WELLINGTON STATE HIGHWAY PLAN

EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Wellington for the next 10 years are set out in Table W1. Transit anticipates it will have further expenditure from regional distribution funding, but this is yet to be determined.

These forecasts of expenditure are based on a 10-year plan of maintenance and improvements, including commitments. The timeframe for the development and construction of the improvements proposed in the 10-year plan is indicative only, and is likely to change depending on the use of regional distribution funding to advance projects.

The Wellington state highway 10-year plan seeks to protect and preserve the existing asset, relieve congestion in conjunction with passenger transport and travel demand management initiatives, improve the security and efficiency of the roads into and out of the Wellington region, and improve road safety.

Major features of the plan are:

- Dowse to Petone Upgrade on SH2, including a new interchange at Dowse Drive and overbridge at Korokoro, for a construction start in 2005/06
- Kapiti Western Link Road (Stage 1), for a construction start in 2006/07, as a joint project with the Kapiti Coast District Council
- curve easing at Muldoon's Corner on the Rimutaka Hill Road on SH2, for a construction start in 2006/07
- expansion of the Active Traffic Management System currently in operation in the Ngauranga Gorge.

Other projects in the 10-year plan for construction in the next three years are:

- Waiohine Bridge Replacement on SH2, north of Greytown
- Te Marua Curves Realignment on SH2, north of Upper Hutt
- improvements to the Kent Terrace/Ellice Street intersection at the Basin Reserve
- intersection improvements at Old Hautere Road on SH1
- street lighting between Petone and Ngauranga, and between Maoribank and Owen Street on SH2
- cycling and walking facilities in Kapiti on SH1, Masterton on SH2, Petone to Horokiwi on SH2, and Teihana Road pedestrian overbridge on SH1 for construction in the next three years.

KEY REGIONAL TRANSPORT ISSUES

The key regional transport issues in Wellington include:

- severe congestion – traffic growth on the main routes into and out of Wellington City is continuing at around 2-4% per year driven, in part, by a population growth of 1-2% per year on the Kapiti Coast and Upper Hutt and relatively cheap cost of travel causing increased congestion particularly for peak period commuter trips and freight. Key 'hot points' are on the highway and motorway system, Plimmerton to Paremata and the Ngauranga interchange on SH1, Melling to Petone on SH2 and around the Terrace and Mt Victoria Tunnels. Trips from the Kapiti Coast and Upper Hutt into Wellington City in the peak periods are regularly taking 30-50 minutes longer than off-peak periods
- secure and efficient routes to the north of Wellington, both on SH1 and SH2
- good access to the Airport and Wellington's regional hospital at Newtown
- road safety.

TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

The two major state highway arterials in the Wellington region are SH1 in the western corridor connecting to Kapiti and Horowhenua districts and SH2 through the Hutt Valley connecting to the Wairarapa via the Rimutaka Ranges. Both of these corridors have been identified in the Regional Land Transport Strategy as requiring substantial upgrading to relieve congestion, cope with traffic growth despite travel demand measures, and improve safety.

In addition to the major road projects, which have been provided for the 10-year plan, significant attention will be given to improved management of traffic on existing roads. This focus on traffic operations will be essential to maximising the efficiency of the existing network and ensuring that alternative modes, including public passenger transport, can operate effectively.

The locations of possible Wellington projects in the 10-year plan are shown in Figure W. The expected cost and possible timeframe for the development and construction of these projects is indicated in Table W2. The timing of projects could be advanced depending on the allocation of regional distribution funding. A final policy has yet to be determined by Transfund New Zealand (as at July 2004).

Large improvement projects (with construction costs more than $3M) have been planned for 10 years and small and medium-sized projects (with construction costs of less than $3M) have been planned for 3 years.

Congestion Relief

SH1: Wellington Central Business Area (Wellington Airport to Ngauranga)

The only major improvement planned for construction within the next 10 years is the Wellington Inner City Bypass. Construction funding has been approved and physical works are expected to start towards the end of 2004. The bypass will provide a safer and more efficient route to Wellington Hospital, Wellington Airport and southern and northern suburbs, and the northern gateway to the city. The bypass is part of an integrated package of initiatives including improved passenger transport, travel demand management measures and additional walking and cycling facilities.

Transit is currently investigating schemes to widen the motorway between Ngauranga and Aotea Quay and further minor upgrading around the Basin Reserve. The motorway widening between Ngauranga and Aotea Quay comprises four lanes in each direction to avoid the need for traffic to merge from four to three lanes at each end. This proposal requires further discussion with the Wellington City Council to consider the effects of additional traffic on the local road network and the future development of railway land adjoining Aotea Quay. At this stage, this is a potential project and, as such, has not been included in the 10-year plan.

SH1: Western Corridor (Ngauranga to Otaki)

A number of major improvements are required to SH1 between Ngauranga and Otaki. SH1: MacKays Crossing Overbridge has received construction funding and is expected to start towards the end of 2004. SH1: Kapiti Western Link Road (Stage 1) is included in the 10-year plan.

The proposed Western Link Road is a joint project with Kapiti Coast District Council to build a parallel route to SH1 between Peka Peka, north of Waikanae, and Poplar Avenue, at Raumati. This parallel route will free up congestion on both the state highway and local roads. The Environment Court approved the designation for the Kapiti Western Link road in 2002. There were two appeals to this decision, which were heard in the High Court in March 2003. The appeal was upheld, in part, with the matter referred back to the Environment Court. A further High Court hearing is expected in September 2004. The first stage of this project is included in the 10-year plan for design in 2006 and construction in 2006/07. The second stage is not currently included in the 10-year plan.

Other projects under development in the western corridor between Otaki and Ngauranga include:

- SH1: Kapiti Upgrade
- Transmission Gully Motorway.

These projects have now been included in a Western Corridor study, which will consider all viable alternatives including new roading capacity, passenger transport and travel demand management.

SH2: Hutt Corridor

The only large project proposed for SH2 in the Hutt corridor is the Dowse to Petone Upgrade to reduce delays. The proposed improvements include building an overbridge at the Korokoro Intersection (connecting the Western Hills with Hutt Road) and an interchange at the Dowse Drive intersection (connecting Dowse Drive and Hutt Road via a roundabout raised over the highway as well as connections to the state highway). These improvements also include altering the Petone Park and Ride facility and minor safety improvements to the highway between the existing intersections. Transit expects to start construction of this project in 2005/06.

There are a number of projects that are not currently in Transit's 10-year plan, however, they could be advanced into the 10-year plan depending on regional distribution funding:

- SH2: Melling Interchange
- SH2 / SH58: Haywards Interchange
- SH2: Reversible Auxiliary lane between Ngauranga and Petone.

Following completion of the Dowse to Petone Upgrade, changes in traffic flows at the Melling intersection will be reassessed. This is currently a major access point to the Hutt City centre and a substantial part of this traffic is expected to divert to the new Dowse Interchange. It is envisaged that eventually a grade-separated interchange will be required at Melling.

To improve safety at the intersection of SH2 with SH58, Transit is proposing to build a full interchange similar in layout to the Porirua Mungavin Interchange, and realign and upgrade a 5km-section of SH58 to four lanes with a median barrier.

A reversible additional lane on SH2 between Petone and Ngauranga has been proposed by Greater Wellington Regional Council in its Hutt Corridor Plan. This is intended to operate as a tolled lane. The proposal is still in the early stages of development and therefore no timing has been determined for this project in the 10-year plan.

The need for the upgrading of SH2 along River Road is also being investigated. This investigation is being undertaken jointly with Upper Hutt City Council and is due for completion mid 2004.

Advanced Traffic Management System

The first stage of the Advanced Traffic Management System (ATMS), which has been installed in the Ngauranga Gorge, has been most effective in smoothing traffic flows and ensuring a faster response to incidents. It is proposed to extend the system incrementally to other high-capacity sections of SH1 and SH2.

Secure and Efficient Transport Corridors

SH2: Wairarapa Corridor (Masterton to Upper Hutt)

The three most significant projects proposed for SH2 in the Wairarapa corridor are:

- SH2: Waiohine Bridge Replacement, north of Greytown
- SH2: Rimutaka Corner Easing (Muldoon's Corner)
- SH2: Te Marua Curves Realignment, north of Upper Hutt.

Transit has been working closely with the Carterton District Council, South Wairarapa District Council and the Greater Wellington Regional Council on a scheme to replace the narrow bridge over the Waiohine River, north of Greytown. The current bridge is not only a route security risk but also can exacerbate flooding by restricting river flow. A replacement bridge is planned for construction in 2004/2005.

The Rimutaka Corner Easing project is to straighten some tight curves at "Muldoon's Corner", about 500 metres south of Rimutaka summit, where the current alignment requires some heavy vehicles to regularly cross the centre line. It is proposed to realign these curves to a 60km/h design speed with appropriate curve easing.

It is proposed to improve the Te Marua curves, just north of Upper Hutt by means of some minor realignments and seal widening. This project is proposed for construction in 2004/05.

Road Safety

Transit plans to continue removing 'out of context' sections of state highway, roadside hazards, provide a network of stock truck effluent disposal sites, and improving walking and cycling.

The following small and medium-sized safety projects (with construction costs less than $3M) are included in the 3-year plan:

- SH1: Old Hautere Rd intersection improvements
- SH1: Kent Terrace/Ellice Street intersection
- SH2: Petone to Ngauranga street lighting
- SH2: Maoribank to Owen street lighting.

At the Kent Terrace/Ellice Street intersection at the Basin Reserve, it is proposed to install traffic signals at the pedestrian crossing and to improve safety and the flow of traffic along Kent Terrace and around the Basin Reserve.

A number of other safety improvements may be possible depending on regional distribution funding.

Walking and Cycling

The following walking and cycling projects are included in the 3-year plan:

- SH1: Kapiti Cycle Facilities
- SH2: Masterton Cycle Facilities
- SH2: Hutt Valley Cycle Facilities
- SH1: Teihana Road Pedestrian Overbridge.

The first three projects include a number of minor improvements to make the respective routes more cycle-friendly.

It is also proposed to investigate options for completing the cycleway between Petone and Ngauranga.

MAINTENANCE and OPERATIONS

In addition to undertaking maintenance and improvements to meet future levels of service, and to preserve the asset, Transit proposes to:

- resurface 85 lane-kilometres of the network
- complete the upgrade of the Ngauranga Gorge median barrier
- upgrade the Thorndon Overbridge median barrier
- continue to maintain and improve the Pauatahanui inlet seawall

- implement flood mitigation works at Paekakariki
- introduce a Wellington Traffic Management Unit to optimise traffic operations on both local arterials and state highways
- improve coordination of signalised intersections through Wellington City during peak weekend travel times
- improve coordination with NZ Police and emergency services in the management of incidents that affect the operation of the network
- continue to work with Civil Defence and Emergency Management to refine emergency response plans in and around Wellington.

Table W1

Forecasts of Expenditure on Maintenance and Improvements

Wellington Region

	04/05 ($M)	05/06 ($M)	06/07 ($M)	07/08 ($M)	08/09 ($M)	09/10 ($M)	10/11 ($M)	11/12 ($M)	12/13 ($M)	13/14 ($M)	Total ($M)
Maintenance											
Structural	7.1	6.5	5.8	6.0	6.3	6.7	7.1	7.4	7.8	8.4	69.1
Corridor	6.5	5.8	5.6	5.8	5.9	6.3	6.6	6.8	7.1	7.5	63.9
Professional Services	2.9	3.1	3.3	3.5	3.7	3.9	4.2	4.4	4.6	4.9	38.4
Property Management	5.4	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	14.4
Preventive Maintenance	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.6
Emergency Works	0.3	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1	9.1
Sub-total	22.1	17.3	16.7	17.4	18.1	19.2	20.2	21.0	22.0	23.4	197.5
Improvements											
Minor Safety Projects	1.3	1.2	1.2	1.2	1.3	1.4	1.4	1.5	1.6	1.7	13.7
Committed Projects	28.4	29.6	18.4	0.0	-	-	-	-	-	-	76.4
New Projects	3.3	3.7	10.2	17.3	21.6	26.3	23.6	14.0	7.5	4.1	131.6
Property Purchase	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.5	21.8
Walking & Cycling	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Sub-total	35.0	36.6	31.9	20.7	25.1	30.0	27.4	17.9	11.6	8.3	244.5
Regional Distribution Funding	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	
Total	57.1	53.9	48.6	38.1	43.2	49.2	47.6	38.9	33.6	31.7	442.0

tbd = to be determined