Before the Board of Inquiry
Waterview Connection Project

---

in the matter of: the Resource Management Act 1991

and

in the matter of: a Board of Inquiry appointed under s 149J of the Resource Management Act 1991 to decide notices of requirement and resource consent applications by the NZ Transport Agency for the Waterview Connection Project

Rebuttal evidence of **Lynne Hancock (urban design)** on behalf of the **NZ Transport Agency**

Dated: 2 February 2011

Hearing start date: 7 February 2011

REFERENCE: Suzanne Janissen (suzanne.janissen@chapmantripp.com)
Cameron Law (cameron.law@chapmantripp.com)

Chapman Tripp
T: +64 9 357 9000
F: +64 9 357 9099

23 Albert Street
PO Box 2206, Auckland 1140
New Zealand

www.chapmantripp.com
Auckland, Wellington,
Christchurch

INDEX

REBUTTAL EVIDENCE OF LYNNE HANCOCK ON BEHALF OF THE NZ TRANSPORT AGENCY

INTRODUCTION

1 My full name is Lynne Rosa Hancock. I refer the Board of Inquiry to the statement of my qualifications and experience set out in my evidence in chief (*EIC*) (dated 12 November 2010).

2 I repeat the confirmation given in that statement that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court.

PURPOSE OF EVIDENCE

3 The purpose of this rebuttal evidence is to respond to certain aspects of the evidence lodged by submitters, specifically by:

3.1 Ms Melean Absolum (Submitter No. 167-1).

3.2 Mr Dennis Scott (Submitter No. 111-8);

3.3 Ms Tania Richmond (Submitter No. 111-14);

3.4 Ms Wendy John (Submitter No. 179-1);

3.5 Ms Bronwyn Rhynd (Submitter No. 179-1);

3.6 Ms Barbara Cuthbert (Submitter No. 79-1)

3.7 Mr Errol Haarhoff (Submitter No. 185-1);

3.8 Ms Margaret Watson (Submitter No. 252-1);

3.9 Ms Belinda Chase (Submitter No. 126-1);

3.10 Mr Duncan McKenzie (Submitter No. 167-3);

3.11 Mr Bill Mackay (Submitter No. 185-1);

3.12 Mr David Shearer (Submitter No. 178-1);

3.13 Ms Louise Taylor & Mr William Aldworth (Submitter No. 2001-1);

3.14 Ms Shirley Upton & Ms Karen Brown (Submitter No. 103-1); and

3.15 The Vipond Family Trust (Submitter No. 100-1).

4 My evidence is structured around specific issues as a number of submitters have raised the same issue in places.

5 In addition, within this rebuttal I comment on aspects of the section 42A Reports prepared by Environmental Management Services (*EMS*), where relevant.[1]

6 I attended the expert landscape and visual caucusing session held on 26 January 2011 and the open space expert caucusing session held on 27 January. I will refer to caucusing outcomes where relevant in this rebuttal (though I note that as at the time of finalising my rebuttal, a second open space session is scheduled for 2 February 2011 and the final reports had not yet been signed).

EXTENT OF PLANTING AROUND NORTH VENT BUILDING (Dennis Scott, Melean Absolum)

7 Mr Scott and Ms Absolum propose additional large scale planting around the north vent buildings.[2] While I am in support of providing as much planting as possible on the area remaining, I note the obvious constraint here is the extent of underground structures, which reduce the available soil depth for planting. This was discussed in the landscape and visual caucus where it was agreed that is it desirable to achieve as many large scale specimen trees as possible around the portal buildings to provide a backdrop and moderate the apparent scale of the vent stack. Revised Plan Number F16:217 therefore shows the additional planting proposed with the Construkt design concept for the northern vent buildings.[3]

8 Mr Scott also recommends extending the urban forest concept as far as Oakley Avenue.[4] I do not support that proposal. It would undermine the potential to return nos. 1445 – 1449 Great North Road to residential use post-construction, which is a positive outcome of the reduced footprint resulting from the revised design concept. In my opinion, reintroduction of active uses on that land would frame and strengthen the corner, tie back into the Oakley Avenue built character, and somewhat reduce the 'urban gap'.

9 In caucusing[5] it was agreed that it is it appropriate to re-establish a residential interface on the corner of Oakley Avenue.

---

1 Being the initial report dated 7 December 2010) (*Section 42A Report*) and the Addendum Report dated 20 December 2010 (*Addendum Report*).

2 D Scott (Submitter No.111-8) paragraph 5.44-5.45, M Absolum (Submitter No.167-1) paragraph 3.21-3.22.

3 This revised plan is contained in **Annexure A** to my rebuttal evidence. (UDL Plan sheet F16:217, Rev C).

4 D Scott (Submitter No.111-8) paragraph 5.44.

5 Landscape and visual expert caucus 26 January 2011.

MAINTENANCE ISSUES FOR FORMAL EDGE PLANTING (Tania Richmond, Dennis Scott)

10 Ms Richmond and Mr Scott agree that the edge planting at Waterview (labelled 'amenity planting' on the Urban Design and Landscape Plans[6]) "serves a high aesthetic function" but are concerned about maintenance.[7]

11 As noted in my EIC,[8] coastal forest planting is predominant, with edge planting used only as a transitional buffer from the motorway. Flax is proposed for these buffer areas. Planted at the specified centres (500cm – 1m), it will 'bunch' up, suppressing weeds and requiring little maintenance apart from trimming along the motorway edge. Were larger trees planted to the edge, they would over time require pruning, which would likely result in a 'modified' appearance at odds with the urban forest concept.

MAINTENANCE PERIOD FOR PLANTING (Dennis Scott, Wendy John)

12 Mr Scott and Ms John both express concern about the long term performance of the proposed landscape planting, if not maintained.[9] During expert caucusing, Mr Scott promoted a maintenance period of 10 years. The NZTA's Mr Andre Walter indicated that this was consistent with the DCMO (Design, Construct, Maintain and Operate) contract timeframe for the tunnels. The experts present at caucusing supported the proposed landscape and visual condition LV.5 to be amended thus:

> The landscaping shall be implemented in accordance with the UDL Plans within the first planting season following the completion of the construction works provided that climatic conditions are suitable, otherwise at the first practicable opportunity thereafter, and shall be maintained for the next ~~2~~ 10 years thereafter. Should the landscaping be implemented in stages (depending on construction phases), landscaping may be implemented after the first planting season of each stage.[10]

---

6 AEE, Part F, Plan No. F16:226 shows all amenity planting areas, coloured orange.

7 T Richmond (Submitter no. 111-14) paragraph 5.38; D Scott (Submitter No.111-8) paragraph 5.41.

8 My EIC, paragraph 173.

9 D Scott (Submitter No. 111-8) paragraph 3.17(d) and W John (Submitter No. 179-1) paragraph 13.1.

10 As noted earlier, at the time of finalising my rebuttal evidence, the joint expert statement had not been signed.

MORE DIVERSITY OF PLANTING IN RAIL CORRIDOR (Wendy John)

13 Ms John[11] questions whether flax species might not be supplemented with other native species that are equally easy to remove in the rail designation (until such time as the railway is developed), on the basis of greater biodiversity and improved habitat values. I note that Mr Buchanan, for KiwiRail, supports the proposed flax plantings on the basis of their easy removal, "as opposed to major incompatible plantings".[12] That comment would appear to open the way for the introduction of other species that share the ability of the flax to be easily removed. I understand from subsequent discussion with KiwiRail's Pam Butler that additional species could be accommodated as temporary planting provided they do not preclude the future use by KiwiRail of its land for rail. I therefore support an annotation to the UDL Plans F16:219-223 to the effect that planting in the proposed rail corridor will include low growing native species.[13]

NO PLANTING IN RAIL CORRIDOR AROUND FUTURE OAKLEY CREEK DIVERSION (Wendy John)

14 Ms John[14] seeks a revision of Plan No. F16:223 to show no planting in the rail corridor around the existing Oakley Creek alignment behind 170-188 Stoddard Road: that is, the part of the Creek that will be diverted to accommodate rail in the future.

15 Ms John is correct that diverting the Stoddard tributary is not envisaged to happen until the railway is built;[15] rather it has been included in the present application so that there is no impediment to KiwiRail developing the rail corridor in the future. That being the case, Plan No. F16:223 has been revised to clarify that the Oakley Creek diversion is a future diversion, as Ms John suggests, and that in the interim riparian planting (not flax) is proposed around it within the rail designation.[16]

---

[11] W John (Submitter No.179-1) paragraph 6.7-6.8.

[12] N Buchanan (Submitter No. 164-2), paragraph 3.7).

[13] That annotation is now included (Annexure B).

[14] W John (Submitter No.179-1) paragraph 11.7-11.8.

[15] Stormwater and streamworks Drawing 20.1.11-3-D-D-399-119 and in the evidence of Dr Tim Fisher, as Ms John notes.

[16] Refer **Annexure B** - Revised UDL Plan No. F16:223, plan note 6. Annexure B contains a set of UDL Plans Nos. F16: 210 – 213, 218-224 and 229.

RE-CREATE OAKLEY CREEK FEATURES (Wendy John)

16 Ms John[17] seeks re-creation of the basalt columns downstream of the Oakley Creek tributary that will be lost through motorway construction or stream re-alignment, on the basis of their heritage value. The locations of both the columnar basalt and broken basalt outcrops have been mapped and are shown in **Annexure C**.[18] Dr Clough comments that while of geological interest, the columns are not historic heritage and from that perspective the re-creation of those features lost would not be necessary.[19] I consider that the remaining columns (at Location A on the annexure) will contribute positively to the open space character and can be incorporated into the landscape design for Oakley Creek. Accordingly Plan No. F16:221 has been updated with a note identifying the columnar basalt to be retained. An 'open' rather than densely planted character to the creek in this location is proposed, to enable visual appreciation of this feature.[20]

ISSUE: REHABILITATION PLAN FOR SUB SOIL STRATA (Bronwyn Rhynd)

17 Ms Rhynd[21] proposes a condition for a rehabilitation plan for sub soil strata to be included with the Urban Design and Landscape Plans. Mr Fisher supports this as consistent with standard post-construction best practice[22] and I understand that there was agreement from the Stormwater Expert Caucus that such a condition should be included. This will be a new Landscape and Visual condition LV.9:

> The NZTA shall ensure that open space areas affected by construction activities have sub-soil rehabilitated and top-soil replaced so that the hydrological response, including the volume of stormwater runoff generated, is as close as practicable to the predevelopment situation. The methodologies to achieve this shall be documented in the UDL Plans.

---

17 W John (Submitter No.179-1) paragraph 11.10.

18 **Annexure C** – Oakley Creek Columnar Basalt. The positions as indicated are as accurate as the hand-held GPS unit used.

19 Rod Clough rebuttal, paragraph 19-20

20 Refer **Annexure B** - Revised UDL Plan No. F16:221.

21 B Rhynd (Submitter No.179-1), paragraphs 9.8-9.9.

22 Tim Fisher rebuttal evidence.

CYCLE / PEDESTRIAN PATHS
(Barbara Cuthbert)

18 Ms Cuthbert for Cycle Action suggests a number of changes to the location and design of cycle routes through the Project. While my rebuttal evidence will address issues relating to connectivity, I note that connectivity is also a focus of the Open Space Expert Caucus and discussion is not complete at the time of writing this rebuttal.

19 Ms Cuthbert seeks better connectivity for walking and cycling through appropriately designed (grade and width) paths. This includes widening the approaches from the local street network where possible to accommodate cycles as well as pedestrians.[23] In caucus,[24] in-principle agreement was reached by the open space experts on the treatment of a number of connections that I discuss below.

20 All pedestrian paths will be widened from 1.5m to 1.8m, in accordance with Auckland Council standards.[25]

Sector 5

21 The expert caucus session has agreed that the 'Eric Armishaw' link alongside the SH16 eastbound off ramp to Great North Road will be widened from 1.5m to 3 metres.[26] Subject to consultation with residents, up to three connections can be provided from the shared path up to the adjoining local streets (Montrose, Alberta and Berridge). If the gradient is too steep for bicycles, then I recommend that a 'bike ramp' alongside pedestrian stairs should be considered as part of detail design.

22 Cycle Action in its original submission requested that paths through the Star Mill site accommodate cyclists.[27] This was discussed at the expert caucus session. I do not support this. It would, in my opinion, seriously compromise the quality of the heritage experience as well as potentially create pedestrian-cycle conflict. The winding pathways are intended for meandering and appreciation of the heritage site – that is, a walking pace. There are also stairs linking the northern part of this path network to the cycleway (due to the steep topography). During open space expert caucusing, it was therefore agreed that these should remain pedestrian paths.[28]

---

[23] B Cuthbert (Submitter No. 79-1), paragraph 5(b).

[24] Open Space Expert Caucus session 1 on 27 January 2011 which I attended. Joint expert statement yet to be signed as of date of my rebuttal evidence.

[25] This change is now shown on the drawing set: PT & Active Mode Transport Routes: Existing and Proposed, number: 20.1.11-3-D-N-903-100 to 119, dated 27.01.2011, and the revised UDL Plans in **Annexure B**.

[26] See Revised UDL Plan No. F16:211 (Annexure B).

[27] Cycle Action submission, Section 4.5.

[28] Open Space Expert Caucus Session 1 on27 January 2011.

Sectors 5 and 7

23 Cycle Action in its original submission sought reinstatement of the Great North Road western footpath to a widened shared path between Herdman Street and the Great North Road Interchange.[29] This was also identified in the section 42A Report as an opportunity.[30]

24 I am very supportive of this change, not only because it offers an alternative cycle route, but also (for CPTED reasons) because it will result in more people moving along this side of the street, in an area where loss of housing will otherwise see loss of street activity. During open space expert caucusing, it was agreed to widen the western footpath to a minimum 3m shared path in this location. This is shown on the revised UDL Plan Nos. 212 and 217.[31]

Sector 9

25 The following connections were agreed during expert open space caucusing to be suitable for widening from pedestrian paths to shared (pedestrian/cycle) paths:

25.1 Path running behind the southern vent building (to the extent of the designation;[32] and

25.2 Path linking Barrymore Road (off Hendon Avenue) to the Hendon Bridge.[33]

26 Widening the minor entries from Valonia Street[34] is not seen as appropriate given that the paths follow a somewhat circuitous link to the main cycleway and because of likely heavy pedestrian use associated with the future sportsfields. The expert open space caucusing agreed that it would be beneficial to introduce a separate pedestrian path alongside the cycleway where it runs behind the Valonia Street car park, to minimise the potential for pedestrian cycle conflicts at busy times. While this is a matter for future detail design, I understand that the intent is to be reflected in the Open Space conditions.

---

[29] Cycle Action submission, Section 4.5.

[30] S42A Report, section 10.8.98.

[31] Revised UDL Plan Nos. F16:212 and 217 (Annexure B).

[32] Revised UDL Plan No. F16:219 (Annexure B).

[33] Revised UDL Plan No. F16:222 (Annexure B).

[34] Revised UDL Plan No. F16:221 (Annexure B).

CONNECTIVITY AND AMENITY: NEW PEDESTRIAN / CYCLE BRIDGE BETWEEN WATERVIEW AND POINT CHEVALIER (Margaret Watson, Belinda Chase, Errol Haarhoff, Duncan McKenzie, Bill Mackay, David Shearer, Louise Taylor & William Aldworth, Shirley Upton & Karen Brown)

27 A number of submitters propose or support the construction of a new pedestrian/cycle bridge between Waterview and Eric Armishaw Reserve.[35] I do not support this bridge.

28 Generally submissions were on the basis of restoring the historical severance created by SH16 between Waterview and the public open space at Eric Armishaw reserve and beach, as mitigation for the loss of Waterview Park. Mr David Little in his rebuttal evidence has addressed the issue of the perceived loss of local open space and concludes for a number of reasons that this bridge is not appropriate mitigation.[36]

29 The submitters also promote this new bridge as a means of providing safe and direct access between Waterview and the public spaces at Point Chevalier. Again, Mr Little's rebuttal evidence addresses the improved connectivity in the open space network provided by the Project, including through the Great North Road Interchange by means of the additional cycle/ pedestrian link alongside the existing northbound SH16 off ramp. I note the finding of the s42A Report that the design does provide for pedestrian accessibility between the Oakley Heritage Precinct and the northern side of the interchange. The Report goes on to prefer an enhancement of this link to provide for cycle connection to Point Chevalier instead of a new bridge link.[37] I consider that this is achieved by the widening to a shared path of the 'Eric Armishaw' discussed above in paras 23-24 and shown on revised Plan No. F16:211.[38]

30 In relation to safety (and the perception of safety), I would add that if a new bridge was built either in the location preferred by Ms Watson[39] or that by Professor Haarhoff and Mr McKenzie,[40] such a bridge would need to be some 360 – 380m long. I consider this could create an uncomfortable pedestrian environment, with the bridge 'feeling' narrow in relation to its considerable length unless it

---

35 M Watson (Submitter No. 252-1), B Chase (126-1), E Haarhoff (167 & 185-1), D McKenzie (167-3), B Mckay (185-1) paragraph 8.3, D Shearer (178-1), L Taylor & W Aldworth (200-1) and S Upton & K Brown (103-1).

36 David Little rebuttal, paragraph 24-26.

37 Section 42A Report, Section 10.6.35.

38 Revised UDL Plan No. F16:21 (Annexure B).

39 From Herrington Street, Waterview to immediately north of SH16 (indicative) as per M Watson's Attachment 1.

40 From Waterview Esplanade into Eric Armishaw Park (indicative) as per E Haarhoff's Figure 2 (which is the same diagram as D McKenzie's Attachment 2).

were generously proportioned.[41] That would then require a very significant bridge structure. Even breaking up this length with a connection to the SH16 cycleway, there would remain some 250m to travel, with no escape route options, before the bridge could 'land' north of SH16. I am sceptical too that the southern landing could be located in such a way that the bridge, as Professor Haarhoff suggests,[42] could have a "transformative effect" on the Waterview suburb. In my view this connection would require significant reconfiguration of the streets, lots and walkway space. Even then, access remains at the edge and at risk of being somewhat isolated from the Waterview neighbourhood.

CONNECTIVITY AND AMENITY: NEW PEDESTRIAN / CYCLE BRIDGE FROM WATERVIEW TO UNITEC (ALFORD BRIDGE) (Margaret Watson, Belinda Chase, Errol Haarhoff, Duncan McKenzie, Bill Mackay, David Shearer)

31 A number of submitters who requested the Waterview to Point Chevalier bridge also request provision of the Alford bridge, [43] for similar reasons of providing access for the Waterview residents to nearby public spaces and facilities. The Alford bridge is also seen to facilitate a more pleasant connection to the Point Chevalier shops than the walk along Great North Road and through the Interchange.[44]

32 I agree with the submitters that an 'at grade' bridge would provide a pleasant alternative to the existing low-level bridge over Oakley Creek. It would benefit from good visual connection back to Great North Road as well as into the Unitec site and, being relatively level, it would be more accessible than the existing path network.

33 However, as Professor Haarhoff acknowledges, this would be an alternative route rather than the only route.[45] In addition to improved pedestrian and cycle connections through the Great North Road Interchange, the Project now provides for a shared path along the western side of Great North Road and in my view this will further improve the walking and cycling environment.[46]

34 I also note that the walk through the Unitec grounds from roughly opposite Alford Street to the Point Chevalier shops is little more direct than using Great North Road itself (as shown in the attached

---

41 For comparison, the Millennium Bridge in London is 370m long and 4m wide; 400m long bridges in Brisbane and Kiev are respectively 6.5m and 7m wide.

42 E Haarhoff (Submitter No. 167-1), paragraph 6.7(1).

43 M Watson (Submitter No. 252-1), B Chase (126-1), E Haarhoff (167 & 185-1), D McKenzie (167-3), B Mckay (185-1) paragraph 8.3, D Shearer (178-1).

44 See E Haarhoff, (Submitter No.185-1), Figure 2: Connectivity, numbered '2' on the plan.

45 E Haarhoff (Submitter No.185-1), paragraph 6.7(2).

46 Revised UDL Plan Nos. F16:212 and 217 (Annexure B).

diagram);[47] and currently it is not well overlooked or connected into other uses. Therefore, while I acknowledge the submitters' desire for a bridge in this location, I see it as a longer term aspiration, ideally designed and delivered by stakeholders (including Auckland Council and Unitec) in an integrated way with Unitec's future campus planning.

EXTEND HENDON BRIDGE
(Errol Haarhoff)

35 Professor Haarhoff recommends extending the Hendon Bridge to Methuen Road to benefit the New Windsor community.[48] The bridge has been designed to link two parts of Alan Wood Reserve across the proposed SH20 motorway and future rail corridor.[49]

36 As Professor Haarhoff says,[50] his proposed extension would need to be through houses, meaning it would either have to be by way of existing shared driveway access (for example, between Nos. 192/196 and 194/198 Methuen Road) with some additional land 'take' through back gardens, or would require acquisition of two properties if on alignment with the bridge. The bridge structure would also need to be larger and more complex. I do not agree that this is a "small extension" given that it would include bridging Oakley Creek and link to an approximately 80 metre long access way from Methuen Road. Further, this extended connection arguably would be of limited benefit to the whole community; New Windsor Road / Batkin Road residents will be equally well served by access through Valonia Street to Hendon Park, with a similar travel distance to a Methuen Road link.

DELETE PEDESTRIAN BRIDGE TO OAKLEY INLET HERITAGE AREA (Wendy John)

37 The Friends of Oakley Creek wish to minimise impacts on this heritage site by limiting access, including removing the proposed pedestrian bridge over Oakley Creek.[51] I disagree with that suggestion as it this is entirely contrary to the purpose of the bridge, which is to extend the walking network, increase access opportunities, and provide for greater appreciation and enjoyment of the site (which straddles both sides of the creek). In general, improved pedestrian connectivity is likely to result in increased usage and with it, improved natural surveillance. Moreover, Dr Rod

---

47 Refer **Annexure D**, Indicative Walk to Pt Chevalier Shops.

48 E Haarhoff (Submitter No.185-1), paragraph 6.7(6).

49 See E Haarhoff, (Submitter No.185-1), Figure 2: Connectivity, numbered '6' on the plan. See also revised UDL Plan No. F16:221 (Annexure B).

50 E Haarhoff (Submitter No.185-1), paragraph 6.7(6).

51 W John (Submitter No.179-1) paragraph 14.1.

Clough does not consider there is a high risk of degradation to the heritage site through public access.[52]

38 I do not therefore support removing this bridge.

39 I do acknowledge the s42A Report's suggestion that a CPTED (Crime Prevention Through Environmental Design) review of the design would be appropriate.[53] I agree this would be of benefit and note that such a review is typically and appropriately undertaken at detail design stage.

40 During the Open Space Expert Caucus, all experts agreed that the pedestrian paths and bridge should remain connecting to and within the Heritage Area.

BARRIER TO EXISTING SH16 EASTBOUND OFFRAMP TO GREAT NORTH ROAD (Vipond Family Trust)

41 Mr Deane Vipond suggests extending the barrier as a retaining wall to reduce light and noise on 9 Berridge Avenue, Point Chevalier from the existing off ramp, and to reduce noise from future increased traffic.[54] He also proposes backfilling behind this barrier. The extension suggested by Mr Vipond is located on the northernmost existing circular ramp of the Great North Road Interchange, and is shown (coloured light blue) overlaid on UDL Plan No. F16:211 attached as **Annexure E**.[55]

42 This proposal raises a number of issues relating to other experts and I have canvassed them to provide an integrated response below.

43 *In relation to the amount of traffic:* I have been advised by Mr Andrew Murray that the traffic modelling shows that a significant reduction in traffic is expected on the eastbound off ramp to Great North Road as a result of the Project. He advises that traffic flows in 2026 are expected to be 16,200 vehicles per day (vpd) without the Project, but only 7,900 vpd if the Project is in place. This would result in flows even less than the current flows of some 10,700 vpd.[56] In other words with the Project there will be less headlight glare and noise from the existing off ramp than currently exists.

44 *In relation to noise:* I have been advised by Ms Siiri Wilkening that a 2m barrier would provide a small benefit to the ground floors of 9 Berridge Ave and that upper floors would require something in the

[52] Rod Clough rebuttal, paragraph 11-15.

[53] Section 42A Report, section 10.6.36.

[54] Vipond Family Trust (Submitter No. 1001-1), paragraph 5(a).

[55] **Annexure E**, Eastbound Ramp GNR Interchange – Noise Barrier - Submitter Suggestion.

[56] This pattern of reduction is shown in Annexure D of Mr Murray's EIC.

order of a 4m barrier to get a noticeable noise reduction now and in the future (with or without the Project).[57]

45 *In relation to light:* This area is proposed for intensive (evergreen) native planting. With Mr Geoff Waller (NZTA's lighting expert), I consider that in time this vegetation will effectively screen light from the motorway. Instant cover could be provided by introducing mature specimens at key locations. This is now proposed in revised UDL Plan No. F16:211 by way of an annotation.[58] The exact location of these trees is a matter for detail design.

46 I now discuss the barrier in relation to the proposed new cycleway shown on Annexure D, alongside the off ramp. Mr Vipond suggests that the 2m high barrier he proposes would double as a retaining wall. However, the cycleway would then need to be located atop this wall, with a safety fence between it and the motorway. In my opinion, the additional structure proposed by Mr Vipond would create quite a different character from the relatively open, 'green corridor' urban design concept for SH16 and I consider that it would be to the detriment of the Project.

47 Additionally, I have been advised by Dr Tim Fisher that there is a drainage swale north of the off ramp and that raising the ground may interfere with that swale and require further engineering.

48 On balance I consider the benefit of Mr Vipond's proposed barrier to be slight and outweighed by various factors, including the increased complexity in modifying the landform and creating a 'harder' and more complex edge to the motorway.

STREETSCAPE TO ALWYN AVENUE
(Dennis Scott)

49 Mr Scott advocates for reconsideration of the design of the noise bund and planting between SH16 and Alwyn Avenue.[59] This issue is also raised in the Section 42A Addendum Report,[60] and in the evidence of other submitters.[61]

---

57 See Siiri Wilkening rebuttal evidence, paragraph 32.

58 Revised UDL Plan No. F16:211 (Annexure B)

59 D Scott (Submitter No.111-8) paragraph 5.15; See AEE, Part F, UDL Plan No. F16:203.

60 Section 10.2.31 ("we consider that there is an opportunity to improve the design to accommodate the residents' concerns and the appropriate design experts should give further consideration to this in evidence").

61 Submitter Nos. 38 (Aaron and Fiona Bridges), 46 (Maarten Witsenburg), 73 (Walter and Christine Maurice), 124 (Blayne and Rochelle Kriletich).

50 In agreeing that there is (albeit limited) scope for this, I first correct a misattribution in my EIC[62] of the shallower slope 'belonging' to Alwyn Avenue rather than the motorway. The latter is correct.

51 I note that there are various constraints on modifying the shape of the noise bund. For example, its proposed height, varying from 2 – 3 metres is, I understand, in response to noise mitigation requirements.[63] The slope to the motorway has been generally designed at 1:3, which I understand was in response to engineering requirements.

52 I understand from Mr Walter that the bund can be slightly reshaped or extended within acceptable engineering parameters and that there can be a slight refinement of the design to create a 'softer' profile to Alwyn Street and allow for more varied planting of shrubs than the current 1:1 slope would support. I attach an indicative concept section showing how this might be achieved.[64]

53 I note however that there is no inconsistency between this indicative section and the UDL Plan No. F16:203 as lodged, and that no adjustment to that Plan is required. Rather this will be a matter for detail design.

54 In her EIC,[65] Ms Siiri Wilkening noted that reversing the noise bund (as requested by the submitters) would make no noticeable difference to the predicted noise levels. I have confirmed with Ms Wilkenning that changing the profile, so long as the height is the same, would likewise provide the same degree of noise mitigation.

Lynne Hancock
February 2011

62 My EIC, paragraph 161.

63 See Appendix A: Preferred Mitigation Options in Siiri Wilkening's EIC.

64 See **Annexure F** Concept section for revised Alwyn Avenue noise bund design and comparison with the current section (from the Urban and Landscape Design Framework).

65 Siiri Wilkening EIC (Operational Noise), paragraph 111.

ANNEXURE A - REVISED PLAN NO. F16:217

Drawing Plotted: $

GENERAL NOTES:

This plan is not to be used as a construction drawing, and shall be read in conjunction with the civil, structural, architectural and stormwater drawing packages. These sheets illustrate the landscape concept only, and detailed design may alter the extent or location of proposed built elements.
The notes for these drawings refer to those proposed by NZTA (plan notes) and those to be confirmed through the management plan approach, working with Council and others. Colour denotes proposed work within the designation or consent applications.

PLAN NOTES:

1. Herdman St corner to be bunded up at around 1 in 7 from edge of footpath to reduce visible height of building, visually softening the corner profile. Bund to be vegetated with mass planted, low growing native specimens - suggest *Phormium* 'Green Dwarf', subject to detailed design.
2. Grove of small-medium height trees screen bulk of building from school site to the west. Trees to be underplanted with massed low growing native species as per note 1.
3. Mature, established tree specimen to be transplanted (from other sectors of the project if possible), to provide immediate vertical scale to the landscape and offset the vertical scale and bulk of the structure. Tree to be c4-6m at initial planting.
4. Dotted line indicates submerged water tanks.
5. Ventilation stack, refer architectural plans.
6. Central courtyard almost completely invisible from outside of the site. Treatment of this area to be worked up as developed design of the building progresses, recommended to be recycled brick or crushed concrete.
7. Seven carparks provided at the southern end of the building to provide for day to day operations. Surfacing to match the one-way access through the building.
8. 2m height solid boundary fence blocks low views towards building from adjacent school. Fence to be lined with closely spaced small-medium trees as shown (species tbc). Underground building restricts available planting space in this area to that shown (refer architectural plans).
9. 400mm of topsoil to be placed above tanked waterproof roof structure of building below, to allow for low shrub planting in these areas, drainage and final levels to be confirmed. Low nib walls define this area, material to match adjacent building 'skin'. Colourful bands refer to mass planted low native planting, mixture of 3 species in organic bands to contrast linear forms of building as shown. Suggested species *Astelia banksii, Phormium* 'Black Rage' and *Phormium* 'Green Dwarf', subject to detailed design.
10. One way operational access runs from Great North Road through the building, and exits onto Herdman St.
11. Footpath realigned as shown, to allow a c2m footpath adjacent to the site and a c2m 'front berm' separating pedestrians from the traffic lane, vegetated with mass planted low-growing native shrub species. Suggest *Phormium* 'Green Dwarf', subject to detailed design.
12. Grove of medium-large trees planted on sloping berms in front of proposed security screens, to soften views into the service courtyards beyond. Single species low native underplanting as per note 1.
13. Existing bus stop retained in original location.
14. Corner site bunded up at 1 in 5 from edge of footpath to partially screen views towards the tunnel portal. Bund to be planted with mass-planted vegetation, as per note 1.
15. Security fencing wraps around tunnel portal, details to be worked up in consultation with artist, taking into account this site's strategic and highly visible location on Great North Road.
16. Investigate minor realignment of property line as part of divestment process to allow for wider footpath in this area, improving the pedestrian experience along this block (dotted line at this point indicates existing fence line).

No.	Revision	By	Chk	Appd	Date
C	REVISED FOR REBUTTAL EVIDENCE	DL/NR			31.01.11
B	ISSUE FOR STATUTORY APPROVAL	JJ			04.08.10
A	ISSUE FOR SRT/NZTA REVIEW	JJ			18.06.10

Drawing Originator: STEPHEN BROWN ENVIRONMENTS LTD

Original Scale (A1) 1:750
Reduced Scale (A3) 1:1500

Designer	DL
Reviewer	DL/NR
Drafting Checked	
Consultant Approval	AL

NZ TRANSPORT AGENCY
WAKA KOTAHI

Project: WATERVIEW CONNECTION PROJECT
SH16 / SH20

Title: URBAN DESIGN AND LANDSCAPE PLANS SHEET 217

Base level: MSL AUCK. VERT. DATUM 1946
Grid Reference: MT EDEN 2000
Originator No.
Project No. 20.1.11-3-D-L-810-217
Rev. C

Document No.

DO NOT SCALE

IF IN DOUBT ASK.

ANNEXURE C – OAKLEY CREEK COLUMNAR BASALT

A

B

Boffa Miskell
www.boffamiskell.co.nz

N

0 20 Meters

1:1,500 @ A3

Projection: NZGD 2000 Mount Eden Circuit
Data Sources: Boffa Miskell, Auckland Council, Aurecon, Tonkin and Taylor

Legend

- Columnar Basalt
- Broken Columnar Basalt
- Footprint

X 208955 SH20 MODEL

Layer

- 0_0_PROPOSED CYCLEWAY
- D-FENC-PEDN
- D-KERB-BACK
- D-LMRK-CONT
- D-LMRK-EDGE
- D-LMRK-LANE
- D-PAVE-EDGE
- E-KERB-BACK
- EXISTING_CYCLEWAY
- Bridge over oakley creek
- Stream realignment outline

A09178

Oakley Creek Columnar Basalt

| Date: 21 January 2011 | Revision: 0 |

Plan Prepared for XXXXX by Boffa Miskell Limited

Author: nicole.sutton@boffamiskell.co.nz | *Checked:* XXX XXXX

ANNEXURE D – INDICATIVE WALK TO PT CHEVALIER SHOPS

walk along existing footpaths / shared path (by most direct route)

walk along existing footpaths (through interchange)

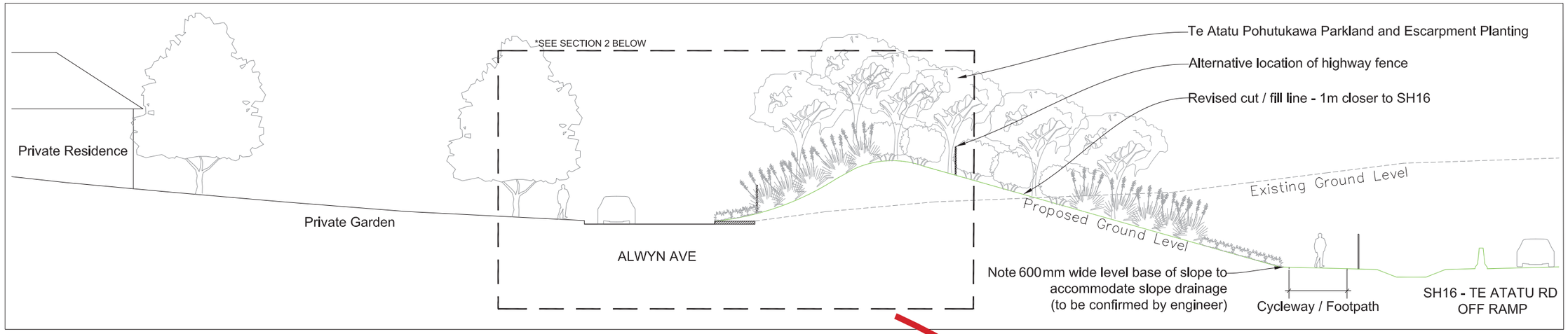
walk through Unitec if a bridge linked across to Great North Road near Alford Street (by most direct route)

Indicative walk between Alford Street and Point Chevalier shops

ANNEXURE E - EASTBOUND RAMP GNR INTERCHANGE

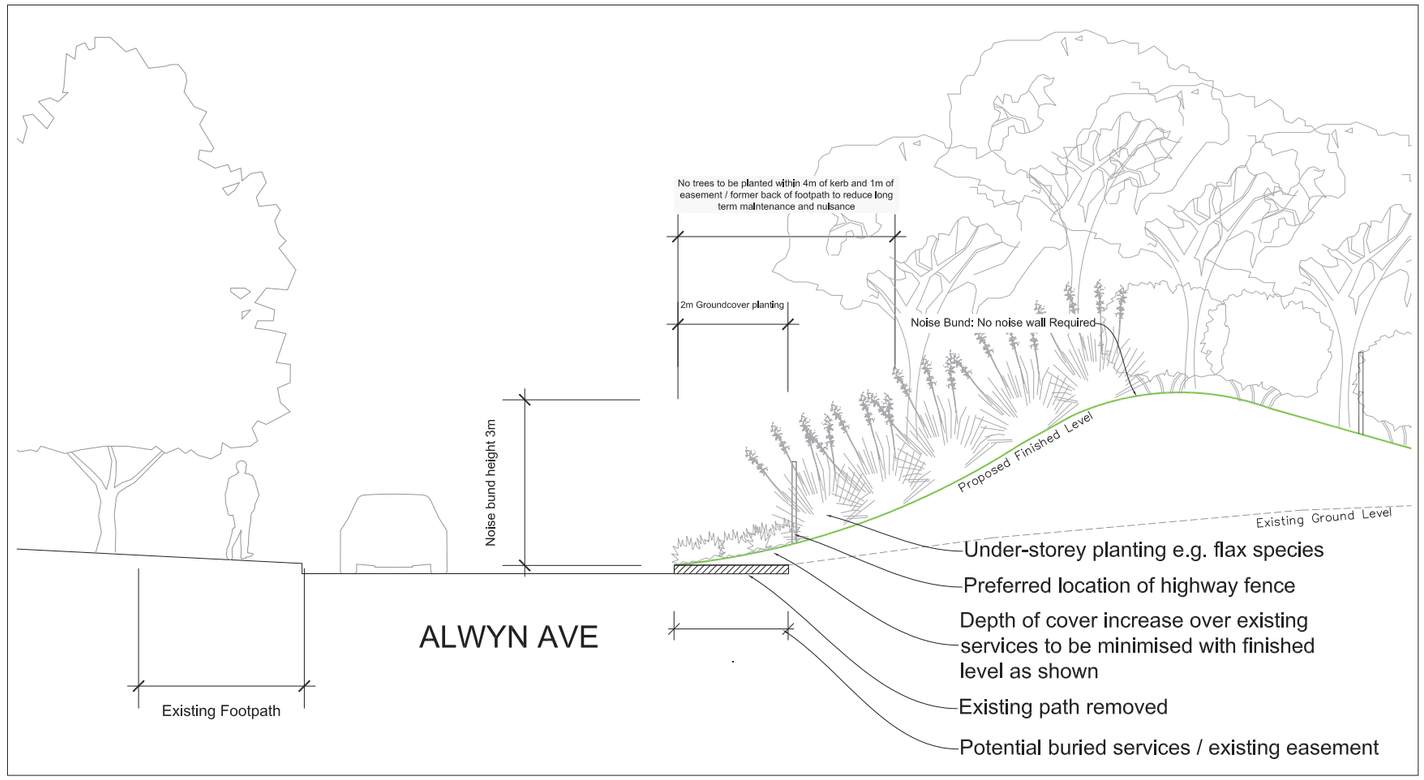
Eastbound Ramp GNR Interchange
Noise Barrier – Submitter Suggestion
(overlaid on Plan No. F16:211)

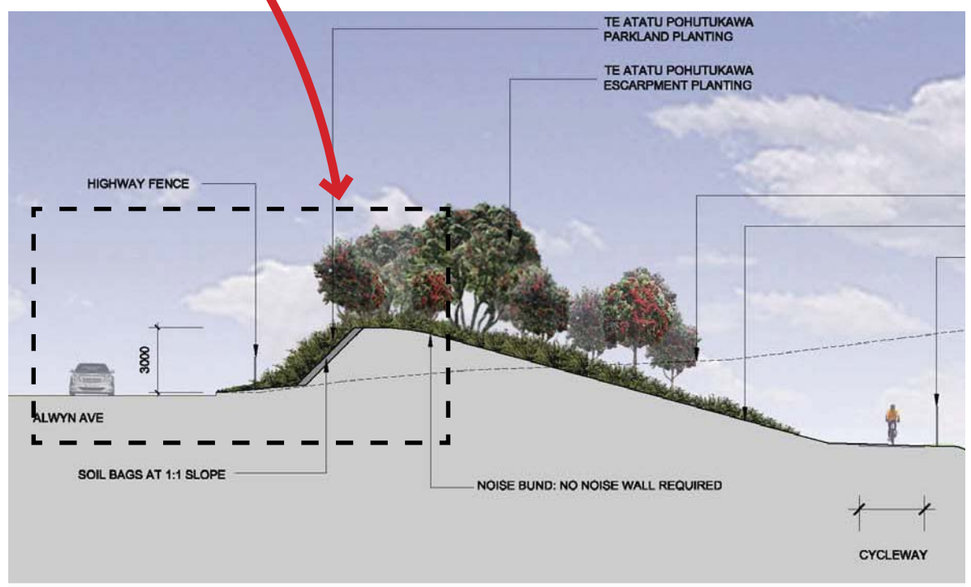
ANNEXURE F – CONCEPT SECTION FOR REVISED ALWYN AVENUE BUND DESIGN



1 1:100 TYPICAL SECTION SHOWING RELATIVE SCALE OF NOISE BUND

2 1:50 DETAIL SECTION OF NOISE BUND





Western Ring Route - Waterview Connection
Sketch Alternative Section for Alwyn Avenue

above: original indicative section shown in Urban and Landscape Design Framework (non-lodged document) and attached to submitter evidence