

Before a Board of Inquiry
Transmission Gully
Notices of Requirement and Consents

under: the Resource Management Act 1991

in the matter of: Notices of requirement for designations and resource consent applications by the NZ Transport Agency, Porirua City Council and Transpower New Zealand Limited for the Transmission Gully Proposal

between: **NZ Transport Agency**
Requiring Authority and Applicant

and: **Porirua City Council**
Local Authority and Applicant

and: **Transpower New Zealand Limited**
Applicant

Statement of rebuttal evidence of Lynne Rosa Hancock (Urban Design) for the NZ Transport Agency and Porirua City Council

Dated: 13 January 2012

REFERENCE: John Hassan (john.hassan@chapmantripp.com)
Nicky McIndoe (nicky.mcindoe@chapmantripp.com)

**STATEMENT OF REBUTTAL EVIDENCE OF LYNNE ROSA
HANCOCK FOR THE NZ TRANSPORT AGENCY AND PORIRUA
CITY COUNCIL**

INTRODUCTION

- 1 My full name is Lynne Rosa Hancock.
- 2 I have the qualifications and experience set out at paragraphs 2 – 7 of my statement of evidence in chief, dated 17 November 2011 (*EIC*).
- 3 I repeat the confirmation given in my EIC that I have read, and agree to comply with, the Code of Conduct for Expert Witnesses (Consolidated Practice Note 2011).
- 4 In this statement of rebuttal evidence, I:
 - 4.1 Respond to the evidence of:
 - (a) John Christopher Horne, on behalf of the Rational Transport Society Inc.;
 - (b) Kevin Gywnn, on behalf of the Mana Cycle Group;
 - (c) Sally Barbara Peake and Emily Jane Thomson, on behalf of the Kapiti Coast District Council; and
 - (d) Elizabeth Shearer Thomas, on behalf of Living Streets Aotearoa.
 - 4.2 Respond to the section 42A report – Part 1, provided by Mitchell Partnerships (*the section 42A report*).
- 5 The fact that this rebuttal statement does not respond to every matter raised in the evidence of submitter witnesses within my area of expertise should not be taken as acceptance of the matters raised. Rather, I rely on my EIC and this rebuttal statement to set out my opinion on what I consider to be the key urban design matters for this hearing.
- 6 For the purposes of this evidence, I will refer to the NZ Transport Agency (*the NZTA*) Project¹ and the Porirua City Council (*PCC*)

¹ The 'NZTA Project' refers to the construction, operation and maintenance of the Main Alignment and the Kenepuru Link Road by the NZTA.

Project² collectively as the “Transmission Gully Project” (and hereafter, *the TGP* or *the Project*).

SUMMARY OF EVIDENCE

- 7 I have read all of the statements of evidence provided by submitters and that aspect of the section 42A report relevant to my area of expertise.
- 8 Submitters who discussed the Urban and Landscape Design Framework (*ULDF*) (Technical Report 23) were concerned less with its intent than with how that intent will be carried through the detailed design and construction phases of the Project. I acknowledge the submitters’ desire to ensure appropriate, high quality design outcomes.
- 9 While in general I am comfortable that the design principles and guidance provided in the ULDF and supported through the conditions will be sufficient to secure these outcomes, I support some changes or clarifications to the conditions, or by way of addenda to the ULDF, regarding:
- 9.1 Earthworks;
 - 9.2 Design of road furniture; and
 - 9.3 Consultation with stakeholders

EVIDENCE OF SUBMITTERS

Regional park tracks: walking and running (John Christopher Horne)

- 10 Mr Horne considers that the recreational experience for trampers and runners in both the Belmont Regional Park (*BRP*) and Battle Hill Farm Forest Park (*BHFFP*) will be severely impacted through the severance of the parks, and the associated noise and visual impacts from the Project. Without specifically requesting the introduction of additional crossings in nominated locations, he suggests that dedicated footbridges and pedestrian underpasses “on the same lines as present” would be necessary to minimise these impacts.³
- 11 There is no doubt that the introduction of the TGP will change what Mr Horne calls the “rural ambience of the semi-wilderness” within BRP,⁴ at least in the immediate area of the Main Alignment.

² The ‘PCC Project’ refers to the construction, operation and maintenance of the Porirua Link Roads (being the Whitby Link Road and the Waitangirua Link Road) by PCC.

³ J C Horne, paras 15 and 18.

⁴ Ibid, para 15.

Notwithstanding, I consider retaining connectivity to the larger area of the park a primary urban design consideration and one that is addressed in the Project. As noted in my EIC,⁵ the Takapu and Duck Creek tracks are proposed to be realigned, and new 'linking' sections of track created to enable people to access and enjoy more remote parts of the Park.

- 12 The alignment of the northern branch of the Duck Creek Track, which crosses in the approximate location of proposed Bridge 18, will require minimal adjustment. The southern branch crossing will be moved some 200 metres, to pass under Bridge 19. Because of the layout of the existing tracks, this creates a short cut rather than a detour for trampers going south on the Cannons Head track; and it makes little difference (in terms of distance) for those continuing along the Duck Creek track. It extends the length of the loop track; but on the other hand an additional track proposed to be provided by the Project from the northern abutment of Bridge 20 creates an alternative, shorter loop walk. For these reasons I consider that introducing an additional underpass exactly on the existing alignment is unnecessary.
- 13 The Takapu Creek track does require a longer detour to pass under Bridge 20 and back to the track (i.e. for those people wanting to walk the loop between the Takapu substation and Bridge 19). I appreciate that a crossing point on the existing alignment would, as Mr Horne suggests, provide a more direct line for path users. However, I understand that because the Main Alignment in this location is close to grade, constructing an underpass would be difficult to achieve here without significant earthworks. Although I have expressed concern about the impact and amenity of overbridges in general,⁶ I understand that the topography in this location might make it possible to build one. That being the case, it would, in addition to providing a more direct line of travel, take path users away from the motorway corridor relatively quickly (compared to taking them along it, under it, and then along it again). The question for me, though, is, is this a significant benefit compared to the realigned path proposed? The proposed path, though longer, remains at grade, opens up a new area to path users, and enables new views of Cannons Creek. On balance, I accept that the provision of a new shared path (as proposed) is an appropriate response.
- 14 In relation to BHFFP, I understand Mr Horne's concern to be not that the track for walkers and runners is realigned (it remains on the existing alignment under Bridge 7) but that there is a risk of logging trucks using that track,⁷ thereby creating conflicts between vehicles

⁵ EIC, para 68; see also Figure 5.67 of the ULDF, p. 143.

⁶ EIC, para 101.

⁷ J C Horne, para 18.

and other users and at worst making the track inaccessible to those users.

- 15 I understand that the NZTA's and as landowner, Greater Wellington Regional Council (GWRC)'s intentions are for logging trucks to be limited to using Bridge 8 (to the south) and I support the dedicated use of Bridge 7 and the approach tracks for walkers, horses with their riders, and cyclists.

Regional park tracks: mountain biking (Kevin Gywnn)

- 16 Mr Gywnn is concerned about the negative impact on the mountain biking experience within BRP due to the change from a predominantly natural environment;⁸ about the severing of existing tracks by the motorway and the detours that result from re-routing them under Bridges 18, 19 and 20;⁹ and also about the reduced potential for future tracks to be developed.¹⁰

Amenity impacts

- 17 Mr Gywnn considers that there will be significant visual and acoustic impacts that will extend beyond the actual motorway corridor to reduce the quality of the mountain biking experience for BRP users.¹¹ First, I agree with Mr Gywnn that the ULDF incorrectly notes that there will be "no [noise] issues" associated with the motorway within BRP.¹² There will be; the corridor will present a modified visual and auditory environment. **Dr Chiles** and **Mr Lister** comment, respectively, on visual and noise impacts.

- 18 As a result of the change to BRP, Mr Gywnn seeks additional mitigation including the location and standard of new access tracks. I discuss these tracks below. He also requests landscape screening to buffer views and noise along the corridor within both BRP and BHFFP. **Mr Lister** comments on the landscape treatment in his rebuttal.

Track severance

- 19 My comments above in response to Mr Horne's evidence are also relevant to Mr Gywnn's concerns about track severance and the proposed detours of the Duck and Takapu tracks under bridges 18, 19 and 20.
- 20 In addition to those tracks, Mr Gywnn identifies a track not shown in the ULDF as also being severed by the alignment.¹³ In his

⁸ K Gywnn, paras 23-24.

⁹ Ibid, para 16.

¹⁰ Ibid, para 22.

¹¹ Ibid, paras 23-32.

¹² ULDF, page 135; K Gywnn, para 31.

¹³ K Gywnn, para 15.

annotated aerial map (his Appendix 1) it is shown as originating at Warspite Avenue and linking to the Maara Roa and thence the Duck Creek track. Mr Gywnn has subsequently confirmed that while this track exists it does not, officially, allow public access (except for the annual Porirua Grand Traverse multi sport event).¹⁴ I would note that it connects into the Duck Creek track and that any severance issues across the Main Alignment are therefore generally covered in those discussions above. In other words, because the Duck Creek track will be realigned, there is no impediment to successfully formalising this connecting track in the future.

- 21 Mr Gywnn requests a loop track be built linking under Bridge 20, "that allows movement through the 'severed' western end of the Park".¹⁵ My understanding is that NZTA is providing such a link (under the southern abutment of the bridge) and in addition a new link that will connect the Maara Roa and Cannons Head tracks to form a continuous track under the northern abutment. This new link is equivalent to that part of the "new Cannons Head – Maara Roa link" requested by Mr Gywnn on his Appendix 1 drawing and he has confirmed that this serves the same purpose.¹⁶ I consider that these tracks (together with the realignment under Bridge 19) mitigate the severance caused by the Main Alignment.

Future tracks

- 22 I agree with Mr Gywnn that the motorway bridges both limit and fix the crossing points for future tracks.¹⁷ However, I do not agree that this necessarily means that the TGP reduces opportunities for developing an integrated track network to the extent Mr Gywnn suggests. There is no certainty about the timing, location or design of such a network, as Mr Gywnn acknowledges when he talks about the "likelihood" of success of plans being developed by the Mana Cycle Group.¹⁸ If and when it is developed, it can build both on the existing realigned network and on the new connections that are part of Project.
- 23 Mr Gywnn seeks that any new access tracks be designed as shared paths and constructed to easy mountain bike standard.¹⁹ While I understand that it may not be practical to achieve the gradients set by this standard across all of the track network²⁰, I do think that there are opportunities through the detailed design of the realigned

¹⁴ Personal communication with K Gywnn by email, 3 January 2012.

¹⁵ K Gywnn, para 35.5.

¹⁶ Personal communication with K Gywnn by email, 3 January 2012.

¹⁷ K Gywnn, para 22.

¹⁸ Ibid, para 19.

¹⁹ Ibid, para 35.3.

²⁰ Refer Cycle Trail Design Guide, 2010, p. 16. The main requirement is for a maximum 4 degree gradient across 96% of the trail on any one day.

tracks for the NZTA to take advantage of the 'underlying landform features' that Mr Gywnn notes are important for track development generally, and thereby to reduce gradients as far possible. A developed design for these tracks would benefit, in my view, from further consultation, but should not be required to be signed off by "suitably qualified mountain biking experts" before being approved by Council, as Mr Gywnn recommends.²¹ I consider that the consultation process proposed in the amended conditions²² would appropriately enable input from the Mana Cycle Group and other community stakeholders to the final location and design of the realignments to the Duck Creek and Takapu tracks.

Location of tracks

- 24 Mr Gywnn requests that tracks under bridges are located as close to the top abutment as possible ("not go down to the stream unless for the purpose of crossing it").²³ This is certainly the case for Bridges 19 and 20. The Bridge 20 concept design is illustrated in a sectional drawing in the ULDF,²⁴ with access tracks on both sides at high level near the abutments. The accompanying design principles note that because of the proximity of people using this track to the abutment, attention needs to be given to the design of the structure as it will impact on the amenity of the track.
- 25 Bridges 18 and 19 are not specifically described in the ULDF but the paths under them, and their proximity to the top of the abutment, are shown in the landscape plans within the ULDF²⁵ and as part of the Landscape Plan set.²⁶ Structures Plans that show the bridges in plan and section also form part of the Project's Plan Set.
- 26 For example, under Bridge 18 the indicative location of the access track is perhaps one-third down the slope, as shown on S18-01 in the Structures Plan Set. This is appropriate as it maintains the alignment and elevation of the existing track. Bridge 19 has a large flat area, marked '4.5m min clearance' adjacent to the southern abutment, where the track will go.²⁷

Battle Hill Farm Forest Park

- 27 In relation to BHFFP, Mr Gywnn requests that "All [motorway] signage should be kept to a minimum..." and be screened from park users.²⁸ The landscape design concept for this area is to respond to

²¹ K Gywnn, para 35.

²² Designation conditions NZTA.48 and PCC.30.

²³ K Gywnn, para 35.4.

²⁴ ULDF, page 142.

²⁵ Ibid, page 136.

²⁶ Drawing LA-17 (LA-18 shows Bridge 20).

²⁷ Drawing S19-01.

²⁸ K Gywnn, para 45.

the 'semi-open to open' existing pattern,²⁹ and is characterised by extensive areas of grassed batters interspersed with stands of native trees. This means that signs (and sign gantries) have the potential to be highly visible. I agree with Mr Gywnn that reducing the visual clutter created by signage, as by other highway furniture, is important – so long as it is consistent with safety and information requirements. This may be a matter of locating and / or grouping signs rather than limiting their number, as per the principles in the ULDF for highway furniture.³⁰

- 28 Also in relation to BHFFP, Mr Gywnn requests that the underpass to Bridge 7 be limited to walkers, bikers and horse riders to prevent conflict with forestry vehicles accessing the sustainable management area east of Horokiri Stream; and that vehicles use the underpass to Bridge 8.³¹ As noted above in response to Mr Horne's submission, I understand that this request is consistent with the NZTA's and GWRC's intentions, but I note that the final decision will be GWRC's to make as landowner.
- 29 The ULDF shows, on page 40, the potential for a combined walkway / cycle / bridle path from BHFFP to Flighty's Road. Mr Gywnn's opinion is that the NZTA should build this track as part mitigation for severance and to enhance wider recreational opportunities.³² I agree with him that it would achieve the latter, but I do not consider that this is required as mitigation for this Project as no existing track is severed. It therefore remains for others to construct in the future.

**Urban and Landscape Design Framework, conditions arising:
(Sally Peake and Emily Thomson)**

- 30 Ms Peake's evidence focuses primarily on landscape and visual effects and is addressed in detail in the rebuttal of **Mr Lister**. She concludes that in relation to cut and fill batters, and road furniture, the concepts in the ULDF are insufficiently directive and that the provisions in the Landscape and Urban Design Management Plan (*LUDMP*) should therefore be "wider, and ... be given more weight and enforceability".³³
- 31 The LUDMP, in my view, should both give due weight to, and develop and refine, the design principles and concepts in the ULDF. I consider the ULDF a robust document that provides sufficient guidance and an appropriate level of detail for its purpose. Having said that, I am supportive of the approach to the design principles

²⁹ ULDF, page 87.

³⁰ Ibid, pages 44-45.

³¹ K Gywnn, para 46.

³² Ibid, para 49 – 49.1.

³³ S Peake, para 6.4.

for cut batters and reinforced soil embankments proposed by **Mr Lister** in his rebuttal evidence, to provide supplementary detail for the cut and fill batters that clarifies the distinction between their proposed form and will guide the design.

- 32 Ms Peake considers that the LUDMP should be prepared before, and be required to guide, the Construction Environmental Management Plan and the Site Specific Environmental Management Plans.³⁴ I do not see the benefit from this, as an integrated process should see these plans developed together, and informing each other. I believe that there is sufficient high level guidance in the ULDF, as a 'vision' or 'umbrella' framework document, for the developed suite of plans that will follow, and that there are risks to producing a LUDMP that 'locks in' detailed design that may not be the optimal solution. I would also add in relation to project delivery, from my experience on large roading projects, that too much 'bedding down' of design detail too early can be as much of an issue as too little, leading to re-work, duplication of effort, additional cost, and time delays that may create uncertainty for, and potentially prolong effects on, local communities.
- 33 Ms Thomson makes a number of recommendations for changes to conditions relating to the urban and landscape design, including changes reflecting the concerns raised by Ms Peake. **Ms Rickard** responds to those recommendations in her evidence, and I also offer the following comments.
- 34 I agree with Ms Thomson that the LUDMP should reflect the integrated approach taken in the ULDF, thereby providing a contextual and coherent overview for the Project, and I appreciate the *intent* of her suggested amendment to designation condition NZTA.46 to secure this, by way of spelling out that "The purpose of the LUDMP is to integrate the project's permanent works, including the road, paths, access tracks, road furniture and streamworks into the surrounding landscape and urban design context" It seems to me, however, that the purpose of the LUDMP, which Ms Thomson spells out in her para 9.47, is already implicit in designation condition NZTA.47 (b).
- 35 **Mr Lister** in his rebuttal addresses the concern of Ms Peake, who seeks certainty around the location and design of road furniture by way of condition, proposed by Ms Thomson to be added as clause (g) to designation condition NZTA.47.³⁵ **Mr Lister's** view is that such a change to the condition is not needed given the need for flexibility in responding to standards, that a 'principles' approach is appropriate, and that the ULDF principles for highway furniture³⁶ are

³⁴ Ibid, para 6.3.

³⁵ E Thomas, para 9.49.

³⁶ ULDF, pages 44-45.

suitable. I agree with him to the extent that tying down precise *locations* for road furniture in the LUDMP would not allow such flexibility, and may indeed mean later changes. However, I would support the inclusion of a developed *design* in the LUDMP, including for side and median barriers, lighting columns, sign gantries and signage posts, as the “coherent suite of highway furniture” envisaged in the ULDF,³⁷ together with their indicative locations.

Pedestrian levels of service (Elizabeth Shearer Thomas)

36 Ms Thomas comments on the likely changes to pedestrian Levels of Service (*LOS*) for roads north and south of the Project, the existing coastal road, and the new Link Roads. The roads to the north, south and along the coast are outside my area of scope to deal with.

37 Ms Thomas proposes conditions for the new Link Roads to ensure that:

37.1 Signalised intersections are well designed (leading to a high LOS);³⁸ and

37.2 Pedestrian facilities on roads that are not closed to pedestrians should fully meet the standards in the LTNZ Pedestrian Planning and Design Guide 2007 (*the Guide*).³⁹

38 I do not consider it necessary (or even possible) to condition ‘good’ design for signalised intersections or their approaches, given the design principles in the ULDF for merging the Waitangarua and Whitby Link Roads into the suburban environment, including for pedestrian and cycle amenity.⁴⁰ Figure 5.48 in the ULDF shows the concept design for the landscape treatment with an indicative road and footpath layout for the signalised Warspite Avenue junction. Together these provide appropriate guidance for the future detailed design of this intersection.

39 The Guide is a NZTA publication that contains principles, design advice and recommended design parameters for footpaths in different situations (eg. speed of vehicles, number of pedestrians). I find it a broad ranging, informative document to assist the design process, rather than a set of minimum standards to be met. Although the Guide’s stated purpose is to improve New Zealand’s walking environment nominally includes recreational paths,⁴¹ roads are the main focus of the document and the subject of the design

³⁷ Ibid, page 45.

³⁸ E Thomas, para 22.

³⁹ Ibid, para 23. The Guide is available at: <http://www.nzta.govt.nz/resources/pedestrian-planning-guide/>.

⁴⁰ ULDF, page 124.

⁴¹ The Guide, page 7.

parameters. I do not therefore see the Guide as particularly relevant to the detailed design of recreational shared paths in general, nor the Project off-road shared paths in particular.

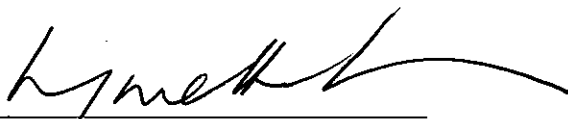
40 There are two Project areas where the design parameters in the Guide would usefully be applied: the reconfigured connection into Kenepuru Drive and the Porirua Link Roads:

40.1 With respect to the Kenepuru Drive connection, I have no issue with the Guide being referenced in designation condition NZTA.46, as a document that the LUDMP *shall be consistent with*, so long as it is clear that any 'standards' (as opposed to general design advice) are applicable only to the extent of the Kenepuru Link Road connection with Kenepuru Drive. I would note that the design of the pedestrian environment of the Kenepuru Link Road itself will also need to be agreed with PCC (infrastructure); and

40.2 The Porirua Link Roads will be developed by PCC and it will be for them to determine how the Guide is used. As described in the evidence in chief of **Mr Bailey** for the PCC (paragraphs 35-36) the Porirua Link Roads will be designed to Council technical standards, and footpaths, kerbside parking and space for services will be added as residential subdivision takes place. I understand that these standards are generally compatible with the advice in the Guide.

SECTION 42A REPORT

41 The section 42A Report comments briefly on the ULDF in relation to connectivity and movement, under the broader heading of social effects of the Project. It states that the recommendations in the ULDF relating to the design of the road and related features will need to be formalised by conditions of the designations.⁴² I agree to the extent my evidence suggests: and in my view the conditions (as proposed to be amended and as discussed in **Ms Rickard's** evidence and in the tracked change conditions) will support the design principles and concepts in the ULDF in informing the Project's detailed design.



Lynne Rosa Hancock
13 January 2012

⁴² Section 42A report, section 4.2.14, p. 54.