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Report to the Regional Land Transport Committee
From Tony Brennand, Manager, Transport Policy

Regional Prioritisation of the State Highway Programme

1. Purpose

To provide a methodology and recommendations on how Transit New Zealand's draft 2002/03 State Highway Programme can reflect Wellington regional priorities.

2. Background

In **attachment 1** Transit New Zealand provides a copy of its draft 2002/03 State Highway Programme. The attached memorandum invites the RLTC to make submissions to Transit New Zealand by 5 April 2002.

Transit New Zealand has attempted to align its draft 2002/03 State Highway Programme to reflect the recently announced Government's funding priorities. Transit New Zealand requests that the Wellington RLTC recommend amendments to the draft programme that enable the programme to better reflect regional priorities.

3. Comment

3.1 Arrangement of the draft State Highway Programme

Transit New Zealand have segmented their draft programme into two parts. The first part includes projects whose cost exceed \$3 million and the second part includes projects whose cost is less than \$3 million. Transit New Zealand has further subdivided these two parts into two sections. The first section are those projects Transit New Zealand regards as high priority and the second section are those projects that are regarded as medium or low priority. The high priority projects that exceed \$3 million in cost have been assigned a priority order.

The Technical Group recommends that this structure be adopted.

3.2 Proposed methodology

The Technical Group met on 21 March 2002 to address the issue of regional prioritisation of the draft state highway programme.

The Technical Group recommends that regional priority be determined by considering how well a project is aligned to the Regional Land Transport Strategy. A set of criteria have been developed which are shown in **attachment 2**.

It is proposed that a project be scored against each of the criteria using a five point scale.

Performs very well	++
Performs well	+
Neutral	0
Performs poorly	-
Performs very poorly	=

As there is no reason to suggest that any of the criteria are more important than any other an equal weighting of criteria has been adopted.

The first criteria considers whether the project is specifically identified by the RLTS. If it is then it is awarded ++ or + depending on whether it is within the 2004 period or beyond 2004 period. A project not identified by the RLTS is awarded 0. A project specifically prevented by the RLTS will attract = score.

The remaining criteria are all objectives of the RLTS.

In the case of economic efficiency the benefit cost ratio is used. Projects with a benefit cost ratio that equals or exceeds 3.5 are deemed to be very cost effective and score ++. Projects that have a benefit cost ratio equal to or better than 2 and less than 3.5 are cost effective and score +. Projects that have a benefit cost ratio between 1 and 2 are neutral and score 0. Projects with a benefit cost ratio less than 1 are not cost effective and attract a negative score.

Transfund New Zealand have not yet declared what their funding cut off for 2002/03 will be. The best we can do is assume it will be near the last financial year which was 4.0. The figure of 3.5 is used in this analysis as projects with a benefit-cost ratio greater than 4.0 are likely to be funded anyway unless they are prevented by the RLTS. What we are interested in doing is determining whether any project that does not quite make the funding cut off should be promoted and funded. Projects with a benefit-cost ratio between 3.5 and 4.0 are of particular interest, but this does not necessarily exclude projects with a benefit-cost ratio less than 3.5.

The objective of affordability makes this analysis a little convoluted as a state highway project is affordable is not dependent on local funding but national funding. Transfund New Zealand uses the benefit cost ratio as the primary determinant of whether a project should be funded and therefore whether it is affordable. In another sense this process of regional prioritisation may in itself influence whether a project is affordable or not.

3.3 Regional ranking

The Technical Group has examined each of the proposals in the draft State Highway Programme and scored them accordingly against the above methodology. These are shown in **attachment 3**.

From the perspective of this analysis all of Transit New Zealand's prioritisations have been endorsed except a few which are identified below.

Those projects whose cost exceeds \$3 million the following amendments are suggested:

Poplar to Peka Peka 4 laning: be regarded as medium priority instead of high priority as it is not a named project in the RLTS, will have only a marginal effect on improving regional accessibility, has a marginal cost-benefit ratio, has few safety benefits and impacts on the network balance.

The following projects were moved into the high priority list from the medium to low priority list:

- (i) Otaihanga intersection improvements: this has a good benefit-cost ratio and produces useful safety benefits.
- (ii) Transmission Gully stage 2: this is a named proposal in the RLTS and is an issue that needs urgent resolution. It has a reasonable benefit-cost ratio, will provide improved accessibility and safety. The project will provide relief to the communities on the existing highway and has been demonstrated to provide network balance.
- (iii) Tawa interchange realignment: this project has a good benefit-cost ratio and delivers safety benefits.
- (iv) Haywards – SH2 to summit 4 laning: this project has a good benefit-cost ratio and delivers safety benefits.
- (v) Haywards SH2/SH58 grade separation: this project has a good benefit-cost ratio, enhances accessibility and provides safety benefits.
- (vi) Rimutaka corner easing: this project is named in the RLTS, enhances accessibility, has a good benefit-cost ratio and will provide safety benefits.

For those projects whose cost is less than \$3 million, the Transit New Zealand prioritisation is confirmed with the following projects added to the high priority list:

- (i) Curve at Steam Inc realignment: this provides safety benefits and has a good benefit-cost ratio.
- (ii) Pukerua Bay curve improvement: this provides safety benefits and has a good benefit-cost ratio.
- (iii) Waiohine bridge replacement: this ensures accessibility is maintained and has a good benefit-cost ratio.

- (iv) Rimutaka No 2 and No 4 bridge realignment: this is a name proposal, ensures accessibility and has a reasonable benefit cost ratio.
- (v) River Road transportation study: this project will produce accessibility, safety and network balance benefits. This project has been shifted from the above \$3 million group to the below \$3 million group.

3.4 Prioritisation of high priority projects in excess of \$3 million

An order of priority for the high priority projects that exceed \$3 million in cost is recommended by the Technical Group. The Technical Group ordered the projects by using the criteria shown in **attachment 2**. Using an equal weighting for each criteria those projects that scored the most positives were ranked highest.

A negative ranking is deemed to be offset by a positive ranking. Where projects had the same number of priorities then they were further ordered by choosing the project with the highest benefit-cost ratio first.

The order of priority moving from highest priority down to lower priority is:

Priority Order	Previous Transit Priority	Project	RLTS Ranking	Benefit-cost ratio
1	-	Transmission Gully stage 2	12+	2.3
2	2	Kapiti urban roading project	11+	6.0
3	4	Dowse to Petone	9+	4.1
4	3	Inner City Bypass	9+	3.8
5	5	MacKays Crossing overbridge	9+	3.2
6	1	Plimmerton to Mana stage 2 construction	8+	4.9
7	-	Rimutaka corner easing	8+	3.8
8	7	Moveable lane barrier (Ngauranga – Aotea)	8+	3.2
9	10	Kaitoke to Te Marua Realignment	8+	3
10	8	Centennial Highway seal widening	7+	4.7
11	-	Haywards SH2/SH58 grade separation	6+	4.6
12	9	Otaihanga intersection improvements	6+	4.3
13	-	Tawa interchange	6+	4.1
14	-	Haywards – SH2 to Summit 4 lanes	6+	3.9

3.5 Advocacy

The Regional Land Transport Committee may wish to consider what further actions it may wish to take to advance the respective high priority state highway projects. The establishment of a sub-committee to develop and implement an advocacy strategy for high priority projects is recommended.

4. Communications

That these recommendations be forwarded to the Transit New Zealand Regional Office.

5. Recommendations

1. *That the RLTC recommend to Transit New Zealand the following amendments to the draft 2002/2003 State Highway programme:*

(a) *that the Poplar to Peka Peka 4 laning be regarded as medium priority for projects that exceed \$3 million*

(b) *that:*

- *Otaihanga intersection improvements*
- *Transmission Gully stage 2*
- *Tawa interchange realignment*
- *Haywards – SH2 to summit 4 laning*
- *Haywards – SH2/SH58 grade separation*
- *Rimutaka corner easing*

be regarded as high priority projects that exceed \$3 million

(c) *that:*

- *Curve at Steam Incorporated realignment*
- *Pukerua Bay curve improvement*
- *Waiohine Bridge replacement*
- *Rimutaka No 2 and No 4 bridge replacement*
- *River Road transportation study*

be regarded as high priority projects that are less than \$3 million

2. *That the priority order for high priority projects that exceed \$3 million be:*

- *Transmission Gully Stage 2*
- *Kapiti Urban roading project*
- *Dowse to Petone*
- *Inner City bypass*
- *MacKays crossing overbridge*
- *Plimmerton to Mana stage 2 construction*

- *Rimutaka corner easing*
 - *Moveable median barrier (Ngauranga to Aotea)*
 - *Kaitoke to Te Marua realignment*
 - *Centennial Highway seal widening*
 - *Haywards SH2/SH58 grade separation*
 - *Otaihanga intersection improvements*
 - *Tawa interchange*
 - *Haywards – SH2 to summit four lanes*
3. *That these recommendations be forwarded to Transit New Zealand Regional Office.*
4. *That the RLTC establish a sub-committee to develop and implement an advocacy strategy to advance the final agreed high priority state highway projects.*

Report prepared by:

Approved for submission by:

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Attachments:

- 1: 2002/03 State Highway Programme Priorities briefing paper
- 2: RLTS criteria for prioritisation
- 3: RLTS prioritisation scores