly references the provision of this QE Park CWB facility and the provision of this within the timeframe of 2 years of the Project's operational commencement. I accept the benefit of such a condition which refers to the QE Park CWM facility in order to specifically recognise its contribution to Project connectivity.

¹⁶ Paragraph 10.5.

¹⁷ Paragraph 76.

¹⁸ Paragraph 10.2.

CPTED

- 41 I concur with Mr Munro¹⁹ that CPTED is an important factor for the appropriate design of the CWB. There are benefits in the path being contiguous with the Expressway through the sections of the route where there is containment to provide inter-visibility between CWB users of the Expressway users. These matters of detailed design can be addressed in the SSUDP process and a new condition is proposed to this effect (refer Condition DC.59A(e) and (f)).

Te Moana Road

- 42 Te Moana Road is also identified by Mr Munro as an area of concern in relation to the design of the CWB.²⁰ I have also noted this in my EIC²¹ and agree with Mr Munro that traffic signals are a preferable means by which to assist walking and cycling movements at this location.²² My understanding from **Mr Andrew Murray** is that either option would be acceptable in traffic operational terms.
- 43 My only reservation about signalised intersections at Te Moana Road is the way in which the current relatively simple single lane design will get reconfigured to a larger scale design, with queuing lanes for traffic waiting at lights.
- 44 However, there is the opportunity through the proposed SSUDP process to review this matter with interested parties, such as KCDC (refer Condition DC.59A(h)), and settle on an optimum intersection design that addresses pedestrian, cycling and horse rider safety and convenience (refer Condition DC.59A(g)).
- 45 The SSUDP process for Te Moana Road should also explicitly recognise the Network Integration Plan (as recommended by **Mr Murray** in his evidence (refer condition DC.X3g)), as there is both a spatial and traffic functional design solution required here (refer Condition DC.59A(b)).

Signage

- 46 I accept Mr Munro's recommendation that signage details and their locations should be considered in consultation with KCDC (refer Condition DC.59A(d) and (h)).²³ This recognises that Council may have different requirements than NZTA to encourage traffic to key destinations. Such a condition would also recognise that signage infrastructure such as poles and panels on local roads can generate issues for visual amenity,

¹⁹ Paragraph 10.4.

²⁰ Paragraphs 10.8-10.12.

²¹ Paragraph 78.

²² Paragraph 10.10.

²³ Paragraph 11.7.

as well as walking and cycle function by blocking sightlines or constricting usable space.

Mazengarb Road Bridge

47 Mr Munro does not support the current design of the Mazengarb Road Bridge crossing in terms of its retaining edges and the general response to the curving of the road and under-bridge space.²⁴ He seeks that the arrangement be re-designed in consultation with KCDC.

48 It is acknowledged (**Mr Nancekivell**, EIC, paragraph 123) that, at Mazengarb Road, there are issues regarding the visual dominance of retaining structures and the type of environment this generates for local road users – especially pedestrians/cyclists.

49 Work has been undertaken to investigate a range of options here and there are several alternatives to gain improvements. These alternatives can again be addressed by the SSUDP, in consultation with KCDC (refer Condition DC.59A(g) and (h)).

Consultation and Certification by KCDC

50 There is recognition in conditions that KCDC (and other parties) will be consulted on various matters associated with the development of the Project's further design, such as through management plans.

51 In various places in his evidence²⁵, Mr Munro proposes that KCDC certification be required for the various design matters I have addressed above.

52 I accept that KCDC has a valid role in the process of determining design development at specific locations and the conditions (identify specific aspects of that process that will be open to consideration (refer Condition DC.59A)).

53 This includes the SSUDP as well as several other matters that will would be both consulted on with the various interested parties (including KCDC), but finalised by way of certification by KCDC (refer Condition DC.59A(h) and (j)). I consider that it would be appropriate to further refine condition DC.59A(j), so as to identify the specific principles surrounding certification by KCDC. This matter could be usefully worked through in witness conferencing.

54 I note that the certification process (which has application to other proposed conditions outside of the urban planning and design ones) also includes an alternative default process, should certification become unworkable at a certain point.

²⁴ Paragraphs 12.1-12.4.

²⁵ Paragraphs 8.5, 9.8, 10.7, 11.7, 12.4, 14.2.

The 'default' will be to a standard outline plan process under section 176A of the RMA.

**Graeme McIndoe on behalf of Save Kāpiti Incorporated
[505]**

Relation of proposed Expressway to Urbanised Areas

- 55 Mr McIndoe comments that the positioning of the Expressway within the Kāpiti urbanised area is contrary to the principle of design best practice that a road at this level of the roading hierarchy is best located at the periphery.²⁶ Related to this opinion, Mr McIndoe makes comments in relation to the design review panel that was asked by NZTA to deliver its opinion on the alternative options in 2009.²⁷ He considers that the decision made by the NZTA for the proposed Expressway route establishes a flawed urban structure.²⁸ His evidence following sets out why he considers it to be so.
- 56 I acknowledge Mr McIndoe's opinion concerning best practice. However, these best practice principles need to be referenced to both the complexities of the existing urban design context and the Project's objectives.
- 57 In terms of existing context, this includes the pre-existing urban form (which includes a designated transport corridor), environmental and topographical factors, economic influences, growth potential, transport objectives, social, cultural and political conditions and a myriad of other factors. These are all considerations in a holistic approach to urban planning to arrive at a reasonable outcome for the context at hand. The Project's objectives (which are discussed in the evidence of **Mr Roderick James**) are also relevant as a frame of reference, when considering the application of best practice urban design principles.
- 58 Mr McIndoe is correct to point to the fact that the NZTA's decision to proceed with the proposed designation route was contrary to the advice provided to the NZTA by the urban design review panel. **Mr James** addresses the reasons behind this in his evidence in chief (paragraph 58). I have also discussed the panel's findings in my EIC and have noted that the design for the now proposed Project route is considerably different from that examined by the panel in 2009.²⁹
- 59 I also note that I have now had the benefit of time (which was not available during the panel's 2 day review) and expert input (transport planning, road geometrics, structural design,

²⁶ Paragraph 38.

²⁷ Paragraph 45.

²⁸ Paragraph 14.

²⁹ EIC, paragraphs 25-29.

geotechnical conditions, visual effects etc) to further understand the alternative options and how these would work in urban design terms.

60 I maintain my opinion that in light of the contextual matters and Project objectives, the proposed designated route is the correct one, in urban design terms. That view is also supported by Mr Munro. He notes that the Expressway "*will achieve its transport objectives while giving rise to the least detrimental impact on the Kāpiti Coast, in particular the settlements of Paraparaumu and Waikanae.*"³⁰

61 With specific reference to the subjects raised by Mr McIndoe I expand on his points below.

Adequacy of the assessment

62 I would like to highlight, at the outset that I disagree with Mr McIndoe's questioning of the robustness of the urban design assessment.³¹ There has been considerable investment in the ULDF (Technical Report 5) to translate and apply urban planning and design research and guidance (including through the various accepted policy and requirements identified in sections 2 and 3 of the ULDF) to the particular the context of the Kāpiti Coast and the important design considerations this context requires to be addressed.

63 The assessments of effects on the environment in relation to urban design and planning (Technical Report 6) was undertaken with reference to the matters that are considered relevant under the RMA and in combination with matters addressed by other experts (for example transportation, economic, social, landscape and ecology).

64 The ULDF has been peer reviewed (by **Mr Kevin Brewer**) and Mr Munro acknowledges his support of the approach taken by the NZTA in respect of urban design and planning issues (subject to his comments), including the effort and care taken to develop the ULDF.³²

Neighbourhood Connectivity

65 I acknowledge Mr McIndoe's comments regarding neighbourhood connectivity (at paragraphs 48-69) and the levels of connectivity that are considered best practice in terms of block length. I use these block lengths myself for considering urban planning projects in urban contexts and

³⁰ Paragraph 14.1.

³¹ Paragraph 67.

³² Paragraph 3.6.

used them in my assessment of the Kāpiti environment east west connectivity in the ULDF (e.g. wide gaps³³).

- 66 I comment later in this rebuttal evidence³⁴ about my understanding of the current levels of connectivity 'service' provided by the existing network.
- 67 However, first, I address what I consider to be three important influences on connectivity, which relate to context.

67.1 Firstly the connectivity 'standards'³⁵ of (approximately) 200m - 400m maximum lengths of blocks have a relationship to density of development – there is no value in having connections that do not get used because there is no one there to use them.

In this respect there are large sections of the Project which are either not at all urbanised or not planned additionally to be (for example Mazengarb to Otaihanga Road to Waikanae River to Te Moana Road). Yet Mr McIndoe suggests there should be a further 11 (out of a suggested additional 37) new street connections provided for in these sections (his Table 1).

67.2 Secondly, it is unrealistic in my opinion to ignore the context of the pre-existing east-west (and north south) connectivity, which is the result of historical patterns of urban growth. The pattern of development started along the coastal edge, with a series of settlements linking back by laterals to the current SH1. Newer development has essentially 'filled in' back to the current SH1 and across it (and the railway line) in some areas, such as at Waikanae and Paraparaumu. The current connectivity is highly influenced by the designation of land some 100m wide for the 'Sandhills' motorway – in place since the 1950s and since which there has been the period of significant urbanisation and 'filling in' around it in the two main urban areas.

67.3 Thirdly, the provision of additional connectivity (particularly, if these are to be in the form of streets) will be very difficult, given the existing

³³ ULDF section 3.7.

³⁴ Paragraph 79.

³⁵ Paragraph 58.

topographical conditions and pattern of urban development.

- 68 On these second and third points I am concerned about the impracticality of multiple new connections in the form of actual streets in terms of the current urban pattern.
- 69 I did undertake several walkovers (and also attempted to cycle the urban section to follow rough tracks with the KCDC CWB officer) and these, together with my desk top analysis of options for additional connection, identified the issues with the feasibility or benefit of these.
- 70 Connections would require significant additional property acquisition, changes to existing local street layouts (if new roads had to connect in) and parallel roads to be constructed in some places to give new connections running east/west a place to connect to.
- 71 The neighbourhoods into which any new connections would have to insert are in many places cul-de-sacs and these residents will have some (reasonable) expectations as to the level of traffic there.
- 72 The more highly urbanised locations along the route, such as between Mazengarb Road and Kāpiti Road, make new east/west connections very difficult. A pedestrian overbridge (budgeted cost \$1.5-2M) is planned for the middle of this area and this is located where there is space to connect to the west side. The connection on the east side will require a house to be purchased. This planned connection will obviously assist east-west connectivity. However, providing additional connections here would be more difficult, given the topography changes and requirements for additional houses to be taken.
- 73 In the next section of the route south (Kāpiti Road to Wharemauku), the topography is steep (to the west) and there are no gaps to connect to this area (except on Milne Drive about 100m back from Kāpiti Road). This section is in itself a relative enclave, positioned between the town centre and airport (i.e. it does not connect further west from here). The planned extension of Ihakara Street (alongside Wharemauku Stream) towards the airport is being allowed for by the bridge span here and the design of the stormwater management areas.
- 74 The section of the route between Wharemauku Stream and Raumati Road is relatively steep. A new cycle/walking connection is proposed to link to the Expressway from Kiwi Road. This will allow for lateral movement towards the Paraparaumu town centre via Wharemauku Stream. This

area is low lying and as such, any connecting roads here would likely need to be raised. These topographic constraints and the likelihood that it would be maintained as open space (it has a rural zoning given its low lying nature) means that there will be little edge development that would be likely to utilise such a connection.

75 The topography rises up steeply again towards Raumati Road and a connection here was considered, but this would have required a tunnel and was unlikely to be highly used (given the existing street connection nearby (Raumati and Rata Roads). A tunnel would also have generated safety issues for pedestrians and imposed significant costs.

76 As noted above, in the section between Raumati Road and Leinster Ave/Poplar Avenue, there is some potential for urbanisation in the future. The extent of it will be limited by the topography and wetlands (which there is a desire by KCDC to maintain).

77 However, urbanisation of this area can (and should) include connections laterally to Poplar Avenue and to local facilities, such as the school on Matai Road. Whether these can be vehicle connections will need to be determined (at the time of any structure planning for this land), given the steepness of the land and potential for connections to be made to the existing street network. In my opinion, there is only likely to be one practicable east/west street connection point in this section (at about Harry Shaw Way). I note that Mr McIndoe suggests five new connections here.

78 Some enhancement to connectivity is proposed, arising from the development of the Project:

78.1 additional pedestrian and cycle connection in the long urban block between Kāpiti Road and Mazengarb Road;

78.2 provision for future new connections with urban growth at Leinster Avenue (both to existing SH1 which replaces one lost) and new connections back to Matai Road (provided for by realigning the Expressway in this section);

78.3 provision for planned new road connection in the block between Kāpiti Road and Raumati Road (Ihakara Street extension alongside Wharemauku Stream) which connects the town centre area through to the airport land and business park;

- 78.4 several linkages from the existing walking and cycling network into the new cycle and walking path along the length of the Project;
- 78.5 future connections in the Ngarara area, the location and number of which will be determined by the urban design process set out in the Project Agreement between KCDC and NZTA (as discussed above);
- 78.6 provision of cycling connection between Paekakariki (the next settlement to the south) and Raumati via QE Park; and
- 78.7 provision of north-south connections between Waikanae and Paraparaumu (and into the wider region) via both the Expressway road itself (for vehicle traffic) and the proposed CWB.
- 79 Returning to the matter of the existing levels of connectivity and how the current network is used, my colleagues and I undertook research into this as part of the methodology for determining the need for additional connectivity.
- 80 We undertook a Local Area Movement Surveys (*LAMS*) analysis³⁶ to understand the way in which people both use existing streets and off street pathways (including those informally using the existing designated land). This has assisted my understanding of the way in which people move about the area currently.
- 81 The urban planning and design of the Expressway has ensured that these connections remain and provide for the planned growth by KCDC. The work in designing the Expressway also took account of KCDC's 'aspirational' CWB network connections plan (ULDF Section 3.9 Figure 46) and provision has been made to allow for these connections.
- 82 Some testing of the connectivity in the network arising from additional connections was undertaken to understand the benefits of new links and the proposed Expressway CWB. **Annexure C** describes the connectivity range (walking and cycling) with and without the Expressway and connections.
- 83 The tests are only working tools and do not represent changes in topography, waiting times, weather influences or the abilities of the walker or cyclist (except to the extent of the speed used to calculate the distance).

³⁶ ULDF Section 3.9 Figures 43, 44, and 45.

- 84 The tests showed that there is a reasonable level of movement range possible from the existing pattern of streets (and paths like Wharemauku Stream). It also showed that additional Expressway and local network connections made some (relatively minor) improvements to this connectivity range.
- 85 I recognise that this range test is not the same as increased connectivity (i.e. additional connections may reduce the time taken to move between places or make it more conducive to doing so), but what the test clearly shows is that there is, within a 10 minute cycle, an ability to access a large extent of the main urban area from the Paraparaumu town centre (or vice versa from within this catchment back to the town centre). Walking has a lesser range within the same 10 minute time, but given it has been tested with the same network as cycling, longer walk times would leader to a wider range.
- 86 In summary, my response regarding connections is that although the current street network is constrained in its east west connectivity, that this is a function of urban development patterns over time (including the current designation) and topographical influences in some instances.
- 87 There remains a reasonable level of service from these existing connections in terms of walking and cycling range. Enhancements are proposed as part of the Project that will assist this. In particular, provision has been made to provide increased connectivity within the planned urban growth areas and this is in step with good urban planning practice. In my view, the level of connectivity sought by Mr McIndoe is not necessary to address the effects brought about by the Expressway and (as I have discussed above), it is in many ways inappropriate in this particular context.
- Safety and Security**
- 88 Mr McIndoe raises issues with the potential for safety hazards from the pedestrian and cycle only paths.³⁷ The well recognised approach to the design of places to be safe for people is CPTED.
- 89 I agree that this is important and propose a condition (refer Condition DC.59A(e) and (f)) that a CPTED review be undertaken as part of the design process to ensure that the outcomes are positive. As Mr Munro notes, the proposed cycle and walking paths are a benefit of the Project. I agree with Mr Munro that, beyond simply becoming a successful

³⁷ Paragraph 97.

network of CWB in the District, the CWB could become a "premier amenity in its own right".³⁸

- 90 I am familiar with the CPTED principles, as are the landscape architects that have been involved in the design of the landscape within which the path would sit. These were recognised at the outset of the Project in the Design Philosophy Statement³⁹ as a consideration.
- 91 I have commented on safety (in respect of the bridge crossings) in section 6.2.1e of Technical Report 6. With reference to CPTED considerations,⁴⁰ I am of the opinion that all aspects of the CWB's safety can be addressed to satisfy these considerations. The conditions provide a clear process by which CPTED reviews will be undertaken. **Ms Julie Meade Rose** also refers (paragraph 180 EIC) to the value of CPTED in design and supports a condition to this effect.
- 92 In my experience, a review at the outset of the developed design process is useful to identify all the critical matters for consideration in the Project scheme design and then a further review should be taken towards the end of the design process to confirm matters have been addressed positively. The proposed conditions provide for this (DC.59A(f)).
- 93 In my opinion, consideration will need to be given, in particular, to the positioning of the CWB within visual contact of drivers on the Expressway in the longer sections of the more contained sections of the route (i.e. between Kapiti Road and Mazengarb Road specifically). The pedestrian bridges are also recognised as requiring specific considerations as to the accessibility, width and visibility for users.
- 94 I note that the LAMS (referred to above) show high levels of use of the Wharemauku and Waikanae River path. These appear to be well valued by local users and generally satisfy the CPTED considerations above.
- 95 The level of usage of the CWB will have an influence on its safety and, in my opinion, this is being facilitated as far as possible by quality in design and connectivity to the local network.

³⁸ Paragraph 10.2.

³⁹ MacKays to Peka Peka Expressway, Design Philosophy Statement (final issue December 2011).

⁴⁰ Ministry of Justice (2005) National Guidelines for Crime Prevention Through Environmental Design in New Zealand Part 1: Seven Qualities of Safer Places.

Activities fronting major roads

- 96 Mr McIndoe suggests⁴¹ that street edge conditions in urban areas should enable connection and access to frontage activities at the sides of major roads. This depends on the intended functionality of the street/road in question.
- 97 **Mr Murray** has considered the form of road best able to meet the transport outcomes included in the Project Objectives, namely to improve efficiency and journey time reliability and to enhance safety for travel on SH1. He has concluded that a 100km/hr speed limit is appropriate, in terms of those objectives.⁴² Such a speed limit is, in my view, inconsistent with a desire to generate frontage activities that connect to the road edge.
- 98 In this regard I am of the opinion that the current SH1 route (which already has connections along its frontages at both Waikanae and Paraparaumu, as a result of the historical pattern of development), is better configured currently to provide road frontage role as an arterial connector.
- 99 Redeveloping the SH1 as the Expressway route would eliminate the potential for these frontages to continue to be provided (refer to paragraph 118 below). Furthermore, the existing urban form of the areas surrounding the currently designated WLR route will, in my view, also have very limited propensity to be developed as an active edge even if this route were used as a lesser hierarchy arterial road.
- 100 As noted further below, the current definition of relatively impenetrable property boundaries and the width of the WLR designation (as well as topography to some extent) means that new commercial frontage activities will be difficult to achieve.
- 101 I also note that KCDC has clearly established its urban growth policy for commercial centres with the main centre at Paraparaumu and the smaller centre at Waikanae. The concept of various commercial activities⁴³ being developed along a more arterial natured road length is counter to that policy.
- 102 Even the WLR design⁴⁴ undertaken by Mr Lunday appears not to have any commercial activities along it (except at the Paraparaumu town centre and in the Makarini to Mazengarb

⁴¹ Paragraph 102.

⁴² **Mr Murray**, EIC, paragraph 209.

⁴³ I am assuming that Mr McIndoe is referring to commercial activities, as the reference to the quote under paragraph 102 of his evidence refers to "urban economic generators".

⁴⁴ Western Link Road Concept Interim Report (August 2008).

block, where on the east side the long term planning for the edge shows mixed use commercial/residential development and a slip lane to service this), as it is expressed generally as a more green open space environment.

Provision for neighbourhood centres

- 103 Mr McIndoe also raises issues with the Project's effects on provision of neighbourhood centres.⁴⁵ The economic effects of the loss of highway traffic from local centres are addressed by **Mr Michael Copeland** (noted in my EIC at paragraph 62). I am of the view that the loss of the highway also generates benefits and opportunities and this has been canvassed already in my EIC (paragraphs 55 -63).
- 104 Mr McIndoe expresses an opinion that the Expressway does not provide for the development of new local centres, and cannot readily do so.⁴⁶ He suggests that the design precludes future local neighbourhood services where they would optimally develop.⁴⁷
- 105 As noted below, KCDC has determined its centres and growth planning. The Expressway does not prevent the ability of centres which are on the existing arterial roads, in coastal areas or alongside the current SH1 to develop and mature in the future (see **Annexure D**).
- 106 As can be seen from **Annexure D**, the neighbourhoods that have formed are reasonably well defined. There are several existing neighbourhood centres, which have local catchments (Raumati, Raumati Beach, Paraparaumu Beach, Kena Kena, Waikanae Beach).
- 107 There are also two established town centres, Paraparaumu and Waikanae, which have broader catchments. Paraparaumu is the larger (being of sub-regional interest), while Waikanae is more of a local centre.
- 108 In my opinion, the Expressway does not sever the existing coastal settlements from their local centres, nor does it prevent their potential for planned growth and change.⁴⁸
- 109 The inland town centres of Paraparaumu and Waikanae remain accessible to the wider residential areas, including the coastal communities via the current east/west connections. Access to these will be enhanced north south via the

⁴⁵ Paragraph 109.

⁴⁶ Paragraph 113.

⁴⁷ Paragraph 20.

⁴⁸ Refer to KCDC Choosing Futures – Development Management Strategy Technical Report 5 section 2.7.

Expressway. In my opinion, the Expressway is considerably better placed to deliver on KCDC's plans for future growth and quality of the town centres than the other options considered for the alignment.

- 110 Mr Munro agrees that the proposed distribution and high-level design of the proposed Expressway access points are desirable as they will support as much as possible the existing settlements of Paraparaumu and Waikanae.⁴⁹

Resilience and long term change

- 111 Mr McIndoe expresses a concern about the Expressway not providing for as yet unplanned and unforeseen long term growth and development.⁵⁰

- 112 KCDC has clearly identified its planned growth for the town centres and at north of Waikanae. I have already addressed in my EIC (paragraph 101) the changes required at north Waikanae to accommodate the Expressway. I have already discussed in this evidence the future proofing for east west connections (at paragraphs 21-26)(which also applies to the southern end of the expressway, near Leinster Avenue). The planned town centre growth and enhancement, would, in my opinion, be enhanced by the Expressway.

- 113 Mr McIndoe takes issue with the statement in Technical Report 6 that there will be no physical barrier to enable movements between inland or coastal areas.⁵¹ This was supposed to be read in the context of the statement preceding that, which identifies that the existing east west connections continue to be provided. In that sense, it follows that the Expressway does not present a physical barrier to those existing east-west connections.

Consideration of alternatives

- 114 Mr McIndoe considers that alternative options to the Expressway should be revisited, in order to overcome the issues he identifies in his evidence.⁵² He suggests developing SH1 as the high speed traffic route and constructing a local road on the proposed Expressway route. There is a suggestion that the design brief, expectations, or the weight placed on expectations requires reconsideration.⁵³

- 115 In my opinion the Project Objectives (as outlined in **Mr James'** evidence in chief, at paragraph 67) and the

⁴⁹ Paragraph 5.4.

⁵⁰ Paragraph 120.

⁵¹ Paragraph 122.

⁵² Paragraphs 124-129.

⁵³ Paragraph 124.

conditions of the existing context through which the Expressway is required to pass, mean that the most appropriate option, in urban design terms, is the proposed route.

- 116 I also note that, like many of the submitters, Mr McIndoe considers that the existing SH1 route is the best location for the Expressway. I am not sure how deep an understanding Mr McIndoe has about this alternative.
- 117 From the work undertaken for the Alternative Route Options⁵⁴, my understanding is that the alternatives to using the existing designated corridor for the Expressway (such as upgrading the current SH1 route) would have had greater effects than the proposal to be followed.
- 118 These effects are generated with the SH1 option by the need to 'retrofit' the roading infrastructure of 4 traffic lanes (plus extra lanes to provide frontage access to new property edges), 110kmh design speed geometry and grade separated interchanges into an existing urban form. The alternative of a route that followed the existing SH1⁵⁵ would:
- 118.1 Result in the loss of substantial commercial areas, including the existing commercial properties and retail activities at Waikanae;
 - 118.2 Affect 368 properties and include the demolition of 241 buildings (versus 83 properties and 19 buildings for the proposed Expressway route⁵⁶);
 - 118.3 Result in substantial visual dominance at the town centres from the scale of grade separated interchanges and ramps in close proximity to (or over) existing buildings and facilities, including the rail station at Paraparaumu;
 - 118.4 Introduce visual effects to the residential areas on the rising ground to the east of SH1 and the railway line - the foreground here is currently relatively open;
 - 118.5 Involve a convoluted and poor legibility interchange arrangement at Paraparaumu to fit with the existing street configurations and minimise property take;

⁵⁴ MacKays to Peka Peka Expressway, Alternative Route Options Report (Volumes 1,2,3).

⁵⁵ MacKays to Peka Peka Expressway, Alternative Route Options Report, Volume 2 Drawings.

⁵⁶ MacKays to Peka Peka Expressway, Alternative Route Options Report, Volume 1.

118.6 Result in loss of connections from existing properties that front to sections of SH1 and require additional significant lengths of roading infrastructure to create parallel service road access and creating even wider road surface areas; and

118.7 Result in disconnected enclaves of properties that would be difficult to refit as part of the existing urban area.

119 I refer also to the rebuttal evidence of **Mr Murray** (paragraph 105 onwards) in regard to the workability of the alternative option of a SH1 replacement Expressway with respect to the integration of such a road with the town centres at Paraparaumu and Waikanae.

120 In addition, upgrading the SH1 route (if it overlaid the existing SH1) may not provide the same alternative route resilience benefits as this Project.

121 Additionally the consideration of costs and social effects also indicate that the existing State highway/rail corridor would not be the most appropriate route.

122 It is important to recognise that when the alternatives were being considered, none of the options had a positive score under the Multi-criteria analysis (MCA) Built Environment criteria heading. This reflects the difficulty of establishing the proposed scale of infrastructure within an existing urban area.

The MCA process

123 **Mr Robert Schofield's** evidence addresses address the matter of alternative options and the way these were considered in relation to the proposed Expressway route and the MCA process.

124 However, I would also like to take this opportunity to respond to Mr McIndoe's suggestion that the MCA failed to take account of certain urban design matters:

124.1 I note that the tabular format in the MCA is a summary only of the relative satisfaction of each of the options, in relation to each of the considerations. The ambit of potential urban design matters for the Project MCA process (both the Alternative options and 'within route' alternative options) were identified early (July

2010) as part of preparing the Project Design Philosophy Statement.⁵⁷

These matters were background to the MCA process and included: modal options for movement, land use and transport integration, urban form, connectivity, amenity, structures and sustainability.

124.2 Within the scope of the MCA criteria some of these matters are represented outside of the Built Environment heading (i.e. under Movement and Social).

124.3 The process of undertaking the MCA scoring included an internal process workshop of the landscape and urban design group to ensure the various issues were discussed and debated. This work was then presented to a wider workshop for further discussion and debate to confirm the scores. In this respect I am of the opinion that the process as a tool to understand the relative benefits of options was appropriate.

125 In regard to Mr McIndoe's specific comments:

125.1 The visual effects of an option were not counted twice - there is only one reference to visual effects;

125.2 The potential to extend and connect existing streets was considered with reference to future growth areas - any severance of existing east/west connections was considered as a negative - for example the impact on circulation was raised as a negative for options 3 and 4;

125.3 The CPTED considerations are not overtly stated, but the design team were conscious of them (I note also that they are recognised in the Design Philosophy Statement as a consideration under the "Amenity" heading). To some extent these considerations were also recognised in both Social (Social/Community) and Movement (Integration with Cycleways and Pedestrian Access);

125.4 I disagree with Mr McIndoe's suggestion that the integration of cycling and walking ratings are not credible. There are different relative benefits of the options when it comes to these matters. Although

⁵⁷ MacKays to Peka Peka Expressway, Design Philosophy Statement (final issue December 2011).

the spacings are not to Mr McIndoe's satisfaction, this does not mean that there are no benefits from the walking and cycling facilities which are being provided. I have commented earlier in my evidence⁵⁸ on the feasibility of new connections and spacings.

- 126 In summary, I maintain my view that the proposed Expressway will achieve its objectives and have the least adverse urban design effects of the options considered. That view is supported by Mr Munro.

Urban Design Protocol

- 127 I am familiar with the NZ Urban Design Protocol (*the Protocol*). Boffa Miskell was an early signatory. As I acknowledge in my EIC⁵⁹, the NZTA is also a signatory to the Protocol.
- 128 I address the matters raised by Mr McIndoe in terms of comparison with the seven "C"s of the Protocol in my response to Mr Lunday's evidence below (see **Table 1**). I believe I have addressed these points in relation to the relevant matters for consideration also under the RMA,⁶⁰ the ULDF (Technical Report 5) and Technical Report 6.⁶¹
- 129 In my opinion the application of the Protocol is recognised in the way the specific design implications are expressed throughout the ULDF (Technical Report 5).
- 130 The Protocol in my opinion should not be read as a series of assessment criteria. It needs to be contextualised and is more useful when applied (as I have within Technical Report 5) to the salient matters for the Project.
- 131 I note also, that Mr McIndoe appears to have misconstrued the objectives for the Project, in the course of his discussion on the Protocol. At paragraph 131 he references only the RONS Objectives. He makes no mention of the Project objectives and these are materially different in terms of urban design principles. The Project objectives are (refer evidence in chief of **Mr James**) additionally:

⁵⁸ Paragraph 65 onwards.

⁵⁹ Footnote 4, paragraph 41.

⁶⁰ Paragraph 40 EIC.

⁶¹ Section 1.2.

“To

- *enhance efficiency and journey time reliability from, to and through the Kāpiti District, Wellington’s CBD, key industrial and employment centres, port, airport and hospital;*
- *enhance safety of travel on SH1; and*
- *appropriately balance the competing functional performance requirements of interregional and local traffic movements, recognising that modal and route choice opportunities need to be provided that enable local facilities and amenities in the Kāpiti Coast District to be efficiently accessed;*

by developing and constructing a cost optimised new State Highway alignment to expressway standards between MacKays Crossing and Peka Peka.

- *To manage the immediate and long-term social, cultural, land use and other environmental impacts of the Project on the Kāpiti Coast District and its communities by so far as practicable avoiding, remedying or mitigating any such effects through route and alignment selection, expressway design and conditions.*
- *To integrate the expressway into the urban form of Kāpiti Coast District by taking into account current and future planned settlement patterns in route and alignment selection and expressway design and conditions.”*

**James Lunday, on behalf of Save Kāpiti Incorporated
[505]**

The ULDF

132 Mr Lunday considers the ULDF is fundamentally flawed.⁶² He states that it does not assess the forces that have shaped coastal communities, hills, sea, rivers, dunes, beach, rail corridor etc.

133 I do not agree and refer to Section 3 of the ULDF, which describes all of these contextual influences. Importantly, in my opinion, it goes beyond descriptions of the context to identify the *design implications* for the Expressway in each case. These design implications have formed the basis for the evolution of the design of the Expressway, as have a number of other factors. The ULDF has also been reviewed and approved by NZTA Urban Designers and peer reviewed by independent urban designer **Mr Kevin Brewer** (who I note, is also preparing rebuttal evidence). As noted above (paragraph 64) Mr Munro also supports the approach taken with the ULDF.

⁶² Paragraph 22.

134 Mr Lunday appears to misunderstand the purpose of a ULDF.⁶³ I refer him to the NZTA's ULDF Highways and Network Operations Guideline.⁶⁴ The ULDF (or a more detailed Urban and Landscape Design Master Plan) has a specific purpose for large scale NZTA projects. The NZTA has clearly outlined the purpose and process of developing a ULDF, which does not include defining the alignment of the route, as Mr Lunday has assumed. **Mr Boyden Evans** also discusses this in his rebuttal evidence.

The Protocol

135 Mr Lunday also criticises my EIC⁶⁵ as being limited to Connectivity and Centres, at the expense of other urban design principles (including those in the Protocol). This is not the case and I have addressed throughout the ULDF and my assessment (Technical Reports 5 and 6) and my EIC, a multiplicity of matters which align to the Protocol's seven 'C's headings.

136 I note also that there are many other experts that have informed the way the Project has been configured and some of these also relate to matters that are recognised by the Protocol (for example, Cultural Impact Assessment (Technical Reports 11 and 12) and landscape and visual effects assessment (Technical Report 7)).

137 While these various references to the Protocol could have been more overtly expressed, they are nevertheless represented in the approach and design of the Project. I have provided some sense of the relationship to the Seven 'C's of the Protocol in Table 1 below.

Table 1

Seven 'C's from the Protocol	References within Project
Context seeing that buildings, places and spaces are part of the whole town or city	Refer to Technical Report 5 (ULDF section 3), Technical Report 7 Landscape (and the evidence of Mr Evans), Technical Report 26 Ecology (and the evidence of Mr Matiu Park), Technical Reports 11 and 12 Cultural Impacts (and the evidence of Mr Amos Kamo), as well as the ULDF, section 6, as to how the Project has

⁶³ Paragraph 23.

⁶⁴ Available from: <http://www.nzta.govt.nz/resources/urban-design/highways-network-ops-guideline/docs/uldf-highways-network-ops-guideline.pdf>

⁶⁵ Paragraph 23.

	responded to that Context.
Character reflecting and enhancing the distinctive character, heritage and identity of our urban environment	Refer to ULDF section 3, as well as ULDF section 6, as to how the Project has responded.
Choice ensuring diversity and choice for people	Refer to Technical Report 32 Transportation (and the evidence of Mr Murray), which describes the choice in transport modes and routes to be provided for and the provision for choice in matters such as construction routes (Technical Report 4 and the evidence of Mr Andrew Goldie), as well as Technical Report 5 (ULDF), in respect of walking and cycling provision as a supported choice alternative to vehicular modes.
Connections enhancing how different networks link together for people	Refer to Technical Report 5 (ULDF section 3.9 and section 5) and Technical Report 6 (section 6.3).
Creativity encouraging innovative and imaginative solutions	Refer to Technical Report 5 (ULDF) where a range of creative, innovative and imaginative solutions are considered in regard to both understanding the existing environment (e.g. LAMS), addressing multiple bridges in component forms and using prefabricated design, providing for future connections, NZTA commitments to addressing existing SH1 and connecting through to Paekakariki etc. The Project Alliance, given it includes KCDC, and the representation of community interests is an innovation and within the Project design process innovation was encouraged (regular best idea sessions etc).
Custodianship ensuring design is environmentally sustainable, safe and healthy	It is a Project Objective that the Expressway is safe and there is specific reference in the ULDF (section 2.5) to the KCDC Transport Policy (Towards a Sustainable Transport System). In respect of health, I refer to Technical Reports 13 and 14 Air Quality (and the evidence of Ms Camilla Borger), Technical Reports 16 and 17 Noise (and the evidence of Ms Siiri Wilkening); Technical Report 20 Social Effects (and the evidence of Ms Meade-Rose) and the evidence of Dr Black .
Collaboration communicating and sharing knowledge	There has been a substantial process of engagement with the community and interest

across sectors, professions and with communities	groups in regard to information about the Project. The Project Alliance arrangement has seen collaboration between professions and with KCDC. I refer to the evidence of Ms Jane Black on consultation
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138 It is important to note that the matters raised in the Protocol are multidisciplinary and so has been the approach to the Project design and the way effects have been considered and avoided through that process, or by proposed mitigation. For example, the way in which the Project has responded to the dune landscape and the visual effects of the Project (which are matters raised by Mr Lunday)⁶⁶ have been addressed by the landscape technical expert (**Mr Evans**). A similar position applies to cultural heritage (which **Mr Kamo** addresses), social health (which **Ms Meade Rose** and **Dr Black** address) and ecology (which various ecologists address).

139 I have focussed in my evidence on those matters I consider relevant to the RMA in urban planning terms and I have outlined these in my section of the Assessment of Effects (Technical Report 6, section 1.2).

Upgrading the existing SH1

140 Like Mr McIndoe, Mr Lunday appears to hold the opinion that upgrading the existing SH1 route is preferable to the current Expressway proposal.⁶⁷

141 For the same reasons I note above, (at paragraph 118), I maintain the view that the proposed designated route with its 100m width (for typically a 25m wide Expressway), better provides for the Expressway from an urban planning perspective than the changes that would be required to accommodate an Expressway within the existing SH1/rail corridor. Such a wide corridor does not exist along the existing SH1. In particular, where it passes through the town centres at Waikanae and Paraparaumu there are clear challenges in trying to respond to the Project Objectives, whilst achieving reasonable urban quality outcomes.

142 I refer also to the rebuttal evidence of **Mr Murray** regarding the workability of the alternative option presented by Mr Lunday in his evidence, with respect to the integration of an Expressway standard road with the town centres at Paraparaumu and Waikanae.

⁶⁶ Paragraph 49.

⁶⁷ Paragraph 35.

Sieve mapping

- 143 Mr Lunday refers to the process of sieve mapping as a technique for evaluating the critical issues within the context and says there is little evidence of this being used in this Project.⁶⁸ This technique was in fact widely used and all consideration of options associated with the Project were undertaken in this way (refer to ULDF, section 1.3 Methodology).

Connectivity and Permeability

- 144 In response to Mr Lunday's evidence on these matters⁶⁹, I refer to what I have said in response to Mr McIndoe (see paragraphs 65 onwards above). In my view, the Expressway does not reduce physical connectivity and, in fact, enhances it to some extent – both east west and north south. In respect of permeability there are limitations to what can be achieved here. Mr Lunday's assessment appears to be based on some hypothetical future state.
- 145 I interpret Mr Lunday's evidence as suggesting that a WLR would offer greater benefits in terms of connectivity and permeability, as compared with the Expressway. On the basis of my understanding of the WLR⁷⁰, I do not agree, for the following reasons:

145.1 The current urban form presents challenges in terms of connectivity and filtering movements or permeability, due to the current subdivision pattern and 100m wide existing designation corridor. Both the WLR and the Expressway face the same challenges, arising from the current urban form.

145.2 Along the whole of the WLR, my understanding is that only one new road connection was proposed from Matai Road, and one in the block between Kāpiti and Mazengarb Roads. Both of these connections are on the west side of the WLR only (i.e. they would not cross the WLR corridor from side to side).

145.3 The land that sits between the WLR and the existing urban edges of the properties adjacent to the designated land were to remain as open space - urban farms etc – and there was no proposed additional joining of the existing property edges to the edge of the WLR itself to integrate it with the existing urban development. This is unlike the

⁶⁸ Paragraph 44.

⁶⁹ Paragraphs 41-42.

⁷⁰ Western Link Road Concept Interim Report (Common Ground), August 2008.

existing SH1 which has developed an urban edge that addresses the State highway (albeit that this is somewhat challenging in its current condition) and which can better respond as an arterial road type, especially at the centres.

The Expressway, by virtue of its ability to allow for the existing SH1 to be re-organised, will, in my opinion, do a better job of enabling a relationship of frontage interfaces at the town centres, as compared to the WLR. I recognise that in some sections, like Waikanae and parts of Paraparaumu, this has a 'one sided' nature to it given the rail corridor, but I remain of the opinion this is better than the WLR response in relation to the town centres' futures (especially at Waikanae).

145.4 I understand that the CWB network proposed as part of the WLR is in a similar configuration (i.e. parallel path and local linkages) as what is proposed as part of the Expressway. However, the Expressway CWB has been improved at the south end, in terms of east/west movements and in relation to the connection through QE Park to Paekakariki. It is also extended at the north end all the way to Peka Peka Road.

- 146 The point here is not to critique the relative merits of the WLR versus the Expressway – they are two different roads with different aims – but to recognise that increasing connectivity (or permeability) will be challenging for any new road. This is primarily because of the existing context, which has been established from many years of urbanisation, coupled with development occurring cognisant of the existing designation in place. Thus, many of Mr Lunday's (and Mr McIndoe's) concerns about connectivity and permeability would continue to be live issues with the development of the WLR, or if there was no development of the land within the corridor.
- 147 Mr Lunday states that the Expressway forms a barrier by being hostile to pedestrians and cyclists and a barrier to the local network.⁷¹ I do not agree that this will be the case and consider the proposed design to have carefully considered the way in which crossings can be configured to make them comfortable places to be.
- 148 As I have noted above, no road development within the existing WLR designation would fully resolve the matter of permeability or connectivity, given the situation in relation to the existing street pattern and urban development.

⁷¹ Paragraph 87.

- 149 If no new complete (e.g. from side to side) east west connections are being provided for then permeability is not significantly enhanced. It may be the case that people could walk across the road informally if it was a local road and the topography and landscape allowed them to get to the road to do that, but people are still required to connect back into the existing east/west street network to reach their destinations. It is the case that they can traverse along the road via the cycle and walking path, but the same is proposed with the Expressway.
- 150 I do recognise that the scale of Expressway will require consideration of the final design details to satisfactorily address the 'comfort' of the CWB, but there remains a significant area of land either side of the carriageway within which to achieve this outcome. I also note that there are variations in elevation that can be used to provide comfort separation whilst maintaining visual connection with the Expressway to satisfy the CPTED considerations.⁷²
- 151 I also recognise that the crossing points of the proposed Expressway with local roads are particularly sensitive locations for getting the Project design to respond to the needs for walking and cycling comfort. Several design responses have been made in terms of the overall design to address this. It has been a key design principle⁷³ that the Project will prioritise the quality of the space around and beneath the bridges for the local road users, over that of the Expressway users.
- 152 These include the widths of the bridge spans to keep the space beneath open, separating bridges where we have observed most walking use to allow natural light penetration, wide footpaths and cycle lanes on both sides of the local road, treatment of the edges and architectural approach to bridge forms. I anticipate that the final details of the local road crossing points will, as I have described above, be worked through as part of the SSUDPs. Mr Munro is of the view that the proposed CWB also will enhance and can become a premier amenity in its own right.⁷⁴ I concur with his opinion.

Sue Smith, on behalf of Waikanae On One [514]

- 153 Under her discussion of urban design issues, Ms Smith agrees that the principles of good design have been encapsulated in the ULDF.⁷⁵ She does take issue, however, with the bridging

⁷² Figures 129 and 130 of the ULDF describe the principle.

⁷³ Section 5.8, ULDF.

⁷⁴ Paragraph 10.2.

⁷⁵ Paragraph 60.

of the Expressway as the best way to maintain community connections.

- 154 Specifically her issue appears focussed at Te Moana Road and what she considers to be large, out of character, roundabouts. She quotes various paragraphs from Technical Report 6 to support her opinion. Ms Smith describes an alternative proposal for the Te Moana Interchange (*WOO Proposal*).
- 155 As noted previously in respect of the evidence of Mr Munro, I acknowledge that the Te Moana Road intersection is an area that will require further design attention. The designation process allows for a process of design development and I have proposed a new SSUDP condition to address the relationship of the interchange with the local road and its environment.
- 156 As I have recognised (at paragraphs 42-45 above) the matter of the intersection controls are important to the function of the intersection for walkers, cyclists and horse riders (this is reflected in proposed SSUDP condition DC.59A(g)).
- 157 Ms Smith also refers to the comments in my EIC about the prospect of an alternative walking and cycling path that follows the Waimeha Stream edge.⁷⁶ I consider this matter can also be considered in the SSUDP. The consideration here will be focussed on maintaining a sufficient clearance underneath the Expressway on and off ramps bridges to ensure comfortable use and address any CPTED issues.
- 158 In my urban planning opinion, on the key point of design that Ms Smith takes issue with, the proposal to retain the existing local road at grade and have the Expressway pass over it will be preferable to the WOO proposal. This is because:
- 158.1 The Project's proposed configuration retains the 'legibility' of the current road pattern and is consistent with the other more 'urban' sections of the route. By contrast, the WOO option takes people in a circuitous direction as part of the east west movement along Te Moana Road.
- 158.2 The WOO option gives rise to potential issues with gaining the connections through to future development within the Ngarara area from Te Moana Road. One of the benefits of the interchange proposed in the Project design is that there would be direct access to the on and off ramps for the new Ngarara growth areas.

⁷⁶ Paragraph 69.

- 159 I do recognise the potential benefits of the WOO proposal for walking and cycling along Te Moana Road, versus the proposed Expressway where the control of the interchange will be important to make provision for safe and convenient crossing.
- 160 However, as noted previously (paragraph 44), with respect to Te Moana Road and the comments from Mr Munro, the proposed SSUDP process condition enables the options to be explored in a more focussed way. Consideration will be specifically given to providing a safe and convenient crossing for pedestrians, cyclists and horse riders.
- 161 Other experts will comment on the way in which the WOO Proposal is workable (or not) in terms of hydrology, landscape, speed environment, design feasibility and cost.

Melanie Dixon, on behalf of Raumati South Residents Association Inc [707]

- 162 Ms Dixon requests that the loss of vegetation in the Raumati wetland be mitigated by the CWB path being constructed as a board walk, as opposed to it being a sealed path.⁷⁷
- 163 I acknowledge the benefits of this and note that some provision has been made for small bridges to address local drains in the area. If filling can be reduced and boardwalks used for short sections, then this can be accommodated in the existing proposed condition for detailed design in the SSUDP (Condition DC.59A(e)).

Michael Mellor, Living Streets Aotearoa, Wellington Branch, on behalf of Living Streets Aotearoa [503]

- 164 The concluding point of Mr Mellor's evidence is that any provisions for pedestrians would need to be fully specified in conditions, not left to management plans or adaptive design arrangements.⁷⁸
- 165 I acknowledge his point, but refer Mr Mellor to the proposed conditions which are proposing both Management Plans and SSUDPs. In my opinion, these are an appropriate means by which to address the detailed complexities of implementing good quality walking facilities associated with the Expressway. I am of the opinion that, with the certification of KCDC, these plans will be able to successfully deliver the quality of facilities sought.

⁷⁷ Paragraph 37.

⁷⁸ Page 11.

**Sarah Lindsay on behalf of Highway Occupants Group
[542]**

- 166 I address the aspects of Ms Lindsay's evidence which relate to the Project's southern connection, as this appears to be her focus. **Mr Schofield** will address her comments on the MCA process.
- 167 At paragraph 2.17, Ms Lindsay refers to the mention in the Application reports of the 'urban form opportunities' behind the Leinster Avenue area. I acknowledge her point that it is currently rural zoned (although it is described by her as predominately waste land) and does not form part of the Project.
- 168 However, it remains my view that the Project provides a better opportunity for a redevelopment of this rural land in the future (and in a more connected way with Raumati), than if the currently designated alignment had been followed. I have addressed my opinion of the urban planning benefits of the south end connection in my EIC (at paragraph 159) (and acknowledged the effects on existing properties owners in this vicinity).
- 169 In response to Ms Lindsay's issue (with the options (2A versus 2B) and through the QE Park versus affecting properties on the highway respectively)⁷⁹ I remain of the opinion that the option selected is preferable in urban planning terms for the reasons I have stated in the ULDF (section 5.4).
- 170 In reference to Ms Lindsay's points regarding context (2.29), character (2.30), choice (2.31), connections (2.32), creativity (2.33), custodianship (2.34) and collaboration (2.35), I believe I have addressed these matters in my EIC, and in my rebuttal at various places (I refer also to **Table 1** above).
- 171 Ms Lindsay also suggests that the Expressway has not been planned and designed in an integrated manner, which is not in accordance with relevant statutory and policy documents.⁸⁰ The ULDF describes (Section 6) how the Project's design responds to the various policy and context matters, which includes those referenced in section 2 of the ULDF. These include the Land Transport Management Act 2003, the NZTA's Environmental and Social Responsibility Policy⁸¹, the NZTA's

⁷⁹ Paragraph 6.15 onwards.

⁸⁰ Page 2, paragraph 2.

⁸¹ NZTA Environmental and Social Responsibility Policy (2011).

Urban Design Policy⁸² and other Regional and District Policies⁸³ in relation to urban design matters.

- 172 I do not agree with Ms Lindsay's assessment that there has been no meaningful urban design input into the design of the Expressway⁸⁴ or urban design assessment undertaken.⁸⁵
- 173 There have been multiple disciplines involved in the Expressway decision making and design process, which has included urban planning and design considerations. Through the MCA process, in combination with the other expert disciplines, urban design effects have been considered, debated and responded to.
- 174 I also note that an assessment of the Project in relation to the design implications set out in the ULDF is provided in Section 6 of Technical Report 5. This assessment references back to the Policy Context (section 2), which includes the Protocol and the NZTA's Urban Design Policy (as noted above).
- 175 These matters are also important because the District's urban planning or design objectives have been translated from high level urban design principles by a range of experts and through community filters to arrive at these points. In my view consideration has been given to urban design principles as they specifically apply to local objectives. The design process has included KDCDC in considering the way in which the design and decisions made in the design process have responded to these objectives. Mr Munro agrees this approach has been appropriate.⁸⁶
- 176 I am of the opinion that, with respect to the matters for consideration set out in the RMA as they relate to urban design, the assessment in Technical Report 6 is appropriate.
- 177 I also do not agree with Ms Lindsay with regard to her comments regarding the distinction between urban design and urban planning.⁸⁷ I think this is largely a semantic point and to me represents different scales.
- 178 At the level of the designation process and Project proposal, I am of the view that the urban planning scale is an appropriate term to recognise spatial integration matters. Mr

⁸² NZTA (ex Transit) Urban Design Policy (2007).

⁸³ Wellington Regional Strategy (2007), Proposed Wellington Regional Policy Statement (2009), Kapiti Coast District Plan (1999).

⁸⁴ Page 2, paragraph 4.

⁸⁵ Page 23, paragraph 5.1.

⁸⁶ Paragraph 3.2.

⁸⁷ Paragraphs 4.0 and 5.0.

Munro agrees.⁸⁸ However, care has been taken too with more detailed spatial integration (that I call urban design) and this too is represented in the ULDF and Technical documents.

- 179 The final level of integration will be addressed in a further stage of design development, including through the LMP and SSUDP mechanisms. I note that Mr Munro acknowledges this distinction.⁸⁹ I also note that the ULDF has included development and input to the consideration of the configuration of the Expressway by urban designers, including by peer review.

Gerard Thompson, on behalf of St Heliers Capital Limited [644]

- 180 In response to Mr Thompson's comment regarding the positioning of the wetland at Kāpiti Road⁹⁰, I do not agree that this disables the development of the extensive area of land at the Paraparaumu town centre as it is relatively small area. I also do not agree that the proposed large format retail (*LFR*) buildings would provide a better context to the Kāpiti Road edge given the significance of this area as a gateway to the town centre from the Expressway off ramps.
- 181 In my experience, LFR buildings are compromised in terms of their ability to address the street by their scale and form (with limited wall openings, such as doors or windows (if windows are provided at all), which, are typically oriented to large parking areas.
- 182 I acknowledge that the Expressway interchange structure itself is large in scale, but in my opinion the wetland will serve a better purpose of mitigating its scale and with careful design can provide an attractive threshold and entrance point of the town centre area.

Bianca Begovich, on behalf of herself [669]

- 183 In response to Ms Begovich's comments⁹¹ in relation to a connector between Ferndale and Ngarara, I confirm that this remains as a potential connection, notwithstanding the Expressway's development. It is the case that the Expressway will require a review of the current structure plan for Ngarara, but I have considered alternative options here and am of the view this can maintain the same attributes of areas of development within an open space setting of vegetation and restored wetlands. There will be less land for

⁸⁸ Paragraph 1.4.

⁸⁹ Paragraph 1.4.

⁹⁰ Paragraph 34b.

⁹¹ Paragraph 12.

development, but still a considerable capacity to accommodate planned long term urban growth.

- 184 With reference to the comments⁹² about reduced local connectivity, this is not the case. No east west or other connections are being severed by the Project and new connections north/south as well as east/west are being provided for, including the potential future links, as noted above.

CONDITIONS

- 185 I have proposed some amendments to conditions, arising from my review of the submitters' evidence. In **Annexure B**, I have included a copy of my proposed new SSUDP condition. I envisage this condition will provide a useful basis for expert conferencing.
- 186 I understand that **Mr Schofield** will prepare a full updated set of conditions, which reflect the amendments proposed by me and other NZTA witnesses.

CONCLUSION

- 187 In conclusion, I remain of the opinion that the Expressway alignment is the better of the options considered in terms of its ability to satisfy the Project Objectives. It is my opinion that the currently designated, wide, vacant, corridor can better provide for an Expressway than any attempts to retrofit this significant piece of infrastructure within the current SH1 and the town centres there.
- 188 Provision is made for future additional east/west connectivity in line with planning for future urban growth. The conditions I have proposed provide for the complexity and multidisciplinary inputs required to ensure that the key points at which the Expressway interacts with local roads and the provision of the CWB results in a well functioning, integrated and safe environment that benefits the community.



Marc Nicholas Baily
26 October 2012

⁹² Paragraph 20.

**ANNEXURE A - COPY OF PROJECT AGREEMENT BETWEEN
KCDC AND NZTA**

Project Agreement with respect to Kāpiti Expressway:

East/West Connectivity

NZ Transport Agency (NZTA)

Kāpiti Coast District Council (KCDC)

PROJECT AGREEMENT WITH RESPECT TO THE KĀPITI EXPRESSWAY

Date: this ^{7th}.....day of August 2012

PARTIES

NZ Transport Agency a Crown Entity established under section 93 of the Land Transport Management Act 2003, and its successors at law (*NZTA*).

Kāpiti Coast District Council a territorial authority, and its successors at law (*KCDC*).

BACKGROUND


- A The NZTA wishes to construct, operate and maintain the Mackays to Peka Peka Section (*Kāpiti Expressway*) of the Wellington Northern Corridor Road of National Significance (*Wellington RoNS*).
- B The Kāpiti Expressway forms an approximately 16 kilometre length section of the Wellington RoNS. It covers the improvements planned for the State highway corridor from Raumati at the southern end, continuing through Paraparaumu and Waikanae to Peka Peka in the north.
- C The Kāpiti Expressway will predominantly follow the path of the previous but now withdrawn Sandhills Motorway designation and will deliver:
- a four lane highway with four full or half interchanges at Poplar Avenue, Kāpiti Road, Te Moana Road, and Peka Peka Road respectively,
 - construction of new local roads and access roads to address local connectivity and
 - an additional crossing of the Waikanae River.
- D The NZTA lodged a Notice of Requirement and associated resource consent applications with the Environmental Protection Authority (*EPA*) on 20 April 2012.
- E The KCDC has longer term growth management aspirations for the Kapiti District and may undertake structure planning exercises in relation to shaping growth patterns for the District.
- F The NZTA and KCDC are members of the Alliance, who are responsible for the design and delivery of the Kāpiti Expressway. The parties agreed to a series of objectives as the basis for advancing consideration of the Expressway under the Alliance structure. These objectives include:

Community severance is to be avoided, mitigated or minimised as far as reasonably practicable consistent with local planning documents including KCDC Community Outcomes, Development Management Strategy, Sustainable Transport Strategy, and Cycle, Walkways and Bridleways Strategy

KCDC's views

- G KCDC holds the view that good east/ west connectivity is a fundamental aspect of managing the effects of the Kāpiti Expressway within the urban area, and that planned or existing but unformed connections are a fundamental aspect of this.
- H KCDC has identified three east/west crossing points which it considers to be either desirable in principle, or where actual requirements are already established, but where it considers that construction can be deferred for a period of time (see Appendix One for plans of indicative east/west crossings). These are:
- Leinster Avenue, Raumati South which is zoned Rural but does not have a current structure plan nor a plan change associated with the surrounding land.
 - Ferndale Road to Te Moana Road which has operative plan changes 79 and 80 associated with the surrounding land, with a connection clearly marked in the operative District Plan as part of the Ngarara Structure Plan. A further planning stage relevant to this Agreement is the requirement for Neighbourhood Development Plans.
 - Ngarara Road (north) which is a paper road crossing with an existing zoning of Rural but does not have a current structure plan nor plan change associated with the surrounding land.
- I KCDC recognises that in some cases there is no immediate necessity for the east/west crossings but is of the view that in principle the ultimate provision of these connections is fundamental to giving effect to the objectives agreed to by the parties in the context of the Alliance relationship.

The parties respective views re Leinster Avenue/Raumati South

- J NZTA is of the view that there is not yet a proven need for a future crossing at Leinster Avenue, Raumati South at this time but is prepared to work with KCDC in the context of a future structure planning and/or district plan change process to address such a need, if proven, in a timely manner. NZTA is of the view that a structure planning process is the most useful mechanism for addressing the issue of east/west connectivity for any future development at this location.
- K KCDC is of the view that maintenance of an east/west connection at Leinster Avenue, Raumati South for all or some modes is desirable for wider community connectivity and is prepared to work with NZTA in the context of future structure planning and/or a district plan change to address this issue provided this is done in the context of good urban form development. It agrees to do so in a timely manner.
- 

The parties' respective views - Ferndale Avenue Vicinity

- L KCDC is of the view that the need for a crossing at or near Ferndale Road is a proven necessity and that a proposed connection is clearly set out in the Ngarara Structure Plan in the operative District Plan. KCDC is prepared to address the form, detailed location and timing of the crossing at or near Ferndale Road crossing in a timely manner and in the context of the wider low impact urban development area which it addresses.
- M The NZTA is of the view that a crossing at or near Ferndale Road may or may not be necessary when the land in this area is developed in future. NZTA is prepared to work with KCDC in the context of a future structure planning and/or a district plan change process to identify whether or not there is such a need and if so, to seek to address any such identified need in a timely manner.

The parties' respective positions Ngarara Road (north)

- N KCDC is of the view that:
- a) the capacity to ensure connectivity via the existing paper road must be retained as part of the Kāpiti Expressway consenting process; and
 - b) that a connection should be formed if this is deemed necessary after an independent urban design peer review process.

KCDC is prepared to defer the consideration of a crossing at this stage and to make final provision in the context of surrounding development requirements and pressures.

- O NZTA is prepared to address the question of connectivity in relation to the paper road at an appropriate time in the future.

General

- P It is on this basis that the parties wish to establish a process within which to consider and address the potential need for future crossings in the three locations identified in Appendix One.

THE PARTIES AGREE as follows:

1. Purpose of Agreement

- 1.1 This Agreement sets out a process to enable the parties to determine:
- a) In what circumstances access across the Kāpiti Expressway may be required in those locations identified in Appendix One.
 - b) The funding sources that may be available to provide for any future crossings in these locations.

2 **Parties' Obligations**

2.1 The parties recognise that the NZTA and KCDC have functions and obligations:

- a) Arising from their respective statutory roles and responsibilities;
- b) In the case of the NZTA, including, but not limited to, under the Land Transport Management Act 2003 (*LTMA*) and the Government Roothing Powers Act 1989; and
- c) In the case of the KCDC, to the ratepayers and residents of Kāpiti District.

2.2 The parties' obligations under this Agreement are conditional on:

- Resource Management Act 1991 (*RMA*) approvals required for the Kāpiti Expressway being granted; and
- The NZTA deciding, in its sole discretion, to proceed with construction of the Kāpiti Expressway.

2.3 The NZTA's obligations under this Agreement are subject to NZTA's statutory obligations and any conditions imposed on any designation and resource consents granted with respect to the Kāpiti Expressway.

2.4 This Agreement will cease to have effect if construction of the Kāpiti Expressway does not commence within 12 years of both parties having signed this Agreement.

2.5 The parties agree to carry out any actions or make any decisions required under this Agreement in a timely and reasonable manner.

3 **Principles**

3.1 The parties agree that east/west connectivity through the proposed Kāpiti Expressway corridor is an important principle to connect communities and to seek to ensure the safe and efficient functioning of the local network.

3.2 The parties agree that the appropriate level of east/west connectivity will be one of the matters at issue when considering any proposals for future development of land in the vicinity of any of the suggested crossings identified by KCDC in Appendix One.

3.3 The parties acknowledge that discussions on east/west connectivity will also occur in the context of the Wellington Northern Corridor Road of National Significance Network Plan.


4 Process to Determine Need for Crossing

- 4.1 The parties agree to follow the process as described below and set out in Appendix Two to establish the final position on the need for connectivity across the Kāpiti Expressway at the general locations identified in Appendix One.

Step 1: Urban Design Assessment

- 4.2 If and when the KCDC undertakes a structure planning or a district plan change process or receives a request for a private plan change in relation to land in the vicinity of one or more of the locations identified in Appendix One it shall work with the NZTA and apply the following principles and processes for the purposes of seeking to resolve the issue of the appropriate level of east/west connectivity for any development that would be authorised by the structure plan or plan change process.
- 4.3 KCDC and the NZTA shall consider the following matters when developing future land use patterns, including roading connections, in the context of a draft or proposed structure plan or district plan change:
- a) urban design and best practice planning principles in the context of the New Zealand Urban Design Protocol 2005 to which the parties are signatories including the context for surrounding communities;
 - b) access by active modes and vehicle traffic within the area, through the area, and to outside services;
 - c) any local social and economic impacts of any severance created by the Kāpiti Expressway and mechanisms to address that; and
 - d) vehicle traffic movements.
- 4.4 Independent urban design consultants will be selected and funded jointly by both parties and guidance will be taken from those consultants by both parties on the nature, location and form of any east/ west connection.
- 4.5 The parties agree that as part of the urban design assessment:
- a) A traffic impact assessment shall be undertaken at the expense of the KCDC in the case of a structure planning and/or council initiated district plan change process, and
 - b) KCDC shall request the applicant for a private plan change to prepare a traffic impact assessment at the applicant's own cost,

where the proposal that is the subject of that structure plan or plan change would provide for a change in land use and/or additional development on land within the vicinity of any of the locations identified in Appendix One. Any such traffic assessment shall be undertaken, or required to be undertaken, by a suitably qualified independent traffic engineer.



- 4.6 Any such urban design assessment undertaken under clauses 4.2 to 4.5 shall be required to identify whether any east/west connections across the Kāpiti Expressway are required to address connectivity and severance issues arising from the Kāpiti Expressway for the surrounding community as well as to support the level of development proposed.
- 4.7 If the urban design assessment undertaken pursuant to clauses 4.2 to 4.5 concludes (having reviewed available options) that a crossing over or under the Kāpiti Expressway corridor would be the best practicable option to achieve east/west connectivity to support the level of development proposed in the vicinity of any of the locations identified in Appendix One within the local road network then the assessment shall be required to provide indicative costs for any such east/west connection(s) with and without the Expressway, and indicative information regarding any travel time savings if the connection was provided for.
- 4.8 The parties shall jointly select and fund an independent urban design consultant to peer review the urban design assessment of any proposed structure plan in relation to land in the vicinity of one or more of the locations identified in Appendix One. The independent urban design peer reviewer shall produce a report for the parties identifying whether or not there is a need for a crossing over or under the Kāpiti Expressway corridor to support the development proposed in the structure plan.

Step 2: Independent report

- 4.9 Where the consultants undertaking the urban design assessment and the independent urban design peer review undertaken in accordance with clause 4.8 of this Agreement, conclude that there is a need for a crossing to support the development proposed then the parties shall jointly fund the preparation of an independent report that assesses the *Independent Urban Design Peer Review* including the traffic impact assessment (prepared in accordance with clause 4.5) to achieve an appropriate level of east/west connectivity including an assessment of:
- a) who generates the need for a connection,
 - b) who benefits from a proposed connection across the Expressway,
 - c) the historical right to a connection across the Expressway; and
 - d) the severance caused by the Expressway,
- and provide recommendations on any future funding of the connection.
- 4.10 The parties will not be bound by any of the findings or recommendations made in the independent urban design peer review and the Independent report where any recommendation would bind them to something they cannot lawfully undertake.

5 **Process to Determine Indicative Funding Sources**

Step 3: Indicative Funding Sources

5.1 If the parties reach agreement that there is a need for a crossing in any of the three locations identified in Appendix One following the process set out in clauses 4.2 to 4.10 above, then each party will identify indicative funding sources to provide for the delivery of any such future crossing(s) in accordance with the following principles:

- a) That there are six funding sources which might potentially be available:
 - (i) Developer's direct cost as part of any development
 - (ii) Development contributions associated with any infrastructure growth demand arising from a development which are levied under the Local Government Act via KCDC's Long Term Plan
 - (iii) Financial contributions under the Resource Management Act 1991
 - (iv) Local authority rates expended on the local road network to provide for wider community connectivity benefits
 - (v) Funding from the National Land Transport Fund as per any financial assistance rate
 - (vi) NZTA funding as a result of any liability arising from severance as a result of the Kāpiti Expressway
- b) That there are three factors that need to be addressed, along with any other relevant factors, in determining the attribution of costs for the funding of any crossing over the Kāpiti Expressway:
 - (i) The severance caused by the Kāpiti Expressway
 - (ii) The community need for the crossing
 - (iii) Developer's need for the crossing

6 **Force majeure clause**

6.1 Neither party shall be liable for any failure or delay in performance under this Agreement to the extent that such failures or delays are proximately caused by conditions beyond the parties' reasonable control which the party claiming the benefit of this force majeure clause is unable to overcome by the exercise of reasonable diligence and at a reasonable cost; including but without limitation:

- (a) An Act of God, fire, earthquake, storm, flood or landslide

- (b) Explosion, public mains electrical supply failure or nuclear accident
- (c) Sabotage, riot, civil disturbance, insurrection, epidemic, national emergency (whether in fact or law) or act of war (whether declared or not),

but does not include any event which the party claiming the benefit of this force majeure clause could have prevented or overcome by exercising a standard of reasonable care or reasonable endeavours.

7 **Dispute Resolution**

- 7.1 If any dispute arises under this Agreement, the parties agree to comply with the following provisions of this clause before commencing any other form of dispute resolution (including court proceedings).
- 7.2 Any party claiming that a dispute has arisen under this Agreement between the parties shall give written notice to the other party of the dispute and require the parties' representatives to meet together to attempt to settle the dispute. The other party shall, upon receipt of such notice, promptly ensure that its representatives attend such meeting and attempt to resolve the dispute.
- 7.3 The parties shall use their reasonable endeavours to ensure that the parties' representatives who attend a meeting under clause 8.2 shall, within 10 business days after the giving of the notice, seek to resolve the dispute.
- 7.4 The parties shall within a further period of 10 business days (or within such longer period as the representatives may agree is appropriate), use their reasonable endeavours to agree, in good faith, on a process for resolving the whole or part of the dispute through means other than litigation or arbitration (including, without limitation, further negotiations, mediation, conciliation or independent expert determination).
- 7.5 In the unlikely event that agreement is not reached through escalation, the parties shall agree to arbitration on the following basis:
 - a) The arbitration shall be conducted by a sole arbitrator in New Zealand pursuant to the Arbitration Act 1996;
 - b) The parties' respective responsibilities for the costs of the arbitration shall be determined by the arbitrator; and

The parties shall be bound by the decision of the arbitrator.

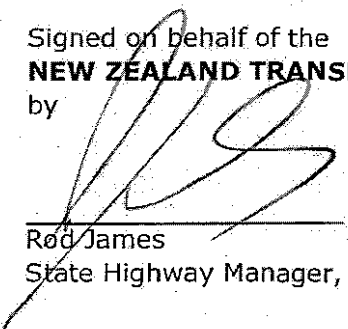
Provided always that the arbitrator shall have no jurisdiction in relation to any dispute that concerns the operation (including, without limitation, the exercise or non-exercise) of any statutory function, obligation or power of either the NZTA or KCDC.

- 7.6 The parties acknowledge that any negotiated or arbitrated outcome or outcome arising from an independent expert determination will need to be consistent with any conditions imposed on any designations, resource consents or other statutory authorisations obtained for the Kāpiti Expressway and with the statutory functions, obligations and powers of the NZTA and KDCD.

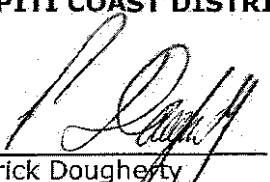
8: Conditional Agreement

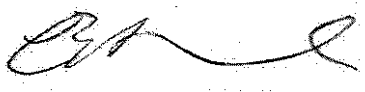
- 8.1 This agreement is conditional upon the approval of the elected Council of the Kāpiti Coast District Council.

Signed on behalf of the
NEW ZEALAND TRANSPORT AGENCY
by


Rod James
State Highway Manager, Wellington

Signed on behalf of the
KĀPITI COAST DISTRICT COUNCIL
by


Patrick Dougherty
Chief Executive Officer

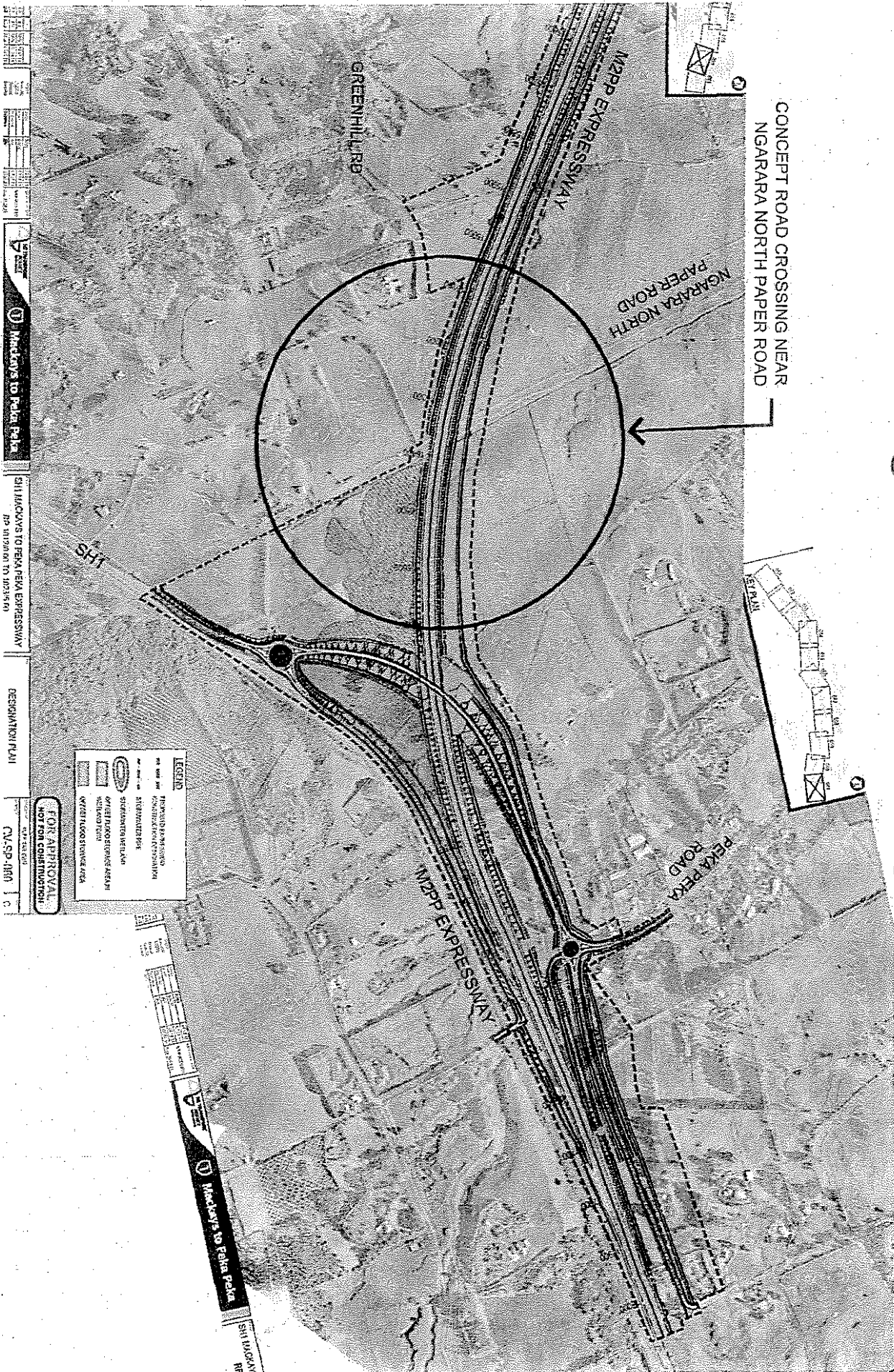

Lyndon Hammond
Planning and Investment Manager,
Central

Appendix One:

Location of Indicative Crossings



CONCEPT ROAD CROSSING NEAR
NGARARA NORTH PAPER ROAD



Scale	1:500
North	True
Author	...
Checked	...
Date	...

1 Mackays to Peika Peika

S11140005 TO PEIKA PEIKA EXPRESSWAY
RP 10/2016 TO 10/23/16

DESCRIPTION PLAN

C.V.-SP-480

LEGEND

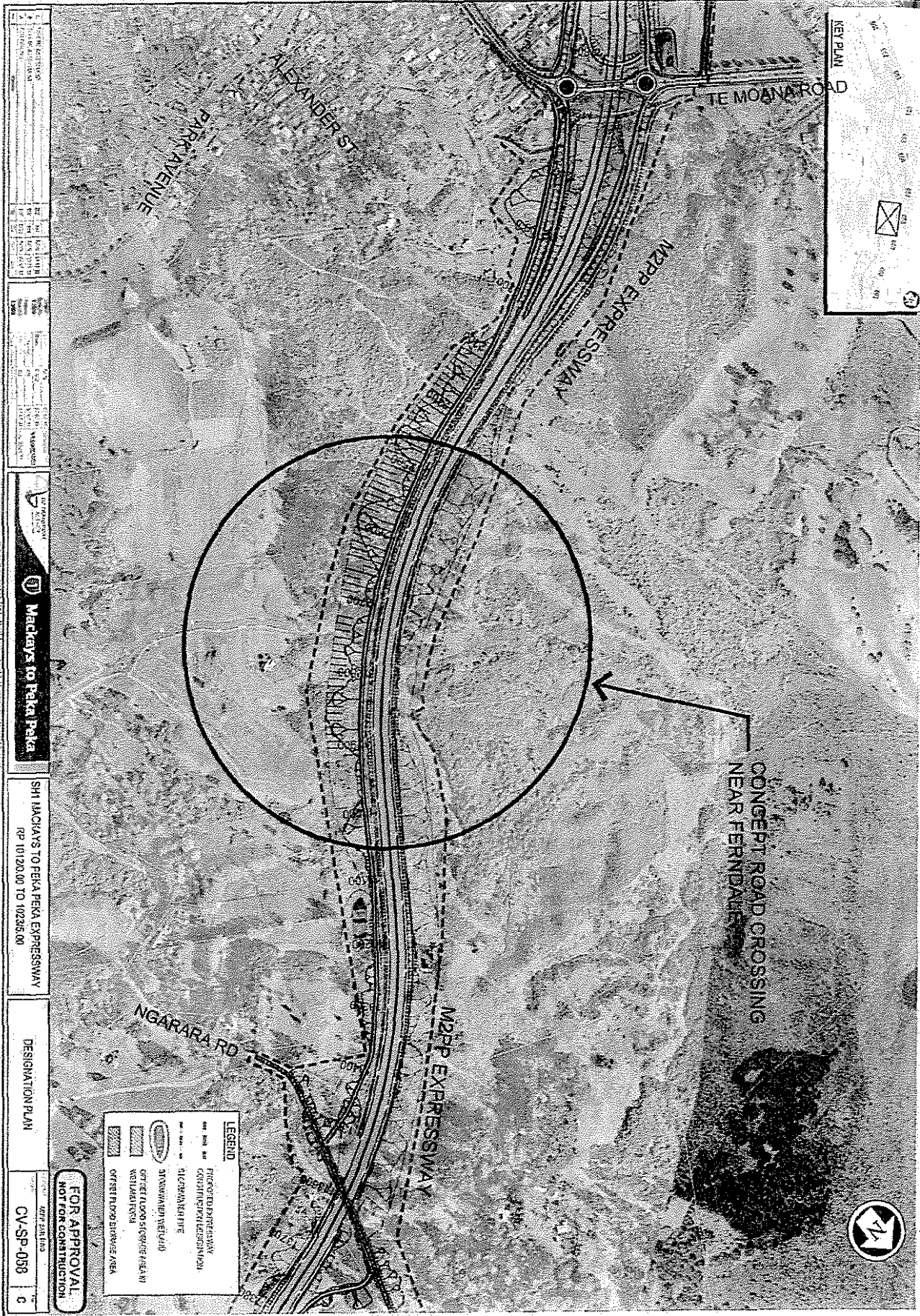
	PROPOSED MAIN ROAD
	PROPOSED ACCESS ROAD
	STREET WITH RIGHT-OF-WAY
	STREET WITH PROPOSED RIGHT-OF-WAY
	RIGHT-OF-WAY
	WETLAND SENSITIVE AREA

FOR APPROVAL
NOT FOR CONSTRUCTION

1 Mackays to Peika Peika

S11140005
RP

[Handwritten signature]



Project No.	10120000
Client	SH 14/CI/AVS TO PEKA PEKA EXPRESSWAY
Scale	1:1000
Date	10/12/2000
Author	[Name]
Checker	[Name]
Appr. Engr.	[Name]
Project Manager	[Name]

Sheet No.	058
Total Sheets	058
Scale	1:1000
Date	10/12/2000
Author	[Name]
Checker	[Name]
Appr. Engr.	[Name]
Project Manager	[Name]

MacKays to Peka Peka

SH 14/CI/AVS TO PEKA PEKA EXPRESSWAY
 RP 101200.00 TO 102350.00

DESIGNATION PLAN

CV-SP-058
 0

LEGEND	
	PROPOSED EXPRESSWAY
	EXISTING EXPRESSWAY
	PROPOSED INTERCHANGE
	EXISTING INTERCHANGE
	PROPOSED ROUNDABOUT
	EXISTING ROUNDABOUT
	PROPOSED ROAD CROSSING
	EXISTING ROAD CROSSING
	PROPOSED BRIDGE
	EXISTING BRIDGE
	PROPOSED STRUCTURE
	EXISTING STRUCTURE
	PROPOSED AREA
	EXISTING AREA

FOR APPROVAL
 NOT FOR CONSTRUCTION



[Handwritten signature]

EXPRESSWAY
38.00
D

NO.	DATE	DESCRIPTION
1	10/12/00	ISSUED FOR TENDERS
2	10/12/00	REVISED TO SHOW REVISIONS
3	10/12/00	REVISED TO SHOW REVISIONS
4	10/12/00	REVISED TO SHOW REVISIONS
5	10/12/00	REVISED TO SHOW REVISIONS
6	10/12/00	REVISED TO SHOW REVISIONS
7	10/12/00	REVISED TO SHOW REVISIONS
8	10/12/00	REVISED TO SHOW REVISIONS
9	10/12/00	REVISED TO SHOW REVISIONS
10	10/12/00	REVISED TO SHOW REVISIONS

NO.	DATE	DESCRIPTION
1	10/12/00	ISSUED FOR TENDERS
2	10/12/00	REVISED TO SHOW REVISIONS
3	10/12/00	REVISED TO SHOW REVISIONS
4	10/12/00	REVISED TO SHOW REVISIONS
5	10/12/00	REVISED TO SHOW REVISIONS
6	10/12/00	REVISED TO SHOW REVISIONS
7	10/12/00	REVISED TO SHOW REVISIONS
8	10/12/00	REVISED TO SHOW REVISIONS
9	10/12/00	REVISED TO SHOW REVISIONS
10	10/12/00	REVISED TO SHOW REVISIONS



Madgays to Pelea Paika

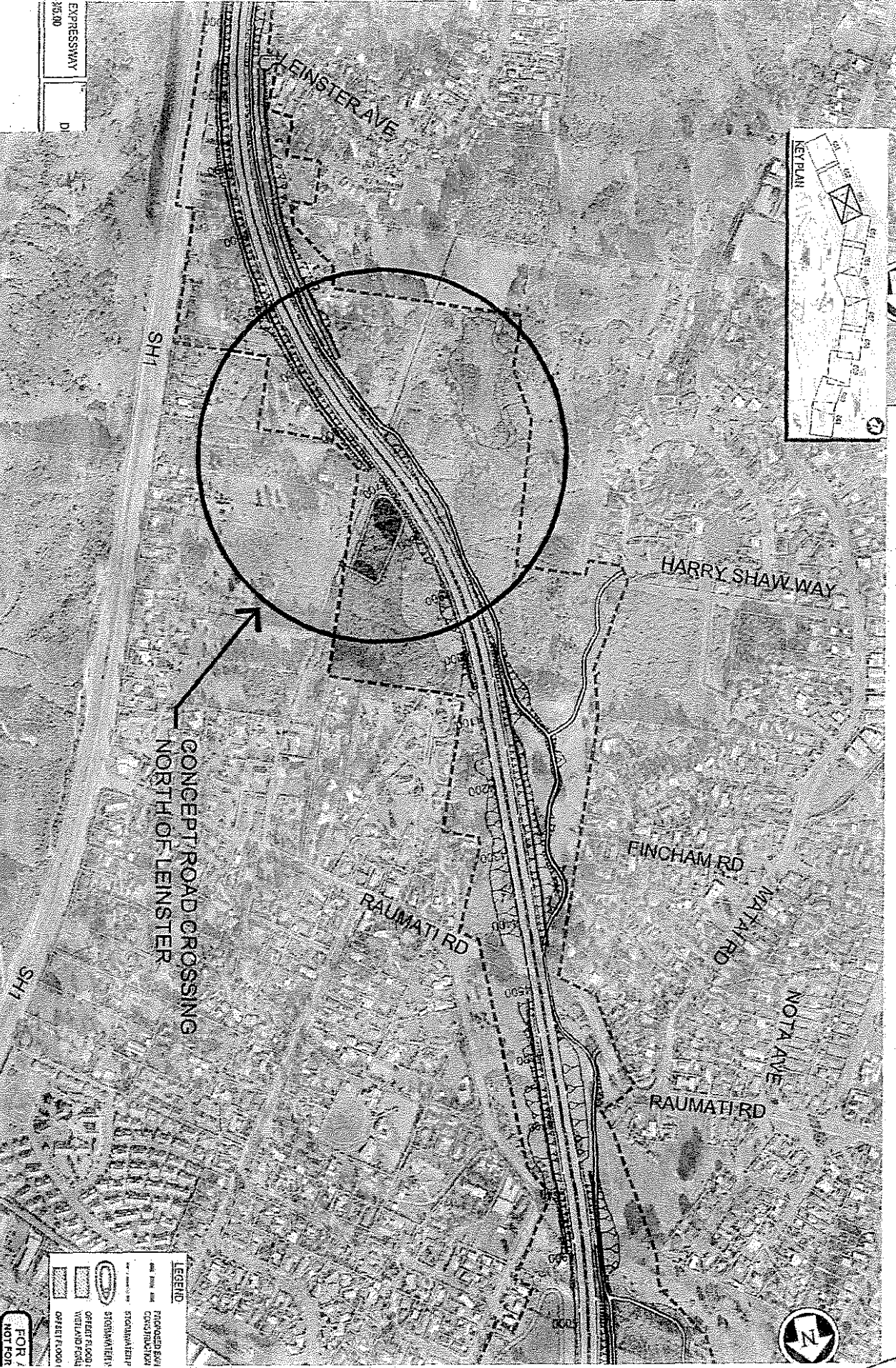
SH1 MADGAYS TO PELEA PEKA EXPRESSWAY
RP 10120.00 TO 10225.00

DESIGNATION PLAN

FOR / NOT FOR
CV

LEGEND

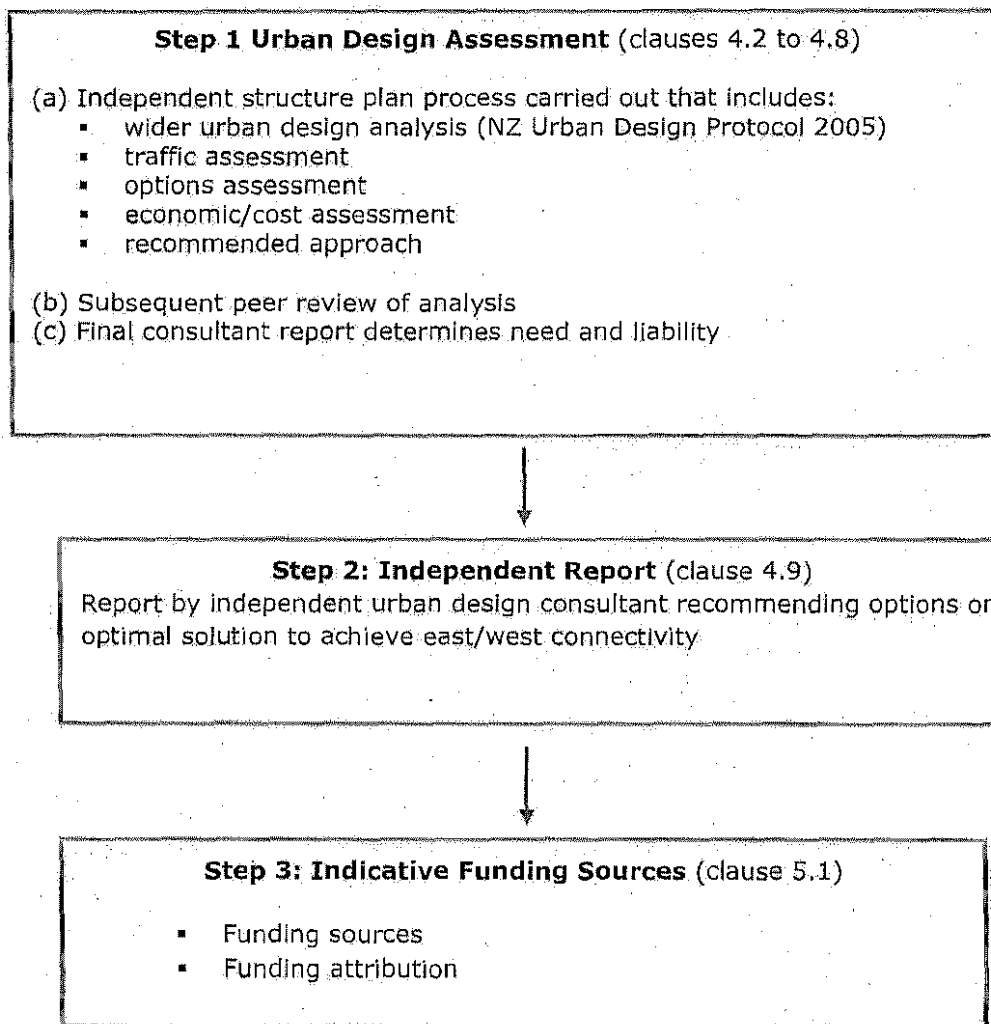
	PROPOSED AND CONSTRUCTION
	STREET NAME
	STREET NUMBER
	STREET LIGHT
	STREET SIGN
	STREET FURNITURE
	STREET PLANTING
	STREET DRAINAGE
	STREET LIGHTING
	STREET SIGNAGE
	STREET FURNITURE
	STREET PLANTING
	STREET DRAINAGE
	STREET LIGHTING
	STREET SIGNAGE



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Appendix Two:

Process to Determine Need and Funding Sources for Crossing



1

ANNEXURE B – PROPOSED DESIGNATION SSUDP CONDITION

Site Specific Urban Design Plans

DC.59A

- a) The Requiring Authority shall prepare Site Specific Urban Design Plans (SSUDPs) for the Project. The purpose of the Plans shall be to resolve outstanding design issues identified through the consenting process in accordance with the principles set out in the Urban and Landscape Design Framework.
- b) The SSUDPs shall implement the Landscape Management Plans and the Network Integration Plan.
- c) The SSUDP process will be undertaken by a suitably qualified urban designer and with appropriate inputs from other experts. SSUDPs will be prepared for the locations specified below where the Expressway interacts with local vehicular and non-vehicular movement:
- Poplar Avenue
 - Leinster Ave pedestrian bridge
 - Raumati Road
 - Ihakara extension/Wharemauku Stream
 - Kapiti Road
 - Makarini Street area pedestrian bridge
 - Mazengarb Road
 - Otaihanga Road
 - Te Moana Road
 - Ngarara Road
 - Smithfield Road
- d) The SSUDPs will specifically address the detailed design of the Project in these locations for the benefit of pedestrians, cyclists and others using the local road network, including:
- Lighting, for the benefit of pedestrian and cyclists
 - Footpath and on-road cycle lane design on road (provision for minimum dimensions of 1.5m on road cycle lanes, and 2m footpaths)
 - Intersection of cycleway/walkway/bridleway (CWB) paths and the local roads to provide safe crossings
 - Retaining wall structures, in terms of their scale and materiality and noise mitigation structures and landforms in terms of their fit in the landscape and visual treatment
 - Local property access to provide for existing and future needs
 - Landscape treatment, in conjunction with the Landscape Management Plans

- Bridge piers and abutments design to address the location of piers and the treatment of abutments to address their scale and materiality
 - Location of highway directional signage, so as to avoid obstructing pedestrian and cycling movement and coordinate the provision of signage to avoid visual clutter
- e) A SSUDP will also be prepared for the CWB. This will include minimum dimensions for the Expressway network (parallel with Expressway 3m two way path), describe locations for connections (immediate and future potential connections) boardwalks to address ecological values, lighting, safety provisions for crossings of local roads and include a CPTED review, as described in (f) below.
- f) The SSDUP process will also include a CPTED review by a suitably qualified independent expert. This includes a preliminary review (at the outset of the SSUDP process) and a review of the draft SSUDP to check how considerations have been addressed.
- g) Specific matters to be considered at the locations in (c) are as follows:
- (i) Poplar Avenue
- Legibility of the cycle and walking network, recognising the location adjacent to QE Park and the start of the Expressway CWB.
 - Signage locations to recognise the likely scale and number of signs necessary to identify and regulate movement around the intersection
- (ii) Leinster Ave pedestrian bridge
- Integration with the CWB and its link to the southern connection to QE Park, to SH1 and any future connection to Matai Road.
 - Location and design of bridge to minimise vertical ramping and address relationship to potential future vehicle bridge connection.
- (iii) Raumati Road
- Pier locations given bridge skew to Raumati Road
- (iv) Ihakara extension/Wharemauku Stream
- Safety of pedestrian and cycle crossing at the future local road Ihakara Street Extension
 - Provision for future road connection in relation to stream and

CWB

- Gradient and direction of CWB in relation to the slope up to the Milne Drive level

(v) Kapiti Road

- Development of a distinctive gateway in terms of the bridge form, and legibility of connections to the future town centre development
- Utilisation of wetland and designated land on Kapiti Road to be integrated with this gateway design as a transitional space between the Expressway and town centre
- Future upgrades to Kapiti Road and the safety and convenience of the walking and cycling crossings
- Provision of a walking link between Kapiti Road and Makarini Street (via pocket park) in terms of its safety and convenience.

(vi) Makarini Street area pedestrian bridge

- Location and design to minimise vertical ramping
- Location of connections to Te Roto Drive and Makarini Street

(vii) Mazengarb Road

- Design of retaining walls to reduce dominance and maintain openness of approach.

(viii) Otaihanga Road

- Safety and convenience of pedestrian and cycle crossing at the local road, including for horse riders

(ix) Te Moana Road

- Safety and convenience of pedestrian and cycle crossing at the local road, including for horse riders.
- Any additional network analysis required to consider the implications of the changes to the intersection design
- Future connection points to the Ngarara development areas
- Utilisation potential of the Waimeha Stream as an alternative (optional) route to crossings at Te Moana Road

(x) Ngarara Road and Smithfield Road

- Horse use, including appropriate footpath widths and surfacing and dismounting area

h) The SSUDPs shall be prepared in consultation with:




- Te Ati Awa ki Whakarongotai and Takamore Trust;
- Te Rūnanga O Toa Rangātira Inc, where the works are within or directly affect Queen Elizabeth Park;
- the Greater Wellington Regional Council where works are within or directly adjacent to Queen Elizabeth Park or Waikanae River corridor;
- Where the site relates to the open spaces of QE Park, Wharemauku Stream or Waikanae River, Friends of Queen Elizabeth Park, Friends of Wharemauku Stream, Friends of Waikanae River; and
- the Council (KCDC).

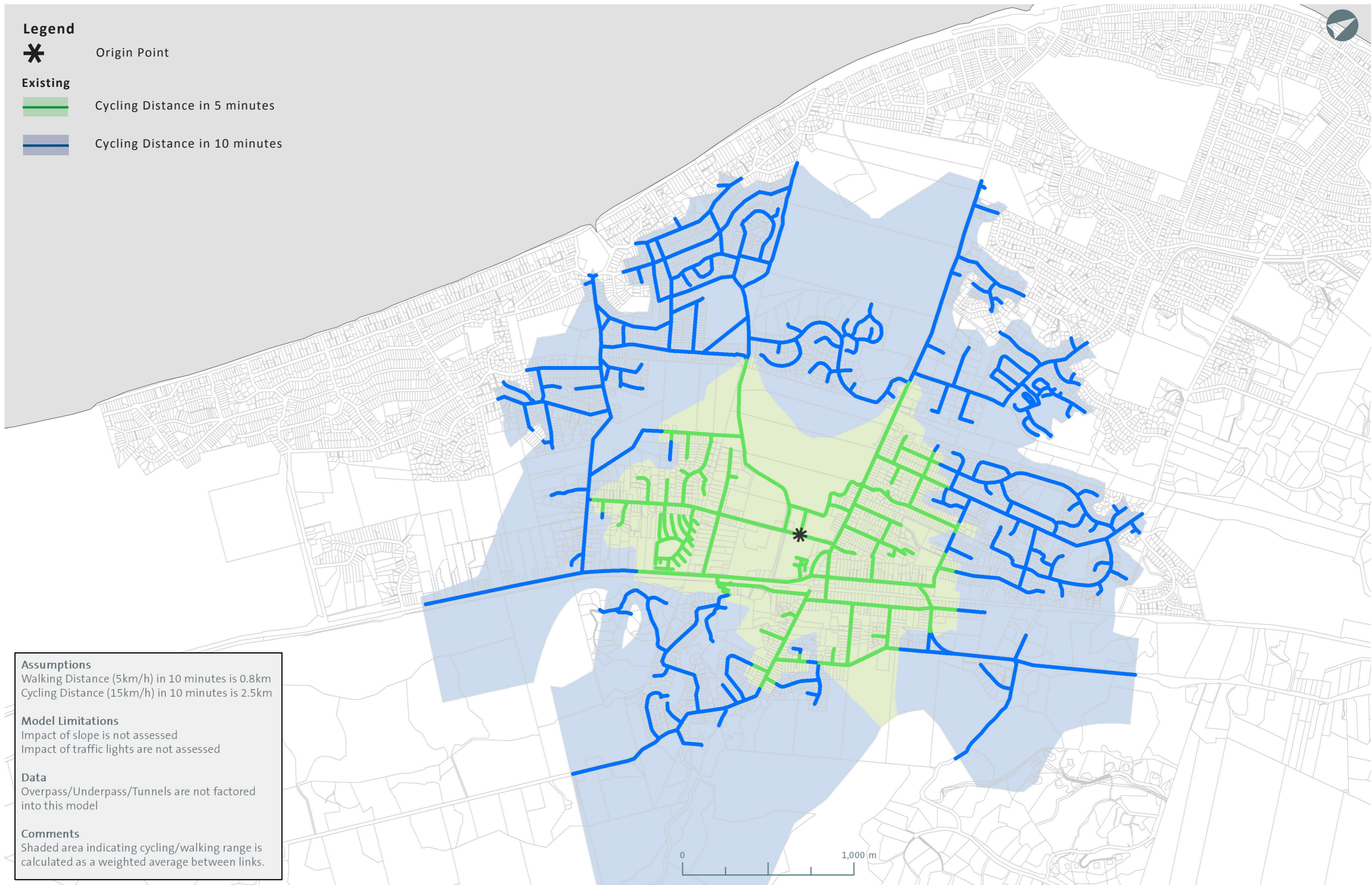
i) This consultation shall commence at least 30 working days prior to submission of the finalised SSUDP to the Council. Any comments and inputs received from the parties listed above shall be clearly documented, along with clear explanation of where any comments have not been incorporated and the reasons why.

j) The Requiring Authority shall submit each SSUDP to the Manager for certification at least 15 working days before the commencement of construction of that section of the Expressway.

**ANNEXURE C – KAPITI COMMUNITY CONNECTIONS
DIAGRAMS**

Legend

-  Origin Point
- Existing**
-  Cycling Distance in 5 minutes
-  Cycling Distance in 10 minutes



Assumptions
Walking Distance (5km/h) in 10 minutes is 0.8km
Cycling Distance (15km/h) in 10 minutes is 2.5km




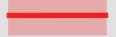
Model Limitations
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Impact of traffic lights are not assessed

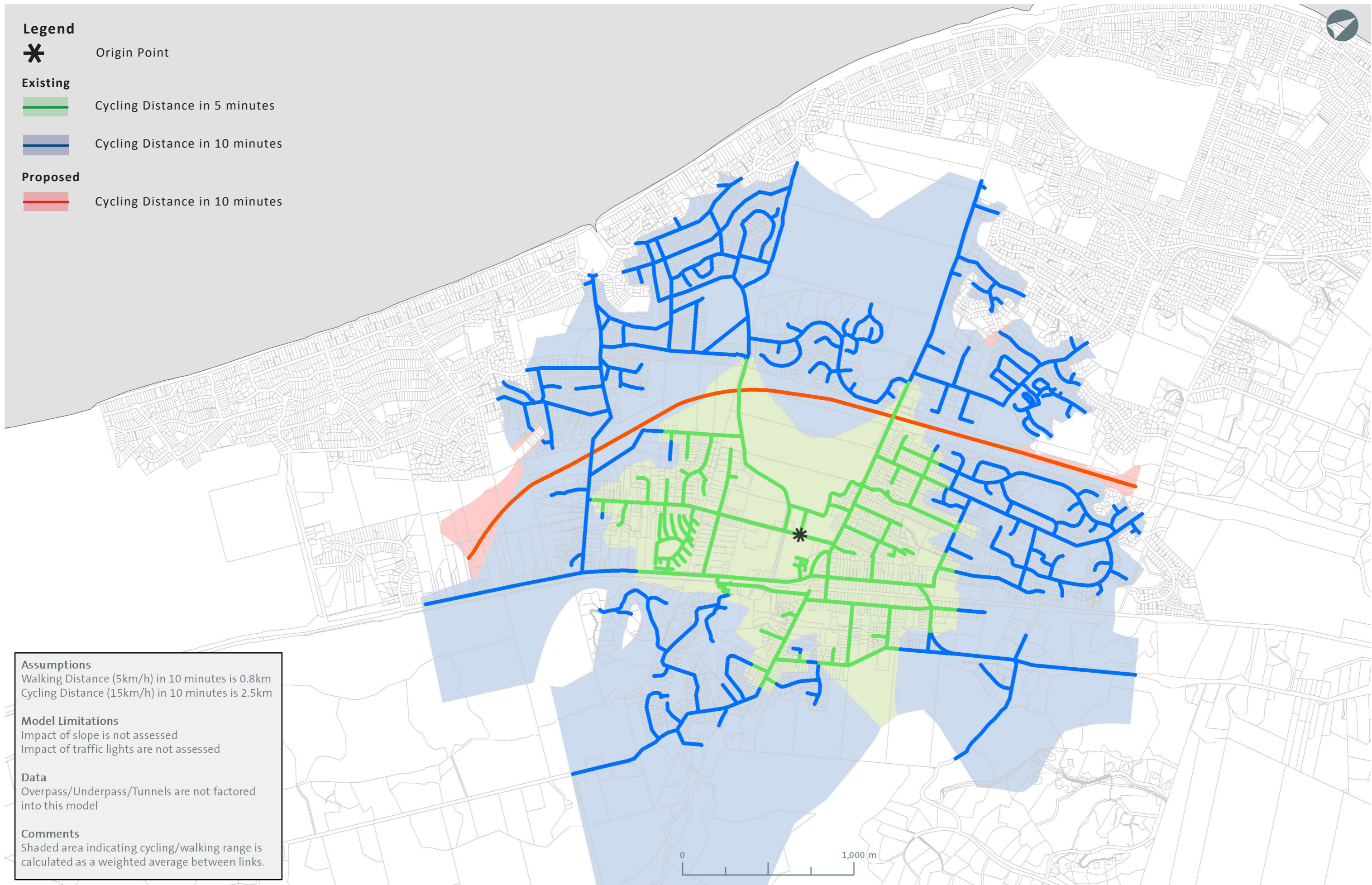
Data
Overpass/Underpass/Tunnels are not factored into this model

Comments
Shaded area indicating cycling/walking range is calculated as a weighted average between links.

KAPITI COMMUNITY CONNECTIONS - CYCLING - EXISTING CONDITION

Legend

-  Origin Point
- Existing**
 -  Cycling Distance in 5 minutes
 -  Cycling Distance in 10 minutes
- Proposed**
 -  Cycling Distance in 10 minutes



Assumptions
Walking Distance (5km/h) in 10 minutes is 0.8km
Cycling Distance (15km/h) in 10 minutes is 2.5km

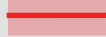
Model Limitations
Impact of slope is not assessed
Impact of traffic lights are not assessed

Data
Overpass/Underpass/Tunnels are not factored into this model

Comments
Shaded area indicating cycling/walking range is calculated as a weighted average between links.

KAPITI COMMUNITY CONNECTIONS - CYCLING - PROPOSED WITHOUT LINKS

Legend

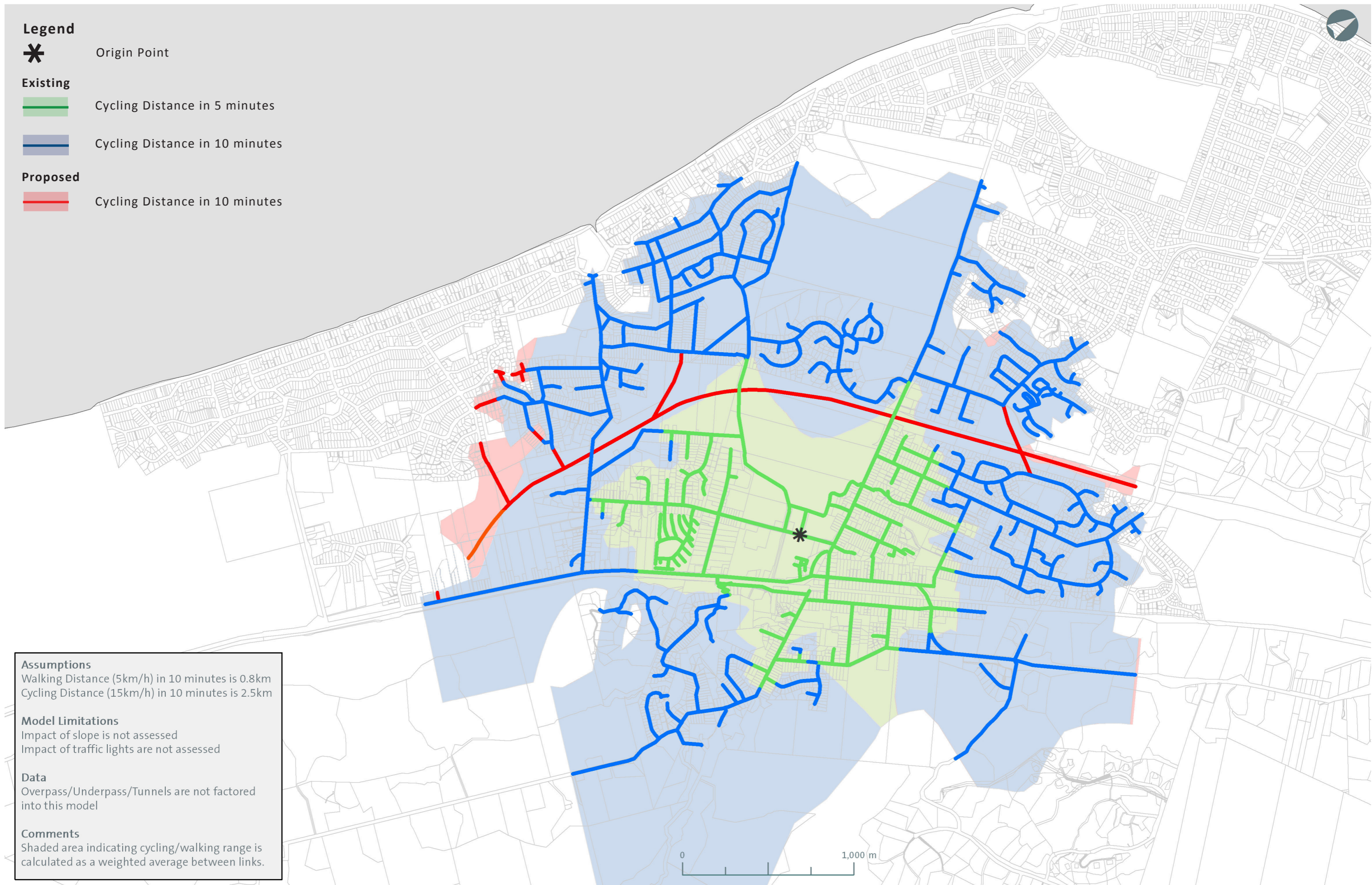
-  Origin Point
- Existing**
-  Cycling Distance in 5 minutes
-  Cycling Distance in 10 minutes
- Proposed**
-  Cycling Distance in 10 minutes

Assumptions
Walking Distance (5km/h) in 10 minutes is 0.8km
Cycling Distance (15km/h) in 10 minutes is 2.5km

Model Limitations
Impact of slope is not assessed
Impact of traffic lights are not assessed

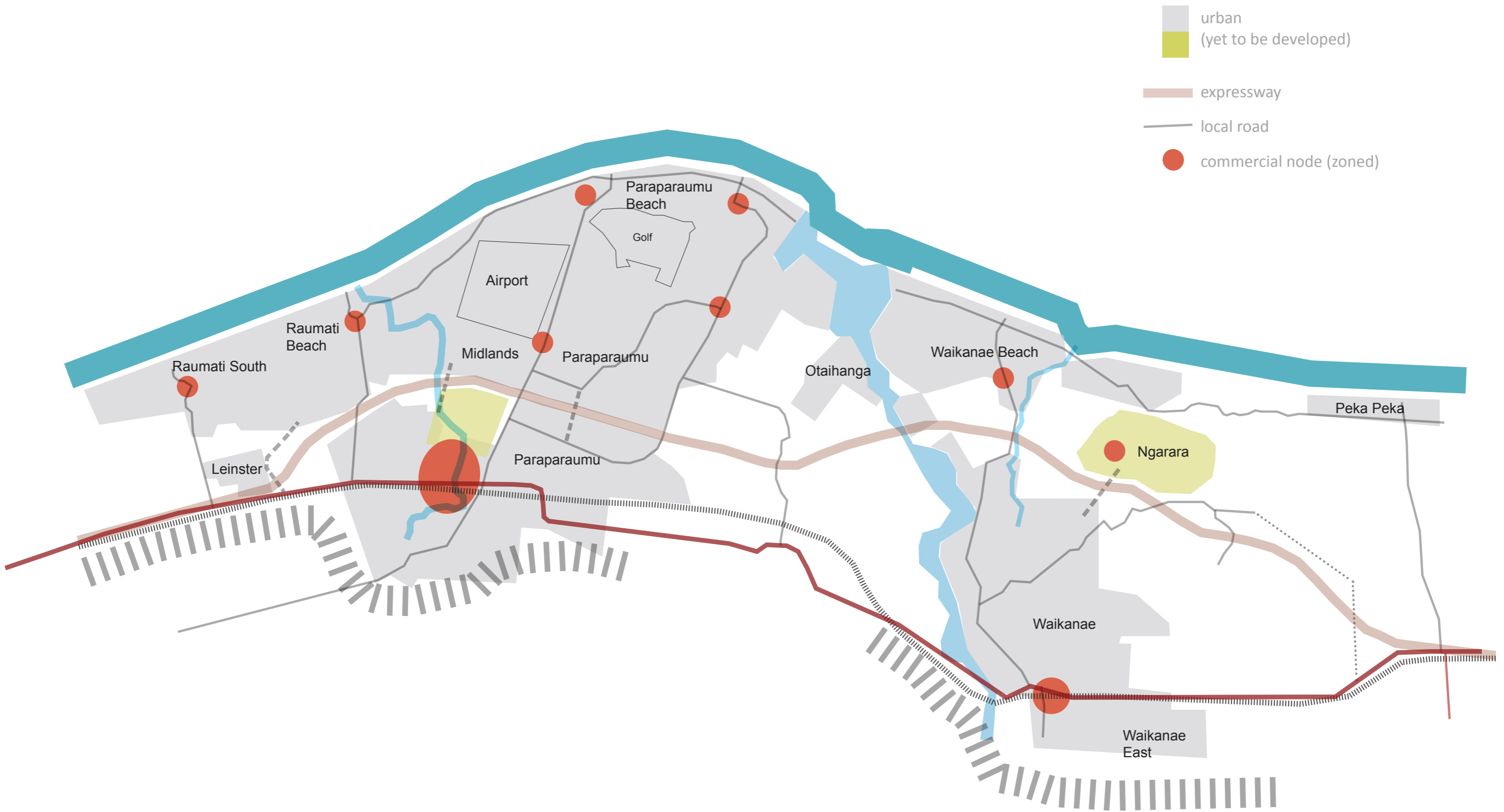
Data
Overpass/Underpass/Tunnels are not factored into this model

Comments
Shaded area indicating cycling/walking range is calculated as a weighted average between links.



KAPITI COMMUNITY CONNECTIONS - CYCLING - PROPOSED WITH LINKS

**ANNEXURE D - KAPITI COMMERCIAL CENTRES
DISTRIBUTION DIAGRAMS**



KAPITI COMMERCIAL CENTRES DISTRIBUTION [diagramatic]

MacKays to PekaPeka Expressway Rebuttal evidence Marc Bailly October 2012