

APPENDIX 1 – MEMO AND APPENDICES (PETER COOP TO
SYLVIA ALLAN, 26 MARCH 2011)

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MEMO TO: SYLVIA ALLAN

MEMO FROM: PETER COOP

DATE: 25 MARCH 2011

SUBJECT: ASSESSMENT OF ROUTES FOR THE PROPOSED EXPRESSWAY FROM PEKA PEKA TO NORTH OTAKI

INTRODUCTION

I was requested to complete the following tasks:

Task 1 Document previous route options

Task 2 Identify whether any additional routes should have been identified.

Task 3 Screening of options considered to identify:

- (a) Options that have been justifiably excluded (these options will go no further).*
- (b) Options that have justifiably been included.*
- (c) Options that require further investigation to retain or reject.*

To undertake tasks 1 and 2 it has been necessary to review the history of transportation planning in Kapiti and Horowhenua. Under the task 1 and 2 headings below is therefore a concise historical summary focused on the identification of route options for improving the management of State Highway traffic.

TASK 1 - DOCUMENT PREVIOUS ROUTE OPTIONS

In the 1950's a middle line proclamation for a new State Highway motorway through Kapiti to Foxton was gazetted. The route from south of Paraparaumu to north of Levin generally followed the line of the coastal sand dunes and was therefore commonly referred to as the "Coastal" or "Sandhills" motorway route.

In the late 1980's the designation for the Sandhills motorway route north of Peka Peka was uplifted but it was retained south of Peka Peka.

In the mid 1990's Transit NZ (TNZ) and Kapiti Coast District Council (KCDC) agreed that the Sandhills motorway designation from south of Paraparaumu to Peka Peka should be changed to a designation for a district road arterial (known as the "Western Link Road") with KCDC as the designating authority. This was confirmed by the Environment Court in 2002.

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Accordingly, since the mid 1990's TNZ's State Highway strategy for Kapiti/Horowhenua has been to improve the existing State Highway and to support KCDC's proposed Western Link Road.

In 1998 TNZ commissioned Worley Ltd to prepare a "Himatangi to Waikanae Study". Its purpose was to carry out investigations, consultations, and assessments of the options for the future management of State Highway traffic and to identify the "best" State Highway improvement option. The "Himatangi to Waikanae Review and Development Report" (January 2000) summarises the investigations, consultations, and assessments undertaken of the options for managing State highway traffic.

For the Peka Peka to Otaki section, the Study identified two options – a Coastal route and a Central route. Attached in Appendix 1 are descriptions and plans of these routes. They are conceptual. A Coastal route obviously involved the construction of a new State Highway whereas it was envisaged a Central route would more or less follow the existing State Highway and make significant use of sections of it, thus enabling staging and lower costs.

The Study recommended that a Central route should be preferred to a Coastal/Sandhills route and this was endorsed by the TNZ Board in December 2000.

In 2001 TNZ commissioned Meritec Ltd to prepare a Scheme Assessment Report (SAR). Its purpose was to determine the most appropriate alignment and intersection strategy for a four lane expressway along a Central route. Attached in Appendix 2 are the alignments assessed by the SAR (2002). The SAR recommended alignment is shown on the plans in Appendix 2 and is referred to as the "eastern route".

During consultation on the SAR, alternative routes were proposed by Te Horo Road Action Committee (THRAC) and individuals. The alternative routes (sometimes referred to as the Te Waka routes) were generally to the west of the existing State Highway with a new bridge crossing between Otaki and Otaki Beach. In response, TNZ commissioned Meritec Ltd to prepare a Scheme Assessment Report-Addendum (SARA). Attached in Appendix 3 are the Te Waka alignments assessed by the SARA (2003).

In 2003, and after considering the SAR, SARA and results of consultation, the TNZ Board endorsed the SAR recommended alignment for the expressway shown on the plans in Appendix 2.

In 2005 TNZ commissioned Maunsell Ltd (previously Meritec Ltd) to prepare a "Western Corridor Study". This considered several multi-modal enhancement initiatives and recommended that even with such enhancements to other transport modes, an expressway standard State Highway was required.

In 2008 NZTA commissioned Opus International Consultants Ltd (Opus) to prepare the "Kapiti Scoping Study" and in 2009 a "Technical Report". The 2009 report endorsed the expressway alignment recommended by the SAR (2002) and recommended further alignment and design refinements principally related to intersection/interchange location and design.

In 2009 there was consultation on NZTA's preferred alignment for a new expressway through Kapiti and Horowhenua as part of the Government Roads of National Significance (RoNS) initiative.

In December 2009 NZTA's Board confirmed its expressway proposal and alignment from Peka Peka to north Otaki, subject to further design refinement investigations.

In June 2010 NZTA's Board heard oral submissions from representatives of the Te Horo Road Action Committee (THRAC) and County and Rahui Roads Group (CRRG). The thrust of the submissions was that THRAC and CRRG considered that there had been no genuine public consultation on alternatives, that NZTA had given inadequate consideration of alternatives, that the adverse effects of NZTA's preferred route are significantly greater than assessed by NZTA, and that if a motorway route was required a Sandhills route was superior. After considering the matters raised by THRAC and CRRG, the Board confirmed its December 2009 decision.

In 2010 NZTA commissioned Opus to assist it to refine the design and alignment of its preferred alignment for a new expressway, to undertake consultation to assist NZTA with design refinement, and in due course to lodge applications for the required statutory approvals. The design refinement options are shown in the consultation pamphlet dated February 2011.

TASK 2 = IDENTIFY WHETHER ANY ADDITIONAL ROUTES SHOULD HAVE BEEN IDENTIFIED.

The main initial question is whether there are any significantly different routes to those that have been identified in Task 1.

The "Himatangi to Waikanae Review and Development Report" (Worley Ltd, January 2000) states that "many options were considered essentially covering all possible options from the Tarauas to the coast" (p1). However for the Peka Peka to north Otaki section, no "Foothills" routes were specifically identified or assessed in the Report. Nor has evidence yet been found that such routes were assessed by Worley Ltd and reason given for discarding these routes.

The "SH1 Otaki to Peka Peka Expressway Report of Preliminary Consultation" (August 2001) records "a number of submitters did not support any of the proposed options arguing that any bypass should be confined to rural areas, preferably using the old "Sandhills" route or possibly to the east towards the foothills". This was reported in the Scheme Assessment Report (SAR 2002 p 24) but no assessment included of foothills routes.

The submission to the NZTA by the Kapiti Coast District Council (KCDC) dated 30 October 2009 includes the statement that "... ideally a bypass should be located near the edge of a rural town with strong linkages to the local centre. This is theoretically possible to the east of Otaki around the edge of the Waitohu Plateau residential area but there are issues and impacts which make such an approach unlikely" (p44).

In June 2010 the Board heard a submission by Te Horo Road Action Committee (THRAC) and County and Rahui Road Group (CRRG) that advocated a Sandhills, Te Waka or foothills routes. Attached in Appendix 4 are the conceptual route alternatives contained in the written submission by THRAC and CRRG. The subsequent Board Paper makes no specific reference to foothills routes, perhaps reflecting the focus of the oral submissions.

In late 2010 Opus were requested to identify potential foothills route alternatives and identified two conceptual alternatives. These are shown in the draft "Alternative Corridors Technical Feasibility Report" (Opus January 2011).

It is recommended that NZTA assess the effects of these two foothills route alternatives.

TASK 3 = SCREENING OF OPTIONS CONSIDERED TO IDENTIFY:

- a) **OPTIONS THAT HAVE BEEN JUSTIFIABLY EXCLUDED (THESE OPTIONS WILL GO NO FURTHER).**
- b) **OPTIONS THAT HAVE JUSTIFIABLY BEEN INCLUDED.**
- c) **OPTIONS THAT REQUIRE FURTHER INVESTIGATION TO RETAIN OR REJECT.**

This task essentially requires an assessment as to whether TNZ/NZTA has given adequate consideration to route alternatives (s171(1)(b) of the RMA).

Case law has provided the following clarification:

- The test in relation to the adequacy of consideration of alternatives is to be satisfied that the requiring authority has not acted arbitrarily or given only cursory consideration to alternatives.
- It is not for the Court/EPA to assess the relative merits of each alternative and make a determination as to the preferred alternative.
- The test is to be satisfied that NZTA has carried out sufficient investigations as to alternatives so as to satisfy itself as to the alternative put forward in its Notice of Requirement.
- If the adverse effects of that chosen route are found by the Court/EPA to be too great, the Notice of Requirement will be declined.
- The assessment of the environmental effects of alternatives should reflect (ideally expressly or failing that, by implication) the weighting of the identified matters under Part 2 of the RMA.

Insofar as the consideration of alternatives is concerned, the "Himatangi to Waikanae Review and Development Report" (Worley Ltd, January 2000) resulted in TNZ not preferring a Coastal/Sandhills route. The following findings of the Report support TNZ's decision:

- Cultural heritage matters (archaeological sites, wetland areas, land water interface, waahi tapu including urupa in particular) associated with coastal options "might not be able to be negotiated with any certainty" (p32 attached in Appendix 1).
- The Regional Council identified that the coastal options "will be fraught with issues important to tangata whenua..." (p33 attached in Appendix 1).
- The Department of Conservation identified that the coastal options are likely to (adversely) impact on Maori land and cultural sites (p33 attached in Appendix 1) and noted potential difficulties with Maori land (a matter also identified on p34 in relation to coastal routes in the Levin area).
- Historical issues, Maori land holdings, Maori economic opportunities, sensitive environmental and cultural sites, and changing land use patterns are identified as significant issues for the coastal options (p80 attached in Appendix 1).

- Coastal options were not favoured from a bridge construction, hydraulic capacity, maintenance, and risk (including flooding) perspectives (p14 attached in Appendix 1).
- The potential adverse economic effect on Town Centres of motorway bypasses was noted.
- Compared to the Coastal Route, the Central Route *"provides both higher accident and travel time/operating cost benefits by attracting the greatest number of users"* and *"provides the largest accident reduction for the same reason"* (p61 attached in Appendix 1).
- Stakeholder consultation was undertaken which assisted TNZ to be informed about the relative effects of a "Coastal/Sandhills" and a "Central" route.

The Report does not specifically refer to RMA Part 2 or explicitly apply the respective weighting of identified matters. However, a significant number of the reasons for not preferring a "Coastal/Sandhills" route are matters of national importance under s6; matters to be given "particular regard to" under s7, and "take into account" Treaty of Waitangi matters under s8. In other words, if additional weight is placed on the relevant matters under Part 2, this would serve in my opinion to reinforce the recommendations of the "Himatangi to Waikanae Review and Development Report".

No public consultation was undertaken during the 1998-2000 investigations and in relation to the "Himatangi to Waikanae Review and Development Report". TNZ must therefore have considered at the time that the stakeholder consultation it did undertake was sufficient for TNZ to be informed about the likely significant adverse effects of a "Coastal/Sandhills" route.

While public consultation would have been best practice, it is not in my opinion a fatal flaw in terms of meeting s171 of the RMA. This is particularly in the context of TNZ being an experienced requiring authority that would have been well aware of the RMA difficulties associated with a route that would bisect archaeological sites, wetland areas, significant landscape features (sandhills), waahi tapu and urupa in particular, and in the light of being informed by the Regional Council that coastal options *"will be fraught with issues important to tangata whenua..."*.

It is therefore considered that a "Coastal/Sandhills" route was given more than cursory consideration, was not arbitrarily discarded, and that TNZ undertook sufficient investigations of a "Coastal/Sandhills" route so as to satisfy itself that it should not be preferred.

The subsequent Scheme Assessment Report (SAR 2002) prepared by Meritec Ltd has been reviewed as well as some of the supporting working papers. Matters to note from this report include:

- There was public consultation in 2001. This informed people of TNZ's preferred strategy (i.e. TNZ's adoption of the recommendations of the "Himatangi to Waikanae Review and Development Report") and consulted on alignment and highway design alternatives. Further public consultation took place in 2002.

- The effects of the alignment alternatives for a Central Route were assessed by suitably qualified experts.
- A comprehensive range of effects were assessed. In particular, the effects expectedly associated with seeking to locate an expressway through/close to a Town/Urban Centre (i.e. in this case Otaki) were assessed (i.e. effect on rail, business, social severance, landscape/visual, land use, noise, vibration, heritage, and iwi etc). Also assessed were costs, construction effects, traffic effects, flooding effects etc.
- Alignment alternatives were compared. In the comparison process there was consideration of "risk", including "designation risk". This included an assessment of the relative risk of each alignment alternative in terms of obtaining RMA approvals, and although not explicitly stated, would have included consideration of Part 2 matters.
- The effects assessment, comparison of alternative alignments and RMA risk assessment were undertaken with the input of Paul Thomas, an experienced RMA consultant, as well as input from other experienced RMA practitioners.

In response to submissions by THRAC, CRRG and others, a Scheme Assessment Report Addendum (SARA 2003) was prepared by Meritec Ltd. The alternative routes assessed by the SARA are in Appendix 3.

Matters to note from the SARA include:

- The specialists commissioned to assess the effects were all highly experienced experts in their field.
- An iwi cultural impact assessment prepared by Nga Hapu o Otaki concluded that *"the Te Waka Road option cannot be supported..."* (SARA p19).
- The effects assessment, comparison of alternatives and risk assessment were undertaken with the input of Paul Thomas and other experienced RMA practitioners so consistency of RMA approach was maintained.

My conclusion therefore is that both the SAR and SARA are comprehensive reports that demonstrate that TNZ gave more than cursory consideration to the alternatives under consideration.

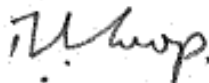
Both the SAR and SARA placed weight on the opportunity that the Central Route has in terms of staging, an opportunity not available to alternative routes. However, it is noted that NZTA's current proposal for the Central Route does not now propose staging.

CONCLUSIONS FROM TASKS 1, 2, AND 3

1. The two "Foothills" routes identified in the draft "Alternative Corridors Technical Feasibility Report" (Opus January 2011) need to be assessed and compared to the NZTA Board proposal.
2. It must be ensured that the routes are subject to fair comparison. It will therefore be necessary to ensure that the assessment of the effects of the routes (including cost

estimates) have a consistent south point (in this case just north of the proposed Peka Peka interchange) and north point (in this case just south of Manakau).

3. For risk management purposes, it is considered that a "Te Waka type" route should also be subject to assessment and comparison with the NZTA Board proposal and the two "Foothills" routes. This is because it is considered inevitable that such an alternative will be advocated by some submitters to the Board of Inquiry. The recommended Te Waka type route is identified in the draft "Alternative Corridors Technical Feasibility Report" (Opus January 2011) and is representative of the routes considered by the SARA (2003) in response to the submission by THRAC.
4. THRAC and CRRG oppose the NZTA Board proposal and advocate that if there needs to be an expressway, it should follow a Sandhills, Te Waka or foothills route. An issue therefore is whether a "Sandhills" route should be added to the above routes for assessment. It is considered that such a route should not be added, mainly because it was given adequate consideration by TNZ in 1998-2000 and not preferred for good RMA (and other) reasons. The weight that would now be given to those reasons has arguably increased over the last decade, reinforcing the original decision to discard this alternative.



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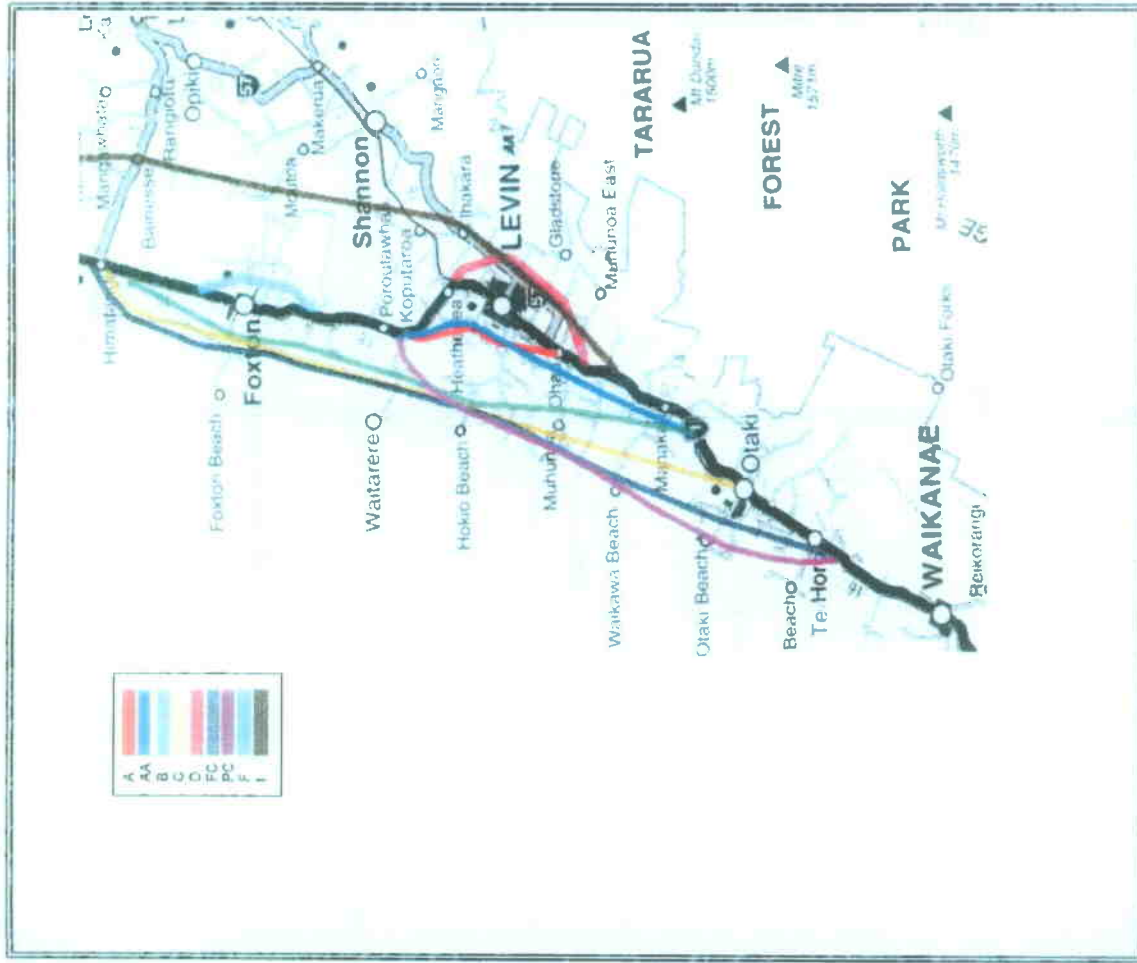
APPENDIX 1

ROUTE ALTERNATIVES AND SELECTED PAGES FROM THE "HIMITANGI TO
WAIKANAĒ REVIEW AND DEVELOPMENT REPORT" (WORLEY LTD, JANUARY
2000)



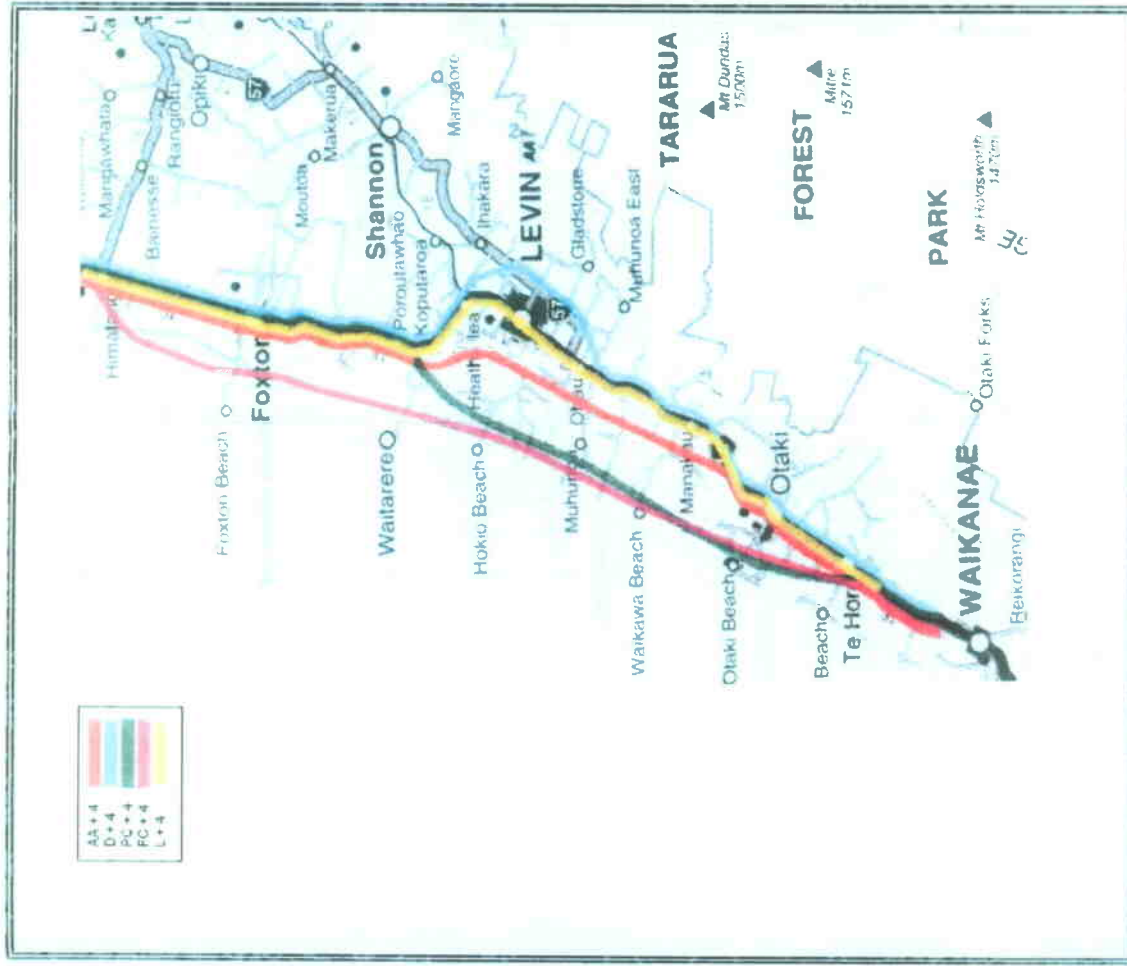
ROUTE DESCRIPTIONS

- A = Western Levin Bypass Route
Starting at the Waitarere Beach Road intersection and bypassing Levin east of Lake Horowhenua and rejoining SH1 near Ohau. Similar to Levin Bypass to Vista Road (WCS 1996 Study)
- AA = Levin / Manakau Bypass Route
Starting at the Waitarere Beach Road intersection bypassing Levin east of Lake Horowhenua and rejoining SH1 near the Pukehou Overbridge. This route was generated due to the level of development alongside the highway from Manakau to Levin.
- B = Himatangi - Pukehou Bypass Route
Starting near Manakau, bypassing Levin west of Lake Horowhenua bypassing Foxton south of Himatangi and merging back into SH1.
- C = Himatangi - Otaki Bypass Route
Starting south of Himatangi, bypassing Levin west of Lake Horowhenua, bypassing Foxton and rejoining SH1 just north of Otaki.
- D = Eastern Levin Bypass Route
Starting near Heathcote and bypassing to the east of Levin incorporating SH57 and then rejoining SH1 near Kuku Beach Road.
- FC = Coastal Route
Starting south of Himatangi, bypassing Levin west of Lake Horowhenua, bypassing Foxton and Otaki and merging back into SH1 north of Peka Peka Road.
- PC = Part Coastal Route
Starting at Waitarere Beach Road intersection, bypassing Levin West of Lake Horowhenua, bypassing Otaki and rejoining SH1 north of Peka Peka Road.
- F = Foxton Bypass
Starting north of Foxton, bypassing Foxton and rejoining SH1 north of the Whirokino Trestle.
- I = Inland Route
Starting between Foxton and Sanson, bypassing Levin on the east side and merging back into SH1 just north of Manakau.



ROUTE DESCRIPTIONS

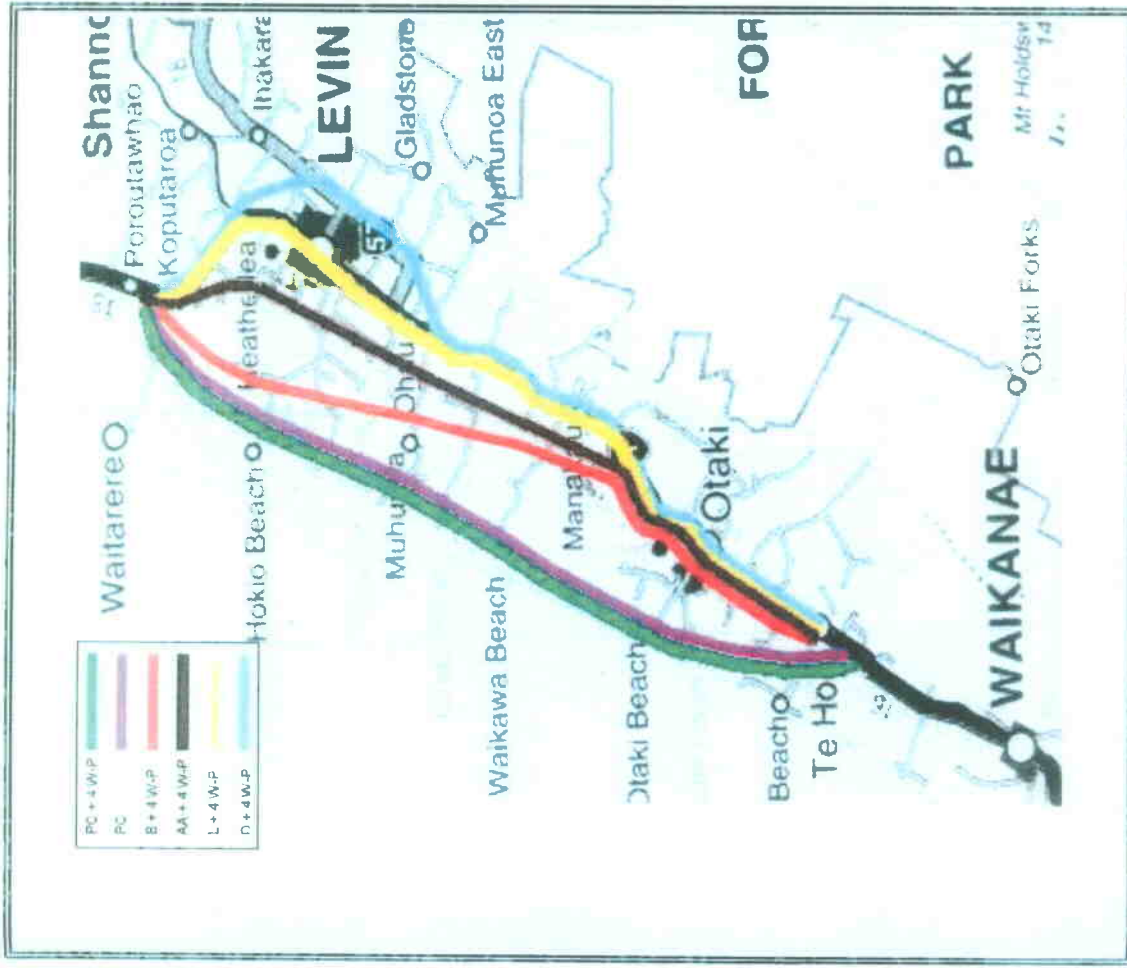
- AA + 4 = Levin / Manakau Bypass and 4 lane existing highway elsewhere Route
- D + 4 = Following the same route as the existing highway and Route AA with four lanes continuously from Himatangi to Waikanae.
- D + 4 = Eastern Levin Bypass and 4 lane existing highway elsewhere Route
- PC + 4 = Following the same route as the existing highway and Route D with four lanes from Himatangi to Waikanae
- PC + 4 = Part Coastal Route and 4 lane existing highway elsewhere Route
- FC + 4 = Following the same route as the Coastal Route with 4 lanes from Himatangi to Waikanae.
- FC + 4 = Full Coastal Route
- FC + 4 = Following the same route as the Coastal Route with four lanes continuously from Himatangi to Waikanae.
- L + 4 = Upgrade the existing route to 4 lanes
- L + 4 = Following the same route as the existing highway with four lanes continuously from Himatangi to Waikanae.



APPENDIX A HIMATANGI TO WAIKANAЕ STUDY : FOUR LANE OPTIONS

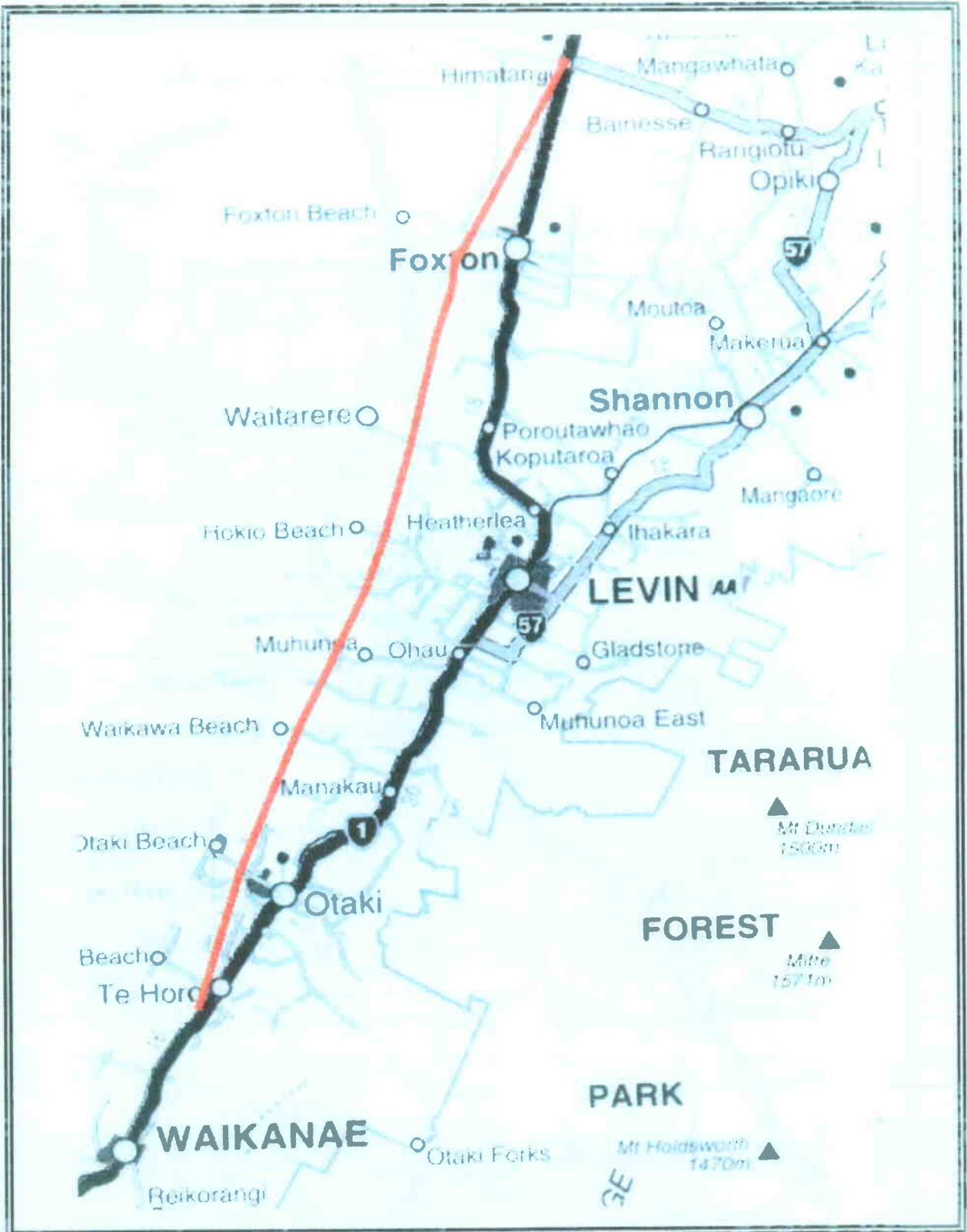
ROUTE DESCRIPTIONS

- PC + 4 W-P = Part Coastal
 Starting at Waitarere Beach Road Intersection, bypassing Levin West of Lake Horowhenua, bypassing Otaki and rejoining SH1 north of Peka Peka Road – 4 lanes
- PC = Part Coastal
 Starting at Waitarere Beach Road Intersection, bypassing Levin West of Lake Horowhenua, bypassing Otaki and rejoining SH1 north of Peka Peka Road – 2 lanes.
- B + 4 W-P = Himatangi - Pukehou Bypass Route
 Four lane bypass starting at Waitarere Beach Road Intersection, bypassing Levin west of Lake Horowhenua and merging back into SH1 at Pukehou Overbridge. Four laning SH1 southwards to Peka Peka Road.
- AA + 4 W-P = Levin / Manakau Bypass Route
 Four lane bypass starting at the Waitarere Beach Road Intersection bypassing Levin east of Lake Horowhenua and rejoining SH1 near the Pukehou Overbridge. Four laning SH1 southwards to Peka Peka Road.
- L + 4 W-P = Upgrade the existing route to 4 lanes
 Following the same route as the existing highway with four lanes continuously from Waitarere Beach Road to Peka Peka Road.
- D + 4 W-P = Eastern Levin Bypass Route
 Starting near Heatherlea and bypassing to the east of Levin incorporating SH57 and then rejoining SH1 near Kuku Beach Road with 4 laning SH1 elsewhere between Waitarere and Peka Peka.



APPENDIX A HIMATANGI TO WAIKANAЕ STUDY : WAITARERE – PEKA PEKA OPTIONS

HIMATANGI TO
 WAIKANAЕ
 R & D REPORT



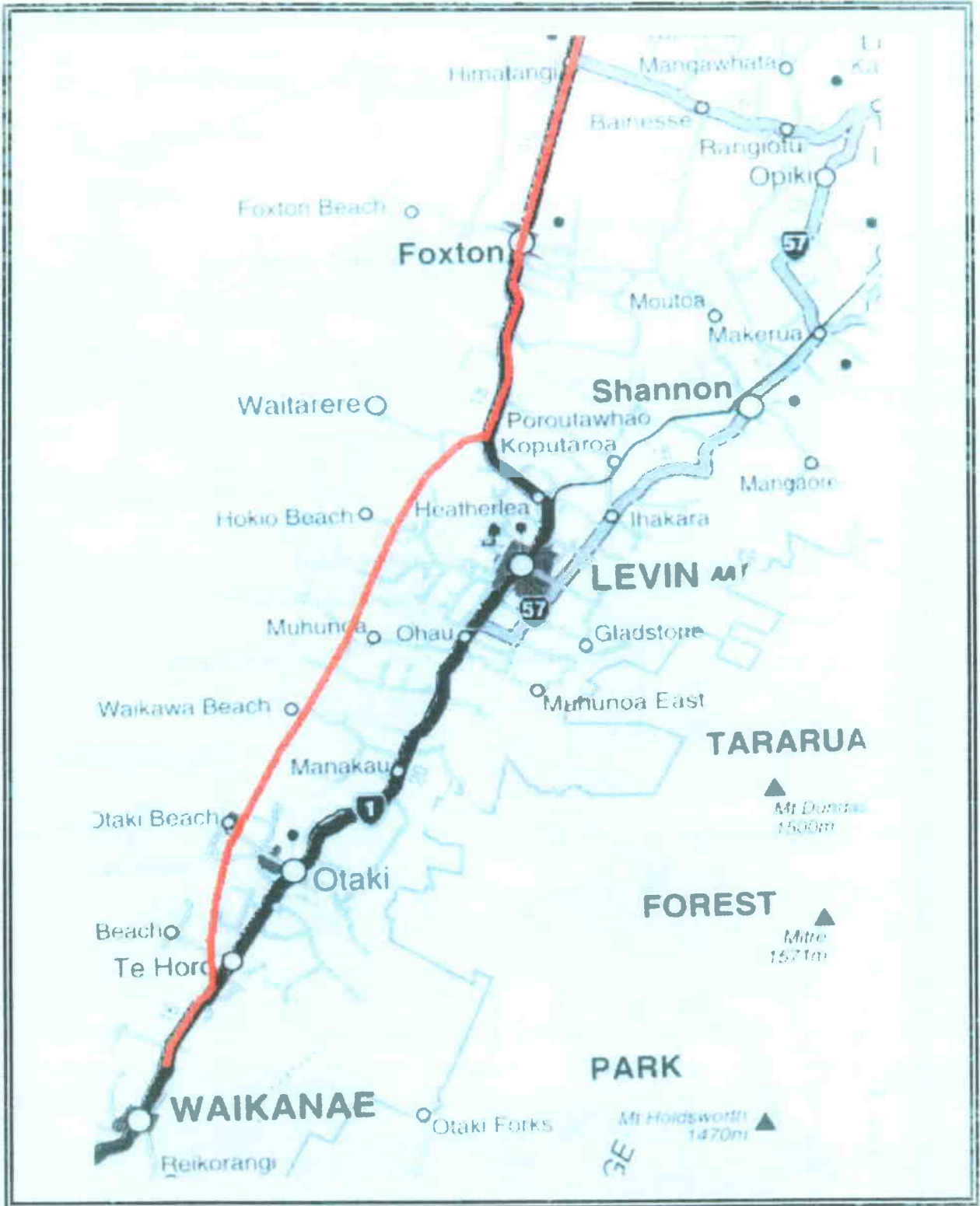
APPENDIX A HIMATANGI TO WAIKANAЕ STUDY :
 COASTAL ROUTE (FC)

HIMATANGI TO
 WAIKANAE
 R & D REPORT



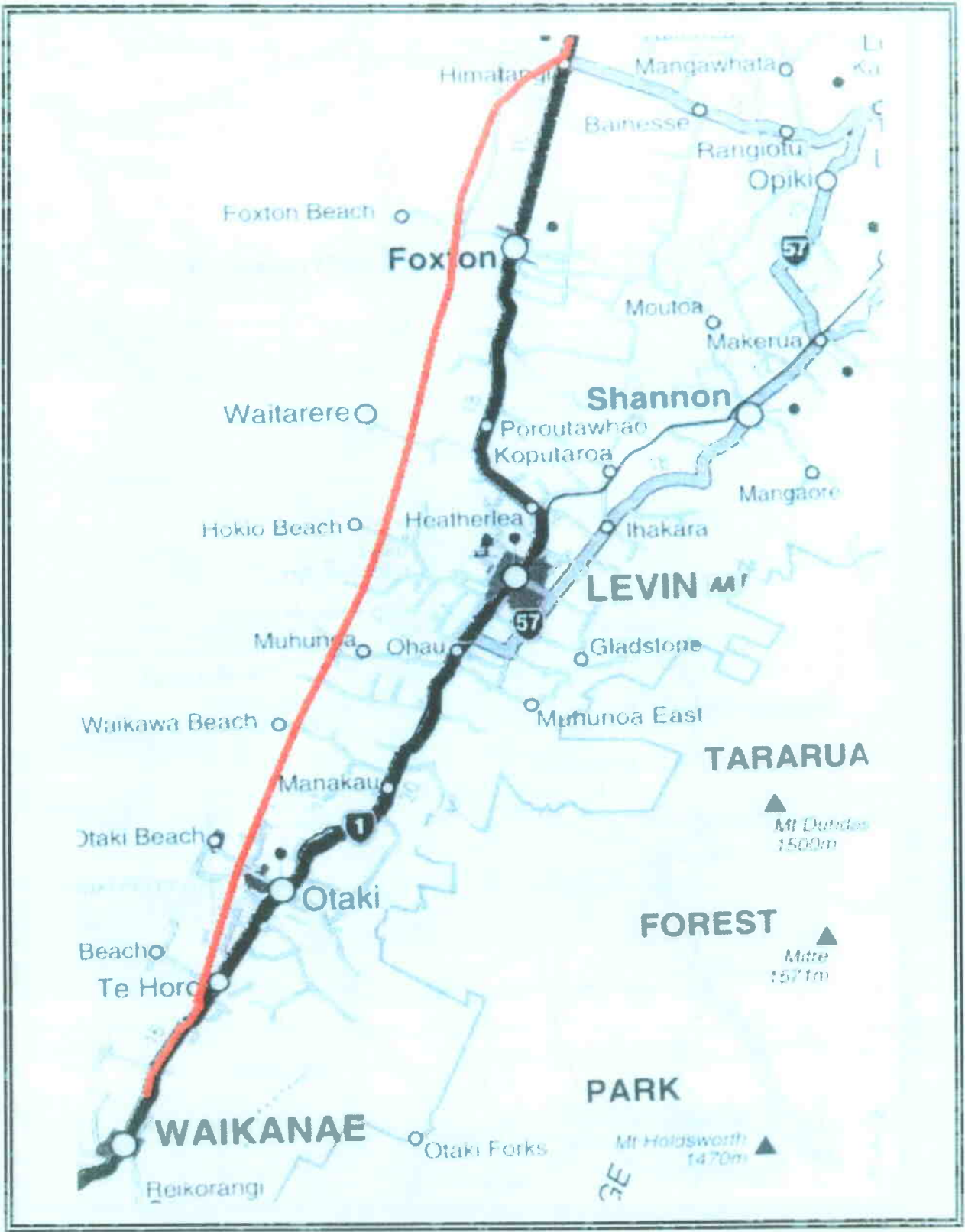
APPENDIX A HIMATANGI TO WAIKANAE STUDY :
 PART COASTAL ROUTE (PC)

HIMATANGI TO
 WAIKANAE
 R & D REPORT



APPENDIX A HIMATANGI TO WAIKANAE STUDY :
PART COASTAL ROUTE & 4 LANE EXISTING HIGHWAY ELSEWHERE ROUTE
(PC + 4)

HIMATANGI TO
WAIKANAE
R & D REPORT



APPENDIX A HIMATANGI TO WAIKANAE STUDY :
FULL COASTAL ROUTE (FC + 4)

- the width between side protection systems and the adequacy of old styles of side protection.
 - generally, a large percentage of the nations bridge stock is of about the same age which could result in peaks in required future expenditure.
 - the proximity of the highway to the sea probably contributes to the rate of deterioration.
 - any proposal to increase HCV axle weights will have a major impact on the bridge stock.
- The need to provide for the eventual replacement of a bridge having regard to:
 - the need to maintain a high level of availability, capacity and safety during the bridge replacement period.
 - the need to ensure that when it comes time to replace a bridge, a high standard of geometrics is not compromised by ribbon development. Too often the geometrics associated with bridge replacements or upgrades have to be compromised of "fit in" with the constraints on site. While such may be satisfactory in the short term, such is unlikely to be satisfactory in the longer term, having regard to the economic life of a modern bridge structure.
 - State Highway corridors closer to the coast will generally involve longer and more costly bridge structures, with the added risk of increased maintenance or an increased rate of deterioration.
 - On a similar theme, the hydraulic capacity and safety factors against scour etc, resulting in the loss of a bridge and / or its approaches are a risk with respect to the objective of maintaining availability. This risk probably exceeds that related to seismic events given the higher probability of extreme climatic event occurring, the progressive development nature of scour and erosion, the historic standard of design, and changes in catchment characteristics with time.
 - Similarly again, seismic risk exists with respect to the objective of maintaining availability. Research has / is being carried out on this input and retro fitting etc to reduce the risk are probable.
 - Bridges / subways etc. with dimensional constraints of one form or another need to be addressed.

2.6.2 Specific

Whirokino Trestle Bridge

The condition of this bridge, its ongoing deterioration, strategic importance etc indicates that addressing the issue of a reliable access over the Manawatu flood plain is an issue the study needs to address.

Railway Overbridge

State highway corridors which cross and re-cross over the NIMTR not only involve costly structures but:

- generally involve high skews and compromise geometric standards in order to keep costs to a minimum
- introduce other risks to the network e.g. derailment, seismic failure, driver safety etc.

Wellington Regional Council has land transport policy contained in the Regional Policy Statement and is currently preparing its Land Transport Strategy. This document is focussing on the integration of the road and rail system from an overall transportation perspective and is in the consultation phase. The present system is seen as not providing much integration. Likewise, it is important to consider the linkages of this study to others which have been, or are being, undertaken. WRC see the examination of SH options on a continuum, and that addressing this section of the highway will not ease bottle-necking on other parts of the same alignment.

Manawatu-Wanganui Regional Council has no position on strategic roading/transportation matters. The issues it is dealing with through the Land Transport Strategy are related to the types of services provided and access to these, particularly in Palmerston North and Wanganui. Discussion identified that surface flooding of the existing alignment is an issue along some parts of the highway.

Department of Conservation

Discussion of the options identified support for consideration of the existing alignment and improvements that might be made to address conflict.

Part Coastal Route (2 laning) (PC)

Part Coastal Route (4 laning) (PC + 4)

Full Coastal Route (2 and 4 laning) (FC) (FC + 4)

Tangata Whenua

Within the coastal options effects related to cultural heritage matters (archaeological sites, wetland areas, land water interface, waahi tapu including urupa in particular) appear considerable and would need effective negotiation to address. This comment applies equally to all coastal route options.

In large part the full coastal alternative might reflect the 'ultimate' in highway efficiency for the future, but it is also likely to contain the most significant issues which will require negotiation. The entire area is considered waahi tapu. The impression given is that this range of options might not be able to be negotiated with any certainty.

Other Parties

The coastal options are identified as most likely to impact on wetland and natural areas, which have varying degrees and types of protection. Consideration of tangata whenua values and cultural views was often reflected in discussions. Within this framework it is possible from comments to identify that some coastal options are viewed as less significant than others. In particular, the full coastal route is most likely to impact and little distinction was made between the part coastal route for 2 or 4 laning.

Tranz Rail Limited

Tranz Rail supports the full coastal route as it addresses the issues from its perspective (ie. well away from current rail corridor and reduces the potential for rail crossings).

Regional Councils

Wellington Regional Council identified that the coastal options will be fraught with issues important to tangata whenua which will need addressing. These are strong views/concerns about heritage and archaeological sites in this area, as well as wetland considerations along the whole route, particularly between the current highway and the coast.

Manawatu-Wanganui Regional Council identifies that any alternative route alignment may impact on the stopbanks along the Ohau and Manawatu Rivers, including the Moutoa Floodway. Other infrastructure assets are unlikely to be affected.

Department of Conservation

All coastal options are likely to impact on Maori land and cultural sites (urupa) in the area. Acknowledgement of the ongoing afforestation projects on Maori land and the potential difficulties between landowner and tribal interests.

Levin / Manakau Bypass Route (AA)

Levin / Manakau Bypass and Four Lane Existing Highway Elsewhere (AA + 4)

Tangata Whenua

The subtle differences between the 2 and 4 lane options relate to the 4 lane option bypassing Otaki, Levin and Foxton and a small area to the south of Otaki (where the current highway would be bypassed to the west), whereas the 2 lane option bypasses only Levin. Little comment was received on this option as a whole except as it relates to the bypass of Levin. The Levin bypass is identified as a significant issue. Tangata whenua issues are summarised under the heading 'Levin Bypasses'.

Other Parties

There is similarity between comments raised by tangata whenua and these groups in relation to these options. In particular there is recognition that no additional bridge crossings are required, particularly across the Manawatu River and estuary, but the major issue will be the bypassing of Levin.

Upgrade Of Existing Highway (L + 4)

Eastern Levin Bypass And Four Lane Existing Highway Elsewhere (D + 4)

Tangata Whenua

The difference between these two options is the location of a Levin bypass. Almost no comment has been received concerning the bypass of Foxton to the east. On all the options showing a Foxton bypass the alignment has been shown to the east of the current highway corridor. No conclusions can be drawn.

References to these options are addressed under heading of the Levin Bypass options.

Other Parties

**HIMATANGI TO
WAIKANAE
R & D REPORT**

Comment has been received that if the road does bypass Levin then the route chosen should ensure the bypass is not 'too far' from Levin and that the link road into Levin should be very accessible. Options for redevelopment in Levin should the bypass happen have also been raised and favourable comparisons made with other provincial towns and cities where bypasses have been built.

Issues concerning the proximity to the lake of a western bypass have been raised, together with concerns for cultural heritage values and the protection of recreation areas in this vicinity. The impression gained is one of mixed concerns.

An inland bypass option raises issues concerning railway crossings and the distance from the town for such an option. The issues appear able to be addressed. Most particularly the matter of the use of SH 57 has been raised, rather than another crossing of the Ohau River.

Tranz Rail Limited

Tranz Rail has identified that it is not supportive of the option considering 4 laning through Levin, partly because Queen Street crosses the railway, and partly because this option is likely to raise further issues concerning safety, noise and pollution.

Regional Councils

The Manawatu-Wanganui Regional Council identifies that the interest it has in these issues concerns the location of a bypass between Levin and Lake Horowhenua. The Council has ongoing responsibilities through the management plan for the lake. A general plan for landuse controls is currently being prepared for release and is likely to be significant in terms of the highway options. A copy of this has been requested at the time of notification.

Horowhenua District Council

Key officers of the Horowhenua District Council prepared a table showing their view of the impacts of various options. This table is reproduced below. Note that it has been provided for interest only, without standing and has not been formally adopted by the Council.

CRITERIA

Option	Cultural Issues Protected	Heavy Vehicles Removed from Urban Areas	Avoids Community Severance	Proximity; Economics etc	Consistent with Land Use Develop.	Landscape Preserved	Safety Enhanced	Allows Staged Construction	Noise Effects Reduced	Construction Delays Minimised
Existing Alignment Upgrade	X	X	X	✓	✓	✓	✓	✓	X	X
Coastal Routes	X	✓	X	X	?	?	X	X	✓	✓
East of Levin	?	✓	✓	✓	✓	✓	✓	✓	✓	X
East of Foxton	?	✓	✓	X	✓	✓	✓	✓	X	✓
Between Lake and Levin	X	✓	X	✓	X	X	✓	✓	✓	✓
West of Lake	X	✓	✓	X	?	?	✓	✓	✓	✓
West of Manakau	X	✓	✓	X	?	?	✓	X	✓	✓

✓ = satisfies criteria
 X doesn't satisfy criteria
 Note : Criteria not "weighted".

Both the preliminary and the refined analysis identified that there will be a future need to provide four lanes of highway traffic from Watarere Beach Road to Wellington / Kapiti. The economics indicate that it will be fundable under the current criteria within the next ten to fifteen years.

The urban congestion analysis in Otaki and Levin also indicated that peak hour flows through intersections will have zero practical spare capacity in a similar time frame.

The analyses showed that two options appeared to be favoured equally on economic grounds.

1. A two lane highway as a coastal bypass from Watarere to Peka Peka.
2. Upgrading the existing highway to four lanes from Watarere to Peka Peka.

The upgrade of the existing highway option would use the existing highway as one of the 2 lane carriageways or one of the parallel local roads depending on the specifics in each location.

Given the large number of local upgrading the existing highway provides both higher accident and travel time / operating cost benefits by attracting the greatest number of users.

It also provides the largest accident reduction for the same reason.

The four lane configuration would provide a more relaxed highway environment allowing slow vehicles to be overtaken at will. This option would still have to travel through Levin and possibly Otaki at urban speeds.

The coastal bypass option provides little opportunity to stage. Upgrading the existing highway provides a wide range of staging opportunities and some four laning would be economically fundable within the next five years.

The preliminary consultation would suggest that upgrading the existing highway would be a preferred option by most parties although at this time it is untested whether the community would prefer through Levin or a bypass along SH57.

In conclusion we recommend upgrading the existing highway is the preferred strategic option and the issues between 4 laning through Levin or a bypass around SH57 be tested during the consultation stage.

12. PLANNING IMPACTS

12.1 Planning Implications

Under the Resource Management Act framework any new SH corridor is provided for by Designation in the relevant District Plans. The extent of such designations needs to be determined for at least the next ten year period in order to provide certainty to all parties, but ideally should provide a planning 'blueprint' for the 25 year period on which the Study is based.

At this stage, the Strategy Study outcomes identify general planning or resource management issues for the future SH1 corridor. All have implications for the designation process and will require careful investigation and analysis during the detailed environmental impact assessment and consultation stages of the preferred option or options. These issues are based on the research, assumptions, projections and initial consultation outcomes and are summarised below.

- Historical issues associated with the original SH alignment particularly land gifts and land taking for roading purposes
- Extent of Maori land holdings and economic development opportunities related to the land affected by coastal route options
- Sensitive environmental and cultural areas and sites within the coastal corridor making route option identification and mitigation measures more complicated and uncertain
- Changing landuse patterns within the southern and coastal areas and particularly the expectations concerning development of Maori land holdings, and lifestyle (rural/residential) opportunities and land required to meet the needs of increased populations
- Social, cultural, amenity, economic and safety issues concerning the Levin Bypass options and widening of the existing highway through Levin
- Problems associated with differing primary concerns at local and national levels and associated policy and decisions (eg local government objectives and rules relating to land use and subdivision controls and the use of the SH for frontage and access purposes compared to Transit New Zealand objectives relating to safety and efficiency of the SH network and limiting frontage and access)

12.2 Levin Bypasses

The planning implications for a bypass for Levin are varied, depending on the option chosen. While there may be technical justification for four-laning the existing highway through this urban centre, such a scenario raises difficult issues from social, safety, economic and amenity perspectives. Issues such as land purchase, the effects on the commercial centre of Levin, pollution and discharges, traffic and pedestrian safety, visual effects and nuisance elements require addressing. Maintaining the status quo in the short term may meet the concerns of many, however in the long term the potential traffic volumes and frequency will be likely to render a 'do nothing' or 'four-laning' option unsupportable.

APPENDIX 2

ALIGNMENT ALTERNATIVES FROM THE "SCHEME ASSESSMENT REPORT"
(MERITEC LTD, 2002)

Broad Options for the
investigation of SH 1 between
North of Otaki and Peka Peka Road
Route Options North of Otaki River

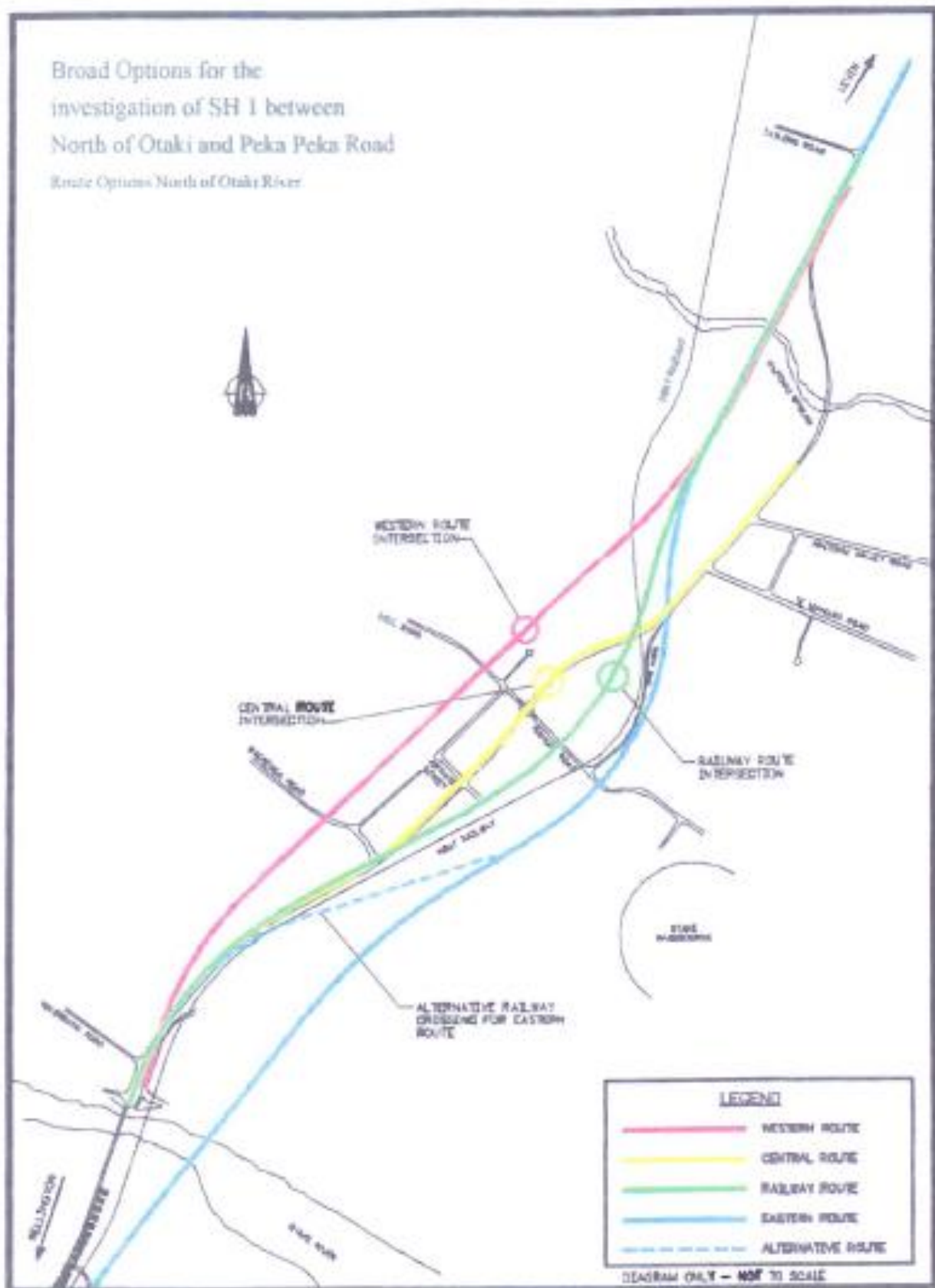
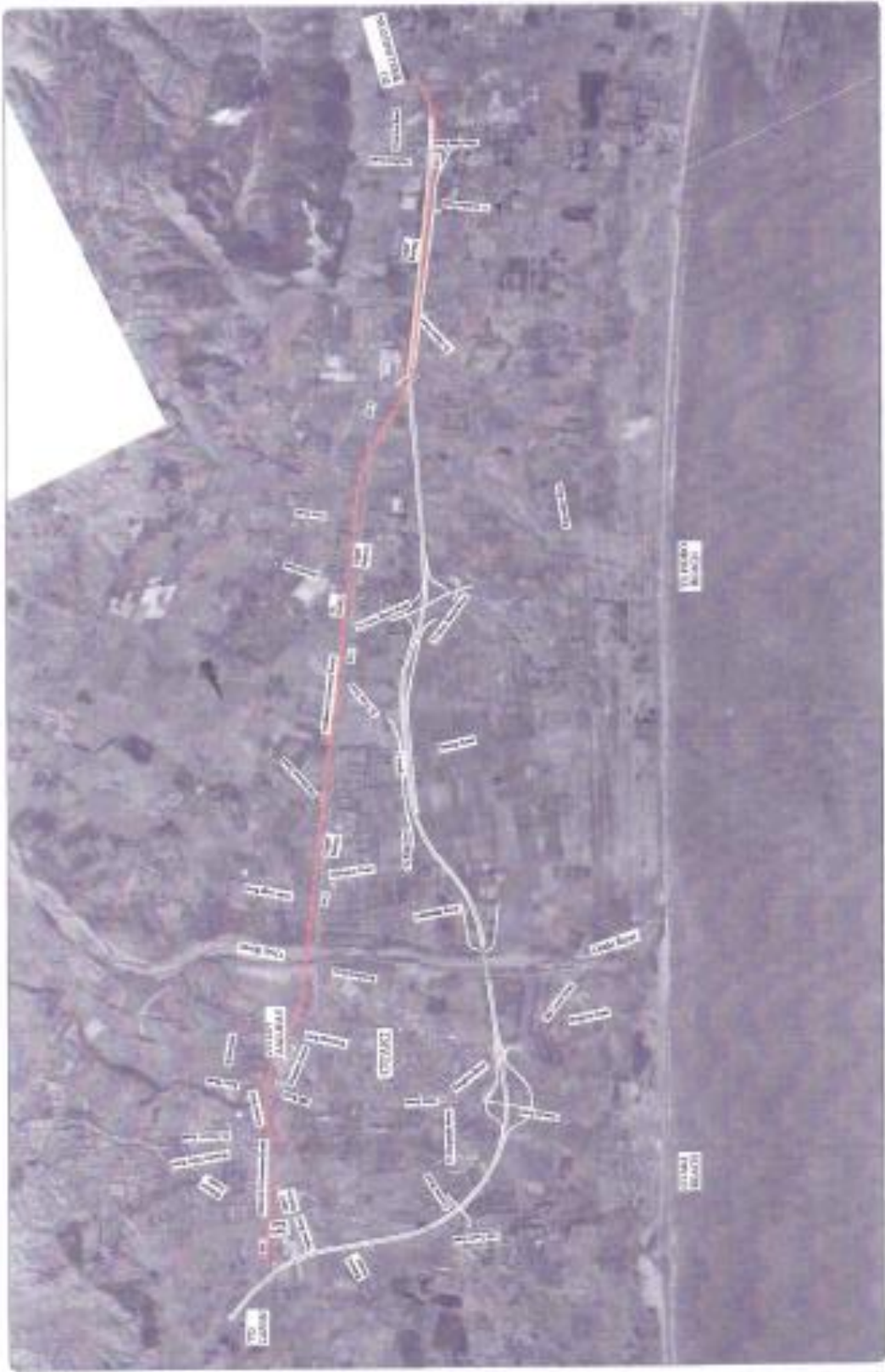
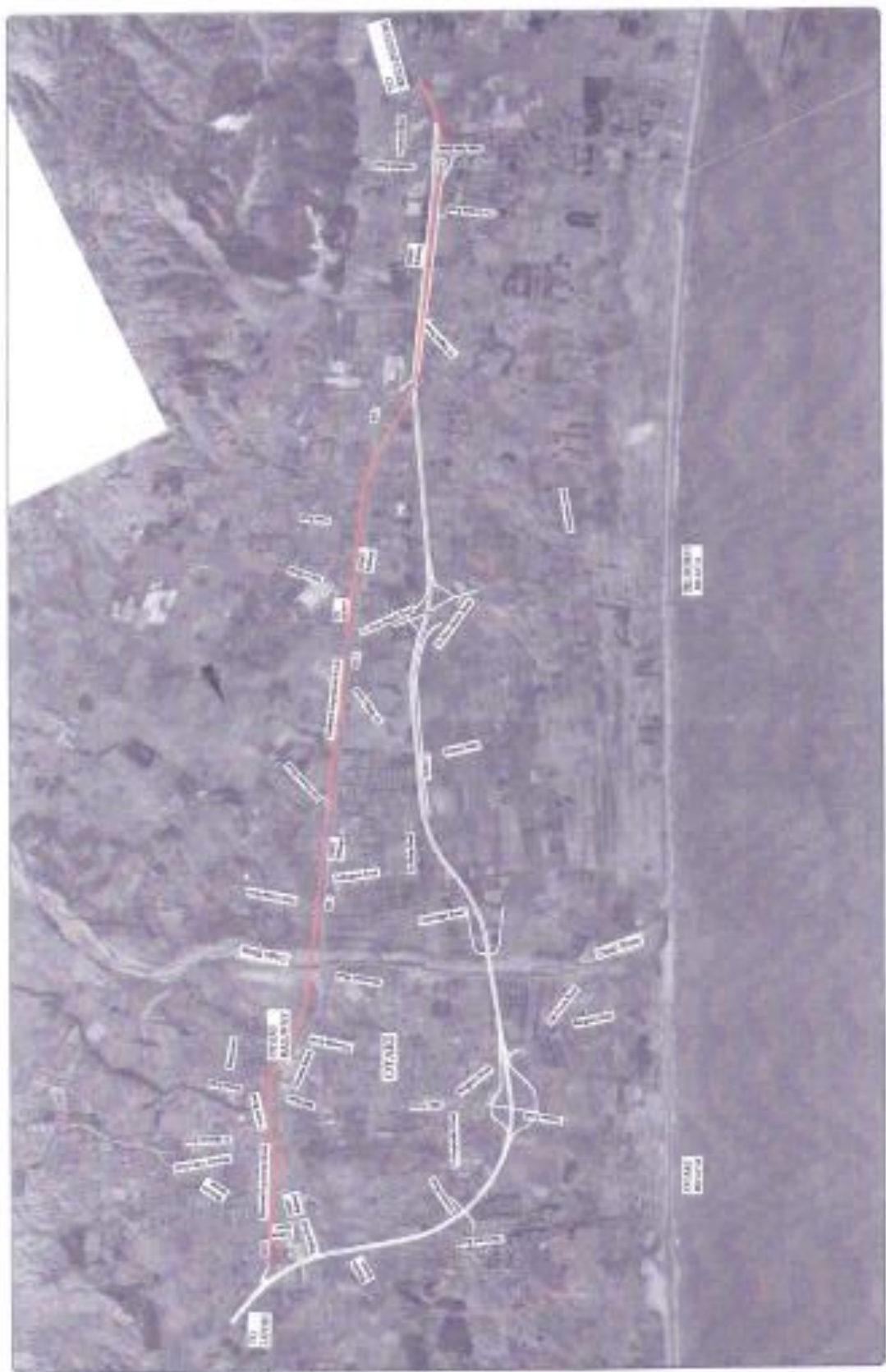


Figure 2: Broad options North of River – as for Newsletter



PROJECT NO. 01-000000 DATE: 08/03/2011 DRAWN BY: J. W. WEAVER CHECKED BY: J. W. WEAVER		10. WMA OPTION 2	10.000000 - 10.000000 10.000000 - 10.000000	10.000000 - 10.000000 10.000000 - 10.000000	10.000000 - 10.000000 10.000000 - 10.000000	10.000000 - 10.000000 10.000000 - 10.000000
PROJECT NAME: LAWRENCE ROAD PROJECT LOCATION: LAWRENCE, MISSISSIPPI				PROJECT NO. 01-000000 DATE: 08/03/2011 DRAWN BY: J. W. WEAVER CHECKED BY: J. W. WEAVER		



<p>DATE: 10/12/11 DRAWN BY: J. B. BROWN CHECKED BY: J. B. BROWN PROJECT NO: 11-001-001</p>	<p>SCALE: 1" = 100'</p>	<p>DATE: 10/12/11</p>	<p>PROJECT NO: 11-001-001</p>	<p>PROJECT NAME: MOUNTAIN ROAD</p>	<p>PROJECT LOCATION: MOUNTAIN ROAD</p>	<p>PROJECT AREA: MOUNTAIN ROAD</p>	<p>PROJECT STATUS: 100% COMPLETE</p>	<p>PROJECT OWNER: MOUNTAIN ROAD</p>	<p>PROJECT CONTACT: MOUNTAIN ROAD</p>	<p>PROJECT PHONE: MOUNTAIN ROAD</p>	<p>PROJECT FAX: MOUNTAIN ROAD</p>	<p>PROJECT EMAIL: MOUNTAIN ROAD</p>	<p>PROJECT WEBSITE: MOUNTAIN ROAD</p>
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APPENDIX 4

ROUTE ALTERNATIVES FROM THE THRAC AND CRRG SUBMISSION (2010)

