

Please Quote Ref: LG/9/WRC
DR:GH1608

29 November 1999

The Wellington Regional Council
P O Box 11646
WELLINGTON

Attention: Tony Brennand

Dear Sir

**REPORT FOR REGIONAL LAND TRANSPORT COMMITTEE:
7 DECEMBER 1999**

Set out below is a report from the Wellington Regional Office of Transit New Zealand. This updates the committee on a number of projects throughout the Wellington region.

Attachments

There are five attachments to this report. They are as follows:

1. SH1 : Himitangi to Waikanae newsletter No. 3
2. Ngauranga Gorge ATMS
3. SH58: Improvements to Haywards Hill and SH2/58 intersection
4. November 1999 issue of Wellington Regional Office newsletter which focuses particularly on some of the smaller projects being undertaken in the Wellington region.
5. SH1 : MacKays Crossing to Pukerua Bay Strategy Studies

SH1: Himitangi to Waikanae

Attachment 1 includes a newsletter on the strategy development for Himitangi to Waikanae. Currently consultation in order to finalise the strategy is being undertaken. The strategy's purpose is to develop a 25 year plan for the development of State Highway 1 along this corridor. It recognises previously undertaken work such as development of the western link road by KCDC/Transit and earlier scoping studies which considered various forms of a Levin bypass.

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SH1: Te Moana Road Intersection: Waikanae

A contract was recently awarded to Higgins to install traffic signals at the above intersection. This is expected to be complete apart from final landscaping and tidy up work prior to the Christmas break.

SH1: MacKays Crossing to Linden

A professional services contract was awarded to develop a strategy for the MacKays Crossing to Pukerua Bay section of State Highway 1 on the premise of the Transmission Gully Motorway being constructed in the longer term, and Transit's current strategy of not four-laning the coastal section between Paekakariki and Pukerua Bay being taken as "given". Attachment 5 details the outcome of the strategy investigation for the form of road necessary to address the current operational difficulties pending, and following the future construction of the Transmission Gully Motorway.

This section of SH1 will be the subject of a presentation at the RLTC meeting. Key features are:

- The outcome of the willingness to pay survey
- Review of the clear-ways and bypass proposals for the Mana/Plimmerton section for which a decision was deferred by the Transit Authority in October, pending additional information.
- An investigation into the possible four-laning of State Highway 1 along the coastal route as an alternative strategy to the long term development of the Transmission Gully Motorway. This review was initiated by a request by Transfund mid-year, and will be reported at the meeting.

Timing for Environment Court cases for the Transmission Gully Motorway and SH1 interim improvements on the existing corridor are tentatively scheduled for mid 2000. However good progress is being made on resolving some appeals at present.

SH1: Ngauranga Gorge Advanced Traffic Management System (ATMS)

Attachment 2 contains a newsletter which has recently been released for this project. A presentation covering some more detail of the operation of the system will be made at the meeting. It is anticipated that the system will be operational by September 2000.

SH1: Moveable Lane Barrier – Ngauranga Interchange to Murphy Street Off Ramp

Transit undertook an initial scoping study on the feasibility of a Moveable Lane Barrier (MLB) on this section of highway in late 1997. The recently completed Regional Land Transport Strategy (RLTS) recognises that a tidal flow arrangement is possible, and worthwhile for overcoming this bottleneck. A recent economic evaluation shows that installation and operation of the barrier is economically

feasible, and therefore detailed investigation work will now commence. Part of this detailed work will involve close consultation and discussions with Wellington City in order to assess alternative traffic management strategies and effects on the adjoining local road network.

SH1: Wellington Inner City Bypass

Transit is currently completing the detailed scheme assessment which will be forwarded to Transfund in February 2000.

Additional geotechnical work including subsoil investigations are nearly complete which will allow much more accurate capital costings to be made for the high cost retaining walls on the western side of Willis Street.

It is currently anticipated that construction will commence in early 2001.

SH1: Basin Reserve Improvements

These improvements comprise works to reduce delays and improve safety at the Paterson street/Dufferin Street intersection and outside the St Marks School and Wellington College/Government House entrances. The proposed works involve placing signals at the intersection to better control pedestrian movement and therefore reduce delays for traffic during peak times. Due to the control of traffic movements, road space will be available for providing additional manoeuvre area outside the schools.

Subject to final confirmation of funding, it is anticipated that these improvements will be installed over the Christmas holiday break when traffic is relatively quiet.

Transit is currently commissioning work to resolve a longer term strategy for the Basin Reserve, potentially utilising currently held by Transit in the vicinity of St Joseph's Church on the north eastern corner of the Basin Reserve.

SH2: Trasses and Readers Cutting Realignment

This \$750,000 project 14 kilometres north of Masterton is detailed on the cover of Attachment 4. It is anticipated that the project will be completed in February.

SH2: Masterton to Carterton Passing Lanes

The construction of two one kilometre long passing lanes between Masterton and Carter-ton is currently out to tender for physical works. It is anticipated these will be completed this summer. The passing lanes comprise a 1 km northbound lane commencing some 2 kms north of Carterton, with a 1 km southbound passing lane to be constructed several kilometres south of Masterton. These will considerably improve the movement of traffic between the two centres and reduce driver frustration.

SH2: Waiohine Bridge

Following earlier preliminary work, Transit has recently commissioned a detailed investigation into the replacement of the Waiohine Bridge. The bridge is currently relatively narrow and while the recorded accident history is not particularly high, anecdotal evidence suggests a number of near misses occur on the bridge. This is supported by a number of accidents at either end of the bridge.

Transit will be working closely with the Wellington Regional Council in order to identify benefits which may be provided by additional floodway area which will accrue to property owners at the northern end of Greytown. The project is linked, in flood management terms, to the Apple Barrel culvert on the northern outskirts of Greytown. It is anticipated that the detailed investigation work, which includes further landowner consultation will be completed in mid 2000.

SH2: Kaitoke

A planning hearing for the designation for the Kaitoke realignment occurred in the first week of November at UHCC. This resulted in a positive recommendation to confirm the designation to Transit on 19 November 1999. Transit will respond shortly to confirm the designation, and a fifteen day appeal period will then follow.

Transit is currently negotiating property purchase on several properties with the expectation that remaining Wellington Regional Council consents and detailed design work can take place during 2000.

SH2: SH58 Intersection

Covered under SH58: Haywards below.

SH2: Melling to Petone

The project will shortly be progressed through public consultation for designation and resource consents for a grade separated intersection at Dowse Drive and an overbridge at Korokoro. The work will include safety related work between Korokoro and the Petone interchange.

Transit together with Hutt City Council (HCC) support has been continuing negotiations with Tranzrail on access to Tranzrail leased land for the project. Tranzrail have agreed to concede air rights to Transit for overhead structures to cross the rail corridor, with terms and conditions to be negotiated.

Tranzrail have advised that it is not prepared to allow any incursion into the rail corridor by the SH2 upgrade proposals until Transit and HCC agree to Tranzrail's proposals at Melling. In order to develop compatible road and rail projects at Melling, meetings have commenced, chaired by WRC and involving HCC, Tranzrail and Transit to examine all issues at Melling. These also include floodway issues which have the potential to delay the construction of structures across the Hutt River at Melling for some time.

In the meantime, concept designs have been completed for the Korokoro/Dowse project which avoid incursion into the rail corridor. Work is now under way to provide an appropriate level of design, detail and other information for public consultation early in the new year.

Allowing for increased costs of avoiding rail land the B/C for the Dowse/Korokoro project is approximately 5.1.

SH58: Haywards and SH2 Intersection

Attachment 3 entitled "Making Haywards Safer" details the project and key design features. It is anticipated that designation and resource consent applications will be lodged just prior to Christmas.

SH58: Pauatahanui Bridge Realignment

Design work is 80% complete. The project currently has a B/C ratio above Transfund's funding cut-off. Transit is currently finalising negotiations with three remaining landowners. It is anticipated the project will go to tender once these have been resolved.

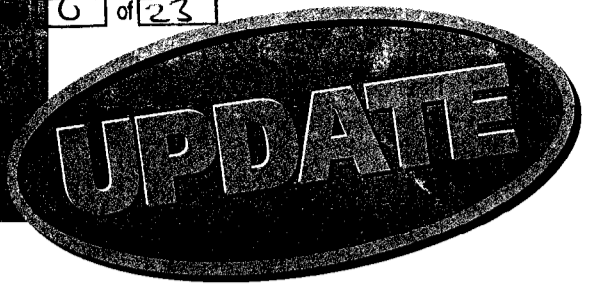
Closure

I will be pleased to provide further detail as required at the meeting.

Yours faithfully



D.R. Rendall
REGIONAL STATE HIGHWAY MANAGER



WELCOME to our latest update on the investigation study currently in progress for State Highway 1 between Himatangi and Waikanae.

In our last newsletter in March, we advised-

- Transit New Zealand had engaged Worley Consultants Ltd to undertake the study.

- The purpose was to investigate options for upgrading the highway to accommodate future growth, to improve the level of service to the user which will result in improved speed, shorter travel time, reduced interruptions, improved comfort, greater convenience and improved safety.

- The study would consider additional passing lanes, four laning and new highway routes, among other options.

- Whatever option was chosen, the priority was to ensure that motorists would be well served for the next 2.5 years and beyond.



Himatangi to Waikanae

First stage of study nearing completion

Worley Consultants are nearing completion of the first stage of their investigation study into State Highway 1 between Himatangi and Waikanae, and the findings are expected to be in Transit New Zealand's hands by late August.

Work on this stage - REVIEW AND DEVELOPMENT - began late last year, and has involved-

*** A review of previous studies and existing information.**

- Traffic surveys.
- Traffic modelling.
- Geo-technical and environmental issues.

• Narrowing the options for further consideration.

A range of options is being considered. An obvious one is an upgrade of the highway more or less along the existing alignment. If this were to proceed, construction could be carried out in stages, section by section. Another option includes completely new highways in various locations ranging from close to the existing road to near the coast.

The possibility of bypasses is being investigated, too. For example, there are several bypass options around Levin, including to the west between the town and Lake Horowhenua and

(continued over page)

A three-stage investigation

Nobody disputes that something must be done - and soon - to improve conditions for motorists using State Highway 1 between Himatangi and Waikanae.

Several previous studies have all come to a similar conclusion - that in less than a decade traffic volumes will reach capacity.

The existing highway has a high accident rate; at intersections and driveways it is twice the national

average.

A small number of the problem areas could be cleaned-up, at a cost of approximately \$17 million, but it is felt this would be only a "band aid" solution and may not be suitable for the longer term.

The current study is a three-stage process, starting with the Review and Development stage, to be followed by the Strategy and Scheme Assessment stages.

First stage of study nearing completion

(continued)

to the east on the inland side. It is possible the timing of the bypass options would be well into the future; the present study may not necessarily pinpoint exact locations, but instead provide alignment options. The first stage investigation also looks at the logic of proceeding with the \$17 million of currently-identified defects, or even doing just some of them as alternative ways of reducing the problems.

There are many possible combinations of the options being looked at — each has to be thoroughly worked through before it can be disregarded or adopted for further development.

In every case, a major factor is determining when any of the selected options would provide benefits to the route overall, and then determining what works would have to be done in the meantime.

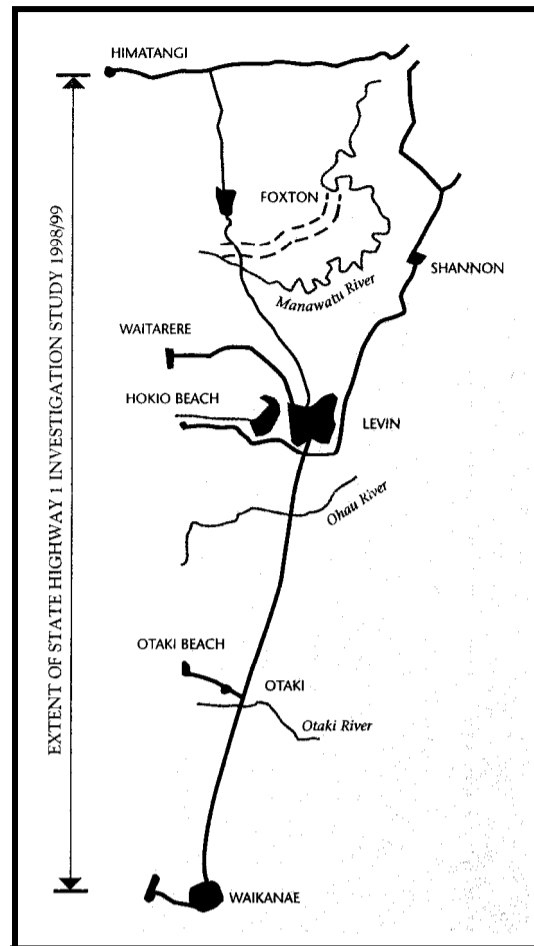
The analysis of all the possible options involves a lot of number

crunching.

This is time-consuming, and takes into account factors such as construction cost estimates, travel time for motorists, accident cost estimates, traffic modelling, environmental considerations and much more. This is the **MOST IMPORTANT PART** of the whole investigation... because the project is dependent on this initial information as a basis for good decision-making throughout.

It will take more time to develop plans of sufficient detail to make sure the selected options are communicated clearly to all affected and interested parties. When the first stage report is presented in August, the consultants will have narrowed the options for further discussion and consultation with councils, iwi, other interested parties and individual landowners.

Once these options have been identified, the study will progress to stages two and three.



What happens next?

After the consultants have presented their Review and Development report, they will launch into the next stage - the **STRATEGY STAGE**.

This involves setting-out detailed timing for design and construction for the different options, and developing them further to incorporate a staged improvement concept.

Factors to be considered include economics and financial forecasts. From this, and further consultation with councils, iwi, land owners and other interested parties, the preferred option will be chosen.

Stage 3 - the **SCHEME ASSESSMENT STAGE** - will focus on the preferred route. It will involve details such as:-

- Engineering standards
- Environmental considerations
- Consultation.. (This is to allow the preferred route to be refined. E.g minimising effects on properties.)
- Cost and economics
- Discussion of all options considered.
- Preparation of designation requirements and resource consent applications.

FURTHER INFORMATION

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Ngauranga Gorge ATMS



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PROJECT BACKGROUND

The Ngauranga Gorge on State Highway One presents a very difficult driving environment. Steep hills and sharp bends make long distance vision difficult. High-speed traffic, slow moving vehicles and a high level of lane weaving add to the difficult conditions. Combined, the natural environment and poor driver behaviour have contributed to three fatalities and 17 serious accidents in the past five years.

To promote safe driving and to enable motorists to make informed decisions, Transit New Zealand has adopted Active (or Advanced) Traffic Management Systems (ATMS). These systems are used widely overseas to improve safety and manage strategic roads effectively. Although the recent construction of Newlands Interchange has reduced the risk of accidents, innovative technology is also necessary to make the Gorge a safer place to drive.

WHAT IS AN ATMS ?

The ATMS uses electronic messages to provide up-to-date information and guidance for motorists. Typically, messages will advise drivers of delays, accidents and road conditions. Other equipment such as closed circuit television

(CCTV) and traffic detectors will be used to collect and assess data. ATMS will help improve road safety by using technology to:

- continuously monitor and respond to changes in traffic flows
- quickly verify why the flows have changed from 'normal'
- enable an appropriate response to manage the incident
- advise motorists there may be problems ahead
- give guidance to motorists to reduce the risk of further accidents or delays

ATMS FOR THE NGAURANGA GORGE

The Ngauranga ATMS will be one of the first fully integrated systems commissioned in NZ. Over the immediate extent of the Gorge, motorists can expect to see a series of electronic message boards and other roadside equipment including:

- five variable message signs (VMS) on new and existing gantries
- six closed circuit television (CCTV) cameras on roadside poles at key locations
- variable speed limit (VSL) signs mounted on the VMS and along the median
- other roadside warning and advisory equipment

This equipment will be controlled and monitored by the New Zealand Police at specially developed terminals within the Wellington Central Communication Centre and Johnsonville Community Policing Facility. This is where traffic flow data and video images are received. Using this information, operators will enter messages on the VMS, set speed limits to reflect driving conditions and co-ordinate the response of emergency services.

CONTACT INFORMATION

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VARIABLE MESSAGE SIGNS

Six variable message signs (VMS) will be located throughout the Gorge to advise motorists of road conditions and incidents that will affect them.

CLOSED CIRCUIT TELEVISION (CCTV)

CCTV will allow the ATMS operator to view incidents prior to confirming VMS messages and setting speed limits or lane control advice.



VARIABLE SPEED LIMITS / LANE CONTROL

Centrally mounted signs will advise changeable mandatory speed limits based on road conditions, congestion and incidents. Speed limit changes will also be mounted on the left side of the carriage-way. The central signs will advise drivers about lane closures when necessary.

AUTOMATIC INCIDENT DETECTION (AID)

Inductive loops in the road will detect changes in traffic conditions and relay this information to the system operator.

OPERATOR CONSOLE

Operator consoles will be located at the Police facilities in Wellington and Johnsonville. The operator receives information from the AID, verifies it through the CCTV monitors and confirms or sets the messages on the signs. Equipment at the console will also monitor the system performance.



PROGRAMME FOR IMPLEMENTATION

Tender documents for the design, construction and maintenance of the Ngauranga ATMS were issued in May 1999. Operation of the ATMS will begin in late 2000.

FUTURE EXPANSION OF THE SYSTEM

Transit New Zealand anticipates that ATMS will ultimately be extended to other sections of State Highway in the Wellington region. This will improve traffic management and reduce accidents in the area.

ENGINEERING EXCELLENCE

Trasses and Readers ALIGNMENT

3

Those travelling north from Masterton on State Highway 2 will have noticed major earthworks at Trasses and Readers Corners. This realignment work, easing the two corners, will improve safety for motorists travelling through the area at open road speeds.

The project is half way through, with culverts in place and bulk earthworks on target to be finished. The pavement is under construction now that the new road has been 'filled' to the right height and density.

Although this construction does rely on the weather to some extent, the project is ahead of schedule so far and Transit anticipates no problems achieving its target February 2000 completion date.

There may however be some interruption to traffic flow during the next few weeks.

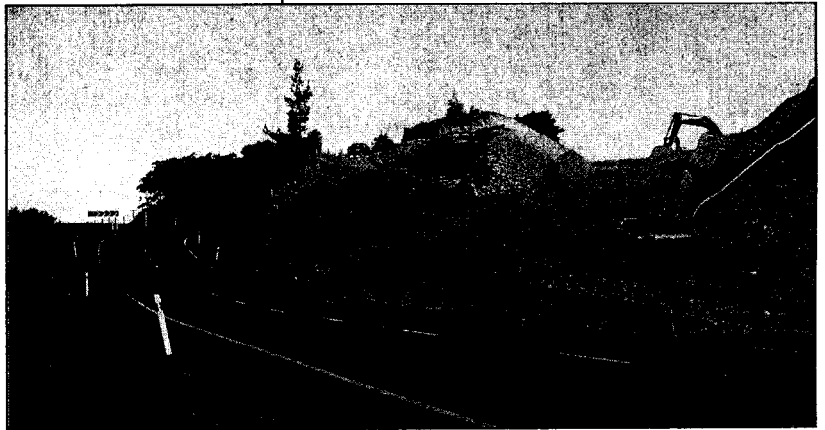
A 100-200m temporary road has been constructed to divert traffic off the existing road while construction continues.

"We don't expect this will cause too many problems for motorists," says Area Engineer David Cook. "The temporary road should only be needed for five or six weeks while we fill over the existing road. We just ask that drivers be aware and patient during this time."

Transit has undertaken a partnering approach to this project, consulting and working with interested parties such as Masterton District Council, Wellington Regional Council, consulting engineers Connell Wagner and constructors Stringfellow of Eketahuna. All major transport operators using State Highway 2 have also been kept up-to-date.

"We are very pleased with the project's smooth progress," says Mr Cook. "Trasses and Readers Corners have long been a concern for Transit and we are pleased to be able to improve safety for motorists in this area."

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View from the North looking at the earthworks' at Readers Corner.



Three metre diameter steel tubes are being used to construct a stock underpass at Readers Corner.

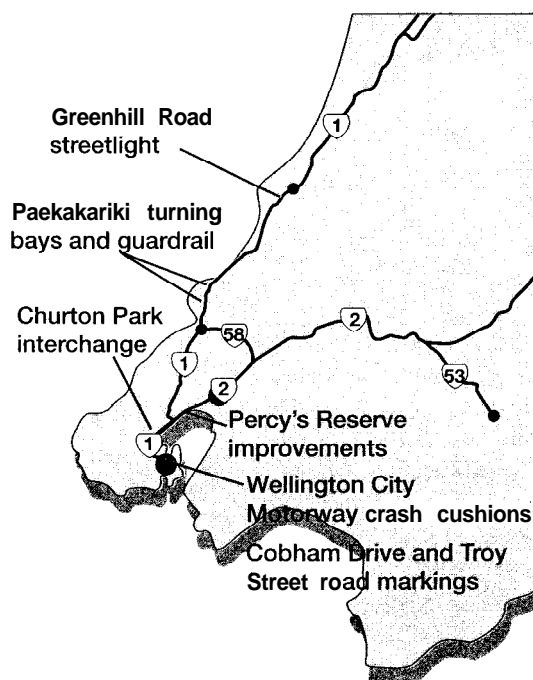
INSIDE

MINOR SAFETY WORKS

INNOVATIVE SOLUTIONS

PROJECT UPDATES

MINOR SAF



WELLINGTON

- A guardrail will be erected on State Highway 1 just north of Paekakariki — near Sang Sue's vegetable stall.
- A new streetlight will be erected just north of Waikanae at the intersection of State Highway 1 and Greenhill Road.
- Two right-hand turning bays (one in each direction) will be painted onto the road opposite the Fishermans Table restaurant in Paekakariki. This will replace the existing painted median strip and provide safer access for those turning into the restaurant or the rest area opposite.
- Improvements will be made to the Percy's Reserve car park on State Highway 2.
- The bridge guardrail at the Churton Park/State Highway 1 interchange will be amended to improve drivers' visibility.
- New road m&kings will be painted at the roundabout intersection of Cobham Drive and Troy Street. This will make it easier for drivers to differentiate between lanes.
- Crash cushions will be installed at some Wellington City motorway off-ramps.

Percy's Reserve

To protect pedestrians and motorists alike, safety improvements will shortly take place at the Percy's Reserve car park on State Highway 2. As you can see in this picture below, there is no barrier between the highway and the car parking area, and there is concern for the safety of visitors to the reserve. The power poles themselves are a hazard to passing motorists, so to avoid damage Transit will be erecting a new guardrail between the two lampposts during the next few months. To clarify vehicle access, entrance and exit areas and carparks will be clearly marked.



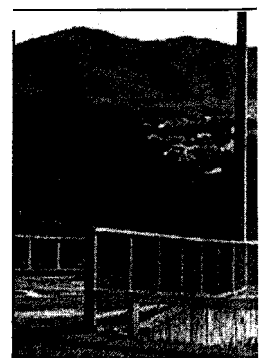
Wellington City motorway off-ramps

Some motorway off-ramps leading into Wellington will soon be refined with vehicle crash cushions. As you can see in the pictures above, the point where the off-ramp leaves the motorway can be a safety hazard. Crash cushions can be positioned to protect motorists from this sharp point. Made of small plastic boxes, the cushions are designed to crumple on impact, allowing a vehicle to stop more gently. The Aotea Quay and Murphy Street off-ramps will be the first to be upgraded.



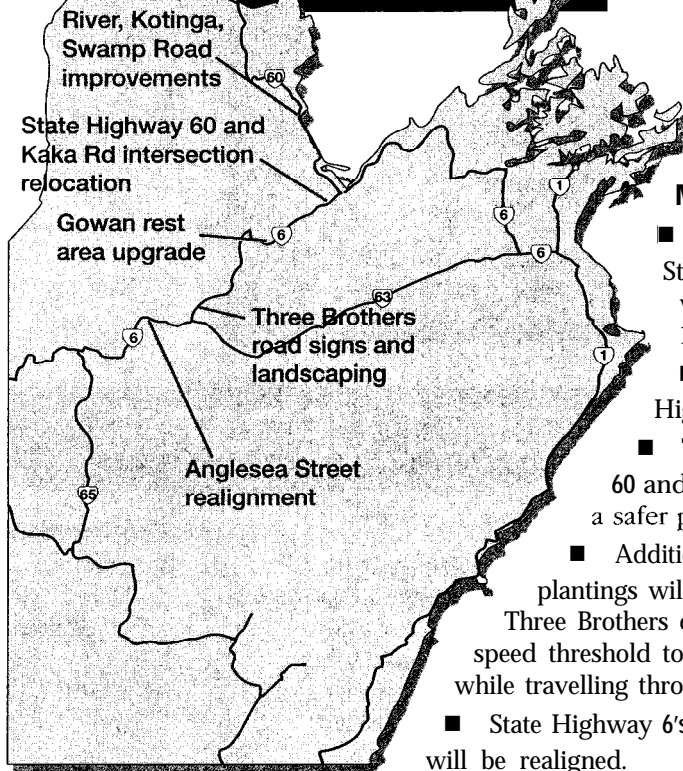
Churton Park Interchange

This bridge guardrail (right) at the Churton Park/State Highway 1 interchange obstructs the view of motorists approaching this stop sign, making it difficult for them to see traffic coming from the right. To rectify this, Transit will replace some of the guardrail's current panels with a new see-through design — possibly using thin stainless steel wire — to improve visibility and safety for motorists.



SAFETY WORKS

Transit New Zealand consistently analysing vehicle accident records, noting high-crash areas and looking for ways to improve safety for motorists. Not all of Transit's work involves heavy equipment and earthworks, sometimes small changes can dramatically improve the safety of the existing road. This page details minor safety works scheduled for completion in the Wellington area during this financial year.



Anglesea Street intersection

This road at the southern end of Renwick is a well used short cut between State Highways 6 and 60. Last year Transit upgraded the intersection of Anglesea Street and State Highway 60 and this year the State Highway 6 intersection will be improved. The intersection forms quite a sharp corner, so work will be done to smooth it out, providing a safer, gentler turn for motorists.

TASMAN- NELSON- MARLBOROUGH

- Improvements will be made to State Highway 60 intersections with River, Kotinga and Swamp Roads.
- The Gowan rest area on State Highway 6 will be upgraded.
- The intersection of State Highway 60 and Kaka Roads will be relocated to a safer position.
- Additional road signs and landscaping plantings will be introduced just south of Three Brothers on State Highway 6 creating a speed threshold to encourage drivers to slow down while travelling through this area.
- State Highway 6's intersection with Anglesea Street will be realigned.



Kaka Road

Kaka Road (pictured above) is a side road joining State Highway 1 just south of Blenheim — between Seddon and Ward. The highway curves at this intersection making it difficult for motorists to see approaching traffic. To fix this, Transit is moving the intersection 50m to a place where visibility will be greatly improved.

Swamp Road intersection

Driving south from Nelson towards Motueka motorists travel on very long, straight roads — like Swamp Road. The danger with these rural roads is that often drivers are unaware the road is about to intersect with a major state highway. To improve safety and warn drivers of approaching intersections, Transit will shortly install traffic islands and road signs in affected areas.



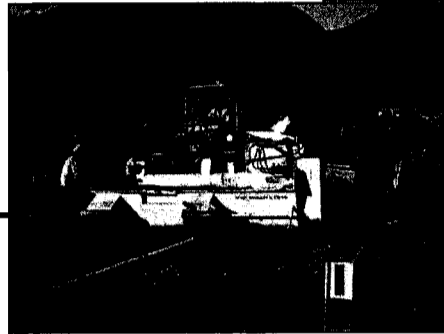
INNOVATIVE SOLUTIONS

Washaway Seal WIDENING

To improve safety for motorists, State Highway 60 between Smalls and Stoney Creeks (near Takaka) is being widened and the single lane bridge over Washaway Stream replaced with a two lane box culvert.

The contractors of this \$548,000 project, which began in May and is nearly complete, came up with an innovative solution when they discovered a deeper than expected layer of loess (fine grade soil). A filter fabric and higher-grade granular bulk fill from the local pit were used to create the required soil density.

Cost savings made in the pavement construction, offset the additional expense of the filter cloth.



PROJECT UPDATES

State Highway 1

Tenders are being called for a widening project on State Highway 1 between Pukerua Bay and Plimmerton. The project involves straightening and widening the existing state highway and building a new intersection at Airlie Road. Work on the 3.5km section of road is estimated to cost \$9.3 million. Transit hopes to award the contract by in December 1999 and start work on the site in January 2000. The project should take approximately 12-18 months to complete.

Ngauranga Gorge

In September Transit awarded a \$5 million contract to Philips Projects of Australasia for the design, construction and maintenance of Wellington's Ngauranga Gorge Active Traffic Management System — New Zealand's first totally integrated traffic system.

The high-tech system is able to detect changes in traffic flow using sophisticated equipment to monitor traffic speed and volume. Warning messages are then conveyed to motorists to help reduce the risk of accidents and delays. The system, which will be monitored and controlled by the New Zealand Police, also provides benefits for managing traffic during bad weather and maintenance operations.

Work on the project will start immediately and is expected to be completed in late 2000.

Brightwater Intersection

In October, Transit confirmed the preferred scheme to improve the safety of the State Highway 6/ Ellis Street/River Terrace Road intersection (also known as the Brightwater intersection).

This sees the River Terrace Road intersection with State Highway 6 move further north, creating two tee intersections. Work is now in progress to obtain the designation and resource consents for the work.

Much consultation has taken place on how best to improve the intersection's safety. The scheme that is preferred is also the one most preferred by respondents to a Nelson Mail survey and those who attended the open day. Transit is still reviewing options for the bridge estimated for December.

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MAKING HAYWARDS SAFER

IMPROVEMENTS TO STATE HIGHWAY 58 (HAYWARDS HILL) and the STATE HIGHWAY 2/58 INTERSECTION

(L)

Attachment To Report **99.718**

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The Project

Transit New Zealand proposes to improve safety along State Highway (SH) 58 from its intersection with SH 2 to Harris Road which is adjacent to Britton House Movers storage yard.

We want to hear your views on this proposal.

Preliminary design and environmental investigations have been undertaken to a stage where consultation with interested parties can be carried out.

This brochure explains the nature and reasons for the proposed improvements. It also outlines the effects of the proposal as a basis for public input.

Comments are invited from any person or group with an interest in the project by Wednesday, 17 November 1999, and a form for written submissions is enclosed. All submissions will be considered as part of the further development and assessment of the project, and a newsletter providing feedback will be sent to all interested parties. In addition an "open house" day will be held on Saturday 6 November 1999 from 10.00 am to 4.00 pm at the Alstom Line Depot, Kaitawa Street (off SH 58), Haywards, when members of the project team will be available to provide additional information and explanation on the proposals.

Please contact Andrea Lamplough at Worley Consultants Ltd on 04 382-2991 to make an appointment for the open house in order to avoid having to wait for attention.

Why is it Needed

SH 58 Realignment

This stretch of SH 58 has an unacceptable crash record. For the 5 year period from 1994 to 1998 there have been 100 reported crashes, of which 5 involved fatalities

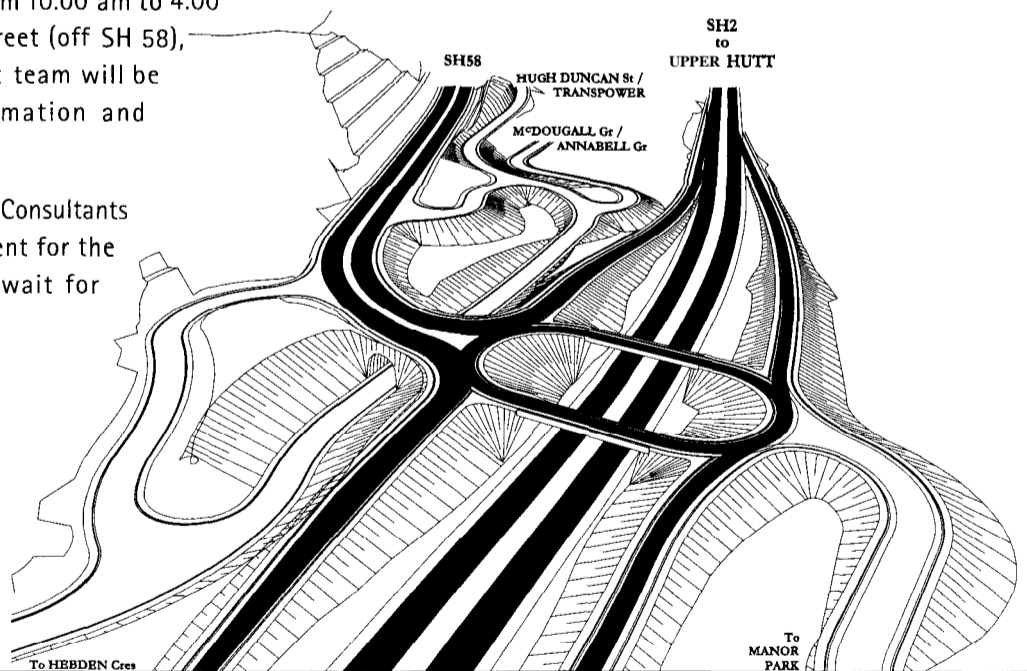
and 31 involved injury. This crash rate is approximately three times the national average for a road traversing similar terrain.

Careful analysis of these reported crashes shows that, in short, the current road alignment is substandard for the function of a strategic state highway. Specific problems include:

- Tight curves with varying geometric characteristics.
- Limited sight distances at curves, intersections and accesses due to the poor alignment and steep banks in close proximity.
- Narrow width and poor road camber at several locations.
- The existence of adjacent higher standard sections of state highway.
- High speed differences between light and heavy traffic.

Long Term Solutions

A key benefit of this proposal is that the improvements will raise the highway to a suitable standard for the foreseeable future. This is not an interim solution requiring more work in the near future with further disruption to the reserves and neighbouring properties.



What will be Achieved.

Traffic Safety Improvements

The proposed improvements are expected to reduce the crash rate on this part of SH 58 by 70%. The reduction in crashes at the intersection is expected to be even greater. In total this project is expected to save on average 5 crashes per year which would otherwise result in death or injury. Many more non injury crashes will also be saved.

This will be achieved by:

- Providing a consistent road alignment.
- Providing consistent passing opportunities.
- Separating the carriageways with a median barrier.
- Limiting access to designed intersections.
- Providing uniform road shoulders.
- Safe access and increased visibility to and from side roads.
- The provision of a full grade separated interchange with SH 2.

Safety for Local Residents

The safety of access onto and off the road for adjacent residents and landowners will be significantly improved.

Noise Reduction

Noise levels at existing dwellings will largely be maintained at existing levels or reduced with more detailed assessments to be undertaken as part of further design.

Ecological Improvement Opportunities

The project affects two reserves; the Belmont Shrubland on the uphill side of the road which is managed by the Wellington Regional Council as part of the Belmont Regional Park; and The Keith George Memorial Park, owned and managed by Upper Hutt City Council on the down hill side. Initial design was planned to avoid any incursion into the Keith George Memorial

Park, which is a scenic reserve. However, ecological assessment of that option showed that the reestablishment of gorse on cut faces above the road would pose a significant fire risk to the rest of the reserve. In addition, much of the area of Keith George Memorial Park below the road, including the stream, is actually of low ecological value because previous filling operations and flood events have washed large quantities of material down through that part of the reserve.

As a result, the alignment has been redesigned to minimise the earthworks required above the road, and provide for fill below the road in two areas between the two reservoirs and Haywards Substation. This may require the realignment of approximately 200 metres of the stream and will provide an opportunity for improvement of both the ecology of the stream and the vegetation in this part of the park.

As a result of the redesign, the area of cut above the road has been reduced by 75%. There are also significant benefits in terms of landscape and visual effects of the redesigned project. Initially proposed cuts above the road would have been visible to residents of the area, users of the road and from parts of the Hutt Valley such as Stokes Valley. Further revegetation of such cuts with native species is relatively difficult.

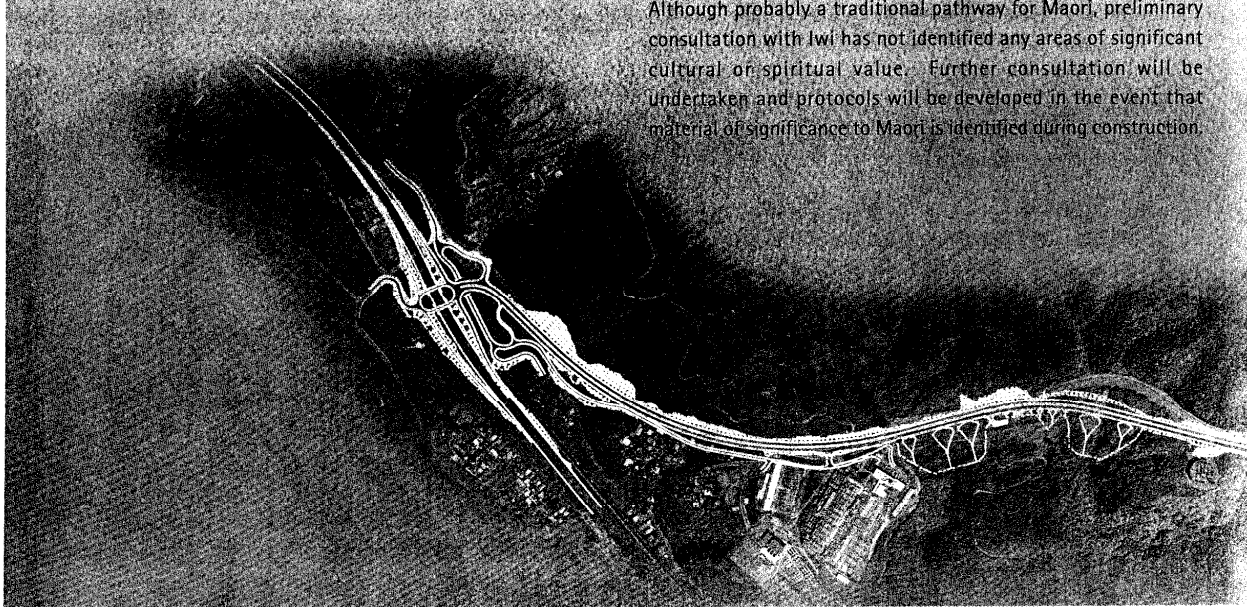
In comparison, the fill now proposed below the road will be almost entirely concealed from public view, other than from within the reserve itself. Also the fill will be able to be designed to reflect the shape of existing landforms and to maximise effective revegetation of the slope.

Between Mount Cecil Road and Harris Road, the alignment will cross the farm stream draining this area twice. This is a tributary to the Pauatahanui Stream. As part of these crossings the stream will be culverted for a total distance of about 200 metres.

Ecological assessment has not found the stream to have high values. However, some enhancement of the stream environment values may be possible as part of the project, in conjunction with the landowner.

Cultural/Spiritual Issues

Although probably a traditional pathway for Maori, preliminary consultation with Iwi has not identified any areas of significant cultural or spiritual value. Further consultation will be undertaken and protocols will be developed in the event that material of significance to Maori is identified during construction.



Affected Properties and Residential Areas

We will specifically consult with all affected landowners and residential groups adjacent to the highway. From this consultation we will seek to limit the impact of the project as far as possible and provide mitigation measures where appropriate.

Construction Issues

Construction may take up to 3 years. Local residents will be consulted in detail over access issues during construction. Noise will be strictly controlled and will comply with the New Zealand Standard for Construction Noise. Proven management measures will also be taken to control dust and run off from construction works.

Other Options

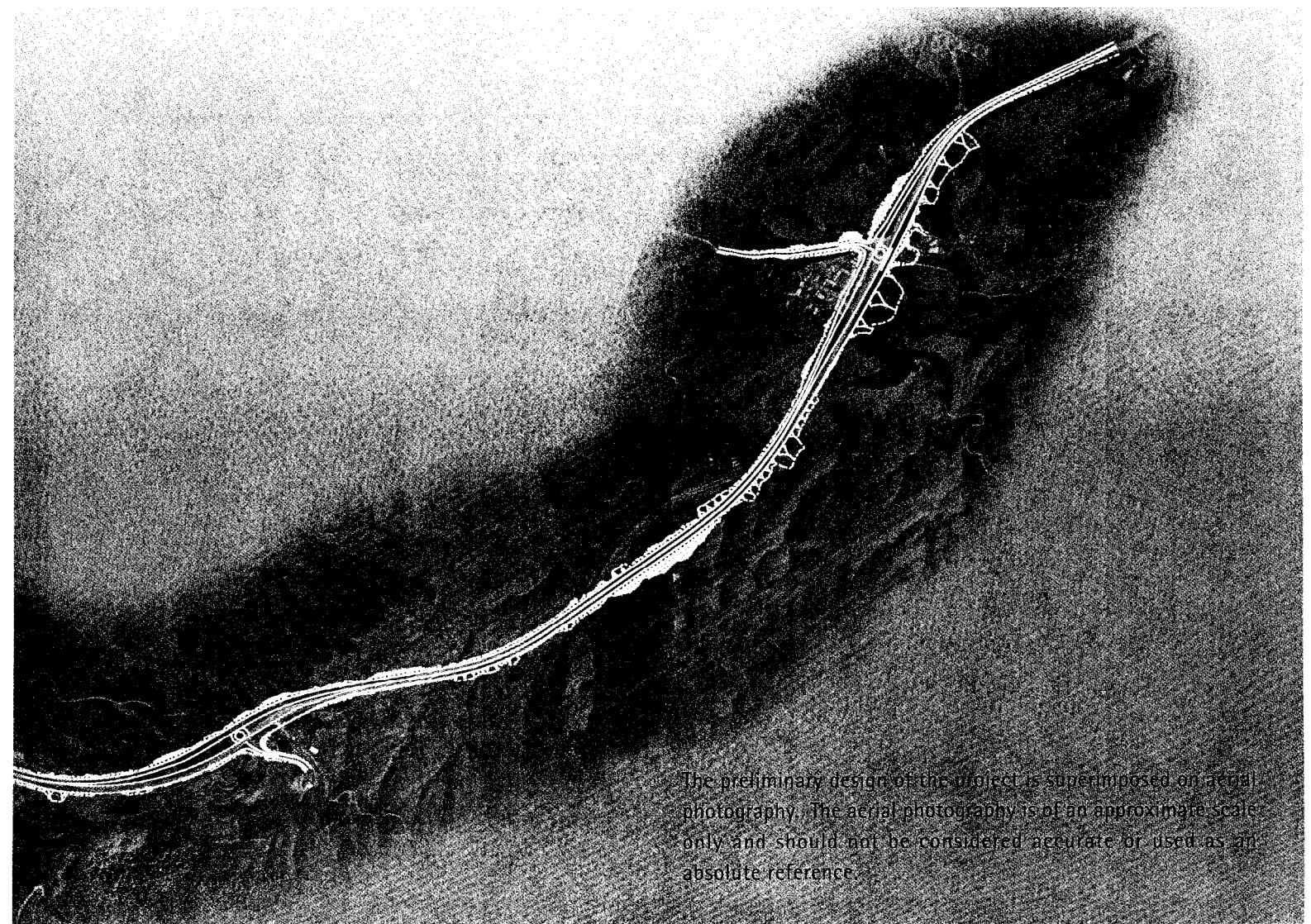
A number of lesser standard upgrading options have been investigated for both the SH 58 Realignment and the SH 2/58 Intersection Upgrade. However, none of the alternative solutions adequately address all of the identified safety issues. Relocation of this part of the SH 58 corridor has also been considered. Options include rerouting SH58 both to the north along the line of the stream through the Keith George Memorial Park and to the south through the Dry Creek Quarry have also been considered. However none of these options are favoured on either cost or environmental grounds.

Key Design Features

Key features of the design include:

- A full grade separated interchange with SH 2. This is similar to the Mungavin Interchange at Porirua.
- Access to Manor Park directly from the interchange.
- Improvement of the alignment along the full length of the project to meet modern highway design safety standards.
- The provision of two lanes in each direction with a physical median barrier separating the carriageways.
- The diversion of all private accesses to the new intersections, or restriction to left in / left out movements.
- A local road link between Hebden Crescent and Hugh Duncan Street, with connection to McDougall Grove, for alternative local access onto the highway.
- A design alignment minimising earthworks above the road, with a fill below the road between the water storage reservoirs and Haywards Substation. The fill slope will revegetate faster and is preferred by the Department of Conservation over large cuts above the road

The total cost of the project is in the order of \$25 million.



The preliminary design of the project is superimposed on aerial photography. The aerial photography is of an approximate scale only and should not be considered accurate or used as an absolute reference.

Further Information

Anyone who has questions or would like to discuss the project with the project team are invited to the open house day to be held on Saturday 6 November 1999 from 10.00 am to 4.00 pm at the Alstom Line Depot, Kaitawa Street (off SH 58), Haywards.

Ring Andrea Lamplough on 04 382-2991 to make a specific appointment to avoid delays on the day or to receive directions to the open house.

We have set up project displays at:

- War Memorial (Central) Library – Lower Hutt
- North City Shopping Centre – Porirua and
- Upper Hutt Information Centre, 6 Main Street, Upper Hutt.

You can also visit our website at:

<http://worley.co.nz/transportation/haywards.html>

We Want To Hear Your Views

As stated at the beginning comments on the proposal can be made on the form enclosed and should be sent by 17 November 1999 to :

Worley Consultants Ltd
185 Willis Street
PO Box 27-277
Wellington
Attn: Andrea Lamplough
or email to : haywards@worley.co.nz

Where to From Here

All submissions will be carefully considered. In some instances we will discuss issues raised with particular parties to attempt to find the best solution.

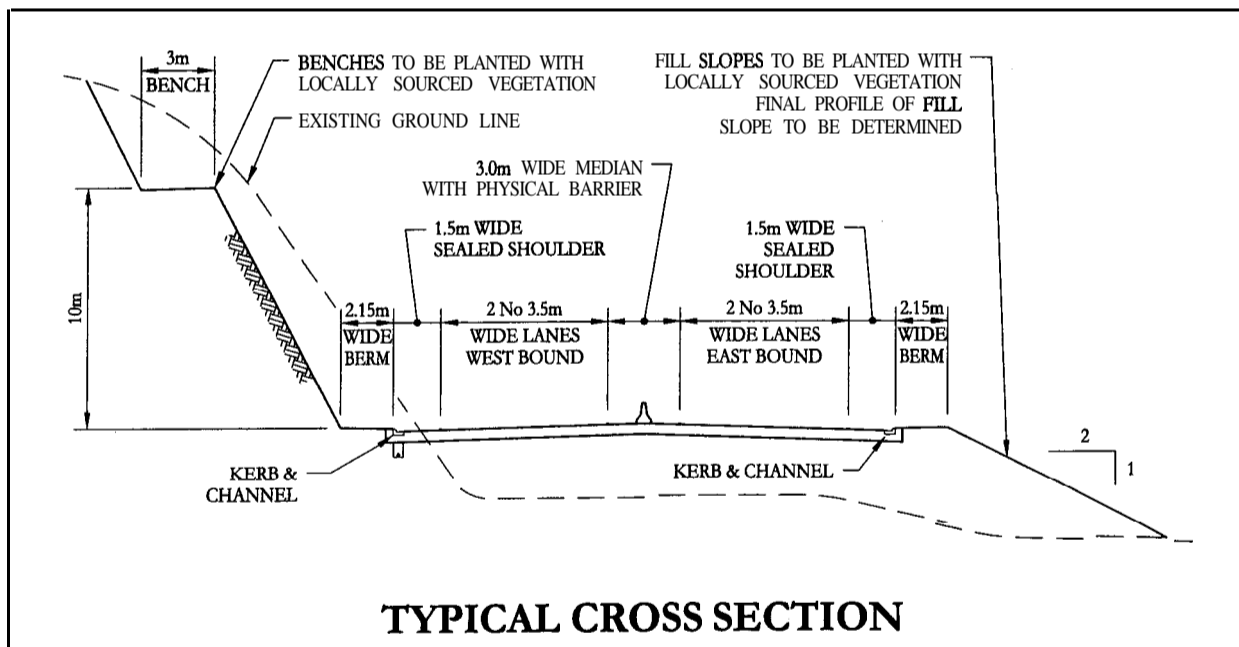
Key issues raised and our proposed solutions will be detailed in a newsletter that will be publicly available. If you have requested to receive future project newsletters on the comment form a newsletter will be sent to you directly.

We will then complete our preliminary design and prepare a Notice of Requirement to designate land for the project and obtain resource consents.

The Notice of Requirement and accompanying Assessment of Environmental Effects will be submitted to the three territorial authorities involved (Hutt City, Porirua City and Upper Hutt City Councils). Associated resource consents required from the Wellington Regional Council will be submitted at the same time. These will be publicly notified for any public submissions, which will then be considered at a formal hearing. Approval to use reserve land will also rely on this process.

It is hoped to lodge the designation and resource consent applications in December of this year. If consent delays are avoided construction may start as early as the summer of 2000 subject to funding.

We look forward to your input to this project.



WORLEY

Darrell Statham
Design Manager
04 382-2999

TRANSIT
NEW ZEALAND
ARARAU AOTEAROA

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04 801-2580

SH 1: MacKays Crossing to Pukerua Bay Strategy Studies

Purpose

1. To report on the strategy studies recently completed for the length of State Highway (SH) 1 between MacKays Crossing and Pukerua Bay north of Wellington.
2. Appendix 1: Locality Plan
Appendix 2: Improvement Options

Background

3. A professional services contract was awarded in January 1999 for strategy studies for the length of highway between MacKays Crossing and Pukerua Bay, and a scheme assessment (plus other professional services) for a railway overbridge in the vicinity of the MacKays railway level crossing. The strategy studies are premised on the basis of the Transmission Gully Motorway being constructed in the long term, and Transit's current strategy of not four laning the coastal section between Paekakariki and Pukerua Bay.
4. The 10.4km length of highway to which the strategy study relates is approximately 45km north of Wellington, and carries a traffic volume of 23,000 vpd.
5. The study length has been broken into two sections – the southern most 6km which follows the coastline, and the northern 4.4km section which is inland. There is one small settlement, Paekakariki, in the middle of the study length.

Strategy

6. A number of improvements have been identified as worth. These are highlighted in Appendix 2 and include:
 - (a) replacement of the existing level crossing at MacKays Crossing with a railway overbridge, as reported to the November meeting of the Authority (submission CS/99/11/3349);
 - (b) curve realignments to achieve improve speed consistency along the highway;
 - (c) intersection improvements for the accesses into Paekakariki;
 - (d) seal widening and closure of some rest areas along the coastal section;

- (e) construction of a northbound passing lane, possibly involving converting the existing southbound passing lane to northbound and providing a new southbound passing lane at Fisherman's Table;
- (f) improvements to the Paekakariki railway overbridge; and
- (g) an advanced traffic management system consisting primarily of variable message signs.

Land and Designations

- 7. In some cases, the improvements will require a change to the designation and consents. These requirements will be more fully assessed at the scheme assessment stage of each project and reported with the preferred scheme.

Funding

- 8. Investigation fees have been approved for the MacKays Crossing Railway Overbridge project for this financial year and design funding has been approved for improvements at the Beach Road/Paekakariki Hill intersection.
- 9. Investigation funding for the other projects is being sought for the 2000/2001 financial year, through the Annual Plan process. This will allow the likely timing of Transmission Gully Motorway to be taken into account in the assessment of these projects.

Petition

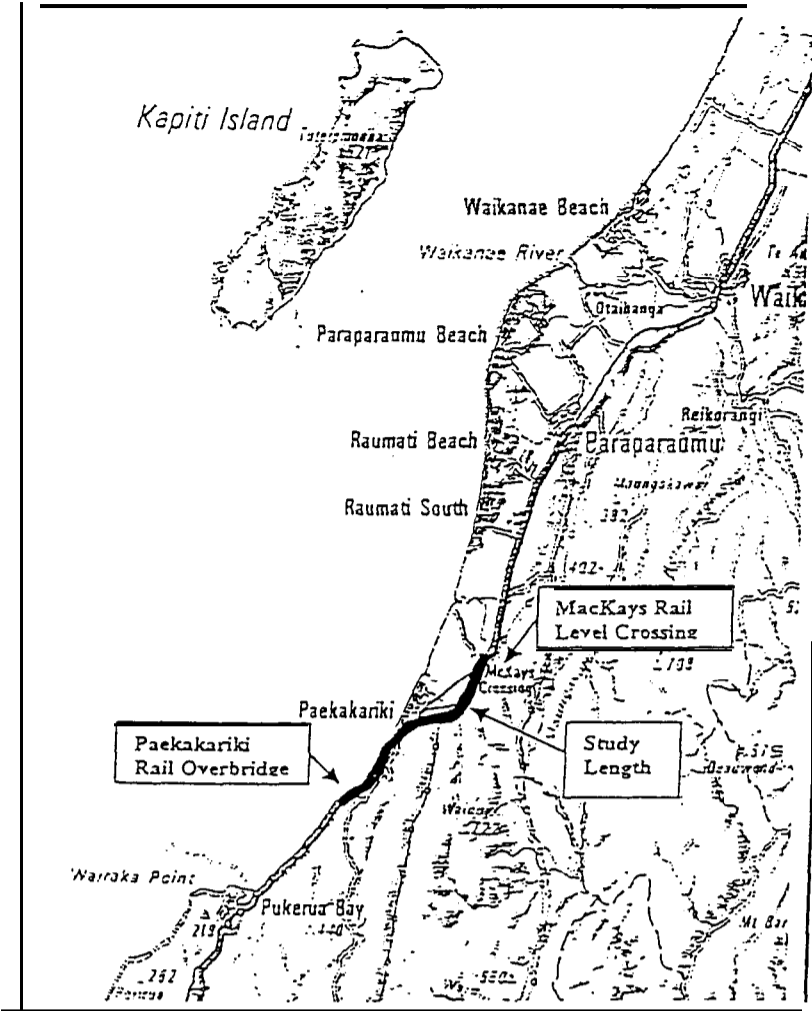
- 10. A petition was received from the Paekakariki community in relation to the Beach Road/Paekakariki Hill intersection with SH 1 which is the main entrance into Paekakariki.
- 11. The petition stated that:

The people that have signed this petition demand that Transit New Zealand improve traffic safety at this intersection and hold a Public meeting at Paekakariki no later than 30 June 1999 to seek public approval for the improvement.

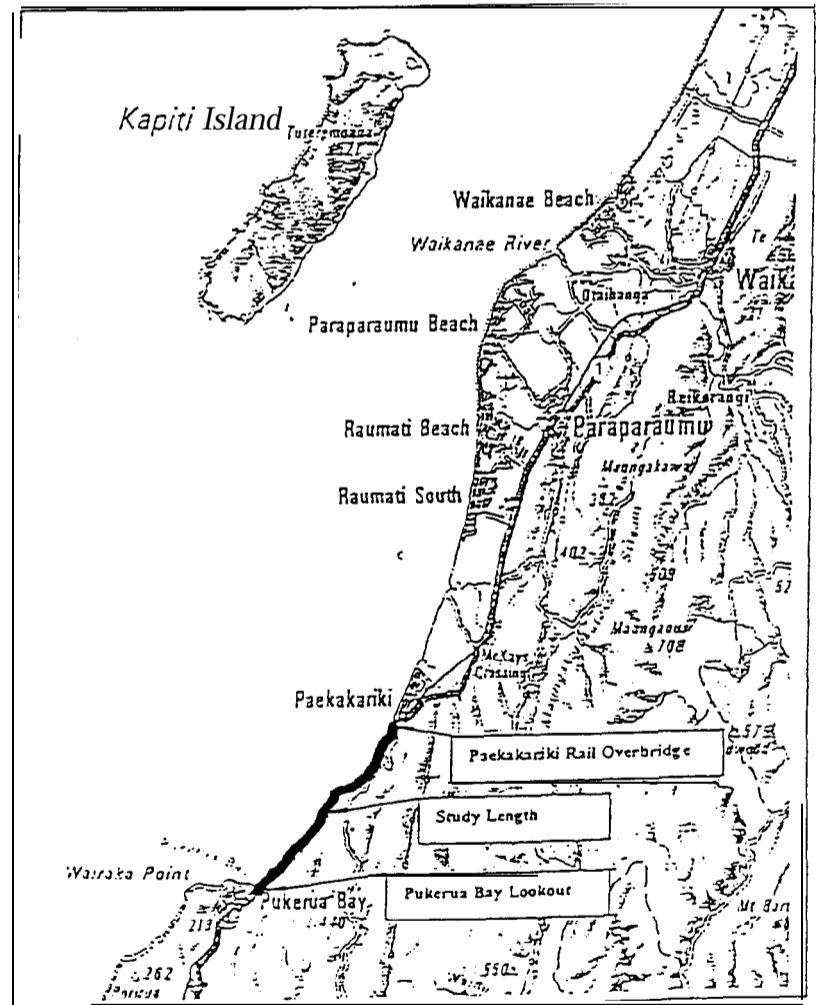
This intersection has the highest crash rate of any location between Pnrematn and Paraparaumu. It is unsafe, and the residents of Paekakariki are daily exposed to unacceptable hazards whenever they enter or leave the township.

- 12. A public meeting was held in Paekakariki on the 28 June. At this meeting, the community was given an update on the strategy study.

13. The strategy for this intersection was outlined as follows:
- minor improvements involving street lighting, and a traffic island
 - a speed limit warrant assessment to determine whether a lower speed limit could be implemented – this assessment has now been completed and a lower speed is not warranted
 - modifications to increase the deceleration lane for the left in movement to Paekakariki.
14. The minor improvements involving street lighting, traffic island and the modifications to increase the deceleration lane for the left in movement to Paekakariki are programmed this financial year.

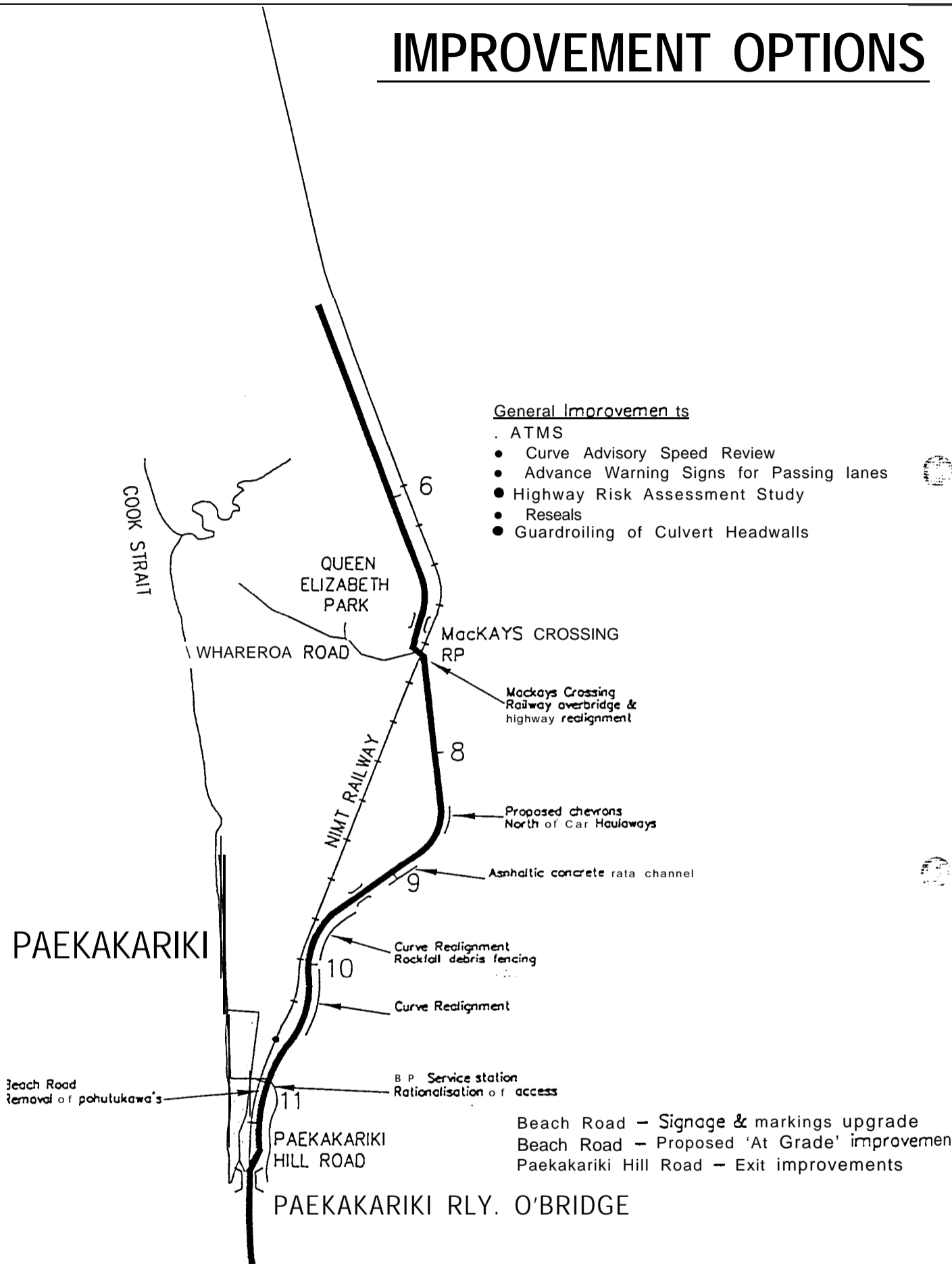


Northern Study Length



Southern Study Length

IMPROVEMENT OPTIONS



Improvement Options

AttachmentToReport **77.718**

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