

AUCKLAND UNITARY PLAN  
INDEPENDENT HEARINGS PANEL

*Te Paepae Kaiwawao Motuhake o te Mahere Kotahitanga o Tāmaki Makaurau*

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Report to Auckland Council  
Hearing topic 074 Designations

New Zealand Transport Agency  
Auckland Council Submissions

Attachment 1

May 2016

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**Report first prepared by Murray Kivell in accordance with the Auckland Unitary Plan Independent Hearing Panel procedure and in accordance with section 142 of the Local Government (Auckland Transitional Provisions) Act 2010, on 13 October 2015 and updated 18 December and 22 February 2016.**

**Adopted as Auckland Unitary Plan Independent Hearings Panel recommendations in accordance with the Auckland Unitary Plan Independent Hearing Panel procedure and in accordance with section 144 of the Local Government (Auckland Transitional Provisions) Act 2010 on date of signature.**

# Attachment 1 changes to text of the Proposed Auckland Unitary Plan

PART 7 - DESIGNATIONS»Schedules and Designations»

## New Zealand Transport Agency

### Designation Schedule - New Zealand Transport Agency

Number	Purpose	Location
...	...	...
6708	South Western Motorway (State Highway 20)	State Highway 20 from (1) east of Great South Road, Manukau City Centre to Cavendish Drive interchange, Wiri and from (2) Massey Road to Walmsley Road, Mangere
...	...	...
6759	Motorway	State Highway 1 Silverdale interchange to Wainui Road bridge, Silverdale <del>State Highway 1, Silverdale interchange, Silverdale</del>
...	...	...

#### 6708 State Highway 20 - Manukau City to Wiri and Mangere

Designation Number	6708
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from (1) east of Great South Road, Manukau City Centre to Cavendish Drive interchange, Wiri and from (2) Massey Road to Walmsley Road, Mangere
Rollover Designation	Yes
Legacy Reference	Designation 181, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

#### Purpose

South Western Motorway (State Highway 20).

#### Conditions

No conditions.

#### Attachments

No attachments.

#### 6709 State Highway 20 - Manukau Harbour Crossing to Mangere

Designation Number	6709
Requiring Authority	New Zealand Transport Agency

Location	State Highway 20 from (1) Manukau Harbour Crossing to Tararata Creek, Mangere and from (2) Massey Road, Mangere to Cavendish Drive interchange, Wiri
Rollover Designation	Yes
Legacy Reference	Designation 182, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

South Western Motorway (State Highway 20).

## Conditions

### General

1. Except as modified by the conditions below and subject to final design, the works shall be undertaken in general accordance with the information provided by the Requiring Authority, being ~~Transit New Zealand~~ the NZ Transport Agency, the Notice of Requirement (as updated 28 August 2006) and supporting documents, as follows:

- a. 'SH20 Manukau Harbour Crossing Project — Volume 1 Assessment of Environmental Effects and Attachments', prepared for Transit New Zealand) by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006;
- b. 'SH20 Manukau Harbour Crossing Project — Volume 2 Technical Appendices', Prepared for Transit New Zealand by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006;
- c. 'SH20 Manukau Harbour Crossing Project — Volume 3 Scheme Plans and Drawings', prepared for Transit New Zealand by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006; and other information provided to the ~~Manukau City Auckland~~ Council in response to requests for further information under Section 92 of the Resource Management Act 1991 (the Act) and at the hearing.

2. As soon as practicable, following completion of construction of the SH20 Manukau Harbour Crossing Project (the Project), the Requiring Authority shall give notice to the ~~Manukau City Auckland~~ Council in accordance with Section 182 of the Act for removal of those parts of the designation which are not required for the long term operation, maintenance and mitigation of effects of the State highway. Note that Condition 2 is specific to land no longer required for construction purposes once the Project is completed.

3. A liaison person shall be appointed by the Requiring Authority for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be reasonably available for on-going consultation on all matters of concern to affected persons arising from the Project.

~~4. Condition deleted. The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Act.~~

### Outline Plans of Works and Management Plans

5. Prior to the commencement of works, the Requiring Authority shall submit to the ~~Manukau City Auckland~~ Council the relevant Management Plans required under Conditions 10, 17, 22, 26, 29, 42 and 52 below. The Management Plans shall be submitted to the ~~Manukau City Auckland~~ Council as soon as reasonably practicable, allowing sufficient time for review by the ~~Manukau City Auckland~~ Council and discussion with the Requiring Authority.

6. Any Management Plans or Outline Plans of Works may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted in stages must clearly show integration with adjacent stages and interrelated activities.

7. If the ~~Manukau City~~ Auckland Council and the Requiring Authority agree on the content and terms of such Management Plans, that agreement shall be deemed to be a waiver in relation to that Plan or relevant part of that Plan pursuant to section 176A(2)(c) of the Act of the requirement for an Outline Plan of Works under section 176A. If the ~~Manukau City~~ Auckland Council and the Requiring Authority do not agree on the terms of such Plan or Plans, the relevant provisions of section 176A of the Act shall apply in respect of any part not agreed.

8. The works shall be undertaken in accordance with the approved Management Plan or accepted Outline Plan of Works (as the case may be).

9. Prior to lodging any outline plan of works or part of such a plan that contains details of measures that may affect public transport, ~~Transit the New Zealand Transport Agency~~, shall consult about the design details with relevant public transport operators, the ~~Auckland Regional Transport Authority, the Manukau City Council and the Auckland City~~ Auckland Council and Auckland Transport. Any such plan shall include a report on this consultation and measures that have been taken to meet any concerns raised.

### **Construction**

10. At least 20 working days prior to the commencement of works on the Project or the relevant stage of the Project, the Requiring Authority shall prepare and submit to the ~~Manukau City~~ Auckland Council, a Construction Management Plan (CMP). The purpose of the CMP is to set out the management procedures and construction methods to be undertaken in order to avoid, remedy or mitigate potential adverse effects arising from construction activities.

11. The CMP shall be prepared in consultation with the ~~Manukau City~~ Auckland Council and shall include specific details relating to demolition, construction and management of all works associated with the Project, including:

- a. Details of the site or project manager and the construction liaison person identified in condition 3, including their contact details (phone, facsimile, postal address, email address);
- b. The location of large notice boards that clearly identify ~~Transit the New Zealand Transport Agency~~ and the project name, together with the name, telephone number, email address and address for service of the site or project manager and the construction liaison person;
- c. An outline construction programme of the works indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- d. The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at nights, on Sundays and during public holidays;
- e. Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Location of workers offices and conveniences (eg portaloos);
- g. Procedures for controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- h. Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (March 1999);
- i. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works, potentially through the construction liaison person;
- j. Procedures to be followed to ensure that those working in the vicinity of identified heritage features are aware of the heritage values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- k. Means of ensuring the safety of the general public;
- l. Procedures for the construction liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- m. Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding residential streets and Coronation

Road is restricted;

- n. The layout of the construction yard at Waterfront Road Reserve, including associated buildings, fencing and site access, which shall, as far as practicable, incorporate the following:
- i. Retention of the existing public parking area along Coronation Road (which shall not be used for the parking of machinery and vehicles, including workers' vehicles, associated with the project);
  - ii. The main vehicle access across the construction yard to be located as far as practicable from residential dwellings on Waterfront Road and be accessed from Coronation Road;
  - iii. Construction of temporary boundary / security fences to be undertaken in a manner which minimises impact on existing trees located along Waterfront Road and maintains a grass berm along the road edge;
  - iv. Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings;
  - v. Acoustic fences required to achieve compliance with NZS6803:1999 Acoustics — Construction Noise to be located as close as practicable to the noise sources or otherwise in the most effective positions;
  - vi. Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on residential dwellings on Waterfront Road; and
- o. All temporary boundary/security fences shall be maintained in good order, with any graffiti removed as soon as possible.

12. A record of any complaints received in relation to the construction activities and the responses made shall be provided on a three monthly basis by the 10th day of the following month to the Council.

13. The CMP shall be implemented and maintained throughout the entire construction period

14. Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times, and shall not be stored or parked along Coronation Road and Waterfront Road.

15. All storage of materials and equipment associated with the construction works shall take place within the boundaries of the designation.

16. Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage at no cost to the ~~Manukau City~~ Auckland Council.

### **Construction Noise and Vibration**

17. The CMP shall include a Construction Noise Management Plan (CNMP) and a Construction Vibration Management Plan (CVMP) for the Project or relevant Project stage, prepared by a suitably qualified expert.

18. The CNMP and the CVMP shall be implemented and maintained throughout the entire demolition and construction periods.

19. The CNMP shall include specific details relating to the control of noise associated with all Project works. It shall as far as practicable be formulated to achieve compliance with the requirements of the NZS6803:1999 Acoustics — Construction Noise. The CNMP shall refer to noise management measures set out in Annexure E of NZS6803:1999, and shall, as a minimum, address the following aspects:

- a. Demolition and construction sequence;
- b. Noise sources, including machinery and equipment to be used;
- c. Hours of operation, including times and days when noisy construction work would occur;
- d. Predicted construction noise levels;
- e. The specification of noise mitigation measures;
- f. Development of alternative strategies where compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes, and
- g. Methods for monitoring and reporting on construction noise.

20. As far as practicable, permanent acoustic barriers that are required by the Noise Management Plan (Condition 30.a. of these conditions) shall be erected prior to road construction, provided each barrier is required at that time to meet the requirements of the CNMP (Condition 19.e. of these conditions).

21. The CVMP shall include specific details relating to the control of vibration associated with all Project works. It shall as far as practicable be formulated to achieve compliance with the vibration standards of the German Standard DIN 4150, and shall address the following aspects:

- a. Vibration monitoring measures;
- b. Existing vibration levels;
- c. Possible mitigation measures;
- d. Complaint response;
- e. Reporting procedures;
- f. Notification and information for the community of the proposed works;
- g. Where appropriate vibration testing of construction processes (e.g. piling) to confirm that the vibration limits will not be exceeded;
- h. Location for vibration monitoring when construction activities are adjacent to critical buildings;
- i. Operational times;
- j. Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.

### **Construction Traffic**

22. The CMP shall include a Traffic Management Plan (TMP), for the Project or the relevant Project stage, which shall be prepared by a suitably qualified person. In developing the TMP the Requiring Authority shall:

- a. use advanced traffic modelling tools to better understand the effects of construction of the Project on the affected road network. These tools will be developed and calibrated in conjunction with the ~~Manukau City~~ Auckland Council and have the ability to simulate lane restrictions and road closures, and
- b. as far as practicable, undertake measures to avoid road closures and also the restriction of vehicle and pedestrian movements.

23. The TMP shall describe the measures that will be undertaken to address, as far as practicable, the following:

- a. Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the Project. In particular, the TMP shall describe:
  - i. Traffic management measures to address and maintain, where practicable traffic capacity, including bus services, at traffic peak hours during weekdays and weekends in Mahunga Drive, Rimu Road and Coronation Road.
  - ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
  - iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/overbridge) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
  - iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks);
  - v. The numbers, frequencies, routes and timing of construction traffic movements;
  - vi. Monitoring to measure the impact of traffic, in terms of traffic speeds and volumes on those roads described in 23(a)(i); and
  - vii. Methods to manage the effects of traffic during construction, including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area.
- b. Traffic management measures during construction, to be developed in consultation with Auckland Transport, the ~~Auckland Regional Transport Authority (ARTA)~~, Bus and Coach Association and the ~~Manukau City~~ Auckland Council, to address and maintain, where practicable, traffic capacity at peak hours to provide for passenger transport services on the road network;
- c. Consultation with the ~~Manukau City Council~~ Auckland Transport with regard to the most appropriate

- means for providing access on Council roads within and adjacent to the designation;
- d. Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works to provide alternative access arrangements to an equivalent standard as that removed, as far as practicable, and in consultation with the ~~Manukau City Council~~ Auckland Council and the affected landowner;
  - e. Details on the maintenance of pedestrian access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable. Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours;
  - f. Consistency with Transit New Zealand 'Code of Practice for Temporary Traffic Management' (COPTTM);
  - g. Recognition of the need for the ~~Manukau City Council~~ Auckland Transport to access and maintain its roading network during the construction phase of the Project, and
  - h. Recognition of the need to coordinate and to consult directly with the proponents of any major construction occurring concurrently with, and in the vicinity of, the Project during construction.

24. The Requiring Authority shall ensure that provision for continued public walking and cycling passage across Manukau Harbour generally between Coronation Road, Mangere Bridge and Onehunga Harbour Road, Onehunga, in the general vicinity of the Old Mangere Bridge, is kept and maintained.

25. Vehicle access to the construction site and site office areas in Waterfront Road Reserve shall be via Coronation Road.

#### **Contamination**

26. Prior to commencing earthworks, a Contaminated Land Management Plan (CLMP) shall be prepared by a suitably qualified expert.

27. This CLMP will be based on a Stage 2 Detailed Site Investigation Report carried out in accordance with Contaminated Land Management Guidelines No. 1 — Reporting on Contaminated Sites in New Zealand (Ministry for the Environment October 2003).

28. The CLMP shall indicate whether work on contaminated land can be authorised as part of the designation or whether a separate resource consent (from the Auckland Regional Council) is required. If the work can be authorised as part of the designation, then the CLMP should incorporate conditions under which the work can be undertaken. Such conditions will be drawn up in conjunction with the ~~Manukau City~~ Auckland Council. The CLMP shall be provided to the ~~Manukau City~~ Auckland Council prior to commencement of earthworks.

#### **Operational Noise**

29. A Noise Management Plan (NMP) shall be submitted to the ~~Manukau City~~ Auckland Council for the Project or stage of the project. The NMP shall be prepared by a suitably qualified acoustic expert for the purposes of avoiding, mitigating or remedying, where practicable, any adverse noise effects from the operation of the Project.

30. The NMP shall include:

- a. General measures (e.g. low noise road surface material and noise attenuation barriers), to achieve compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999);
- b. Specific measures for any existing dwellings, where these are necessary in addition to the general measures under (a) above to achieve compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999), and
- c. A table showing the predicted traffic noise levels generated by the operation of the Project for the year 2021, for all noise sensitive facilities to be protected by the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999) (residential buildings and teaching areas in educational facilities) taking into consideration the finally agreed height, length and location of all noise barriers and all other noise mitigation measures incorporated in the project design.
- d. A section specifically dealing with "before" and "after" noise monitoring to check for achievement of the

design levels of the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999). This part of the plan shall describe methods and procedures for the measurement of ambient noise levels existing prior to construction, and of traffic noise levels within a period between 2 and 3 years following completion of construction of the Project, measured at representative sites and shall:

- i. Be based on Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999) and NZS6801:1991 "Measurement of Sound";
- ii. Outline methods used for the representative site selection of a minimum of at least four (4) sites and shall include site maps photographs detailing the measurement positions; and
- iii. Include a process for reporting of measurement results to Council within 30 days following the completion of both the "before" and "after" surveys and include comments on measurement conditions.

31. The location and design of noise attenuation barriers shall be in general accordance with the provisions of Alignment plans 1/69/82/5104 Sheets 2, 3 and 4 dated 05/06 but modified as agreed through the process outlined in Condition 46 below.

32. The NMP shall identify any existing dwellings for which specific measures are required in accordance with Condition 30.b. above. Those dwellings shall be referred to as 'affected dwelling(s)'.

33. Not less than three (3) months prior to the completion of construction of the Project, the Requiring Authority shall give written notice to the owner of any affected dwelling:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels; and
- b. Advising that the owner has six (6) months within which to decide whether or not to accept mitigation treatment to the dwelling.
- c. Once an agreement on mitigation is reached between the Requiring Authority and the owner, the mitigation shall be implemented in an accepted timeframe between the Requiring Authority and the owner.

34. The Requiring Authority shall advise the ~~Manukau City Council~~ Auckland Council of:

- a. All written notices served in accordance with Condition 33;
- b. Any responses received to those written notices; and
- c. Those affected dwellings in respect of which no response has been received.

35. Where specific measures are required under Condition 30.b. above for an affected dwelling, the Requiring Authority shall be deemed to have complied with Condition 30.b. where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six (6) months after the practical completion of the Project; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six (6) months after written notice has been given in accordance with condition 33 above.

36. Subject to condition 35, all noise mitigation measures identified by the NMP shall be implemented prior to the completion of construction of the Project.

### **Operational Vibration**

37. Vibration levels of the existing SH20 operations shall be measured at nominated critical locations, and submitted to the Council, prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

38. In circumstances where vibration generated by the passage of vehicles on the completed highway results in adverse effects on persons or property, which, in the reasonable opinion of the ~~Manukau City Council~~ Auckland Council, give rise to a breach of s17 Act, then these are to be measured and assessed in accordance with the provisions of Norwegian Standard NS 8176E.

## **Archaeological and Heritage**

39. Detailed protocols for the management of archaeological and waahi tapu discoveries shall be developed in consultation with tangata whenua and ~~New Zealand Historic Places Trust~~ Heritage New Zealand prior to construction.

40. Subject to condition 41, if any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

a. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;

b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched; and

c. The Requiring Authority shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and the ~~Manukau City~~ Auckland Council (and in the case of human remains, the New Zealand Police) as soon as practicable that an archaeological site has been exposed so that appropriate action can be taken. Works shall not recommence in the immediate vicinity of the archaeological site until any approval required from ~~the NZ Historic Places Trust~~ Heritage New Zealand is obtained.

41. Condition 40 shall not apply where the Requiring Authority holds all relevant approvals under the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, apart from the requirement in the case of discovery of human remains to contact the New Zealand Police. ~~Urban Design and Landscaping Mitigation~~

## **Urban Design and Landscaping Mitigation**

42. An integrated Urban Design and Landscape Mitigation Plan (UDLMP) shall be submitted to the ~~Manukau City~~ Auckland Council for the Project or relevant Project stage. This UDLMP shall be prepared by a suitably qualified person or persons, in consultation with the ~~Manukau City Auckland Regional Council~~ and relevant tangata whenua and shall take into account the following:

a. Transit New Zealand's "Guidelines for Highway Landscaping" (September 2002);

b. Transit New Zealand's "Urban Design Implementation Principles" (2006).

43. The UDLMP shall have regard to the following principles:

a. The importance of the southern approaches to the Mangere Bridge as a gateway to Manukau City;

b. The existing coastal landscape values of the area;

c. The potential of noise barriers and other structures as design elements;

d. Support for a strong pedestrian and cycle experience;

e. Measures to provide for safe passage of pedestrians, cyclists and mobility impaired users;

f. Crime prevention through environmental design.

44. The UDLMP shall in particular provide for:

a. The integration of the permanent works into the surrounding landscape;

b. Mitigation of effects on properties in the vicinity of the alignment;

c. Pedestrian and cycle linkages proposed in respect of the project, in particular that linking Mahunga Drive and the southern abutment of Old Mangere Bridge via Waterfront Road Reserve. These linkages shall

i. be provided in accordance with Austroads Part 14 Bicycles, with a minimum width of 3.0 metres plus clearances

ii. include an upgraded pedestrian/cycle facility along the southern embankment of the Old Mangere Bridge (Coronation Road) which physically separates the pedestrian/cycle facility from vehicular traffic, parking areas, turning areas and boat launching facilities. (Along the embankment, the pedestrian / cycle facility shall have a minimum width of 3.5 metres.)

d. Integration, consistency and continuation of significant elements with recently established planting themes through the Western Ring Route, established desirable coastal vegetation, and the vegetative character of Onehunga and Mangere Bridge townships;

e. Retention or relocation of existing trees where practicable; and

f. Replacement planting or mitigation for loss of protected or scheduled trees.

45. The UDLMP shall include the following:

- a. An Urban Design Framework that depicts the overall urban design concept, the design intent, layout and mitigation proposals for key components and areas (or sectors) of the project, and provide a framework for the design, layout, landscape planting and streetscape measures;
- b. Landscape and Urban Design Details — these shall include the following details:
  - i. Identification of vegetation to be retained;
  - ii. Proposed planting, including plant species, mixes, spacing/densities, sizes (at time of planting) and layout;
  - iii. Planting programme — the staging of planting in relation to the construction programme;
  - iv. Detailed specifications relating to (but not limited to) the following:
    - Vegetation protection (for desirable vegetation to be retained);
    - Weed control and clearance;
    - Ground preparation; Mulching;
    - Plant supply and planting;
    - Maintenance regime (requirements and programme); and Performance
    - standards.
  - v. Detailed design of streetscape elements such as
    - Noise attenuation barriers (including their location within the motorway reserve); Road
    - safety barriers;
    - Retaining walls;
    - The new pedestrian footbridge and other new pedestrian facilities.

~~45. The UDLMP shall include the following:~~

- ~~a. An Urban Design Framework that depicts the overall urban design concept, the design intent, layout and mitigation proposals for key components and areas (or sectors) of the project, and provide a framework for the design, layout, landscape planting and streetscape measures;~~
- ~~b. Landscape and Urban Design Details — these shall include the following details:~~
  - ~~i. Identification of vegetation to be retained;~~
  - ~~ii. Proposed planting, including plant species, mixes, spacing/densities, sizes (at time of planting) and layout;~~
  - ~~iii. Planting programme — the staging of planting in relation to the construction programme;~~
  - ~~iv. Detailed specifications relating to (but not limited to) the following:-~~
    - ~~• Vegetation protection (for desirable vegetation to be retained);-~~
    - ~~• Weed control and clearance;~~
    - ~~• Ground preparation; Mulching;~~
    - ~~• Plant supply and planting;~~
    - ~~• Maintenance regime (requirements and programme); and Performance-~~
    - ~~• standards.~~
  - ~~v. Detailed design of streetscape elements such as~~
    - ~~• Noise attenuation barriers (including their location within the motorway reserve);-~~
    - ~~• Road safety barriers;~~
    - ~~• Retaining walls;~~
    - ~~• The new pedestrian footbridge and other new pedestrian facilities.~~

46. That portion of the UDLMP that deals with the design and placement of noise attenuation barriers shall be developed in consultation with persons who own or occupy property that adjoins those barriers (the neighbours).

47. Prior to submission of the UDLMP to the ~~Manukau City~~ Auckland Council, the draft UDLMP shall be presented to the ~~Manukau City Auckland Council~~ Urban Design Panel for its comment, and that comment shall then be considered in finalising the UDLMP.

47A. The works as set out in the UDLMP shall be implemented as soon as practicable and works shall be completed no later than 12 months after the practical completion date of the Project. ~~Waterfront Road Reserve Restoration Plan~~

### **Waterfront Road Reserve Restoration Plan**

48. The Requiring Authority shall prepare, in consultation with the ~~Manukau City Auckland Council and the Auckland Regional Council~~, a Waterfront Road Reserve Restoration Framework (WRRRF) to outline how the reserve land occupied during construction will be reinstated on completion of construction. The WRRRF shall outline measures to mitigate the adverse effects the Project may have on local residents, and shall include, but not be limited to, the following:

- a. The proposed remediation of the coastal edge (particularly above mean high water springs) along the Waterfront Road Reserve, to provide an attractive interface (that may include a sea wall) that addresses erosion problems and removes construction debris and materials;
- b. Proposed landscaping in the Waterfront Road Reserve on completion of construction;
- c. The proposed pedestrian / cycle path from the Coronation Road end of Waterfront Road Reserve, under the southern end of the motorway bridge, to Mahunga Drive (refer also to Condition 44.c. for conditions relating to the pedestrian/cycleway along Coronation Road);
- d. Proposals for reuse of any construction buildings or hardstand, areas;
- e. Proposals for the provision of vehicle access through the park and parking;
- f. Consultation to be undertaken in preparation of the Waterfront Road Reserve Restoration Plan (WRRRP); and
- g. Timeframe to obtain any consents required and complete works as set out in the WRRRF.

49. The proposed WRRRF shall be submitted to the ~~Manukau City Auckland Council~~ at least 20 working days prior to the commencement of construction works in Waterfront Road Reserve to enable sufficient time for consideration by Council. Any subsequent significant amendments to the approved WRRRP shall be submitted to Manukau City Council for approval prior to implementation

49A. The Requiring Authority shall prepare, in consultation with the ~~Manukau City Auckland Council and the Auckland Regional Council~~, a Waterfront Road Reserve Restoration Plan (WRRRP), which shall include further details of the mitigation measures set out in the WRRRF pursuant to condition 48 above. The proposed WRRRP shall be submitted to the ~~Manukau City Auckland Council~~ for approval at least six (6) months prior to the programmed completion date for Project construction works in Waterfront Road Reserve to enable sufficient time for consideration by Council.

50. Where the restoration works require coastal consents for works within the Coastal Marine Area, it shall be ~~Transit New Zealand the New Zealand Transport Agency (NZTA)~~'s responsibility to obtain those consents on behalf of ~~Manukau City Council Auckland Council~~.

51. The works as set out in the Waterfront Road Reserve Restoration Plan shall be implemented as soon as possible and works shall be completed no later than 12 months after the practical completion date of the Project.

### **Integration with Local Road Network**

52. The Requiring Authority shall prepare a Network Integration Plan in consultation with the ~~Manukau City Auckland Council~~ to demonstrate how the Project integrates with the existing local road network and with future improvements planned by the ~~Manukau City Auckland Council~~. The Network Integration Plan shall include details of physical works at the interface between the State highway and the local road network, and shall address such matters as lane configuration, traffic signal co-ordination, signage and provision for buses. The Network Integration Plan shall be submitted to the ~~Manukau City Auckland Council~~ for the Project or relevant Project stage.

### **Lighting**

53. Subject to the requisite safety standards, motorway lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, and to minimise encroachment of lighting standards into view shafts.

### **Network Utilities**

54. Prior to submitting an outline plan of works (s176A of the Act), the Requiring Authority shall consult with Network Utility Operators to identify and record network utility operations and measures to be undertaken to minimise disruption to and maintain proper functioning of those operations. These may include (but are not limited to) measures in relation to the following:

- a. Access;
- b. Protection, relocation and / or reinstatement of network utility infrastructure;
- c. Safety;
- d. Earthworks management;
- e. Dust and vibration management.

The outline plan of works shall describe the proposed measures to minimise disruption to and maintain proper functioning of all affected network utility operations.

### **Air Quality Monitoring**

55. An air quality monitoring station shall be established at a site comparable to the station located in the rear car park of the Te Puea Marae, Miro Road during 2006–2007.

56. The air quality monitoring station will monitor the following parameters for a period of six (6) months within the 24 month period prior to construction of the Project:

- a. Fine particulates (PM10) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality, and
- b. Meteorological measurements of wind speed, wind direction and temperature.

57. The station will monitor the following parameters for a period of twelve (12) months after construction of the Project:

- a. Fine particulates (PM10) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality, and
- b. Meteorological measurements of wind speed, wind direction and temperature.

58. Results of the monitoring in summary form, assessed against the National Environmental Standards, Air Quality and the Auckland Regional Council target values, shall be reported quarterly to the ~~Manukau City~~ Auckland Council.

### **Attachments**

No attachments.

### **6710 State Highway 20 - Vicinity of Manukau Harbour Crossing**

Designation Number	6710
Requiring Authority	New Zealand Transport Agency
Location	Waterfront Road Reserve, Coronation Road, Rimu Road and Mahunga Drive, Mangere
Rollover Designation	Yes
Legacy Reference	Designation 182A, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

### **Description**

Manukau Harbour Crossing.

### **Conditions**

## General

1. Except as modified by the conditions below and subject to final design, the works shall be undertaken in general accordance with the information provided by the Requiring Authority, being ~~Transit New Zealand~~ Transit the New Zealand Transport Agency (NZTA), the Notice of Requirement (as updated 28 August 2006) and supporting documents, as follows:
  - a. 'SH20 Manukau Harbour Crossing Project — Volume 1 Assessment of Environmental Effects and Attachments', prepared for Transit New Zealand by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006;
  - b. 'SH20 Manukau Harbour Crossing Project — Volume 2 Technical Appendices', prepared for Transit New Zealand by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006;
  - c. 'SH20 Manukau Harbour Crossing Project — Volume 3 Scheme Plans and Drawings', prepared for Transit New Zealand by Opus Consultants Ltd, dated 19 May 2006 and annotated September 2006; and other information provided to the Manukau City Council in response to requests for further information under Section 92 of the Resource Management Act 1991 (the Act) and at the hearing.
2. As soon as practicable, following completion of construction of the SH20 Manukau Harbour Crossing Project (the Project), the Requiring Authority shall give notice to the ~~Manukau City~~ Auckland Council in accordance with Section 182 of the Act for removal of those parts of the designation which are not required for the long term operation, maintenance and mitigation of effects of the State highway. Note that Condition 2 is specific to land no longer required for construction purposes once the Project is completed.
3. A liaison person shall be appointed by the Requiring Authority for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be reasonably available for on-going consultation on all matters of concern to affected persons arising from the Project.
4. The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Act.

## Outline Plans of Works and Management Plans

5. Prior to the commencement of works, the Requiring Authority shall submit to the ~~Manukau City~~ Auckland Council the relevant Management Plans required under Conditions 10, 17, 22, 26, 29, 42 and 52 below. The Management Plans shall be submitted to the ~~Manukau City~~ Auckland Council as soon as reasonably practicable, allowing sufficient time for review by the ~~Manukau City~~ Auckland Council and discussion with the Requiring Authority.
6. Any Management Plans or Outline Plans of Works may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted in stages must clearly show integration with adjacent stages and interrelated activities.
7. If the ~~Manukau City~~ Auckland Council and the Requiring Authority agree on the content and terms of such Management Plans, that agreement shall be deemed to be a waiver in relation to that Plan or relevant part of that Plan pursuant to section 176A(2)(c) of the Act of the requirement for an Outline Plan of Works under section 176A. If the ~~Manukau City~~ Auckland Council and the Requiring Authority do not agree on the terms of such Plan or Plans, the relevant provisions of section 176A of the Act shall apply in respect of any part not agreed.
8. The works shall be undertaken in accordance with the approved Management Plan or accepted Outline Plan of Works (as the case may be).
9. Prior to lodging any outline plan of works or part of such a plan that contains details of measures that may affect public transport, ~~Transit the New Zealand Transport Agency (NZTA)~~ shall consult about the design details with relevant public transport operators, ~~the Auckland Regional Transport Authority Auckland Transport and, the Manukau City Auckland Council and the Auckland City Council.~~ Any such plan shall include a report on this

consultation and measures that have been taken to meet any concerns raised.

## **Construction**

10. At least 20 working days prior to the commencement of works on the Project or the relevant stage of the Project, the Requiring Authority shall prepare and submit to the ~~Manukau City~~ Auckland Council, a Construction Management Plan (CMP). The purpose of the CMP is to set out the management procedures and construction methods to be undertaken in order to avoid, remedy or mitigate potential adverse effects arising from construction activities.

11. The CMP shall be prepared in consultation with the ~~Manukau City~~ Auckland Council and shall include specific details relating to demolition, construction and management of all works associated with the Project, including:

- a. Details of the site or project manager and the construction liaison person identified in condition 3, including their contact details (phone, facsimile, postal address, email address);
- b. The location of large notice boards that clearly identify ~~Transit~~ the New Zealand Transport Agency (NZTA) and the project name, together with the name, telephone number, email address and address for service of the site or project manager and the construction liaison person;
- c. An outline construction programme of the works indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- d. The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at nights, on Sundays and during public holidays;
- e. Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Location of workers offices and conveniences (eg portaloos);
- g. Procedures for controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- h. Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (March 1999);
- i. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works, potentially through the construction liaison person;
- j. Procedures to be followed to ensure that those working in the vicinity of identified heritage features are aware of the heritage values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- k. Means of ensuring the safety of the general public;
- l. Procedures for the construction liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- m. Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding residential streets and Coronation Road is restricted;
- n. The layout of the construction yard at Waterfront Road Reserve, including associated buildings, fencing and site access, which shall, as far as practicable, incorporate the following:
  - i. Retention of the existing public parking area along Coronation Road (which shall not be used for the parking of machinery and vehicles, including workers' vehicles, associated with the project);
  - ii. The main vehicle access across the construction yard to be located as far as practicable from residential dwellings on Waterfront Road and be accessed from Coronation Road;
  - iii. Construction of temporary boundary / security fences to be undertaken in a manner which minimises impact on existing trees located along Waterfront Road and maintains a grass berm along the road edge;
  - iv. Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings;
  - v. Acoustic fences required to achieve compliance with NZS6803:1999 Acoustics — Construction Noise to be located as close as practicable to the noise sources or otherwise in the most effective positions;
  - vi. Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on residential dwellings on Waterfront Road; and

o. All temporary boundary/security fences shall be maintained in good order, with any graffiti removed as soon as possible.

12. A record of any complaints received in relation to the construction activities and the responses made shall be provided on a three monthly basis by the 10th day of the following month to the Council.

13. The CMP shall be implemented and maintained throughout the entire construction period

14. Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times, and shall not be stored or parked along Coronation Road and Waterfront Road.

15. All storage of materials and equipment associated with the construction works shall take place within the boundaries of the designation.

16. Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage at no cost to the ~~Manukau City~~ Auckland Council.

### **Construction Noise and Vibration**

17. The CMP shall include a Construction Noise Management Plan (CNMP) and a Construction Vibration Management Plan (CVMP) for the Project or relevant Project stage, prepared by a suitably qualified expert.

18. The CNMP and the CVMP shall be implemented and maintained throughout the entire demolition and construction periods.

19. The CNMP shall include specific details relating to the control of noise associated with all Project works. It shall as far as practicable be formulated to achieve compliance with the requirements of the NZS6803:1999 Acoustics — Construction Noise. The CNMP shall refer to noise management measures set out in Annexure E of NZS6803:1999, and shall, as a minimum, address the following aspects:

- a. Demolition and construction sequence;
- b. Noise sources, including machinery and equipment to be used;
- c. Hours of operation, including times and days when noisy construction work would occur;
- d. Predicted construction noise levels;
- e. The specification of noise mitigation measures;
- f. Development of alternative strategies where compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes, and
- g. Methods for monitoring and reporting on construction noise.

20. As far as practicable, permanent acoustic barriers that are required by the Noise Management Plan (Condition 30(a) of these conditions) shall be erected prior to road construction, provided each barrier is required at that time to meet the requirements of the CNMP (Condition 19(e) of these conditions).

21. The CVMP shall include specific details relating to the control of vibration associated with all Project works. It shall as far as practicable be formulated to achieve compliance with the vibration standards of the German Standard DIN 4150, and shall address the following aspects:

- a. Vibration monitoring measures;
- b. Existing vibration levels;
- c. Possible mitigation measures;
- d. Complaint response;
- e. Reporting procedures;
- f. Notification and information for the community of the proposed works;

- g. Where appropriate vibration testing of construction processes (e.g. piling) to confirm that the vibration limits will not be exceeded;
- h. Location for vibration monitoring when construction activities are adjacent to critical buildings;
- i. Operational times;
- j. Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.

### **Construction Traffic**

22. The CMP shall include a Traffic Management Plan (TMP), for the Project or the relevant Project stage, which shall be prepared by a suitably qualified person. In developing the TMP the Requiring Authority shall:

- a. use advanced traffic modelling tools to better understand the effects of construction of the Project on the affected road network. These tools will be developed and calibrated in conjunction with the Auckland ~~Manukau City~~ Council and have the ability to simulate lane restrictions and road closures, and
- b. as far as practicable, undertake measures to avoid road closures and also the restriction of vehicle and pedestrian movements.

23. The TMP shall describe the measures that will be undertaken to address, as far as practicable, the following:

a. Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the Project. In particular, the TMP shall describe:

- i. Traffic management measures to address and maintain, where practicable traffic capacity, including bus services, at traffic peak hours during weekdays and weekends in Mahunga Drive, Rimu Road and Coronation Road.
- ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/overbridge) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
- iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks);
- v. The numbers, frequencies, routes and timing of construction traffic movements;
- vi. Monitoring to measure the impact of traffic, in terms of traffic speeds and volumes on those roads described in 23(a)(i); and
- vii. Methods to manage the effects of traffic during construction, including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area.

b. Traffic management measures during construction, to be developed in consultation with ~~the Auckland Regional Transport Authority (ARTA)~~, Auckland Transport, Bus and Coach Association and the ~~Manukau City~~ Auckland Council, to address and maintain, where practicable, traffic capacity at peak hours to provide for passenger transport services on the road network;

c. Consultation with the ~~Manukau City~~ Auckland Council with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation;

d. Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works to provide alternative access arrangements to an equivalent standard as that removed, as far as practicable, and in consultation with the ~~Manukau City~~ Auckland Council and the affected landowner;

e. Details on the maintenance of pedestrian access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable. Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours;

f. Consistency with Transit New Zealand (Transit)'s Code of Practice for Temporary Traffic Management' (COPTTM);

g. Recognition of the need for the ~~Manukau City~~ Auckland Council to access and maintain its roading network during the construction phase of the Project, and

h. Recognition of the need to coordinate and to consult directly with the proponents of any major construction occurring concurrently with, and in the vicinity of, the Project during construction.

24. The Requiring Authority shall ensure that provision for continued public walking and cycling passage across Manukau Harbour generally between Coronation Road, Mangere Bridge and Onehunga Harbour Road, Onehunga, in the general vicinity of the Old Mangere Bridge, is kept and maintained.

25. Vehicle access to the construction site and site office areas in Waterfront Road Reserve shall be via Coronation Road.

### **Contamination**

26. Prior to commencing earthworks, a Contaminated Land Management Plan (CLMP) shall be prepared by a suitably qualified expert.

27. This CLMP will be based on a Stage 2 Detailed Site Investigation Report carried out in accordance with Contaminated Land Management Guidelines No. 1 — Reporting on Contaminated Sites in New Zealand (Ministry for the Environment October 2003).

28. The CLMP shall indicate whether work on contaminated land can be authorised as part of the designation or whether a separate resource consent (from the Auckland Regional Council) is required. If the work can be authorised as part of the designation, then the CLMP should incorporate conditions under which the work can be undertaken. Such conditions will be drawn up in conjunction with the ~~Manukau City~~ Auckland Council. The CLMP shall be provided to the ~~Manukau City~~ Auckland Council prior to commencement of earthworks.

### **Operational Noise**

29. A Noise Management Plan (NMP) shall be submitted to the ~~Manukau City~~ Auckland Council for the Project or stage of the project. The NMP shall be prepared by a suitably qualified acoustic expert for the purposes of avoiding, mitigating or remedying, where practicable, any adverse noise effects from the operation of the Project.

30. The NMP shall include:

- a. General measures (e.g. low noise road surface material and noise attenuation barriers), to achieve compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999);
- b. Specific measures for any existing dwellings, where these are necessary in addition to the general measures under (a) above to achieve compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999), and
- c. A table showing the predicted traffic noise levels generated by the operation of the Project for the year 2021, for all noise sensitive facilities to be protected by the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999) (residential buildings and teaching areas in educational facilities) taking into consideration the finally agreed height, length and location of all noise barriers and all other noise mitigation measures incorporated in the project design.
- d. A section specifically dealing with "before" and "after" noise monitoring to check for achievement of the design levels of the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999). This part of the plan shall describe methods and procedures for the measurement of ambient noise levels existing prior to construction, and of traffic noise levels within a period between 2 and 3 years following completion of construction of the Project, measured at representative sites and shall:
  - i. Be based on Transit New Zealand 'Guidelines for the Management of Road Traffic Noise — State Highway Improvements' (December 1999) and NZS6801:1991 "Measurement of Sound";
  - ii. Outline methods used for the representative site selection of a minimum of at least four (4) sites and shall include site maps photographs detailing the measurement positions; and
  - iii. Include a process for reporting of measurement results to Council within 30 days following the completion of both the "before" and "after" surveys and include comments on measurement conditions.

31. The location and design of noise attenuation barriers shall be in general accordance with the provisions of Alignment plans 1/69/82/5104 Sheets 2, 3 and 4 dated 05/06 but modified as agreed through the process

outlined in Condition 46 below.

32. The NMP shall identify any existing dwellings for which specific measures are required in accordance with Condition 30(b) above. Those dwellings shall be referred to as 'affected dwelling(s)'.

33. Not less than three (3) months prior to the completion of construction of the Project, the Requiring Authority shall give written notice to the owner of any affected dwelling:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels; and
- b. Advising that the owner has six (6) months within which to decide whether or not to accept mitigation treatment to the dwelling.
- c. Once an agreement on mitigation is reached between the Requiring Authority and the owner, the mitigation shall be implemented in an accepted timeframe between the Requiring Authority and the owner.

34. The Requiring Authority shall advise the ~~Manukau City~~ Auckland Council of:

- a. All written notices served in accordance with Condition 33;
- b. Any responses received to those written notices; and
- c. Those affected dwellings in respect of which no response has been received.

35. Where specific measures are required under Condition 30(b) above for an affected dwelling, the Requiring Authority shall be deemed to have complied with Condition 30(b) where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six (6) months after the practical completion of the Project; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six (6) months after written notice has been given in accordance with condition 33 above.

36. Subject to condition 35, all noise mitigation measures identified by the NMP shall be implemented prior to the completion of construction of the Project.

### **Operational Vibration**

37. Vibration levels of the existing SH20 operations shall be measured at nominated critical locations, and submitted to the Council, prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

38. In circumstances where vibration generated by the passage of vehicles on the completed highway results in adverse effects on persons or property, which, in the reasonable opinion of the ~~Manukau City~~ Auckland Council, give rise to a breach of s17 Act, then these are to be measured and assessed in accordance with the provisions of Norwegian Standard NS 8176E.

### **Archaeological and Heritage**

39. Detailed protocols for the management of archaeological and waahi tapu discoveries shall be developed in consultation with tangata whenua and ~~New Zealand Historic Places Trust~~ Heritage New Zealand prior to construction.

40. Subject to condition 41, if any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

- a. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched; and
- c. The Requiring Authority shall notify tangata whenua, Heritage New Zealand ~~the New Zealand Historic Places Trust~~ and the ~~Manukau City~~ Auckland Council (and in the case of human remains, the New Zealand

Police) as soon as practicable that an archaeological site has been exposed so that appropriate action can be taken. Works shall not recommence in the immediate vicinity of the archaeological site until any approval required from Heritage New Zealand ~~the New Zealand Historic Places Trust~~ is obtained.

41. Condition 40 shall not apply where the Requiring Authority holds all relevant approvals under the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, apart from the requirement in the case of discovery of human remains to contact the New Zealand Police. ~~Urban Design and Landscaping Mitigation~~

#### Urban Design and Landscaping Mitigation

42. An integrated Urban Design and Landscape Mitigation Plan (UDLMP) shall be submitted to the ~~Manukau City~~ Auckland Council for the Project or relevant Project stage. This UDLMP shall be prepared by a suitably qualified person or persons, in consultation with the ~~Manukau City~~ Auckland Council, ~~Auckland Regional Council~~ and relevant tangata whenua and shall take into account the following:

- a. Transit New Zealand's "Guidelines for Highway Landscaping" (September 2002);
- b. Transit New Zealand (Transit)'s "Urban Design Implementation Principles" (2006).

43. The UDLMP shall have regard to the following principles:

- a. The importance of the southern approaches to the Mangere Bridge as a gateway to Manukau City;
- b. The existing coastal landscape values of the area;
- c. The potential of noise barriers and other structures as design elements;
- d. Support for a strong pedestrian and cycle experience;
- e. Measures to provide for safe passage of pedestrians, cyclists and mobility impaired users;
- f. Crime prevention through environmental design.

44. The UDLMP shall in particular provide for:

- a. The integration of the permanent works into the surrounding landscape;
- b. Mitigation of effects on properties in the vicinity of the alignment;
- c. Pedestrian and cycle linkages proposed in respect of the project, in particular that linking Mahunga Drive and the southern abutment of Old Mangere Bridge via Waterfront Road Reserve. These linkages shall
  - i. be provided in accordance with Austroads Part 14 Bicycles, with a minimum width of 3.0 metres plus clearances
  - ii. include an upgraded pedestrian/cycle facility along the southern embankment of the Old Mangere Bridge (Coronation Road) which physically separates the pedestrian/cycle facility from vehicular traffic, parking areas, turning areas and boat launching facilities. (Along the embankment, the pedestrian / cycle facility shall have a minimum width of 3.5 metres.)
- d. Integration, consistency and continuation of significant elements with recently established planting themes through the Western Ring Route, established desirable coastal vegetation, and the vegetative character of Onehunga and Mangere Bridge townships;
- e. Retention or relocation of existing trees where practicable; and
- f. Replacement planting or mitigation for loss of protected or scheduled trees.

45. The UDLMP shall include the following:

- a. An Urban Design Framework that depicts the overall urban design concept, the design intent, layout and mitigation proposals for key components and areas (or sectors) of the project, and provide a framework for the design, layout, landscape planting and streetscape measures;
- b. Landscape and Urban Design Details — these shall include the following details:
  - i. Identification of vegetation to be retained;
  - ii. Proposed planting, including plant species, mixes, spacing/densities, sizes (at time of planting) and layout;
  - iii. Planting programme — the staging of planting in relation to the construction programme;
  - iv. Detailed specifications relating to (but not limited to) the following:
    - Vegetation protection (for desirable vegetation to be retained);
    - Weed control and clearance;

- Ground preparation; Mulching;
- Plant supply and planting;
- Maintenance regime (requirements and programme); and Performance
- standards.

v. Detailed design of streetscape elements such as

- Noise attenuation barriers (including their location within the motorway reserve); Road
- safety barriers;
- Retaining walls;
- The new pedestrian footbridge and other new pedestrian facilities.

46. That portion of the UDLMP that deals with the design and placement of noise attenuation barriers shall be developed in consultation with persons who own or occupy property that adjoins those barriers (the neighbours).

47. Prior to submission of the UDLMP to the ~~Manukau City~~ Auckland Council, the draft UDLMP shall be presented to the ~~Manukau City~~ Auckland Urban Design Panel for its comment, and that comment shall then be considered in finalising the UDLMP.

47A. The works as set out in the UDLMP shall be implemented as soon as practicable and works shall be completed no later than 12 months after the practical completion date of the Project. Waterfront Road Reserve Restoration Plan

48. The Requiring Authority shall prepare, in consultation with the ~~Manukau City~~ Auckland Council ~~and the Auckland Regional Council~~, a Waterfront Road Reserve Restoration Framework (WRRRF) to outline how the reserve land occupied during construction will be reinstated on completion of construction. The WRRRF shall outline measures to mitigate the adverse effects the Project may have on local residents, and shall include, but not be limited to, the following:

- a. The proposed remediation of the coastal edge (particularly above mean high water springs) along the Waterfront Road Reserve, to provide an attractive interface (that may include a sea wall) that addresses erosion problems and removes construction debris and materials;
- b. Proposed landscaping in the Waterfront Road Reserve on completion of construction;
- c. The proposed pedestrian / cycle path from the Coronation Road end of Waterfront Road Reserve, under the southern end of the motorway bridge, to Mahunga Drive (refer also to Condition 44(c) for conditions relating to the pedestrian/cycleway along Coronation Road);
- d. Proposals for reuse of any construction buildings or hardstand, areas;
- e. Proposals for the provision of vehicle access through the park and parking;
- f. Consultation to be undertaken in preparation of the Waterfront Road Reserve Restoration Plan (WRRRP); and
- g. Timeframe to obtain any consents required and complete works as set out in the WRRRF.

49. The proposed WRRRF shall be submitted to the ~~Manukau City~~ Auckland Council at least 20 working days prior to the commencement of construction works in Waterfront Road Reserve to enable sufficient time for consideration by Council. Any subsequent significant amendments to the approved WRRRP shall be submitted to ~~Manukau City~~ Auckland Council for approval prior to implementation

49A. The Requiring Authority shall prepare, in consultation with the ~~Manukau City~~ Auckland Council ~~and the Auckland Regional Council~~, a Waterfront Road Reserve Restoration Plan (WRRRP), which shall include further details of the mitigation measures set out in the WRRRF pursuant to condition 48 above. The proposed WRRRP shall be submitted to the ~~Manukau City~~ Auckland Council for approval at least six (6) months prior to the programmed completion date for Project construction works in Waterfront Road Reserve to enable sufficient time for consideration by Council.

50. Where the restoration works require coastal consents for works within the Coastal Marine Area, it shall be ~~Transit's~~ the New Zealand Transport Agency (NZTA)'s responsibility to obtain those consents on behalf of ~~Manukau City~~ Auckland Council.

51. The works as set out in the Waterfront Road Reserve Restoration Plan shall be implemented as soon as possible and works shall be completed no later than 12 months after the practical completion date of the Project.

### **Integration with Local Road Network**

52. The Requiring Authority shall prepare a Network Integration Plan in consultation with the ~~Manukau City Auckland~~ Council to demonstrate how the Project integrates with the existing local road network and with future improvements planned by the ~~Manukau City Auckland~~ Council. The Network Integration Plan shall include details of physical works at the interface between the State highway and the local road network, and shall address such matters as lane configuration, traffic signal co-ordination, signage and provision for buses. The Network Integration Plan shall be submitted to the ~~Manukau City Auckland~~ Council for the Project or relevant Project stage.

### **Lighting**

53. Subject to the requisite safety standards, motorway lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, and to minimise encroachment of lighting standards into view shafts.

### **Network Utilities**

54. Prior to submitting an outline plan of works (s176A of the Act), the Requiring Authority shall consult with Network Utility Operators to identify and record network utility operations and measures to be undertaken to minimise disruption to and maintain proper functioning of those operations. These may include (but are not limited to) measures in relation to the following:

- a. Access;
- b. Protection, relocation and / or reinstatement of network utility infrastructure;
- c. Safety;
- d. Earthworks management;
- e. Dust and vibration management.

The outline plan of works shall describe the proposed measures to minimise disruption to and maintain proper functioning of all affected network utility operations.

### **Air Quality Monitoring**

55. An air quality monitoring station shall be established at a site comparable to the station located in the rear car park of the Te Puea Marae, Miro Road during 2006–2007.

56. The air quality monitoring station will monitor the following parameters for a period of six (6) months within the 24 month period prior to construction of the Project:

- a. Fine particulates (PM10) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality, and
- b. Meteorological measurements of wind speed, wind direction and temperature.

57. The station will monitor the following parameters for a period of twelve (12) months after construction of the Project:

- a. Fine particulates (PM10) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality, and
- b. Meteorological measurements of wind speed, wind direction and temperature.

58. Results of the monitoring in summary form, assessed against the National Environmental Standards and Air Quality ~~and the Auckland Regional Council~~ target values, shall be reported quarterly to the ~~Manukau City Auckland~~ Council.

## **Attachments**

No attachments.

## 6712 State Highway 20A - Airport Motorway

Designation Number	6712
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20A from Bader Drive to south of Kirkbride Road, Mangere
Rollover Designation	Yes
Legacy Reference	Designation 184, Auckland Council District Plan (Manukau Section 2002)
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Airport Motorway (State Highway 20A).

## Conditions

### General

1. The works shall be subject to the general outline plan of works procedure as provided for in section 176A of the Resource Management Act 1991. If not already incorporated into the designation or otherwise waived by the Council, the outline plan of works shall show construction design details, in particular where the works impact on Council services, roads and intersections. The services plan shall include details of all underground utility services, stormwater reticulation, street lighting, traffic signalisation, and access to all properties directly affected by the designation.
2. Land taken or held for the works shall be maintained to a reasonable standard until the physical works commence and for the duration of the construction works.
3. At all times, reasonable access shall be maintained from the roading network to private properties not directly affected by the construction and operation works.
4. During and following the construction period, safety barriers and security fencing shall be provided to ensure neighbouring site safety and security fencing to a standard at least as currently provided on the property boundary.
5. A liaison person shall be appointed by the Requiring Authority for the duration of the construction period to be the main and readily accessible point of contact for persons affected by construction work. The Requiring Authority shall advise the Manager, Resource Consents and Compliance of the liaisons person's name and contact details. This person shall be reasonably available for on-going consultation on all matters of concern arising during the construction period. The Requiring Authority's liaison person is to maintain adequate site records which shall include, but not be limited to, machinery use, working conditions, weather, any complaints received and measures taken to remedy or minimise the factors causing the complaints. These records are to be made available upon request to the Council's Resource Compliance Officer and/or District Plan Enforcement Officer.

### Construction Traffic Management Plan

6. The New Zealand Transport Agency (NZTA) shall submit to the Council with the outline plan of works application a Construction Traffic Management Plan based on its final design and staging for the project. The Construction Traffic Management Plan shall be provided in consultation with the Council and shall:
  - a. Demonstrate how the impact on the local and motorway network will be minimised during the construction period;
  - b. Incorporate NZTA's Code of Practice for Temporary Traffic Management and shall make provision for the efficient movement of trucks and machinery to and from the site works, the staging of works, the standards of

any temporary works, and the impact of the works on the local network; and

c. Address methods of mitigating the local and network-wide effects of both the construction of individual elements of the project, such as the diamond interchange, and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction.

### **Landscape Management Plan**

7. A Landscape Management Plan prepared by a suitably qualified landscape architect appointed by NZTA shall be provided in consultation with and submitted to the Council with the outline plan of works application. The Landscape Management Plan shall be subsequently implemented no later than the first planting season immediately following completion of construction, and maintained thereafter to the satisfaction of the Manager, Resource Consents and Compliance.

### **~~Consents and Compliance.~~**

8. The Landscape Management Plan shall include the strategic planted bed located on the south eastern corner of State Highway 20A and Kirkbride Road at 237 Kirkbride Road (House Park) that shall be retained where practicable or relocated to the satisfaction of the Manager, Parks, at no cost to the Council.

### **Archaeological and Heritage Mitigation Conditions**

9. If any traditional sites, taonga, or other archaeological sites are exposed during site works then the following procedures shall apply:

a. Works in the immediate vicinity of the site that has been exposed shall cease;

b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;

c. The site supervisor shall notify representatives of local iwi, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the ~~Manukau City~~ Auckland Council, and in the case of human remains, the Police. This notification includes such persons being given a reasonable time to record and recover archaeological features discovered, before work may recommence on the site;

d. Any newly discovered archaeological site shall be screened by a fence at least 1.0m in height until any necessary authority required by ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained. The fencing shall be supervised by a suitably qualified archaeologist to determine the appropriate location for fencing. No construction material or equipment shall be stored within the fenced area;

e. Any geological discoveries shall be recorded and, where practicable, damage to those features minimised. Records of any such geological discoveries shall be provided to the ~~Auckland Regional Council and the Manukau City~~ Auckland Council for information and future reference; and

f. The requiring authority shall ensure that conditions of the authority received from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand are complied with.

### **Ecological Impact Management**

10. Exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

11. Prior to any disturbance or removal of protected trees in excess of six metres in height, the NZTA shall provide a report to the Council from a registered arborist of the New Zealand Arboricultural Association in respect to the affected trees and the proposed mitigation works. Mitigation works could include avoiding the tree (if practicable), relocation, or removal and/or replacement. Where trees are to be retained and where practicable, the trees shall be fenced no closer than the dripline with a 1.0m high fence. No construction equipment or construction material shall be stored within the fenced off area for the duration of the works. Where roots of such trees need to be cut, they shall be cut and treated according to recognised arboricultural practice after a report has been presented to the Manager, Resource Consents and Compliance as required above.

12. Restoration measures including grassing and other planting for slope stability shall be carried out as soon as practicable by the NZTA, together with landscape planting, using locally sourced native species where available.

### **Construction Noise Mitigation Condition**

13. That any noise from construction work (as defined in Chapter 18 of the Manukau Operative District Plan) emanating from the site shall comply with Rule 5.18.3.6 of the Manukau Operative District Plan 2002 and the New Zealand Standard for Construction Noise (NZS 6803:1999 Acoustics - Construction Noise) or any subsequent revisions.

#### **Operational Noise**

14. That in respect of noise associated with the operation of the alteration of designation, a detailed Noise Management Plan shall be prepared by a suitably qualified noise consultant in consultation with the Manager, Resource Consents and Compliance, demonstrating compliance with the NZTA (New Zealand Transport Agency) "Guidelines for the Management of Road Traffic Noise - State Highway Improvements" (December 1999). The Noise Management Plan shall be submitted to the Council with the outline plan of works application and take into consideration adjacent and/or abutting sites including the Mangere Central Primary School and Business 5 Zone.

#### **Construction**

15. All works on Council roads shall be in accordance with the current ~~Manukau City~~ Auckland Council Engineering Quality and MANARC standards.

16. All works shall be carried out in accordance with an approved Health and Safety Control Programme.

17. All necessary and practicable steps shall be taken to avoid damage to other utility services, the roading network, or private property.

18. Adequate provision shall be made for the protection and/or redirection of the existing water supply services located within the following areas, to the satisfaction of the Manager, Resource Consents & Compliance, in conjunction with any future Outline Plan of Works.

a. Area 5 - Existing 300mm Asbestos Cement water supply line (constructed 1978).

b. Area 7 - Existing 200mm PVC water supply line (constructed 2003).

c. Area 8 - Existing 250mm Asbestos Cement water supply line (constructed 1960).

This shall include the submission of engineering design plans, incorporating the protection and/or redirection of these services, in accordance with the Engineering Performance Standards of Manukau City Council's District Plan to Manukau Water for specific approval prior to commencement of works on site.

19. Adequate provision shall be made for the disposal of stormwater from the additional impermeable area on State Highway 20A land. In this regard, engineering design plans in accordance with the Engineering Quality Standards of Manukau City Council's District Plan shall be provided in consultation with and submitted to the Manager, Stormwater Infrastructure prior to commencement of works on site.

#### *Advice Notes:*

a. The purpose is to identify any adverse effect and to ensure that the proposed works will include measures to avoid these adverse effects.

b. The engineering design should incorporate water quality measures to the standard required by Auckland ~~Regional~~ Council to adequately treat road runoff.

20. All necessary precautions shall be taken to protect the public from any open trenches and all other hazards associated with the works.

21. All reinstatement within the Council road reserve shall be carried out in accordance with the Council's "Code of Practice for Working in the Road".

22. The land modification works proposed shall be undertaken in a manner which ensures that the land within the above development and the land on adjoining properties remain stable at all times. In this regard:

a. The required retaining walls and/or any temporary stabilising works required shall be constructed in a timely

manner under engineering design and supervision.

b. A geotechnical certification is to be submitted to the Council to confirm the suitability of the completed works.

23. Control measures shall be in place to ensure that any trucks do not deposit soil or other debris on public roads. Any such material deposited on any public road shall be cleaned up immediately at the Requiring Authority's expense.

24. All earthworks on the site shall be undertaken in a manner so as to minimise 'dust' or 'soil erosion/siltation' beyond the boundary of the site, which in the opinion of an enforcement officer who is employed by the Council, might be objectionable, offensive or have the potential to create an adverse effect on the receiving environment.

25. Any surplus excavated soil shall be taken to an approved fill site and disposed of in accordance with the relevant District Plan requirements.

26. Should any significant vibration need to be generated such as during piling works for example, a Vibration Management Plan shall be submitted to the Manager, Resource Consents and Compliance, ~~Manukau City~~ Auckland Council, prior to commencement of the works. This Mitigation Plan shall include details of how as far as practicable the works will comply with the requirements of the German Standard DIN4150 "Structural Vibration in Buildings - Effects on Structures" during construction.

27. During construction, the generation of dust shall be managed in such as way it does not create a nuisance beyond the boundary of the works. A nuisance will be deemed to have occurred if:

- a. There is visible evidence of suspended solids/particulate matter in the air beyond the site boundary; and/or
- b. There is visible evidence of deposited particulate matter traceable from a dust source, settling on the ground, building or structure on an adjoining site.

28. All private services affected by the works, shall be reinstated at no cost to the affected property owner.

## Attachments

No attachments.

## 6713 State Highway 20A - George Bolt Memorial Drive

Designation Number	6713
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20A (George Bolt Memorial Drive) from Kirkbride Road to Auckland International Airport, Mangere
Rollover Designation	Yes
Legacy Reference	Designation 185, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

George Bolt Memorial Drive.

The section of land covered by Designation 185 which is located within Designation 231 is subject to Designation 231 as well as Designation 185.

## Conditions

## **General**

1. The works shall be subject to the general outline plan of works procedure as provided for in section 176A of the Resource Management Act 1991. If not already incorporated into the designation or otherwise waived by the Council, the outline plan of works shall show construction design details, in particular where the works impact on Council services, roads and intersections. The services plan shall include details of all underground utility services, stormwater reticulation, street lighting, traffic signalisation, and access to all properties directly affected by the designation.

2. Land taken or held for the works shall be maintained to a reasonable standard until the physical works commence and for the duration of the construction works.

3. At all times, reasonable access shall be maintained from the roading network to private properties not directly affected by the construction and operation works.

4. During and following the construction period, safety barriers and security fencing shall be provided to ensure neighbouring site safety and security fencing to a standard at least as currently provided on the property boundary.

5. A liaison person shall be appointed by the Requiring Authority for the duration of the construction period to be the main and readily accessible point of contact for persons affected by construction work. The Requiring Authority shall advise the Manager, Resource Consents and Compliance of the liaison person's name and contact details. This person shall be reasonably available for on-going consultation on all matters of concern arising during the construction period. The Requiring Authority's liaison person is to maintain adequate site records which shall include, but not be limited to, machinery use, working conditions, weather, any complaints received and measures taken to remedy or minimise the factors causing the complaints. These records are to be made available upon request to the Council's Resource Compliance Officer and/or District Plan Enforcement Officer.

## **Construction Traffic Management Plan**

6. The New Zealand Transport Agency (NZTA) shall submit to the Council with the outline plan of works application a Construction Traffic Management Plan based on its final design and staging for the project. The Construction Traffic Management Plan shall be provided in consultation with the Council and shall:

- a. Demonstrate how the impact on the local and motorway network will be minimised during the construction period;
- b. Incorporate NZTA's Code of Practice for Temporary Traffic Management and shall make provision for the efficient movement of trucks and machinery to and from the site works, the staging of works, the standards of any temporary works, and the impact of the works on the local network; and
- c. Address methods of mitigating the local and network-wide effects of both the construction of individual elements of the project, such as the diamond interchange, and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction.

## **Landscape Management Plan**

7. A Landscape Management Plan prepared by a suitably qualified landscape architect appointed by NZTA shall be provided in consultation with and submitted to the Council with the outline plan of works application. The Landscape Management Plan shall be subsequently implemented no later than the first planting season immediately following completion of construction, and maintained thereafter to the satisfaction of the Manager, Resource Consents and Compliance.

## **~~Consents and Compliance~~**

8. The Landscape Management Plan shall include the strategic planted bed located on the south eastern corner of State Highway 20A and Kirkbride Road at 237 Kirkbride Road (House Park) that shall be retained where practicable or relocated to the satisfaction of the Manager, Parks, at no cost to the Council.

## **Archaeological and Heritage Mitigation Conditions**

9. If any traditional sites, taonga, or other archaeological sites are exposed during site works then the following

procedures shall apply:

- a. Works in the immediate vicinity of the site that has been exposed shall cease;
- b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;
- c. The site supervisor shall notify representatives of local iwi, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the ~~Manukau City~~ Auckland Council, and in the case of human remains, the Police. This notification includes such persons being given a reasonable time to record and recover archaeological features discovered, before work may recommence on the site;
- d. Any newly discovered archaeological site shall be screened by a fence at least 1.0m in height until any necessary authority required by ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained. The fencing shall be supervised by a suitably qualified archaeologist to determine the appropriate location for fencing. No construction material or equipment shall be stored within the fenced area;
- e. Any geological discoveries shall be recorded and, where practicable, damage to those features minimised. Records of any such geological discoveries shall be provided to the ~~Auckland Regional Council and the Manukau City Council~~ for information and future reference; and
- f. The requiring authority shall ensure that conditions of the authority received from the ~~the New Zealand Historic Places Trust~~ Heritage New Zealand are complied with.

### **Ecological Impact Management**

10. Exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

11. Prior to any disturbance or removal of protected trees in excess of six metres in height, the NZTA shall provide a report to the Council from a registered arborist of the New Zealand Arboricultural Association in respect to the affected trees and the proposed mitigation works. Mitigation works could include avoiding the tree (if practicable), relocation, or removal and/or replacement. Where trees are to be retained and where practicable, the trees shall be fenced no closer than the dripline with a 1.0m high fence. No construction equipment or construction material shall be stored within the fenced off area for the duration of the works. Where roots of such trees need to be cut, they shall be cut and treated according to recognised arboricultural practice after a report has been presented to the Manager, Resource Consents and Compliance as required above.

12. Restoration measures including grassing and other planting for slope stability shall be carried out as soon as practicable by the NZTA, together with landscape planting, using locally sourced native species where available.

### **Construction Noise Mitigation**

13. That any noise from construction work (as defined in Chapter 18 of the Manukau Operative District Plan) emanating from the site shall comply with Rule 5.18.3.6 of the Manukau Operative District Plan 2002 and the New Zealand Standard for Construction Noise (NZS 6803:1999 Acoustics - Construction Noise) or any subsequent revisions.

### **Operational Noise**

14. That in respect of noise associated with the operation of the alteration of designation, a detailed Noise Management Plan shall be prepared by a suitably qualified noise consultant in consultation with the Manager, Resource Consents and Compliance, demonstrating compliance with the NZTA (New Zealand Transport Agency) "Guidelines for the Management of Road Traffic Noise - State Highway Improvements" (December 1999). The Noise Management Plan shall be submitted to the Council with the outline plan of works application and take into consideration adjacent and/or abutting sites including the Mangere Central Primary School and Business 5 Zone.

### **Construction**

15. All works on Council roads shall be in accordance with the current ~~Manukau City~~ Auckland Council Engineering Quality and MANARC standards.

16. All works shall be carried out in accordance with an approved Health and Safety Control Programme.

17. All necessary and practicable steps shall be taken to avoid damage to other utility services, the roading network, or private property.

18. Adequate provision shall be made for the protection and/or redirection of the existing water supply services located within the following areas, to the satisfaction of the Manager, Resource Consents & Compliance, in conjunction with any future Outline Plan of Works.

a. Area 5 - Existing 300mm Asbestos Cement water supply line (constructed 1978).

b. Area 7 - Existing 200mm PVC water supply line (constructed 2003).

c. Area 8 - Existing 250mm Asbestos Cement water supply line (constructed 1960).

This shall include the submission of engineering design plans, incorporating the protection and/or redirection of these services, in accordance with the Engineering Performance Standards of Manukau City Council's District Plan to Manukau Water for specific approval prior to commencement of works on site.

19. Adequate provision shall be made for the disposal of stormwater from the additional impermeable area on State Highway 20A land. In this regard, engineering design plans in accordance with the Engineering Quality Standards of Manukau City Council's District Plan shall be provided in consultation with and submitted to the Manager, Stormwater Infrastructure prior to commencement of works on site.

*Advice Notes:*

a. The purpose is to identify any adverse effect and to ensure that the proposed works will include measures to avoid these adverse effects.

b. The engineering design should incorporate water quality measures to the standard required by Auckland Regional Council to adequately treat road runoff.

20. All necessary precautions shall be taken to protect the public from any open trenches and all other hazards associated with the works.

21. All reinstatement within the Council road reserve shall be carried out in accordance with the Council's "Code of Practice for Working in the Road".

22. The land modification works proposed shall be undertaken in a manner which ensures that the land within the above development and the land on adjoining properties remain stable at all times. In this regard:

a. The required retaining walls and/or any temporary stabilising works required shall be constructed in a timely manner under engineering design and supervision.

b. A geotechnical certification is to be submitted to the Council to confirm the suitability of the completed works.

23. Control measures shall be in place to ensure that any trucks do not deposit soil or other debris on public roads. Any such material deposited on any public road shall be cleaned up immediately at the Requiring Authority's expense.

24. All earthworks on the site shall be undertaken in a manner so as to minimise 'dust' or 'soil erosion/siltation' beyond the boundary of the site, which in the opinion of an enforcement officer who is employed by the Council, might be objectionable, offensive or have the potential to create an adverse effect on the receiving environment.

25. Any surplus excavated soil shall be taken to an approved fill site and disposed of in accordance with the relevant District Plan requirements.

26. Should any significant vibration need to be generated such as during piling works for example, a Vibration Management Plan shall be submitted to the Manager, Resource Consents and Compliance, ~~Manukau City~~ Auckland Council, prior to commencement of the works. This Mitigation Plan shall include details of how as far as practicable the works will comply with the requirements of the German Standard DIN4150 "Structural

Vibration in Buildings - Effects on Structures" during construction.

27. During construction, the generation of dust shall be managed in such a way it does not create a nuisance beyond the boundary of the works. A nuisance will be deemed to have occurred if:

- a. There is visible evidence of suspended solids/particulate matter in the air beyond the site boundary; and/or
- b. There is visible evidence of deposited particulate matter traceable from a dust source, settling on the ground, building or structure on an adjoining site.

28. All private services affected by the works, shall be reinstated at no cost to the affected property owner.

## Attachments

No attachments.

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### 6715 State Highway 1 - East Tamaki Road Interchange

Designation Number	6715
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 at East Tamaki Road interchange, Otara
Rollover Designation	Yes
Legacy Reference	Designation 187, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Southern Motorway widening East Tamaki Road.

## Conditions

No conditions.

## Attachments

No attachments.

### 6716 State Highway 20 - Manukau City Centre to Wiri

Designation Number	6716
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Great South Road, Manukau City Centre to Cavendish Drive interchange, Wiri
Rollover Designation	Yes
Legacy Reference	Designation 284, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

South Western Motorway - State Highway 20 (connection to State Highway 1).

## Conditions

### 1.0 General

1.1 The scope and extent of works envisaged within the designation shall be generally in accordance with the requirement and the updated plans submitted with the Section 92 response for Notice of Requirement (identified as Council reference 19331), and the Notice of Requirement for the Alteration to Designation (identified as Council reference Proposal 34316) subject to final design and any modification required to comply with the conditions set out below.

1.2 The works shall be subject to the general outline plan of works procedure as provided for in section 176A of the Resource Management Act 1991. If not already incorporated into the designation or otherwise waived by the Council, the outline plan of works shall show construction design details, in particular where the works impact on Council services, roads and intersections.

1.3 Any land taken or held for the works shall be maintained to a reasonable standard until the physical works commence and for the duration of construction works.

1.4 At all times, reasonable access shall be maintained from the roading network to private properties, or public open space not directly affected by construction and operation.

1.5 Where a condition requires Council approval this shall mean approval from the Manager Resource Consents and Compliance as the certifying officer, unless otherwise stated. Approval from the Manager shall not be unreasonably withheld or delayed.

1.6 The existing standard of safety barriers and security fencing which are currently located on site boundaries shall be maintained during the construction period, or reinstated after construction if temporarily removed or modified.

1.7 For the purpose of these conditions, in determining whether a proposed activity is "practicable", the NZ Transport Agency shall have regard to:

- a. The nature of the proposed activity; and
- b. The sensitivity of the environment which will be affected by the proposed activity; and
- c. The financial implications of the proposed activity when compared with other options; and
- d. The effects on the environment of the proposed activity when compared with other options; and
- e. The current state of technical knowledge and the likelihood that the proposed activity can be successfully carried out.

### 1.8 Management Plans and Outline Plans

1.8.1 Prior to the commencement of the works, the NZ Transport Agency shall submit to Council the relevant Management Plans required under Conditions 5, 6, 8, 9, 11, 12, 13, 13.3.4, 13.3.5 and 14 below.

1.8.2 The Plans shall be submitted to Council as soon as reasonably practicable, in any event, allowing sufficient time for review by Council and discussion with the NZ Transport Agency.

1.8.3 Any Management or Outline Plans maybe submitted in stages to reflect any proposed staging of the physical works. Plans submitted in stages must clearly show integration with adjacent stages and interrelated activities.

1.8.4 If Council and the NZ Transport Agency agree on the content and terms of such Management Plans, that agreement shall be deemed to be a waiver in relation to that Plan or relevant part of that Plan pursuant to section 176A(2)(c) of the RMA of the requirement for an Outline Plan under section 176A.

1.8.5 If Council and the NZ Transport Agency do not agree on the terms of such Plan or Plans, the relevant provisions of section 176A of the RMA shall apply in respect of any part not agreed.

1.8.6 The works shall be undertaken in accordance with the approved Management Plan or accepted Outline Plan of Works (as the case may be).

## **2.0 Designation**

2.1 That pursuant to Section 171(2)(a) of the Resource Management Act, the requirement for the designation be modified by altering the designation boundary between Lambie Drive and Davies Avenue, to the extent that its northern limit shall be no greater than 15 metres from the northern kerbline of the proposed link road between Lambie Drive and Davies Avenue.

2.2 No works, including land disturbance, construction works, or occupancy by contractors should reduce the development potential of the land located between the proposed motorway and Wiri Station Road Extension (between Lambie Drive and Davies Avenue). For the purposes of this condition the southern section of Hayman Park is defined by notional lines 10 metres from the base of the fill batters on the regraded sections of Wiri Station Road and Lambie Drive, 10 metres from the southern kerbline of the Lambie Drive to Davies Avenue link road, and 10 metres from the top of the cut batter on the northern side of the motorway, such batter being no flatter than 3:1 (3H:1V). The extent of the area so defined shall be indicated on the Outline Plan of Works.

2.3 Wiri Station Road Extension shall make provision for legal road access midway along the proposed extension to serve proposed future intensive land use sites to the north and south of the road.

2.4 As soon as practicable after construction of the works, the NZ Transport Agency shall give notice to ~~Manukau City~~ Auckland Council in accordance with section 182 of the RMA for removal of those parts of the designation which cover the Plunket Avenue overbridge and Plunket Avenue roundabout, which are not required for the long term operation, maintenance and mitigation of effects of the State Highway.

## **3.0 Archaeological and Geological Impact Management**

3.1 Should construction work uncover any archaeological remains, the NZ Transport Agency shall immediately advise local Iwi, as required by any agreed Iwi protocol for the project, and Heritage New Zealand ~~the New Zealand Historic Places Trust~~. All works shall cease in the affected area until any necessary authority required by Heritage New Zealand ~~the New Zealand Historic Places Trust~~ is obtained.

3.2 Any newly discovered archaeological site shall be screened by a fence at least 1.0m in height until any necessary authority required by Heritage New Zealand ~~the New Zealand Historic Places Trust~~ is obtained. The fencing shall be supervised by a suitably qualified archaeologist to determine the appropriate location for fencing. No construction material or equipment shall be stored within the fenced area.

3.3 Any geological discoveries shall be recorded and, where practicable, damage to those features minimised. Records of any such geological discoveries shall be provided to the Auckland ~~Regional~~ Council ~~and the Manukau City Council~~ for information and future reference.

3.4 All initial earthworks in the vicinity of St John's Redoubt, from chainage 0.00 to chainage 400.00 of the Redoubt Road southbound on-ramp, shall be monitored by an archaeologist.

## **4.0 Ecological Impact Management**

4.1 Exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

4.2 Prior to any disturbance or removal of protected trees in excess of six metres in height, the NZ Transport Agency shall provide a report to Council from a registered arborist of the New Zealand Arboricultural Association in respect to the affected trees and the proposed mitigation works. Mitigation works could include avoiding the tree (if practicable), relocation, or removal and/or replacement.

4.3 Where trees are to be retained and where practicable, the trees shall be fenced no closer than the dripline with a 1.0m high fence. No construction equipment or construction material shall be stored within the fenced off area for the duration of the works. Where roots of such trees need to be cut they shall be cut and treated according to recognised arboricultural practice after a report has been presented to the Manager Resource Consents and Compliance as required above.

4.4 Restoration measures including grassing and other planting for slope stability shall be carried out as soon as practicable by the NZ Transport Agency, together with landscape planting, using locally sourced native species where available.

## 5.0 Visual Impact Management

5.1A Landscape Management Plan shall be prepared during the detailed design stage by a suitably qualified landscape architect appointed by the NZ Transport Agency. In preparing the Landscape Plan, the following matters shall be taken into account:

- a. The angle and extent of cut and batter slopes;
- b. The preparation and, in due course, implementation of a planting plan that will integrate the alignment into the landscape units through which it passes;
- c. The protection of existing visual and landscape values;
- d. The use of locally sourced native species, where practicable and appropriate;
- e. The removal and control of plant pests;
- f. The use of vegetation on embankments and berms suitable for diffuse of stormwater discharge;
- g. The Landscape Concepts (Sectors 1–3) prepared by Boffa Miskell Limited and presented to the Hearing Commissioners in November 2001;
- h. The integration of context sensitive design elements in hard structures such as retaining walls and overbridges;
- i. Liaison with ~~Manukau City~~ Auckland Council to provide appropriate locations for the Council to install City Centre gateway style sculptures at Council's cost (such gateway sculptures are subject to prior NZ Transport Agency approval, primarily for safety reasons);
- j. The integration of any noise barriers, final details of which shall be determined during detailed design;
- k. Provision of continuous pedestrian access along the Puhinui Stream margin within the designation boundary;
- l. That specimen trees shall be at least size PB120;
- m. No landscaping is to occur on archaeological sites (if any);
- n. The use of various arboricultural techniques to protect trees which are to be retained and for any works to trees that are to be retained;
- o. Details of plant species proposed to be used;
- p. Details of an ongoing maintenance programme for the landscaping;
- q. Appropriate landscaping to visually screen the motorway structure from neighbouring sites insofar as that is practicable.
- r. The draft Manukau City Centre Redevelopment Strategy (September 1999);
- s. The MANUKAU - FACE OF THE FUTURE® trademark and philosophy;
- t. Further consultation with affected submitters at the detailed design stage specific to their properties;
- u. Further consultation with ~~Manukau City~~ Auckland Council and Te Ara o Puhinui regarding revegetation and provision of pedestrian paths in association with Puhinui Stream;
- v. Further consultation with ~~Manukau City~~ Auckland Council and Wiri Whanau Support Group regarding the detailed design treatment of the pedestrian overbridge connecting with Barrowcliffe Place and associated amenity areas;
- w. Further consultation with Manukau City Council regarding planting in the vicinity of the rail alignment;
- x. The use of plant species as identified in ARC Technical Publication 148: Riparian Zone Management: Strategy for the Auckland Region, June 2001.
- y. The Puhinui Stream Alignment Concept Plans and the Stormwater Pond Concept Plan prepared by Boffa Miskell Limited and presented to the Hearings Commissioners in November 2001; and
- z. The retention of existing vegetation and trees along the motorway corridor, where practicable, including the mature grove of Pin Oaks in Hayman Park.

5.2 The Landscape Management Plan shall be submitted for approval to the Council prior to the works commencing. The approved Plan shall be subsequently implemented no later than the first planting season immediately following completion of construction and maintained thereafter to the satisfaction of the Manager-Resource Consents and Compliance.

5.3 The design of the retaining wall to be constructed adjacent to the western boundary of the Church of Jesus Christ of Latter-Day Saints Trust Board site on Redoubt Road shall be undertaken in consultation with the Church.

5.4 An amendment to the Landscape Management Plan shall be prepared by a suitably qualified landscape architect appointed by the NZ Transport Agency in relation to the works necessary to implement the Plunket Avenue overbridge and roundabout, which shall take into account the matters set out in condition 5.1 (as relevant). The amendments to the Landscape Management Plan shall be submitted to the Council for approval prior to the Plunket Avenue works commencing and will be implemented and maintained in accordance with condition 5.2.

## **6.0 Traffic Management Plan**

6.1 The NZ Transport Agency shall submit for Council approval prior to works commencing a Traffic Management Plan based on its final design and staging for the project. The Traffic Management Plan shall:

6.1.1 Demonstrate how the impact on the local and motorway network will be minimised during the construction period.

6.1.2 Incorporate the NZ Transport Agency's Code of Practice for Temporary Traffic Management and shall make provision for the efficient movement of trucks and machinery to and from the site works, the staging of works, the standards of any temporary works, and the impact of the works on the local network.

6.1.3 Address methods of mitigating the local and network-wide effects of both the construction of individual elements of the project (eg bridges, intersections) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction.

6.1.4 Demonstrate how current formed pedestrian routes either along Druces — Lambie roads, Great South Road and between the land to the south of Wiri Station Road and the Manukau Town Centre will be maintained during the construction period.

6.2 During construction of the proposed motorway link, the NZ Transport Agency shall ensure that Keri Ann Place and the adjoining reserve shall not be used for construction access or storage, including the parking of contractors vehicles.

6.3 Unless otherwise agreed in writing between Westfield (New Zealand) Limited ("Westfield") and Village Force Cinemas Limited ("Village") and the NZ Transport Agency, construction traffic shall only enter the construction site via Lakewood Court for the following purposes:

6.3.1 Accommodation works for Denny's Restaurant;

6.3.2 For works associated with integrating the carpark extension with the existing Cinema carpark;

6.3.3 For works associated with construction of a dust/security fence.

6.4 An amendment to the Traffic Management Plan to provide for the works necessary to implement the Plunket Avenue roundabout and overbridge shall be submitted to Council for approval prior to those works commencing. The amendment to the Traffic Management Plan shall comply with conditions 6.1.1, 6.1.2 and

6.1.3 (as relevant).

## **7.0 Transpower New Zealand**

7.1 During detailed design, the NZ Transport Agency shall include provision for the following matters in relation to Transpower New Zealand Limited ("Transpower"):

7.1.1 Adequate protection of the existing transmission lines from any adverse effects of the proposed works; and

7.1.2 Details of works likely to have an adverse effect on Transpower assets, to be determined in consultation with Transpower, prior to the commencement of any works; and

7.1.3 Transpower to be notified of all works likely to adversely affect Transpower assets within a reasonable timeframe; to enable sufficient time for Transpower to plan and carry out any works on its assets required due to the works subject to the designation.

7.2 In particular, the NZ Transport Agency shall address the following matters in relation to Transpower:

7.2.1 Ensure that existing access arrangements to transmission towers are retained where practicable. Where the NZ Transport Agency requires or causes a change in access arrangements, then alternative arrangements shall be made that ensures safe 4-wheel drive 24 hour access to the tower base (including during the construction period) or other options that will enable Transpower to undertake necessary works ~~24 hour access to the tower base (including during the construction period) or other options that will enable Transpower to undertake necessary works.~~

7.2.2 Any proposed temporary or permanent alterations to the access arrangements to any Transpower infrastructure, shall be determined with the agreement of Transpower.

7.2.3 Ensure that all works comply with the following, unless specifically provided in terms of condition 7.2.5 below:

- a. All mobile plant operated in relation to the proposed works to maintain a 4 metre clearance from Transpower conductors at all times;
- b. No temporary buildings, scaffolding or stationary plant to be located within 8 metres of any conductor;
- c. All earthworks (including stockpiles) underneath the conductors to maintain a minimum of 6.5 metre vertical clearance distances from conductors at all times; and
- d. Transpower's written approval is required prior to undertaking any earthworks within 6 metres of the outer edge of the visible foundation of a transmission tower, or greater than 3 metres in depth between 6 metres and 12 metres from the outer edge of a tower, or any works that could create an unstable batter which may adversely affect a tower.

7.2.4 Where the NZ Transport Agency wishes to undertake works or activities within distances specified in condition 7.2.4 above, the NZ Transport Agency shall outline the procedures and requirements necessary for Transpower to be able to consider and approve or reject such an encroachment as appropriate.

7.2.5 Provide a dust and vibration mitigation strategy for the works which shall include mitigation measures to be undertaken to minimise dust and vibration effects on the existing transmission lines.

7.2.6 Finalise details of landscaping planting to ensure that:

- a. No part of any vegetation will encroach into an area closer than 4 metres to any conductors of the lines. The 4-metre clearance relates to vertical, horizontal and felling distance clearances;
- b. Vegetation planted in close proximity to tower bases does not adversely effect existing tower foundations (i.e. cause corrosion by creating a damp environment); and
- c. Vegetation does not preclude physical access to a tower.

## **8.0 Noise Management Plan**

8.1 The works shall be designed and constructed to ensure compliance with the noise limits specified in the NZ Transport Agency's Guidelines for the Management of Traffic Noise for State Highway Improvements, December 1999 (NZTA's Noise Guidelines) or if practicable such higher standards adopted by the NZ Transport Agency in any review of its Noise Guidelines prior to the commencement of the tendering process for physical works.

8.2 A detailed Noise Management Plan shall be prepared by a suitably qualified noise consultant in consultation with the Manager - Resource Consents and Compliance. The Noise Management Plan shall be submitted for approval to the Manager - Resource Consents and Compliance prior to construction commencing, and the approved plan shall be complied with. The purpose of the Plan is to describe the method by which noise associated with traffic using the roading within the designation will be made to comply with noise limits specified in the NZ Transport Agency's Noise Guidelines. Where the ambient sound level is required to be monitored to determine design limits then this shall be done prior to construction commencing. Such methods may include, but not be limited to:

- a. Acoustic barriers and/or bunding; and
- b. Acoustic insulation (if required);

Where a fence and/or bunding are used and the location allows, the barrier shall be landscaped with plantings where practicable.

8.3 Noise monitoring shall be undertaken in accordance with NZS 6801: 1999 Measurement of Sound to ensure compliance with Condition 8.1 above. The NZ Transport Agency shall ensure that representative noise monitoring of the motorway route is undertaken at its expense by a suitably qualified and experienced acoustical consultant within nine months of the opening of the whole route. Results of all noise monitoring shall be supplied to the Council within six weeks of the monitoring being completed. Where such monitoring demonstrates non-compliance, the NZ Transport Agency shall take such steps as may be necessary to ensure compliance with the above requirements.

## **9.0 Soil Contamination Management Plan**

Prior to construction the NZ Transport Agency shall provide to the Council for approval a Soil Contamination Management Plan. This Plan shall be prepared by a suitably qualified person who shall investigate and identify sites of potential soil contamination within the proposed designation boundary and provide details as to how contaminated soils will be treated or removed for disposal to approved sites.

## **10.0 Property Access and Carparking**

10.1 During detailed design, the NZ Transport Agency shall ensure that the design of the intersection of the proposed roads (SH1 and SH20 on and off ramps) with Redoubt Road does not preclude access to the Church of Jesus Christ Latter Day Saints Trust Board site on Manukau Operative District Plan Redoubt Road as currently provided under the 14 April 1998 resource consent held by the Church.

10.2 During detailed design, the NZ Transport Agency will use its best endeavours to design the proposed roading works so as not to preclude implementation of full access to the Church's property, subject to safety and operational requirements, should the Church wish to obtain future resource consent for such access.

10.3 Prior to commencing works pursuant to the designation in respect of Lot 8, DP 112560, CT 63D/331, the NZ Transport Agency shall ensure that it has obtained all necessary consents and other approvals authorising the construction and use of the new area of carparks, and has constructed those carparks, to be used by the owners and tenants of the Cinema Land (being the land currently owned by Westfield and currently tenanted by Village and includes land transferred or to be transferred to Westfield pursuant to the Public Works Act 1981). For the avoidance of doubt, this condition requires a new resource consent for the new carparking areas and a variation of the existing resource consent to refer to the new area of carparking, and requires the freehold ownership of this replacement land to have been transferred to Westfield. The NZ Transport Agency is to obtain all necessary approvals and consents in consultation with, and on conditions satisfactory to, Westfield and Village.

10.4 The NZ Transport Agency shall provide at its own expense, an amalgamated certificate of title incorporating proposed replacement land for the reduced area of Cinema Land.

### **11.0 Flooding and Drainage**

11.1 NZTA shall submit to Council for approval a revised hydrological specimen design incorporating the most recent detailed hydrological modelling. This revised design shall be used as a basis for detailed design.

11.2 A Drainage Network Plan shall be prepared and submitted to the Manager - Resource Consents and Compliance. The design of the drainage network shall be based upon the outputs of Council's latest hydraulic modelling of the Puhinui Stream, and the Plan shall include details of:

- a. Design assumption and catchment areas;
- b. Design calculations
- c. Final design details, including plans, of cesspits, pipes, drainage channels and swales, and inlets and outlets; and
- d. The hydrological influence and impact upon adjacent land and proposed development at the Everglade Pond and Pacific Arena sites.

11.3 Where the design of the drainage network incorporates changes to the final design, the NZ Transport Agency shall update Council's latest hydraulic model to incorporate those changes and submit the model and the design changes for approval to the Manager - Resource Consents and Compliance.

11.4 Where it is determined, as a result of the assessment in condition 11.3 above, that the design of the drainage network has the potential to impact upon land outside the designation, details of the potential hydrological effects from the 1 in 50 and 1 in 100 storm events, and any mitigation proposed (if necessary), shall be submitted for approval to the Manager - Resource Consents and Compliance.

### **12.0 Vibration Management Plan**

A Vibration Management Plan shall be submitted for approval to the ~~Manukau City~~ Auckland Council prior to commencement of the works. This Management Plan shall include details of how the works will comply with the requirements of German Standard DIN4150 "Structural Vibration in Buildings — Effects on Structures" during construction. The approved Plan shall be complied with by the NZ Transport Agency and its contractors.

### **13.0 Project Implementation Plan**

13.1 Prior to the commencement of works, a Project Implementation Plan (PIP) shall be prepared by the NZ Transport Agency.

13.2 The PIP shall incorporate the management plans required by the designation conditions, namely:

- a. Landscape Management Plan (condition 5);
- b. Traffic Management Plan (condition 6);
- c. Noise Management Plan (condition 8);
- d. Soil Contamination Management Plan (condition 9);
- e. Drainage Network Plan (condition 11);
- f. Vibration Management Plan (condition 12);
- g. Dust Management Plan (condition 13.3.4); and
- h. Construction Noise Management Plan (condition 13.3.5).

13.3 The PIP shall include the following provision:

#### **13.3.1 Liaison with the Public and the Council**

13.3.1.1 A Site Liaison Officer will be appointed by the NZ Transport Agency. The Council together with adjoining and adjacent neighbours shall be notified of this appointment, together with a contact address and mobile telephone number.

13.3.1.2 The Site Liaison Officer will provide an initial point of contact between the NZ Transport Agency and the Council, and any other affected party.

13.3.1.3 The Site Liaison Officer shall establish a "line of communication". This line of communication shall include contact telephone numbers (both during and after business hours) of appropriate contacts with reference to the type of work to which the contact relates (for example, site works, building, or drainage).

13.3.1.4 The Site Liaison Officer shall establish a contact with the ~~Manukau City~~ Auckland Council and attend any necessary meetings as agreed by these parties.

13.3.1.5 The Site Liaison Officer will advise adjoining and adjacent site occupiers prior to the commencement of site works of the construction timetable.

13.3.1.6 The Site Liaison Officer is to maintain adequate site records which shall include, but not be limited to, machinery use, working conditions, weather, any complaints received and measures taken to remedy or minimise the factors causing the complaints. These records are to be made available upon request to the Council's Resource Compliance Officer and/or District Plan Enforcement Officer.

### **13.3.2 Site Management**

13.3.2.1 A site office shall be located in an obvious position and shall contain a site telephone, any Outline Plan of Works and the PEMP referred to in Condition 14. The site office shall be initial point of inquiry for all visitors to the site.

13.3.2.2 A Site Safety Officer will be appointed by the NZ Transport Agency and shall be responsible for all matters related to site safety and the safety of the public and site employees as it pertains to construction activities on and adjacent to the site.

13.3.2.3 Appropriate signs to comply with any Building code or Council Bylaw requirements or the Occupational Health and Safety Act shall be clearly displayed.

13.3.2.4 Rubbish bins shall be located at least 20m from any residential boundaries.

13.3.2.5 Site toilets shall be provided or alternative arrangement made. Site toilets shall be located no closer than 20m to any residential boundary.

13.3.2.6 All works required outside the designation boundaries shall only occur after approval has been obtained from ~~Manukau City~~ Auckland Council.

### **13.3.3 Site Works**

13.3.3.1 The location and extent of each stage of the site works will be identified and concerned parties advised of the construction timetable.

13.3.3.2 The earthworks contractor shall be required to maintain the stability of the land and property at the boundary of the site by, whatever means necessary and to monitor that such works are and remain effective.

13.3.3.3 Control measures shall be in place to ensure that any vehicles leaving the designated site do not deposit soil or other debris on public roads. Any such material deposited on any public road shall be cleaned up as soon as practicably possible at the NZ Transport Agency's expense.

13.3.3.4 Adequate provision shall be made during the earthworks construction for the protection of the existing public drains that traverse the designation. Any damages to the public drains that may occur during construction, shall be the NZ Transport Agency's responsibility.

13.3.3.5 Unsuitables from earthworks surplus to site requirements shall be disposed of at an approved landfill site.

13.3.3.6 The public roads and footpaths shall be kept clear at all times of spoil from the site.

#### **13.3.4 Dust Management Plan**

13.3.4.1 A Dust Management Plan shall be prepared and submitted to the Council for approval prior to the commencement of works. The primary purpose of the Plan is to minimise dust nuisance. The Plan shall:

- a. Specify all methods proposed to be employed to control dust from earthworks;
- b. Specify the methods proposed to address problems if the dust is not satisfactorily mitigated; and
- c. Include the contact details of a contact person for residents and the Council in the event of a dust problem.

13.3.4.2 The NZ Transport Agency shall ensure that the approved Dust Management Plan is complied with.

#### **13.3.5 Construction Noise Management**

13.3.5.1 During construction, New Zealand noise standard "NZS 6803:1999 Acoustics- Construction Noise" shall apply and that noise shall comply with the limits set down in Table 2 of NZS:6803 1999 or where that is impracticable alternative strategies to be outlined in the Construction Noise Management Plan, shall be implemented to ensure that construction noise does not exceed agreed levels with affected persons.

13.3.5.2 Prior to commencement of any construction activity on the site the NZ Transport Agency or its contractors, shall submit a Construction Noise Management Plan to Council for approval. The purpose of this plan is to describe the methods by which noise associated with the construction works is to be managed to reduce (where required) any impacts on adjoining residential areas. In particular, the Construction Noise Management Plan shall identify:

- a. The matters referred to in paragraph 8.4(a) to (e) of NZS:6803: 1999 Acoustics - Construction Noise;
- b. Methods of managing noise such as a temporary acoustically designed construction noise fence;
- c. Noise monitoring methods, including details of methods, equipment, location and frequency (by reference to NZS:6803 1999);
- d. Contingency measures in the event of any incidence of non-compliance; and
- e. Procedures for handling noise complaints.

13.3.5.3 The NZ Transport Agency shall ensure that the Construction Noise Management Plan is complied with at all times during construction works.

#### **13.3.6 Construction Hours**

Except for unforeseen emergency situations and in accordance with Notes 1 and 2, hours of work during the construction phase shall be:

- a. Weekdays: 7.00am to 6.00pm;
- b. Saturdays: 8.00am to 5.00pm;
- c. Sundays and Public Holidays: No work;

#### *Advice Notes:*

- i. These restrictions exclude any special operations subject to the notification of, and discussion with, affected parties.
- ii. Except that any construction works within the motorway corridor may involve work outside the above hours and such works are excluded from the above hours of work.

#### **14.0 Project Environmental Management Plan (PEMP)**

The Management Plans required by the conditions of this designation shall, as and when approved, be consolidated into a single PEMP which shall be made available to all contractors at the site office. Any amendments to the PEMP shall be agreed to by the relevant consent authority and made available to the contractors.

## 15.0 Lighting and Signage

Appropriate lighting and signage shall be provided for the motorway and the affected local roading network in accordance with relevant standards adopted by the NZ Transport Agency and ~~Manukau City~~ Auckland Council for lighting and signage.

## 16.0 Frucor Beverages

A site specific management plan shall be prepared by the NZ Transport Agency in consultation with Frucor Beverages Limited, to avoid, remedy or mitigate adverse effects at the Frucor site relating to vibration, dust, air emissions, settlement, drainage, culvert design, proposed off road pick up and drop off area for staff, and access. This plan shall be lodged with the Council prior to construction commencing in the vicinity of the Frucor site. That part of the plan relating to the proposed off road pick up and drop of area for staff shall be approved by Council prior to construction commencing in the vicinity of the Frucor site.

## 18.0 Westfield (New Zealand) Limited and Village Force Cinemas Limited

A site specific management plan shall be prepared by the NZ Transport Agency, in consultation with the owners and tenants (if any) of the Cinema Land to avoid, remedy or mitigate adverse effects at the Village Force/Westfield site relating to construction noise, vibration, dust and air emissions. This plan shall be lodged with the Council prior to construction commencing in the vicinity of the Westfield/Village Force site.

## 19.0 Design solution for area under the Plunket Avenue overbridge.

As soon as practicable after construction commencing on the Plunket Avenue overbridge, the NZ Transport Agency, in consultation with Keith Hay Group, Machinery Movers Limited, Frucor Beverages Limited, Goodman International Limited Auckland Council and Auckland Transport, shall prepare a design solution to address potential issues relating to vagrancy, occupation and dumping, for the area under the northern and southern ends of the Plunket Avenue overbridge.

## Attachments

No attachments.

## 6717 State Highway 20B - State Highway 20 to Auckland International Airport

Designation Number	6717
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 <del>B</del> (Puhinui Road) from Puhinui Road interchange to Orrs Road, Puhinui
Rollover Designation	Yes
Legacy Reference	Designation 303, Auckland Council District Plan (Manukau Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

State Highway 20B Road purposes: the maintenance, operation and improvement of the State Highway (including road widening).

## Conditions

1. Any works undertaken to give effect to the designation shall be generally in accordance with the plans and information submitted by the New Zealand Transport Agency ("NZTA") in support of this Notice of Requirement in the documents referenced Proposal 36414, Sheet No 1 - No 2 by Council, and those previously submitted in association with Designation 261.

2. NZTA shall submit an Outline Plan of Works in accordance with the provisions of section 176A of the Resource Management Act 1991 prior to commencing any works within the SH20B.

~~3. The stated purpose of the designation shall be included in Schedule 5A, Chapter 5 of the Manukau District Plan (2002) as follows:~~

4. NZTA shall consult with the New Zealand Refining Company Ltd at least 30 working days prior to carrying out any activities on, in or under SH20B within the area of the existing New Zealand Refining Company Ltd Refinery to Auckland Pipeline ("the RAP") designation (referenced as Designation 296 in the District Plan) except in emergency situations. In any such emergency, the New Zealand Transport Agency shall notify NZRC or its appointed agent within two days of such works, any digging below 400mm from existing datum shall be performed by hand digging only, and no heavy compaction shall be applied during the emergency works.

5. If any archaeological feature (e.g. shell midden, hangi, oven stones, pit depressions, defensive ditches, artefact material, or koiwi tangata [human skeletal remains]), is uncovered during any work undertaken within the area of the designation, that work shall cease within a 10 metre radius of the discovery and the Environmental Management Group, ~~Manukau City Auckland Council, the New Zealand Historic Places Trust, Heritage New Zealand~~ and the appropriate iwi authorities shall be contacted within 72 hours so that appropriate action can be taken.

6. NZTA shall consult with Wiri Oil Services Ltd ("WOSL") (or its agent) at least 30 working days prior to carrying out any activities on, in or under SH20B within the area of the existing Wiri to Auckland Pipeline ("the WAP"), except in emergency situations.

7. Any works or activities within 3m of the WAP shall, unless prior written approval from WOSL (or its agent) for the work has been obtained:

- a. Not disturb any soil below a depth of 0.4m from the surface; and
- b. Ensure that upon completion of the works, the finished surface level is not reduced below the existing datum; and
- c. Not involve tree or shrub planting; and
- d. Not involve the erection of any structure (e.g. road sign).

8. NZTA shall consult with Watercare Services Ltd during consideration of options for and the design of any road upgrading works within the area of the designation. The purpose of such consultation is to ensure that the Notice of Requirement for the proposed Hunua 4 Watermain is taken into account.

9. The NZTA shall use its best endeavours to work cooperatively with other statutory bodies, providers of transportation infrastructure (who operate or plan to operate infrastructure either adjoining or dependant on the operation of SH20B), and Auckland International Airport Limited.

10. NZTA shall ensure that the stormwater drainage system within the designation, including any associated discharge, is maintained to avoid adverse environmental effects on the abutting properties.

## Attachments

No attachments.

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## 6719 State Highway 1 - Shelly Beach Priority Lane

Designation Number	6719
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 at Shelly Beach Road, Westhaven

Rollover Designation	Yes
Legacy Reference	Designation A07-01A, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<del>Given effect to (i.e. no lapse date) Five years from being operative in the Unitary Plan unless given effect to prior</del>

## Purpose

Motorway - Shelley Beach Road priority lane.

## Conditions

1. The work shall be undertaken in accordance with the Notice of Requirement dated 27 January 2000 and supporting documents.
2. That the area between Westhaven Drive and motorway be landscaped in accordance with Landscape Plans 3,4 and 5 (Reference Job: 1/261107, Code - 7104, Sheet No's 17, 18, 19) 3. Any tree protected under the Trees in streets and public open spaces and Notable Trees sections of the Auckland Unitary Plan .Rule 5C.7.3.3 of the District Plan shall not be removed, altered, relocated or destroyed without resource consent approval.
3. All transplanted trees shall be transplanted in accordance with accepted arboricultural practice.
4. That a 2.0 metre high fence be erected between Westhaven Drive and the motorway. The length of the fence shall be no greater than the existing fenceline.
5. The New Zealand Transport Agency (NZTA) Transit New Zealand is responsible for the maintenance of the fence including the removal of graffiti.
6. Construction of the priority lane shall adhere with construction noise standards NZS6803P:1984 "The measurement and Assessment of noise construction, maintenance and demolition work."
7. That the operation of the additional motorway lane adjacent to Shelly Beach off-ramp be restricted to buses in the morning peak only, but be available for use by general traffic after the morning peak period.

## Attachments

No attachments.

## 6720 State Highway 1 - Newmarket

Designation Number	6720
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Gillies Avenue to St Marks Road off-ramp, Newmarket
Rollover Designation	Yes
Legacy Reference	Designation A07-01B, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Five years from being operative in the Unitary Plan unless given effect to prior

## Purpose

Motorway - Newmarket Viaduct improvement project.

## Conditions

### 1. General

1.1 Except as modified by the conditions below and subject to final design, the works shall be undertaken in general accordance with the information provided at the hearing by the Requiring Authority, being ~~Transit New Zealand~~ The New Zealand Transport Agency (NZTA), the Notice of Requirement and supporting documents, as follows:

- a. 'Newmarket Viaduct Improvement Project (Viaduct Section) - Overview, Notice of Requirement, Assessment of Environmental Effects and Attachments - Volume 1', prepared for Transit New Zealand Limited by Beca Infrastructure Ltd, dated November 2005;
- b. 'Newmarket Viaduct Improvement Project (Viaduct Section) - Specialist Technical Reports - Volume 2', prepared for Transit New Zealand Limited by Beca Infrastructure Ltd, dated November 2005;
- c. 'Newmarket Viaduct Improvement Project (Viaduct Section) - A3 Plans - Volume 3', prepared for Transit New Zealand Limited by Beca Infrastructure Ltd, dated November 2005; and
- d. Further information and updated plans provided with the section 92 response (dated 13 January 2006) and post notification material (dated 7 June 2006) including:
  - i. Drawings C110 - C113 (Revision B);
  - ii. Drawings C102 - C106 (Revision B);
  - iii. Schedule of Affected Properties (Revision B);
  - iv. Drawing S211 (Revision B); and
  - v. Revised Urban Design/Visual Assessment (Brewer Davidson, May 2006).

1.2 As soon as practicable, and within 12 months following completion of construction of the Project, the Requiring Authority shall give notice to Auckland City Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation, maintenance and mitigation of effects of the State highway.

Note that Condition 1.2 is specific to land no longer required for construction purposes once the Project is completed.

1.3 A stakeholder manager shall be appointed by the Requiring Authority for the duration of the Project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The stakeholder manager's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be reasonably available for on-going consultation on all matters of concern to affected persons, including being available at all times during active construction.

1.4 Where requested by the owners, the Requiring Authority shall physically peg out the extent of the alignment on individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is later.

1.5 The period within which this designation shall lapse if not given effect to shall be 5 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.

1.6 The works the subject to this designation, including demolition and construction, shall be completed as one continuous project, within 5-years of commencement of the works, with the exception of any enabling works (including enabling works above or nearby the rail corridor required to be undertaken in sequence with any work undertaken by Ontrack).

1.7 The boundary of the designation shall not encroach into the Mt Hobson Road Carriageway.

1.8 The Requiring Authority shall pay the Council a compliance monitoring charge of \$10,000.00 (inclusive of GST) plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance. This charge is to cover the cost of inspecting the site, carrying out tests,

reviewing conditions, updating files and all work to ensure compliance with the conditions on the designation. This monitoring charge shall be paid one month prior to commencement of construction.

## **2. Project Management Plans (PMP) and Outline Plans**

2.1 The Requiring Authority shall prepare a PMP which shall include mitigation/management plans as referred to in conditions 3, 4, 7, 8 and 9 below.

2.2 No works shall be undertaken in any particular location(s) until:

- a. The PMP, or such part(s) of the PMP as are relevant to the location(s), are submitted to and approved by the Auckland City Council; and
- b. Any outline plan(s) required by section 176A of the Resource Management Act 1991 (RMA) in relation to the works in the location(s), are submitted to Auckland City Council.

2.3 Where an outline plan or plans are required by section 176A of the RMA for works in any particular location(s) and Auckland City Council agrees that the PMP or relevant part(s) of the PMP contains adequate details to satisfy section 176 RMA, then the Auckland City Council may waive the requirement for an outline plan in respect of the works in the particular location(s), as provided for in section 176(2)(c) RMA.

2.4 The works shall be undertaken in accordance with the submitted and approved PMP and outline plan of works (where required), unless otherwise altered with the approval of the Auckland City Council (under condition 2.5 below).

2.5 The Requiring Authority shall require its contractor implementing the works to prepare a Contractor's Project Management Plan (CPMP) which shall include mitigation/management plans specified in conditions 3, 4, 7, 8 and 9 (referred to in condition 2.1 above). Where the CPMP is inconsistent with the PMP in relation to these mitigation/ management plans, the Requiring Authority shall seek the approval from the Auckland City Council to the changes.

## **3. Environmental**

3.1 The PMP shall include an Environmental Management Plan (EMP) to be provided to Auckland City Council prior to commencement of works. The purpose of the EMP is to manage and mitigate, where practicable, identified adverse environmental effects.

3.2 The EMP shall also address the implementation of suitable arrangements for stormwater treatment and detention in accordance with Auckland Regional Council (ARC) guidelines and/or consent requirements.

## **4. Construction**

4.1 The PMP shall include a Construction Management Plan (CMP) to be provided to Auckland City Council prior to commencement of works. The CMP shall be prepared in consultation with directly affected parties and parties affected by proximity as defined on the Newmarket Viaduct Consultation Map (June 2006).

4.2 The CMP shall include specific details relating to the demolition, construction and management of all works associated with the Project, including:

### *General:*

- a. Details of the stakeholder manager, including their contact details (phone, facsimile, postal address, email address);
- b. The location of large notice boards that clearly identify the name, telephone number and address for service of the site or project manager;
- c. An outline construction programme of the works indicating in particular likely time periods for road closures and anticipated traffic diversion effects.
- d. Any means to ensure that no damage occurs to street trees that are otherwise unaffected by the Project throughout the construction period;
- e. Any means of protection of services such as pipes and water mains within the road reserve;

- f. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- g. Location of workers offices and conveniences (e.g. portaloos);
- h. Procedures for controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. A Dust Management Plan shall be submitted to Council. It shall specify methods to be used to control dust from earthworks and demolition. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- i. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
- j. Means of ensuring the safety of the general public;

*Noise:*

k. The CMP shall include a Construction Noise Management Plan (CNMP) describing the measures adopted to as far as practicable meet the requirements of the NZS6803:1999 Acoustics - Construction Noise. The CNMP shall refer to noise management measures set out in Annex E of NZS6803:1999, and as a minimum shall address the following:

- i. Construction sequence;
- ii. Machinery and equipment to be used, including the use of non percussive machinery where practicable;
- iii. Hours of operation, including times and days when noisy construction work would occur;
- iv. The design of noise mitigation measures such as temporary barriers or enclosures;
- v. Construction noise limits for specific areas;
- vi. Development of alternative strategies where full compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes; and
- vii. Methods for monitoring and reporting on construction noise.

*Traffic:*

l. Methods of mitigating the local and network wide effects of both construction of individual elements of the Project, and the use of staging to allow sections of the Project to be opened to traffic while other sections are still under construction. In particular, the CMP shall describe:

- i. Traffic management measures to address and maintain, where practicable, traffic capacities at peak hours in Broadway, Gillies Avenue and St Marks Road, and any road closures that will be required;
- ii. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks); and
- iii. The numbers, frequencies and timing of construction traffic movements.
- m. Methods to manage the effects of traffic that is required to detour or be diverted during construction, in particular seeking to minimise effects on residential areas such as Orakei Road and Market Road at night.
- n. Contingencies for traffic diversion in the case of extended road closures, emergency works or structure failure.
- o. Consultation with Auckland City Council, the Auckland Regional Transport Authority and the Bus and Coach Association with regard to the traffic management measures during construction to address and maintain, where practicable, traffic capacity at peak hours to provide for passenger transport services on both the roading and rail networks;
- p. Consultation with Auckland City Council with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation;
- q. Identification of any existing on-site parking and manoeuvring areas which are affected by the works. Then, as far as practicable, and in consultation with Auckland City Council and the affected landowner, how the affected areas will be relocated or reinstated to achieve compliance with the ~~District Plan~~ Unitary Plan or to a similar standard to that existing;
- r. Where necessary, provision of alternative access arrangements as far as practicable, and in consultation with the Auckland City Council and the affected landowner, where the existing property access is to be removed or becomes unsafe as a result of the works;
- s. Details on the maintenance of pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable. Pedestrian access across the Dilworth Avenue footbridge shall be maintained at all times, except where it is required to be temporarily closed for construction purposes; and

t. Consistency with the Transit New Zealand 'Code of Practice for Temporary Traffic Management' (COPTTM).

*Vibration:*

u. The CMP shall as far as practicable meet the vibration standards of the German Standard DIN 4150, and shall address the following aspects:

- i. Vibration monitoring measures;
- ii. Criteria;
- iii. Possible mitigation measures;
- iv. Complaint response;
- v. Reporting procedures;
- vi. Notification and information for the community of the proposed works;
- vii. Vibration testing of equipment to confirm that the vibration limits will not be exceeded;
- viii. Location for vibration monitoring when construction activities are adjacent to critical buildings;
- ix. Operational times; and
- x Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.

4.3 The CMP shall be implemented and maintained throughout the entire demolition and construction periods.

4.4 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of this designation at all times and not on surrounding streets.

4.5 All storage of materials and equipment associated with the construction works shall take place within the boundaries of this designation.

4.6 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage at no cost to Auckland City Council.

4.7 Pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable.

4.8 All local temporary road closures shall be subject to prior approval of the Council.

4.9 The CMP shall, where practicable, provide priority for buses at peak hours along Broadway.

*Blasting:*

4.10 If any blasting is required during construction, it shall be so controlled as to ensure that any ground vibration as a result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause any reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings - Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular direction. The units are millimetre per second (mm/s).

4.11 The noise created by the use of explosives for blasting shall not exceed a peak overall sound pressure of 128dB (i.e. peak over pressure of 0.05kPa) or alternatively the noise shall not exceed a peak sound level of 122dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

## **5. Archaeological Heritage**

5.1 An archaeologist or some other person approved by ~~the New Zealand Historic Places Trust~~ Heritage New

Zealand shall be present to monitor initial earthworks for the Project, including works that affect the stonewall under the present viaduct at Gillies Ave (the edge of the lava flow).

5.2 Detailed protocols for the management of archaeological and waahi tapu discoveries shall be developed in conjunction with tangata whenua prior to construction.

5.3 If any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

a. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;

b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched; and

c. The Requiring Authority shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, Auckland City Council within 24 hours that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any approval required from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained.

## 6. Protected Trees

6.1 This condition applies to trees within the designation area that would be subject to Tree Protection rules under the Trees in streets and public open spaces and Notable Trees sections of the Auckland Unitary Plan, ~~under the provisions of the underlying zoning of the Unitary District Plan ("Protected Trees")~~.

6.2 Removal, trimming/pruning or works within the drip line of Protected Trees, shall be limited to those trees identified in the Landscape Report November 2005 and includes trees located on road reserve greater than 6 metres in height and trees subject to general tree protection greater than 6 metres in height.

6.3 A suitably experienced, Council approved arborist ('nominated arborist') shall be employed by the Requiring Authority, at the Requiring Authority's expense, to monitor, supervise and direct all works within the drip line or in the vicinity of those protected trees to be retained, for the duration of the works.

6.4 Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions of the designation that pertain to the retained vegetation can be explained by the nominated arborist to all contractors or sub-contractors who will be working on site within the drip-line of, or adjacent to, any protected vegetation that is covered by the designation.

6.5 A copy of the conditions of the designation pertaining to the protected trees shall be held on site at all times.

6.6 The following measures shall be taken in respect of the remaining Protected Trees within the designation area:

a. Temporary protective fencing shall be erected around the Protected Trees to be retained prior to the commencement of construction activity and shall remain in place for the duration of the Project. The purpose of the temporary protective fencing is to provide an area around the retained trees that will facilitate their successful retention during the construction process. The parameters of the enclosure shall be as directed by the Requiring Authority's arborist;

b. Except as provided for in Conditions 6.7 and 6.8, the area within the temporary protective fencing shall be considered a total exclusion zone. The Requiring Authority and its agents shall not:

i. Enter into the delineated area without prior consultation and agreement from the nominated arborist;

ii. Alter the dimensions of the delineated area without prior consultation and agreement from the nominated arborist;

iii. Store diesel, cement, building materials, site huts, spoil, equipment, or machinery within the delineated area; and

iv. Spill substances likely to be injurious to tree health within seepage distance of the delineated area.

c. The temporary protective fencing shall be constructed from a solid face (i.e. plywood or corrugated iron)

attached to a sturdy framework of freestanding scaffolding or posts. It must be constructed to a minimum height of 1.8m and must remain in place for the duration of the Project.

6.7 The nominated arborist shall undertake all necessary trimming and pruning works, including the pruning of tree roots uncovered during excavations. Exposed roots shall be covered and kept moist.

6.8 The nominated arborist shall undertake a tree-monitoring programme throughout the construction phase, including monitoring of:

- a. The condition repair and location of the temporary protective fencing;
- b. Any excavation within the drip line of protected trees;
- c. General tree health; and
- d. Compliance with the conditions of the designation by way of fortnightly inspections during the construction period. A copy of the monitoring results from each visit shall be sent to the Auckland Council ~~Council~~City-Environments arborist, with one copy being retained on site by the Project Manager, while a further copy is to be retained by the nominated arborist.

6.9 During the construction process the nominated arborist may make recommendations on the installation of irrigation systems, mulch, or remedial pruning works, if they are required to improve tree health.

## **7. Landscape Mitigation**

7.1 The PMP shall include a Landscape Mitigation Plan (LMP) to be provided to Auckland City Council prior to or with the outline plan of works for the project or project stage. The LMP shall be prepared by a suitably qualified landscape architect, and shall address the following matters:

- a. Transit New Zealand's "Guidelines for Highway Landscaping" (dated September 2002);
- b. Consistency with Transit New Zealand's "Central Motorway Improvements: Urban Design Framework" (dated 6 September 2001); and
- c. Consistency with Transit New Zealand's "Urban Design Implementation Principles (2006)".

7.2 The Landscape Mitigation Plan (LMP) for the Project area shall provide for:

- a. The integration of the permanent works into the surrounding landscape;
- b. Mitigation of effects on properties in the vicinity of the alignment;
- c. Integration, and continuation of significant elements of consistency with recently established planting themes in the CMJ Core area, established desirable coastal vegetation, and the vegetative character of Newmarket;
- d. Retention or relocation of existing trees where practicable; and
- e. Replacement planting or mitigation for loss of protected or scheduled trees.

7.3 The Landscape Mitigation Plan (LMP) shall include the following:

- a. Concept Plan/Report - this shall depict the overall landscape concept, and provide a framework for the design intent, layout and mitigation proposals;
- b. Landscape Design Details - these shall include the following details:
  - i. Identification of vegetation to be retained;
  - ii. Proposed planting including - plant species, mixes, spacing/densities, sizes (at time of planting) and layout;
  - iii. Planting programme - the staging of planting in relation to the construction programme;
  - iv. Detailed specifications relating to (but not limited to) the following:
  - v. Vegetation protection (for desirable vegetation to be retained);
  - vi. Weed control and clearance;
  - vii. Ground preparation (topsoiling and decompaction to ensure rapid plant establishment and ongoing vigour);
  - viii. Mulching;
  - ix. Plant supply and planting;
  - x. Maintenance regime (requirements and programme);
  - xi. Performance standards
- xii. The restorative landscape treatment for the areas within the designation surrounding all road reserves affected by the Project, including Gillies Ave, St Marks Road, Mauranui Ave, Mahuru Street and Clovernook Street;

- xiii. Landscape treatment for both sides of the Mt Hobson noise wall;
- xiv. Consideration of views to volcanic cones; and
- xv. Consideration of:
  - The landscape character of the area;
  - The relationship of the works to the pedestrian environment;
  - Integrated planting, as appropriate, to promote a "gateway" concept at St Marks Rd and Gillies Ave and to include treatment of the on-off ramp edges and under-bridge areas; and
  - Designs that will strengthen Newmarket's "sense of place".

7.4 In areas where shrub mixes are used, densities shall ensure that low canopy coverage has been attained by the end of the contract maintenance period.

7.5 Prior to planting and throughout the ensuing maintenance period, all weed species declared as plant pests in the Auckland region by ~~the ARC~~ the Auckland Council (including Total Control/Containment Pests/Surveillance Pests & Research Organisms) shall be controlled and removed from the site.

7.6 Where native plants are used, the composition shall reflect the natural plant associations of the area, and the mixes (where relevant) shall be of suitable richness and diversity to encourage self-sustainability once established.

7.7 Where practicable, any planting utilising native plants shall use plants genetically sourced from the Ecological District.

7.8 Planting areas shall be mulched using suitable weed-free, granular organic mulch. The only exceptions to this shall be where the slopes are too steep to allow for its retention. In such cases a neutral or black coloured biodegradable or photodegradable geotextile shall be used.

7.9 Landscape mitigation proposals outside the designation boundary shall be agreed with the appropriate landowner and subsequently implemented.

7.10 The LMP shall be prepared in consultation with Auckland ~~City~~ Council and iwi.

7.11 The landscaping shall be implemented in accordance with the LMP within the first planting season following the completion of the construction works providing climatic conditions are suitable, otherwise at the first practicable opportunity thereafter, and shall be maintained for the next 3 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.

7.12 When planning or implementing changes to signage on the Newmarket Viaduct, the Requiring Authority shall, where safe and practicable, avoid locating additional signage where it will encroach on the viewshaft to Mt Hobson, as described in the ~~Auckland City District Plan: Isthmus Section~~ Auckland Unitary Plan.

## **8. Urban Design**

8.1 The PMP shall include an Urban Design Plan (UDP) to be provided to Auckland ~~City~~ Council prior to or with the outline plan of works for the project or project stage. The UDP shall be prepared by a suitably qualified person (including an artist where appropriate), and shall address the following matters:

- a. Transit New Zealand's "Central Motorway Improvements: Urban Design Framework" (dated 6 September 2001); and
- b. Transit New Zealand's "Urban Design Implementation Principles (2006)".

8.2 The UDP and urban design measures shall include:

- a. Concept Plan/Report - this shall depict the overall urban design concept and provide a framework for the design intent, layout and urban design measures, which shall:

- i. Be determined in consultation with Auckland City Council and iwi (by way of a joint working party);
  - ii. Consider further comments from the Auckland City Urban Design Panel;
  - iii. Not preclude access to any future pedestrian linkage identified by Auckland City Council (including Gillies Ave/Clovernook Place).
- b. Urban design details and appropriate design measures in respect of:
- i. Treatment of noise attenuation barriers;
  - ii. Road safety barriers;
  - iii. Retaining walls;
  - iv. Pedestrian areas or facilities;
  - v. Methods to visually screen sections under the Newmarket Viaduct (where considered appropriate), such as beneath the Gillies Ave bridge section;
  - vi. The area beneath the viaduct at Gillies Ave, which shall be designed to promote a positive pedestrian experience;
  - vii. Stakeholder funded art works;
  - viii. Design of the Mt Hobson Road noise wall; and
  - ix. Restoring all road reserves beneath the designation affected by the Project, including Gillies Ave, St Marks Road, Mauranui Ave, Mahuru Street and Clovernook Street.

8.3 The Requiring Authority shall commission a peer review of barrier options for the Newmarket Viaduct. The peer reviewer shall be selected by agreement with Auckland City Council.

a. The purpose of the review of barrier options shall be to ascertain whether there are any alternative barrier options to that proposed by Transit in the NOR documentation, that would better maintain the protected views from the Viaduct to the Waitemata Harbour or Rangitoto as identified in the operative District Plan (as at July 2006). The alternative barrier options shall meet each of the following criteria:

- i. The barrier is approved by the Requiring Authority as meeting its operational and safety requirements (including its debris and noise screen functions); and
- ii. The barrier is of a height or design that could maintain protected views from the Viaduct to the Waitemata Harbour or Rangitoto as identified in the operative District Plan (as at 7 July 2006); and
- iii. The barrier provides the same or better acoustic performance required under condition 9.2(a).

b. The peer review report shall include details of each barrier option (if more than one), including a view protection assessment, the cost, maintenance requirements and the extent to which each option meets Transit's required operational and functional requirements (including its debris and noise screening functions).

The report shall be provided to Auckland City Council ~~and the Auckland Regional Council~~;

c. The view protection assessment shall use photomontages or computer modelling techniques, to demonstrate the impact of each option on protected views. The view protection assessment shall show a representative range of views along the viewshaft's origin from the level of a typical motorcar; and

d. Following the completion of the peer review, where significant additional protection to the views from the Viaduct to the Waitemata Harbour or Rangitoto can be practicably achieved, the Requiring Authority will determine the final barrier design in consultation with Auckland City Council ~~and the Auckland Regional Council~~.

8.4 The above ground Viaduct pier elements shall not be located in the pier restriction zone shown on Transit plan 9101314-S211, titled "Pier Restriction Zones", Revision B dated 13 January 2006 and submitted with the section 92 response. Piers located within the local road reserve will be minimized and will require the prior written approval of the Auckland City Council. The Council will assess the position and design of the pier in terms of its impact on amenity, public safety and pedestrian and traffic movement, and Council approval shall not be unreasonably withheld.

## 9. Operational Noise

9.1 The PMP shall include a Noise Management Plan (NMP) to be provided to Auckland City Council prior to commencement of works. The NMP shall be prepared by a suitably qualified acoustic expert for the purposes of avoiding, mitigating or remedying any adverse noise effects from the operation of the project following its construction.

9.2 The NMP shall include:

- a. General measures (e.g. noise attenuation barriers), to achieve at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999), these shall include (but are not limited to) the following mitigation measures:
- i. A noise barrier, no less than 2 metres high from the level of the carriageway, between Mt Hobson Road and the motorway (extending from approximately 28 Dilworth Avenue to 34 Mt Hobson Road) in accordance with the Newmarket Viaduct Improvement Project - Assessment of Noise Effects for Viaduct Section Report (Marshall Day) dated 15 November 2005;
  - ii. The use of Open Graded Porous Asphalt "OGPA" or equivalent material to surface the new viaduct; and
  - iii. The use of solid barriers and a median on the new viaduct.
- b. Specific measures for existing dwellings, where these are necessary in addition to the general measures under 9.2.a. above to achieve at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999).

9.3 The NMP shall identify the existing dwellings for which specific measures are required in accordance with condition 9.2.b above. Those dwellings shall be referred to as 'affected dwelling(s)'.

9.4 Not less than three months prior to the completion of construction of the Project, the Requiring Authority shall give written notice to the owner of each affected dwelling:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels;
- b. Advising that the owner has six months within which to decide whether or not to accept mitigation treatment to the dwelling; and
- c. Once an agreement on mitigation is reached between the Requiring Authority and the owner, the mitigation shall be implemented in an accepted timeframe between the Requiring Authority and the owner.

9.5 The Requiring Authority shall advise the Auckland City Council of:

- a. All written notices served in accordance with condition 9.4;
- b. Any responses received to those written notices; and
- c. Those affected dwellings in respect of which no response has been received.

9.6 Where specific measures are required for an affected dwelling, the Requiring Authority shall be deemed to have complied with condition 9.1 above where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the practical completion of the Project; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of the State highway construction.

9.7 Subject to condition 9.6, all noise mitigation measures identified by the NMP shall be implemented prior to the completion of construction of the Project.

9.8 As required by the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999) measurements of noise levels existing prior to construction shall be used to establish ambient noise levels. The results of 24 hour ambient noise measurements at no less than a total of six (6) positions within 50 m of the northbound and southbound lanes, together with site maps and photographs detailing measurement positions and key data on measurement conditions shall be forward to the Council prior to the commencement of construction.

9.9 Compliance Monitoring: Following completion of the work, the requiring authority shall arrange for an appropriately qualified person to undertake monitoring of the level of traffic noise at the above six (6) sites for which ambient noise level data has been previously recorded, within a period between of between 2 and 3 years following completion of construction of the Work and shall report the findings of monitoring to the Council, within one month of the monitoring being undertaken.

## 10. Operational Vibration

10.1 Vibration levels of the existing State Highway 1 operations shall be measured at critical locations, and submitted to the Council, prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

## 11. Lighting

11.1 Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## 12. Parking

12.1 Prior to commencing works pursuant to the designation, the Requiring Authority shall ensure that it has provided approved alternative parking for staff of Westfield, which is currently provided at 10 Mahuru Street, pursuant to Westfield's existing consent LUC no. 5700210401.

## ~~13. Lapse Date~~

~~Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by S78 of the Local Government (Auckland Transitional Provisions) Act 2010.~~

## Advice Notes

1. The Requiring Authority shall obtain all other necessary consents and permits and comply with all relevant Council bylaws.

2. The Requiring Authority shall obtain all other necessary resource consents and permits in relation to sediment and stormwater discharges from the Auckland Regional Council.

3. Under the ~~Historic Places Act~~ Heritage New Zealand Pouhere Taonga Act 2014 an Authority to Modify an Archaeological Site is required from the ~~NZ Historic Places Trust~~ Heritage New Zealand before any work takes place on an archaeological site.

4. Some of the land is subject to existing designations. The provisions of Section 177 of the Resource Management Act 1991 apply accordingly.

~~5. A separate Transit designation, being D09-32, affects land adjoining the Viaduct. That designation imposes a 12.2 metre height restriction on land within 76.2 metres of the centreline of the existing Newmarket Viaduct. The Requiring Authority advises that it will review the ongoing need for and/or extent of designation D09-32 as part of detailed design for the Newmarket Viaduct Project and, once a decision is made, an alteration to designation D09-32 may be sought pursuant to the relevant RMA provisions. In the interim, the height designation D09-32 will remain in its existing position and will not automatically move to align with the new Viaduct alignment.~~

## Attachments

No attachments.

## 6721 State Highway 1 - Victoria Park Tunnel

Designation Number	6721
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Victoria Park, Auckland Central to Shelley Beach Road off-ramp, Westhaven
Rollover Designation	Yes
Legacy Reference	Designation A07-01C, Auckland Council District Plan (Isthmus Section) 1999

Lapse Date	Given effect to (i.e. no lapse date)
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## Purpose

Motorway - Victoria Park tunnel project.

## Conditions

### GENERAL

#### 1. General

1.1 Except as modified by the conditions below and subject to final design, the project works shall be undertaken in general accordance with the information provided at the hearing by the Requiring Authority (~~Transit New Zealand, the New Zealand Transport Agency (NZTA)~~, the Notices of Requirement and the supporting documents, namely:

- a. 'Harbour Bridge To City Project - Overview, Notices of Requirement and Attachments - Volume 1', prepared for Transit New Zealand by Beca Infrastructure Ltd, dated October 2005;
- b. 'Harbour Bridge To City Project - Assessment of Environmental Effects - Volume 2', prepared for Transit New Zealand by Beca Infrastructure Ltd, dated October 2005;
- c. 'Harbour Bridge To City Project - Technical Appendices - Volume 3', prepared for Transit New Zealand, by Beca Infrastructure Ltd [et al.] dated October 2005;
- d. 'Harbour Bridge To City Project -A3 Plans - Volume 4', prepared for Transit New Zealand, by Beca Infrastructure Ltd, dated October 2005;
- e. Further information provided with the response provided under Section 92 Resource Management Act 1991 (dated 2 February 2006).

Note: The Harbour Bridge to City project has been renamed the "Vic Park Tunnel Project" (the Project).

1.2 As soon as practicable following completion of construction of the Vic Park Tunnel (VPT) Project, the Requiring Authority shall give notice to the Auckland City Council in accordance with Section 182 of the Resource Management Act ("RMA") for removal of those parts of the existing designations (those in existence prior to the lodgement of the new designation subject to condition 1.1 above) between the Auckland Harbour Bridge and Wellington Street overbridge, being:

1. A07-01 'Motorway' and A07-01A 'Motorway': Shelly Beach Priority Lane in the ~~Auckland City District Plan: Central Area Unitary Plan: Isthmus~~; and
2. 283 'Motorway' in the ~~Auckland City District Plan: Central Area Unitary Plan~~.

1.3 As soon as practicable following completion of construction of the Project, the Requiring Authority shall give notice to Auckland City Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation, maintenance and mitigation of effects of the State highway.

#### Note:

This condition is specific to land no longer required for construction purposes once the Project is completed.

1.4 A liaison person shall be appointed by the Requiring Authority for the duration of the Project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be reasonably available for on-going consultation on all matters of concern to affected persons.

1.5 Where requested by the owners, the Requiring Authority shall physically peg out the extent of the designation boundary on individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is later.

1.6 The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.

## 2. Project Management Plan ("PMP") and Outline Plans

2.1 The Requiring Authority shall prepare a PMP, which shall include mitigation/management plans as referred to in conditions dealing with specific issues below. A schedule of how the subsidiary plans that are required by these conditions relate back to the PMP follows these conditions as Annexure A.

2.2 No works shall be undertaken in any particular location(s) until:

1. The PMP, or such part(s) of the PMP as are relevant to the location(s) are submitted to and approved by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer; and
2. Any outline plan(s) required by section 176A of the Resource Management Act 1991 (RMA) in relation to the works in the location(s), have been submitted to the Auckland ~~City~~ Council.

2.3 Where an outline plan or plans are required by section 176A of the RMA for works in any particular location(s) and the Auckland ~~City~~ Council agrees that the PMP or relevant part(s) of the PMP contains adequate details to satisfy section 176 of the RMA, then the PMP or relevant part(s) of the PMP shall be deemed to be a waiver of the requirement for an outline plan in respect of the works in the particular location(s), as provided for in section 176(2)(c) RMA.

2.4 The works shall be undertaken in accordance with the approved PMP and outline plan of works (where required).

## 3. Other Plans

3.1 The PMP shall include an Environmental Management Plan (EMP) to be provided to the Auckland ~~City~~ Council prior to the commencement of works. The purpose of the Environmental Management Plan is to avoid, remedy or mitigate all adverse environmental effects associated with the construction and operation of the Project. The EMP is to include a Construction Environmental Management Plan (CEMP) and Environmental Monitoring Guidelines (EMG).

3.2 The PMP shall include a Construction Management Plan (CMP) to be provided to Auckland ~~City~~ Council (~~Group Manager: City Planning~~) Chief Planning Officer prior to commencement of works. The purpose of the CMP is to avoid, remedy or mitigate any effects of construction, through methods identified in the CMP, including the preparation of management plans. The CMP shall be prepared in consultation with the directly affected parties and parties affected by proximity (including other neighbouring submitters) as shown in Appendix 1 to the decision (refer to Plan Modification 32).

3.3 The CMP shall include specific details relating to the demolition, construction and management of all works associated with the Project, including the details indicated below:

1. Details of the site or project manager, including their contact details (phone, facsimile (if any), postal address, email address);
2. The location of large notice boards that clearly identify the name, telephone number and address for service of the site or project manager;
3. An outline construction programme of the works indicating in particular likely time periods for partial or complete road closures and anticipated traffic diversion effects;
4. Any means to ensure that no damage occurs to street trees throughout the construction period;
5. Any means of protection of services such as pipes and watermains within the road reserve;
6. Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
7. Location of workers' offices and conveniences (e.g. portaloos);
8. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places, including wheel wash for construction vehicles. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
9. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
10. Procedures for ensuring that blasting events, if any, occur at times least likely to disturb all people in the immediate vicinity of the construction areas, and for reasonable notice or warning of any blasting events to be given;
11. Procedures to be followed to ensure that those working in the vicinity of identified heritage features are

aware of the heritage values of these features and the steps which need to be taken to meet the conditions applying to work on the site;

12. Procedures to be followed to ensure that iwi representatives are notified of the proposed commencement of works and of the discovery of any koiwi or other artefacts;

13. Procedures to be followed in the event that any historic artefacts are disturbed, being in accordance with any Authority obtained under the ~~Historic Places Act~~; Heritage New Zealand Pouhere Taonga Act 2014;

14. Means of ensuring the safety of the general public;

15. Methods for receiving and responding to complaints about construction dust and odour from the works;

16. Protocols for offering mitigation such as temporary relocation of households where noise and other impacts cannot be managed to comply with relevant standards.

## **NOISE AND VIBRATION**

### **4. Operational Noise**

4.1 A Noise Management Plan (NMP) shall be prepared by a suitably qualified acoustics expert for the purposes of avoiding, mitigating or remedying any adverse noise effects from the operation of the Project following its construction. The NMP shall be provided to the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer prior to the commencement of works.

4.2 The NMP shall include:

1. General measures to achieve, at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999), including (but not limited to) the following mitigation measures:

i. the construction of noise walls (to a maximum of 5 metres in height in the St Mary's Bay area);

ii. the use of Open Graded Porous Asphalt "OGPA" or equivalent material to surface the carriageway;

2. Specific measures for existing dwellings, where these are necessary in addition to the general measures under (a) above to achieve at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999).

4.3 The NMP shall identify the existing dwellings for which specific measures are required in accordance with condition 4.2.2) above. These dwellings are referred to as the 'affected dwelling(s)'.

4.4 Not less than three months prior to the completion of construction of the Project, the Requiring Authority shall give written notice to the owner of each affected dwelling:

1. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels; and

2. Advising that the owner has six months within which to decide whether or not to accept mitigation treatment to the dwelling.

3. Once an agreement on mitigation is reached between the Requiring Authority and the owner, the mitigation shall be implemented in an accepted timeframe between the Requiring Authority and the owner.

4.5 The Requiring Authority shall advise the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer of:

1. All written notices served in accordance with condition 4.4;

2. Any responses received to those written notices;

3. Those affected dwellings in respect of which no response has been received.

4.6 Where specific measures are required for an affected dwelling, the Requiring Authority shall be deemed to have complied with condition 4.1 where:

1. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or

2. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the practical completion of the Project; or

3. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of construction of the Project.

4.7 Subject to condition 4.6, all noise mitigation measures identified by the NMP shall be implemented prior to the completion of construction of the Project.

4.8 As required by the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999), measurements of noise levels existing prior to construction shall be used to establish ambient noise levels. Measurements shall be undertaken by a suitably qualified person and the results of 24 hour ambient noise measurements at a total of six (6) positions within 100 metres of the designation boundary, together with site maps and photographs detailing the measurement positions and key data on measurement conditions shall be forwarded to the ~~Auckland City Council (Group Manager: City-Planning)~~ Auckland Council Chief Planning Officer prior to the commencement of construction.

4.9 Following completion of the Project, the Requiring Authority shall arrange for an appropriately qualified person to undertake monitoring of the level of traffic noise at the above six (6) sites for which ambient noise level data has been previously recorded, within a period between 2 and 3 years following completion of construction of the Project and shall report the findings of monitoring to the ~~Auckland City Council (Group Manager: City-Planning)~~ Auckland Council Chief Planning Officer, within one month of the monitoring being undertaken.

## **5. Operational Vibration**

5.1 Vibration levels of the existing State Highway 1 operations shall be measured at critical locations nominated by ~~Transit New Zealand~~, the New Zealand Transport Agency (NZTA), and submitted to the ~~Auckland City Council (Group Manager: City-Planning)~~ Auckland Council Chief Planning Officer, prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

## **6. Construction Noise and Vibration**

6.1 The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction periods of the Project and shall include the following:

### **Noise**

1. The CMP shall include a Construction Noise and Vibration Management Plan (CNVMP) describing the measures adopted to, as far as practicable, meet the requirements of NZS6803:1999 Acoustics - Construction Noise. The CNVMP shall refer to noise management measures set out in Annexure E of NZS6803:1999, and as a minimum shall address the following:
  - i. Construction sequence;
  - ii. Machinery and equipment to be used, including the use of non-percussive machinery where practicable;
  - iii. Hours of operation, including times and days when noisy construction work would occur;
  - iv. The design of noise mitigation measures such as temporary barriers or enclosures;
  - v. Construction noise limits for specific areas;
  - vi. Development of alternative strategies where full compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes;
  - vii. Methods for monitoring and reporting on construction noise.
  - viii. Methods for receiving and responding to complaints about construction noise.

### **Vibration**

2. The CNVMP shall also describe measures adopted to, as far as practicable, meet the vibration criteria of the German Standard DIN 4150, and shall address the following aspects:
  - i. Vibration monitoring measures;
  - ii. Criteria;
  - iii. Possible mitigation measures;
  - iv. Complaint response;
  - v. Reporting procedures;
  - vi. Notification and information for the community of the proposed works;
  - vii. Vibration testing of equipment to confirm that the vibration limits will not be exceeded;
  - viii. Location for vibration monitoring when construction activities are adjacent to critical buildings;
  - ix. Operational times;

x. Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.

## **7. Blasting**

7.1 If any blasting is required during construction, it shall be so controlled as to ensure that any ground vibration as a result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause any reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings - Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular directions. The units are millimetre per second (mm/s).

7.2 The noise created by the use of explosives for blasting shall not exceed a peak overall sound pressure of 128dB (i.e. peak over pressure of 0.05kPa) or alternatively the noise shall not exceed a peak sound level of 122dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

## **CONSTRUCTION TRAFFIC**

### **8. Traffic Management Plan**

8.1 The Construction Management Plan shall include a Traffic Management Plan (TMP). In developing the TMP:

1. The Requiring Authority shall use advanced traffic modelling tools to better understand the effects of construction of the Project on the affected road network. These tools will be developed and calibrated in conjunction with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and have the ability to simulate lane restrictions and road closures;

2. The Requiring Authority shall undertake measures to avoid road closures and also the restriction of vehicle and pedestrian movements to the greatest extent practicable. In particular, the measures shall ensure that vehicle and pedestrian accesses in the vicinity of the Victoria Street / Franklin Road intersection are maintained to the greatest extent practicable during the construction period, so as to provide full access for vehicle movements from Franklin Road into Victoria Street and at a minimum left turn access from Victoria Street into Franklin Road.

8.2 The TMP shall describe the measures that will be undertaken to achieve, as far as practicable, the following:

1. Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the Project. In particular, the TMP shall describe:

- i. Traffic management measures to address and maintain, where practicable traffic capacity, including bus services, at traffic peak hours during week days and weekends in Victoria Street, Beaumont Street, Fanshawe Street, Franklin Road, Cook Street, College Hill and Union Street;
- ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses (including the restriction of right turn movements into Franklin Road);
- iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (eg intersections/tunnel) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
- iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks);
- v. The numbers, frequencies, routes and timing of construction traffic movements; and
- vi. Monitoring to measure the impact of traffic, in terms of traffic speeds and volumes on those roads described in 8.2.1(i);
- vii. Alternative locations to mitigate the temporary loss of off street parking during construction;
- viii. Traffic management measures to ensure, to the greatest extent practicable, that during the peak trading hours of the Victoria Park New World, namely 4.00pm to 7.00pm on weekdays and 11.00am to 4.00pm on weekends:
  - a. access for vehicle movements from Franklin Road into Victoria Street (and at a minimum left turn access from Victoria Street into Franklin Road) is maintained; and
  - b. access is maintained to the carpark of the Victoria Park New World.

2. Methods to manage the effects of traffic during construction, including the requirement to detour or divert traffic. These methods shall:
  - i. Seek to avoid, remedy or mitigate effects on access to and from residential areas in Franklin Road, Beaumont Street and Victoria Street and the effects of traffic noise at night.
  - ii. Seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area particularly on Franklin Road, Victoria Street and Beaumont Street including the New World supermarket and the Victory Christian Church.
3. Traffic management measures during construction to be developed in consultation with the ~~Auckland Regional Transport Authority (ARTA)~~ Auckland Transport, Bus and Coach Association and the Auckland City Council to address and maintain, where practicable, traffic capacity at peak hours to provide for passenger transport services on the road network.
4. Consultation with Auckland Transport ~~the Auckland City Council (Group Manager: City Planning)~~ with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation.
5. Identification of any existing on-site parking and manoeuvring areas which are affected by the works. Then, as far as practicable, and in consultation with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and the affected landowners, how the affected areas will be relocated or reinstated to achieve compliance with the ~~Auckland City District Plan: Isthmus Section 1999 or Auckland City District Plan: Central Area Section 2004~~ the Auckland Unitary Plan or to a similar standard to that existing.
6. Measures to maintain existing vehicle access to the greatest extent practicable or where the existing property access is to be removed or becomes unsafe as a result of the works, to provide alternative access arrangements to an equivalent standard as that removed, as far as practicable, and in consultation with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and the affected landowner.
7. Details on the maintenance of pedestrian access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable. Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. This shall include the areas of high pedestrian traffic of Fanshawe Street, Wellington Street, Franklin Road, Union Street, Cook Street, Victoria Street and Beaumont Street as well as Point Erin, St Mary's Bay and Victoria Park reserve areas.
8. Consistency with ~~Transit New Zealand~~, New Zealand Transport Agency 'Code of Practice for Temporary Traffic Management' (COPTTM).
9. Recognition of the need for the Auckland City Council to access and maintain its roading network during the construction phase of the Project.
10. Recognition of the need to coordinate and to consult directly with the proponents of any major construction occurring concurrently with, and in the vicinity of, the Project during construction.

8.3 During construction of the proposed tunnel, ~~Transit~~ the New Zealand Transport Agency (NZTA) shall ensure that all storage and vehicle parking takes place within the boundaries of the designation or in compliance with all parking restrictions and Council bylaws.

8.4 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times and not on surrounding streets.

8.5 All storage of materials and equipment associated with the construction works shall take place within the boundaries of the designation.

8.6 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage at no cost to the Auckland City Council.

## **OPERATIONAL TRAFFIC**

9. Traffic management measures that are practicable will be developed by ~~Transit~~ the New Zealand Transport

Agency (NZTA) in consultation with ARTA Auckland Transport and the Northern Busway partners and implemented, if required, to provide northbound bus priority through the Fanshawe Street / Beaumont Street intersection and the St Mary's Bay section of the motorway corridor.

## **PUBLIC OPEN SPACE AND AMENITY**

### **10. Trees**

10.1 The Requiring Authority is to produce a feasibility report, prepared by a qualified arboriculturalist and transplanting specialist, on transplanting the scheduled London Plane Trees in Victoria Park which are affected by the proposed designation and works to a location to be determined in consultation with Auckland City Council. This feasibility report shall address the likelihood of tree survival, the effects of relocation (temporary or permanent), the timeframes required and their effects on the Project, and the overall benefits/costs. If transplanting one or more of the trees is found to be feasible by the transplanting specialist, and Transit agrees with the estimated cost of transplantation, the transplantation shall be undertaken prior to the commencement of the works in that vicinity. The transplanting shall be accompanied by a maintenance programme approved in advance by the Auckland Council City Arborist Local and sports parks.

10.2 The methodology for relocating any such trees shall be approved by the Auckland Council City Arborist.

10.3 In the event that it is not feasible to transplant one or more of the scheduled London plane trees, their removal shall be mitigated by the planting of an appropriate number of London plane trees in Victoria Park with the intent that the ring of trees that delineates the Park is maintained. The Auckland Council City Arborist is to determine how many replacement trees will be required in the case of each London plane tree so removed. The replacement trees shall be planted within the next available planting season. If the planting positions are not available until after the construction period is complete, the trees shall be grown on in a nursery until required. These trees shall be a minimum of 6m high when planted. Each of the trees shall have a two year maintenance programme approved by the Auckland Council City Arborist. The planting locations for the replacement trees shall be addressed as part of the Requiring Authority's landscape mitigation package and shall be approved by the Auckland Council City Arborist.

10.4 The Requiring Authority shall develop a tree mitigation package comprising transplanting or replanting of trees, and planting of new trees.

10.5 The removal of any elm trees is to follow ~~MAF (Biosecurity New Zealand)~~ Ministry for Primary Industries requirements. All plant and machinery used during any such removal must be cleaned before off-site use.

10.6 Monitoring of the groundwater conditions is to be undertaken around trees in the vicinity of the tunnel excavation during construction. If, in the opinion of the Auckland Council City Arborist, groundwater levels decline to a level that may adversely affect tree health, appropriate remedial measures shall be undertaken by the Requiring Authority to the satisfaction of the Council City Arborist.

10.7 Conditions 10.8 to 10.15 apply to trees within the designation area that would be subject to ~~Tree Protection rules under the underlying zoning provisions of the Unitary District Plan ("Protected Trees")~~ the Trees in streets and public open spaces and Notable Trees sections of the Auckland Unitary Plan.

10.8 Removal, trimming/pruning or works within the drip line of Protected Trees shall be limited to those trees identified in Appendix 2 of the decision (refer to Plan modification 32). A tree may be added to this Appendix with the approval of the Auckland Council City Arborist.

10.9 A suitably experienced, Council approved arborist ('nominated arborist') shall be employed by the Requiring Authority for the duration of the works, at the Requiring Authority's expense, to monitor, supervise and direct all works within the drip line or in the vicinity of those Protected Trees to be retained.

10.10 Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions of designation that pertain to the retained vegetation are explained by the nominated arborist to all contractors or sub-contractors who will be working on site within the drip-line of, or adjacent to, any protected vegetation that is covered by the designation.

10.11 A copy of the conditions of designation pertaining to the Protected Trees shall be held at the main construction site office, on site, at all times.

10.12 The following measures shall be taken in respect of the remaining Protected Trees within the designation area:

1. Prior to the commencement of construction activity temporary protective fencing shall be erected around the Protected Trees to be retained, and shall remain in place for the duration of the Project. The purpose of the temporary protective fencing is to provide an area around the retained trees that will facilitate their successful retention during the construction process. The parameters of the enclosure shall be as directed by the nominated arborist.
2. Except as provided for in conditions below, the area within the temporary protective fencing shall be considered a total exclusion zone. The Requiring Authority and/or its agents shall not:
  - i. Enter into the delineated area without prior consultation and agreement from the nominated arborist;
  - ii. Alter the dimensions of the delineated area without prior consultation and agreement from the nominated arborist;
  - iii. Store diesel, cement, building materials, site huts, spoil, equipment, or machinery within the delineated area;
  - iv. Spill substances likely to be injurious to tree health within seepage distance of the delineated area
3. The temporary protective fencing shall be constructed with a solid face (e.g. plywood or corrugated iron) and attached to a sturdy framework of freestanding scaffolding or posts. It must be constructed to a minimum height of 1.8m and must remain in place for the duration of the Project.

10.13 The nominated arborist shall undertake all necessary trimming and pruning works, including the pruning of tree roots uncovered during excavations. Exposed roots shall be covered and kept moist.

10.14 The nominated arborist shall undertake a tree monitoring program throughout the construction phase, including monitoring of:

- a. The condition repair and location of the temporary protective fencing;
- b. Any excavation within the drip line of Protected Trees;
- c. General tree health; and
- d. Compliance with the conditions of designation by way of fortnightly inspections during the construction period. A copy of the monitoring results from each visit shall be sent to the Auckland ~~Council~~ City Arborist, with one copy being retained on site by the Project Manager, while a further copy is to be retained by the nominated arborist.

10.15 During the construction process the Requiring Authority shall implement, where practicable, any recommendations made by the nominated arborist on the installation of irrigation systems, mulch, or remedial pruning works if they are required to improve tree health.

## **11. Auckland City Parks and Reserves**

11.1 The design of the Victoria Park tunnel shall not preclude undergrounding of the southbound carriageway in the future.

11.2 The design of the Victoria Park tunnel shall not unreasonably preclude surface parks and recreational land uses from locating above it.

11.3 All land owned by the Auckland ~~City~~ Council shall be restored to its pre-construction state, or as otherwise agreed by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and the Requiring Authority in accordance with the Urban Design and Landscape Mitigation Plan.

11.4 Any structures and associated infrastructure required to be located within Victoria Park to provide emergency access to and egress from the Victoria Park tunnel shall be:

1. Made as unobtrusive as practicably possible, while achieving their necessary functionality;
2. Located in a manner consistent with existing buildings and site features, or otherwise near the periphery of Victoria Park, to the extent practicable;
3. If possible integrated into other Park features or structures;
4. Suitably designed and landscaped to minimise their adverse effects.

11.5 The design and location of any such structures in Victoria Park shall be approved by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Chief Planning Officer prior to its construction.

11.6 A site-specific slope stability assessment shall be carried out by a suitably qualified engineer for the southern abutments of the Shelly Beach Road overbridge and Jacob's Ladder Pedestrian Bridge, as well as at any location where Tunnel Project works are within 10m of the St Mary's Bay cliff face. Where a moderate or greater risk of instability is assessed as a result of works on the Project, a slope movement monitoring system shall be installed with site-specific stability criteria and trigger levels. If the slope movement monitoring system observes deformation in excess of specified trigger levels as a result of the Project works, the ~~Auckland City Council (Group Manager: Community Chief Planning Officer)~~ Transit the New Zealand Transport Agency (NZTA)'s nominated contractor shall coordinate the appropriate remedial actions. Where practicable, stabilisation works shall be undertaken in a manner that is sensitive to the natural character and gateway values of this area.

## **12. Integrated Urban Design and Landscape Mitigation Plan**

12.1 The PMP shall include an integrated Urban Design and Landscape Mitigation Plan ("UDLMP") to be provided to the ~~Auckland City Council (Group Manager: Community Chief Planning Officer)~~ prior Officer prior to or together with the outline plan of works for the Project or relevant Project stage. The UDLMP shall be prepared by a suitably qualified person or persons and shall take into account the following:

1. Transit New Zealand's "Guidelines for Highway Landscaping" (dated September 2002);
2. Transit New Zealand's "Central Motorway Improvements: Urban Design Framework" (dated 6 September 2001); and
3. Transit New Zealand's "Urban Design Implementation Principles" (2006).

12.2 The UDLMP is to be based on the draft "Vic Park Tunnel Urban Design Framework" dated 20 October 2006, prepared for Transit New Zealand by Boffa Miskell Limited, and shall include the following key principles:

1. The importance of the tree-lined St Mary's Bay cliffs as a gateway to Auckland City;
2. The existing landscape values of the area;
3. Treatment of the motorway corridor subject of the notices of requirement in a unified way;
4. The considered and careful use of major structural elements;
5. The design of noise barriers as possible sculptural elements (i.e., well designed, elegant and functional structures) but without detracting from principles 1 and 2 above;
6. Support for a strong pedestrian experience;
7. Recognition of Maori values, associated with the history of settlement and use of the area, including the connection with Watchmans Island (Motu Ngaengae) and the former pa site on Te To headland.

12.3 The UDLMP shall consist of:

1. The Final Urban Design Framework: The Framework shall depict the overall urban design concept, the design intent, layout and mitigation proposals for key components and areas (or sectors) of the Project, and provide a framework for the design, layout, landscape planting and streetscape measures. The Framework will:
  - i. Be determined in consultation with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and relevant iwi (by way of a joint working party);
  - ii. Consider further comments that may be obtained from the ~~Auckland City Council Urban Design Panel~~ (which shall be obtained prior to lodgement of the UDLMP with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer; and
  - iii. Consider further comments from a stakeholder workshop to which affected parties listed in Appendix 1 to the

decision(refer to Plan Modification 32) will be invited.

2. Detailed Design Plans: These plans shall depict landscape and streetscape design elements for the Project, as appropriate, and shall consist of:

- i. An overall "masterplan" of the Project showing the location and extent of landscape and streetscape improvements and mitigation measures;
- ii. Where required, detailed concept plans for each sector of the route, including cross-sections and elevations of common and site-specific landscape and streetscape elements.

#### 12.4 Contents of detailed design plans.

1. Streetscape elements to be included in the detailed design plans as described in condition 12.3 (2.) shall include:

- i. Noise attenuation barriers no greater than 5m in height;
- ii. Road safety barriers;
- iii. Retaining walls;
- iv. External appearance and safety consideration (eg stone-throwers) of tunnel portals, the edges of the tunnel portal approaches, and emergency egress;
- v. The relocated Birdcage (Rob Roy) Hotel and surrounding Franklin Road precinct;
- vi. Open space in front of the relocated Birdcage Hotel and between the southern tunnel portal and Franklin Road;
- vii. Replacement of pedestrian and park facilities displaced by the Project;
- viii. The new pedestrian footbridge and other new pedestrian facilities proposed by the Project, including those within the St Mary's Bay reserve and Victoria Park;
- ix. Local road reserves affected by the designation, including Franklin Road, Victoria Street, Beaumont Street, and Fanshawe Street;
- x. The Fanshawe Street/Beaumont Street intersection and the Victoria Street West/Franklin Road/Union Street intersection, including the following elements:
  - Sensitivity to the safety of pedestrians;
  - Improved pedestrian linkages;
  - Consistency with local traffic plans and requirements;
  - Landscaping and design consistent with the Urban Design Framework which also recognises the setting and context of the surrounding area including significant cultural and historic features (if any);
- xi. Streetlights and sign gantries;
- xii. Preservation of the Jacob's Ladder pedestrian route in recognition of that route's historic significance and social value.

2. Landscape elements to be included in the detailed design plans as described in 12.3 (2) shall include the following:

- i. A plan for the St Mary's Bay Reserve from Shelley Beach Road through to Beaumont Street, developed in accordance with the following concepts:
  - The final Urban Design Framework;
  - The recognition of the tree-lined St Mary's Bay cliffs as a gateway to Auckland City;
  - The existing high natural character of the area;
  - The importance of good pedestrian linkages including footpaths, boardwalks and the access to the pedestrian overbridge and Jacob's Ladder;
  - The need for ground contouring and landscaping which avoids surface water ponding, where practicable, and that is sensitive to user amenity and safety and the ability to appreciate existing views, having regard to the effects of any noise barriers that are installed;
  - Replacement and replanting of trees affected by the works and noise barrier.
- ii. A plan for the western end of Victoria Park, developed in accordance with the following concepts:
  - The Victoria Park Management Plan (2005);
  - The final Urban Design Framework;
  - Recognition of the existing character and design of the Park;
  - The maintenance of a ring of Plane Trees and the location of landscaping features having regard to the amenity of the Park;

- Public access and use including access ways and recreational activities;
  - Effective and imaginative use of the space directly under the viaduct structure;
  - Minimising the effect of the location and design of any structures and associated infrastructure required for emergency access to or egress from the tunnel;
  - Areas identified for active recreation including re-establishment of existing activities or new activities such as playgrounds etc and associated parking.
- iii. Specific vegetation removal and modification plans showing all scheduled and non-scheduled trees and significant vegetation to be removed/relocated/modified and the landowner(s) involved;
- iv. Specific planting plans showing the trees and vegetation to be retained, all new planting, and a detailed plant list and specifications including number, size and species;
- v. Planting programme - the staging of planting in relation to the construction programme;
- vi. Detailed specifications relating to (but not limited to) the following:
- Vegetation protection (for desirable vegetation to be retained);
  - Weed control and clearance;
  - Ground preparation (topsoiling and decompaction to ensure rapid plant establishment and ongoing vigour);
  - Mulching;
  - Plant supply and planting;
  - Maintenance regime (requirements and programme);
  - Performance standards (for site preparation, plant supply, planting and maintenance).

12.5 Where appropriate, landscape mitigation proposals outside of the designation (e.g. Victoria Park, St Mary's Bay reserve, Westhaven Drive and Point Erin) may be agreed by the Requiring Authority with the appropriate landowner and subsequently implemented.

12.6 In developing the UDLMP consideration shall also be given to:

1. Other measures that may assist the Auckland City Council to promote safety and security for local residents and open space users;
2. Other measures to assist the Auckland City Council to promote a positive pedestrian experience within the Project area, including the development of pedestrian links in Freeman's Bay (Napier Street to the Birdcage Hotel), through Victoria Park and the St Mary's Bay reserve;
3. Cooperating with the Auckland City Council to identify and to provide opportunities to accommodate any stakeholder funded art works;
4. The requirement that ~~Transit's~~ the New Zealand Transport Agency's financial commitment to the urban design process is limited to the mitigation of Project-related effects resulting from within its designation.

12.7 The noise barrier along the St Mary's Bay Reserve shall be designed in accordance with the principles of the Urban Design Framework. This design shall take into account the following considerations:

- The provision of acoustic barriers beside the carriageway to achieve, at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999). Such barriers, where appropriate, shall be transparent.
- Allowing maximum appreciation by southbound motorists of the gateway effect of the tree-lined cliffs;
- Allowing good views of the Westhaven Marina and the Waitemata Harbour from properties on the cliffs and also from the adjacent walkway;
- Making the barrier itself an attractive landscape element;
- The cost, constructability, and the maintenance requirements of the barrier (including cleaning, removal of graffiti and any advertising posters).

12.8 A management and maintenance plan shall be prepared by the requiring authority and implemented for all noise barriers to ensure that, to the extent practicable, the barriers are continually maintained in good condition and free of graffiti and other defacements that may affect the visual amenity of the surrounding areas.

12.9 Prior to planting and throughout the ensuing maintenance period, all weed species declared as plant pests in the Auckland region by the Auckland Council ~~ARC~~ (including Total Control/Containment Pests/Surveillance

Pests & Research Organisms) shall be controlled and removed from the designated areas by the requiring authority

12.10 In areas where shrub mixes are used, planting densities shall ensure low canopy coverage has been attained by the end of the maintenance period, which will run for three years following the completion of the construction works.

12.11 Where native plants are used, the composition shall reflect the natural plant associations of the area, and the mixes (where relevant) shall be of suitable richness and diversity to encourage self-sustainability once established. This will require the inclusion of appropriate successional species, including canopy tree species either in the initial planting mix or as enrichment planting.

12.12 Where practicable, any planting utilising native plants shall use plants genetically sourced from the ecological district.

12.13 Planting areas shall be mulched using suitable weed-free, granular organic mulch. The only exceptions to this shall be where the slopes are too steep to allow for its retention. In such cases a neutral or black coloured biodegradable or photodegradable geotextile is to be used.

12.14 The landscaping shall be implemented in accordance with the UDLMP 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 3 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.

### **13. Lighting**

13.1 Motorway lighting should be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## **14. AIR QUALITY**

### **14.1 Dust**

1. The Requiring Authority shall ensure that the Construction Environmental Management Plan developed for the Project contains measures to control dust, generated during the construction process, in order to minimise dust deposition and nuisance beyond the designation boundaries.

### **14.2 Contaminated site/odour**

1. The Requiring Authority shall ensure that the Construction Environmental Management Plan developed for the Project contains appropriate mitigation measures to control offensive odours, generated as a result of the construction process, occurring beyond the designation boundaries.

## **15. Monitoring and Review**

15.1 At least 6 months prior to commencement of construction of the project, an air quality monitoring station is to be established at a site comparable with the station located within the car park of the Victory Christian Church during 2005 / 2006.

1. The station will monitor the following parameters for a period of six months prior to construction of the project commencing:

- i. Fine particulates (PM10) in accordance with the specifications given in the National Environmental Standards, Air Quality;
- ii. Meteorological measurements of wind speed, wind direction and temperature.

2. The station will monitor the following parameters during construction of the project:

- i. Dust, measured as Total Suspended Particulates (TSP) using a continuous particulate monitor equivalent to that used to measure fine particulates prior to construction;

ii. Meteorological measurements of wind speed, wind direction and temperature.

3. The station will monitor the following parameters for a period of twelve (12) months after completion of construction of the Project:

- i. Fine particulates (PM10), carbon monoxide (CO) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality;
- ii. Meteorological measurements of wind speed, wind direction and temperature.

4. Results of the monitoring in summary form, assessed against the National Environmental Standards, Air Quality and the Auckland Regional Council target values, shall be reported quarterly to the Auckland City Council.

15.2 Prior to commissioning of the air quality monitoring station, ~~Transit the New Zealand Transport Agency~~ will submit a plan to the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer detailing how it will comply with condition 15.1 above.

## **16. Iwi Matters, Archaeological, Heritage**

16.1 An Auckland City Council approved and qualified archaeologist and a Kaitiaki monitor approved by Ngati Paoa and Ngati Whatua shall be provided with 7 working days' notice of the commencement of initial earthworks for the Project in relation to each of the tunnel alignment, its approaches, the basement excavation of the Birdcage Hotel and the relocation site for the Hotel in order that they may be present to monitor those activities.

16.2 Detailed protocols for the management of archaeological, koiwi and waahi tapu discoveries shall be developed in conjunction with tangata whenua prior to construction.

16.3 If any koiwi are exposed during site works the following procedures shall apply:

- a. Immediately after it becomes apparent that koiwi have been exposed, all site works in the immediate vicinity shall cease;
- b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched;
- c. The Requiring Authority shall notify tangata whenua, Heritage New Zealand~~the New Zealand Historic Places Trust~~, the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and, where appropriate, the New Zealand Police as soon as possible so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the koiwi until any approval required has been obtained.

16.4 The Requiring Authority shall develop a methodology and monitoring programme for the relocation and restoration of the Birdcage Hotel (formerly the Rob Roy) to be agreed in writing by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer prior to the works commencing and shall:

- a. Take into account the Conservation Plan undertaken by Matthews and Matthews Architects, dated January 2003, and in particular, the policies and schedule of significant features; and
- b. Include an inventory of those parts of the Birdcage Hotel (interior and exterior) which are proposed to be: left in place and protected during relocation; removed and reinstated; and those to be removed and not reinstated;
- c. Include a schedule of the planned restoration and reinstatement works for the Birdcage Hotel and surrounds (including the forecourt area) and additions to the building as part of the relocation; and
- d. Include regular liaison and consultation with the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and Heritage New Zealand~~the New Zealand Historic Places Trust~~ during the relocation phase.

16.5 All work concerned with the relocation and restoration of the Birdcage Hotel as approved under Condition 16.4 shall be carried out under the direction of an appropriately qualified architectural conservation specialist, the appointment of whom is to be agreed in advance in writing by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer.

16.6 Prior to the commencement of construction activities in the vicinity of the Campbell Free Kindergarten, a Condition (Dilapidation) Report on the structure of the Kindergarten building shall be agreed in writing by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer and shall:

- a. Be prepared by a suitably qualified building certifier;
- b. Make any necessary recommendations for reinforcing the Kindergarten;
- c. Include a definition of the level of effects to be considered 'significant' pursuant to Condition 16.8; and
- d. Include consultation by the requiring Authority with Heritage New Zealand~~the New Zealand Historic Places Trust~~.

16.7 Prior to the commencement of construction activities in the vicinity of the Campbell Free Kindergarten, the structure of the Kindergarten building shall be reinforced as per the recommendations of the Condition (Dilapidation) Report of Condition 16.6. This reinforcement work shall be certified by a building certifier familiar with the Condition (Dilapidation) Report and shall be completed, inspected and agreed in writing by the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer prior to the Project works commencing.

16.8 During construction, the effects of vibration on the Birdcage Hotel, Campbell Free Kindergarten, Auckland Municipal Destructor and Depot (also known as the Victoria Park Market) and the former Auckland Gas Company buildings in Beaumont Street shall be monitored by the Requiring Authority and the results of the monitoring provided to the ~~Auckland City Council (Group Manager: City Planning)~~ Auckland Council Chief Planning Officer. Appropriate action shall be undertaken if the effects of vibration are significant, including any reasonable restoration or reconstruction of any heritage elements of the buildings noted above, and in the event of damage or failure as a direct result of the Project works, at the cost of the Requiring Authority and to the written approval of the Auckland ~~City~~ Council.

16.9 Prior to the commencement of the Project works, recording of the historical significance of the HMNZS Ngapona, including exterior and interior photographic archival documentation, shall be undertaken and a report prepared. This report is to be completed in consultation with Heritage New Zealand~~the New Zealand Historic Places Trust~~ and the Auckland ~~City~~ Council.

## **SERVICES**

### 17.1 Infrastructure Service Networks

1. The Requiring Authority shall liaise with the providers of infrastructure service networks including, but not limited to: water, gas, stormwater, wastewater, power and telecommunications, to develop methodologies and timing for necessary services relocation with the objective of minimising disruption to the operation of these networks during construction of the Project.

## **Advice Notes**

1. The Requiring Authority shall obtain all other necessary consents and permits and comply with all relevant Auckland ~~City~~ Council bylaws, and obtain any approvals under the Reserves Act (where required.)
2. The Requiring Authority shall obtain all necessary resource consents and permits in relation to sediment and stormwater discharges from the Auckland ~~Regional~~ Council.
3. Under the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, an Authority to Modify an Archaeological Site is required from Heritage New Zealand~~the New Zealand Historic Places Trust~~ before any work takes place on an archaeological site.
4. All archaeological sites are protected under the provisions of the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014. It is an offence under that Act to modify, damage or destroy any archaeological site, whether the site is recorded or not. Application must be made to Heritage New Zealand~~the New Zealand Historic Places Trust~~ for an authority to modify or destroy archaeological site(s).
5. Some of the land is subject to existing designations and the provisions of Section 177 of the Resource

Management Act 1991 apply accordingly.

## Attachments

No attachments.

### 6722 State Highway 16 - Waterview Connection causeway to Patiki Road

Designation Number	6722
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from the causeway to north of Patiki Road on-ramp, Avondale
Rollover Designation	Yes
Legacy Reference	Designation A07-01D, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<u>The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991.</u> <del>Five years from being operative in the Unitary Plan unless given effect to prior</del>

## Purpose

To alter designation 6722 (formerly A07-01), SH16, causeway and Rosebank Peninsula – NOR2. Alteration to existing designation at Rosebank Interchange and Patiki bridges, including part of Rosebank Park Domain; modifications to land on existing causeway, ancillary safety and operational services, and maintenance, relocation of services, pedestrian and cycleway, landscaping and planting etc.

## Conditions

For a complete set of conditions, refer to the Waterview Connection Proposal Board of Inquiry decision titled "Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal - Volume 2" dated June 2011.

### General Designation Conditions

#### DC.1

Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA being the Requiring Authority), the Notice(s) of Requirement and the supporting documents, and supplementary information provided in evidence. This information is summarised as follows:

- (a) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Parts A-E;
- (b) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part F: Plans and Drawings, except as updated through the hearing (Refer Schedule A for current plan and drawing references); and
- (c) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part G: Technical Reports:
  - (i) Technical Report G.1 Assessment of Air Quality Effects
  - (ii) Technical Report G.2 Assessment of Archaeological Effects
  - (iii) Technical Report G.3 Assessment of Avian Ecological Effects
  - (iv) Technical Report G.4 Assessment of Coastal Processes
  - (v) Technical Report G.5 Assessment of Construction Noise Effects

- (vi) Technical Report G.6 Assessment of Freshwater Ecological Effects
- (vii) Technical Report G.7 Assessment of Groundwater Effects
- (viii) Technical Report G.8 Assessment of Herpetofauna Ecological Effects
- (ix) Technical Report G.9 Assessment of Land and Groundwater Contamination
- (x) Technical Report G.10 Assessment of Lighting Effects
- (xi) Technical Report G.11 Assessment of Marine Ecological Effects
- (xii) Technical Report G.12 Assessment of Operational Noise Effects
- (xiii) Technical Report G.13 Assessment of Ground Settlement Effects
- (xiv) Technical Report G.14 Assessment of Social Effects
- (xv) Technical Report G.15 Assessment of Stormwater and Streamworks Effects
- (xvi) Technical Report G.16 Assessment of Temporary Traffic Effects
- (xvii) Technical Report G.17 Assessment of Terrestrial Vegetation Effects
- (xviii) Technical Report G.18 Assessment of Transport Effects
- (xix) Technical Report G.19 Assessment of Vibration Effects
- (xx) Technical Report G.20 Assessment of Visual and Landscape Effects
- (xxi) Technical Report G.21 Construction Environmental Management Plan (CEMP)
- (xxii) Technical Report G.22 Erosion and Sediment Control Plan (ESCP)
- (xxiii) Technical Report G.23 Coastal Works
- (xxiv) Technical Report G.24 Geotechnical Interpretive Report
- (xxv) Technical Report G.25 Traffic Modelling Report
- (xxvi) Technical Report G.26 Operational Model Validation Report
- (xxvii) Technical Report G.27 Stormwater Design Philosophy Statement
- (xxviii) Technical Report G.28 Geotechnical Factual Report – 500 Series
- (xxix) Technical Report G.29 Geotechnical Factual Report – 700 Series
- (xxx) Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads
- (xxxi) Technical Report G.31: Technical Addendum Report (September 2010)
- (d) PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).
- (e) Waterview Connection Project, Evidence and Supplementary Information provided to the Board of Inquiry:
  - (i) Evidence in Chief (Numbers 1-37)
  - (ii) Rebuttal Evidence (Numbers 1-33)
  - (iii) Supplementary Information (Numbers 1-8)

#### DC.1A

Within 3 months of the designations being confirmed for the Project (or at least 1 month prior to any Auckland Council approvals or certifications required by these Conditions, whichever is the earlier), the NZTA shall update and finalise to the satisfaction of the Major Infrastructure Team Manager, Auckland Council all drawings and Plans cited in Schedule A, and provide a full set of the information and documentation referred to in Condition DC.1 to the Major Infrastructure Team Manager Auckland Council. At the same time the NZTA shall prepare to the satisfaction of the Major Infrastructure Team Leader, Auckland Council, a document for each designation which sets out the designation and have attached to it in text format a comprehensive set of the conditions imposed by the Board of Inquiry in its Final Decision as summarised in Schedule B, inclusive of any standard conditions and advice notes.

In particular (but not limited to), the following Plans will need to be amended in light of these Final Conditions:

- (a) F.2 Operational Scheme Plans (refer Schedule A, Row 3) require amendment detailing the amended location of the ventilation stacks and southern ventilation buildings;
- (b) F.5 Construction Scheme Plans (refer Schedule A, Row 4) require amendment to detail changes to the construction footprint for the amended location of the ventilation stacks and southern ventilation buildings and reconfiguration of Construction Yard 1);
- (c) F.6 Construction Yard Plans 101 and 107 (refer Schedule A, Row 7), detailing amendments to the Construction Yard 1 in light of the reconfiguration of this Yard and for Construction Yard 7 in light of the relocation of the northern ventilation stack (refer Schedule A, Row 34);
- (d) F.8 Plans of Structures and Architectural Features (refer Schedule A, Row 9), detailing the amended location of the northern ventilation stack and the design and location of the southern ventilation building and stack;

- (e) The CNVMP (including flow diagram and the supplementary evidence produced by Ms Wilkening) (refer Schedule A, Rows 36, 37 and 39);
- (f) The areas of the Open Space Restoration Plans (Schedule A, Row 30) to:
  - (i) Extend these areas in geographic extent to provide for the works identified in the Management Plan notations identified in the OS Conditions (in particular OS.5 and OS.6) (e.g. these areas will (as relevant) include Eric Armishaw Park, Howlett Reserve and Waterview Esplanade Reserve); and
  - (ii) Exclude the operational area of designation required for the northern ventilation stack (as identified through the OPW process (refer Condition DC.8); and
- (e) Schedule A, Row 28 the Plan detailing proposed open space impacts and replacements needs to be updated to recolour the two land parcels on Hendon Avenue (which are excluded from the replacement calculations) to 'brown' to confirm they are part of the operational impact and will not be returned as open space.

#### DC.2

The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991.  
~~The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

#### DC.3

The NZTA shall update and finalise the relevant Construction and Operational Management Plans required under these conditions to ensure compliance with the designation conditions imposed by the Board of Inquiry. The relevant Management Plans shall be submitted to the Major Infrastructure Team Manager, Auckland Council within the timeframes specified in the following conditions. No works shall be undertaken until the relevant management plans have been finalised and certified or approved in accordance with the relevant conditions.

#### DC.4

Any Management Plans submitted to the Major Infrastructure Team Manager, Auckland Council for approval or certification may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted shall clearly show the integration with adjacent stages and interrelated activities.

#### DC.5

In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager certification/ approvals required by the designation conditions, or as to the implementation of or monitoring required by the conditions, matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a process of resolution. If a resolution cannot be agreed, then the matter may be referred to an independent appropriately qualified expert, agreeable to both parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree. The independent appropriately qualified expert shall be appointed within 10 working days of the NZTA or Auckland Council giving notice of their intention to seek expert determination. The expert shall, as soon as possible, issue his or her decision on the matter. In making the decision, the expert shall be entitled to seek further information and hear from the parties as he or she sees fit.

Advice note: The dispute resolution process provided for in this condition does not prejudice any party's right to take enforcement action in relation to the implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except in urgent situations.

#### DC.6

Except for Conditions DC.7, DC.8 and DC.9, the NZTA shall be exempt from providing an Outline Plan of Works for the Project, as provided for in Section 176A (2)(a) and (b) of the RMA.

Advice note: The Construction and Operational Management Plans, together with the provision of detailed drawings required by Condition DC.1(b) are considered sufficient detail in all aspects of the Project, with the

exception of proposed works for the northern and southern ventilation buildings and stacks where further details are required.

#### DC.10

The NZTA shall give notice to the Manager Regional and Local Planning, Auckland Council in accordance with Section 182 and 181 respectively of the RMA for:

(a) Within six months of the State highway opening (being operational), removal of those parts of the designation that are not required for the long term operation, maintenance and mitigation of effects of the State highway.

Note: this condition is specific to land no longer required for construction purposes once the Project is completed and includes the land of 6 Barrymore Road, refer Condition OS.17.

(b) The designation to be altered to remove those conditions no longer required for long term operation and maintenance of the Project.

#### DC.12

Unless otherwise provided for by Condition RC.2, if any monitoring required to be undertaken by any party by the designation conditions indicates non-compliance with any designation condition, the NZTA must provide written notice to the Major Infrastructure Team Manager Auckland Council as soon as it becomes aware of same, stating the following:

(a) A description of the non-compliance; and

(b) The measures NZTA proposes for addressing the non-compliance, including any additional mitigation measures.

Subject to the Council's approval, the NZTA must implement the additional mitigation measures to address the non-compliance.

#### DC.13

Pursuant to Section 36(1)(d) of the RMA, the requiring authority is required to pay to Auckland Council any administrative charge for the carrying out by the local authority of its functions in relation to the administration, monitoring, and supervision of designation conditions.

#### DC.14

The servants of agents of Auckland Council shall be permitted to have access to relevant parts of the Project at all reasonable times for the purpose of carrying out inspections, investigations, tests, measurements and/or to take samples.

### **Construction Environment Management Plan Conditions**

#### CEMP.1

Except where provided for in Condition CEMP.1A below, the NZTA shall update and finalise the draft Construction Environmental Management Plan (CEMP) including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until certification is obtained.

Advice note: For clarity the CEMP will be updated and finalised in accordance with the conditions. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register.

Advice note: Particular care must be taken with development and operation of Construction Yard 7. When the CEMP is being updated and finalised, consideration must be given to the contents of the draft SSCEMP prepared for Construction Yard 7 (Row 41, Schedule A) recognising changes required by inclusion of the ventilation stack in this yard.

#### CEMP.2

The certification process of the CEMP (and its appendices) shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in CEMP.6, and that it includes details of:

- (a) Staff and contractors' responsibilities;
- (b) Training requirements for employees, sub-contractors and visitors;
- (c) Environmental incident and emergency management;
- (d) Communication and interface procedures (in accordance with the Communication Plan required under Condition PI.2);
- (e) Environmental complaints management (including the procedures required under Condition PI.4);
- (f) Compliance monitoring;
- (g) Reporting (including detail on the frequency of reporting to the Auckland Council);
- (h) Environmental auditing; and
- (i) Corrective action.

### CEMP.3

The management of key environmental effects associated with the construction phase of the Project is detailed within environmental management plans that are included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- (a) Construction Noise and Vibration Management Plan (CNVMP);
- (b) Construction Air Quality Management Plan (CAQMP);
- (c) Erosion and Sediment Control Plan (ESCP);
- (d) Temporary Stormwater Management Plan (TSMP);
- (e) Ecological Management Plan (ECOMP);
- (f) Groundwater Management Plan (GWMP);
- (g) Settlement Effects Management Plan (SEMP);
- (h) Contaminated Soils Management Plan (CSMP);
- (i) Hazardous Substances Management Plan (HSMP);
- (j) Archaeological Site Management Plan (ASMP);
- (k) Construction Traffic Management Plan (CTMP);
- (l) Concrete Batching and Crushing Plant Management Plan (CBCPMP);
- (m) Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP) (to be prepared in accordance with Condition CEMP.15);
- (n) Waste Management Plan (to be prepared in accordance with Condition CEMP.10); and
- (o) Temporary Construction Lighting Management Plan (to be prepared in accordance with Condition L.2).

### CEMP.4

The CEMP shall be implemented and maintained throughout the entire construction period.

### CEMP.5

A copy of the CEMP shall be held on each construction site at all times and be available for inspection on request by the Auckland Council.

### CEMP.6

The finalised CEMP shall include specific details on demolition, construction and management of all works associated with the Project. The certification process of the CEMP shall confirm that the CEMP includes details of the following:

- (a) Details of the site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) The location of large notice boards that clearly identify the NZTA and the Project name, together with the name, telephone, email address and address for service of the site or Project manager and the community liaison person;
- (c) An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- (d) The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;

- (e) Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/ storage of rubbish, storage and unloading of building materials and similar construction activities;
- (f) Location of worker's offices and conveniences (e.g. portaloos);
- (g) Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- (h) Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (Nov 2007);
- (i) Procedures for ensuring that residents within 100m of construction areas or other people whose use of an area may be disrupted by construction works (for example the Te Atatu Boating Club for works on the Whau River) are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- (j) Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- (k) Means of ensuring the safety of the general public;
- (l) Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- (m) Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- (n) All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- (o) Confirmation of a Project Arborist and completion of a STEM assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE to confirm the final Amenity Trees; and
- (p) The process to minimise removal of Amenity Trees, maximise the protection of those retained, undertake relocation of Amenity Trees and replacement planting of specimen trees (in accordance with Conditions LV.10 and ARCH.9)).
- (q) Advice note: For the purposes of CEMP.6(o) and (p), Amenity Tree is defined as a tree or trees that contribute significantly to amenity, taking into account its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE).

#### CEMP.7

The layout of the 12 Construction Yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans (Refer Schedule A, Row 7). The layout drawings shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- (a) The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview Connection Project Construction Yards Drawings (Refer Schedule A, Row 7);
  - (b) Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings; Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;
  - (c) Temporary acoustic fences and visual barriers;
  - (d) Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on adjacent residential dwellings; and
- Location of workers' and Project vehicle parking.

#### CEMP.8

All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

#### CEMP.9

Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle

crossings and the roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

#### CEMP.10

The NZTA shall finalise and implement the Hazardous Substances Management Plan (HSMP), through the CEMP (as per Condition CEMP.1), submitted with this application, prior to works commencing on site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the Project and confirm that there shall be no storage of explosives on the Project site.

#### CEMP.11

The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the CEMP. The Plan shall be provided to the Major Infrastructure Team Manager, Auckland Council and be implemented throughout the entire construction period.

#### CEMP.12

The CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the Project. The review shall take into consideration:

- (a) Compliance with designation and consent conditions;
- (b) Any changes to construction methods;
- (c) Key changes to roles and responsibilities within the Project;
- (d) Changes in industry best practice standards;
- (e) Changes in legal or other requirements;
- (f) Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- (g) Public complaints.

A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Team Manager, Auckland Council and made available (with any related data) to the Auckland Council upon request.

#### CEMP.13

Following the review process (as described in Condition CEMP.12), the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

#### Advice Note:

Material change will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.

#### CEMP.14

The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP). The EISDCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council, and include:

- (a) Methods and measures:
  - (i) To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.
  - (ii) To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines
  - (iii) To ensure that no activity is undertaken during construction that would result in ground vibrations and/or

- ground instability likely to cause material damage to the transmission lines, including support structures.
- (iv) To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.
- (b) Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.
- (c) Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:
- (i) Clause 2.2 with respect to excavations near overhead support structures;
- (ii) Clause 2.4 with respect to buildings near overhead support structures;
- (iii) Section 3 with respect to minimum separation between buildings and conductors;
- (iv) Section 5 with respect to minimum safe distances for the operation of mobile plant; and,
- (v) Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.
- (d) Confirmation that Transpower has been provided a copy of the EISCDMP for their review at least 20 working days prior to construction.

Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as Project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).

#### CEMP.15

The NZTA will be responsible for all service relocations required for construction of the Project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to water, gas, stormwater, wastewater, power and telecommunications), and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the Project, with the objective of minimising disruption to the operation of these service networks and onsite services.

Advice note:

- (a) It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.
- (b) Network infrastructure owned and operated by Watercare Services is located within the designations. An operating agreement will be developed by the NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.

#### **Public Information Conditions**

##### PI.1.

A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

##### PI.2.

The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions).

In preparing the Communications Plan, the NZTA will liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

- (a) The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;
- (c) The database of stakeholders and residents who will be communicated with;
- (d) Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);
- (e) The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);
- (f) Any stakeholder specific communication plans required; and
- (g) Monitoring and review procedures for the Communications Plan.

The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these conditions is attached as Figure PI.A.

#### PI.3.

At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- (a) Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- (b) Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

#### PI.4.

The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- (a) A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- (b) The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- (c) Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- (d) The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;
- (e) Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and
- (f) All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

PI.5.

The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- (a) Te Atatu (including the SH16 Causeway)
- (b) Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- (c) Owairaka

and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- (a) Auckland Council and Auckland Transport;
- (b) Educational facilities within the Project area (including schools, kindergartens, childcare facilities and Unitec Institute of Technology);
- (c) Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;
- (d) Department of Conservation;
- (e) Local Boards;
- (f) Iwi groups with Mana Whenua;
- (g) Public transport providers; and
- (h) Housing New Zealand Corporation.

Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.

PI.6.

The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things):

- (a) The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k));
- (b) The Open Space Restoration Plans (as required by Condition OS.3);
- (c) Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);
- (d) The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);
- (e) The detail of the Oakley Creek restoration (as required by Condition STW.20);
- (f) Publicly available results of environmental monitoring as required by the designation and/or these Consents (e.g. air quality monitoring); and
- (g) The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to be removed for consideration of timber use in heritage projects as required by Condition SO.7.

Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.

- (h) Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

### **Temporary Traffic Conditions**

TT.1

The NZTA shall update and finalise the Construction Traffic Management Plan (CTMP) submitted with this application, in accordance with these conditions, and implement it through the CEMP.

In finalising the CTMP, the NZTA shall:

- (a) Provide simulation modelling demonstrations to better understand the effects of construction of the Project

on the affected road network;

(b) Include measures to avoid road closures and restrictions of vehicle, bus, cycle and pedestrian movements;

(c) Where road closures or restrictions cannot reasonably be avoided the particular vulnerabilities and sensitivities of pedestrian diversions and restricted conditions shall be taken into account in the planning of any closures or restrictions.

#### TT.2

The CTMP shall require the development of Site Specific Traffic Management Plans (SSTMPs) and their approval by the Traffic Management Project Governance Group (as defined by the CTMP), for each construction activity that may affect traffic or transportation infrastructure and services. The SSTMPs shall be provided to the Traffic Management Coordinator(s) for the relevant Road Controlling Authority at least 10 working days prior to each construction activity.

#### TT.3

Each SSTMP shall describe the measures that will be undertaken to avoid, remedy or mitigate the local and network wide effects of construction of the Project. In particular, the SSTMP shall include the following matters:

(a) Traffic management measures to address and maintain, traffic capacity, including bus services, at peak traffic periods during weekdays (6:00 to 9:00 and 16:00 to 19:00) and peak traffic periods at weekends (including Te Atatu Road, Great North Road and Richardson Road);

(b) Methods to manage the effects of traffic during construction including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area;

(c) Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;

(d) Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/ overbridges) and the use of staging to allow sections of the Project to be opened to the traffic while other sections are still under construction;

(e) Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks) during construction;

(f) Any routes where construction traffic movements will be restricted (either for particular times for construction periods);

(g) Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works, measures to provide alternative access arrangements in consultation with the Auckland Council and the affected landowner; and

(h) Measures to maintain pedestrian and cycle access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable (e.g. unless provision of such access is severed by the works or such access will become unsafe as a result of the construction works). Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. (This Condition does not act as a qualification to the commitment to maintain access to open space and education facilities, as required in Condition OS.13).

#### TT.4

The SSTMPs shall include traffic management measures developed in consultation with the Auckland Transport, Bus and Coach Association and the Auckland Council, to address and maintain, where practicable, existing levels of service for buses particularly at peak periods (6:00 to 9:00 and 16:00 to 19:00) on weekdays.

#### TT.5

The NZTA shall consult with the Traffic Operations Manager, Auckland Transport with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation. The NZTA shall also coordinate and consult directly with the proponents of any major construction or major traffic generating event occurring concurrently with, and in the vicinity of the Project.

#### TT.6

The SSTMPs shall include measures developed in consultation with Auckland Transport to, as far as practicable, enable continued public walking and cycling passage along the existing Northwestern Cycleway

(between Te Atatu Interchange and St Lukes Interchange) and along Great North Road and the public walkway along Oakley Creek, with any interruptions being as short as feasible.

#### TT.7

The NZTA shall undertake construction works so as to avoid significant long duration impacts or the full closure of Te Atatu Road for all road users heading to or from the Te Atatu Peninsula and to ensure that access for emergency service vehicles is maintained.

#### TT.8

The NZTA shall restrict construction truck movements during peak hours (6:00 to 9:00 and 16:00 to 19:00) on weekdays and during the peak periods at the weekends to avoid the following:

- (a) Te Atatu Road Interchange, during both morning and afternoon peak hours
- (b) Great North Road Interchange, city bound during the morning peak hours
- (c) Great North Road Interchange, west bound onto SH16 and southbound onto Great North road during the afternoon peak.

Construction truck movements during these hours shall only be allowed under exceptional circumstances agreed in advance with the Traffic Management Project Governance Group.

#### TT.9

The NZTA shall maintain at least the existing active traffic lane configuration capacity on SH16, at the Te Atatu Interchange area, Te Atatu Road, Richardson Road and on Great North Road during peak periods being 6:00 to 9:00 and 16:00 to 19:00 on weekdays and during the peak periods on weekends, for the duration of the temporary construction programme.

#### TT.10

The NZTA shall monitor the impact of construction traffic in terms of traffic speeds and volumes on SH16, Great North Road, Te Atatu Road and Richardson Road throughout the construction period to confirm the expected traffic effects as set out in the Temporary Traffic Assessment (Technical Report G.16) submitted with this application.

- (a) This monitoring will be undertaken on a daily, weekly and monthly basis; and
- (b) Monitoring results will be made available to the Traffic Operations Manager, Auckland Transport on request.

#### TT.11

If monitoring undertaken pursuant to Condition TT.10 indicates that traffic volumes or traffic conditions are significantly different from those expected, the SSTMPs will be reviewed and as appropriate amended to the satisfaction of the Traffic Management Project Governance Group.

### **Operational Traffic Conditions**

#### **Integration with Local Road Network**

##### OT.1

The NZTA shall prepare in collaboration with Auckland Transport a Network Integration Plan (NIP) for the Project, or relevant Project phases, to demonstrate how the Project integrates with the existing local road network and with future improvements (identified in the Western Ring Route (Northwest) Network Plan) planned by the Auckland Council. The NIP shall include details of proposed physical works at the interface between the State highway and the local road network, and shall address such matters as pedestrian/ cycle ways, lane configuration, traffic signal co-ordination, signage and provision for buses

In addition, the NIP will address:

- (a) The commitment of the NZTA to progress bus priority measures northbound on Great North Road as part of the reinstatement of Great North Road, as proposed by Auckland Transport and indicated on the Plans Great North Road Option 1 Proposed Road Marking (Schedule A, Row 33), subject to the agreement with Auckland Transport;
- (b) How the works committed to by the NZTA for pedestrian and cycle ways, as detailed in the PT and Active Mode Transport Routes Plan Set (Condition DC.1(d) (refer Schedule A, Row 22)), integrate with pedestrian and

cycle ways on the wider transport network;

(c) The Richardson Road Bridge, which shall be designed in general accordance with the structural plans (Schedule A, Row 9) and the commitment of the NZTA to provide a 2m footpath on Richardson Road Bridge, subject to confirming appropriate bus stop locations with Auckland Transport;

(d) Integration of the works proposed on Te Atatu Road to appropriately transition between the Waterview Connection Project and any projects being progressed by Auckland Transport;

(e) Opportunities to review traffic signal timings at the Te Atatu Interchange with a view to minimising delays to all users, including cyclists on the SH16 cycle way; and

(f) The commitment of the NZTA to provide for cycle “aspects” (cycle signal lights) at the Great North Road Interchange.

(g) As part of detailed design at the Te Atatu Interchange, the installation of underpasses and/or overbridges, provided however that should some not prove feasible in civil or traffic engineering design terms, the installation of coordinated traffic signal operation for cyclists on the north-western cycleway by means of synchronised cycle lights which seek to reduce delays for cyclists.

Works identified in the NIP which are the responsibility of the NZTA, will be undertaken as at the time of construction works for the Project.

## **Noise and Vibration Conditions – Construction**

### **CNV.1**

The NZTA shall finalise and implement through the CEMP, a Construction Noise and Vibration Management Plan (CNVMP) throughout the entire construction period of the Project.

The CNVMP shall describe the measures adopted to meet:

(a) the noise criteria set out in Conditions CNV.2 and 3 below;

(b) the vibration criteria set out in Condition CNV.4 below; or

(c) where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

(i) Construction noise and vibration criteria (Conditions CNV.2, CNV.3, and CNV.4);

(ii) Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;

(iii) Machinery and equipment to be used;

(iv) Vibration testing of equipment to confirm safe distances to buildings prior to construction;

(v) Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;

(vi) Roles and responsibilities of personnel on site;

(vii) Construction operator training procedures;

(viii) Methods for monitoring and reporting on construction noise and vibration;

(ix) A hierarchy of mitigation options that will be assessed for the Project noise mitigation, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved;

(x) Management schedules containing site specific information;

(xi) Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically:

- PPFs located within a horizontal distance of 35 metres of underground excavation works, along the tunnel alignment shall receive prior notification not greater than 7 days (and not less than 24 hours) prior to the commencement of works.

- Methods for ensuring residents affected by night works (within 100m of the construction site night works, as defined on the maps (refer Schedule A, Row 35) are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.

- The maps showing PPFs to be notified of night works (refer Schedule A, Row 35, shall be reviewed and included within the CNVMP.

(xii) Methods for receiving and handling complaints about construction noise and vibration;

(xiii) Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover);

(xiv) Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation (as per Condition CNV.7);

(xv) Investigations of the practicability of implementing Building Modification mitigation, as required in accordance with Conditions ON.6 and ON.11, prior to commencement of construction within 100m of the relevant PPFs (including those on the Unitec site); and

(xvi) The process for developing Site Specific Noise Management Plans (SSNMP), in accordance with the SSNMP Flow Chart (refer Schedule A, Row 36), including templates and a certification process for the Major Infrastructure Team Manager, Auckland Council (in accordance with Condition CNV.13) to confirm the process of SSNMP review of noise mitigation options where, the modelled/predicted levels or subsequent actual levels exceed the criteria in Conditions CNV.2 and/or CNV.4.

#### CNV.2

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 "Acoustics - Construction Noise" and shall comply with the following criteria:

Note: In Condition CNV.2 (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999.

#### (a) Project Construction Noise Criteria: Residential Receivers

Time of Week	Time period	Project Construction Noise Criteria (Long Term Construction)		
		dB		
		Sectors 1-7	Sectors 8-9	All Sectors
		LAeq(T)	LAeq(T)	LAeq(T)
Monday- Saturday	0630-0730	60	45	75
	0730-1800	70	70	85
	1800-2000	65	65	80
	2000-0630	60	45	75
Sundays and Public Holidays	0630-0730	45	45	75
	0730-1800	60	45	85
	1800-2000	45	45	75
	2000-0630	45	45	75

#### (b) Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	LAeq(T)
0730-1800	70
1800-0730	75

#### (c) Project Construction Noise Criteria: Internal Structure-borne Noise from tunnelling for Residential Receivers

Time Period	Project Construction Noise Criteria Inside	
0600-2200	35 dB LAeq(T)	All habitable rooms
2200-0600	30 dB LAeq(T)	Bedrooms

#### (d) Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside	

Teaching Hours	45 dB LAeq(T)	Classrooms, library, offices, teaching, laboratories, manual arts, workshops
Teaching Hours	40 dB LAeq(T)	School hall, lecture theatres

Note: In Condition CNV2(d) "Teaching hours" means: Primary schools and Kindergartens: 9am to 3pm Unitec: 8am to 9pm

#### CNV.4

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 "Structural vibration – Part 3: Effects of vibration on structures", and shall comply with the criteria set out as follows:

Type of Structure	Short-term vibration			Long-term vibration	
	PPV at the foundation at a frequency of			PPV at horizontal plane of highest floor (mm/s)	PPV at horizontal plane of highest floor (mm/s)
	1-10 Hz (mm/s)	1-50 Hz (mm/s)	50-100 Hz (mm/s)		
Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive structures	3	3-8	8-10	8	2.5

#### CNV.5

Notwithstanding Condition CNV.3 above,

(a) Blasting activities shall be conducted so that 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

(b) Construction activities, which occur within Sectors 1, 6, 8 and 9 which are identified in Technical Report no. G.19 Assessment of Vibration Effects, as being at a 'High Risk' of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

#### CNV.7

Where practicable, permanent (traffic) noise barriers, required in any Sector as Detailed Mitigation Options for operational noise following completion of the Project (in accordance with Conditions ON.3 to ON.5) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented in accordance with the CNVMP, prior to noise generating construction works commencing.

#### CNV.8

Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

#### CNV.13

SSNMPs (required by Condition CNV.1(xvi)) above, shall be submitted to Major Infrastructure Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing. A decision will be provided by the Council within 5 working days of receipt of the SSNMP.

Works will not commence until certification is received from the Major Infrastructure Team Manager, Auckland Council. The Council may, at its discretion, waive the requirement for SSNMPs to be submitted to the Council where an SSNMP is required.

If monitoring shows that levels specified in a SSNMP are being exceeded, work generating the exceedence will stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP

certified by Council.

Advice note: It is accepted that the criteria of CNV.2 and CNV.4 may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in Condition CNV.1 (ix).

## **Noise Conditions – Operation**

### **ON.1**

For the purposes of Conditions ON.2-ON.14 the following terms will have the following meanings:

- Appendix E – means Appendix E to the Technical Report G.12 ‘Assessment of Operational Noise Effects’ submitted with this application.
- BPO – means Best Practicable Option.
- Building Modification Mitigation – has the same meaning as in NZS 6806:2010.
- Design Year – means a point in time that is 10 years after the opening of the Project to the public
- Emergency Mechanical Services – means mechanical services used for emergency situations only.
- Habitable room – has the same meaning as in NZS 6806:2010.
- Noise Criteria Categories – means groups of preference for time-averaged sound levels established in accordance with NZS 6806:2010 when determining the BPO mitigation option; i.e. Category A - primary noise criterion, Category B - secondary noise criterion and Category C - internal noise criterion.
- NZS 6806:2010 – means NZS 6806:2010 Acoustics – Road-Traffic Noise – New and Altered Roads.
- PPFs – means only the premises and facilities identified in green, yellow or red in Appendix E.
- Structural mitigation – has the same meaning as in NZS 6806:2010.

### **ON.2**

The NZTA shall implement the traffic noise mitigation measures identified as the “Preferred Mitigation Options” in Appendix E as part of the Project, in order to achieve the Noise Criteria Categories indicated in Appendix E (“Identified Categories”), where practicable and subject to Conditions ON.3-ON.11 below.

### **ON.3**

The detailed design of the structural mitigation measures of the “Preferred Mitigation Options” (the Detailed Mitigation Options) shall be undertaken by a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council prior to construction of the Project, and, subject to Condition ON.4, shall include, as a minimum, the following:

- (a) Noise barriers with the location, length and height in general accordance with Appendix E and designed in accordance with the ULDF (Section B) (refer Schedule A, Row 38); and
- (b) A requirement that Open Graded Porous Asphalt (“OGPA”) or equivalent low-noise generating road surface be used on all surface roads throughout the Project, except at the Great North Road Interchange; and
- (c) For the Great North Road Interchange, a requirement that Twin Layer Open Graded Porous Asphalt (“Twin Layer OGPA”) or equivalent low-noise generating road surface be used as shown in Appendix E.

### **ON.4**

Where the design of the Detailed Mitigation Options identifies that it is not practicable to implement a particular structural mitigation measure in the location or of the length or height included in the “Preferred Mitigation Options”, either:

- (a) If the design of the structural mitigation measures could be changed and would still achieve the same Identified Category at all relevant PPFs, and a suitably qualified expert approved by the Major Infrastructure Team Manager, Auckland Council, certifies to the Auckland Council that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed mitigation measures; or
- (b) If the changed design of the structural mitigation measure would change the Noise Criteria Category at any relevant PPF from Category A or B to Category C but Major Infrastructure Team Manager, Auckland Council confirms that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed structural mitigation measures.

#### ON.5

The Detailed Mitigation Options shall be implemented prior to completion of construction of the Project.

#### ON.6

(a) Sectors 1 to 8 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options:

- i. A noise level increase of 3 decibels or more will occur due to road-traffic noise from the Project; and
- ii. Habitable spaces are likely to receive in excess of 45 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year.

For those PPFs, following the process set out in Conditions ON.7 to ON.11, it shall be determined which Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces.

(b) Sector 9 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options, habitable spaces are likely to receive in excess of 40 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year. For those PPFs, following the process set out in ON.7 and ON.8, it shall be determined if Building Modification Mitigation may be required to achieve 40 dB LAeq inside habitable spaces. For those PPFs where Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces, this shall be implemented following the process set out in ON.9 to ON.11.

#### ON.7

(a) Prior to commencement of construction of any sector of the Project in the vicinity of a PPF identified under Condition ON.6, the NZTA shall write to the owner of each such building seeking access for the purpose of measuring internal noise levels and assessing the existing building envelope in relation to noise reduction performance.

(b) If the owner(s) of the building approve the NZTA's access to the property within 12 months of the date of the NZTA's letter (sent pursuant to Condition ON.7(a)), then no more than six months prior to commencement of construction in any sector of the Project, the NZTA shall instruct a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council, to visit the building to measure internal noise levels and assess the existing building envelope in relation to noise reduction performance.

#### ON.8

Where a PPF identified under Condition ON.6 is identified, the NZTA shall be deemed to have complied with Condition ON.7 above where:

- (a) The NZTA (through its acoustics specialist) has visited the building; or
- (b) The owner(s) of the building approved the NZTA's access, but the NZTA could not gain entry for some reason after repeated attempts; or
- (c) The owner(s) of the building did not approve the NZTA's access to the property within the time period set out in Condition ON.7(b) (including where the owner(s) did not respond to the NZTA's letter (sent pursuant to Condition ON.7(a) within that period); or
- (d) The owner(s) of the building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

If any of (b) to (d) above apply to a particular Building, the NZTA shall not be required to implement any Building Modification Mitigation at that Building

#### ON.9

Subject to Condition ON.8, within 6 months of the assessment required under Condition ON.7(b), the NZTA shall give written notice to the owner of each PPF identified under Condition ON.6:

- (a) Advising of the options available for Building Modification Mitigation to the building; and
- (b) Advising that the owner has three months within which to decide whether to accept Building Modification Mitigation for the building, and if the NZTA has advised the owner that more than one options for building

modification mitigation is available, to advise which of those options the owner prefers.

#### ON.10

Once an agreement on Building Modification Mitigation is reached between the NZTA and the owner of an affected building, the mitigation shall be implemented (including the NZTA undertaking any required third party authorisation) in a reasonable and practical timeframe agreed between the NZTA and the owner. Building Modification Mitigation shall be to the standard specified in section 8.3.2 of NZS 6806:2010.

Advice Note: The NZTA will be responsible for obtaining any necessary building consents or other approvals to undertake the above Building Modification Mitigation.

#### ON.11

Subject to Condition ON.8, where Building Modification Mitigation is required, the NZTA shall be deemed to have complied with Condition ON.10 above where:

- (a) The NZTA has completed Building Modification Mitigation to the Building; or
- (b) The owner(s) of the Building did not accept the NZTA's offer to implement Building Modification Mitigation prior to the expiry of the timeframe stated in Condition ON.9(b) above (including where the owner(s) did not respond to the Requiring Authority within that period); or
- (c) The owner of the Building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

#### ON.12

The NZTA shall manage and maintain the Detailed Mitigation Options to ensure that, those mitigation works are maintained to retain their noise attenuation performance indefinitely

#### ON.14

(a) Prior to construction, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake a minimum of 8 (eight) representative measurements of ambient noise levels. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(b) Following completion of the work, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake traffic noise monitoring at the same sites surveyed in Condition ON.14 (a) above, within 2 to 3 years following completion of construction of the Project. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(c) The results of the noise level monitoring in accordance with ON.14(b) above shall be used to verify the computer noise model of the Detailed Mitigation Option. A report describing the findings of the verification shall be provided to the Major Infrastructure Team Manager, Auckland Council within one month of it being completed.

Vibration Conditions - Operation

#### OV.1

Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Team Manager, Auckland Council for approval prior to the commencement of works. These baseline measurements will establish pre-Project vibration levels for comparison with future vibration levels.

### **Air Quality Conditions – Construction**

#### **GENERAL CONDITIONS**

##### AQ.1.

The NZTA shall finalise and implement, through the CEMP, the Construction Air Quality Management Plan (CAQMP) and Concrete Batching and Crushing Management Plan (CBCMP) submitted with the application. The CAQMP and CBCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the

CAQMP and CBCMP includes the following details:

- (a) Daily visual monitoring of dust emissions;
- (b) Procedures for responding to process malfunctions and accidental dust discharges;
- (c) Criteria, including consideration of weather conditions and procedures for use of water sprays on stockpiles and operational areas of the site;
- (d) Continuous monitoring of Total Suspended Particulate (TSP) concentrations and meteorology;
- (e) Monitoring of the times of detectable odour emissions from the ground;
- (f) Procedures for responding to discharges of odour (including in the event of excavation of contaminated sites);
- (g) Monitoring of construction vehicle maintenance;
- (h) Process equipment inspection, maintenance, monitoring and recording, including baghouses, pressure relief valves and high level alarms;
- (i) Complaints investigation, monitoring and reporting; and
- (j) The identification of staff and contractors' responsibilities.

AQ.2.

The NZTA shall review the CAQMP and CBCMP at least annually and as a result of any material change to the Project. Any consequential changes will be undertaken in accordance with Condition CEMP.13.

AQ.3.

All construction activities shall be operated, maintained, supervised, monitored and controlled at all times so that all emissions authorised by this consent are maintained at the minimum practicable level.

AQ.4.

The NZTA shall undertake construction activities in accordance with the CEMP, CAQMP and CBCMP, such that:

- (a) Hard surfaced areas of the construction yards and active construction areas are vacuum swept or scraped down at least twice each week and additionally as reasonably required;
- (b) All unsealed areas of the site used for vehicle movement are maintained visibly damp by the use of water sprays or a water cart during weather conditions where the potential for dust emissions exist;
- (c) Wheel wash systems are installed at all truck exits from unpaved areas of the site onto public roads are used for all trucks that depart from the site;
- (d) All stockpiles are constructed and positioned to minimise the potential for dust emissions. The surfaces of all stockpiles are maintained adequately damp at all times to minimise the release of particulate matter;
- (e) Belt conveyors for moving dry materials are fitted with water sprays or enclosed to minimise wind entrainment of dust. Where installed, water suppression is used whenever the conveyors are used for moving dry materials.

AQ.5.

Unless expressly provided for by conditions of this consent, there shall be no odour, dust or fumes beyond the site boundary caused by discharges from the site which, in the opinion of an enforcement officer, is noxious, offensive or objectionable.

AQ.6.

All offensive or objectionable dust beyond the boundary of the site caused as a result of processes on the site shall be mitigated forthwith in accordance with the requirements of the Construction Air Quality Management Plan.

AQ.7.

Beyond the site boundary there shall be no hazardous air pollutant caused by discharges from the site that causes, or is likely to cause, adverse effects on human health, environment or property.

AQ.8

No discharges from any activity on site shall give rise to visible emissions, other than water vapour, to an extent which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.

## **MONITORING**

### **AQ.14**

The NZTA shall undertake visual inspections of dust emissions as follows:

- (a) Visual inspections of all active construction areas at least three times daily during October to April inclusive, whenever there are construction activities. The results of visual monitoring shall be logged.
- (b) Visual inspections of dust emissions from the concrete batching plants and rock crushing plant shall be undertaken daily while the plant is operating

### **AQ.15**

The operation of water sprays shall be checked at least once each day.

## **REPORTING**

### **AQ.19.**

All records, logs, monitoring and test results that are required by the conditions of this consent shall be made available on request, during operating hours, to an Auckland Council enforcement officer and shall be kept for the duration of the consent.

### **AQ.22.**

Log books shall be maintained that record all relevant information that is required to demonstrate compliance with the conditions of this consent. This information shall include, but is not limited to:

- (a) Visual assessments of any dust emissions from the site and the source;
- (b) Any dust control equipment malfunction and any remedial action taken;
- (c) When a water cart was used and, if so, the frequency of use and the volume of water used (including identification of location);
- (d) All relevant details of the TSP and meteorological monitoring required by Conditions AQ.16 and AQ.17;
- (e) Any additional dust control measures undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

### **AQ.23.**

The NZTA shall maintain a log of any complaints received relating to air quality. Details of each complaint received shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 24 hours of receipt of the complaint. The log shall include any complaints lodged with the Auckland Council where the Council has informed the NZTA of the complaint. The log shall include, but not be limited to the following:

- (a) The date, time, location and nature of the complaint;
- (b) Weather conditions at the time of the complaint (including approximate wind speed, wind direction, cloud cover);
- (c) Any possible other contributing factors (such as a fire, smoky vehicle, a local chimney emission, etc.);
- (d) The name, phone number and address of the complainant (unless the complainant elects not to supply these details);
- (e) Any remedial actions undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

## **Landscape and Visual Conditions**

### **LV.1.**

The Urban Design and Landscape Plans (UDL Plans) (Plan Set F.16, refer Schedule A, Row 17) shall be reviewed and revised in accordance with the conditions and submitted to the Major Infrastructure Team Manager, Auckland Council for certification that they comply with the conditions of the consents/ designation prior to construction of the relevant Project stage, at least 20 working days prior to the commencement of construction.

The UDL Plans shall be updated to:

- (a) Reflect relevant details from the PT and Active Mode Transport Routes Plan Set (Schedule A, Row 23);
- (b) Remove the playing field at Waterview Reserve;
- (c) Confirm the reconfigured bund design at Alwyn Avenue (Schedule A, Row 42);

(d) Reflect landscaping required in relation to the northern vent stack in Waterview Glades pursuant to Conditions DC.8.

#### LV.2.

In certifying the UDL Plans, prepared in accordance with Condition LV.1, the Major Infrastructure Team Manager, Auckland Council shall be satisfied the UDL plans includes:

- (a) The visual mitigation of infrastructure as detailed in Section B of the UDLF (refer Schedule A, Row 38).
- (b) Incorporation of art or art through design of structures, particularly as it relates to noise barriers and the Great North Road Interchange piers and ramps (Refer to clauses (g) and (i) below).
- (c) Planting to screen houses and noise walls (including cross section details);
- (d) Planting along the corridor on Traherne Island, in accordance with these conditions and the Ecological Management Plan;
- (e) Specimen planting on the Great North Road Interchange and the Te Atatu Road Interchange;
- (f) Specimen planting at the tunnel portals (except where this is within the OPW area);
- (g) Finalisation of the noise barriers (as required by Condition ON.3(a)) in accordance with the design principles for noise walls (refer Schedule A, Row 32);
- (h) Delineation of the final areas of the Open Space Restoration Plans in accordance with the Open Space Restoration Plans (Schedule A, Row 30), and reference that all works within the Open Space Restoration Plan Areas are subject to Conditions OS.1 to OS.8;
- (i) Oakley Inlet Heritage Plan, prepared in accordance with Conditions OS.5, and in particular, consideration shall be given to the design treatment of the Great North Road Interchange piers and ramps to take into consideration the impact of the structures on the visual quality of the open space beneath;
- (j) Ecological Management Plan, prepared in accordance with Conditions V.1, A.1, H.1, F.1 and M.1;
- (k) Western Ring Route: Maioro Street Interchange and Waterview Connection - Oakley Creek Rehabilitation and Restoration Guidelines (Boffa Miskell, 2010); and
- (l) Details of artworks or art through design of structures within the Project (e.g. design detailing of median barriers, bridge railings, safety barriers, piers, retaining walls and tunnel portals), in accordance with Section B of the Urban Landscape and Design Framework (UDLF June 2010) (refer Schedule A, Row 38) and F.8:Plans of Structures and Architectural Features, but excluding the north and south ventilation buildings, plans sections and elevations.

#### LV.3.

The NZTA shall have implemented the UDL Plans within 6 months of practical completion of construction of the Project.

#### LV.4.

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 a period of 10 years thereafter. Should the landscaping be implemented in stages (depending on construction phases), landscaping shall be implemented in accordance with this Condition for each stage unless subsequent construction staging requires use of the proposed landscaping area.

Advice note: On-going control and management of the landscaping within the designation is the responsibility of the NZTA.

#### LV.5.

The NZTA shall implement the UDL Plans taking into account the pest plant management guidelines detailed in the Ecological Management Plan (as required by Condition CEMP.3).

#### LV.7.

The NZTA shall ensure that the Temporary Embankments constructed for the Causeway are located on the seaward side of SH16 between the motorway end of Rosebank Road and the bridge over the Waterview Inlet.

LV.8.

The NZTA shall ensure that any areas within the designation 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 and provided to the Major Infrastructure Team Manager, Auckland Council with the revised UDL Plans submitted pursuant to Condition LV.1.

LV.9.

The UDL Plans shall make provision for the rehabilitation of Construction Yard 2 at the completion of SH16 construction works through the close planting of native coastal species within that part of the yard area seaward of the proposed stormwater filter strip. All planting shall be consistent with the native coastal planting referenced in the ECOMP and Condition V.10.

LV.10.

The UDL Plans shall identify all Amenity Trees required to be removed over the construction of the Project (in accordance with Condition CEMP.6(o) and (p)). Replacement trees shall be sized at 160Lt and will either draw from the Coastal Forest or Basalt Rock Forest ecotypes listed in the Landscape Planting Schedules (provided in F.16, refer Schedule A, 17) or an agreed alternative species (confirmed by Major Infrastructure Team Manager, Auckland Council), except in the case of those trees subject to Condition ARCH.9.

Advice note: This does not necessarily apply to any replacement planting in the Open Space Restoration Plan areas, which will be confirmed in approval from Auckland Council and will be in accordance with relevant Auckland Council Park guidelines (see Condition OS.4).

## **Open Space Conditions**

OS.1

For the purposes of Conditions OS.2 – OS.15 the following terms will have the following meanings:

- Full size – means a football (soccer) field with the dimensions 100m x 60m.
- Half size – means a football (soccer) field with the dimensions less than 100m x 60m but no smaller than 50m x 30m.
- Toddler – means a playground specifically designed for children between the ages of 1 and 3
- Junior – means a playground specifically designed for children between the ages of 4 and 8
- Youth – means a playground specifically designed for children between the ages of 9 – 14 years
- Open Space Restoration Plans – means those plans listed in Schedule A, row 30.
- Open for Play - means the sports field has a level surface and a dense weed-free sward of mature grass, goal posts and lighting if indicated in the Open Space Restoration Plans approved by the Auckland Council.
- Sand - carpeted - means the field has been levelled and irrigated, and conventional sub-soil drains, slit drains and a 50mm deep sand carpet have been installed. The field has been stolonised with a warm season grass such as kikuyu or couch.
- Auckland Council Park Guidelines – means the document by Auckland City Council titled “Furnishing our parks: design guidelines for park furniture”, dated September 2009
- Park furniture – means those items described in the Auckland Council Park Guidelines
- AS2560 – means the Australia New Zealand Standard for lighting of sports fields.
- AS4282 – means the Australia New Zealand Standard for the control of the obtrusive effects of outdoor lighting.
- Way finding exercise – means a process for determining the number, size, location and content of signage to provide clear direction for all park users.
- Skate-park for the purpose of conditions OS.5(b)(iii) means a skate park with a size of approximately 1,400 sq. m. (generally 25 wide x 55m long), incorporating a range of design variations. Suitable for beginners (providing training facilities to develop their skills) but primarily catering for intermediate to advanced level skaters.
- BMX bike track for the purpose of condition OS.5(b)(iii) means a low maintenance, non-competition BMX bike track, incorporating a range of design variations. Primarily catering for beginner and intermediate riders.

OS.2

The NZTA shall prepare Open Space Restoration Plans to outline how the open space replacement land, as defined in the Open Space Restoration Plan Areas (Schedule A, Row 30) (including land occupied during construction) will be reinstated or replaced on completion of construction, for handover to Auckland Council and those areas identified in Condition DC.1A(f) and RC.3(f). Following the consultation detailed in Condition OS.3 below, the Open Space Restoration Plans listed in Condition OS.3(a) to (f) shall be submitted within 12 months of construction commencing in the specific areas affecting the reserves or within 12 months of occupation of open space, whichever is the sooner, to the Major Infrastructure Team Manager, Auckland Council.

Advice note: Conditions OS.9 and OS.10 require certain works to be provided prior to occupation of Construction Yards 6 and 7 (Waterview Reserve) and Construction Yards 9- 12 (Alan Wood Reserve) and this may impact on the timing of Open Space Restoration Plans for these areas.

### OS.3

The Open Space Restoration Plans shall be prepared in consultation with the Auckland Council, Iwi, the Community Liaison Groups (Condition PI.5), NZHPT, and other recreation users and other user representatives identified by Auckland Council. The Open Space Restoration Plans shall comprise the following specific plans:

- (a) Waterview Reserve Restoration Plan;
- (b) Alan Wood Restoration Plan (including Hendon Park and 25 Valonia Street);
- (c) Oakley Creek Esplanade (Waterview Glades) Restoration Plan;
- (d) Jack Colvin Park Restoration Plan;
- (e) Rosebank Domain Restoration Plan;
- (f) Harbourview-Orangihina Reserve Restoration Plan.
- (g) The areas of the Open Space Restoration Plans are shown in the Open Space Restoration Plan Areas (Refer Schedule A, Row 30).

### OS.4

All Open Space Restoration Plans shall be prepared in general accordance with the UDL Plans (Schedule A, Row 30), and shall include, but not be limited to, the following:

- (a) Details of, including the location, of any artworks and educational signage, and directional signage. In the case of Alan Wood Reserve, Waterview Reserve and Oakley Creek Esplanade (Waterview Glade) this shall include a "way-finding exercise" in accordance with Auckland Council practice, to determine all signage to be provided; and
- (b) Evidence of integration with the Oakley Creek restoration works required under Conditions STW.5, STW.20, V.16 and LV.2(i); and a summary of the consultation undertaken (as required by Condition OS.3) and the response received; and
- (c) Details of any vehicle access through the reserves and parking areas; and
- (d) Park furniture (including quantity and quality) to be provided in accordance with relevant Auckland Council Park guidelines, except for:
  - (i) The riparian area within Alan Wood Reserve where the only furniture required is a maximum of 10 seats; and
  - (ii) Oakley Creek Esplanade (Waterview Glades) where the only furniture required is replacement of 3 existing seats; and
- (e) The inclusion and integration of the design for all pedestrian and cycleway linkages and facilities detailed on the PT and Active Mode Transport Routes (Schedule A, Row 22). The design integration shall be in accordance with CPTED principles;
- (f) Implementation programme, including sequencing of works and completion dates. This shall include works that could be implemented prior to practical completion of construction works or are outside the Project area (e.g. upgrading of the Waterview Esplanade Reserve set out in Condition OS.5(b)(vii);
- (g) Implementation programmes for planting and field reinstatement. This shall include:
  - (i) A 12 month maintenance period for built structures and soft landscaping; and
  - (ii) For any landscaping accessible to horses an assessment to demonstrate that the planting schedule is not toxic to horses and that consultation on this has been undertaken with the Te Atatu Pony Club;
- (h) The specific requirements for each Restoration Plan area as set out in Conditions OS.5 – OS.8;
- (i) Documentation of consultation undertaken required by Condition OS.3 and the views and concerns expressed by this consultation and the written approval of the Manager Community and Cultural Policy.

Advice note: For the avoidance of doubt provision of (a) to (h) above will require elevations, cross sections, engineering drawings and written documentation to supplement the UDL Plans. It is also noted that the UDL Plans identify landscaping, planting and other works beyond the Open Space Restoration Plans (refer Conditions LV.1 – LV.6, LV.9 and LV.10). Educational signs and artworks are particularly encouraged.

#### OS.13

During construction, the NZTA shall maintain pedestrian accessways to all open space available for public use during construction and education facilities where access is affected by the works, including any public access that crosses private land. Such access shall be safe, clearly identifiable, provide appropriate surfacing and seek to minimise significant detours. The access shall be of a same or similar standard as that disrupted and will be provided and maintained by the NZTA.

Advice note: This specifically includes the existing pedestrian access that provides a connection to the crossing over Oakley Creek between 1510 Great North Road and Unitec Mt Albert Campus.

### **Social Conditions**

#### SO.1

In addition to the Community Liaison Groups established pursuant to Condition PI.5, the NZTA shall establish an Education Liaison Group (including representatives from local schools, kindergartens, childcare facilities, Unitec Institute of Technology, the Ministry of Education and Housing New Zealand Corporation), to provide a forum through which:

- (a) Relevant monitoring data can be provided (e.g. air quality monitoring);
- (b) Notice can be provided of when particularly noisy activities will occur in close proximity to schools and education facilities, to enable the opportunity to identify any potential conflict with particular sensitive periods, and the requirement for specific mitigation strategies (e.g. rescheduling of construction activities where practicable);
- (c) Particular concerns can be raised by educational facilities or parents, discussed and potentially addressed;
- (d) Notice can be provided of potential construction impacts on school transport routes (including pedestrian/cycle access) to enable the opportunity to identify specific mitigation preferences of the education facilities (e.g. any detour routes) and to enable these facilities to appropriately inform students and/or parents; and
- (e) Learning and teaching opportunities for educational facilities to participate in Project works (e.g. planting or artworks).

The Education Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period. The Education Liaison Group shall continue to meet for at least 12 months following the completion of the Project (or less if the members of the Education Liaison Group agree), so that ongoing monitoring information can continue to be disseminated.

#### SO.2

In addition to Condition SO.1(b) above, where noisy construction activities (that are projected to exceed the Noise Criteria in the CNVMP) are proposed in close proximity or adjacent to schools/ childcare centres, the NZTA shall, when preparing their SSNMP (in accordance with Condition CNV.1) give specific consideration to options to carry out these works outside school hours or during school holidays as a mitigation option.

#### SO.6

In addition to the Community Liaison Group established pursuant to Condition PI.5, the NZTA shall establish a Working Liaison Group (WLG) inviting the following:

- (a) Auckland Council;
- (b) Housing New Zealand Corporation;
- (c) Te Kawerau Iwi Tribal Authority;
- (d) Ngati Whatua o Orakei;
- (e) KiwiRail;
- (f) Department of Conservation;

- (g) Ministry of Education; and
- (h) Local Boards.

The purpose of this WLG will be to provide a forum through which:

- (a) Opportunities for public work development (including social housing, passenger transport or recreation / open space) are identified in areas where the NZTA confirms that the designation is no longer required (e.g. following construction activities);
- (b) Comment can be provided on updated Urban Design and Landscape Plans, including the finalised designs of structural elements for the Project (prior to their submission to the Auckland Council);
- (c) Opportunities for integration of other environmental projects (e.g. restoration plantings) are identified;
- (d) Consideration is given to appropriate protocols for commencement and completion of construction activities (including blessings for commencement of construction phases); and
- (e) Comment can be provided by Te Kawerau a Maki on the detailed lighting design of SH16, to consider how lighting effects on cultural sites and practices might be mitigated without compromising traffic safety or those performance standards identified in Condition L.1.

The Working Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period.

#### SO.7

A schedule of trees that require removal for construction of the Project will be identified and reported to the Community Liaison Group for their consideration of potential provision of timber for heritage projects (including in particular the provision of Robinia wood for heritage boat building). If the demand for this timber is identified to the Construction Team, appropriate measures for felling and removal from the site will be confirmed.

### **Vegetation Conditions**

#### V.1

The NZTA shall finalise the ECOMP submitted with this application, prior to works commencing on site. The ECOMP shall be implemented through the CEMP. The ECOMP shall clearly identify the location and identity of:

- (a) All Significant Vegetation within the designation that is to be fully protected or relocated; and
- (b) All Valued Vegetation within the designation that is affected by the works (protected or removed).

Note: Significant and Valued Vegetation shall be as defined in the ECOMP.

#### V.2

The NZTA shall employ a suitably experienced botanist ('nominated botanist') for the duration of the works to monitor, supervise and direct all works affecting or otherwise in close proximity to the Significant Vegetation and Valued Vegetation identified in the ECOMP.

#### V.3

Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions that pertain to the Significant Vegetation and Valued Vegetation and all vegetation in general (both native and exotic) are explained by the nominated botanist to all contractors or sub-contractors who will be working on site within the close vicinity of that vegetation.

#### V.4

The NZTA shall minimise the amount of vegetation (both native and exotic) which is to be cleared, with the exception of weeds (both woody and otherwise, unless agreed with the Major Infrastructure Team Manager, Auckland Council and the Community Liaison Group that the retention of these 'weeds' has other environmental or ecological benefits that warrant their retention). All vegetation clearance shall be undertaken in accordance with the measures set out in the ECOMP.

#### V.5

The NZTA shall install protective fencing around, or otherwise clearly demarcate, all of the Significant Vegetation identified in the ECOMP as requiring full protection, under the supervision of the nominated botanist.

V.6

The NZTA shall replace any terrestrial Valued Vegetation that is required to be removed as a result of construction activities, in accordance with the ECOMP and the Urban Design and Landscape Plans.

V.7

The nominated botanist shall supervise all trimming, pruning and relocation work associated with the Significant Vegetation and Valued Vegetation required as part of the works.

V.8

Immediately prior to planting, and for a period of 2 years following completion of construction, the NZTA shall undertake weed control and management of all invasive plant pests within the vegetated areas of the surface designation for the Project. Following this 2 year period, on-going control and management of all invasive plant pests within these areas will be the responsibility of the NZTA.

V.9

The nominated botanist shall undertake a monitoring programme throughout the construction period, including monitoring of:

- (a) The condition, repair and location of the temporary protective fencing or other forms of demarcation used to identify the Significant Vegetation;
- (b) Any works within the vicinity of the Significant Vegetation and Valued Vegetation;
- (c) The general health of the Significant Vegetation and Valued Vegetation (including any Significant or Valued Vegetation that has been relocated away from the works area); and
- (d) Compliance with the vegetation conditions of designation by way of fortnightly inspections during the construction period.

V.10

Any planting utilising native plants shall use plants genetically sourced from the Tamaki Ecological District where possible or otherwise shall use plants that have been genetically sourced from within the Auckland Ecological Region.

V.11

Prior to commencement of works adjacent to Traherne Island, the NZTA shall employ a suitably qualified and experienced plant translocation expert to uplift and protect all areas of *Mimulus repens* on Traherne Island that will be affected by the work. The *Mimulus repens* shall be relocated to suitable and safe habitat away from the works area, or otherwise held and protected for the duration of the works in the vicinity of their original location and be replanted back at that location (or in close proximity to it) upon completion of the works. The location of the recipient sites will be determined in consultation with the Department of Conservation and in general accordance with the Traherne Island Natural Heritage Restoration Plan (2009 – 2014). Trials shall be undertaken to identify appropriate recipient sites, with these trial sites being monitored for a period of no less than 5 years, or until their failure. Where possible, recipient sites shall be located in currently weed-free areas. Where recipient sites may potentially be affected by weeds, they shall be subject to an on-going weed management plan. Should translocation attempts fail at all trial sites then the NZTA, in consultation with DOC, shall determine an alternative appropriate form of mitigation.

V.15

Planting along and within the rock revetment of the widened SH16 causeway shall be undertaken by the NZTA at locations in general accordance with the Urban Design and Landscape Plans and planting schedules (Refer Schedule A, Row 17), as identified in those plans under the label "Rock Armour with Saltwater Revetment Planting". The planting treatments will be in accordance with the concepts of the ECOMP, Appendix I 'Conceptual Rock Revetment Planting Designs'.

V.17

Prior to commencement of works adjacent to or on Traherne Island, the NZTA shall employ a suitably qualified

and experienced ecologist for the preparation of a Traherne Island Weed and Pest Management Plan. The Plan shall be prepared in consultation with the Department of Conservation and be submitted to the Auckland Council for approval at least 20 working days prior to construction commencing.

#### V.18

The NZTA shall implement the approved Traherne Island Weed and Pest Management Plan. Every 5 years, a suitably qualified and experienced ecologist engaged by NZTA shall review the plan in consultation with the Department of Conservation. The plan shall then be submitted to the Auckland Council for approval.

### **Avian Conditions**

#### A.1

The NZTA shall finalise, and implement through the CEMP, ECOMP submitted with this application to include the matters set out in Conditions A.2 to A.6.

#### A.2

The NZTA shall provide temporary high tide roosting structure(s) adjacent to the Causeway during construction, in accordance with the ECOMP, to the satisfaction of the Major Infrastructure Team Manager, Auckland Council. The temporary bird roosts shall be sized in accordance with the ECOMP, and located within the Waterview Estuary adjacent to the southern side of the causeway and in the vicinity of the existing Causeway bridge.

#### A.3

The NZTA shall employ a suitably qualified ecologist to undertake monitoring of the roosting areas located at:

- (a) The existing high tide roost in Harbourview-Orangihina Park; and
- (b) The temporary construction roosting structure(s) pursuant to Condition A.2.

Monitoring shall be undertaken on a monthly basis, with a monitoring report prepared on a quarterly basis. The monitoring report shall be made available to the Major Infrastructure Team Manager, Auckland Council and Department of Conservation upon request.

#### A.4

Should the monitoring results indicate that the roosting sites have been abandoned, consultation shall be undertaken with the Department of Conservation and the Major Infrastructure Team Manager, Auckland Council to determine the need for and type of further management strategies (if any) required.

#### A.5

Vegetation clearance at Traherne Island shall occur outside the bird breeding season of September to December. Elsewhere, vegetation clearance shall occur outside the bird breeding season of September to December where practicable.

#### A.6

Animal pest control shall be undertaken by the NZTA on Traherne Island (northern and southern sides) and on the Coastal Marine Area (CMA) frontage of SH16 from Traherne Island North to Whau Creek, and on the southern side of SH16 from Traherne Island South to Whau River (in accordance with Condition V.17).

### **Herpetofauna Conditions**

#### H.1

The NZTA shall finalise and implement through the CEMP, the ECOMP submitted with this application to include details of lizard management to be undertaken, including the following:

- (a) Lizard capture methodology, including timing;
- (b) Lizard release locations(s);
- (c) Lizard habitat enhancement at population release sites, including a detailed pest control programme for a minimum of one month prior to release and for a minimum of three consecutive years' duration after release;
- (d) Location(s), monitoring and maintenance of lizard protective fencing;

- (e) Post-release monitoring methodology; and
- (f) Lizard captive management methodology.

## Lighting Conditions

### Operation

#### L.1

Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, in general accordance with the Waterview Connection Lighting Plan (Drawing Set F.11 (Refer Schedule A, Row 12):

- a) All motorway lighting shall be designed in accordance with "Roadlighting Standard AS/NZS1158";
  - b) All other lighting shall be designed in accordance with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
  - c) Fully cut off luminaires shall be used on SH20 from the Southern Tunnel Portal to the Maoro Street Interchange to minimised lighting overspill, as shown on Drawing Set F.11(Refer Schedule A, Row 12).
- Construction Zones and Construction Yards

#### L.2

A Temporary Construction Lighting Management Plan shall be prepared for all construction zones and construction yards prior to commencement of any night time works within the construction zones and construction yards. The Temporary Construction Lighting Management Plan shall be independently verified by a lighting specialist and provided to the Major Infrastructure Team Manager, Auckland Council for certification of compliance 10 working days prior to any night time work commencing.

The certification process shall ensure that the Plan includes (but is not be limited to):

- a) The layout and arrangement of all temporary lighting required for night time works, and shall show how this avoids the "Light Spill Restriction Zone" identified on the Construction Yard Plans (Refer Schedule A, Row 7) submitted with the application, and that the temporary lighting complies with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- b) Provision for a 10m buffer between the night time work and any residential boundary at all times to minimise potential for light spill; and
- c) General operating procedures outlined in the CEMP.

#### L.3

Asymmetrical floodlights with horizontal glass visors that are not raised more than 3 degrees above the horizontal plane shall be used for any temporary construction night time lighting requirements. Alternative temporary lighting arrangements may be used, subject to the prior approval of the Major Infrastructure Team Manager, Auckland Council, where it can be demonstrated that the proposed lighting is similar or better to asymmetrical floodlights with glass visors. Glare shall be kept below the recommendation given in AS 4282 – 1997 "Control of the Obtrusive Effects of Outdoor Lighting" Tables 2.1 and 2.2.

## Archaeology Conditions

### ARCH.1

The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:

- a) Identification of the Project archaeologist, their role and responsibility on the Project;
- b) Who reports to the Project archaeologist;
- c) Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;
- d) **Whether NZHPT Heritage New Zealand** and/or Auckland Council heritage and/or iwi supervision is required for the specific site (the latter to be determined through consultation with the relevant iwi groups); and
- e) Accidental discovery protocols in the event that unknown archaeological sites are uncovered.

### ARCH.2

The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site

to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:

- (a) All unmodified areas in the vicinity of Rosebank Road;
- (b) All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;
- (c) Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;
- (d) Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.

### ARCH.3

If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:

- (a) Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- (b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;
- (c) The Project archaeologist shall inspect the site to assess the relevance of the find, and then the Auckland Council shall be advised of the significance;
- (d) If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, ~~the NZ Historic Places Trust~~ Heritage New Zealand, and the Auckland Council that an archaeological site has been exposed so that appropriate action can be taken;
- (e) In the case of human remains, the NZ Police shall be notified.

### ARCH.4

In accordance with the ASMP, the following archaeological sites shall be fenced off and protected to the satisfaction of the Project archaeologist, prior to construction activities being undertaken:

- (a) Recorded sites R11/2504, R11/2505, R11/2506 and R11/2507, located on the northern boundary of the designation adjacent to the Rosebank Road peninsula.
- (b) Recorded site R11/2383 in the Oakley Creek Esplanade Reserve construction yard.

### ARCH.8

All contractors and subcontractors working on the Project shall be trained on the archaeological requirements set out in the ASMP.

Advice note:

Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from ~~the NZ Historic Places Trust~~ Heritage New Zealand.

## **Contaminated Land and Contaminated Discharges Conditions**

### CL.1

The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- (a) Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- (b) Soil validation testing and groundwater testing;
- (c) Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential reuse or disposal options;
- (d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and
- (e) Measures to be undertaken for the handling of asbestos containing material.

### CL.4

All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

CL.5

The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support of this application, including contaminated soil, surface water or groundwater. The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

CL.6

The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

CL.7

The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material.

CL.8

All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

CL.11

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

- (a) Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;
- (b) Volumes of soil removed from site;
- (c) Copies of the waste disposal receipts; and
- (d) Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the site works.

## Attachments

### Figure CEMP.A - Construction Environmental Management Framework

Figure CEMP-A - Construction Environmental Management Framework

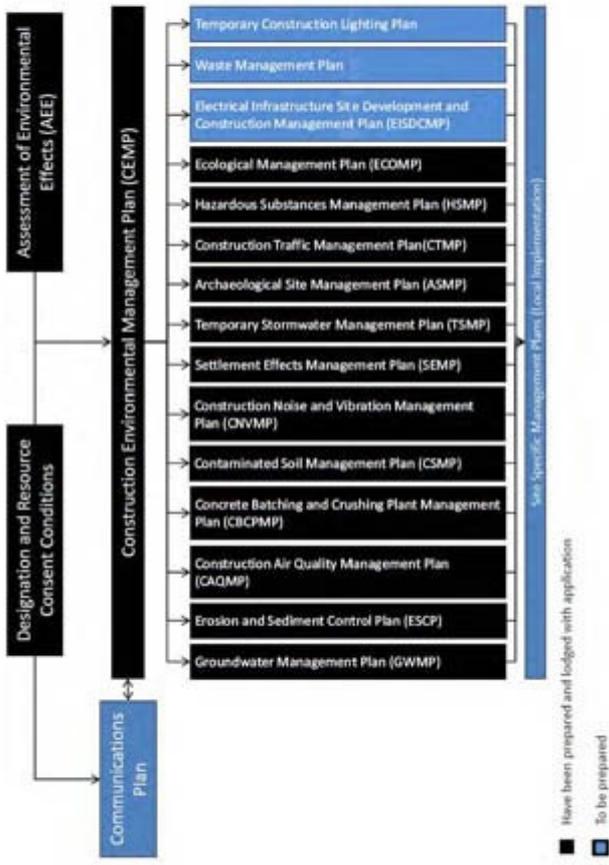
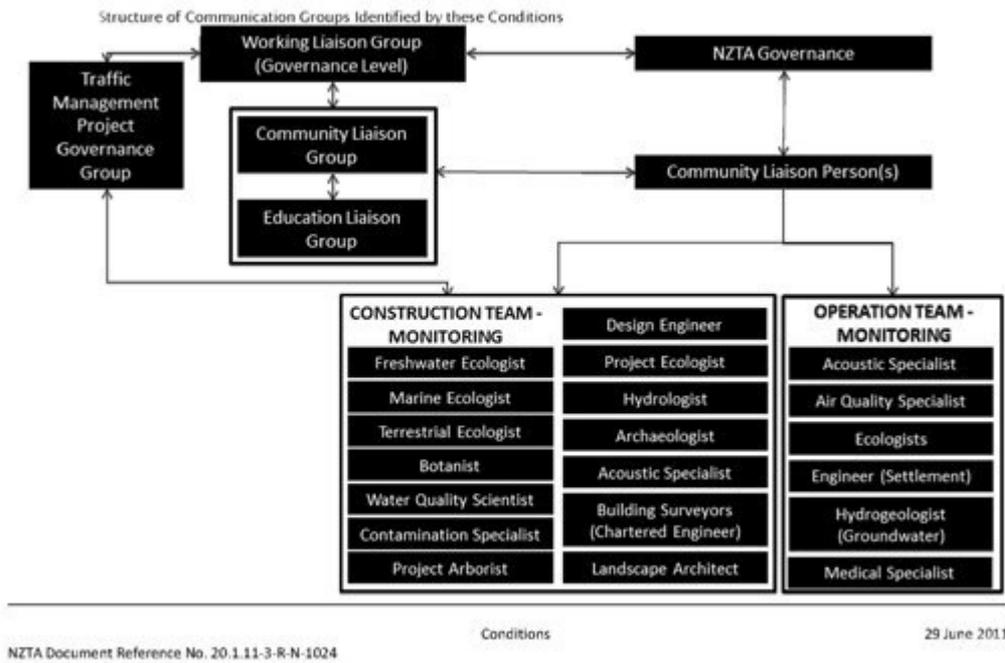


Figure PI.A - Structure of Communication Groups



**6723 State Highway 16 - Waterview Connection Waterview to Western Springs - OPERATIVE**

Designation Number	6723
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from Great North Road, Avondale to St Lukes Road, Western Springs
Rollover Designation	Yes
Legacy Reference	Designation A07-01E, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<del>Five years from being operative in the Unitary Plan unless given effect to prior</del> <u>This alteration to designation will lapse if not given effect to before the expiry of February 2018, being 5 years from the date on which it is included in the District Plan under section 184(1) of the Resource Management Act 1991 ("the Act")</u>

**Purpose**

To alter designation 6718 (formerly A07-01), SH16, between Great North Road and St Lukes Interchange – NOR3. Addition of properties to existing designation, and construction of two new lanes, stormwater treatment, wetland pond, ancillary works and services, vegetation removal and restoration works, relocation of services, works on existing cycleway, landscaping and planting.

**Conditions**

1. The SH16 St Lukes Western Ring Route Project shall be carried out in accordance with the plans submitted with the application, being:

Reference Number	Rev	Title	Date
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Planting Details			
215023-D-A-919-001	B	Planting Details 1 of 10	31.05.2013
215023-D-A-919-002	E	Planting Details 2 of 10	15.07.2013
215023-D-A-919-004	D	Planting Details 4 of 10	04.07.2013
215023-D-A-919-005	C	Planting Details 5 of 10	24.06.2013
215023-D-A-919-006	C	Planting Details 6 of 10	24.06.2013
215023-D-A-919-007	C	Planting Details 7 of 10	24.06.2013
215023-D-A-919-008	B	Planting Details - 8 of 10	31.05.2013
215023-D-A-919-009	E	Planting Schedule 9 of 10	30.08.2013
215023-D-A-919-010	D	Planting Schedule 10 of 10	30.08.2013
Landscape Master Plans			
215023-D-A-919-011	E	Landscape Master Plan Sheet 1 of 4	15.07.2013
215023-D-A-919-013	D	Landscape Master Plan Sheet 3 of 4	04.07.2013
215023-D-A-919-014	C	Landscape Master Plan Sheet 4 of 4	24.06.2013
Noise Wall Details			
215023-D-A-919-051	B	Noise Wall Details 1 of 3	31.05.2013
215023-D-A-919-052	B	Noise Wall Details 2 of 3	31.05.2013
215023-D-A-919-053	B	Noise Wall Details 3 of 3	31.05.2013
St Lukes Interchange			
215023-D-A-919-054	B	St Lukes Bridge Barrier Decorative Detail 1 of 1	31.05.2013
215023-D-A-919-055	B	St Lukes Motat Handrail 1 of 1	31.05.2013
215023-D-A-919-056	B	L Shapes Barrier Template 1 of 2	31.05.2013
215023-D-A-919-057	B	L Shapes Barrier Template Setout 1 of 2	31.05.2013
215023-D-A-919-071	B	Northern Abutment and Wall Detail	31.05.2013
215023-D-A-919-072	B	Bridge Barrier Concept Detail 1	31.05.2013
215023-D-A-919-073	B	Bridge Barrier Concept Detail 2	31.05.2013
215023-D-A-919-074	B	L-Shapes Barrier Concept Detail	31.05.2013
215023-D-A-919-075	B	Noise Wall Concept Details	31.05.2013

215023-D-A-919-076	B	Golf Course Pedestrian Bridge Concept Detail	31.05.2013
215023-D-A-919-077	B	Motat Handrails Detail ConceptSheet Layout	31.05.2013
215023-D-A-919-100	B	Sheet Layout	24.06.2013
215023-D-A-919-303	A	Single Left Turn Lane Option - Great North Road - Planting Details- Sheet 3 of 10	10.10.2013
215023-D-A-919-312	A	Single Left Turn Lane Option - Great North Road - Master Plan - Sheet 2 of 4	01.10.2013
St Lukes Bridge			
215023-D-B-600-CS0	B	St Lukes Bridge Cover Sheet	31.05.2013
215023-D-B-600-001	B	St Lukes Bridge General Notes Sheet 1	31.05.2013
215023-D-B-600-002	B	St Lukes Bridge General Notes Sheet 2	31.05.2013
215023-D-B-600-004	B	St Lukes Bridge General Arrangement Sheet 2	31.05.2013
215023-D-B-600-005	A	St Lukes Bridge Construction Sequence Sheet 1 of 4	31.05.2013
215023-D-B-600-006	A	St Lukes Bridge Construction Sequence Sheet 2 of 4	31.05.2013
215023-D-B-600-007	A	St Lukes Bridge Construction Sequence Sheet 3 of 4	31.05.2013
215023-D-B-600-008	A	St Lukes Bridge Construction Sequence Sheet 4 of 4	31.05.2013
215023-D-B-600-009	B	St Lukes Bridge Pile/Column Concrete and Reinforcement – Sheet 1	31.05.2013
215023-D-B-600-010	B	St Lukes Bridge Pile/Column Concrete and Reinforcement – Sheet 2	31.05.2013
215023-D-B-600-015	B	St Lukes Bridge New Abutment A Concrete	31.05.2013
215023-D-B-600-016	B	St Lukes Bridge New Abutment A Reinforcement Sheet 1	31.05.2013
215023-D-B-600-017	B	St Lukes Bridge New Abutment A Reinforcement Sheet 2	31.05.2013
215023-D-B-600-020	B	St Lukes Bridge Abutment C Concrete	31.05.2013

215023-D-B-600-021	B	St Lukes Bridge Abutment C Reinforcement Sheet 1	31.05.2013
215023-D-B-600-022	B	St Lukes Bridge Abutment C Reinforcement Sheet 2	31.05.2013
215023-D-B-600-025	B	St Lukes Bridge Pier B Alterations to Existing and New Pier Concrete	31.05.2013
215023-D-B-600-026	B	St Lukes Bridge Pier B Alterations to Existing and New Pier Reinf. Sheet 1	31.05.2013
215023-D-B-600-027	B	St Lukes Bridge Pier B Alterations to Existing and New Pier Reinf. Sheet 2	31.05.2013
215023-D-B-600-028	B	St Lukes Bridge Bearing Layout and Details	31.05.2013
215023-D-B-600-030	B	St Lukes Bridge Girder Layout Plan	31.05.2013
215023-D-B-600-031	B	St Lukes Bridge Girder Types N1-1 to N1-13 Inclusive Concrete	31.05.2013
215023-D-B-600-032	B	St Lukes Bridge Girder Types N2 and N3 Concrete	31.05.2013
215023-D-B-600-033	B	St Lukes Bridge Girder Types S1-1 to S1-13 Incl. Concrete	31.05.2013
215023-D-B-600-034	B	St Lukes Bridge Girder Types S2 and S3 Concrete	31.05.2013
215023-D-B-600-035	B	St Lukes Bridge Girder Prestressing Details	31.05.2013
215023-D-B-600-036	B	St Lukes Bridge Girder Type N1-1 to N1-13 Incl. Reinforcement Details Sheet 1	31.05.2013
215023-D-B-600-037	B	St Lukes Bridge Girder Types N2 and N3 Incl. Reinforcement Details Sheet 1	31.05.2013
215023-D-B-600-038	B	St Lukes Bridge Girder Types S1-1 to S1-13 Incl. Reinforcement Details Sheet 1	31.05.2013
215023-D-B-600-039	B	St Lukes Bridge Girder Types S2 and S3. Reinforcement Details Sheet 1	31.05.2013
215023-D-B-600-040	B	St Lukes Bridge Girder Types N1-1 to N1-13 Incl. N2 and N3. Reinforcement Sheet 2	31.05.2013

215023-D-B-600-041	B	St Lukes Bridge Girder Types S1-1 to S1-13 Incl. S2 and S3. Reinforcement Sheet 2	31.05.2013
215023-D-B-600-042	B	St Lukes Bridge Reinforcement Shape Codes Ferrule Set Out Super T Girder N3	31.05.2013
215023-D-B-600-043	A	St Lukes Bridge Girder Types S1-13 and N1-13 Miscellaneous Details	31.05.2013
215023-D-B-600-045	B	St Lukes Bridge Deck Layout and Reinforcement	31.05.2013
215023-D-B-600-046	B	St Lukes Bridge Abutment Diaphragm Concrete and Reinforcement	31.05.2013
215023-D-B-600-047	B	St Lukes Bridge Pier Diaphragm Concrete and Reinforcement	31.05.2013
215023-D-B-600-049	A	St Lukes Bridge Expansion Joint Details	31.05.2013
215023-D-B-600-050	B	St Lukes Bridge Approach Slab Concrete and Reinforcement	31.05.2013
215023-D-B-600-060	B	St Lukes Bridge Precast Barriers Sheet 1	31.05.2013
215023-D-B-600-061	B	St Lukes Bridge Precast Barriers Sheet 2	31.05.2013
215023-D-B-600-062	B	St Lukes Bridge Temporary Barrier Details	31.05.2013
215023-D-B-600-063	B	St Lukes Bridge Expansion Joint Cover Plates	31.05.2013
215023-D-B-600-064	B	St Lukes Bridge Wingwall Details	31.05.2013
215023-D-B-600-070	A	St Lukes Bridge Parapet Handrail Steelwork Details	31.05.2013
215023-D-B-600-081	B	St Lukes Bridge Services and Lighting Sheet 2	31.05.2013
215023-D-B-600-082	B	St Lukes Bridge Services and Lighting Sheet 3	31.05.2013
215023-D-B-600-083	B	St Lukes Bridge Services and Lighting Sheet 4	31.05.2013
215023-D-B-600-084	E	St Lukes Bridge Services Details Sheet 5	05.11.2013
Chamberlain Park Golf Course Meola Creek Bridge			

215023-D-B-600-100	B	Chamberlain Park Golf Course Meola Creek Bridge & Cycleway Cover Sheet	31.05.2013
215023-D-B-600-101	B	Chamberlain Park Golf Course Meola Creek Bridge General Notes – Sheet 1	31.05.2013
215023-D-B-600-102	B	Chamberlain Park Golf Course Meola Creek Bridge General Notes – Sheet 2	31.05.2013
215023-D-B-600-103	B	Chamberlain Park Golf Course Meola Creek Bridge General Arrangement	31.05.2013
215023-D-B-600-104	B	Chamberlain Park Golf Course Meola Creek Bridge – Eastern Abutment Concrete & Reinforcement	31.05.2013
215023-D-B-600-105	B	Chamberlain Park Golf Course Meola Creek Bridge – Western Abutment Concrete & Reinforcement	31.05.2013
215023-D-B-600-106	B	Chamberlain Park Golf Course Meola Creek Bridge Beam Concrete & Reinforcement	31.05.2013
215023-D-B-600-107	B	Chamberlain Park Golf Course Meola Creek Bridge Balustrade Details – Sheet 1	31.05.2013
215023-D-B-600-108	B	Chamberlain Park Golf Course Meola Creek Bridge Balustrade Details – Sheet 2	31.05.2013
215023-D-B-600-109	B	Chamberlain Park Golf Course Meola Creek Bridge Retaining Walls	31.05.2013
215023-D-B-600-110	B	Chamberlain Park Golf Course Meola Creek Cycleway Structural Slab Sheet 1	31.05.2013
215023-D-B-600-111	B	Chamberlain Park Golf Course Meola Creek Cycleway Structural Slab Sheet 2	31.05.2013
215023-D-B-600-303	A	Single Left Turn Lane Option - St Lukes Bridge - General Arrangement- Sheet 1	14.10.2013
215023-D-B-600-380	A	Single Left Turn Lane Option - St Lukes Bridge - Services & Lighting - Sheet 1	05.11.2013
St Lukes Bridge General Arrangement			

215023-D-C-100-001	D	General Arrangement Sheet 1 of 8	31.05.2013
215023-D-C-100-002	D	General Arrangement Sheet 2 of 8	31.05.2013
215023-D-C-100-004	D	General Arrangement Sheet 4 of 8	31.05.2013
215023-D-C-100-005	D	General Arrangement Sheet 5 of 8	31.05.2013
215023-D-C-100-006	D	General Arrangement Sheet 6 of 8	31.05.2013
215023-D-C-100-007	D	General Arrangement Sheet 7 of 8	31.05.2013
215023-D-C-100-008	B	General Arrangement Sheet 8 of 8	31.05.2013
215023-D-C-100-100	D	General Arrangement Layout Plan	31.05.2013
215023-D-C-100-303	A	Single Left Turn Lane Option - Great North Road - General Arrangement - Sheet 3 of 8	01.11.2013
Existing Designation Plan			
215023-D-C-100-201	A	Existing Designation Plan	29.05.2013
Barriers			
215023-D-C-105-303	A	Single Left Turn Lane Option - Great North Road - Barrier Plan - Sheet 3 of 8	01.11.2013
Erosion & Sediment Control			
215023-D-C-740-003	C	Erosion & Sediment Control - Sheet 3 of 8	07.10.2013
215023-D-C-740-006	D	Erosion & Sediment Control - Sheet 6 of 8	07.10.2013
Noise Walls and Fences			
215023-D-C-918-001	B	Noise Walls and Fences Sheet 1 of 8	31.05.2013
215023-D-C-918-002	B	Noise Walls and Fences Sheet 2 of 8	31.05.2013
215023-D-C-918-004	B	Noise Walls and Fences Sheet 4 of 8	31.05.2013
215023-D-C-918-005	B	Noise Walls and Fences Sheet 5 of 8	31.05.2013
215023-D-C-918-006	B	Noise Walls and Fences Sheet 6 of 8	31.05.2013

215023-D-C-918-007	B	Noise Walls and Fences Sheet 7 of 8	31.05.2013
215023-D-C-918-008	B	Noise Walls and Fences Sheet 8 of 8	31.05.2013
215023-D-C-918-051	B	Noise Walls and Fences Notes and Standard Details Sheet 1	31.05.2013
215023-D-C-918-052	B	Noise Walls and Fences Notes and Standard Details Sheet 2	31.05.2013
215023-D-C-918-053	B	Noise Walls and Fences Notes and Standard Details Sheet 3	31.05.2013
215023-D-C-918-054	B	Noise Walls and Fences Notes and Standard Details Sheet 4	31.05.2013
215023-D-C-918-933	A	Single Left Turn Lane Option - Great North Road - Noise Walls & Fences - Sheet 3 of 8	10.12.2013
Land Requirement			
215023-D-C-951-001	B	Land Requirement	02.10.2013
215023-D-C-951-004	B	Land Requirement and Existing Designations - Sheet 1 of 1	02.10.2013
Existing Stormwater			
215023-D-D-300-001	C	Existing Stormwater Drainage - Sheet 1 of 8	15.07.2013
215023-D-D-300-002	D	Existing Stormwater Drainage - Sheet 2 of 8	09.10.2013
215023-D-D-300-003	E	Existing Stormwater Drainage - Sheet 3 of 8	09.10.2013
215023-D-D-300-004	C	Existing Stormwater Drainage - Sheet 4 of 8	15.07.2013
215023-D-D-300-005	C	Existing Stormwater Drainage - Sheet 5 of 8	15.07.2013
215023-D-D-300-006	D	Existing Stormwater Drainage - Sheet 6 of 8	09.10.2013
215023-D-D-300-007	C	Existing Stormwater Drainage - Sheet 7 of 8	15.07.2013
215023-D-D-300-008	C	Existing Stormwater Drainage - Sheet 8 of 8	15.07.2013
Proposed Stormwater Catchment Plan			
215023-D-D-310-001	B	Proposed Stormwater Catchment Plan Sheet 1 of 8	31.05.2013
215023-D-D-310-002	C	Proposed Stormwater Catchment Plan Sheet 2 of 8	14.10.2013

215023-D-D-310-004	B	Proposed Stormwater Catchment Plan Sheet 4 of 8	31.05.2013
215023-D-D-310-005	B	Proposed Stormwater Catchment Plan Sheet 5 of 8	31.05.2013
215023-D-D-310-006	B	Proposed Stormwater Catchment Plan Sheet 6 of 8	31.05.2013
215023-D-D-310-007	B	Proposed Stormwater Catchment Plan Sheet 7 of 8	31.05.2013
215023-D-D-310-008	B	Proposed Stormwater Catchment Plan Sheet 8 of 8	31.05.2013
215023-D-D-310-101	D	Stormwater Catchment Plan Proposed Treatment/ Extended Detention Areas Sheet 1 of 4	14.10.2013
215023-D-D-310-103	B	Stormwater Catchment Plan Proposed Treatment/ Extended Detention Areas Sheet 3 of 4	12.09.2013
215023-D-D-310-104	B	Stormwater Catchment Plan Proposed Treatment/ Extended Detention Areas Sheet 4 of 4	12.09.2013
215023-D-D-310-302	A	Single Left Turn Lane Option - Great North Road - Prop Treatment/Extended Detention Areas SW Catchment Plan - Sheet 2 of 4	14.10.2013
215023-D-D-310-303	A	Single Left Turn Lane Option - Great North Road - SW Catchment Plan - Sheet 3 of 8	14.10.2013
Proposed Stormwater Catchment Plan			
215023-D-D-320-001	C	Proposed Stormwater Drainage - Sheet 1 of 8	15.07.2013
215023-D-D-320-002	D	Proposed Stormwater Drainage - Sheet 2 of 8	9.10.2013
215023-D-D-320-004	C	Proposed Stormwater Drainage - Sheet 4 of 8	15.07.2013
215023-D-D-320-005	C	Proposed Stormwater Drainage - Sheet 5 of 8	15.07.2013
215023-D-D-320-006	D	Proposed Stormwater Drainage - Sheet 6 of 8	9.10.2013
215023-D-D-320-007	C	Proposed Stormwater Drainage - Sheet 7 of 8	15.07.2013
215023-D-D-320-008	C	Proposed Stormwater Drainage - Sheet 8 of 8	15.07.2013

215023-D-D-320-010	F	Water Quality Pond - Plan	09.10.2013
215023-D-D-320-011	C	Water Quality Pond - Cross Sections	15.07.2013
215023-D-D-320-303	A	Single Left Turn Lane Option - Great North Road - Proposed Stormwater Drainage - Sheet 3 of 8	14.10.2013
General Drainage Standard Details			
215023-D-D-330-051	C	General Drainage Standard Details - Edge Treatment Details - Sheet 1 of 13	15.07.2013
215023-D-D-330-051A	A	General Drainage Standard Details - Edge Treatment Details - Swale 3 and 4 Details	09.10.2013
215023-D-D-330-052	C	General Drainage Standard Details - Catchpit Details - Sheet 2 of 13	15.07.2013
215023-D-D-330-053	C	General Drainage Standard Details - Pipe Bedding - Sheet 3 of 13	15.07.2013
215023-D-D-330-054	C	General Drainage Standard Details - Typical Manhole Details - Sheet 4 of 13	15.07.2013
215023-D-D-330-055	C	General Drainage Standard Details - Catchpit Details - Sheet 5 of 13	15.07.2013
215023-D-D-330-056	C	General Drainage Standard Details - Catchpit Details - Sheet 6 of 13	15.07.2013
215023-D-D-330-057	C	General Drainage Standard Details - Catchpit Details Adjacent - Sheet 7 of 13	15.07.2013
215023-D-D-330-058	C	General Drainage Standard Details - Drop Manhole Details Types 1 & 2 - Sheet 8 of 13	15.07.2013
215023-D-D-330-059	C	General Drainage Standard Details - Cut Pipe Rockwall (HW4) - Sheet 9 of 13	15.07.2013
215023-D-D-330-060	D	General Drainage Standard Details - Soakhole Details - Sheet 10 of 13	9.10.2013
215023-D-D-330-061	D	General Drainage Standard Details - Stormfilter Detail - Stormfilter 1 - Sheet 11 of 13	9.10.2013

215023-D-D-330-062	B	General Drainage Standard Details - Stormfilter Detail - Stormfilter 3/4 - Sheet 12 of 13	9.10.2013
215023-D-D-330-063	A	General Drainage Standard Details - Stormfilter Detail - Stormfilter 3/4 - Sheet 13 of 13	9.10.2013
215023-D-D-330-070	C	Water Quality Pond - Details	15.07.2013
215023-D-D-330-100	D	SH16 St Lukes Stormwater - Pipe Schedules - Sheet 1 of 2	9.10.2013
215023-D-D-330-101	D	SH16 St Lukes Stormwater - Pipe Schedules - Sheet 2 of 2	9.10.2013
215023-D-D-330-102	D	SH16 St Lukes Stormwater - Catchpit/Manhole Schedule - Sheet 1 of 2	9.10.2013
215023-D-D-330-103	D	SH16 St Lukes Stormwater - Catchpit/Manhole Schedule - Sheet 2 of 2	9.10.2013
215023-D-D-330-104	C	SH16 St Lukes Stormwater - Catchpit/Manhole Schedule	15.07.2013
Proposed Stormwater Longsections			
215023-D-D-340-001	C	Proposed Stormwater Long Sections - Sheet 1 of 16	15.07.2013
215023-D-D-340-002	D	Proposed Stormwater Long Sections - Sheet 2 of 16	9.10.2013
215023-D-D-340-003	C	Proposed Stormwater Long Sections - Sheet 3 of 16	15.07.2013
215023-D-D-340-004	D	Proposed Stormwater Long Sections - Sheet 4 of 16	9.10.2013
215023-D-D-340-005	D	Proposed Stormwater Long Sections - Sheet 5 of 16	9.10.2013
215023-D-D-340-006	C	Proposed Stormwater Long Sections - Sheet 6 of 16	15.07.2013
215023-D-D-340-007	C	Proposed Stormwater Long Sections - Sheet 7 of 16	15.07.2013
215023-D-D-340-008	C	Proposed Stormwater Long Sections - Sheet 8 of 16	15.07.2013
215023-D-D-340-009	C	Proposed Stormwater Long Sections - Sheet 9 of 16	15.07.2013
215023-D-D-340-010	D	Proposed Stormwater Long Sections - Sheet 10 of 16	9.10.2013
215023-D-D-340-011	D	Proposed Stormwater Long Sections - Sheet 11 of 16	9.10.2013

215023-D-D-340-012	D	Proposed Stormwater Long Sections - Sheet 12 of 16	9.10.2013
215023-D-D-340-014	D	Proposed Stormwater Long Sections - Sheet 14 of 16	9.10.2013
215023-D-D-340-016	D	Proposed Stormwater Long Sections - Sheet 16 of 16	9.10.2013
215023-D-D-340-050	C	Water Quality Pond - Long Section	15.07.2013
215023-D-D-340-313	A	Single Left Turn Lane Option - Great North Road - Proposed IntStormwater LS - Sheet 13 of 16	05.11.2013
215023-D-D-340-315	A	Single Left Turn Lane Option - Great North Road - Proposed IntStormwater LS - Sheet 15 of 16	05.11.2013
215023-D-D-340-316	A	Single Left Turn Lane Option - Great North Road - Proposed IntStormwater LS - Sheet 16 of 16	05.11.2013
Road Lighting			
215023-D-E-161-001	C	Road Lighting Sheet 1 of 8	31.05.2013
215023-D-E-161-002	C	Road Lighting Sheet 2	31.05.2013
215023-D-E-161-004	C	Road Lighting Sheet 4	31.05.2013
215023-D-E-161-005	C	Road Lighting Sheet 5	31.05.2013
215023-D-E-161-006	C	Road Lighting Sheet 6	31.05.2013
215023-D-E-161-007	C	Road Lighting Sheet 7	31.05.2013
215023-D-E-161-008	B	Road Lighting Sheet 8	31.05.2013
Schematic Montrose Box			
215023-D-E-161-052	B	Schematic Montrose Box MB1	31.05.2013
215023-D-E-161-053	B	Schematic Montrose Box MB2	31.05.2013
215023-D-E-161-054	B	Schematic Montrose Box MB3	31.05.2013
215023-D-E-161-055	B	Schematic Montrose Box MB4	31.05.2013
215023-D-E-161-056	B	Schematic Montrose Box MB5	31.05.2013
215023-D-E-161-057	B	Schematic Montrose Box MB6	31.05.2013
Proposed Gearplate Cable Termination			
215023-D-E-161-058	B	Typical Details Gearplate Cable Termination Within Single Arm Lighting Pole	31.05.2013

215023-D-E-161-059	B	Typical Details Gearplate Cable Termination Within Double Arm Lighting Pole	31.05.2013
215023-D-E-161-060	B	Typical Details Gearplate Cable Termination Single Phase Power Supply	31.05.2013
215023-D-E-161-061	B	Underground Reticulation Typical Vector's Cable and Duct Configurations	31.05.2013
Lighting			
215023-D-E-161-070	B	Lighting Standard Details	31.05.2013
215023-D-E-161-071	B	Lighting Standard Details Sheet 2	31.05.2013
215023-D-E-161-072	B	Lighting Standard Details Sheet 3	31.05.2013
215023-D-E-161-100	A	Legend Sheet	31.05.2013
215023-D-E-161-101	B	Road Lighting Sheet 1	31.05.2013
215023-D-E-161-303	A	Single Left Turn Lane Option - Great North Road - Road Lighting Sheet 3	05.11.2013
215023-D-E-161-312	A	Single Left Turn Lane Option - Great North Road - Road Lighting Sheet 2	05.11.2013
Retaining Walls Elevation and Plans			
215023-D-J-240-001	B	Retaining Walls General Arrangement Sheet 1 of 3	31.05.2013
215023-D-J-240-003	B	Retaining Walls General Arrangement Sheet 3 of 3	31.05.2013
215023-D-J-240-100	B	Retaining Walls Sheet Layout	31.05.2013
215023-D-J-240-101	B	General Integral TL5 Barrier Wall Notes and Details	31.05.2013
215023-D-J-240-102	B	General Integral TL5 Barrier Wall Typical Details	31.05.2013
215023-D-J-240-201	B	RW-102 Meola Creek MSE Stone Strong Wall General Notes	31.05.2013
215023-D-J-240-202	B	RW-102 Meola Creek MSE Stone Strong Wall Elevation and Plan	31.05.2013
215023-D-J-240-203	B	RW-102 Meola Creek MSE Stone Strong Wall Details – Sheet 1 of 2	31.05.2013

215023-D-J-240-204	B	RW-102 Meola Creek MSE Stone Strong Wall Details – Sheet 2 of 2	31.05.2013
215023-D-J-240-301	B	RW-104 Chamberlain park Stone Strong Wall Elevation and Plan – Sheet 1 of 2	31.05.2013
215023-D-J-240-302	B	RW-104 Chamberlain park Stone Strong Wall Elevation and Plan – Sheet 2 of 2	31.05.2013
215023-D-J-240-303	B	RW-104 Chamberlain park Stone Strong Wall General Notes and Details	31.05.2013
215023-D-J-240-311	B	RW-120 Great North Road Stone Strong Wall Elevation and Plan	31.05.2013
215023-D-J-240-312	B	RW-120 Great North Road Stone Strong Wall General Notes and Details	31.05.2013
215023-D-J-240-321	B	RW-124 Cycle Path Stone Strong Wall Elevation and Plan	31.05.2013
215023-D-J-240-322	B	RW-124 Cycle Path Stone Strong Wall General Notes and Details	31.05.2013
215023-D-J-240-401	B	RW-105 Western Springs Community Centre L-Shape Barrier Elevation and Plan – Sheet 1 of 5	31.05.2013
215023-D-J-240-402	B	RW-105 Western Springs Community Centre L-Shape Barrier Elevation and Plan – Sheet 2 of 5	31.05.2013
215023-D-J-240-403	B	RW-105 Western Springs Community Centre L-Shape Barrier Elevation and Plan – Sheet 3 of 5	31.05.2013
215023-D-J-240-404	B	RW-105 Western Springs Community Centre L-Shape Barrier Elevation and Plan – Sheet 4 of 5	31.05.2013
215023-D-J-240-405	B	RW-105 Western Springs Community Centre L-Shape Barrier Elevation and Plan – Sheet 5 of 5	31.05.2013
215023-D-J-240-406	B	RW-105 Western Springs Community Centre L-Shape Barrier General Notes and Details	31.05.2013

215023-D-J-240-411	B	RW-122 Great North Road Carpark L-Shape Wall General Notes and Details	31.05.2013
215023-D-J-240-412	B	RW-122 Great North Road Carpark L-Shape Wall Elevation and Plan – Sheet 1 of 2	31.05.2013
215023-D-J-240-413	B	RW-122 Great North Road Carpark L-Shape Wall Elevation and Plan – Sheet 2 of 2	31.05.2013
215023-D-J-240-501	A	St Lukes Road Interchange General Basalt Cut Slope General Notes	31.05.2013
215023-D-J-240-502	A	St Lukes Road Interchange General Basalt Cut Slope Detail – Sheet 1 of 2	31.05.2013
215023-D-J-240-503	A	St Lukes Road Interchange General Basalt Cut Slope Detail – Sheet 2 of 2	31.05.2013
215023-D-J-240-504	A	RW-111 St Lukes Road Interchange Southern Abutment Basalt Cut Slope Elevation and Plan – Sheet 1 of 2	31.05.2013
215023-D-J-240-505	A	RW-111 St Lukes Road Interchange Southern Abutment Basalt Cut Slope Elevation and Plan – Sheet 2 of 2	31.05.2013
215023-D-J-240-510	B	RW-112 St Lukes Road Interchange Northern Abutment Basalt Cut Slope Elevation and Plan – Sheet 1 of 4	31.05.2013
215023-D-J-240-511	B	RW-112 St Lukes Road Interchange Northern Abutment Basalt Cut Slope Elevation and Plan – Sheet 2 of 4	31.05.2013
215023-D-J-240-512	B	RW-112 St Lukes Road Interchange Northern Abutment Basalt Cut Slope Elevation and Plan – Sheet 3 of 4	31.05.2013

215023-D-J-240-513	B	RW-112 St Lukes Road Interchange Northern Abutment Basalt Cut Slope Elevation and Plan – Sheet 4 of 4	31.05.2013
215023-D-J-240-520	B	RW-123 Westbound On-ramp Basalt Cut Slope Elevation and Plan	31.05.2013
215023-D-J-240-605	B	St Lukes Bridge Southern Abutment Pile Ground Improvement Details	31.05.2013
215023-D-J-240-606	A	St Lukes Bridge Southern Abutment Pile Ground Improvement Elevation	31.05.2013
215023-D-J-240-701	A	RW-115 St Lukes Road Interchange Stone Strong Pile Wall General Notes	31.05.2013
215023-D-J-240-702	A	RW-115 St Lukes Road Interchange Stone Strong Pile Wall Elevation and Plan – Sheet 1 of 2	31.05.2013
215023-D-J-240-703	A	RW-115 St Lukes Road Interchange Stone Strong Pile Wall Elevation and Plan – Sheet 2 of 2	31.05.2013
215023-D-J-240-704	A	RW-115 St Lukes Road Interchange Stone Strong Pile Wall Details – Sheet 1	31.05.2013
215023-D-J-240-705	A	RW-115 St Lukes Road Interchange Stone Strong Pile Wall Details – Sheet 2	31.05.2013
215023-D-J-240-706	E	Southern Abutment and Wall Detail (Previously 215023-D-A- 919-070)	26.08.2013
215023-D-J-240-801	B	RW-119 Eastbound On-ramp Gabion Wall Elevation and Plan	31.05.2013
215023-D-J-240-802	B	RW-119 Eastbound On-ramp Gabion Wall General Notes and Details	31.05.2013
215023-D-J-240-811	B	RW-121 St Lukes Road Gabion Wall Elevation and Plan	31.05.2013
215023-D-J-240-812	B	RW-121 St Lukes Road Gabion Wall General Notes and Details	31.05.2013

215023-D-J-240-932	A	RW- Single Left Turn Lane Option Great North Road	10.12.2013
Proposed Vector Relocations			
215023-D-U-146-001	A	Proposed Vector Plans Electricity and Gas Sheet 1 of 8	18.03.2013
215023-D-U-146-002	A	Proposed Vector Plans Electricity and Gas Sheet 2 of 8	18.03.2013
215023-D-U-146-004	A	Proposed Vector Plans Electricity and Gas Sheet 3 of 8	18.03.2013
215023-D-U-146-005	A	Proposed Vector Plans Electricity and Gas Sheet 4 of 8	18.03.2013
215023-D-U-146-006	A	Proposed Vector Plans Electricity and Gas Sheet 5 of 8	18.03.2013
215023-D-U-146-007	A	Proposed Vector Plans Electricity and Gas Sheet 7 of 8	18.03.2013
215023-D-U-146-008	A	Proposed Vector Plans Electricity and Gas Sheet 8 of 8	18.03.2013
215023-D-U-146-303	A	Single Left Turn Lane Option - Great North Road - Proposed Vector Plans Electricity and Gas Sheet 3 of 8	01.11.2013
Proposed Chorus Relocations			
215023-D-U-148-001	A	Proposed Chorus Plans Sheet 1 of 8	18.03.2013
215023-D-U-148-002	A	Proposed Chorus Plans Sheet 2 of 8	18.03.2013
215023-D-U-148-004	A	Proposed Chorus Plans Sheet 4 of 8	18.03.2013
215023-D-U-148-005	A	Proposed Chorus Plans Sheet 5 of 8	18.03.2013
215023-D-U-148-006	A	Proposed Chorus Plans Sheet 6 of 8	18.03.2013
215023-D-U-148-007	A	Proposed Chorus Plans Sheet 7 of 8	18.03.2013
215023-D-U-148-008	B	Proposed Chorus Plans Sheet 8 of 8	18.03.2013
215023-D-U-148-303	A	Single Left Turn Lane Option - Great North Road - Proposed Chorus Plans Sheet 3 of 8	01.11.2013
Proposed Telstra Clear Relocations			
215023.D-U-149-001	A	Proposed Telstra Clear Plans Sheet 1 of 8	31.05.2013

215023-D-U-149-002	B	Proposed Telstra Clear Plans Sheet 2 of 8	31.05.2013
215023-D-U-149-004	B	Proposed Telstra Clear Plans Sheet 4 of 8	31.05.2013
215023-D-U-149-005	B	Proposed Telstra Clear Plans Sheet 5 of 8	31.05.2013
215023-D-U-149-006	B	Proposed Telstra Clear Plans Sheet 6 of 8	31.05.2013
215023-D-U-149-007	A	Proposed Telstra Clear Plans Sheet 7 of 8	31.05.2013
215023-D-U-149-008	B	Proposed Telstra Clear Plan-Sheet 8 of 8	31.05.2013
215023-D-U-149-303	A	Single Left Turn Lane Option - Great North Road - Proposed Telstra Clear Plan-Sheet 3 of 8	01.11.2013
Existing Designation			
215023-SK-C-100-021	B	General Arrangement Existing Designations Sheet 1 of 1	03.10.2013
Great North Rd – Single Left Turn Lane Option			
215023-SK-C-100-500	A	Single Left Turn Lane Option - Great North Road - General Arrangement	03.10.2013
215023-SK-C-103-503	A	Single Left Turn Lane Option - GNR Cross Sections - MCG0 - Sheet 1 of 4	03.10.2013
215023-SK-C-103-504	A	Single Left Turn Lane Option - GNR Cross Sections - MCG0 - Sheet 2 of 4	03.10.2013
215023-SK-C-103-505	A	Single Left Turn Lane Option - GNR Cross Sections - MCG0 - Sheet 3 of 4	03.10.2013
215023-SK-C-103-506	A	Single Left Turn Lane Option - GNR Cross Sections - MCG0 - Sheet 4 of 4	03.10.2013
Earthworks			
215023-SK-C-400-001	A	Earthworks General Arrangement Sheet 1 of 3	23.09.2013
215023-SK-C-400-002	A	Earthworks General Arrangement Sheet 2 of 3	03.10.2013
215023-SK-C-400-003	A	Earthworks General Arrangement Sheet 3 of 3	03.10.2013
Watercare Works Over Approval			

215023-SK-C-300-010	B	Water Quality Pond - Cut/Fill Depth Bands	15.07.2013
215023-SK-C-300-011	A	Watercare Works Over Approval (Construction Works)	11.10.2013
215023-SK-D-001	A	Orakei Main Sewer - Section Layout Plan	18.09.2013
215023-SK-D-002	A	Orakei Main Sewer - Earthworks Sections - Sheet 1 of 3	18.09.2013
215023-SK-D-003	A	Orakei Main Sewer - Earthworks Sections - Sheet 2 of 3	18.09.2013
215023-SK-D-004	A	Orakei Main Sewer - Earthworks Sections - Sheet 3 of 3	18.09.2013
215023-SKE-LT-001	03	Spill Lighting Assessment - Area: Eastern Designation	15.10.2013
215023-SKE-LT-002	03	Spill Lighting Assessment - Area: Western Designation	15.10.2013
215023-SKE-LT-003	03	Spill Lighting Assessment - Area: St Lukes Interchange Southern Area	15.10.2013
215023-SKE-LT-004	03	Spill Lighting Assessment - Area: St Lukes Interchange Northern Area	15.10.2013

and all information and methodologies, being:

Reference Number	Title	Author	Date
Updated Planning Assessment	Project: SH16 St Lukes Western Ring Route Project Planning Assessment	Aurecon	6 November 2013, received by the Auckland Council on 29 November 2013
Appendix B	State Highway Management Team Report Rev 15	NZTA	Undated, lodged with application on 12 July 2013
Appendix C	Project: SH16 St Lukes Western Ring Route Project St Lukes Interchange Options Assessment	Aurecon	27 May 2013
Appendix D	Waterview Connection – SH16 to St Lukes Landscape and Urban Design Masterplan	LA4 Landscape Architects	31 May 2013

Appendix E	SH16 Waterview Connection St Lukes Road/Great South Road Intersection	LA4 Landscape Architects	May 2013
Appendix E	SH16 Waterview Connection St Lukes/Great North Road Intersection Landscape and Visual Assessment	LA4 Landscape Architects	September 2013
Appendix E	SH16 Waterview Connection St Lukes/Great North Road Intersection Landscape and Visual Assessment – Addendum	LA4 Landscape Architects	October 2013
Appendix F	Project: Waterview St Lukes Interchange Stormwater Design Report	Aurecon	17 May 2013
Appendix G	Project: SH16 St Lukes Detailed Design Report: Stormwater	Aurecon	15 July 2013
Appendix H	An Arboricultural Implication Report on the Proposed Realignment of the Waterview Connection St Lukes Interchange, Western Springs, Auckland	The Specimen Tree Company Ltd	April 2013
Appendix H	Arboricultural Implication Report	The Specimen Tree Company Ltd	October 2013
Appendix H	Addendum Arboricultural Implication Report	The Specimen Tree Company Ltd	October 2013
Appendix J	Project: SH16 St Lukes Interchange Project Indicative Constructability Report	Aurecon	24 April 2013
Appendix K	Auckland SH16 Motorway Widening St Lukes Interchange (St Lukes to Great North Road) Preliminary Design Safety Audit	Traffic Planning Consultants Ltd, MWH and O'Brien Traffic	13 December 2013
Appendix L	SH16 – Sector 6 Road – Traffic Noise Assessment	Aurecon	7 May 2013

Appendix M	Project: SH16 St Lukes Erosion and Sediment Control Plan	Aurecon	22 May 2013
Appendix N	Land Requirement Plan 215023-D-C-951-001B	Aurecon	2 October 2013
Appendix O	BoI conditions – Waterview Connection Project	LA4 Landscape Architects	19 April 2013
Appendix Q	Consultation records	NZTA/AT	various
Appendix R	iwi letters	NZTA/AT	various
Appendix S	Landowner Approval application letter	Aurecon	4 October 2013 and 30 October 2013
Appendix T	Objectives and policies	Aurecon	N/A
S92 Response	Letter titled “Section 92 Request for Further Information” dated 10 September 2013 Including Appendices as bound.	Aurecon	10 September 2013
S92 Response	Letter titled “Section 92 Request for Further Information” dated 23 September 2013 Including Appendices as bound.	Aurecon	23 September 2013
S92 Response	Letter titled “Section 92 Request for Further Information Dated 23 August and 2, 4 and 7 October 2013” dated 15 October 2013 Including Appendices as bound.	Aurecon	15 October 2013
Urban Design and Landscape Design Framework	Western Ring Route – Waterview Connection Urban Design and Landscape Design Framework	Beca/Jasmax/ Stephen Brown Environments	June 2010

and referenced by the Council as “R/LUC/2013/2533, R/LUC/2013/2535, R/REG/2013/2539, R/REG/2013/2541, R/REG/2013/2542, R/REG/2013/4722, R/REG/2013/2616, R/LUC/2013/2545, R/LUC/2013/5030, R/REG/2013/2550, R/REG/2013/2551, R/REG/2013/2552 AND R/REG/2013/4724”. If there is any conflict between the application documents and the specific conditions which follow, the specific conditions are to prevail. If there is any conflict between the plans in the stated volumes and the plans revised/updated/produced during processing the application, the later plans prevail.

#### Disputes Resolution

2. In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager certification/ approvals required by the designation conditions, or as to implementation of, or monitoring required by, the conditions, the disputed matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a resolution process.

If a resolution cannot be agreed, then the matter may be referred to an independent and appropriately qualified expert in resource management and/or roading matters, agreeable to both parties (such agreement not to be unreasonably withheld by either party), setting out in writing the details of the matter to be referred for determination and the reasons the parties have not agreed.

The independent and appropriately qualified expert shall be appointed within 10 working days of the NZTA or the Auckland Council giving notice to the other of its intention to seek an expert determination. The expert shall, as soon as possible, issue a written decision on the matter including the reasons for his or her decision. In making the decision, the expert shall be entitled to seek further information and to hear from the parties as he or she sees fit in his or her sole discretion. The reasonable fees of the expert, including GST (if any), shall be paid equally by both disputing parties.

*Advice note: The dispute resolution process provided for by this condition does not prejudice any party's right to take enforcement action in relation to implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except for urgent situations.*

3. This alteration to designation will lapse if it is not given effect to before the expiry of February 2018, being 5 years from the date on which it is included in the District Plan under section 184(1) of the Resource Management Act 1991 ("the Act").

4. Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency ("NZTA", being the Requiring Authority), the Notice(s) of Requirement ("NoR") and the supporting documents, and supplementary information provided. In summary, this information is:

a. Waterview Connection Project. Assessment of Environmental Effects report (dated August 2010). Parts A-E;  
b. Waterview Connection Project. Assessment of Environmental Effects report (dated August 2010). Part F: Plans and Drawings, except as updated through processing the NoR and applications (Refer Schedule A for current plan and drawing references); and

c. Waterview Connection Project. Assessment of Environmental Effects report (dated August 2010). Part G: Technical Reports:

- i. Technical Report G.1 Assessment of Air Quality Effects
  - ii. Technical Report G.2 Assessment of Archaeological Effects
  - iii. Technical Report G.3 Assessment of Avian Ecological Effects
  - iv. Technical Report G.4 Assessment of Coastal Processes
  - v. Technical Report G.5 Assessment of Construction Noise Effects
  - vi. Technical Report G.6 Assessment of Freshwater Ecological Effects
  - vii. Technical Report G.7 Assessment of Groundwater Effects
  - viii. Technical Report G.8 Assessment of Herpetofauna Ecological Effects
  - ix. Technical Report G.9 Assessment of Land and Groundwater Contamination
  - x. Technical Report G.10 Assessment of Lighting Effects
  - xi. Technical Report G.11 Assessment of Marine Ecological Effects
  - xii. Technical Report G.12 Assessment of Operational Noise Effects
  - xiii. Technical Report G.13 Assessment of Ground Settlement Effects
  - xiv. Technical Report G.14 Assessment of Social Effects
  - xv. Technical Report G.15 Assessment of Stormwater and Streamworks Effects
  - xvi. Technical Report G.16 Assessment of Temporary Traffic Effects
  - xvii. Technical Report G.17 Assessment of Terrestrial Vegetation Effects
  - xviii. Technical Report G.18 Assessment of Transport Effects
  - xix. Technical Report G.19 Assessment of Vibration Effects
  - xx. Technical Report G.20 Assessment of Visual and Landscape Effects
  - xxi. Technical Report G.21 Construction Environmental Management Plan (CEMP)
  - xxii. Technical Report G.22 Erosion and Sediment Control Plan (ESCP)
  - xxiii. Technical Report G.23 Coastal Works
  - xxiv. Technical Report G.24 Geotechnical Interpretive Report
  - xxv. Technical Report G.25 Traffic Modelling Report
  - xxvi. Technical Report G.26 Operational Model Validation Report
  - xxvii. Technical Report G.27 Stormwater Design Philosophy Statement
  - xxviii. Technical Report G.28 Geotechnical Factual Report – 500 Series
  - xxix. Technical Report G.29 Geotechnical Factual Report – 700 Series
  - xxx. Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads
  - xxxi. Technical Report G.31: Technical Addendum Report (September 2010)
- d. PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).
- e. Waterview Connection Project, evidence and supplementary information provided to the Board of Inquiry:
- i. Evidence in Chief (Numbers 1-37)

- ii. Rebuttal Evidence (Numbers 1-33)
- iii. Supplementary Information (Numbers 1-8)
- f. SH16 St Lukes Western Ring Route Project Planning Assessment and supporting documentation.

Construction Environmental Management Plan (“CEMP”)

5. The NZTA shall update and finalise the draft Construction Environmental Management Plan (“CEMP”) submitted with the NZTA Waterview Connection Project, including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application, to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council, for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until the certification is obtained.

*Advice note: For clarity, the CEMP will be updated and finalised in accordance with the Board of Inquiry conditions for both the resource consents and designations. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register.*

6. As some works may commence well in advance of others, for the purposes of staging works, NZTA may provide staged or site-specific CEMPs for those works to the Major Infrastructure Team Manager, Auckland Council. The NZTA shall consult with the Major Infrastructure Team Manager about the need and timing for any other site-specific or staged CEMPs and shall provide any required site-specific or staged CEMPs to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to commencement of such the specific stage (including enabling) or site works.

*Note: This condition has been carried over from the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent (CEMP.1B).*

7. The certification process of the CEMP (and its appendices), as required by condition 5, shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in condition 11 (CEMP.6), and that it includes details of:

- a. Staff and contractors’ responsibilities;
- b. Training requirements for employees, sub-contractors and visitors;
- c. Environmental incident and emergency management;
- d. Communication and interface procedures (in accordance with the Communication Plan required under condition PI.2 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent);
- e. Environmental complaints management (including the procedures required under condition PI.4 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent);
- f. Compliance monitoring;
- g. Reporting (including detail on the frequency of reporting to the Auckland Council);
- h. Environmental auditing; and
- i. Corrective action.

8. The management of key environmental effects associated with the construction phase of the project is detailed in environmental management plans included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- a. Construction Noise and Vibration Management Plan (“CNVMP”);
- b. Construction Air Quality Management Plan (“CAQMP”);
- c. Erosion and Sediment Control Plan (“ESCP”);
- d. Temporary Stormwater Management Plan (“TSMP”);
- e. Ecological Management Plan (“ECOMP”);
- f. Groundwater Management Plan (“GWMP”);
- g. Settlement Effects Management Plan (“SEMP”);
- h. Contaminated Soils Management Plan (“CSMP”);
- i. Hazardous Substances Management Plan (“HSMP”);
- j. Archaeological Site Management Plan (“ASMP”);
- k. Construction Traffic Management Plan (“CTMP”);
- l. Concrete Batching and Crushing Plant Management Plan (“CBCPMP”);
- m. Electrical Infrastructure Site Development and Construction Management Plan (“EISDCMP”) (to be prepared in accordance with condition CEMP.15 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent);
- n. Waste Management Plan (to be prepared in accordance with condition CEMP.10 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent; and

o. Temporary Construction Lighting Management Plan (to be prepared in accordance with condition L.2 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent.

9. The CEMP shall be implemented and maintained throughout the entire construction period.

10. A copy of the CEMP shall be held on each construction site at all times and shall be available for inspection on request by the Auckland Council.

11. The finalised CEMP shall include specific details on demolition, construction and management of all works associated with the project. The certification process for the CEMP shall confirm that the CEMP includes details of the following:

- a. Details of the site or project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- b. The location of large notice boards that clearly identify NZTA and the project name, together with the name, telephone, email address and address for service of the site or project manager and the community liaison person;
- c. An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- d. The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;
- e. Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/ storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Location of worker's offices and conveniences (e.g. portaloos);
- g. Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- h. Methods to stabilise ingress and egress points to construction sites, to the standard required by the former ARC's Technical Publication 90 (Nov 2007) ("TP 90");
- i. Procedures for ensuring that residents within 100 metres of construction areas or other people whose use of an area may be disrupted by construction works are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- j. Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- k. Means of ensuring the safety of the general public;
- l. Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- m. Methods of mitigating the local and network wide effects of construction of individual elements of the project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- n. All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- o. Confirmation of a project arborist; and completion of a "STEM" assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE lodged with the Board of Inquiry for the Waterview Connection Project to confirm the final amenity trees; and
- p. The process to minimise the removal of amenity trees, maximise the protection of those retained, undertake relocation of amenity trees and replacement of specimen trees (in accordance with conditions LV.10 and ARCH.9 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent.

*Advice note: For the purposes of this condition, "amenity tree" in o) and p) is defined as a tree or trees that contribute significantly to amenity, taking account of its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE lodged with the Board of Inquiry for the Waterview Connection Project).*

12. The layout of the construction yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans submitted as part of the AEE for the Waterview Connection Project. The layout drawings shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council, at least 20 working days prior to occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- a. The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview Connection Project Construction Yards Plans;
- b. Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings;
- c. Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;

- d. Temporary acoustic fences and visual barriers;
- e. Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on adjacent residential dwellings; and
- f. Location of workers' and project vehicle parking.

13. All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

14. Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of the project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

15. The NZTA shall finalise and implement the Hazardous Substances Management Plan ("HSMP"), through the CEMP (as required by condition 5; CEMP.1), submitted with the NZTA Waterview Connection Project, prior to works commencing on the site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the project and confirm that there shall be no storage of explosives on the project site.

16. The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the certified CEMP. The Plan shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council for approval and the approved Plan is to be implemented throughout the entire construction period.

17. The approved CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the project. The review shall take into consideration:

- a. Compliance with designation and consent conditions;
- b. Any changes to construction methods;
- c. Key changes to roles and responsibilities for the project;
- d. Changes in industry best practice standards;
- e. Changes in legal or other requirements;
- f. Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- g. Public complaints.

A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Projects Team Manager, Auckland Council and made available (with any related data) to the Auckland Council on request.

18. Following the review process (as described in condition 17 and CEMP.12 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent) the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Projects Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

*Advice Note: "Material change" will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.*

19. The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan ("EISDCMP)". The EISDCMP shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council, and include:

- a. Methods and measures:
  - i. To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.
  - ii. To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines
  - iii. To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures.
  - iv. To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.

- b. Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.
- c. Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:
  - i. Clause 2.2 with respect to excavations near overhead support structures;
  - ii. Clause 2.4 with respect to buildings near overhead support structures;
  - iii. Section 3 with respect to minimum separation between buildings and conductors;
  - iv. Section 5 with respect to minimum safe distances for the operation of mobile plant; and,
  - v. Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.
- d. Confirmation that Transpower has been provided a copy of the EISCDMP for its review at least 20 working days prior to construction.

*Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).*

20. The NZTA will be responsible for all service relocations required for construction of the project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to, water, gas, stormwater, wastewater, power and telecommunications) and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the project, with the objective of minimising disruption to the operation of these service networks and on-site services.

*Advice note:*

- a. *It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.*
- b. *Network infrastructure owned and operated by Watercare Services is located within the designation. An operating agreement will be developed by NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.*

Landscape, Urban Design, Visual

21. The requiring authority shall implement the project planting in accordance with the Landscape and Urban Design Masterplan and planting details (referenced in condition 1) during the first planting season following completion of the construction works, the project planting shall be maintained in a healthy state for a period of 10 years thereafter.

*Advice note: Ongoing control and management of the landscaping within the designation is the responsibility of the NZTA.*

22. The requiring authority shall ensure that any areas within the project area affected by construction activities have sub-soil rehabilitated and topsoil replaced so that the hydrological response including the volume of stormwater runoff generated is as close as practicable to the pre-development situation. The methodologies to achieve this shall be documented and provided to the Major Infrastructure Projects Team Manager on completion of construction works.

23. Where possible the requiring authority shall use locally eco-sourced native plants in the project area.

24. All noise walls shall be located in accordance with the Noise Walls and Fences plans (rather than the Landscape and Urban Design Masterplans) referenced in plan series '215023-D-C-918-001'.

25. In certifying the Urban Design and Landscape Masterplan prepared in accordance with condition LV.1 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent, the Major Infrastructure Projects Team Manager, Auckland Council shall be satisfied the plans include:

- a. Planting to screen houses and noise walls (including cross section details);
- b. Ecological Management Plan, prepared in accordance with Conditions V.1, A.1, H.1, F.1 and M.1 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent;

26. The NZTA shall have implemented the Urban Design and Landscape Masterplan plans within 6 months of practical completion of construction of the project.

27. The NZTA shall implement the Urban Design and Landscape Masterplan taking into account the pest plant management

guidelines detailed in the Ecological Management Plan (as required by condition 18, CEMP.3 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent.

#### Air Quality

28. The NZTA shall finalise and implement, through the CEMP, the Construction Air Quality Management Plan (“CAQMP”) submitted with the Waterview Connection Project notices of requirement and resource consent applications.

At least 20 working days prior to construction activities being undertaken the CAQMP shall be provided by the requiring authority to the Major Infrastructure Projects Team Manager, Auckland Council for review and certification that it includes the following details:

- a. Daily visual monitoring of dust emissions;
- b. Procedures for responding to process malfunctions and accidental dust discharges;
- c. Criteria, including consideration of weather conditions and procedures for use of water sprays on stockpiles and operational areas of the site;
- d. Continuous monitoring of Total Suspended Particulate (“TSP”) concentrations and meteorology;
- e. Monitoring of the times of detectable odour emissions from the ground;
- f. Procedures for responding to discharges of odour (including in the event of excavation of contaminated sites);
- g. Monitoring of construction vehicle maintenance;
- h. Process equipment inspection, maintenance, monitoring and recording, including baghouses, pressure relief valves and high level alarms;
- i. Complaints investigation, monitoring and reporting; and
- j. The identification of staff and contractors’ responsibilities.

29. The NZTA shall review the CAQMP at least annually and at any time there is a material change to the project. Any consequential changes will be undertaken in accordance with condition 18 (CEMP.13) of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent.

30. All construction activities shall be operated, maintained, supervised, monitored and controlled at all times so that all emissions authorised by this consent are maintained at the minimum practicable level.

31. The NZTA shall undertake construction activities in accordance with the approved CEMP and CAQMP, such that:

- a. Hard surfaced areas of the construction yards and active construction areas are vacuum swept or scraped down at least twice each week and additionally as reasonably required;
- b. All unsealed areas of the site used for vehicle movement are maintained visibly damp by the use of water sprays or a water cart during weather conditions where the potential for dust emissions exist;
- c. Wheelwash systems are installed at all truck exits from unpaved areas of the site onto public roads are used for all trucks that depart from the site;
- d. All stockpiles are constructed and positioned to minimise the potential for dust emissions. The surfaces of all stockpiles are maintained adequately damp at all times to minimise the release of particulate matter;
- e. Belt conveyors for moving dry materials are fitted with water sprays or enclosed to minimise wind entrainment of dust. Where installed, water suppression is used whenever the conveyors are used for moving dry materials.

32. Unless expressly provided for by conditions of this designation, there shall be no odour, dust or fumes beyond the site boundary caused by discharges from the site which, in the opinion of a Council enforcement officer, is noxious, offensive or objectionable.

33. All offensive or objectionable dust beyond the designation boundaries caused as a result of construction processes shall be mitigated forthwith in accordance with the requirements of the Construction Air Quality Management Plan.

34. Beyond the designation boundaries there shall be no hazardous air pollutant caused by discharges that causes, or is likely to cause, adverse effects on human health, environment or property.

35. No discharges from any activity carried out as part of the project works shall give rise to visible emissions, other than water vapour, to an extent which, in the opinion of a Council enforcement officer, is noxious, dangerous, offensive or objectionable.

36. The NZTA shall undertake visual inspections of dust emissions as follows:

- a. Visual inspections of all active construction areas at least three times daily during October to April inclusive, whenever there are construction activities. The results of visual monitoring shall be logged.
- b. Visual inspections of dust emissions from the concrete batching plants and rock crushing plant shall be undertaken daily while the plant is operating.

37. The operation of water sprays shall be checked by or on behalf of the requiring authority at least once each day.

38. All records, logs, monitoring and test results that are required by the conditions of this designation shall be made available on request, during operating hours, to an Auckland Council enforcement officer and shall be kept by the consent holder for the duration of the designation.

39. Construction logbooks shall be maintained that record all relevant information that is required to demonstrate compliance with the conditions of this designation. This information shall include, but is not limited to:

- a. Visual assessments of any dust emissions from the site and the source;
- b. Any dust control equipment malfunction and any remedial action taken;
- c. When a water cart was used and, if so, the frequency of use and the volume of water used (including identification of location);
- d. Any additional dust control measures undertaken; and
- e. The date and time of the entry and the signature of the person entering the information.

40. The NZTA shall maintain a log of any complaints received relating to air quality. Details of each complaint received shall be forwarded to the Major Infrastructure Projects Team Manager, Auckland Council, within 24 hours of receipt of the complaint. The log shall include any complaints lodged with the Auckland Council where the Council has informed the NZTA of the complaint. The log shall include, but not be limited to the following:

- a. The date, time, location and nature of the complaint;
- b. Weather conditions at the time of the complaint (including approximate wind speed, wind direction, cloud cover);
- c. Any possible other contributing factors (such as a fire, smoky vehicle, a local chimney emission, etc.);
- d. The name, phone number and address of the complainant (unless the complainant elects not to supply these details);
- e. Any remedial actions undertaken; and
- f. The date and time of the entry and the signature of the person entering the information.

#### Traffic

41. The NZTA shall update and finalise the Construction Traffic Management Plan ("CTMP") submitted with the Waterview Connection Project AEE, in accordance with these conditions, and implement it through the CEMP. In finalising the CTMP, the NZTA shall:

- a. Provide simulation modelling demonstrations to understand the effects of construction of the project on the affected road network better;
- b. Include measures to avoid road closures and restrictions of vehicle, bus, cycle and pedestrian movements;
- c. Where road closures or restrictions cannot reasonably be avoided, the particular vulnerabilities and sensitivities of pedestrian diversions and restricted conditions shall be taken into account in the planning of any closures or restrictions.

42. The CTMP shall require the development of Site Specific Traffic Management Plans ("SSTMPs") and their approval by the Traffic Management Project Governance Group (as defined by the CTMP) for each construction activity that may affect traffic or transportation infrastructure and services. The SSTMPs shall be provided to the Traffic Management Coordinator(s) for the relevant road controlling authority at least 10 working days prior to each construction activity.

43. Each SSTMP shall describe the measures that will be undertaken to avoid, remedy or mitigate the local and network wide effects of construction of the project. In particular, the SSTMP shall include the following matters:

- a. Traffic management measures to address and maintain, traffic capacity, including bus services, at peak traffic periods during weekdays (6:00 to 9:00 and 16:00 to 19:00) and peak traffic periods at weekends (including Great North Road );
- b. Methods to manage the effects of traffic during construction including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area;
- c. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- d. Methods to avoid, remedy or mitigate the local and network-wide effects of the construction of individual elements of the project (e.g. intersections/ overbridges) and the use of staging to allow sections of the project to be opened to the traffic while other sections are still under construction;
- e. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks) during construction;
- f. Any routes where construction traffic movements will be restricted (either for particular times for construction periods);
- g. Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works, measures to provide alternative access arrangements in consultation with the Auckland Council and the affected landowner; and
- h. Measures to maintain pedestrian and cycle access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable (e.g. unless provision of such access is severed by the works or such access will

become unsafe as a result of the construction works). Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. (This condition does not act as a qualification to the commitment to maintain access to open space and education facilities as required in condition OS.13 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent).

44. The SSTMPs shall include traffic management measures developed in consultation with Auckland Transport, Bus and Coach Association and the Auckland Council, to address and maintain, where practicable, existing levels of service for buses particularly at peak periods (6:00 to 9:00 and 16:00 to 19:00) on weekdays.

45. The NZTA shall consult with the Traffic Operations Manager, Auckland Transport with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation. The NZTA shall also coordinate and consult directly with the proponents of any major construction or major traffic generating event occurring concurrently with, and in the vicinity of, the project.

46. The SSTMPs shall include measures developed in consultation with Auckland Transport to enable, as far as practicable, continued public walking and cycling passage along the existing North-western Cycleway (between the Te Atatu Interchange and the St Lukes Interchange) and along Great North Road and the public walkway along Oakley Creek, with any interruptions being as short as feasible.

47. The NZTA shall restrict construction truck movements during peak hours (6:00 to 9:00 and 16:00 to 19:00) on weekdays and during the peak periods at the weekends to avoid the following:

- a. Great North Road Interchange, city bound during the morning peak hours
- b. Great North Road Interchange, west bound onto SH16 and southbound onto Great North road during the afternoon peak.
- c. St Lukes Interchange, during afternoon peak hours, and morning peak hours from eastbound onto SH16.

Construction truck movements during these hours shall be allowed only under exceptional circumstances agreed in advance with the Traffic Management Project Governance Group.

48. The NZTA shall maintain at least the existing active traffic lane configuration capacity on SH16, at St Lukes Road at the St Lukes interchange and on Great North Road during peak periods being 6:00 to 9:00 and 16:00 to 19:00 on weekdays and during the peak periods on weekends, for the duration of the temporary construction programme.

49. The NZTA shall monitor the impact of construction traffic in terms of traffic speeds and volumes on SH16, Great North Road and St Lukes Road at the St Lukes interchange throughout the construction period to confirm the expected traffic effects as set out in the Temporary Traffic Assessment (Technical Report G.16) submitted with the Notice of Requirement.

- a. This monitoring will be undertaken on a daily, weekly and monthly basis; and
- b. Monitoring results will be made available to the Traffic Operations Manager, Auckland Transport on request.

50. If monitoring undertaken pursuant to condition 49 (TT.10) indicates that traffic volumes or traffic conditions are significantly different from those expected, the SSTMPs will be reviewed by the requiring authority and as appropriate amended to the satisfaction of the Traffic Management Project Governance Group.

51. In collaboration with Auckland Transport, the NZTA shall prepare a Network Integration Plan (“NIP”) for the project, or relevant project phases, to demonstrate how the project integrates with the existing local road network and with future improvements (identified in NZTA’s Western Ring Route (Northwest) Network Plan, dated September 2010) planned by the Auckland Council. The NIP shall include details of proposed physical works at the interface between the State Highway and the local road network, and shall address such matters as pedestrian/ cycleways, lane configuration, traffic signal co-ordination, signage and provision for buses. In addition, the NIP is to address:

- a. The commitment of the NZTA to progress bus priority measures northbound on Great North Road as part of the reinstatement of Great North Road, as proposed by Auckland Transport. This is subject to the agreement with Auckland Transport;
  - b. How the works committed to by the NZTA for pedestrian and cycleways, as detailed in the PT and Active Mode Transport Routes Plan Set (condition DC.1(d) of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent integrate with pedestrian and cycleways on the wider transport network;
  - c. The commitment of the NZTA to provide for cycle “aspects” (cycle signal lights) at the Great North Road Interchange.
- Works identified in the NIP which are the responsibility of the NZTA will be undertaken as at the time of construction works for the project.

52. The proposed development must be generally located as indicated on the Aurecon drawings "General Arrangement Sheets 1 to 8" dated 31-05-2013 (ref: 215023-D-C-100-001 Rev D to 007 Rev D and 215023-D-C-100-008 Rev B).
53. A further detailed geotechnical investigation must be undertaken to confirm design parameters including foundation depths for the St Lukes interchange widening (including both the proposed new bridge and any widening to the approach ramps, including the new retaining wall for Chamberlain Golf Course) plus the new cycleway bridge and abutments and the stormwater pond.
54. Any foundations and piles plus the excavation for these must be specifically designed by a chartered professional structural engineer based on the above detailed geotechnical investigation and the Aurecon study (Ref: 'Indicative Constructability Report: SH16 St Lukes Interchange Project, prepared by Aurecon and dated 24 April 2013).
55. A chartered professional engineer with experience of geotechnics shall inspect and certify any pile holes for foundations and any retaining works.
56. Any foundations in the vicinity or that span over the reinforced earth retaining structure of the current St Lukes Rd overbridge must be suitably designed to ensure the retaining structure is not damaged.
57. A chartered professional engineer with appropriate experience shall design the groundwater control measures.
58. All temporary excavations (except those in rock) unless suitably designed by a chartered professional engineer are limited to an open face of not more than 3 metres horizontal distance at any one time and shall be limited to an unsupported gradient of 1 vertical to 2 horizontal.
59. Excavations through any basalt shall be inspected by a chartered professional engineer with experience of geotechnical engineering or an experienced engineering geologist who shall advise the Major Infrastructure Projects Team Manager on the stability of the excavation and any requirement for support measures (including any necessity for rock bolting or netting etc).
60. All excavations (other than in rock) that intercept a line 1 vertical to 2 horizontal from an adjacent boundary are to be retained with a suitable retaining structure designed for at-rest conditions.
61. Construction works shall be under the control of a chartered professional engineer with experience of geotechnical engineering. The construction works shall follow the recommendations of the detailed geotechnical report for foundation types (including depth of foundations required), retaining works and earthworks, including temporary works and any required stability measures) provided with the AEE (Ref: 'Indicative Constructability Report: SH16 St Lukes Interchange Project', prepared by Aurecon and dated 24 April 2013). This will include supervision of piling, excavations, the foundations, retention measures and floor slabs. Provision must be made for over deepening of any foundations where soft or weak soils are encountered.
62. Prior to commencement of any works on the site, the requiring authority shall provide to the Major Infrastructure Projects Team Manager, a site management plan ("SMP") that includes an excavation and construction methodology acceptable to the Council that shall include specific details relating to the construction/management/monitoring of all works associated with the SH16 St Lukes Western Ring Route Project. The Major Infrastructure Projects Team Manager shall have approved the SMP prior to construction works commencing. The approved SMP shall be implemented and maintained throughout the entire works period. Items to be included in the construction methodology are:
- a. Key inspection stages during excavation, retaining and foundation construction;
  - b. Timeframes for exposed excavated ground;
  - c. Monitoring procedures for vibration and noise;
  - d. Location and timeframes for temporary support of excavations.
63. No fill material shall be placed as part of the final development without being supervised by a chartered professional engineer with geotechnical experience.
64. Excavations in exposed ground shall be protected from the detrimental effects of weathering e.g. by the use of polythene, basecourse or other similar methods. Alternatively, material damaged by the weather shall be removed to a depth determined by a chartered professional engineer with experience of geotechnics.
65. All spread foundations should be founded a minimum of 600mm below cleared ground level and into natural ground or engineered made ground (fill). If non-engineered made ground exists at this level, then the excavation must be deepened to penetrate through the made ground and into the natural materials. For made ground greater than 1m depth, specific design of foundations is required.

66. All stormwater from any new hard surfaces and any groundwater collected from behind retaining walls is to be collected and disposed of to an appropriate reticulated or otherwise Council approved system.

67. The requiring authority shall implement appropriate sediment control measures prior to and during allearthworks to ensure that all stormwater runoff from the site is managed and controlled to ensure that no silt, sediment or water containing silt or sediment is discharged into stormwater pipes, drains, channels or soakage systems in accordance with the Auckland Council District Plan: Isthmus Section, Annexure 14 guidelines for sediment control.

68. Prior to any work commencing on the site, the requiring authority shall submit to the Major Infrastructure Projects Team Manager for approval, a plan of action to arrest and remedy any adverse effects that may occur to any adjacent structure in the event the structure may be affected during construction.

#### Lighting

69. Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas in general accordance with the 'SH16 St Lukes Adverse Environmental Effects Report – Street Lighting', prepared by Aurecon and dated 30 September 2013 and the plans referenced in series '215023-D-E-161'. All lighting shall be designed in accordance with relevant rules provided in Part 13 of the Auckland City Bylaw (April 2008).

70. A Temporary Construction Lighting Management Plan shall be prepared for all construction zones and construction yards prior to commencement of any night time works within the construction zones and construction yards. The Temporary Construction Lighting Management Plan shall be independently verified by a lighting specialist and that verification shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council for certification of compliance 10 working days prior to any night time work commencing.

The certification process shall ensure that the Temporary Construction Lighting Management Plan includes (but is not limited to):

- a. The layout and arrangement of all temporary lighting required for night time works, and that shows that the temporary lighting complies with relevant rules provided in Part 13 of the Auckland City Bylaw (April 2008);
- b. Provision for a 10m buffer between the night time work and any residential boundary at all times to minimise potential for light spill; and
- c. General operating procedures requiring lighting as outlined in the CEMP.

71. Asymmetrical floodlights with horizontal glass visors that are not raised more than 3 degrees above the horizontal plane shall be used for any temporary construction night time lighting requirements. Alternative temporary lighting arrangements may be used, subject to the prior approval of the Major Infrastructure Projects Team Manager, Auckland Council, where it can be demonstrated to the satisfaction of the Team Manager that the proposed lighting is similar or better to asymmetrical floodlights with glass visors. Glare shall be kept below the recommendation given in AS 4282 – 1997 "Control of the Obtrusive Effects of Outdoor Lighting" Tables 2.1 and 2.2.

#### Noise and Vibration

72. The NZTA shall finalise and implement, through the CEMP, a Construction Noise and Vibration Management Plan ("CNVMP") throughout the entire construction period of the project.

The CNVMP shall describe the measures adopted to meet:

- a. the noise criteria set out in conditions 73 and 74 (CNV.2 and CNV.3) below;
- b. the vibration criteria set out in condition 75 (CNV.4) below; or
- c. where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Projects Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

- i. Construction noise and vibration criteria conditions 73, 74 and 75 (CNV.2, CNV.3, and CNV.4 – of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent);
- ii. Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;
- iii. Machinery and equipment to be used as part of construction works;
- iv. Vibration testing of equipment to confirm safe distances to buildings prior to construction;
- v. Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;
- vi. Roles and responsibilities of personnel on site;
- vii. Construction operator training procedures;
- viii. Methods for monitoring and reporting on construction noise and vibration;
- ix. A hierarchy of mitigation options that will be assessed for the project noise mitigation, including alternative strategies where

full compliance with the relevant noise and/or vibration criteria cannot be achieved;

x. Management schedules containing site specific information;

xi. Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically:

- Methods for ensuring residents affected by night works (within 100m of the construction site night works), are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.

xii. Methods for receiving and handling complaints about construction noise and vibration;

xiii. Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover);

xiv. Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation in accordance with condition 78 (CNV.7 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent);

xv. Investigations of the practicability of implementing building modification mitigation, as required in accordance with conditions ON.6 and ON.11 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent, prior to commencement of construction within 100m of the relevant Protected Premises and Facilities (“PPFs”) (including those on the Unitec site); and

xvi. The process for developing Site Specific Noise Management Plans (“SSNMP”), and a certification process for the Major Infrastructure Projects Team Manager, Auckland Council in accordance with condition 80 (CNV.13 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent) to confirm the process of SSNMP review of noise mitigation options where the modelled/predicted levels or subsequent actual levels exceed the criteria in conditions 73 and/or 75 (CNV.2 and/or CNV.4 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent).

73. Except where certified by the Council through the SSNMP in accordance with condition 80 (CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 “Acoustics - Construction Noise” and shall comply with the following criteria:

*Note: In this condition, (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999.*

a. Project Construction Noise Criteria: Residential Receivers

Time of the week	Time Period	Project Construction Noise Criteria -			
		Sector 6 Works, dBA		St Lukes Bridge Works (dBA)	
		L <sub>eq</sub>	L <sub>Max</sub>	L <sub>eq</sub>	L <sub>Max</sub>
Monday to Saturday	0630-0730	60	75	55	75
	0730-1800	70	85	70	85
	1800-2000	65	80	65	80
	2000-0630	60	75	50	75
Sunday and Public Holidays	0630-0730	45	75	45	75
	0730-1800	60	85	55	85
	1800-2000	45	75	45	75
	2000-0630	45	75	45	75

b. Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	L <sub>Aeq</sub> (T)
0730-1800	70

1800-0730	75
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c. Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside	
Teaching Hours	45 dB LAeq(T) or existing, whichever is the higher	Classrooms, library, offices, teaching, laboratories, manual, arts, workshops
Teaching Hours	40 dB LAeq(T) or existing, whichever is the higher	School hall, lecture theatre

*Note: In part c. of this condition "Teaching hours" means: Primary schools and Kindergartens: 9am to 3pm Unitec: 8am to 9pm*

74. Project Construction Noise Criteria: Airblast (excluding Sundays)

Category	Type of Blasting Operations	Peak Sounds Level (LZpeak dB)
<b>Human Comfort Limits</b>		
Sensitive Site	Operations lasting longer than 12 months or more than 20 blasts	115 dB for 95% blasts per year. 120 dB maximum unless agreement is reached with occupier that a higher limit may apply
Sensitive Site	Operations lasting less than 12 months or less than 20 blasts	120 dB for 95% blasts per year. 125 dB maximum unless agreement is reached with occupier that a higher limit may apply
Occupied non-sensitive sites such as factories and commercial properties	All blasting	125 dB maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications of levels that can be shown to adversely affect the equipment operation
<b>Damage Control Limits</b>		
Structures that include masonry, plaster and plasterboard in their construction and also unoccupied structures of reinforced concrete or steel construction	All Blasting	133 dB unless agreement is reached with owner that a higher limit may apply.
Service structures such as pipelines, powerlines and cables located above ground	All Blasting	Limit to be determined by structural design methodology

75. Except where certified by the Council through the SSNMP in accordance with condition 80 (CNV.13 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 “Structural vibration – Part 3: Effects of vibration on structures”, and shall comply with the following criteria:

Type of Structure	Short- term vibration			Long-term vibration	
	PPV at the foundation at the frequency of			PPV at horizontal plane of highest floor (mm / s)	PPV at horizontal plane of highest floor (mm / s)
	1 – 10Hz (mm/s)	1-50 10Hz (mm/s)	50-100 10Hz (mm/s)		
Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive Structures	3	3-8	8-10	8	2.5

76. Notwithstanding condition 74 (CNV.3):

a. Blasting activities shall be conducted so that at least 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

b. Construction activities, which occur within Sectors 1, 6, 8 and 9 of the Waterview Connection Project which are identified in the Technical Report no. G.19 Assessment of Vibration Effects, submitted with the AEE for the Waterview Connection Project, as being at a ‘High Risk’ of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

77. Blasting shall be undertaken between 09:00h and 17:00h, Monday to Saturday, except that blasting may be undertaken between 09:00h and 17:00h on Sundays where:

a. The blasting produces peak particle velocities at any residential building not exceeding 0.5mm/s; and

b. The project construction noise criteria set out in condition 72 (CNV.2 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent) for Sundays are complied with.

78. Where practicable, the permanent (traffic) noise barriers detailed in the Noise Walls and Fences plans (referenced in plan series ‘215023-D-C-918-001’) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented by the consent holder in accordance with the CNVMP prior to noise generating construction works commencing.

79. Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

80. Construction SSNMPs required by condition 72 (CNV.1(xvi) of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent) shall be submitted to Major Infrastructure Projects Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing.

*Advice Note: A decision will be provided by the Council within 5 working days of receipt of the SSNMP.*

Works are not to commence until certification is received from the Major Infrastructure Projects Team Manager, Auckland Council. The Council may, in its sole discretion, waive the requirement for individual SSNMPs to be submitted to the Council where an SSNMP is required.

If monitoring shows that construction noise levels specified in an approved SSNMP are being exceeded, the work generating the exceedance is to stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP approved by the Major Infrastructure Projects Team Manager, Auckland Council.

*Advice note: It is accepted that the criteria of conditions 73 and 75 (CNV.2 and CNV.4 of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent) may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in condition 72 (CNV.1 (ix) of the Final Report and Decision of the Board of Inquiry into the NZTA Waterview Connection Proposal – Volume 2 Conditions of Consent).*

81. Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Projects Team Manager, Auckland Council for approval prior to the commencement of works. These

baseline measurements will establish pre-project vibration levels for comparison with future vibration levels.

82. The NZTA shall implement the traffic noise mitigation measures identified in the Acoustic Report prepared by Aurecon and dated 14 October 2013 (Ref: 'SH16 – Sector 6: Changes in Noise and Vibration Effects', 'Widening of St Lukes Bridge: Assessment of Construction Noise and Vibration Effects', and 'St Lukes Bridge Widening: Assessment of Operational Noise Effects') and dated 5 March 2013 (Ref: 'SH16 – Sector 6: Road Traffic Noise Assessment').

#### Public Information Conditions

83. PI.1. A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

PI.2. The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions).

In preparing the Communications Plan, the NZTA will liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

- a. The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- b. In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;
- c. The database of stakeholders and residents who will be communicated with;
- d. Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);
- e. The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);
- f. Any stakeholder specific communication plans required; and
- g. Monitoring and review procedures for the Communications Plan.

The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these conditions is attached as Figure PI.A.

PI.3. At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- a. Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- b. Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

PI.4. The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- a. A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- b. The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- c. Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- d. The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;
- e. Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and
- f. All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

PI.5. The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- a. Te Atatu (including the SH16 Causeway)
- b. Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- c. Owairaka

and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- a. Auckland Council and Auckland Transport;
- b. Educational facilities within the Project area (including schools, kindergartens, childcare facilities and Unitec Institute of Technology);
- c. Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;
- d. Department of Conservation;
- e. Local Boards;
- f. Iwi groups with Mana Whenua;
- g. Public transport providers; and
- h. Housing New Zealand Corporation.

*Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.*

PI.6. The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things):

- a. The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k);
- b. The Open Space Restoration Plans (as required by Condition OS.3);
- c. Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);
- d. The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);
- e. The detail of the Oakley Creek restoration (as required by Condition STW.20);
- f. Publicly available results of environmental monitoring as required by the designation and/or these Consents (e.g. air quality monitoring); and
- g. The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to be removed for consideration of timber use in heritage projects as required by Condition SO.7.

*Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.*

- h. Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

#### Open Space Conditions

84. OS.13 During construction, the NZTA shall maintain pedestrian accessways to all open space available for public use during construction and education facilities where access is affected by the works, including any public access that crosses private land. Such access shall be safe, clearly identifiable, provide appropriate surfacing and seek to minimise significant detours. The access shall be of a same or similar standard as that disrupted and will be provided and maintained by the NZTA.

*Advice note: This specifically includes the existing pedestrian access that provides a connection to the crossing over Oakley Creek between 1510 Great North Road and Unitec Mt Albert Campus.*

85. OS.15 The works shall not result in any permanent loss of carparking from Western Springs Garden carpark.

#### Social Conditions

86. SO.1 In addition to the Community Liaison Groups established pursuant to Condition PI.5, the NZTA shall establish an Education Liaison Group (including representatives from local schools, kindergartens, childcare facilities, Unitec Institute of Technology, the Ministry of Education and Housing New Zealand Corporation), to provide a forum through which:

- a. Relevant monitoring data can be provided (e.g. air quality monitoring);
- b. Notice can be provided of when particularly noisy activities will occur in close proximity to schools and education facilities, to enable the opportunity to identify any potential conflict with particular sensitive periods, and the requirement for specific mitigation strategies (e.g. rescheduling of construction activities where practicable);
- c. Particular concerns can be raised by educational facilities or parents, discussed and potentially addressed;
- d. Notice can be provided of potential construction impacts on school transport routes (including pedestrian/cycle access) to enable the opportunity to identify specific mitigation preferences of the education facilities (e.g. any detour routes) and to enable these facilities to appropriately inform students and/or parents; and
- e. Learning and teaching opportunities for educational facilities to participate in Project works (e.g. planting artworks).

The Education Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period. The Education Liaison Group shall continue to meet for at least 12 months following the completion of the Project (or less if the members of the Education Liaison Group agree), so that ongoing monitoring information can continue to be disseminated.

SO.2 In addition to Condition SO.1(b) above, where noisy construction activities (that are projected to exceed the Noise Criteria in the CNVMP) are proposed in close proximity or adjacent to schools/ childcare centres, the NZTA shall, when preparing their SSNMP (in accordance with Condition CNV.1) give specific consideration to options to carry out these works outside school hours or during school holidays as a mitigation option.

SO.6 In addition to the Community Liaison Group established pursuant to Condition PI.5, the NZTA shall establish a Working Liaison Group (WLG) inviting the following:

- a. Auckland Council;
- b. Housing New Zealand Corporation;
- c. Te Kawerau Iwi Tribal Authority;
- d. Ngati Whatua o Orakei;
- e. KiwiRail;
- f. Department of Conservation;
- g. Ministry of Education; and
- h. Local Boards.

The purpose of this WLG will be to provide a forum through which:

- a. Opportunities for public work development (including social housing, passenger transport or recreation / open space) are identified in areas where the NZTA confirms that the designation is no longer required (e.g. following construction activities);
- b. Comment can be provided on updated Urban Design and Landscape Plans, including the finalised designs of structural elements for the Project (prior to their submission to the Auckland Council);
- c. Opportunities for integration of other environmental projects (e.g. restoration plantings) are identified;
- d. Consideration is given to appropriate protocols for commencement and completion of construction activities (including blessings for commencement of construction phases); and
- e. Comment can be provided by Te Kawerau a Maki on the detailed lighting design of SH16, to consider how lighting effects on cultural sites and practices might be mitigated without compromising traffic safety or those performance standards identified in Condition L.1.

The Working Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period.

SO.7 A schedule of trees that require removal for construction of the Project will be identified and reported to the Community Liaison Group for their consideration of potential provision of timber for heritage projects (including in particular the provision of Robinia wood for heritage boat building). If the demand for this timber is identified to the Construction Team, appropriate measures for felling and removal from the site will be confirmed.

#### Vegetation Conditions

87. V.1 The NZTA shall finalise the ECOMP submitted with this application, prior to works commencing on site. The ECOMP shall be implemented through the CEMP. The ECOMP shall clearly identify the location and identity of:

- a. All Significant Vegetation within the designation that is to be fully protected or relocated; and
- b. All Valued Vegetation within the designation that is affected by the works (protected or removed).

*Note: Significant and Valued Vegetation shall be as defined in the ECOMP.*

V.2 The NZTA shall employ a suitably experienced botanist ('nominated botanist') for the duration of the works to monitor, supervise and direct all works affecting or otherwise in close proximity to the Significant Vegetation and Valued Vegetation identified in the ECOMP.

V.3 Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions that pertain to the Significant Vegetation and Valued Vegetation and all vegetation in general (both native and exotic) are explained by the nominated botanist to all contractors or sub-contractors who will be working on site within the close vicinity of that vegetation.

V.4 The NZTA shall minimise the amount of vegetation (both native and exotic) which is to be cleared, with the exception of weeds (both woody and otherwise, unless agreed with the Major Infrastructure Team Manager, Auckland Council and the Community Liaison Group that the retention of these 'weeds' has other environmental or ecological benefits that warrant their retention). All vegetation clearance shall be undertaken in accordance with the measures set out in the ECOMP.

V.5 The NZTA shall install protective fencing around, or otherwise clearly demarcate, all of the Significant Vegetation identified in the ECOMP as requiring full protection, under the supervision of the nominated botanist.

V.6 The NZTA shall replace any terrestrial Valued Vegetation that is required to be removed as a result of construction activities, in accordance with the ECOMP and the Urban Design and Landscape Plans.

V.7 The nominated botanist shall supervise all trimming, pruning and relocation work associated with the Significant

Vegetation and Valued Vegetation required as part of the works.

V.8 Immediately prior to planting, and for a period of 2 years following completion of construction, the NZTA shall undertake weed control and management of all invasive plant pests within the vegetated areas of the surface designation for the Project. Following this 2 year period, on-going control and management of all invasive plant pests within these areas will be the responsibility of the NZTA.

V.9 The nominated botanist shall undertake a monitoring programme throughout the construction period, including monitoring of:

- a. The condition, repair and location of the temporary protective fencing or other forms of demarcation used to identify the Significant Vegetation;
- b. Any works within the vicinity of the Significant Vegetation and Valued Vegetation;
- c. The general health of the Significant Vegetation and Valued Vegetation (including any Significant or Valued Vegetation that has been relocated away from the works area); and
- d. Compliance with the vegetation conditions of designation by way of fortnightly inspections during the construction period.

V.10 Any planting utilising native plants shall use plants genetically sourced from the Tamaki Ecological District where possible or otherwise shall use plants that have been genetically sourced from within the Auckland Ecological Region.

#### Avian Conditions

88. A.1 The NZTA shall finalise, and implement through the CEMP, ECOMP submitted with this application to include the matters set out in Conditions A.2 to A.6.

#### Herpetofauna Conditions

89. H.1 The NZTA shall finalise and implement through the CEMP, the ECOMP submitted with this application to include details of lizard management to be undertaken, including the following:

- a. Lizard capture methodology, including timing;
- b. Lizard release locations(s);
- c. Lizard habitat enhancement at population release sites, including a detailed pest control programme for a minimum of one month prior to release and for a minimum of three consecutive years' duration after release;
- d. Location(s), monitoring and maintenance of lizard protective fencing;
- e. Post-release monitoring methodology; and
- f. Lizard captive management methodology.

#### Archaeology Conditions

90. ARCH.1 The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:

- a. Identification of the Project archaeologist, their role and responsibility on the Project;
- b. Who reports to the Project archaeologist;
- c. Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;
- d. Whether NZHPT and/or Auckland Council heritage and/or iwi supervision is required for the specific site (the latter to be determined through consultation with the relevant iwi groups); and
- e. Accidental discovery protocols in the event that unknown archaeological sites are uncovered.

ARCH.2 The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:

- a. All unmodified areas in the vicinity of Rosebank Road;
- b. All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;
- c. Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;
- d. Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.

ARCH.3 If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:

- a. Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all siteworks in the immediate vicinity shall cease;
- b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;
- c. The Project archaeologist shall inspect the site to assess the relevance of the find, and then the Auckland Council shall be advised of the significance;
- d. If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, the New Zealand Historic Places Trust, and the Auckland Council that an archaeological site has been exposed so that appropriate action can be taken;
- e. In the case of human remains, the NZ Police shall be notified.

ARCH.8 All contractors and subcontractors working on the Project shall be trained on the archaeological requirements set out in the ASMP.

*Advice note: Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from the NZ Historic Places Trust.*

#### Contaminated Land and Contaminated Discharges Conditions

91. CL.1 The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- a. Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- b. Soil validation testing and groundwater testing;
- c. Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential reuse or disposal options;
- d. Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and
- e. Measures to be undertaken for the handling of asbestos containing material.

92. CL.2 Prior to the main construction works commencing, the baseline quality of soils and groundwater within Sector 5 (the southern bank of Oakley Creek coincident with the location of the former tannery) and Sector 7 (particularly in relation to works in the vicinity of Great North Road) shall be investigated and established. The investigations shall be carried out in accordance with appropriate Ministry for the Environment and Auckland Council guidelines. The findings of the soil and groundwater investigations shall be used to determine the specific constructions methods during work in this area to manage any likely environmental effects in relation to the Project.

93. CL.3 Prior to the main construction works commencing, soils and fill materials within Alan Wood Reserve (Sector 9) shall be further classified so as to determine the distribution and extent of cleanfill, managed fill and contaminated/hazardous fill materials.

94. CL.4 All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

CL.5 The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support of this application, including contaminated soil, surface water or groundwater.

CL.6 The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

CL.7 The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material.

CL.8 All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

95. CL.9 During and following the tunnel construction works beneath Sector 8, groundwater quality monitoring shall be carried out at locations within and down hydraulic gradient of Phyllis Street Landfill. Monitoring shall be undertaken on at least a monthly basis, and for a period up to 12 months following completion of the tunnel construction works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

96. CL.10 Prior to, during and following tunnel construction works beneath Phyllis Street Landfill, monitoring for landfill gas shall be carried out from existing monitoring boreholes within the landfill. Monitoring shall be undertaken on at least a monthly basis, for a period of no less than 6 months prior to, and up to 12 months following completion of the tunnelling works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

97. CL.11 The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

- a. Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;
- b. Volumes of soil removed from site;
- c. Copies of the waste disposal receipts; and
- d. Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the siteworks

#### Freshwater Conditions

98. F.1 The NZTA shall finalise, and implement through the CEMP, the ECOMP submitted with this application. The ECOMP shall be updated to ensure compliance with the conditions of this consent and include changes to the details of construction processes prior to construction commencing. The ECOMP shall include, but not be limited to details of:

- a. Monitoring of freshwater ecology;
- b. Monitoring of freshwater and stream sediment quality;
- c. Trigger event criteria for undertaking additional monitoring;
- d. Procedures for responding to accidental discharges of contaminants to the freshwater environment; and
- e. Contingency plans and/or remedial measures in the event monitoring results identify adverse effects.

99. F.2 The NZTA shall engage a suitably qualified ecologist and water quality scientist to undertake freshwater monitoring programme prior to, during and following construction to monitor the effect of the Project on the freshwater ecology. The freshwater monitoring shall be undertaken in Oakley Creek, Pixie Stream and Meola Creek. The freshwater monitoring programme shall be undertaken in accordance with the details set out in the ECOMP and include:

- a. Cross sectional profiles;
- b. Macro invertebrate sampling; and
- c. Freshwater fish monitoring.

100. F.3 The freshwater monitoring programme shall, as a minimum, be undertaken in accordance with the following frequency:

- a. Prior to construction – two baseline ecological surveys.
- b. During construction – twice per year for fish and macro invertebrates and cross sectional profiles, within one month prior to the beginning of the earthworks season and within one month either side of the end of the earthworks season.
- c. Post construction – on an annual basis for a maximum period of three years, or less if the Major Infrastructure Team Manager, Auckland Council is satisfied that no adverse effects have occurred or are likely to occur from the Project.
- d. Monthly water quality samples at the five existing Oakley Creek sample locations to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb) and nutrients.
- e. Four “event based” samples per annum from each of the current two Oakley Creek sites. The samples are to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb), hydrocarbons (TPH) and nutrients.
- f. Two sediment quality samples per annum (January and July) at the five existing water quality Oakley Creek sites (if there is sufficient sediment to sample). The samples are to be analysed for metals (Zn, Cu and Pb), polycyclic aromatic hydrocarbons (PAH), hydrocarbons (TPH) and semi-volatile organic compounds.

*Advice note: The sample collection and analysis required under sub-clauses (d) to (f) shall be undertaken following an IANZ accredited methodology by a suitably accredited laboratory (International Accreditation New Zealand).*

101. F.4 The NZTA shall undertake additional freshwater monitoring in the event of a ‘trigger event’ for freshwater habitats. For the purposes of this consent, a ‘trigger event’ for freshwater habitats is defined in the ECOMP.

102. F.5 The NZTA’s ecologist/hydrologist (required by condition F.2 shall review, every six months, the freshwater monitoring results, provided from Conditions F.2 to F.4, and results in monitoring detailed in earthworks Conditions E.9 and E.19 and Groundwater Condition G.10. In the event that potential adverse effects are identified, including through review of the Condition G.10 monitoring results by the hydrologist and freshwater ecologist required by Condition G.12, the NZTA shall develop and submit for the approval of the Major Infrastructure Team Manager, Auckland Council appropriate contingency plans and/or remedial measures in accordance with the measures set out in the ECOMP.

103. F.6 Freshwater monitoring reports shall be compiled from the monitoring undertaken pursuant to Conditions F.2 to F.4 and the review of Condition F.5, and a report provided to the Major Infrastructure Team Manager, Auckland Council every 6 months.

#### 104. ADVICE NOTES – RELEVANT TO ALL RESOURCE CONSENTS AND ALTERATIONS TO DESIGNATIONS FOR BOTH NZTA AND AT (UNLESS SPECIFIED)

- a. These consents and alterations to designation are to be read in conjunction with the previously approved resource consents and alterations to designation for the Waterview Connection Project and does not negate NZTA or AT’s requirement to continue to comply with the conditions of the resource consents and designations approved by the Board of Inquiry, subject to all the amendments approved above.
- b. The scope of these resource consents and alterations to designations is defined by the information lodged to the Auckland Council Resource Consents and Regional and Local Planning Departments.
- c. In respect of the resource consents, if you disagree with any of the above conditions, or disagree with the additional charges relating to processing the application you have a right of objection pursuant to ss357A or 357B of the Act. Any objection must be made in writing to the Council within 15 working days of notification of these decisions.
- d. The Auckland Council Resource Consents Department shall be paid any compliance and monitoring costs on an ‘actual and reasonable’ basis in accordance with section 36 of the Resource Management Act.
- e. Pursuant to section 126 of the Act, if these resource consents have been exercised, but are not subsequently exercised for a continuous period of five years, the consents may be cancelled by the Auckland Council Resource Consents Department unless other criteria set out in section 126 are met.
- f. These resource consents do not constitute a building consent approval. Please check whether building consents are required under the Building Act 2004.
- g. A copy of these resource consents should be held on the site at all times during the establishment and construction phase of the activity. The consent holders are requested to notify the Council, in writing, of their intention to begin works, a minimum of seven days prior to commencement. Such notification should be sent to the Major Infrastructure Projects Team Manager and include the following details:
  - i. site address to which the consent(s) relates;
  - ii. name and telephone number of the project manager and the site owner;
  - iii. activity to which the consent relates; and
  - iv. expected duration of works.
- h. These consents do not relieve the consent holders of their individual responsibilities to apply for any other consents which may be required under the Building Act 2004 or other legislation, and/or by the New Zealand Historic Places Trust.
- i. In the event of archaeological site evidence (e.g. shells, middens, hangi or ovens, pit depressions, defensive ditches, artefactual material or human bones) being uncovered during construction, operations shall cease in the vicinity of the

discovery and the archaeologist, Auckland Council, is to be contacted so the appropriate action can be taken before any work may recommence there. All archaeological sites are protected under the provisions of the Historic Places Act 1993 (“HPA”). It is an offence under that Act to destroy, damage or modify any archaeological site, whether or not the site is entered on the New Zealand Historic Places Trust (“NZHPT”) register of historic places, historic areas, wahi tapu and wahi tapu areas. Under ss11 and 12 of the HP Act, applications must be made to the NZHPT for an authority to destroy, damage or modify an archaeological site(s) where avoidance of effect is not practicable. It is the responsibility of the consent holder to consult with the NZHPT about the requirements of the HPA and to obtain the necessary authorities under the HPA should these become necessary as a result of any activity associated with the proposed development.

j. These resource consents do not in any way allow either of the consent holders to enter and construct drainage or other works on or in neighbouring properties, without first obtaining the agreement of all owners and occupiers of said land to undertake the proposed works. Any negotiation or agreement is the full responsibility of the consent holders, and is a private agreement that does not involve the Council in any capacity whatsoever. To obtain sign-off for the resource consents, the services described by the conditions are required to be in place to the satisfaction of the Council.

k. All proposed changes to the stormwater proposal must be discussed through the Major Infrastructure Projects Team Manager with the Team Leader – Stormwater, Natural Resources and Specialist Input, prior to implementation. Any changes to the proposal which will affect the capacity of performance of the stormwatersystem and/or will result in a change to the conditions of this consent will require an application to be made in accordance with section 127 of the Act.

l. It is anticipated that meetings will be arranged by the consent holder/requiring authority for each of the stormwater catchments following completion of the different stages of the development.

m. The planting plan may be submitted as part of a wider landscaping plan or strategy for the site however it is expected to include information to meet the specific requirements of the stormwater permit.

n. Stormwater360 Stormfilter proprietary devices are those that have been considered and assessed in association with this consent and the alterations to designations. Any changes to the proposed proprietary device media, type or configuration may result in the need to vary this consent and / or designation under section 127 of the Act.

o. If construction takes place over the winter period, extra account should be taken of the potential for larger inflows of surface and groundwater into excavations;

p. Any building over or adjacent to public drains needs to be constructed to Council standards and may include piling in accordance with the Council’s requirements;

q. If any building spans over common boundaries, consideration must be given to piling foundations to ensure that any differential settlement is minimised;

r. Where applicable, a wheel wash or similar (or if appropriate, a stabilised construction entrance with a water pressure wash system) should be constructed for all sites and all vehicles exiting the sites are required to use this facility;

s. There may be further requirements for design or geotechnical information as part of a building consent application. Extensions, alterations and diversions to the public infrastructure will require an “Engineering Approval” consent from the Auckland Council.

t. Auckland Transport is advised to enter into discussions with the Auckland Council with regard to the drawback of designation D05-08 (956 Great North Road) to reflect the new footprint of the St Lukes interchange, established through the confirmation of NoR PA362. This process can be undertaken by completing Form 23 of the Resource Management (Forms, Fees and Procedure) Regulations 2003 and Section 182 of the RMA.

## 6724 State Highway 16 - Avondale

Designation Number	6724
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 in the vicinity of (1) Patiki Road, Avondale and (2) Rosebank Road, Avondale
Rollover Designation	Yes
Legacy Reference	Designation C01-06, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The designation provides for the construction, and subsequent operation, maintenance and minor improvement of the motorway interchange.

## Conditions

## Design of Works and Landscape Protection

1. That the development of the works be generally in accordance with Works Consultancy Services Plans No 1/60/48/5104/22 R2 (amended February 1994), No 1/60/48/5104/19 R2 (as amended June 1993) and No 1/60/48/5104/20; and Figure 4-3 "Rosebank/Patiki 2 - Ramps C & D" as lodged with the original notice of requirement, subject to any modification required to comply with these conditions.
2. That the on ramp "C" and the access road to Rosebank Domain be designed to ensure the protection of the copper beech tree scheduled in the Auckland ~~District Plan (former Auckland District)~~ Unitary Plan as ~~Item 3B-04~~ Natural Heritage: Notable Trees – 94 (Copper Beech) and that the following further measures be taken for its protection:
  - a. A 1.8 metre solid protective fence be constructed outside the dripline of the tree to the satisfaction of Council's Arborist prior to works commencing in its vicinity; and
  - b. Regular monitoring by a qualified arborist throughout the works.
3. That visual and landscape values be taken into account in the detailed design of the access road including the retention if practicable of existing trees and vegetation.
4. That the design and construction of the interchange shall not preclude the option of a cycleway along the motorway between Rosebank and Patiki Roads or the option of a cycleway via the off ramp to Rosebank Road.

## Consents Prior to Works

5. That prior to any works being commenced the following shall be obtained:
  - a. Any necessary soil conservation or earthworks consents; and
  - b. Any necessary discharge permits; and
  - c. Any necessary authority to modify those archaeological sites likely to be affected, from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

## Mitigation of Effects

6. ~~Transit New Zealand~~ The New Zealand Transport Agency (NZTA) and its contractors shall take all necessary steps to prevent or mitigate:
  - a. Any nuisance to properties adjacent to the works; and
  - b. Any significant disturbance to breeding patterns or damage to habitats of the rare or threatened birds, arthropods or fungi found on Pollen Island, from dust, noise or vibration reasonably attributable to the construction of the works.
7. That any land taken or held for the works be maintained to a high standard until such works commence.
8. That the site of any works be reinstated and appropriately landscaped with suitable plant species. Eco-sourced plants that are genetically appropriate to the local environment should be used in the vicinity of the coast and Pollen Island in order to aid the preservation of the unique properties of this area.
9. That the effects of construction activity on wildlife on Pollen Island and related habitats be regularly monitored by suitably qualified persons at appropriate intervals throughout the project.
10. That the driving of motorway support piles is to be avoided wherever practicable and any activities likely to be particularly disturbing shall be timed to avoid breeding seasons of rare or protected birds found in the vicinity of Pollen Island.
11. That consent by ~~The Transit New Zealand~~ New Zealand Transport Agency (NZTA) for access to Pollen Island from the Motorway is not to be unreasonably withheld but should take into account any guidelines recommended by the Department of Conservation and the Royal Forest and Bird Protection Society of New Zealand.
12. That reasonable access be maintained to private properties at all times.

13. That the extent of land required to be taken for the works be defined by survey and that this information be made available as soon as possible to the affected property owners and occupiers.

14. That the access road between Patiki Road and Rosebank Domain be developed in consultation with Auckland City Council, ensuring as a minimum that:

- a. Both foot and vehicle access to the Domain and cycleway be maintained at all times during construction;
- b. Both the Domain and the cycleway be reinstated to an equivalent or superior standard to that now existing, on completion of the works; and
- c. Provision be made for the replacement to a reasonable standard of any utility services and connections to any new industrial sites.

15. That ~~The Transit New Zealand~~ New Zealand Transport Agency (NZTA) undertake to

- a. Pay the full costs of any traffic signal installation at the intersection of Patiki and Rosebank Roads which is made necessary by the proposed works or the equivalent sum towards alternative intersection improvements at that location;
- b. Pay for the works at Patiki and Rosebank Roads as indicated on Works Consultancy Plans No 1/60/48/5104/19 R2 (amended June 1993) and No 1/60/48/5104/22 R2 (amended February 1994).

#### *Provision of Detailed Plans*

16. That detailed plans of the proposed works be made available to the Manager, Planning and Regulatory Services Department at least two months prior to the commencement of construction and that any reasonable changes requested by the said Manager to achieve the purpose of the requirement and with regard to the agreed to conditions within one month be complied with.

#### *Advice Note:*

Approval of plans under this Clause does not constitute building consent under the Building Act which must be separately obtained.

#### *Terms of Designation*

17. That the designation consent shall become effective only upon the prior consent of the Minister of Conservation to the proposed reclamations and that in any case the designation will not have effect on those areas to be reclaimed until such time as they are raised above mean high water spring.

18. That the term of this designation shall be five years from the inclusion of the designation in the District Plan.

~~19. Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by section 78 of the Local Government (Auckland Transitional Provisions) Act 2010.~~

~~1929.~~ Any administrative charges incurred by the Council associated with the carrying out of its functions in relation to this designation shall be recoverable from the requiring authority.

## **Attachments**

**Figure 1: Motorway Interchange Ramps connecting Rosebank Peninsula with the Northwestern Motorway**

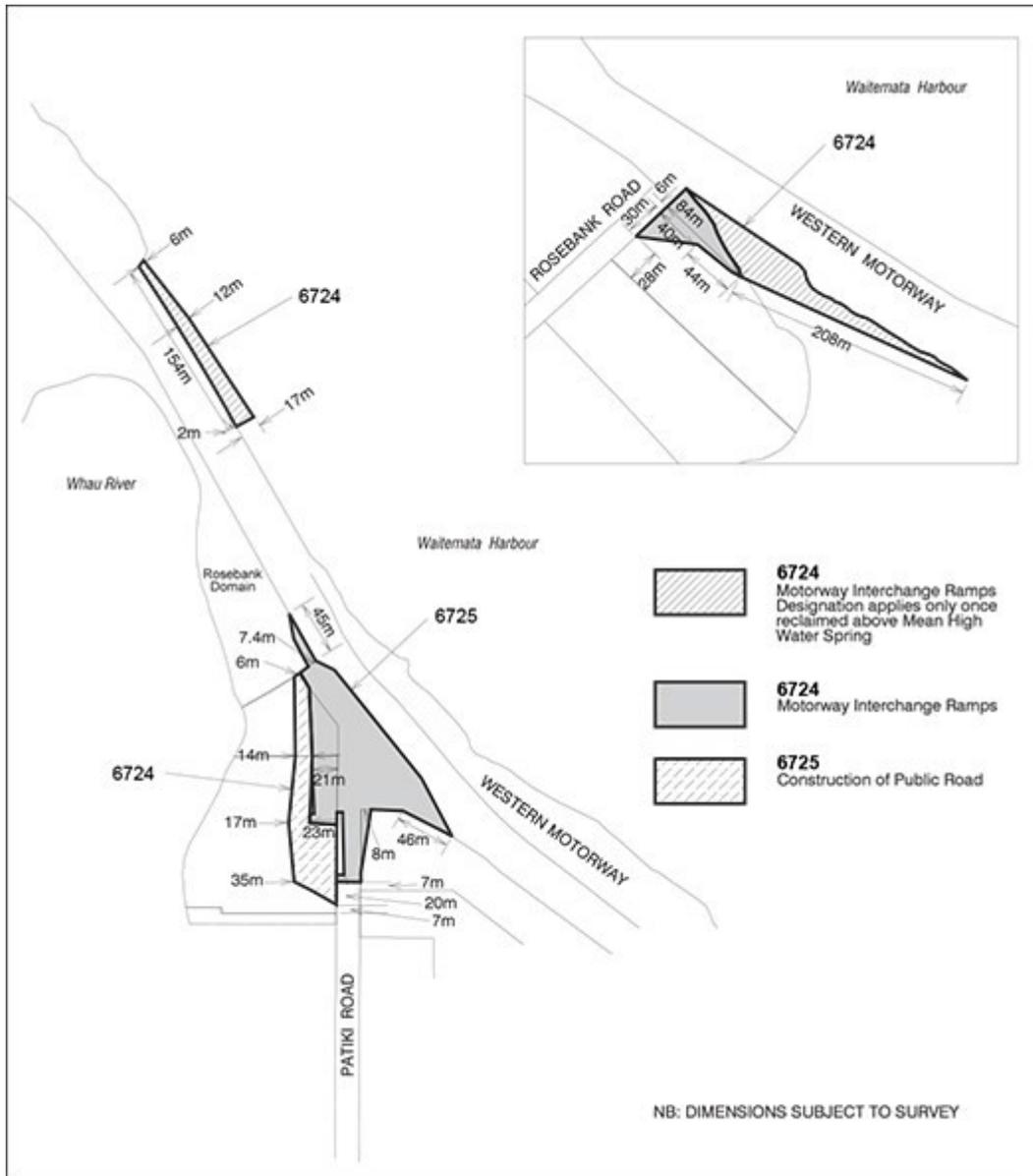


Figure 1: Motorway Interchange Ramps connecting Rosebank Peninsula with the North-western Motorway

## 6725 State Highway 16 - Avondale

Designation Number	6725
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 on Patiki Road, Avondale
Rollover Designation	Yes
Legacy Reference	Designation C01-07, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Construction of a public road to provide access to properties at the northern end of Patiki Road.

## Conditions

### Design of Works and Landscape Protection

1. That the development of the works be generally in accordance with Works Consultancy Services Plans No 1/60/48/5104/22 R2 (amended February 1994), No 1/60/48/5104/19 R2 (as amended June 1993) and No

1/60/48/5104/20; and Figure 4-3 "Rosebank/Patiki 2 - Ramps C & D" as lodged with the original notice of requirement, subject to any modification required to comply with these conditions.

2. That the on ramp "C" and the access road to Rosebank Domain be designed to ensure the protection of the copper beech tree scheduled in the Auckland District Plan (former Auckland District) as Item 3B-01 and that the following further measures be taken for its protection:

- a. A 1.8 metre solid protective fence be constructed outside the dripline of the tree to the satisfaction of Council's Arborist prior to works commencing in its vicinity; and
- b. Regular monitoring by a qualified arborist throughout the works.

3. That visual and landscape values be taken into account in the detailed design of the access road including the retention if practicable of existing trees and vegetation.

4. That the design and construction of the interchange shall not preclude the option of a cycleway along the motorway between Rosebank and Patiki Roads or the option of a cycleway via the off ramp to Rosebank Road.

### **Consents Prior to Works**

5. That prior to any works being commenced the following shall be obtained:

- a. Any necessary soil conservation or earthworks consents; and
- b. Any necessary discharge permits; and
- c. Any necessary authority to modify those archaeological sites likely to be affected, from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

### **Mitigation of Effects**

6. ~~Transit New Zealand~~ The New Zealand Transport Agency (NZTA) and its contractors shall take all necessary steps to prevent or mitigate:

- a. Any nuisance to properties adjacent to the works; and
- b. Any significant disturbance to breeding patterns or damage to habitats of the rare or threatened birds, arthropods or fungi found on Pollen Island, from dust, noise or vibration reasonably attributable to the construction of the works.

7. That any land taken or held for the works be maintained to a high standard until such works commence.

8. That the site of any works be reinstated and appropriately landscaped with suitable plant species. Eco-sourced plants that are genetically appropriate to the local environment should be used in the vicinity of the coast and Pollen Island in order to aid the preservation of the unique properties of this area.

9. That the effects of construction activity on wildlife on Pollen Island and related habitats be regularly monitored by suitably qualified persons at appropriate intervals throughout the project.

10. That the driving of motorway support piles is to be avoided wherever practicable and any activities likely to be particularly disturbing shall be timed to avoid breeding seasons of rare or protected birds found in the vicinity of Pollen Island.

11. That consent by ~~Transit New Zealand~~ The New Zealand Transport Agency (NZTA) for access to Pollen Island from the Motorway is not to be unreasonably withheld but should take into account any guidelines recommended by the Department of Conservation and the Royal Forest and Bird Protection Society of New Zealand.

12. That reasonable access be maintained to private properties at all times.

13. That the extent of land required to be taken for the works be defined by survey and that this information be made available as soon as possible to the affected property owners and occupiers.

14. That the access road between Patiki Road and Rosebank Domain be developed in consultation with Auckland City Council, ensuring as a minimum that:

- a. Both foot and vehicle access to the Domain and cycleway be maintained at all times during construction;
- b. Both the Domain and the cycleway be reinstated to an equivalent or superior standard to that now existing, on completion of the works; and
- c. Provision be made for the replacement to a reasonable standard of any utility services and connections to any new industrial sites.

15. That ~~Transit New Zealand~~ The New Zealand Transport Agency (NZTA) undertake to:

- a. Pay the full costs of any traffic signal installation at the intersection of Patiki and Rosebank Roads which is made necessary by the proposed works or the equivalent sum towards alternative intersection improvements at that location;
- b. Pay for the works at Patiki and Rosebank Roads as indicated on Works Consultancy Plans No 1/ 60/48/5104/19 R2 (amended June 1993) and No 1/60/48/5104/22 R2 (amended February 1994).

#### **Provision of Detailed Plans**

16. That detailed plans of the proposed works be made available to the Manager, Planning and Regulatory Services Department at least two months prior to the commencement of construction and that any reasonable changes requested by the said Manager to achieve the purpose of the requirement and with regard to the agreed to conditions within one month be complied with.

#### *Advice Note:*

Approval of plans under this Clause does not constitute building consent under the Building Act which must be separately obtained.

#### **Terms of Designation**

17. That the designation consent shall become effective only upon the prior consent of the Minister of Conservation to the proposed reclamations and that in any case the designation will not have effect on those areas to be reclaimed until such time as they are raised above mean high water spring.

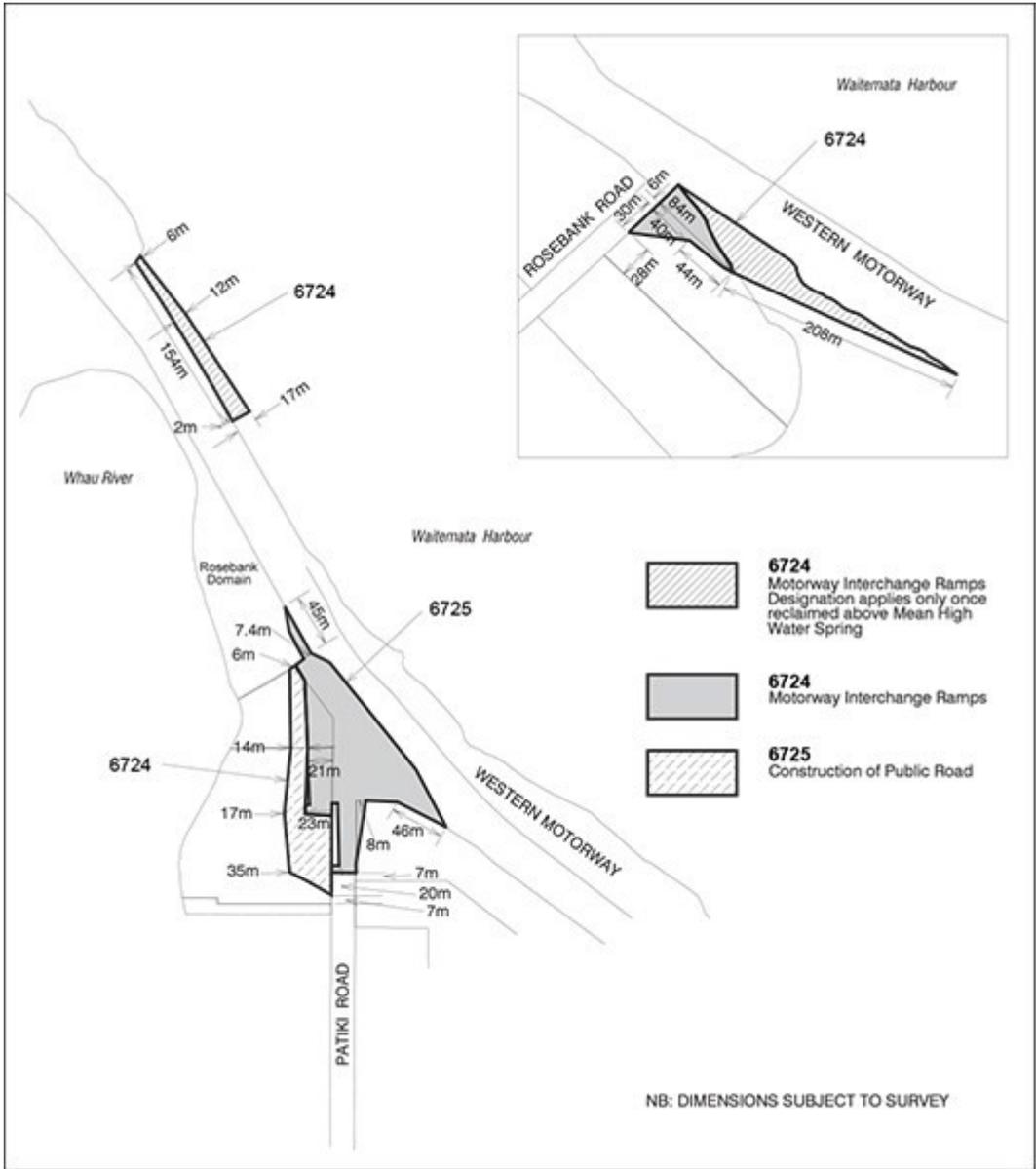
~~18. That the term of this designation shall be five years from the inclusion of the designation in the District Plan.~~

~~19. Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by section 78 of the Local Government (Auckland Transitional Provisions) Act 2010.~~

~~1820.~~ Any administrative charges incurred by the Council associated with the carrying out of its functions in relation to this designation shall be recoverable from the requiring authority.

#### **Attachments**

**Attachment 1: Motorway Interchange Ramps connecting Rosebank Peninsula with the Northwestern Motorway**



**6726 State Highway 20 - Waterview Connection Great North Road**

Designation Number	6726
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Great North Road (in the vicinity of Alverston Street) to the northern portal (vicinity of Great North Road interchange), Waterview
Rollover Designation	Yes
Legacy Reference	Designation D04-22, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<del>Five year from being operative in the Unitary Plan unless given effect to prior <u>June 2021</u></del>

**Purpose**

For a new designation, SH16, SH20 and Great North underpass – NOR4. A new surface designation for construction, operation and maintenance of new interchange and structures associated with tunnel operation, including ventilation building and stack, mitigation and local road access, taking in new pieces of land, and allowing for construction and operation of ramps, stormwater, wetland ponds, ancillary safety and operational services and maintenance, temporary works, vegetation removal and restoration, relocation of services, works on

north-western cycleway, landscaping and planting, open space restoration and restoration of the Oakley Inlet heritage area.

## Conditions

For a complete set of conditions, refer to the Waterview Connection Proposal Board of Inquiry decision titled "Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal - Volume 2" dated June 2011.

### General Designation Conditions

DC.1

Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA being the Requiring Authority), the Notice(s) of Requirement and the supporting documents, and supplementary information provided in evidence. This information is summarised as follows:

(a) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Parts A-E;

(b) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part F: Plans and Drawings, except as updated through the hearing (Refer Schedule A for current plan and drawing references); and

(c) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part G: Technical Reports:

- (i) Technical Report G.1 Assessment of Air Quality Effects
  - (ii) Technical Report G.2 Assessment of Archaeological Effects
  - (iii) Technical Report G.3 Assessment of Avian Ecological Effects
  - (iv) Technical Report G.4 Assessment of Coastal Processes
  - (v) Technical Report G.5 Assessment of Construction Noise Effects
  - (vi) Technical Report G.6 Assessment of Freshwater Ecological Effects
  - (vii) Technical Report G.7 Assessment of Groundwater Effects
  - (viii) Technical Report G.8 Assessment of Herpetofauna Ecological Effects
  - (ix) Technical Report G.9 Assessment of Land and Groundwater Contamination
  - (x) Technical Report G.10 Assessment of Lighting Effects
  - (xi) Technical Report G.11 Assessment of Marine Ecological Effects
  - (xii) Technical Report G.12 Assessment of Operational Noise Effects
  - (xiii) Technical Report G.13 Assessment of Ground Settlement Effects
  - (xiv) Technical Report G.14 Assessment of Social Effects
  - (xv) Technical Report G.15 Assessment of Stormwater and Streamworks Effects
  - (xvi) Technical Report G.16 Assessment of Temporary Traffic Effects
  - (xvii) Technical Report G.17 Assessment of Terrestrial Vegetation Effects
  - (xviii) Technical Report G.18 Assessment of Transport Effects
  - (xix) Technical Report G.19 Assessment of Vibration Effects
  - (xx) Technical Report G.20 Assessment of Visual and Landscape Effects
  - (xxi) Technical Report G.21 Construction Environmental Management Plan (CEMP)
  - (xxii) Technical Report G.22 Erosion and Sediment Control Plan (ESCP)
  - (xxiii) Technical Report G.23 Coastal Works
  - (xxiv) Technical Report G.24 Geotechnical Interpretive Report
  - (xxv) Technical Report G.25 Traffic Modelling Report
  - (xxvi) Technical Report G.26 Operational Model Validation Report
  - (xxvii) Technical Report G.27 Stormwater Design Philosophy Statement
  - (xxviii) Technical Report G.28 Geotechnical Factual Report – 500 Series
  - (xxix) Technical Report G.29 Geotechnical Factual Report – 700 Series
  - (xxx) Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads
  - (xxxi) Technical Report G.31: Technical Addendum Report (September 2010)
- (d) PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).
- (e) Waterview Connection Project, Evidence and Supplementary Information provided to the Board of Inquiry:
- (i) Evidence in Chief (Numbers 1-37)
  - (ii) Rebuttal Evidence (Numbers 1-33)

(iii) Supplementary Information (Numbers 1-8)

DC.1A

Within 3 months of the designations being confirmed for the Project (or at least 1 month prior to any Auckland Council approvals or certifications required by these Conditions, whichever is the earlier), the NZTA shall update and finalise to the satisfaction of the Major Infrastructure Team Manager, Auckland Council all drawings and Plans cited in Schedule A, and provide a full set of the information and documentation referred to in Condition DC.1 to the Major Infrastructure Team Manager Auckland Council. At the same time the NZTA shall prepare to the satisfaction of the Major Infrastructure Team Leader, Auckland Council, a document for each designation which sets out the designation and have attached to it in text format a comprehensive set of the conditions imposed by the Board of Inquiry in its Final Decision as summarised in Schedule B, inclusive of any standard conditions and advice notes.

In particular (but not limited to), the following Plans will need to be amended in light of these Final Conditions:

- (a) F.2 Operational Scheme Plans (refer Schedule A, Row 3) require amendment detailing the amended location of the ventilation stacks and southern ventilation buildings;
- (b) F.5 Construction Scheme Plans (refer Schedule A, Row 4) require amendment to detail changes to the construction footprint for the amended location of the ventilation stacks and southern ventilation buildings and reconfiguration of Construction Yard 1);
- (c) F.6 Construction Yard Plans 101 and 107 (refer Schedule A, Row 7), detailing amendments to the Construction Yard 1 in light of the reconfiguration of this Yard and for Construction Yard 7 in light of the relocation of the northern ventilation stack (refer Schedule A, Row 34);
- (d) F.8 Plans of Structures and Architectural Features (refer Schedule A, Row 9), detailing the amended location of the northern ventilation stack and the design and location of the southern ventilation building and stack;
- (e) The CNVMP (including flow diagram and the supplementary evidence produced by Ms Wilkening) (refer Schedule A, Rows 36, 37 and 39);
- (f) The areas of the Open Space Restoration Plans (Schedule A, Row 30) to:
  - (i) Extend these areas in geographic extent to provide for the works identified in the Management Plan notations identified in the OS Conditions (in particular OS.5 and OS.6) (e.g. these areas will (as relevant) include Eric Armishaw Park, Howlett Reserve and Waterview Esplanade Reserve); and
  - (ii) Exclude the operational area of designation required for the northern ventilation stack (as identified through the OPW process (refer Condition DC.8); and
- (e) Schedule A, Row 28 the Plan detailing proposed open space impacts and replacements needs to be updated to recolour the two land parcels on Hendon Avenue (which are excluded from the replacement calculations) to 'brown' to confirm they are part of the operational impact and will not be returned as open space.

DC.2

The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991.  
~~The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

DC.3

The NZTA shall update and finalise the relevant Construction and Operational Management Plans required under these conditions to ensure compliance with the designation conditions imposed by the Board of Inquiry. The relevant Management Plans shall be submitted to the Major Infrastructure Team Manager, Auckland Council within the timeframes specified in the following conditions. No works shall be undertaken until the relevant management plans have been finalised and certified or approved in accordance with the relevant conditions.

DC.4

Any Management Plans submitted to the Major Infrastructure Team Manager, Auckland Council for approval or certification may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted shall clearly show the integration with adjacent stages and interrelated activities.

#### DC.5

In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager certification/ approvals required by the designation conditions, or as to the implementation of or monitoring required by the conditions, matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a process of resolution. If a resolution cannot be agreed, then the matter may be referred to an independent appropriately qualified expert, agreeable to both parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree. The independent appropriately qualified expert shall be appointed within 10 working days of the NZTA or Auckland Council giving notice of their intention to seek expert determination. The expert shall, as soon as possible, issue his or her decision on the matter. In making the decision, the expert shall be entitled to seek further information and hear from the parties as he or she sees fit.

Advice note: The dispute resolution process provided for in this condition does not prejudice any party's right to take enforcement action in relation to the implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except in urgent situations.

#### DC.6

Except for Conditions DC.7, DC.8 and DC.9, the NZTA shall be exempt from providing an Outline Plan of Works for the Project, as provided for in Section 176A (2)(a) and (b) of the RMA.

Advice note: The Construction and Operational Management Plans, together with the provision of detailed drawings required by Condition DC.1(b) are considered sufficient detail in all aspects of the Project, with the exception of proposed works for the northern and southern ventilation buildings and stacks where further details are required.

#### DC.7

An Outline Plan of Works shall be prepared for the Northern and Southern Ventilation Buildings and Stacks (OPW1 and OPW2) (in the general location as shown in the Operational Scheme Plans F.2 (Schedule A, Row 3) as shown on Figures DC.A and DC.B) in accordance with Section 176A of the RMA and Conditions DC.8 and DC.9 below and submitted to the Major Infrastructure Team Manager, Auckland Council.

For the purposes of Conditions DC.8 and DC.9, the following definitions shall apply:

- (a) Control Building – A building or buildings associated with the staffed control of the tunnel operating systems (including CCTV systems or surveillance). This precludes the inclusion or attachment of any equipment unrelated to the structure or operation of the control building.
- (b) Ventilation Building – A building or buildings associated with the operation and maintenance of the tunnels and associated ventilation system (including power and emergency water supply). This precludes the inclusion or attachment of any equipment unrelated to the structure or operation of the ventilation building.
- (c) Ventilation Stack (stack) - A structure which channels air emissions to a height in the atmosphere which is suitable to disperse the emissions and result in an acceptable ambient air quality. This precludes the inclusion or attachment of any equipment unrelated to the structure or operation of the ventilation stack.

#### DC.8

Outline Plan of Works for the Northern Ventilation Buildings and Stack (OPW1) (refer Figure DC.A)

OPW1 shall be prepared in accordance with Section 176A of the RMA. The final form of the Northern Ventilation Buildings and Stack shall be in accordance with the design principles of Section B of the Urban Landscape and Design Framework (ULDF June 2010) (refer Schedule A, Row 38) and the following requirements:

- (a) Retention of the same building / structural components underground as per the revised Drawing Set F.8, specifically Drawing 9 'North Portal - Basement Floor Plan' and above ground, specifically Drawing 8 'North Portal Location Plan' (refer Schedule A, Row 9) (subject to the amendments to location required by subclause (c) below);
- (b) Creation of a fragmented form for the ventilation buildings, such that the aboveground building is broken down into small, discrete elements – broadly similar in scale to that of nearby residential and school buildings;

- (c) Location of the ventilation stack on the eastern side of Great North Road, within the OPW area identified on Plan DC.A. The precise location within the OPW area shall be a matter of consultation with the Community Liaison Group(s) as established by Condition PI.5;
- (d) Ensure that any required roof linkages do not dominate the form of the building nor make it register visually as a single entity;
- (e) Development of an architectural profile, detailing and material palette that references the local landscape/ geology/ coastline/ residential area in the design of the aboveground ventilation buildings and for the ventilation stack to avoid an industrial character;
- (f) Maximisation of areas of planted open space between buildings, structures and vehicle movement/ parking areas;
- (g) Maximisation of the quantum of limbed-up (to promote visibility and surveillance (in accordance with CPTED principles)), large scale, specimen tree planting between buildings, structures and vehicle movement / parking areas surrounding the ventilation buildings;
- (h) Treatment of the ventilation building and ventilation stack as objects of urban sculpture;

#### DC.10

The NZTA shall give notice to the Manager Regional and Local Planning, Auckland Council in accordance with Section 182 and 181 respectively of the RMA for:

- (a) Within six months of the State highway opening (being operational), removal of those parts of the designation that are not required for the long term operation, maintenance and mitigation of effects of the State highway.

Note: this condition is specific to land no longer required for construction purposes once the Project is completed and includes the land of 6 Barrymore Road, refer Condition OS.17.

- (b) The designation to be altered to remove those conditions no longer required for long term operation and maintenance of the Project.

#### DC.12

Unless otherwise provided for by Condition RC.2, if any monitoring required to be undertaken by any party by the designation conditions indicates non-compliance with any designation condition, the NZTA must provide written notice to the Major Infrastructure Team Manager Auckland Council as soon as it becomes aware of same, stating the following:

- (a) A description of the non-compliance; and
- (b) The measures NZTA proposes for addressing the non-compliance, including any additional mitigation measures.

Subject to the Council's approval, the NZTA must implement the additional mitigation measures to address the non-compliance.

#### DC.13

Pursuant to Section 36(1)(d) of the RMA, the requiring authority is required to pay to Auckland Council any administrative charge for the carrying out by the local authority of its functions in relation to the administration, monitoring, and supervision of designation conditions.

#### DC.14

The servants of agents of Auckland Council shall be permitted to have access to relevant parts of the Project at all reasonable times for the purpose of carrying out inspections, investigations, tests, measurements and/or to take samples.

### **Construction Environment Management Plan Conditions**

#### **CEMP.1**

Except where provided for in Condition CEMP.1A below, the NZTA shall update and finalise the draft Construction Environmental Management Plan (CEMP) including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until certification is

obtained.

Advice note: For clarity the CEMP will be updated and finalised in accordance with the conditions. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register.

Advice note: Particular care must be taken with development and operation of Construction Yard 7. When the CEMP is being updated and finalised, consideration must be given to the contents of the draft SSCEMP prepared for Construction Yard 7 (Row 41, Schedule A) recognising changes required by inclusion of the ventilation stack in this yard.

#### CEMP.2

The certification process of the CEMP (and its appendices) shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in CEMP.6, and that it includes details of:

- (a) Staff and contractors' responsibilities;
- (b) Training requirements for employees, sub-contractors and visitors;
- (c) Environmental incident and emergency management;
- (d) Communication and interface procedures (in accordance with the Communication Plan required under Condition PI.2);
- (e) Environmental complaints management (including the procedures required under Condition PI.4);
- (f) Compliance monitoring;
- (g) Reporting (including detail on the frequency of reporting to the Auckland Council);
- (h) Environmental auditing; and
- (i) Corrective action.

#### CEMP.3

The management of key environmental effects associated with the construction phase of the Project is detailed within environmental management plans that are included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- (a) Construction Noise and Vibration Management Plan (CNVMP);
- (b) Construction Air Quality Management Plan (CAQMP);
- (c) Erosion and Sediment Control Plan (ESCP);
- (d) Temporary Stormwater Management Plan (TSMP);
- (e) Ecological Management Plan (ECOMP);
- (f) Groundwater Management Plan (GWMP);
- (g) Settlement Effects Management Plan (SEMP);
- (h) Contaminated Soils Management Plan (CSMP);
- (i) Hazardous Substances Management Plan (HSMP);
- (j) Archaeological Site Management Plan (ASMP);
- (k) Construction Traffic Management Plan (CTMP);
- (l) Concrete Batching and Crushing Plant Management Plan (CBCPMP);
- (m) Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP) (to be prepared in accordance with Condition CEMP.15);
- (n) Waste Management Plan (to be prepared in accordance with Condition CEMP.10); and
- (o) Temporary Construction Lighting Management Plan (to be prepared in accordance with Condition L.2).

#### CEMP.4

The CEMP shall be implemented and maintained throughout the entire construction period.

#### CEMP.5

A copy of the CEMP shall be held on each construction site at all times and be available for inspection on request by the Auckland Council.

#### CEMP.6

The finalised CEMP shall include specific details on demolition, construction and management of all works

associated with the Project. The certification process of the CEMP shall confirm that the CEMP includes details of the following:

- (a) Details of the site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) The location of large notice boards that clearly identify the NZTA and the Project name, together with the name, telephone, email address and address for service of the site or Project manager and the community liaison person;
- (c) An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- (d) The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;
- (e) Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- (f) Location of worker's offices and conveniences (e.g. portaloos);
- (g) Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- (h) Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (Nov 2007);
- (i) Procedures for ensuring that residents within 100m of construction areas or other people whose use of an area may be disrupted by construction works (for example the Te Atatu Boating Club for works on the Whau River) are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- (j) Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- (k) Means of ensuring the safety of the general public;
- (l) Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- (m) Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- (n) All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- (o) Confirmation of a Project Arborist and completion of a STEM assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE to confirm the final Amenity Trees; and
- (p) The process to minimise removal of Amenity Trees, maximise the protection of those retained, undertake relocation of Amenity Trees and replacement planting of specimen trees (in accordance with Conditions LV.10 and ARCH.9)).
- (q) Advice note: For the purposes of CEMP.6(o) and (p), Amenity Tree is defined as a tree or trees that contribute significantly to amenity, taking into account its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE).

#### CEMP.7

The layout of the 12 Construction Yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans (Refer Schedule A, Row 7). The layout drawings shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- (a) The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview Connection Project Construction Yards Drawings (Refer Schedule A, Row 7);
- (b) Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings; Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;
- (c) Temporary acoustic fences and visual barriers;
- (d) Temporary buildings greater than 8 metres in height to be located in a position which minimises visual

impact on adjacent residential dwellings; and Location of workers' and Project vehicle parking.

#### CEMP.8

All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

#### CEMP.9

Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

#### CEMP.10

The NZTA shall finalise and implement the Hazardous Substances Management Plan (HSMP), through the CEMP (as per Condition CEMP.1), submitted with this application, prior to works commencing on site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the Project and confirm that there shall be no storage of explosives on the Project site.

#### CEMP.11

The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the CEMP. The Plan shall be provided to the Major Infrastructure Team Manager, Auckland Council and be implemented throughout the entire construction period.

#### CEMP.12

The CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the Project. The review shall take into consideration:

- (a) Compliance with designation and consent conditions;
- (b) Any changes to construction methods;
- (c) Key changes to roles and responsibilities within the Project;
- (d) Changes in industry best practice standards;
- (e) Changes in legal or other requirements;
- (f) Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- (g) Public complaints.

A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Team Manager, Auckland Council and made available (with any related data) to the Auckland Council upon request.

#### CEMP.13

Following the review process (as described in Condition CEMP.12), the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

#### Advice Note:

Material change will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.

#### CEMP.14

The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction

Management Plan (EISDCMP). The EISDCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council, and include:

(a) Methods and measures:

(i) To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.

(ii) To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines

(iii) To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures.

(iv) To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.

(b) Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.

(c) Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:

(i) Clause 2.2 with respect to excavations near overhead support structures;

(ii) Clause 2.4 with respect to buildings near overhead support structures;

(iii) Section 3 with respect to minimum separation between buildings and conductors;

(iv) Section 5 with respect to minimum safe distances for the operation of mobile plant; and,

(v) Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.

(d) Confirmation that Transpower has been provided a copy of the EISDCMP for their review at least 20 working days prior to construction.

Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as Project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).

#### CEMP.15

The NZTA will be responsible for all service relocations required for construction of the Project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to water, gas, stormwater, wastewater, power and telecommunications), and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the Project, with the objective of minimising disruption to the operation of these service networks and onsite services.

Advice note:

(a) It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.

(b) Network infrastructure owned and operated by Watercare Services is located within the designations. An operating agreement will be developed by the NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.

#### Public Information Conditions

##### PI.1.

A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

##### PI.2.

The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the

public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions).

In preparing the Communications Plan, the NZTA will liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

- (a) The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;
- (c) The database of stakeholders and residents who will be communicated with;
- (d) Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);
- (e) The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);
- (f) Any stakeholder specific communication plans required; and
- (g) Monitoring and review procedures for the Communications Plan.

The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these conditions is attached as Figure PI.A.

#### PI.3.

At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- (a) Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- (b) Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

#### PI.4.

The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- (a) A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- (b) The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- (c) Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- (d) The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;
- (e) Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and

(f) All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

PI.5.

The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- (a) Te Atatu (including the SH16 Causeway)
- (b) Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- (c) Owairaka

and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- (a) Auckland Council and Auckland Transport;
- (b) Educational facilities within the Project area (including schools, kindergartens, childcare facilities and Unitec Institute of Technology);
- (c) Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;
- (d) Department of Conservation;
- (e) Local Boards;
- (f) Iwi groups with Mana Whenua;
- (g) Public transport providers; and
- (h) Housing New Zealand Corporation.

Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.

PI.6.

The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things):

- (a) The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k);
- (b) The Open Space Restoration Plans (as required by Condition OS.3);
- (c) Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);
- (d) The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);
- (e) The detail of the Oakley Creek restoration (as required by Condition STW.20);
- (f) Publicly available results of environmental monitoring as required by the designation and/or these Consents (e.g. air quality monitoring); and
- (g) The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to be removed for consideration of timber use in heritage projects as required by Condition SO.7.

Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.

- (h) Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

## Temporary Traffic Conditions

### TT.1

The NZTA shall update and finalise the Construction Traffic Management Plan (CTMP) submitted with this application, in accordance with these conditions, and implement it through the CEMP.

In finalising the CTMP, the NZTA shall:

- (a) Provide simulation modelling demonstrations to better understand the effects of construction of the Project on the affected road network;
- (b) Include measures to avoid road closures and restrictions of vehicle, bus, cycle and pedestrian movements;
- (c) Where road closures or restrictions cannot reasonably be avoided the particular vulnerabilities and sensitivities of pedestrian diversions and restricted conditions shall be taken into account in the planning of any closures or restrictions.

### TT.2

The CTMP shall require the development of Site Specific Traffic Management Plans (SSTMPs) and their approval by the Traffic Management Project Governance Group (as defined by the CTMP), for each construction activity that may affect traffic or transportation infrastructure and services. The SSTMPs shall be provided to the Traffic Management Coordinator(s) for the relevant Road Controlling Authority at least 10 working days prior to each construction activity.

### TT.3

Each SSTMP shall describe the measures that will be undertaken to avoid, remedy or mitigate the local and network wide effects of construction of the Project. In particular, the SSTMP shall include the following matters:

- (a) Traffic management measures to address and maintain, traffic capacity, including bus services, at peak traffic periods during weekdays (6:00 to 9:00 and 16:00 to 19:00) and peak traffic periods at weekends (including Te Atatu Road, Great North Road and Richardson Road);
- (b) Methods to manage the effects of traffic during construction including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area;
- (c) Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- (d) Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/ overbridges) and the use of staging to allow sections of the Project to be opened to the traffic while other sections are still under construction;
- (e) Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks) during construction;
- (f) Any routes where construction traffic movements will be restricted (either for particular times for construction periods);
- (g) Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works, measures to provide alternative access arrangements in consultation with the Auckland Council and the affected landowner; and
- (h) Measures to maintain pedestrian and cycle access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable (e.g. unless provision of such access is severed by the works or such access will become unsafe as a result of the construction works). Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. (This Condition does not act as a qualification to the commitment to maintain access to open space and education facilities, as required in Condition OS.13).

### TT.4

The SSTMPs shall include traffic management measures developed in consultation with the Auckland Transport, Bus and Coach Association and the Auckland Council, to address and maintain, where practicable, existing levels of service for buses particularly at peak periods (6:00 to 9:00 and 16:00 to 19:00) on weekdays.

### TT.5

The NZTA shall consult with the Traffic Operations Manager, Auckland Transport with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation. The NZTA shall

also coordinate and consult directly with the proponents of any major construction or major traffic generating event occurring concurrently with, and in the vicinity of the Project.

#### TT.6

The SSTMPs shall include measures developed in consultation with Auckland Transport to, as far as practicable, enable continued public walking and cycling passage along the existing Northwestern Cycleway (between Te Atatu Interchange and St Lukes Interchange) and along Great North Road and the public walkway along Oakley Creek, with any interruptions being as short as feasible.

#### TT.7

The NZTA shall undertake construction works so as to avoid significant long duration impacts or the full closure of Te Atatu Road for all road users heading to or from the Te Atatu Peninsula and to ensure that access for emergency service vehicles is maintained.

#### TT.8

The NZTA shall restrict construction truck movements during peak hours (6:00 to 9:00 and 16:00 to 19:00) on weekdays and during the peak periods at the weekends to avoid the following:

- (a) Te Atatu Road Interchange, during both morning and afternoon peak hours
- (b) Great North Road Interchange, city bound during the morning peak hours
- (c) Great North Road Interchange, west bound onto SH16 and southbound onto Great North road during the afternoon peak.

Construction truck movements during these hours shall only be allowed under exceptional circumstances agreed in advance with the Traffic Management Project Governance Group.

#### TT.9

The NZTA shall maintain at least the existing active traffic lane configuration capacity on SH16, at the Te Atatu Interchange area, Te Atatu Road, Richardson Road and on Great North Road during peak periods being 6:00 to 9:00 and 16:00 to 19:00 on weekdays and during the peak periods on weekends, for the duration of the temporary construction programme.

#### TT.10

The NZTA shall monitor the impact of construction traffic in terms of traffic speeds and volumes on SH16, Great North Road, Te Atatu Road and Richardson Road throughout the construction period to confirm the expected traffic effects as set out in the Temporary Traffic Assessment (Technical Report G.16) submitted with this application.

- (a) This monitoring will be undertaken on a daily, weekly and monthly basis; and
- (b) Monitoring results will be made available to the Traffic Operations Manager, Auckland Transport on request.

#### TT.11

If monitoring undertaken pursuant to Condition TT.10 indicates that traffic volumes or traffic conditions are significantly different from those expected, the SSTMPs will be reviewed and as appropriate amended to the satisfaction of the Traffic Management Project Governance Group.

### **Operational Traffic Conditions**

#### **Integration with Local Road Network**

##### OT.1

The NZTA shall prepare in collaboration with Auckland Transport a Network Integration Plan (NIP) for the Project, or relevant Project phases, to demonstrate how the Project integrates with the existing local road network and with future improvements (identified in the Western Ring Route (Northwest) Network Plan) planned by the Auckland Council. The NIP shall include details of proposed physical works at the interface between the State highway and the local road network, and shall address such matters as pedestrian/ cycle ways, lane configuration, traffic signal co-ordination, signage and provision for buses.

In addition, the NIP will address:

- (a) The commitment of the NZTA to progress bus priority measures northbound on Great North Road as part of

the reinstatement of Great North Road, as proposed by Auckland Transport and indicated on the Plans Great North Road Option 1 Proposed Road Marking (Schedule A, Row 33), subject to the agreement with Auckland Transport;

(b) How the works committed to by the NZTA for pedestrian and cycle ways, as detailed in the PT and Active Mode Transport Routes Plan Set (Condition DC.1(d) (refer Schedule A, Row 22)), integrate with pedestrian and cycle ways on the wider transport network;

(c) The Richardson Road Bridge, which shall be designed in general accordance with the structural plans (Schedule A, Row 9) and the commitment of the NZTA to provide a 2m footpath on Richardson Road Bridge, subject to confirming appropriate bus stop locations with Auckland Transport;

(d) Integration of the works proposed on Te Atatu Road to appropriately transition between the Waterview Connection Project and any projects being progressed by Auckland Transport;

(e) Opportunities to review traffic signal timings at the Te Atatu Interchange with a view to minimising delays to all users, including cyclists on the SH16 cycle way; and

(f) The commitment of the NZTA to provide for cycle “aspects” (cycle signal lights) at the Great North Road Interchange.

(g) As part of detailed design at the Te Atatu Interchange, the installation of underpasses and/or overbridges, provided however that should some not prove feasible in civil or traffic engineering design terms, the installation of coordinated traffic signal operation for cyclists on the north-western cycleway by means of synchronised cycle lights which seek to reduce delays for cyclists.

Works identified in the NIP which are the responsibility of the NZTA, will be undertaken as at the time of construction works for the Project.

The NZTA shall prepare a Tunnel Traffic Operation Plan in consultation with the Auckland Transport and Auckland Council. The Plan shall include, but not be limited to:

(a) Procedures for tunnel operational safety, including fire-life safety;

(b) Procedures for maintenance requirements.

(c) Procedures for managing traffic to avoid or minimise potential congestion within the tunnel, particularly during peak periods.

(d) Procedures for the management of traffic during incidents.

(e) Procedures for the operation of tunnel fans and the management of portal emissions.

(f) Confirmation that all equipment has been tested and operates in accordance with requirements and specifications.

The Tunnel Traffic Operation Plan shall be completed and provided to Auckland Transport and to the Major Infrastructure Team Manager, Auckland Council (in respect of Condition OT.2(e)), prior to operational use of the tunnelled section of SH20.

Advice note: The operation and maintenance of the air quality monitoring equipment inside the tunnel shall follow manufacturer’s recommendations.

## **Noise and Vibration Conditions – Construction**

### **CNV.1**

The NZTA shall finalise and implement through the CEMP, a Construction Noise and Vibration Management Plan (CNVMP) throughout the entire construction period of the Project.

The CNVMP shall describe the measures adopted to meet:

(a) the noise criteria set out in Conditions CNV.2 and 3 below;

(b) the vibration criteria set out in Condition CNV.4 below; or

(c) where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

(i) Construction noise and vibration criteria (Conditions CNV.2, CNV.3, and CNV.4);

- (ii) Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;
- (iii) Machinery and equipment to be used;
- (iv) Vibration testing of equipment to confirm safe distances to buildings prior to construction;
- (v) Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;
- (vi) Roles and responsibilities of personnel on site;
- (vii) Construction operator training procedures;
- (viii) Methods for monitoring and reporting on construction noise and vibration;
- (ix) A hierarchy of mitigation options that will be assessed for the Project noise mitigation, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved;
- (x) Management schedules containing site specific information;
- (xi) Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically:
  - PPFs located within a horizontal distance of 35 metres of underground excavation works, along the tunnel alignment shall receive prior notification not greater than 7 days (and not less than 24 hours) prior to the commencement of works.
  - Methods for ensuring residents affected by night works (within 100m of the construction site night works, as defined on the maps (refer Schedule A, Row 35) are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.
  - The maps showing PPFs to be notified of night works (refer Schedule A, Row 35, shall be reviewed and included within the CNVMP.
- (xii) Methods for receiving and handling complaints about construction noise and vibration;
- (xiii) Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover);
- (xiv) Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation (as per Condition CNV.7);
- (xv) Investigations of the practicability of implementing Building Modification mitigation, as required in accordance with Conditions ON.6 and ON.11, prior to commencement of construction within 100m of the relevant PPFs (including those on the Unitec site); and
- (xvi) The process for developing Site Specific Noise Management Plans (SSNMP), in accordance with the SSNMP Flow Chart (refer Schedule A, Row 36), including templates and a certification process for the Major Infrastructure Team Manager, Auckland Council (in accordance with Condition CNV.13) to confirm the process of SSNMP review of noise mitigation options where, the modelled/predicted levels or subsequent actual levels exceed the criteria in Conditions CNV.2 and/or CNV.4.

#### CNV.2

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 "Acoustics - Construction Noise" and shall comply with the following criteria:

Note: In Condition CNV.2 (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999.

#### (a) Project Construction Noise Criteria: Residential Receivers

Time of Week	Time period	Project Construction Noise Criteria (Long Term Construction)		
		dB		
		Sectors 1-7	Sectors 8-9	All Sectors
		LAeq(T)	LAeq(T)	LAeq(T)
Monday- Saturday	0630-0730	60	45	75
	0730-1800	70	70	85
	1800-2000	65	65	80
	2000-0630	60	45	75
Sundays and Public	0630-0730	45	45	75
	0730-1800	60	45	85

Holidays	1800-2000	45	45	75
	2000-0630	45	45	75

(b) Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	LAeq(T)
0730-1800	70
1800-0730	75

(c) Project Construction Noise Criteria: Internal Structure-borne Noise from tunnelling for Residential Receivers

Time Period	Project Construction Noise Criteria Inside	
0600-2200	35 dB LAeq(T)	All habitable rooms
2200-0600	30 dB LAeq(T)	Bedrooms

(d) Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside	
Teaching Hours	45 dB LAeq(T)	Classrooms, library, offices, teaching, laboratories, manual arts, workshops
Teaching Hours	40 dB LAeq(T)	School hall, lecture theatres

Note: In Condition CNV2(d) "Teaching hours" means: Primary schools and Kindergartens: 9am to 3pm Unitec: 8am to 9pm

CNV.3

Project Construction Noise Criteria: Airblast (excluding Sundays)

Category	Type of Blasting Operations	Peak Sound Pressure Level (LZpeak dB)
<b>Human Comfort Limits</b>		
Sensitive Site	Operations lasting longer than 12 months or more than 20 Blasts	115 dB for 95% blasts per year. 120 dB maximum unless agreement is reached with occupier that a higher limit may apply
Sensitive Site	Operations lasting less than 12 months or less than 20 Blasts	120 dB for 95% blasts per year. 125 dB maximum unless agreement is reached with occupier that a higher limit may apply
Occupied non-sensitive sites such as factories and commercial premises	All blasting	125 dB maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications of levels that can be shown to adversely affect the equipment operation
<b>Damage Control Limits</b>		
Structures that include masonry, plaster and plasterboard in their construction and also unoccupied structures of reinforced concrete or steel construction	All blasting	133 dB unless agreement is reached with owner that a higher limit may apply.

Service structures such as pipelines, powerlines and cables located above ground	All blasting	Limit to be determined by structural design methodology
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#### CNV.4

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 "Structural vibration – Part 3: Effects of vibration on structures", and shall comply with the criteria set out as follows:

Type of Structure	Short-term vibration			Long-term vibration	
	PPV at the foundation at a frequency of			PPV at horizontal plane of highest floor (mm/s)	PPV at horizontal plane of highest floor (mm/s)
	1-10 Hz (mm/s)	1-50 Hz (mm/s)	50-100 Hz (mm/s)		
Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive structures	3	3-8	8-10	8	2.5

#### CNV.5

Notwithstanding Condition CNV.3 above,

(a) Blasting activities shall be conducted so that 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

(b) Construction activities, which occur within Sectors 1, 6, 8 and 9 which are identified in Technical Report no. G.19 Assessment of Vibration Effects, as being at a 'High Risk' of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

#### CNV.6

Blasting shall be undertaken between 09:00h and 17:00h, Monday to Saturday, except that blasting may be undertaken between 09:00h and 17:00h on Sundays where:

- (a) The blasting is at least 50m inside the Sector 8 tunnel;
- (b) The blasting produces peak particle velocities at any residential building not exceeding 0.5mm/s; and
- (c) The Project construction noise criteria set out in Condition CNV.2 for Sundays are complied with.

#### CNV.7

Where practicable, permanent (traffic) noise barriers, required in any Sector as Detailed Mitigation Options for operational noise following completion of the Project (in accordance with Conditions ON.3 to ON.5) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented in accordance with the CNVMP, prior to noise generating construction works commencing.

#### CNV.8

Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

#### CNV.9

The concrete batch plants, rock crushing plants and the loading bays and conveyors for such plants shall be fully enclosed.

#### CNV.10

If noise and vibration monitoring of the tunnelling works for the Project (in accordance with Condition CNV.1),

indicates that the noise or vibration criteria of Conditions CNV.2(c) or CNV.4 will potentially be exceeded and that temporary relocation will be offered for residents at 1510 Great North Road, then relocation (and temporary transportation) shall be arranged with the leaseholder at 1510 Great North Road for tenants (with at least 1 months' notice to the leaseholder prior to relocation). Any accepted offer of relocation is to be in place prior to tunnelling works within 50m of the building at 1510 Great North Road.

#### CNV.11

For all other properties, if noise and vibration monitoring of the tunnelling works for the Project (in accordance with Condition CNV.1), indicates that the noise or vibration criteria of Conditions CNV.2 or CNV.4 will potentially be exceeded, then the process set out in the CNVMP will be undertaken including Site Specific Noise Management Plans. Where relocation for residents is proposed, notification of such relocation with residents and property owners will be undertaken in accordance with the processes contained in the CNVMP.

#### CNV.12

Any relocation required by CNV.10 will not be undertaken in the period between 10 working days prior to any Unitec examinations and the completion of those examinations.

#### CNV.13

SSNMPs (required by Condition CNV.1(xvi)) above, shall be submitted to Major Infrastructure Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing. A decision will be provided by the Council within 5 working days of receipt of the SSNMP.

Works will not commence until certification is received from the Major Infrastructure Team Manager, Auckland Council. The Council may, at its discretion, waive the requirement for SSNMPs to be submitted to the Council where an SSNMP is required.

If monitoring shows that levels specified in a SSNMP are being exceeded, work generating the exceedence will stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP certified by Council.

Advice note: It is accepted that the criteria of CNV.2 and CNV.4 may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in Condition CNV.1 (ix).

### **Noise Conditions – Operation**

#### ON.1

For the purposes of Conditions ON.2-ON.14 the following terms will have the following meanings:

- Appendix E – means Appendix E to the Technical Report G.12 'Assessment of Operational Noise Effects' submitted with this application.
- BPO – means Best Practicable Option.
- Building Modification Mitigation – has the same meaning as in NZS 6806:2010.
- Design Year – means a point in time that is 10 years after the opening of the Project to the public
- Emergency Mechanical Services – means mechanical services used for emergency situations only.
- Habitable room – has the same meaning as in NZS 6806:2010.
- Noise Criteria Categories – means groups of preference for time-averaged sound levels established in accordance with NZS 6806:2010 when determining the BPO mitigation option; i.e. Category A - primary noise criterion, Category B - secondary noise criterion and Category C - internal noise criterion.
- NZS 6806:2010 – means NZS 6806:2010 Acoustics – Road-Traffic Noise – New and Altered Roads.
- PPFs – means only the premises and facilities identified in green, yellow or red in Appendix E.
- Structural mitigation – has the same meaning as in NZS 6806:2010.

#### ON.2

The NZTA shall implement the traffic noise mitigation measures identified as the "Preferred Mitigation Options" in Appendix E as part of the Project, in order to achieve the Noise Criteria Categories indicated in Appendix E ("Identified Categories"), where practicable and subject to Conditions ON.3-ON.11 below.

#### ON.3

The detailed design of the structural mitigation measures of the "Preferred Mitigation Options" (the Detailed Mitigation Options) shall be undertaken by a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council prior to construction of the Project, and, subject to Condition ON.4, shall include, as a minimum, the following:

- (a) Noise barriers with the location, length and height in general accordance with Appendix E and designed in accordance with the ULDF (Section B) (refer Schedule A, Row 38); and
- (b) A requirement that Open Graded Porous Asphalt ("OGPA") or equivalent low-noise generating road surface be used on all surface roads throughout the Project, except at the Great North Road Interchange; and
- (c) For the Great North Road Interchange, a requirement that Twin Layer Open Graded Porous Asphalt ("Twin Layer OGPA") or equivalent low-noise generating road surface be used as shown in Appendix E.

#### ON.4

Where the design of the Detailed Mitigation Options identifies that it is not practicable to implement a particular structural mitigation measure in the location or of the length or height included in the "Preferred Mitigation Options", either:

- (a) If the design of the structural mitigation measures could be changed and would still achieve the same Identified Category at all relevant PPFs, and a suitably qualified expert approved by the Major Infrastructure Team Manager, Auckland Council, certifies to the Auckland Council that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed mitigation measures; or
- (b) If the changed design of the structural mitigation measure would change the Noise Criteria Category at any relevant PPF from Category A or B to Category C but Major Infrastructure Team Manager, Auckland Council confirms that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed structural mitigation measures.

#### ON.5

The Detailed Mitigation Options shall be implemented prior to completion of construction of the Project.

#### ON.6

(a) Sectors 1 to 8 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options:

- i. A noise level increase of 3 decibels or more will occur due to road-traffic noise from the Project; and
- ii. Habitable spaces are likely to receive in excess of 45 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year.

For those PPFs, following the process set out in Conditions ON.7 to ON.11, it shall be determined which Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces.

(b) Sector 9 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options, habitable spaces are likely to receive in excess of 40 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year. For those PPFs, following the process set out in ON.7 and ON.8, it shall be determined if Building Modification Mitigation may be required to achieve 40 dB LAeq inside habitable spaces. For those PPFs where Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces, this shall be implemented following the process set out in ON.9 to ON.11.

#### ON.7

(a) Prior to commencement of construction of any sector of the Project in the vicinity of a PPF identified under Condition ON.6, the NZTA shall write to the owner of each such building seeking access for the purpose of measuring internal noise levels and assessing the existing building envelope in relation to noise reduction performance.

(b) If the owner(s) of the building approve the NZTA's access to the property within 12 months of the date of the NZTA's letter (sent pursuant to Condition ON.7(a)), then no more than six months prior to commencement of

construction in any sector of the Project, the NZTA shall instruct a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council, to visit the building to measure internal noise levels and assess the existing building envelope in relation to noise reduction performance.

#### ON.8

Where a PPF identified under Condition ON.6 is identified, the NZTA shall be deemed to have complied with Condition ON.7 above where:

- (a) The NZTA (through its acoustics specialist) has visited the building; or
- (b) The owner(s) of the building approved the NZTA's access, but the NZTA could not gain entry for some reason after repeated attempts; or
- (c) The owner(s) of the building did not approve the NZTA's access to the property within the time period set out in Condition ON.7(b) (including where the owner(s) did not respond to the NZTA's letter (sent pursuant to Condition ON.7(a) within that period); or
- (d) The owner(s) of the building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

If any of (b) to (d) above apply to a particular Building, the NZTA shall not be required to implement any Building Modification Mitigation at that Building

#### ON.9

Subject to Condition ON.8, within 6 months of the assessment required under Condition ON.7(b), the NZTA shall give written notice to the owner of each PPF identified under Condition ON.6:

- (a) Advising of the options available for Building Modification Mitigation to the building; and
- (b) Advising that the owner has three months within which to decide whether to accept Building Modification Mitigation for the building, and if the NZTA has advised the owner that more than one options for building modification mitigation is available, to advise which of those options the owner prefers.

#### ON.10

Once an agreement on Building Modification Mitigation is reached between the NZTA and the owner of an affected building, the mitigation shall be implemented (including the NZTA undertaking any required third party authorisation) in a reasonable and practical timeframe agreed between the NZTA and the owner. Building Modification Mitigation shall be to the standard specified in section 8.3.2 of NZS 6806:2010.

Advice Note: The NZTA will be responsible for obtaining any necessary building consents or other approvals to undertake the above Building Modification Mitigation.

#### ON.11

Subject to Condition ON.8, where Building Modification Mitigation is required, the NZTA shall be deemed to have complied with Condition ON.10 above where:

- (a) The NZTA has completed Building Modification Mitigation to the Building; or
- (b) The owner(s) of the Building did not accept the NZTA's offer to implement Building Modification Mitigation prior to the expiry of the timeframe stated in Condition ON.9(b) above (including where the owner(s) did not respond to the Requiring Authority within that period); or
- (c) The owner of the Building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

#### ON.12

The NZTA shall manage and maintain the Detailed Mitigation Options to ensure that, those mitigation works are maintained to retain their noise attenuation performance indefinitely

#### ON.13

All mechanical services associated with the general operation of the tunnels shall be designed such that noise emissions do not exceed the following noise limits, when measured at or within the boundary of any residential-zoned site:

Monday to Saturday 7 am to 10 pm      50 dB LAeq(15 min)

Sunday & Public Holidays 9 am to 6 pm 50 dB LAeq(15 min)  
At all other times 40 dB LAeq(15 min)  
75 dB LAmax

#### ON.14

(a) Prior to construction, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake a minimum of 8 (eight) representative measurements of ambient noise levels. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(b) Following completion of the work, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake traffic noise monitoring at the same sites surveyed in Condition ON.14 (a) above, within 2 to 3 years following completion of construction of the Project. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(c) The results of the noise level monitoring in accordance with ON.14(b) above shall be used to verify the computer noise model of the Detailed Mitigation Option. A report describing the findings of the verification shall be provided to the Major Infrastructure Team Manager, Auckland Council within one month of it being completed.

Vibration Conditions - Operation

#### OV.1

Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Team Manager, Auckland Council for approval prior to the commencement of works. These baseline measurements will establish pre-Project vibration levels for comparison with future vibration levels.

### **Air Quality Conditions – Construction**

#### **GENERAL CONDITIONS**

##### AQ.1.

The NZTA shall finalise and implement, through the CEMP, the Construction Air Quality Management Plan (CAQMP) and Concrete Batching and Crushing Management Plan (CBCMP) submitted with the application. The CAQMP and CBCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CAQMP and CBCMP includes the following details:

- (a) Daily visual monitoring of dust emissions;
- (b) Procedures for responding to process malfunctions and accidental dust discharges;
- (c) Criteria, including consideration of weather conditions and procedures for use of water sprays on stockpiles and operational areas of the site;
- (d) Continuous monitoring of Total Suspended Particulate (TSP) concentrations and meteorology;
- (e) Monitoring of the times of detectable odour emissions from the ground;
- (f) Procedures for responding to discharges of odour (including in the event of excavation of contaminated sites);
- (g) Monitoring of construction vehicle maintenance;
- (h) Process equipment inspection, maintenance, monitoring and recording, including baghouses, pressure relief valves and high level alarms;
- (i) Complaints investigation, monitoring and reporting; and
- (j) The identification of staff and contractors' responsibilities.

##### AQ.2.

The NZTA shall review the CAQMP and CBCMP at least annually and as a result of any material change to the Project. Any consequential changes will be undertaken in accordance with Condition CEMP.13.

##### AQ.3.

All construction activities shall be operated, maintained, supervised, monitored and controlled at all times so that all emissions authorised by this consent are maintained at the minimum practicable level.

AQ.4.

The NZTA shall undertake construction activities in accordance with the CEMP, CAQMP and CBCMP, such that:

- (a) Hard surfaced areas of the construction yards and active construction areas are vacuum swept or scraped down at least twice each week and additionally as reasonably required;
- (b) All unsealed areas of the site used for vehicle movement are maintained visibly damp by the use of water sprays or a water cart during weather conditions where the potential for dust emissions exist;
- (c) Wheel wash systems are installed at all truck exits from unpaved areas of the site onto public roads are used for all trucks that depart from the site;
- (d) All stockpiles are constructed and positioned to minimise the potential for dust emissions. The surfaces of all stockpiles are maintained adequately damp at all times to minimise the release of particulate matter;
- (e) Belt conveyors for moving dry materials are fitted with water sprays or enclosed to minimise wind entrainment of dust. Where installed, water suppression is used whenever the conveyors are used for moving dry materials.

AQ.5.

Unless expressly provided for by conditions of this consent, there shall be no odour, dust or fumes beyond the site boundary caused by discharges from the site which, in the opinion of an enforcement officer, is noxious, offensive or objectionable.

AQ.6.

All offensive or objectionable dust beyond the boundary of the site caused as a result of processes on the site shall be mitigated forthwith in accordance with the requirements of the Construction Air Quality Management Plan.

AQ.7.

Beyond the site boundary there shall be no hazardous air pollutant caused by discharges from the site that causes, or is likely to cause, adverse effects on human health, environment or property.

AQ.8

No discharges from any activity on site shall give rise to visible emissions, other than water vapour, to an extent which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.

**PROCESS CONDITIONS – CONCRETE BATCHING:**

AQ.9

Air displaced from concrete batching plant during silo filling or concrete batching shall be vented to atmosphere via filter units as follows:

- (a) Cement silos – a pulse jet baghouse mounted on top of the silo designed to meet a particulate discharge concentration limit of 30 mg/m<sup>3</sup>, a collection efficiency of 99.9% and a maximum air to cloth ratio of 3.0 m<sup>3</sup>/m<sup>2</sup>/min.
- (b) Cement weigh hopper - a static baghouse mounted on top of the weigh hopper designed to meet a particulate discharge concentration limit of 30 mg/m<sup>3</sup>, a collection efficiency of 90% and a maximum air to cloth ratio of 1.0 m<sup>3</sup>/m<sup>2</sup>/min.
- (c) Mixer drum – either via the cement silo or via a separate baghouse designed to meet a particulate discharge concentration limit of 30 mg/m<sup>3</sup>, a collection efficiency of 99.9% and a maximum air to cloth ratio of 3.0 m<sup>3</sup>/m<sup>2</sup>/min. If a separate baghouse is used, the pressure drop across this baghouse shall be continuously monitored.

AQ.10

Each cement silo on site shall be fitted with a high fill alarm that shall be adequately maintained and be operating whenever bulk cement is being transferred into that silo. In the event of the alarm operating, filling into that silo shall cease immediately and shall not be resumed until the cause has been located and remedied.

AQ.11

No part of the concrete batching process shall be operated without the associated emission control equipment being fully operational and functioning correctly.

## **MONITORING**

### **AQ.14**

The NZTA shall undertake visual inspections of dust emissions as follows:

- (a) Visual inspections of all active construction areas at least three times daily during October to April inclusive, whenever there are construction activities. The results of visual monitoring shall be logged.
- (b) Visual inspections of dust emissions from the concrete batching plants and rock crushing plant shall be undertaken daily while the plant is operating

### **AQ.15**

The operation of water sprays shall be checked at least once each day.

## **Air Quality Conditions – Construction**

### **AQ.16**

Continuous monitoring of TSP concentrations shall be undertaken in at least one location in Sector 1, in at least two locations in Sectors 5 and/or 7, and in at least two locations in Sector 9 while construction activities are being undertaken in those Sectors. The locations of continuous TSP monitors shall, as far as practicable, comply with the requirements of AS/NZ 3580.1.1:2007 Method for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment.

### **AQ.17**

Continuous monitoring of wind speed and direction shall be undertaken in at least one location in each of Sector 1, Sectors 5 or 7 and Sector 9 while construction activities are being undertaken in those Sectors. The locations of wind speed and direction monitors shall, as far as practicable, comply with the requirements of AS 2923:1987 Ambient Air – Guide for the Measurement of Horizontal Wind for Air Quality Applications and be at the same locations as the TSP monitors required by Condition AQ.16.

### **AQ.18**

The locations and types of continuous TSP and meteorological monitoring sites required by Conditions AQ.16 and AQ.17 shall be selected by the NZTA in consultation with the Auckland Council. In the event of a failure of the monitoring equipment, this shall be repaired or replaced within 2 working days.

## **REPORTING**

### **AQ.19.**

All records, logs, monitoring and test results that are required by the conditions of this consent shall be made available on request, during operating hours, to an Auckland Council enforcement officer and shall be kept for the duration of the consent.

### **AQ.20**

If the monitoring required by Condition AQ.16 shows that concentrations of TSP in ambient air at or beyond the boundary of the site exceeds 80 micrograms/m<sup>3</sup> as a 24-hour average, the NZTA shall undertake an investigation into the cause of the exceedance in accordance with the CAQMP.

### **AQ.21.**

A report into the outcome of any investigation required by Condition AQ.20 shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 10 working days of the exceedance. If the cause of the exceedance is identified as being an activity undertaken on the site, the report shall also identify additional measures to be taken to reduce discharges of particulate matter into air from that activity.

### **AQ.22.**

Log books shall be maintained that record all relevant information that is required to demonstrate compliance with the conditions of this consent. This information shall include, but is not limited to:

- (a) Visual assessments of any dust emissions from the site and the source;

- (b) Any dust control equipment malfunction and any remedial action taken;
- (c) When a water cart was used and, if so, the frequency of use and the volume of water used (including identification of location);
- (d) All relevant details of the TSP and meteorological monitoring required by Conditions AQ.16 and AQ.17;
- (e) Any additional dust control measures undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

#### AQ.23.

The NZTA shall maintain a log of any complaints received relating to air quality. Details of each complaint received shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 24 hours of receipt of the complaint. The log shall include any complaints lodged with the Auckland Council where the Council has informed the NZTA of the complaint. The log shall include, but not be limited to the following:

- (a) The date, time, location and nature of the complaint;
- (b) Weather conditions at the time of the complaint (including approximate wind speed, wind direction, cloud cover);
- (c) Any possible other contributing factors (such as a fire, smoky vehicle, a local chimney emission, etc.);
- (d) The name, phone number and address of the complainant (unless the complainant elects not to supply these details);
- (e) Any remedial actions undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

### **Landscape and Visual Conditions**

#### LV.1.

The Urban Design and Landscape Plans (UDL Plans) (Plan Set F.16, refer Schedule A, Row 17) shall be reviewed and revised in accordance with the conditions and submitted to the Major Infrastructure Team Manager, Auckland Council for certification that they comply with the conditions of the consents/ designation prior to construction of the relevant Project stage, at least 20 working days prior to the commencement of construction.

The UDL Plans shall be updated to:

- (a) Reflect relevant details from the PT and Active Mode Transport Routes Plan Set (Schedule A, Row 23);
- (b) Remove the playing field at Waterview Reserve;
- (c) Confirm the reconfigured bund design at Alwyn Avenue (Schedule A, Row 42);
- (d) Reflect landscaping required in relation to the northern vent stack in Waterview Glades pursuant to Conditions DC.8.

#### LV.2.

In certifying the UDL Plans, prepared in accordance with Condition LV.1, the Major Infrastructure Team Manager, Auckland Council shall be satisfied the UDL plans includes:

- (a) The visual mitigation of infrastructure as detailed in Section B of the UDLF (refer Schedule A, Row 38).
- (b) Incorporation of art or art through design of structures, particularly as it relates to noise barriers and the Great North Road Interchange piers and ramps (Refer to clauses (g) and (i) below).
- (c) Planting to screen houses and noise walls (including cross section details);
- (d) Planting along the corridor on Traherne Island, in accordance with these conditions and the Ecological Management Plan;
- (e) Specimen planting on the Great North Road Interchange and the Te Atatu Road Interchange;
- (f) Specimen planting at the tunnel portals (except where this is within the OPW area);
- (g) Finalisation of the noise barriers (as required by Condition ON.3(a)) in accordance with the design principles for noise walls (refer Schedule A, Row 32);
- (h) Delineation of the final areas of the Open Space Restoration Plans in accordance with the Open Space Restoration Plans (Schedule A, Row 30), and reference that all works within the Open Space Restoration Plan Areas are subject to Conditions OS.1 to OS.8;
- (i) Oakley Inlet Heritage Plan, prepared in accordance with Conditions OS.5, and in particular, consideration shall be given to the design treatment of the Great North Road Interchange piers and ramps to take into consideration the impact of the structures on the visual quality of the open space beneath;
- (j) Ecological Management Plan, prepared in accordance with Conditions V.1, A.1, H.1, F.1 and M.1;

(k) Western Ring Route: Maioro Street Interchange and Waterview Connection - Oakley Creek Rehabilitation and Restoration Guidelines (Boffa Miskell, 2010); and

(l) Details of artworks or art through design of structures within the Project (e.g. design detailing of median barriers, bridge railings, safety barriers, piers, retaining walls and tunnel portals), in accordance with Section B of the Urban Landscape and Design Framework (UDLF June 2010) (refer Schedule A, Row 38) and F.8:Plans of Structures and Architectural Features, but excluding the north and south ventilation buildings, plans sections and elevations.

LV.3.

The NZTA shall have implemented the UDL Plans within 6 months of practical completion of construction of the Project.

LV.4.

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 a period of 10 years thereafter. Should the landscaping be implemented in stages (depending on construction phases), landscaping shall be implemented in accordance with this Condition for each stage unless subsequent construction staging requires use of the proposed landscaping area.

Advice note: On-going control and management of the landscaping within the designation is the responsibility of the NZTA.

LV.5.

The NZTA shall implement the UDL Plans taking into account the pest plant management guidelines detailed in the Ecological Management Plan (as required by Condition CEMP.3).

LV.8.

The NZTA shall ensure that any areas within the designation 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 and provided to the Major Infrastructure Team Manager, Auckland Council with the revised UDL Plans submitted pursuant to Condition LV.1.

LV.10.

The UDL Plans shall identify all Amenity Trees required to be removed over the construction of the Project (in accordance with Condition CEMP.6(o) and (p)). Replacement trees shall be sized at 160Lt and will either draw from the Coastal Forest or Basalt Rock Forest ecotypes listed in the Landscape Planting Schedules (provided in F.16, refer Schedule A, 17) or an agreed alternative species (confirmed by Major Infrastructure Team Manager, Auckland Council), except in the case of those trees subject to Condition ARCH.9.

Advice note: This does not necessarily apply to any replacement planting in the Open Space Restoration Plan areas, which will be confirmed in approval from Auckland Council and will be in accordance with relevant Auckland Council Park guidelines (see Condition OS.4).

## **Open Space Conditions**

OS.1

For the purposes of Conditions OS.2 – OS.15 the following terms will have the following meanings:

- Full size – means a football (soccer) field with the dimensions 100m x 60m.
- Half size – means a football (soccer) field with the dimensions less than 100m x 60m but no smaller than 50m x 30m.
- Toddler – means a playground specifically designed for children between the ages of 1 and 3.
- Junior – means a playground specifically designed for children between the ages of 4 and 8.
- Youth – means a playground specifically designed for children between the ages of 9 – 14 years.
- Open Space Restoration Plans – means those plans listed in Schedule A, row 30.

- Open for Play - means the sports field has a level surface and a dense weed-free sward of mature grass, goal posts and lighting if indicated in the Open Space Restoration Plans approved by the Auckland Council.
- Sand - carpeted - means the field has been levelled and irrigated, and conventional sub-soil drains, slit drains and a 50mm deep sand carpet have been installed. The field has been stolonised with a warm season grass such as kikuyu or couch.
- Auckland Council Park Guidelines – means the document by Auckland City Council titled “Furnishing our parks: design guidelines for park furniture”, dated September 2009
- Park furniture – means those items described in the Auckland Council Park Guidelines
- AS2560 – means the Australia New Zealand Standard for lighting of sports fields.
- AS4282 – means the Australia New Zealand Standard for the control of the obtrusive effects of outdoor lighting.
- Way finding exercise – means a process for determining the number, size, location and content of signage to provide clear direction for all park users.
- Skate-park for the purpose of conditions OS.5(b)(iii) means a skate park with a size of approximately 1,400 sq. m. (generally 25 wide x 55m long), incorporating a range of design variations. Suitable for beginners (providing training facilities to develop their skills) but primarily catering for intermediate to advanced level skaters.
- BMX bike track for the purpose of condition OS.5(b)(iii) means a low maintenance, non-competition BMX bike track, incorporating a range of design variations. Primarily catering for beginner and intermediate riders.

## OS.2

The NZTA shall prepare Open Space Restoration Plans to outline how the open space replacement land, as defined in the Open Space Restoration Plan Areas (Schedule A, Row 30) (including land occupied during construction) will be reinstated or replaced on completion of construction, for handover to Auckland Council and those areas identified in Condition DC.1A(f) and RC.3(f). Following the consultation detailed in Condition OS.3 below, the Open Space Restoration Plans listed in Condition OS.3(a) to (f) shall be submitted within 12 months of construction commencing in the specific areas affecting the reserves or within 12 months of occupation of open space, whichever is the sooner, to the Major Infrastructure Team Manager, Auckland Council.

Advice note: Conditions OS.9 and OS.10 require certain works to be provided prior to occupation of Construction Yards 6 and 7 (Waterview Reserve) and Construction Yards 9- 12 (Alan Wood Reserve) and this may impact on the timing of Open Space Restoration Plans for these areas.

## OS.3

The Open Space Restoration Plans shall be prepared in consultation with the Auckland Council, Iwi, the Community Liaison Groups (Condition PI.5), NZHPT, and other recreation users and other user representatives identified by Auckland Council. The Open Space Restoration Plans shall comprise the following specific plans:

- Waterview Reserve Restoration Plan;
- Alan Wood Restoration Plan (including Hendon Park and 25 Valonia Street);
- Oakley Creek Esplanade (Waterview Glades) Restoration Plan;
- Jack Colvin Park Restoration Plan;
- Rosebank Domain Restoration Plan;
- Harbourview-Orangihina Reserve Restoration Plan.
- The areas of the Open Space Restoration Plans are shown in the Open Space Restoration Plan Areas (Refer Schedule A, Row 30).

## OS.4

All Open Space Restoration Plans shall be prepared in general accordance with the UDL Plans (Schedule A, Row 30), and shall include, but not be limited to, the following:

- Details of, including the location, of any artworks and educational signage, and directional signage. In the case of Alan Wood Reserve, Waterview Reserve and Oakley Creek Esplanade (Waterview Glade) this shall include a “way-finding exercise” in accordance with Auckland Council practice, to determine all signage to be provided; and
- Evidence of integration with the Oakley Creek restoration works required under Conditions STW.5, STW.20, V.16 and LV.2(i); and a summary of the consultation undertaken (as required by Condition OS.3) and the response received; and

- (c) Details of any vehicle access through the reserves and parking areas; and
- (d) Park furniture (including quantity and quality) to be provided in accordance with relevant Auckland Council Park guidelines, except for:
  - (i) The riparian area within Alan Wood Reserve where the only furniture required is a maximum of 10 seats; and
  - (ii) Oakley Creek Esplanade (Waterview Glades) where the only furniture required is replacement of 3 existing seats; and
- (e) The inclusion and integration of the design for all pedestrian and cycleway linkages and facilities detailed on the PT and Active Mode Transport Routes (Schedule A, Row 22). The design integration shall be in accordance with CPTED principles;
- (f) Implementation programme, including sequencing of works and completion dates. This shall include works that could be implemented prior to practical completion of construction works or are outside the Project area (e.g. upgrading of the Waterview Esplanade Reserve set out in Condition OS.5(b)(vii);
- (g) Implementation programmes for planting and field reinstatement. This shall include:
  - (i) A 12 month maintenance period for built structures and soft landscaping; and
  - (ii) For any landscaping accessible to horses an assessment to demonstrate that the planting schedule is not toxic to horses and that consultation on this has been undertaken with the Te Atatu Pony Club;
- (h) The specific requirements for each Restoration Plan area as set out in Conditions OS.5 – OS.8;
- (i) Documentation of consultation undertaken required by Condition OS.3 and the views and concerns expressed by this consultation and the written approval of the Manager Community and Cultural Policy.

Advice note: For the avoidance of doubt provision of (a) to (h) above will require elevations, cross sections, engineering drawings and written documentation to supplement the UDL Plans. It is also noted that the UDL Plans identify landscaping, planting and other works beyond the Open Space Restoration Plans (refer Conditions LV.1 – LV.6, LV.9 and LV.10). Educational signs and artworks are particularly encouraged.

### **Waterview Reserve (Specific)**

#### **OS.5**

The Waterview Reserve Open Space Restoration Plan shall be prepared in general accordance with the UDL Plans (Refer Schedule A, Row 17). The following shall be provided:

- (a) Equivalent reinstatement of the following recreational facilities:
  - (i) A children's playground with the design and equipment targeted at "junior" and "youth" ages; and
  - (ii) One ablution block; and
  - (iii) One basketball court (28m by 15m); and
  - (iv) One volleyball court.
- (b) Other restoration and enhancement:
  - (i) Measures to enhance the Oakley Inlet Heritage Area, including interpretative signage and pedestrian access;
  - (ii) Creation of esplanade reserve along Oakley Inlet;
  - (iii) Subject to obtaining necessary resource consents and Auckland Council landowner approval, provision of a skate-park, BMX bike track (non-motorised bikes);
  - (iv) Provision of pedestrian paths within the reserve area (as indicated on the UDL Plan 212);
  - (v) Eco-sourced and mass planting to screen the interchange ramps from Herdman Street and the Waterview Primary School (as indicated on the UDL Plan 212 (Refer Schedule A, Row 17));
  - (vi) A sloping and landscaped bund as indicated on the UDL Plan 212 (Refer Schedule A, Row 17) to screen the interchange ramps from the open space areas;
  - (vii) Subject to obtaining necessary resource consents and Auckland Council landowner approvals, upgrading of the Waterview Esplanade Reserve walkway and associated landscaping, identified on the UDL Plan 210 (Refer Schedule A, Row 17);
- (c) The works required in accordance with Condition OS.16(a) in respect of the allweather cycle/pedestrian path into Eric Armishaw Park.
- (d) A financial payment shall be made to the Auckland Council (in lieu and as equivalent of a playing field at Waterview Reserve), in full at least 20 working days prior to occupation of Construction Yards 6 and 7, valued on the basis of provision of one "open for play" full size sand-carpeted football (soccer) field with a clear 10m space for spectators on all sides and associated changing facilities and parking requirements as at Waterview Reserve or as proposed by UDL Plans (Schedule A, Row 17).

rather than its reinstatement at Waterview Reserve.

Advice note: The replacement land area for Open Space will provide approximately 2.35 – 2.4ha of new replacement open space land in general accordance with the Proposed Open Space Impacts and Replacement Plans (See Schedule A, Row 28), including 0.30ha of additional open space at Saxon Reserve if it is all able to be acquired and consented.

#### OS.7

The Oakley Creek Esplanade Reserve (Waterview Glades) Open Space Restoration Plan shall be prepared in general accordance with the UDL Plans (Refer Schedule A, Row 17), and shall include, but not be limited to, the following:

- (a) Creation of esplanade reserve at 36 Cradock Street;
- (b) Riparian planting along Oakley Creek to a width of 15m and as identified on the notated UDL Plan 229 (Refer Schedule A, Row 17) as notation M1;
- (c) Re-contouring of the reserve in a manner that is consistent with those shown on UDL Plan 229 (Refer Schedule A, Row 17) and as described in the annotation Plan Note 7 of that Plan; and
- (d) Stability work required for the ventilation stack (refer Condition DC.8(n)), and the integration of any necessary structures within Oakley Creek Esplanade Reserve.

#### **Construction Works**

#### OS.10

At least 20 working days prior to the occupation of the construction areas within Waterview Reserve, the NZTA shall, in consultation and agreement with the Auckland Council, provide:

- (a) The financial payment in lieu of the playing field facilities at Waterview Reserve, as per Condition OS.5(c);
- (b) A half basketball court and volleyball court within the relocated Waterview Reserve;
- (c) Development of Saxon Reserve with an additional site area of 2,000m<sup>2</sup> and as a minimum, the expanded reserve shall include an upgraded children's playground (toddler, junior and youth), landscaping, pedestrian paths, park furniture and an ablution block; and
- (d) Improvements to the existing pathway connections at Howlett Reserve, providing wider and safer access out to either Howlett Street or Oakley Avenue. In the event land purchase requirements deems this unable to be completed prior to occupation of the construction areas within Waterview Reserve, an equivalent financial payment in lieu of the land purchase and improvement works will be made. The financial payment will be based on the Capital Value of the Oakley Avenue site that is nominated by the NZTA in the Proposed Open Space Impacts and Replacement Plan (refer Schedule A, Row 28) and approved by the Auckland Council, with provision for site clearance (meaning works to provide vacant possession clear of any existing improvements), path formation and landscaping). This contribution shall be paid in full to the Auckland Council for improvement to or expansion of existing reserves in the Waterview area.

#### OS.11

At least 20 working days prior to the occupation of the construction areas within Oakley Creek Esplanade Reserve (Waterview Glades), the NZTA shall, in consultation and subject to agreement with the Auckland Council, provide:

- (a) Formalisation of the existing informal pathway at the northern end of Oakley Creek Esplanade Reserve (Waterview Glades), to connect to the existing Oakley Creek walkway (as indicatively identified on the notated UDL Plan 229 (Refer Schedule A, Row 17), as Plan Note 3), as modified for the finalised location of the ventilation stack (DC.8), and in a way that maintains public health and safety throughout the construction period;
- (b) Planting of the riparian margins of Oakley Creek.

#### OS.13

During construction, the NZTA shall maintain pedestrian accessways to all open space available for public use during construction and education facilities where access is affected by the works, including any public access that crosses private land. Such access shall be safe, clearly identifiable, provide appropriate surfacing and seek to minimise significant detours. The access shall be of a same or similar standard as that disrupted and will be provided and maintained by the NZTA.

Advice note: This specifically includes the existing pedestrian access that provides a connection to the crossing over Oakley Creek between 1510 Great North Road and Unitec Mt Albert Campus.

### **Open Space Conditions**

#### **OS.14**

Where access to Oakley Creek will be disrupted for more than 3 consecutive days, or over a weekend, or there is no provision for a walkway detour, the Community Liaison Person shall notify the Friends of Oakley Creek at least 20 working days in advance of any planned disruption (except where the disruption is of shorter duration, or an emergency situation).

#### **OS.16**

The NZTA shall provide:

- (a) Subject to obtaining necessary resource consents and Auckland Council landowner approval, a 3m all-weather shared cycle/pedestrian path with boardwalks as required, from the Great North Road Interchange through into Eric Armishaw Park. The works shall be sufficient to connect this path to the existing walkways and paths within that park (eg to the playground); and
- (b) The pedestrian connections to Berridge Avenue, Alberta Street and Montrose Street as shown on the PT and Active Mode Transport Routes (Sheet 109) (Refer Schedule A, Row 22), once these areas are no longer required for construction.

### **Social Conditions**

#### **SO.1**

In addition to the Community Liaison Groups established pursuant to Condition PI.5, the NZTA shall establish an Education Liaison Group (including representatives from local schools, kindergartens, childcare facilities, Unitec Institute of Technology, the Ministry of Education and Housing New Zealand Corporation), to provide a forum through which:

- (a) Relevant monitoring data can be provided (e.g. air quality monitoring);
- (b) Notice can be provided of when particularly noisy activities will occur in close proximity to schools and education facilities, to enable the opportunity to identify any potential conflict with particular sensitive periods, and the requirement for specific mitigation strategies (e.g. rescheduling of construction activities where practicable);
- (c) Particular concerns can be raised by educational facilities or parents, discussed and potentially addressed;
- (d) Notice can be provided of potential construction impacts on school transport routes (including pedestrian/cycle access) to enable the opportunity to identify specific mitigation preferences of the education facilities (e.g. any detour routes) and to enable these facilities to appropriately inform students and/or parents; and
- (e) Learning and teaching opportunities for educational facilities to participate in Project works (e.g. planting or artworks).

The Education Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period. The Education Liaison Group shall continue to meet for at least 12 months following the completion of the Project (or less if the members of the Education Liaison Group agree), so that ongoing monitoring information can continue to be disseminated.

#### **SO.2**

In addition to Condition SO.1(b) above, where noisy construction activities (that are projected to exceed the Noise Criteria in the CNVMP) are proposed in close proximity or adjacent to schools/ childcare centres, the NZTA shall, when preparing their SSNMP (in accordance with Condition CNV.1) give specific consideration to options to carry out these works outside school hours or during school holidays as a mitigation option.

#### **SO.3**

The NZTA shall comply with the obligations imposed on it by clauses 4 and 5 of the Project Agreement (dated May 2011 (yet to be signed)) between it, the Ministry of Education and the Auckland Kindergarten Association, including in particular the requirement to relocate the Waterview Kindergarten to an alternative site prior to

construction works commencing on sites adjoining the Kindergarten site. The NZTA's obligations under this condition are subject to the Ministry and the Auckland Kindergarten Association providing written approvals, agreements or other inputs as specified in that Project Agreement.

#### SO.4

The NZTA shall, in agreement with the Ministry of Education, monitor the Waterview Primary School and the Waterview Kindergarten rolls:

- (a) At commencement of construction in the Waterview area (including demolition of houses within the confirmed designation footprint); and
- (b) For a period up to 3 years after construction is completed in the Waterview area and confirmed the operational designation footprint in these areas, or until monitoring shows the roll has stabilised to the 2006 roll level (155 and 30 students respectively) over two consecutive years (whichever is shorter).

#### SO.5

Should monitoring as required by Condition SO.4 indicate that the rolls of Waterview Kindergarten and Waterview Primary School have dropped below 30 and 155 respectively (the 2006 roll levels), the NZTA shall in consultation with the Ministry of Education provide financial resources to ensure that resources are maintained to these 2006 roll levels during the required length of monitoring.

#### SO.5A

The NZTA shall comply with the obligations imposed on it by clauses 4 and 5 (dated April 2011) Project Agreement between it, the Ministry of Education and the Waterview Primary School Board of Trustees. The NZTA's obligations under this condition are subject to the Ministry and Board of Trustees providing such approvals, agreements or other input as specified in that Project Agreement.

#### SO.6

In addition to the Community Liaison Group established pursuant to Condition PI.5, the NZTA shall establish a Working Liaison Group (WLG) inviting the following:

- (a) Auckland Council;
- (b) Housing New Zealand Corporation;
- (c) Te Kawerau Iwi Tribal Authority;
- (d) Ngati Whatua o Orakei;
- (e) KiwiRail;
- (f) Department of Conservation;
- (g) Ministry of Education; and
- (h) Local Boards.

The purpose of this WLG will be to provide a forum through which:

- (a) Opportunities for public work development (including social housing, passenger transport or recreation / open space) are identified in areas where the NZTA confirms that the designation is no longer required (e.g. following construction activities);
- (b) Comment can be provided on updated Urban Design and Landscape Plans, including the finalised designs of structural elements for the Project (prior to their submission to the Auckland Council);
- (c) Opportunities for integration of other environmental projects (e.g. restoration plantings) are identified;
- (d) Consideration is given to appropriate protocols for commencement and completion of construction activities (including blessings for commencement of construction phases); and
- (e) Comment can be provided by Te Kawerau a Maki on the detailed lighting design of SH16, to consider how lighting effects on cultural sites and practices might be mitigated without compromising traffic safety or those performance standards identified in Condition L.1.

The Working Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period.

#### SO.7

A schedule of trees that require removal for construction of the Project will be identified and reported to the Community Liaison Group for their consideration of potential provision of timber for heritage projects (including in particular the provision of Robinia wood for heritage boat building). If the demand for this timber is identified to the Construction Team, appropriate measures for felling and removal from the site will be confirmed.

#### SO.13

The NZTA shall appoint a medical specialist qualified and experienced in Environmental and Occupational Medicine for the duration of the operational air quality monitoring of the Project (as defined by Condition OA.4) to be a point of contact for persons concerned about the discharge from the ventilation stacks. This person must be reasonably available by appointment for advice on matters of concern for residents within the Waterview / Point Chevalier and Owairaka / New Windsor communities, and parents of pupils and prospective pupils at schools, kindergartens, playschools, and child care centres within those areas.

#### SO.14

For the purpose of mitigating significant adverse effects on passive open space and reserves in Sectors 5, 7 and 9, both during the construction years and longer term, particularly in the Waterview, Owairaka and New Windsor communities (other mitigation having been held by the Board of Inquiry not to be adequate) the following applies:

(a) The NZTA shall, subject to conditions (b), (c) and (d) below, construct the following:

(i) A pedestrian and cycleway to AUSTROADS standards between Waterview and Owairaka/New Windsor (as generally indicated on drawing labelled as "Indicative SH20 Cycleway Route" (refer to Schedule A, Row 40)), subject to any modifications necessary to address design, property or engineering constraints.

(ii) The "Alford St Bridge".

(iii) The "Soljak PI Bridge".

(b) The NZTA's obligations under condition (a)(i) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals on a permanent basis in respect of the facilities described in condition (a)(i); and

(ii) acquired sufficient land to form a cycle and pedestrian way to AUSTROADS standards between Alan Wood Reserve and Unitec; and

(iii) obtained all necessary resource consents required for construction and operation of the facilities.

(c) The NZTA's obligations under condition (a)(ii) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals on a permanent basis for the Alford St Bridge; and

(ii) obtained all necessary resource consents required for construction and operation of the Alford St Bridge.

(d) The NZTA's obligations under conditions (a)(iii) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals for the Soljak PI Bridge either on a permanent basis or on the basis that the Soljak PI Bridge may be constructed and operated unless and until its continued existence and / or operation conflicts with or compromises future works pursuant to the designation for rail purposes; and (ii) obtained all necessary resource consents required for construction and operation of the Soljak PI Bridge.

(e) The certification from Auckland Council required under conditions (b), (c) and (d) above must be received by the NZTA within 8 years of the designations for the Project being confirmed.

(f) Each of the facilities for which certification has been given must be constructed within 1 year of the opening of the motorway, or two years from when certification is given for the relevant facility, whichever is the earlier, subject however to some elements of the facilities towards the northern end needing to await the decommissioning of Construction Yard 7.

(g) The value of the construction works to be undertaken by the NZTA pursuant to condition (a) to (d) above shall not exceed a sum equal to \$8 million in June 2011 New Zealand dollars (with any construction costs above that figure being met by the Council.)"

(h) The pedestrian and cycleway facilities described in condition (a)(i) above are in addition to the cycling and pedestrian facilities required by the other conditions.

Advice notes:

The intention of this condition is to construct a continuous pedestrian and cycleway with bridges at Soljak PI and Alford St. To achieve this, the Council and Auckland Transport will use their best endeavours to obtain the necessary consents and landowner approvals, for all three components of the network.

The approvals required for the Soljak PI Bridge reflect the designation for rail purposes of land under the bridge and the possibility that any bridge structure will be approved for a limited length of time only.

In the event that, despite their best endeavours, the Council and Auckland Transport cannot obtain all of the necessary landowner approvals, the condition allows each part of the network to be constructed in isolation from the others. That will provide some mitigation of the significant adverse effects on passive open space and reserves in Sectors 5, 7 and 9 that the condition is intended to address. It will also enable the Council and Auckland Transport to complete the network in the future at their expense when and if they are able to obtain the outstanding approvals.

Condition (f) above requires the earlier of the 2 named events to be the trigger for NZTA to undertake the works, in order that the required mitigation or at least some of it occur during the construction years. It also recognises that towards the northern end of the pedestrian and cycleway, some of the works may need to await the de-commissioning of Construction Yard 7.

Subject to landowner approvals, the Council and/or Auckland Transport will be the owner of the pedestrian and cycleway and the bridges described in (a) above and shall have full responsibility for the operation and maintenance of those facilities once they have been constructed by NZTA. Accordingly, NZTA will be under no further obligation in respect of any of the facilities once they have been constructed and, in particular, will have no obligation in terms of the removal, alteration or replacement of the Soljak PI Bridge in the event that it conflicts with or compromises proposed works pursuant to the designation for rail purposes.

## **Vegetation Conditions**

### V.1

The NZTA shall finalise the ECOMP submitted with this application, prior to works commencing on site. The ECOMP shall be implemented through the CEMP. The ECOMP shall clearly identify the location and identity of:

- (a) All Significant Vegetation within the designation that is to be fully protected or relocated; and
- (b) All Valued Vegetation within the designation that is affected by the works (protected or removed).

Note: Significant and Valued Vegetation shall be as defined in the ECOMP.

### V.2

The NZTA shall employ a suitably experienced botanist ('nominated botanist') for the duration of the works to monitor, supervise and direct all works affecting or otherwise in close proximity to the Significant Vegetation and Valued Vegetation identified in the ECOMP.

### V.3

Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions that pertain to the Significant Vegetation and Valued Vegetation and all vegetation in general (both native and exotic) are explained by the nominated botanist to all contractors or sub-contractors who will be working on site within the close vicinity of that vegetation.

### V.4

The NZTA shall minimise the amount of vegetation (both native and exotic) which is to be cleared, with the exception of weeds (both woody and otherwise, unless agreed with the Major Infrastructure Team Manager, Auckland Council and the Community Liaison Group that the retention of these 'weeds' has other environmental or ecological benefits that warrant their retention). All vegetation clearance shall be undertaken in accordance with the measures set out in the ECOMP.

### V.5

The NZTA shall install protective fencing around, or otherwise clearly demarcate, all of the Significant Vegetation identified in the ECOMP as requiring full protection, under the supervision of the nominated botanist.

V.6

The NZTA shall replace any terrestrial Valued Vegetation that is required to be removed as a result of construction activities, in accordance with the ECOMP and the Urban Design and Landscape Plans.

V.7

The nominated botanist shall supervise all trimming, pruning and relocation work associated with the Significant Vegetation and Valued Vegetation required as part of the works.

V.8

Immediately prior to planting, and for a period of 2 years following completion of construction, the NZTA shall undertake weed control and management of all invasive plant pests within the vegetated areas of the surface designation for the Project. Following this 2 year period, on-going control and management of all invasive plant pests within these areas will be the responsibility of the NZTA.

V.9

The nominated botanist shall undertake a monitoring programme throughout the construction period, including monitoring of:

- (a) The condition, repair and location of the temporary protective fencing or other forms of demarcation used to identify the Significant Vegetation;
- (b) Any works within the vicinity of the Significant Vegetation and Valued Vegetation;
- (c) The general health of the Significant Vegetation and Valued Vegetation (including any Significant or Valued Vegetation that has been relocated away from the works area); and
- (d) Compliance with the vegetation conditions of designation by way of fortnightly inspections during the construction period.

V.10

Any planting utilising native plants shall use plants genetically sourced from the Tamaki Ecological District where possible or otherwise shall use plants that have been genetically sourced from within the Auckland Ecological Region.

V.14

A rock forest restoration programme shall be undertaken by the NZTA on the northern banks of the Oakley Creek Inlet in accordance with the concepts of the ECOMP, Appendix H 'Rock Forest Provisional Concept Plan'. A detailed planting plan shall be submitted to Auckland Council for approval, prior to implementation of the planting, with the plan to include planting specifications and management techniques. The detailed planting plan shall be integrated with cultural heritage values including, but not limited to, those shown on the plan entitled 'Oakley Inlet Heritage Area' (UDL Plan 224 refer Schedule A, Row 17).

V.16

All realignments and riparian enhancements of Oakley Creek shall be carried out in accordance with the Oakley Creek Realignment and Rehabilitation Guidelines and in general accordance with the Urban Design and Landscape plans (Refer Schedule A, Row 17).

### **Avian Conditions**

A.1

The NZTA shall finalise, and implement through the CEMP, ECOMP submitted with this application to include the matters set out in Conditions A.2 to A.6.

### **Herpetofauna Conditions**

H.1

The NZTA shall finalise and implement through the CEMP, the ECOMP submitted with this application to include details of lizard management to be undertaken, including the following:

- (a) Lizard capture methodology, including timing;
- (b) Lizard release locations(s);

- (c) Lizard habitat enhancement at population release sites, including a detailed pest control programme for a minimum of one month prior to release and for a minimum of three consecutive years' duration after release;
- (d) Location(s), monitoring and maintenance of lizard protective fencing;
- (e) Post-release monitoring methodology; and
- (f) Lizard captive management methodology.

## **Lighting Conditions**

### **Operation**

#### **L.1**

Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, in general accordance with the Waterview Connection Lighting Plan (Drawing Set F.11 (Refer Schedule A, Row 12):

- a) All motorway lighting shall be designed in accordance with "Roadlighting Standard AS/NZS1158";
- b) All other lighting shall be designed in accordance with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- c) Fully cut off luminaries shall be used on SH20 from the Southern Tunnel Portal to the Maioro Street Interchange to minimised lighting overspill, as shown on Drawing Set F.11(Refer Schedule A, Row 12).  
Construction Zones and Construction Yards

#### **L.2**

A Temporary Construction Lighting Management Plan shall be prepared for all construction zones and construction yards prior to commencement of any night time works within the construction zones and construction yards. The Temporary Construction Lighting Management Plan shall be independently verified by a lighting specialist and provided to the Major Infrastructure Team Manager, Auckland Council for certification of compliance 10 working days prior to any night time work commencing.

The certification process shall ensure that the Plan includes (but is not be limited to):

- a) The layout and arrangement of all temporary lighting required for night time works, and shall show how this avoids the "Light Spill Restriction Zone" identified on the Construction Yard Plans (Refer Schedule A, Row 7) submitted with the application, and that the temporary lighting complies with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- b) Provision for a 10m buffer between the night time work and any residential boundary at all times to minimise potential for light spill; and
- c) General operating procedures outlined in the CEMP.

#### **L.3**

Asymmetrical floodlights with horizontal glass visors that are not raised more than 3 degrees above the horizontal plane shall be used for any temporary construction night time lighting requirements. Alternative temporary lighting arrangements may be used, subject to the prior approval of the Major Infrastructure Team Manager, Auckland Council, where it can be demonstrated that the proposed lighting is similar or better to asymmetrical floodlights with glass visors. Glare shall be kept below the recommendation given in AS 4282 – 1997 "Control of the Obtrusive Effects of Outdoor Lighting" Tables 2.1 and 2.2.

## **Archaeology Conditions**

### **ARCH.1**

The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:

- a) Identification of the Project archaeologist, their role and responsibility on the Project;
- b) Who reports to the Project archaeologist;
- c) Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;
- d) Whether NZHPT and/or Auckland Council heritage and/or iwi supervision is required for the specific site (the latter to be determined through consultation with the relevant iwi groups); and
- e) Accidental discovery protocols in the event that unknown archaeological sites are uncovered.

## ARCH.2

The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:

- (a) All unmodified areas in the vicinity of Rosebank Road;
- (b) All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;
- (c) Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;
- (d) Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.

## ARCH.3

If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:

- (a) Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- (b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;
- (c) The Project archaeologist shall inspect the site to assess the relevance of the find, and then the Auckland Council shall be advised of the significance;
- (d) If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, and the Auckland Council that an archaeological site has been exposed so that appropriate action can be taken;
- (e) In the case of human remains, the NZ Police shall be notified.

## ARCH.4

In accordance with the ASMP, the following archaeological sites shall be fenced off and protected to the satisfaction of the Project archaeologist, prior to construction activities being undertaken:

- (a) Recorded sites R11/2504, R11/2505, R11/2506 and R11/2507, located on the northern boundary of the designation adjacent to the Rosebank Road peninsula.
- (b) Recorded site R11/2383 in the Oakley Creek Esplanade Reserve construction yard.

## ARCH.5

In accordance with the ASMP, the following specific measures shall be implemented in the area identified as the "Oakley Inlet Heritage Area" (including recorded sites R11/2191, R11/2202, R11/2203 and R11/2459), located adjacent to the Great North Road Interchange:

- (a) In determining the details of construction methodology and site access, the NZTA shall ensure that there is no impact on sites R11/2202, R11/2203 and the main features of site R11/2191 (the basalt walls, boiler, building foundations and platforms). When the details have been determined, a plan will be prepared in consultation with the Project archaeologist that outlines the areas of archaeological value to be fenced off and protected from any adverse effects during the construction process. The Heritage Manager, Environmental Services, Auckland Council shall be consulted in the drafting of the plan and shall certify that the extent and method of fencing will protect the areas of archaeological value prior to commencement of construction works within the area. This plan will be added to the Archaeological Constraints layer in the GIS layers included as an Appendix of the ASMP in the CEMP.
- (b) All works in the Oakley Inlet Heritage Area shall be monitored by the Project archaeologist;
- (c) Machine access to construction works in this area shall be planned so as to minimise adverse effects on archaeological features;
- (d) During and following removal of houses north of Cowley Street and west of Great North Road in the area where the mill workers' cottages and mill race were once located, investigations shall be undertaken to establish and record any archaeological remains that may have survived;
- (e) Remedial or limited restoration works shall be carried out to the basalt walls, wheel pit, boiler and bridge abutment of the mill/tannery/ quarry site (R11/2191), to a specification prepared by a heritage professional, to ensure their long term preservation. The specification shall be prepared in consultation with the Heritage Manager, Environmental Services, Auckland Council;

- (f) A vegetation management plan shall be prepared and implemented to remove vegetation that is damaging archaeological features in this area and to protect and enhance features with appropriate vegetation cover. This plan shall form part of the Waterview Reserve Restoration Plan (refer to Conditions ARCH.6 and OS.5) and shall be prepared in consultation with the Heritage Manager, Environmental Services, Auckland Council;
- (g) The design and location of any walkways and paths and structures within the Oakley Inlet Heritage Area shall include consideration of historic paths and accessways (excluding the piers associated with the SH16 Interchange).

#### ARCH.6

The Project archaeologist shall be made part of the Waterview Reserve Restoration Plan (refer Condition OS.3) development team to provide advice on long term management of the "Oakley Inlet Heritage Area". The Waterview Reserve Restoration Plan shall include provision for, as a minimum:

- (a) A pedestrian bridge linking the northern and southern banks of the Oakley inlet shall be provided in the original location of the historical bridge to restore the historical connection between the two parts of the Oakley Inlet Heritage Area and make both parts easily accessible. The bridge is to be of a design appropriate to the historic form of this bridge but at a height above water to accommodate the passage of kayaks at high tide;
- (b) Interpretative signage of the Oakley Inlet Heritage Area for public information and educational purposes;
- (c) The management of planting to avoid encroachment of deep rooted trees on identified archaeological sites (including planting undertaken in accordance with Condition V.14).

#### ARCH.7

In accordance with the ASMP, any works to the dry stone wall (recorded site R11/2213) located on the north western boundary of the Great North Road Interchange, shall be minimised and managed in accordance with the following:

- (a) If it is necessary to demolish part of the wall, the stone shall be used to repair the remainder of the wall. Appropriate reuse of any surplus stone will be determined following consultation with ~~the NZPT~~ Heritage New Zealand and Auckland Council.
- (b) The remainder of the stone wall shall be protected from construction machinery by the use of waratahs and an adequate buffer area prior to earthworks commencing.
- (c) The remainder of the stone wall shall be carefully cleared of vegetation growth and repaired where necessary to a specification prepared by a heritage professional employed at the expense of the NZTA.

#### ARCH.8

All contractors and subcontractors working on the Project shall be trained on the archaeological requirements set out in the ASMP.

#### Advice note:

Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

#### ARCH.9

All Monterey Pines or oak trees (*Quercus* spp) over 10m in height within Sector 5 shall be identified and managed through the CEMP Amenity Tree process (Conditions CEMP.6(o) and (p)). Irrespective of their health (unless the Project Arborist and Auckland Council confirm that these trees pose an immediate hazard), these trees will be confirmed as Amenity Trees. These trees shall be retained where practicable. If removal of any of these trees is required for construction, they shall be replaced by trees of the same species (or as otherwise agreed through the Waterfront Reserve Restoration Plan) sized at 160Lt. The location of replacement specimens will be defined through planning of the Oakley Inlet Heritage Area (as part of the Waterview Reserve Restoration Plan, refer Condition OS.5), with the replanting of Monterey Pines to reflect their historic use as a boundary planting species. Two trees shall be provided for every oak tree (*Quercus* spp) removed.

#### Advice note

Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

Zealand.

## **Ground Settlement Conditions**

### **S.1**

The NZTA shall finalise, and implement through the CEMP, the Settlement Effects Management Plan (SEMP) lodged with the application prior to construction activities being undertaken. Prior to construction (following detailed investigation and design), the total estimated settlements and building damage categories shall be confirmed using the methodology in Technical Report G.13 Assessment of Ground Settlement Effects and the SEMP shall be updated accordingly.

In the event that settlement predictions are greater (than those allowed for in Figure E.14 (refer Schedule A, Row 26)) or building damage categories increase in ranking or buildings affected from those identified in Figures G1-G4 (refer Schedule A, Row 27), mitigation measures shall be introduced as part of the detailed design and construction process to avoid any adverse effects greater than predicted by the application lodged in August 2010.

## **Settlement Monitoring**

### **S.2**

The NZTA shall establish a series of ground settlement monitoring markers to monitor potential settlement in relation to the construction of the tunnels. The survey markers will be located generally as follows:

- (a) Along the tunnel alignment and extending out to a maximum of 400m either side of the tunnels to correlate with cross sections that have been used for the settlement estimates and to infill between them.
- (b) To cover the more extensive eastern zone area of settlement at Chainage 3400 (Figure E.14 refer Schedule A, Row 26).
- (c) On or around buildings or features considered to be particularly sensitive as defined in the SEMP (including those buildings identified in Condition S.7) and as may be updated to reflect detailed analysis and interpretation of monitoring results as the Project proceeds.

Two types of markers shall be established: Framework Markers which shall form the main basis of monitoring, and Intermediate Markers which shall provide additional monitoring information for interpretation of Alerts and Alarms. The locations of each type of settlement monitoring marker shall be confirmed in the SEMP. Each Framework Marker shall have an alert and alarm level set in relation to Figure E.14, where alert = 75% of the theoretical value and alarm = 100% of the theoretical value with due consideration of the seasonal range of ground movement identified by pre-construction monitoring.

### **S.3**

The NZTA shall survey the settlement monitoring markers at the following frequency:

- (a) Pre-construction
  - i) All Framework Markers – Vertical and selected horizontal at 3 monthly intervals, starting at least 12 months prior to construction commencing; and
  - ii) All Intermediate Markers - Vertical and selected horizontal once.
- (b) During Construction
  - i) All Framework Markers - Vertical on a monthly basis; and
  - ii) Selected Framework Markers only - Horizontal on a monthly basis.
- (c) During Active Construction
  - i) All Framework and Intermediate Markers – Vertical on a weekly basis; and
  - ii) Selected Framework Markers only - Horizontal on a monthly basis. Active construction” shall be defined as:
    - (a) Starting when the advancing tunnel face comes within 150m and ending when the final tunnel lining has been installed 150m beyond the section; and
    - (b) When excavation in front of a retaining wall comes within 100m of a section and ending when the permanent wall supports are in place beyond a distance of 100m.

### **S.4**

Within three days of each monitoring round, the NZTA shall use the settlement monitoring results (together with the results of groundwater monitoring where they may provide an earlier indication of future settlements) to

reassess the ground settlements and building damage categories and compare them to those estimated in Figures E.14 and G1-G4 (refer Schedule A, Row 26 and 27). If alert and alarm levels are exceeded, the trigger marker shall be resurveyed within 24 hours. If the reassessment indicates that a building has increased its damage category from that in Figures G1 – G4 (refer Schedule A, Row 27) then this shall be considered to be an Alert Level and additional specific assessment of the building shall be carried out by the NZTA to confirm this reassessment within 72 hours. If the additional assessment confirms the increase in damage category, this shall be considered to be an Alarm Level and the property owner and occupier will be notified within 48 hours. Following consultation with the property owner and occupier(s); subsequent actions may include increased frequency and/or extent of monitoring, modification to the construction approach or mitigation works to the affected building.

S.5 Settlement monitoring shall be undertaken for a period of 2 years following completion of the tunnels. The NZTA may reduce the frequency of settlement monitoring, required by Condition S.3, to 6-monthly:

- (a) Once the active construction stage has passed; and
- (b) Monthly monitoring has been undertaken for a minimum of 6 months; and
- (c) The monitoring indicates that any potential settlement effects are within a satisfactory range as specified in the SEMP; and
- (d) The criteria in (a) to (c) above has been certified by the Auckland Council.

S.6

The NZTA shall collate the results of the settlement monitoring (undertaken pursuant to Conditions S.2 – S.5) and prepare a report that shall be made available to the Auckland Council]. A settlement monitoring report shall be prepared prior to the commencement of construction, and then at monthly intervals throughout the construction period. Following the completion of construction, a settlement monitoring report shall be prepared following each round of settlement monitoring undertaken (i.e. monthly and then 6-monthly when monitoring is reduced pursuant to Condition S.5). The settlement reports shall highlight any alert or alarm level exceedances and provide a full interpretation and/or explanation as to why these levels are exceeded, the likely effects and detail any remedial or mitigation measures initiated as a result of these trigger exceedances.

### **Building Condition Surveys**

S.7 The NZTA shall review and update the schedule of buildings and structures considered to be at risk in accordance with the criteria of the SEMP and maintain this for review by the Auckland Council. This shall include, but not be limited to, the following properties identified in the Technical Report G.13 Assessment of Ground Settlement Effects provided in support of this application:

- (a) Buildings on properties within the substrata designation;
- (b) Buildings where total estimated settlement is greater than 50mm (defined in Figure E.14 – Refer Schedule A, Row 26);
- (c) Buildings in areas estimated to have a risk of damage more than negligible (defined in Figures G1-G4 as categories 1-5 (Refer Schedule A, Row 27));
- (d) Unitec Buildings 76, and 310-313 (as per Unitec Site Plan in Schedule A, Row 31);
- (e) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (f) Pak'n Save Supermarket;
- (g) Metro Football Clubhouse, Phyllis Street;
- (h) Building at 1550 Great North Road;
- (i) BP Service station at 1380 Great North Road;
- (j) Modern Chairs Building (Richardson Road);
- (k) Waterview Primary School;
- (l) Operational septic tanks where total estimated settlement is greater than 50mm; and
- (m) Buildings on the western side of the alignment between Chainage 3000 and 3400 where total estimated settlement is greater than 20mm.

S.8

The NZTA shall consult with owners of buildings and structures identified in Condition S.7 and, subject to the owner's approval of terms acceptable to the NZTA, shall undertake a preconstruction condition assessment of these structures in accordance with the SEMP.

#### S.9

The NZTA shall employ a suitably qualified person (e.g. a Chartered Professional Engineer) to undertake the building assessments required pursuant to Conditions S.8 and S.12 and identify this person in the SEMP.

#### S.10

The NZTA shall undertake monthly visual inspections of the following buildings during the “active construction” phase of the Project as defined in Condition S.3:

- (a) All Type 1 Dwellings within a zone where “more than negligible” effects have been predicted;
- (b) All Type 2 Dwellings within a zone where “slight” effects or greater have been predicted
- (c) Unitec Building 76;
- (d) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (e) Pak’n Save supermarket; and
- (f) Waterview Primary School (pool and hall).

Note: Type 1 and 2 Dwellings are those as defined in Technical Report G.13 Assessment of Ground Settlement Effects.

#### S.11

The NZTA shall undertake level and/or wall inclination surveys on a monthly basis during the “active construction” phase of the Project on the following buildings:

- (a) All Type 1 Dwellings within a zone where “slight” effects or greater have been predicted;
- (b) Unitec Building 76;
- (c) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (d) Waterview Primary School (pool); and
- (e) Pak ‘n’ Save Supermarket

#### S.12

The NZTA shall, subject to the owner(s) approval, ensure that within 6 months of completion of construction activities, a post-construction condition assessment covering the matters identified in the SEMP is undertaken and shall be provided to the owner(s). The assessment report shall include a determination of the cause of damage identified (if any) since the preconstruction condition assessments. The NZTA shall agree with the owner(s) appropriate remedial works (if any) in conjunction with arrangements for implementation and/or compensation. The requirements of this condition need not be fulfilled for any particular building with the written approval of the current owner of a building or where the NZTA can provide reasonable evidence to the Auckland Council that the current owner of that building has agreed they do not require such a survey.

#### S.13

The NZTA shall ensure that a copy of the pre, post-construction and any additional building condition assessment reports for each building be forwarded to the respective property owner(s) within 15 working days of completing the reports. The NZTA shall notify the Auckland Council that the assessments have been completed. The community liaison person appointed pursuant to Condition PI.1 shall be the contact person for owner(s) subject to assessment and reporting under Conditions S.1 to S.11 and S.16 and remedial works or compensation payments under Condition S.12 and S.16.

### **Retaining Wall Monitoring**

#### S.14

The NZTA shall establish inclinometer and surface monitoring of the retaining walls for the tunnel portals and cut and cover tunnel to determine any potential effect from the tunnels. The nature and timing of the monitoring shall be determined during detailed design of the retaining walls and specified in the SEMP.

### **Services Monitoring**

#### S.15

Prior to construction commencing, the NZTA shall undertake CCTV surveys of services identified in the SEMP as being susceptible to damage or particularly critical. This shall include, but not be limited to:

(a) Waterview Orakei No. 9 trunk sewer. The NZTA shall monitor these services by undertaking additional CCTV surveys throughout the construction period. If any damage is determined in relation to the Project, the NZTA shall undertake any remedial action as required in consultation with the service provider.

### **Slope Stability Assessments**

S.16

Prior to construction commencing, the NZTA shall undertake geotechnical investigations of slopes or sites that have been identified as potentially being susceptible to movement. This shall include, but not be limited to:

- (a) 14H and 14J Cradock Street
- (b) 34 Cradock Street
- (c) 40 Cradock Street
- (d) 56 Powell Street;
- (e) 1590A Great North Road; and
- (f) Other sites on the western slopes of Oakley Creek identified under Condition S.7(b) and S.7(m) which are assessed in the course of a pre-construction condition assessment undertaken in accordance with Condition S.8 as potentially being susceptible to slope movement.

The NZTA shall undertake monitoring throughout the active construction period in accordance with Condition S.10 above and shall assess and agree remedial action as required, in consultation with the owner, in accordance with Condition S.12 above.

### **Differential Settlement**

S.17

Pairs of settlement markers shall be established on each side of the cross sections identified on Figure E.14 to monitor differential movements. The markers in each pair shall be no more than 20m apart, and each pair shall be within 100m of the centreline of the closest tunnel. Monitoring installed in accordance with Condition S.11 can be utilised for this purpose. Each pair of markers shall have Alert and Alarm values set based on the calculated differential settlements at that location and consistent with the relevant calculated Building Damage Category (Figures G1-G4, (Refer Schedule A Row 27)), Alert and Alarm levels shall be as defined in Condition S.2. Monitoring frequency shall be as defined for Framework Markers in Condition S.3.

### **Contaminated Land and Contaminated Discharges Conditions**

CL.1

The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- (a) Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- (b) Soil validation testing and groundwater testing;
- (c) Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential reuse or disposal options;
- (d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and
- (e) Measures to be undertaken for the handling of asbestos containing material.

CL.2

Prior to the main construction works commencing, the baseline quality of soils and groundwater within Sector 5 (the southern bank of Oakley Creek coincident with the location of the former tannery) and Sector 7 (particularly in relation to works in the vicinity of Great North Road) shall be investigated and established. The investigations shall be carried out in accordance with appropriate Ministry for the Environment and Auckland Council guidelines.

The findings of the soil and groundwater investigations shall be used to determine the specific constructions methods during work in this area to manage any likely environmental effects in relation to the Project.

CL.3

Prior to the main construction works commencing, soils and fill materials within Alan Wood Reserve (Sector 9)

shall be further classified so as to determine the distribution and extent of cleanfill, managed fill and contaminated/hazardous fill materials.

#### CL.4

All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

#### CL.5

The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support of this application, including contaminated soil, surface water or groundwater. The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.6

The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.7

The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material.

#### CL.8

All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

#### CL.9

During and following the tunnel construction works beneath Sector 8, groundwater quality monitoring shall be carried out at locations within and down hydraulic gradient of Phyllis Street Landfill. Monitoring shall be undertaken on at least a monthly basis, and for a period up to 12 months following completion of the tunnel construction works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.10

Prior to, during and following tunnel construction works beneath Phyllis Street Landfill, monitoring for landfill gas shall be carried out from existing monitoring boreholes within the landfill. Monitoring shall be undertaken on at least a monthly basis, for a period of no less than 6 months prior to, and up to 12 months following completion of the tunnelling works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.11

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

- (a) Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;
- (b) Volumes of soil removed from site;
- (c) Copies of the waste disposal receipts; and
- (d) Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the site works.

### **Freshwater Conditions**

#### F.1

The NZTA shall finalise, and implement through the CEMP, the ECOMP submitted with this application. The ECOMP shall be updated to ensure compliance with the conditions of this consent and include changes to the details of construction processes prior to construction commencing. The ECOMP shall include, but not be limited to details of:

- (a) Monitoring of freshwater ecology;
- (b) Monitoring of freshwater and stream sediment quality;
- (c) Trigger event criteria for undertaking additional monitoring;
- (d) Procedures for responding to accidental discharges of contaminants to the freshwater environment; and
- (e) Contingency plans and/or remedial measures in the event monitoring results identify adverse effects.

#### F.2

The NZTA shall engage a suitably qualified ecologist and water quality scientist to undertake freshwater monitoring programme prior to, during and following construction to monitor the effect of the Project on the freshwater ecology. The freshwater monitoring shall be undertaken in Oakley Creek, Pixie Stream and Meola Creek. The freshwater monitoring programme shall be undertaken in accordance with the details set out in the ECOMP and include:

- (a) Cross sectional profiles;
- (b) Macro invertebrate sampling; and
- (c) Freshwater fish monitoring.

#### F.3

The freshwater monitoring programme shall, as a minimum, be undertaken in accordance with the following frequency:

- (a) Prior to construction – two baseline ecological surveys.
- (b) During construction – twice per year for fish and macro invertebrates and cross sectional profiles, within one month prior to the beginning of the earthworks season and within one month either side of the end of the earthworks season.
- (c) Post construction – on an annual basis for a maximum period of three years, or less if the Major Infrastructure Team Manager, Auckland Council is satisfied that no adverse effects have occurred or are likely to occur from the Project.
- (d) Monthly water quality samples at the five existing Oakley Creek sample locations to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb) and nutrients.
- (e) Four “event based” samples per annum from each of the current two Oakley Creek sites. The samples are to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb), hydrocarbons (TPH) and nutrients.
- (f) Two sediment quality samples per annum (January and July) at the five existing water quality Oakley Creek sites (if there is sufficient sediment to sample). The samples are to be analysed for metals (Zn, Cu and Pb), polycyclic aromatic hydrocarbons (PAH), hydrocarbons (TPH) and semi-volatile organic compounds.

Advice note: The sample collection and analysis required under sub-clauses (d) to (f) shall be undertaken following an IANZ accredited methodology by a suitably accredited laboratory (International Accreditation New Zealand).

#### F.4

The NZTA shall undertake additional freshwater monitoring in the event of a ‘trigger event’ for freshwater habitats. For the purposes of this consent, a ‘trigger event’ for freshwater habitats is defined in the ECOMP.

#### F.5

The NZTAs ecologist/hydrologist (required by condition F.2) shall review, every six months, the freshwater monitoring results, provided from Conditions F.2 to F.4, and results in monitoring detailed in earthworks Conditions E.9 and E.19 and Groundwater Condition G.10. In the event that potential adverse effects are identified, including through review of the Condition G.10 monitoring results by the hydrologist and freshwater ecologist required by Condition G.12, the NZTA shall develop and submit for the approval of the Major Infrastructure Team Manager, Auckland Council appropriate contingency plans and/or remedial measures in accordance with the measures set out in the ECOMP.

F.6

Freshwater monitoring reports shall be compiled from the monitoring undertaken pursuant to Conditions F.2 to F.4 and the review of Condition F.5, and a report provided to the Major Infrastructure Team Manager, Auckland Council every 6 months.

## Attachments

Figure CEMP.A - Construction Environmental Management Framework

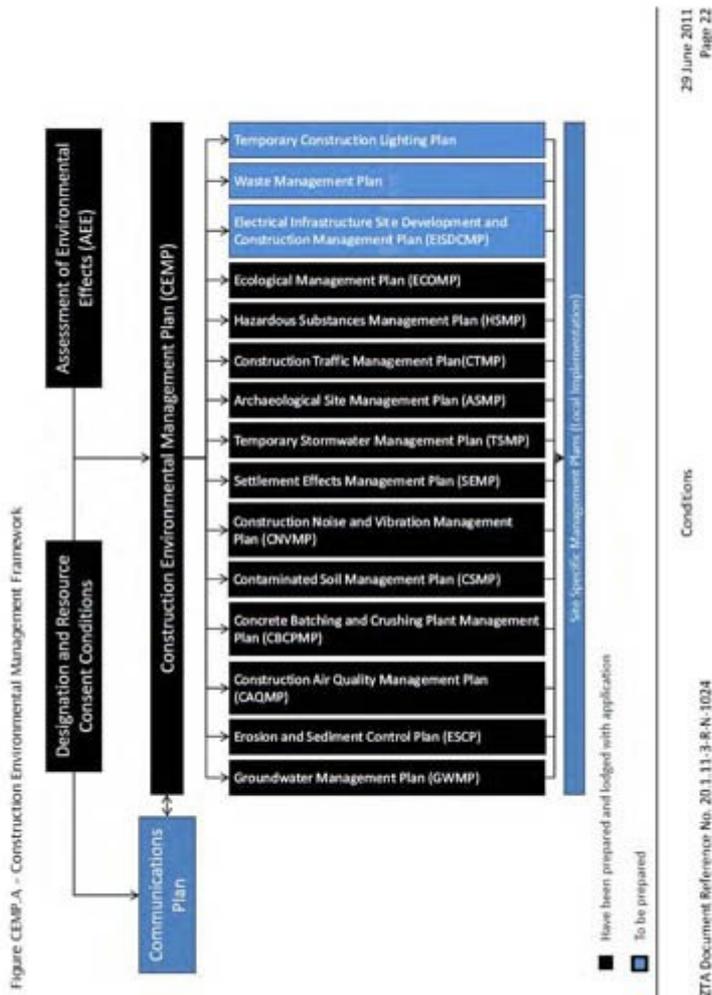
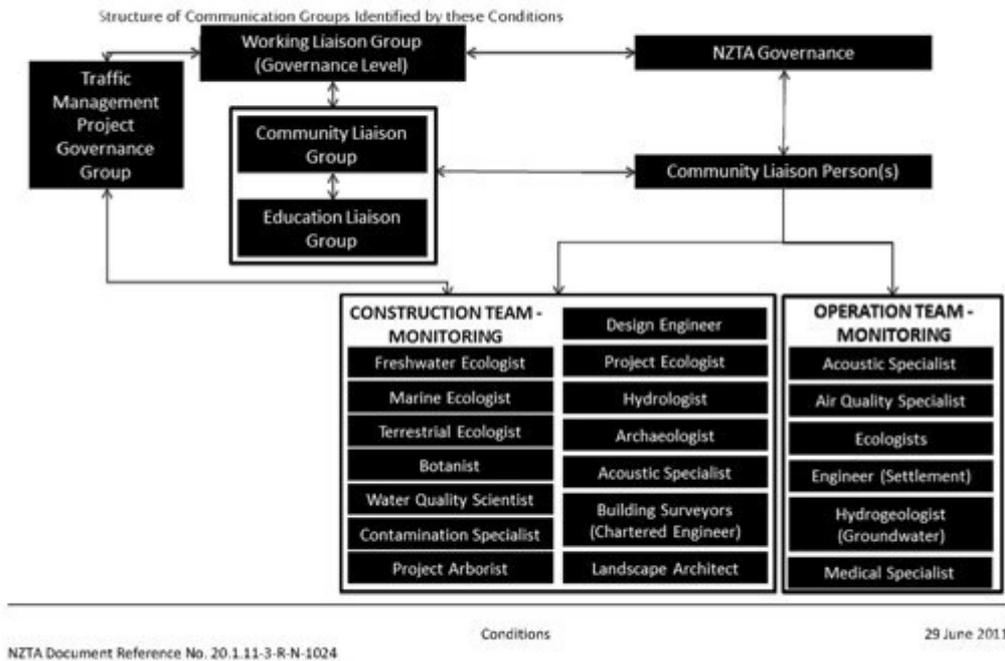


Figure PI.A - Structure of Communication Groups



...  
**6728 State Highway 20 - Waterview Connection Mt Roskill to Waterview**

Designation Number	6728
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Alan Wood Reserve, Mt Roskill to Great North Road, Waterview
Rollover Designation	Yes
Legacy Reference	Designation E04-13, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<u>The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991</u> <del>Five years from being operative in the Unitary Plan unless given effect to prior</del>

**Purpose**

For a new designation, SH20 tunnels, Great North Road underpass to Alan Wood Reserve – NOR5. New strata (subsoil) designation for construction, operation and maintenance of cut and cover and deep excavation tunnels, restricting subsurface activities beneath certain properties, through proposed Sectors 7 and 8; construction, operation and maintenance and protection of SH20 subsurface works (tunnels).

**Conditions**

For a complete set of conditions, refer to the Waterview Connection Proposal Board of Inquiry decision titled “Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal - Volume 2” dated June 2011.

## General Designation Conditions

### DC.1

Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA being the Requiring Authority), the Notice(s) of Requirement and the supporting documents, and supplementary information provided in evidence. This information is summarised as follows:

(a) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Parts A-E;

(b) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part F: Plans and Drawings, except as updated through the hearing (Refer Schedule A for current plan and drawing references); and

(c) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part G: Technical Reports:

(i) Technical Report G.1 Assessment of Air Quality Effects

(ii) Technical Report G.2 Assessment of Archaeological Effects

(iii) Technical Report G.3 Assessment of Avian Ecological Effects

(iv) Technical Report G.4 Assessment of Coastal Processes

(v) Technical Report G.5 Assessment of Construction Noise Effects

(vi) Technical Report G.6 Assessment of Freshwater Ecological Effects

(vii) Technical Report G.7 Assessment of Groundwater Effects

(viii) Technical Report G.8 Assessment of Herpetofauna Ecological Effects

(ix) Technical Report G.9 Assessment of Land and Groundwater Contamination

(x) Technical Report G.10 Assessment of Lighting Effects

(xi) Technical Report G.11 Assessment of Marine Ecological Effects

(xii) Technical Report G.12 Assessment of Operational Noise Effects

(xiii) Technical Report G.13 Assessment of Ground Settlement Effects

(xiv) Technical Report G.14 Assessment of Social Effects

(xv) Technical Report G.15 Assessment of Stormwater and Streamworks Effects

(xvi) Technical Report G.16 Assessment of Temporary Traffic Effects

(xvii) Technical Report G.17 Assessment of Terrestrial Vegetation Effects

(xviii) Technical Report G.18 Assessment of Transport Effects

(xix) Technical Report G.19 Assessment of Vibration Effects

(xx) Technical Report G.20 Assessment of Visual and Landscape Effects

(xxi) Technical Report G.21 Construction Environmental Management Plan (CEMP)

(xxii) Technical Report G.22 Erosion and Sediment Control Plan (ESCP)

(xxiii) Technical Report G.23 Coastal Works

(xxiv) Technical Report G.24 Geotechnical Interpretive Report

(xxv) Technical Report G.25 Traffic Modelling Report

(xxvi) Technical Report G.26 Operational Model Validation Report

(xxvii) Technical Report G.27 Stormwater Design Philosophy Statement

(xxviii) Technical Report G.28 Geotechnical Factual Report – 500 Series

(xxix) Technical Report G.29 Geotechnical Factual Report – 700 Series

(xxx) Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads

(xxxi) Technical Report G.31: Technical Addendum Report (September 2010)

(d) PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).

(e) Waterview Connection Project, Evidence and Supplementary Information provided to the Board of Inquiry:

(i) Evidence in Chief (Numbers 1-37)

(ii) Rebuttal Evidence (Numbers 1-33)

(iii) Supplementary Information (Numbers 1-8)

### DC.1A

Within 3 months of the designations being confirmed for the Project (or at least 1 month prior to any Auckland Council approvals or certifications required by these Conditions, whichever is the earlier), the NZTA shall update and finalise to the satisfaction of the Major Infrastructure Team Manager, Auckland Council all drawings and Plans cited in Schedule A, and provide a full set of the information and documentation referred to in Condition

DC.1 to the Major Infrastructure Team Manager Auckland Council. At the same time the NZTA shall prepare to the satisfaction of the Major Infrastructure Team Leader, Auckland Council, a document for each designation which sets out the designation and have attached to it in text format a comprehensive set of the conditions imposed by the Board of Inquiry in its Final Decision as summarised in Schedule B, inclusive of any standard conditions and advice notes.

In particular (but not limited to), the following Plans will need to be amended in light of these Final Conditions:

- (a) F.2 Operational Scheme Plans (refer Schedule A, Row 3) require amendment detailing the amended location of the ventilation stacks and southern ventilation buildings;
- (b) F.5 Construction Scheme Plans (refer Schedule A, Row 4) require amendment to detail changes to the construction footprint for the amended location of the ventilation stacks and southern ventilation buildings and reconfiguration of Construction Yard 1);
- (c) F.6 Construction Yard Plans 101 and 107 (refer Schedule A, Row 7), detailing amendments to the Construction Yard 1 in light of the reconfiguration of this Yard and for Construction Yard 7 in light of the relocation of the northern ventilation stack (refer Schedule A, Row 34);
- (d) F.8 Plans of Structures and Architectural Features (refer Schedule A, Row 9), detailing the amended location of the northern ventilation stack and the design and location of the southern ventilation building and stack;
- (e) The CNVMP (including flow diagram and the supplementary evidence produced by Ms Wilkening) (refer Schedule A, Rows 36, 37 and 39);
- (f) The areas of the Open Space Restoration Plans (Schedule A, Row 30) to:
  - (i) Extend these areas in geographic extent to provide for the works identified in the Management Plan notations identified in the OS Conditions (in particular OS.5 and OS.6) (e.g. these areas will (as relevant) include Eric Armishaw Park, Howlett Reserve and Waterview Esplanade Reserve); and
  - (ii) Exclude the operational area of designation required for the northern ventilation stack (as identified through the OPW process (refer Condition DC.8); and
- (e) Schedule A, Row 28 the Plan detailing proposed open space impacts and replacements needs to be updated to recolour the two land parcels on Hendon Avenue (which are excluded from the replacement calculations) to 'brown' to confirm they are part of the operational impact and will not be returned as open space.

#### DC.2

The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991.  
~~The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

#### DC.3

The NZTA shall update and finalise the relevant Construction and Operational Management Plans required under these conditions to ensure compliance with the designation conditions imposed by the Board of Inquiry. The relevant Management Plans shall be submitted to the Major Infrastructure Team Manager, Auckland Council within the timeframes specified in the following conditions. No works shall be undertaken until the relevant management plans have been finalised and certified or approved in accordance with the relevant conditions.

#### DC.4

Any Management Plans submitted to the Major Infrastructure Team Manager, Auckland Council for approval or certification may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted shall clearly show the integration with adjacent stages and interrelated activities.

#### DC.5

In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager certification/ approvals required by the designation conditions, or as to the implementation of or monitoring required by the conditions, matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a process of resolution. If a resolution cannot be agreed, then the matter may be referred to an independent appropriately qualified expert, agreeable to both

parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree. The independent appropriately qualified expert shall be appointed within 10 working days of the NZTA or Auckland Council giving notice of their intention to seek expert determination. The expert shall, as soon as possible, issue his or her decision on the matter. In making the decision, the expert shall be entitled to seek further information and hear from the parties as he or she sees fit.

Advice note: The dispute resolution process provided for in this condition does not prejudice any party's right to take enforcement action in relation to the implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except in urgent situations.

#### DC.6

Except for Conditions DC.7, DC.8 and DC.9, the NZTA shall be exempt from providing an Outline Plan of Works for the Project, as provided for in Section 176A (2)(a) and (b) of the RMA.

Advice note: The Construction and Operational Management Plans, together with the provision of detailed drawings required by Condition DC.1(b) are considered sufficient detail in all aspects of the Project, with the exception of proposed works for the northern and southern ventilation buildings and stacks where further details are required.

#### DC.10

The NZTA shall give notice to the Manager Regional and Local Planning, Auckland Council in accordance with Section 182 and 181 respectively of the RMA for:

(a) Within six months of the State highway opening (being operational), removal of those parts of the designation that are not required for the long term operation, maintenance and mitigation of effects of the State highway.

Note: this condition is specific to land no longer required for construction purposes once the Project is completed and includes the land of 6 Barrymore Road, refer Condition OS.17.

(b) The designation to be altered to remove those conditions no longer required for long term operation and maintenance of the Project.

#### DC.12

Unless otherwise provided for by Condition RC.2, if any monitoring required to be undertaken by any party by the designation conditions indicates non-compliance with any designation condition, the NZTA must provide written notice to the Major Infrastructure Team Manager Auckland Council as soon as it becomes aware of same, stating the following:

- (a) A description of the non-compliance; and
- (b) The measures NZTA proposes for addressing the non-compliance, including any additional mitigation measures.

Subject to the Council's approval, the NZTA must implement the additional mitigation measures to address the non-compliance.

#### DC.13

Pursuant to Section 36(1)(d) of the RMA, the requiring authority is required to pay to Auckland Council any administrative charge for the carrying out by the local authority of its functions in relation to the administration, monitoring, and supervision of designation conditions.

#### DC.14

The servants of agents of Auckland Council shall be permitted to have access to relevant parts of the Project at all reasonable times for the purpose of carrying out inspections, investigations, tests, measurements and/or to take samples.

### **Construction Environment Management Plan Conditions**

#### CEMP.1

Except where provided for in Condition CEMP.1A below, the NZTA shall update and finalise the draft Construction Environmental Management Plan (CEMP) including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until certification is obtained.

Advice note: For clarity the CEMP will be updated and finalised in accordance with the conditions. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register.

Advice note: Particular care must be taken with development and operation of Construction Yard 7. When the CEMP is being updated and finalised, consideration must be given to the contents of the draft SSCEMP prepared for Construction Yard 7 (Row 41, Schedule A) recognising changes required by inclusion of the ventilation stack in this yard.

#### CEMP.2

The certification process of the CEMP (and its appendices) shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in CEMP.6, and that it includes details of:

- (a) Staff and contractors' responsibilities;
- (b) Training requirements for employees, sub-contractors and visitors;
- (c) Environmental incident and emergency management;
- (d) Communication and interface procedures (in accordance with the Communication Plan required under Condition PI.2);
- (e) Environmental complaints management (including the procedures required under Condition PI.4);
- (f) Compliance monitoring;
- (g) Reporting (including detail on the frequency of reporting to the Auckland Council);
- (h) Environmental auditing; and
- (i) Corrective action.

#### CEMP.3

The management of key environmental effects associated with the construction phase of the Project is detailed within environmental management plans that are included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- (a) Construction Noise and Vibration Management Plan (CNVMP);
- (b) Construction Air Quality Management Plan (CAQMP);
- (c) Erosion and Sediment Control Plan (ESCP);
- (d) Temporary Stormwater Management Plan (TSMP);
- (e) Ecological Management Plan (ECOMP);
- (f) Groundwater Management Plan (GWMP);
- (g) Settlement Effects Management Plan (SEMP);
- (h) Contaminated Soils Management Plan (CSMP);
- (i) Hazardous Substances Management Plan (HSMP);
- (j) Archaeological Site Management Plan (ASMP);
- (k) Construction Traffic Management Plan (CTMP);
- (l) Concrete Batching and Crushing Plant Management Plan (CBCPMP);
- (m) Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP) (to be prepared in accordance with Condition CEMP.15);
- (n) Waste Management Plan (to be prepared in accordance with Condition CEMP.10); and
- (o) Temporary Construction Lighting Management Plan (to be prepared in accordance with Condition L.2).

#### CEMP.4

The CEMP shall be implemented and maintained throughout the entire construction period.

#### CEMP.5

A copy of the CEMP shall be held on each construction site at all times and be available for inspection on request by the Auckland Council.

#### CEMP.6

The finalised CEMP shall include specific details on demolition, construction and management of all works associated with the Project. The certification process of the CEMP shall confirm that the CEMP includes details of the following:

- (a) Details of the site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) The location of large notice boards that clearly identify the NZTA and the Project name, together with the name, telephone, email address and address for service of the site or Project manager and the community liaison person;
- (c) An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- (d) The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;
- (e) Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- (f) Location of worker's offices and conveniences (e.g. porta-loos);
- (g) Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- (h) Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (Nov 2007);
- (i) Procedures for ensuring that residents within 100m of construction areas or other people whose use of an area may be disrupted by construction works (for example the Te Atatu Boating Club for works on the Whau River) are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- (j) Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- (k) Means of ensuring the safety of the general public;
- (l) Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- (m) Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- (n) All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- (o) Confirmation of a Project Arborist and completion of a STEM assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE to confirm the final Amenity Trees; and
- (p) The process to minimise removal of Amenity Trees, maximise the protection of those retained, undertake relocation of Amenity Trees and replacement planting of specimen trees (in accordance with Conditions LV.10 and ARCH.9)).
- (q) Advice note: For the purposes of CEMP.6(o) and (p), Amenity Tree is defined as a tree or trees that contribute significantly to amenity, taking into account its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE).

#### CEMP.7

The layout of the 12 Construction Yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans (Refer Schedule A, Row 7). The layout drawings shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- (a) The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview

Connection Project Construction Yards Drawings (Refer Schedule A, Row 7);

(b) Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings; Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;

(c) Temporary acoustic fences and visual barriers;

(d) Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on adjacent residential dwellings; and Location of workers' and Project vehicle parking.

#### CEMP.8

All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

#### CEMP.9

Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

#### CEMP.10

The NZTA shall finalise and implement the Hazardous Substances Management Plan (HSMP), through the CEMP (as per Condition CEMP.1), submitted with this application, prior to works commencing on site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the Project and confirm that there shall be no storage of explosives on the Project site.

#### CEMP.11

The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the CEMP. The Plan shall be provided to the Major Infrastructure Team Manager, Auckland Council and be implemented throughout the entire construction period.

#### CEMP.12

The CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the Project. The review shall take into consideration:

- (a) Compliance with designation and consent conditions;
- (b) Any changes to construction methods;
- (c) Key changes to roles and responsibilities within the Project;
- (d) Changes in industry best practice standards;
- (e) Changes in legal or other requirements;
- (f) Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- (g) Public complaints.

A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Team Manager, Auckland Council and made available (with any related data) to the Auckland Council upon request.

#### CEMP.13

Following the review process (as described in Condition CEMP.12), the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

#### Advice Note:

Material change will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse

effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.

#### CEMP.14

The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP). The EISDCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council, and include:

(a) Methods and measures:

(i) To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.

(ii) To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines

(iii) To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures.

(iv) To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.

(b) Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.

(c) Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:

(i) Clause 2.2 with respect to excavations near overhead support structures;

(ii) Clause 2.4 with respect to buildings near overhead support structures;

(iii) Section 3 with respect to minimum separation between buildings and conductors;

(iv) Section 5 with respect to minimum safe distances for the operation of mobile plant; and,

(v) Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.

(d) Confirmation that Transpower has been provided a copy of the EISDCMP for their review at least 20 working days prior to construction.

Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as Project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).

#### CEMP.15

The NZTA will be responsible for all service relocations required for construction of the Project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to water, gas, stormwater, wastewater, power and telecommunications), and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the Project, with the objective of minimising disruption to the operation of these service networks and onsite services.

Advice note:

(a) It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.

(b) Network infrastructure owned and operated by Watercare Services is located within the designations. An operating agreement will be developed by the NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.

### **Public Information Conditions**

#### PI.1.

A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This

person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

#### PI.2.

The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions).

In preparing the Communications Plan, the NZTA will liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

- (a) The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;
- (c) The database of stakeholders and residents who will be communicated with;
- (d) Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);
- (e) The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);
- (f) Any stakeholder specific communication plans required; and
- (g) Monitoring and review procedures for the Communications Plan.

The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these conditions is attached as Figure PI.A.

#### PI.3.

At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- (a) Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- (b) Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

#### PI.4.

The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- (a) A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- (b) The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- (c) Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- (d) The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action

taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;

(e) Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and

(f) All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

#### PI.5.

The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- (a) Te Atatu (including the SH16 Causeway)
- (b) Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- (c) Owairaka

and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- (a) Auckland Council and Auckland Transport;
- (b) Educational facilities within the Project area (including schools, kindergartens, childcare facilities and Unitec Institute of Technology);
- (c) Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;
- (d) Department of Conservation;
- (e) Local Boards;
- (f) Iwi groups with Mana Whenua;
- (g) Public transport providers; and
- (h) Housing New Zealand Corporation.

Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.

#### PI.6.

The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things):

- (a) The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k));
- (b) The Open Space Restoration Plans (as required by Condition OS.3);
- (c) Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);
- (d) The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);
- (e) The detail of the Oakley Creek restoration (as required by Condition STW.20);
- (f) Publicly available results of environmental monitoring as required by the designation and/or these Consents (e.g. air quality monitoring); and
- (g) The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to

be removed for consideration of timber use in heritage projects as required by Condition SO.7.

Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.

(h) Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

## **Operational Traffic Conditions**

### **Tunnel Traffic Operation Plan**

OT.2

The NZTA shall prepare a Tunnel Traffic Operation Plan in consultation with the Auckland Transport and Auckland Council. The Plan shall include, but not be limited to:

- (a) Procedures for tunnel operational safety, including fire-life safety;
- (b) Procedures for maintenance requirements.
- (c) Procedures for managing traffic to avoid or minimise potential congestion within the tunnel, particularly during peak periods.
- (d) Procedures for the management of traffic during incidents.
- (e) Procedures for the operation of tunnel fans and the management of portal emissions.
- (f) Confirmation that all equipment has been tested and operates in accordance with requirements and specifications.

The Tunnel Traffic Operation Plan shall be completed and provided to Auckland Transport and to the Major Infrastructure Team Manager, Auckland Council (in respect of Condition OT.2(e)), prior to operational use of the tunnelled section of SH20.

Advice note: The operation and maintenance of the air quality monitoring equipment inside the tunnel shall follow manufacturer's recommendations.

## **Noise and Vibration Conditions – Construction**

CNV.1

The NZTA shall finalise and implement through the CEMP, a Construction Noise and Vibration Management Plan (CNVMP) throughout the entire construction period of the Project.

The CNVMP shall describe the measures adopted to meet:

- (a) the noise criteria set out in Conditions CNV.2 and 3 below;
- (b) the vibration criteria set out in Condition CNV.4 below; or
- (c) where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

- (i) Construction noise and vibration criteria (Conditions CNV.2, CNV.3, and CNV.4);
- (ii) Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;
- (iii) Machinery and equipment to be used;
- (iv) Vibration testing of equipment to confirm safe distances to buildings prior to construction;
- (v) Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;
- (vi) Roles and responsibilities of personnel on site;
- (vii) Construction operator training procedures;
- (viii) Methods for monitoring and reporting on construction noise and vibration;
- (ix) A hierarchy of mitigation options that will be assessed for the Project noise mitigation, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved;
- (x) Management schedules containing site specific information;
- (xi) Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically:

- PPFs located within a horizontal distance of 35 metres of underground excavation works, along the tunnel alignment shall receive prior notification not greater than 7 days (and not less than 24 hours) prior to the commencement of works.
  - Methods for ensuring residents affected by night works (within 100m of the construction site night works, as defined on the maps (refer Schedule A, Row 35) are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.
  - The maps showing PPFs to be notified of night works (refer Schedule A, Row 35, shall be reviewed and included within the CNVMP.
- (xii) Methods for receiving and handling complaints about construction noise and vibration;
- (xiii) Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover);
- (xiv) Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation (as per Condition CNV.7);
- (xv) Investigations of the practicability of implementing Building Modification mitigation, as required in accordance with Conditions ON.6 and ON.11, prior to commencement of construction within 100m of the relevant PPFs (including those on the Unitec site); and
- (xvi) The process for developing Site Specific Noise Management Plans (SSNMP), in accordance with the SSNMP Flow Chart (refer Schedule A, Row 36), including templates and a certification process for the Major Infrastructure Team Manager, Auckland Council (in accordance with Condition CNV.13) to confirm the process of SSNMP review of noise mitigation options where, the modelled/predicted levels or subsequent actual levels exceed the criteria in Conditions CNV.2 and/or CNV.4.

#### CNV.2

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 "Acoustics - Construction Noise" and shall comply with the following criteria:  
 Note: In Condition CNV.2 (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999.

#### (a) Project Construction Noise Criteria: Residential Receivers

Time of Week	Time period	Project Construction Noise Criteria (Long Term Construction)		
		Sectors 1-7 LAeq(T)	Sectors 8-9 LAeq(T)	All Sectors LAeq(T)
Monday- Saturday	0630-0730	60	45	75
	0730-1800	70	70	85
	1800-2000	65	65	80
	2000-0630	60	45	75
Sundays and Public Holidays	0630-0730	45	45	75
	0730-1800	60	45	85
	1800-2000	45	45	75
	2000-0630	45	45	75

#### (b) Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	LAeq(T)
0730-1800	70
1800-0730	75

#### (c) Project Construction Noise Criteria: Internal Structure-borne Noise from tunnelling for Residential Receivers

Time Period	Project Construction Noise Criteria Inside	
0600-2200	35 dB LAeq(T)	All habitable rooms

2200-0600	30 dB LAeq(T)	Bedrooms
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(d) Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside	
Teaching Hours	45 dB LAeq(T)	Classrooms, library, offices, teaching, laboratories, manual arts, workshops
Teaching Hours	40 dB LAeq(T)	School hall, lecture theatres

Note: In Condition CNV2(d) "Teaching hours" means: Primary schools and Kindergartens: 9am to 3pm Unitec: 8am to 9pm

CNV.3

Project Construction Noise Criteria: Airblast (excluding Sundays)

Category	Type of Blasting Operations	Peak Sound Pressure Level (LZpeak dB)
<b>Human Comfort Limits</b>		
Sensitive Site	Operations lasting longer than 12 months or more than 20 Blasts	115 dB for 95% blasts per year. 120 dB maximum unless agreement is reached with occupier that a higher limit may apply
Sensitive Site	Operations lasting less than 12 months or less than 20 Blasts	120 dB for 95% blasts per year. 125 dB maximum unless agreement is reached with occupier that a higher limit may apply
Occupied non-sensitive sites such as factories and commercial premises	All blasting	125 dB maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications of levels that can be shown to adversely affect the equipment operation
<b>Damage Control Limits</b>		
Structures that include masonry, plaster and plasterboard in their construction and also unoccupied structures of reinforced concrete or steel construction	All blasting	133 dB unless agreement is reached with owner that a higher limit may apply.
Service structures such as pipelines, powerlines and cables located above ground	All blasting	Limit to be determined by structural design methodology

CNV.4

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 "Structural vibration – Part 3: Effects of vibration on structures", and shall comply with the criteria set out as follows:

Type of Structure	Short-term vibration			PPV at horizontal plane of highest floor (mm/s)	Long-term vibration
	PPV at the foundation at a frequency of				
	1-10 Hz (mm/s)	1-50 Hz (mm/s)	50-100 Hz (mm/s)	PPV at horizontal plane of highest floor (mm/s)	PPV at horizontal plane of highest floor (mm/s)

Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive structures	3	3-8	8-10	8	2.5

#### CNV.5

Notwithstanding Condition CNV.3 above,

(a) Blasting activities shall be conducted so that 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

(b) Construction activities, which occur within Sectors 1, 6, 8 and 9 which are identified in Technical Report no. G.19 Assessment of Vibration Effects, as being at a 'High Risk' of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

#### CNV.6

Blasting shall be undertaken between 09:00h and 17:00h, Monday to Saturday, except that blasting may be undertaken between 09:00h and 17:00h on Sundays where:

- (a) The blasting is at least 50m inside the Sector 8 tunnel;
- (b) The blasting produces peak particle velocities at any residential building not exceeding 0.5mm/s; and
- (c) The Project construction noise criteria set out in Condition CNV.2 for Sundays are complied with.

#### CNV.7

Where practicable, permanent (traffic) noise barriers, required in any Sector as Detailed Mitigation Options for operational noise following completion of the Project (in accordance with Conditions ON.3 to ON.5) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented in accordance with the CNVMP, prior to noise generating construction works commencing.

#### CNV.8

Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

#### CNV.9

The concrete batch plants, rock crushing plants and the loading bays and conveyors for such plants shall be fully enclosed.

#### CNV.10

If noise and vibration monitoring of the tunnelling works for the Project (in accordance with Condition CNV.1), indicates that the noise or vibration criteria of Conditions CNV.2(c) or CNV.4 will potentially be exceeded and that temporary relocation will be offered for residents at 1510 Great North Road, then relocation (and temporary transportation) shall be arranged with the leaseholder at 1510 Great North Road for tenants (with at least 1 months' notice to the leaseholder prior to relocation). Any accepted offer of relocation is to be in place prior to tunnelling works within 50m of the building at 1510 Great North Road.

#### CNV.11

For all other properties, if noise and vibration monitoring of the tunnelling works for the Project (in accordance with Condition CNV.1), indicates that the noise or vibration criteria of Conditions CNV.2 or CNV.4 will potentially be exceeded, then the process set out in the CNVMP will be undertaken including Site Specific Noise Management Plans. Where relocation for residents is proposed, notification of such relocation with residents and property owners will be undertaken in accordance with the processes contained in the CNVMP.

#### CNV.12

Any relocation required by CNV.10 will not be undertaken in the period between 10 working days prior to any Unitec examinations and the completion of those examinations.

#### CNV.13

SSNMPs (required by Condition CNV.1(xvi)) above, shall be submitted to Major Infrastructure Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing. A decision will be provided by the Council within 5 working days of receipt of the SSNMP.

Works will not commence until certification is received from the Major Infrastructure Team Manager, Auckland Council. The Council may, at its discretion, waive the requirement for SSNMPs to be submitted to the Council where an SSNMP is required.

If monitoring shows that levels specified in a SSNMP are being exceeded, work generating the exceedence will stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP certified by Council.

Advice note: It is accepted that the criteria of CNV.2 and CNV.4 may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in Condition CNV.1 (ix).

### **Vibration Conditions - Operation**

#### OV.1

Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Team Manager, Auckland Council for approval prior to the commencement of works. These baseline measurements will establish pre-Project vibration levels for comparison with future vibration levels.

### **Operational Air Quality Conditions**

#### OA.2

Prior to the tunnels becoming operational, the NZTA shall establish two ambient air quality monitoring stations and one portal air quality monitoring station. The location and types of these monitoring stations shall be selected by the NZTA in consultation with the Auckland Council and Peer Review Panel (Condition OA.7), providing that one ambient monitoring station will be located within the Waterview Primary School (subject to agreement by the School).

Ambient air quality shall be monitored continuously in real time, to monitor potential effects associated with the operation of the ventilation system from the tunnels. Ambient monitoring shall include fine particulates (PM10 and PM2.5) and nitrogen dioxide. Portal monitoring shall include nitrogen dioxide. Results shall be compared with the relevant National Environmental Standards for air quality and Auckland Regional air quality targets (as identified in Chapter 4 of the Auckland Regional Plan: Air, Land and Water, 2010). Monitoring shall be undertaken at each site until the Peer Review Panel recommends that monitoring is no longer necessary. The locations, operation and maintenance schedules of the continuous monitors shall, as far as practicable, comply with the requirements of AS/NZ 3580.1.1: 2007 Method for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment, and with methods specified in the National Environment Standards.

### **Ground Settlement Conditions**

#### S.1

The NZTA shall finalise, and implement through the CEMP, the Settlement Effects Management Plan (SEMP) lodged with the application prior to construction activities being undertaken. Prior to construction (following detailed investigation and design), the total estimated settlements and building damage categories shall be confirmed using the methodology in Technical Report G.13 Assessment of Ground Settlement Effects and the SEMP shall be updated accordingly.

In the event that settlement predictions are greater (than those allowed for in Figure E.14 (refer Schedule A, Row 26)) or building damage categories increase in ranking or buildings affected from those identified in Figures G1-G4 (refer Schedule A, Row 27), mitigation measures shall be introduced as part of the detailed design and construction process to avoid any adverse effects greater than predicted by the application lodged in August

2010.

### **Settlement Monitoring**

S.6

The NZTA shall collate the results of the settlement monitoring (undertaken pursuant to Conditions S.2 – S.5) and prepare a report that shall be made available to the Auckland Council]. A settlement monitoring report shall be prepared prior to the commencement of construction, and then at monthly intervals throughout the construction period. Following the completion of construction, a settlement monitoring report shall be prepared following each round of settlement monitoring undertaken (i.e. monthly and then 6-monthly when monitoring is reduced pursuant to Condition S.5). The settlement reports shall highlight any alert or alarm level exceedances and provide a full interpretation and/or explanation as to why these levels are exceeded, the likely effects and detail any remedial or mitigation measures initiated as a result of these trigger exceedances.

### **Differential Settlement**

S.17

Pairs of settlement markers shall be established on each side of the cross sections identified on Figure E.14 to monitor differential movements. The markers in each pair shall be no more than 20m apart, and each pair shall be within 100m of the centreline of the closest tunnel. Monitoring installed in accordance with Condition S.11 can be utilised for this purpose. Each pair of markers shall have Alert and Alarm values set based on the calculated differential settlements at that location and consistent with the relevant calculated Building Damage Category (Figures G1-G4, (Refer Schedule A Row 27)), Alert and Alarm levels shall be as defined in Condition S.2. Monitoring frequency shall be as defined for Framework Markers in Condition S.3.

### **Contaminated Land and Contaminated Discharges Conditions**

CL.1

The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- (a) Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- (b) Soil validation testing and groundwater testing;
- (c) Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential reuse or disposal options;
- (d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and
- (e) Measures to be undertaken for the handling of asbestos containing material.

CL.2

Prior to the main construction works commencing, the baseline quality of soils and groundwater within Sector 5 (the southern bank of Oakley Creek coincident with the location of the former tannery) and Sector 7 (particularly in relation to works in the vicinity of Great North Road) shall be investigated and established. The investigations shall be carried out in accordance with appropriate Ministry for the Environment and Auckland Council guidelines.

The findings of the soil and groundwater investigations shall be used to determine the specific constructions methods during work in this area to manage any likely environmental effects in relation to the Project.

CL.3

Prior to the main construction works commencing, soils and fill materials within Alan Wood Reserve (Sector 9) shall be further classified so as to determine the distribution and extent of cleanfill, managed fill and contaminated/hazardous fill materials.

CL.4

All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

#### CL.5

The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support of this application, including contaminated soil, surface water or groundwater. The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.6

The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.7

The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material.

#### CL.8

All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

#### CL.9

During and following the tunnel construction works beneath Sector 8, groundwater quality monitoring shall be carried out at locations within and down hydraulic gradient of Phyllis Street Landfill. Monitoring shall be undertaken on at least a monthly basis, and for a period up to 12 months following completion of the tunnel construction works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.10

Prior to, during and following tunnel construction works beneath Phyllis Street Landfill, monitoring for landfill gas shall be carried out from existing monitoring boreholes within the landfill. Monitoring shall be undertaken on at least a monthly basis, for a period of no less than 6 months prior to, and up to 12 months following completion of the tunnelling works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.11

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

- (a) Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;
- (b) Volumes of soil removed from site;
- (c) Copies of the waste disposal receipts; and
- (d) Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the site works.

## Attachments

### Figure CEMP.A - Construction Environmental Management Framework

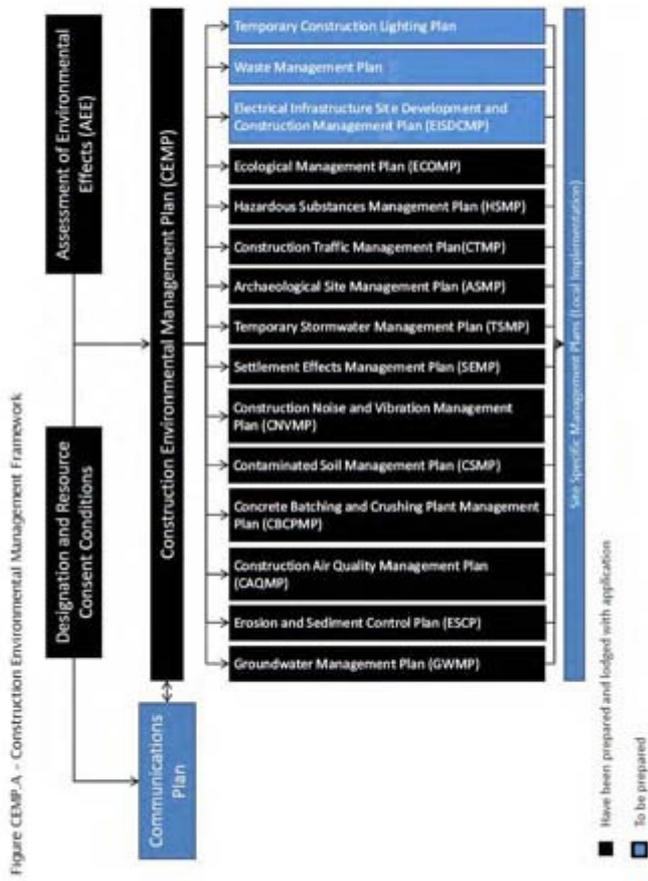
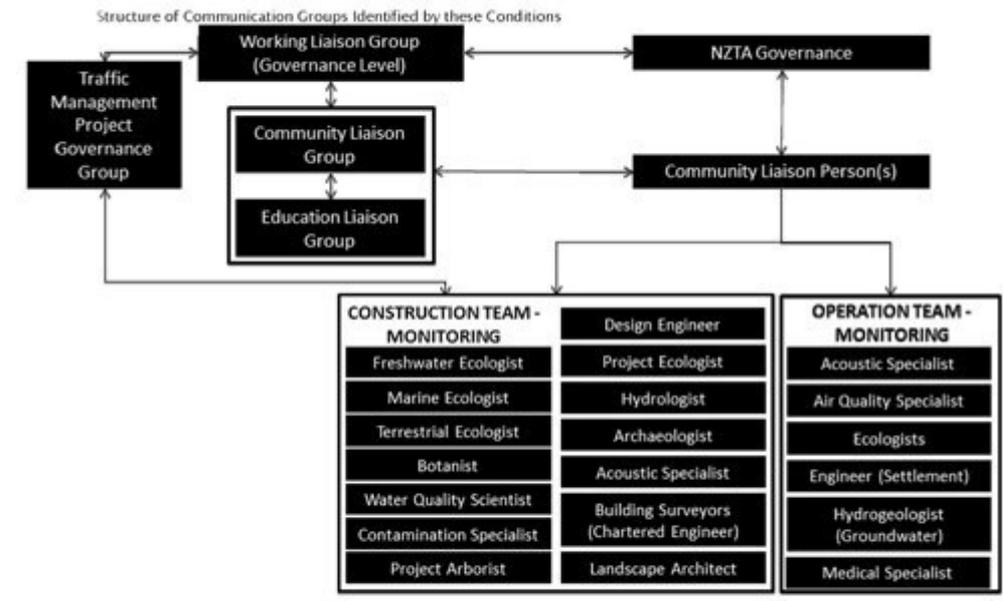


Figure PI.A - Structure of Communication Groups



NZTA Document Reference No. 20.1.11-3-R-N-1024

Conditions

29 June 2011

## 6729 State Highway 20 and Railway - Mt Roskill

Designation Number	6729
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Hillsborough Road, Hillborough to Maioro Street, Mt Roskill
Rollover Designation	Yes
Legacy Reference	Designation F05-05, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<del>Five years from being operative in the Unitary Plan unless given effect to prior</del> <u>Given effect to (i.e no lapse date)</u>

## Purpose

Proposed motorway; proposed motorway and railway; proposed road, Hayr Road to Richardson Road.

## Conditions

1. That at the time of detailed design an environmental impact assessment be undertaken to determine effects the works will have on the environment and the most appropriate means of mitigating these effects.
2. That a landscape plan be submitted to the Council at the time of detailed design including fencing and planting which will be implemented at the boundary of the motorway with all land zoned residential and open space to minimise noise effects and provide screening.
3. That vehicle access across May Road, Dominion Road and Hayr Road be maintained when construction is completed.

4. That roading seals which minimise noise levels be incorporated into the final design.

5. That short term construction effects including noise, visual effects and dust be mitigated through construction methods which reduce these effects.

~~6. The term for implementation of this designation shall be 8 years from the inclusion of the designation in the District Plan.~~

## Attachments

No attachments.

## 6730 State Highway 20 - Waterview Connection Mt Roskill

Designation Number	6730
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Maioro Street to Alan Wood Reserve, Mt Roskill
Rollover Designation	Yes
Legacy Reference	Designation F05-11, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	<del>Five years from being operative in the Unitary Plan unless given effect to prior <u>June 2021</u></del>

## Purpose

For new designation, SH20, southern tunnel portal to Maioro Street interchange – NOR7. New surface designation for construction, operation and maintenance of the SH20 surface component from Maioro Street Interchange to the proposed tunnels; includes land for structures associated with tunnel operation and works for mitigation and local road access and ramps; land taken from reserves and from land owned by the Crown for rail and residential purposes, generally in Sector 9. Works for construction, operation and maintenance of SH20 described above and including stormwater treatment, wetland ponds, ancillary safety and operational services, ventilation building and stack, temporary works, vegetation removal and restoration works, cycleway extension, landscaping and planting, installation and maintenance of grout curtain for groundwater management.

## Conditions

For a complete set of conditions, refer to the Waterview Connection Proposal Board of Inquiry decision titled “Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal - Volume 2” dated June 2011.

### General Designation Conditions

DC.1

Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA being the Requiring Authority), the Notice(s) of Requirement and the supporting documents, and supplementary information provided in evidence. This information is summarised as follows: (a) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Parts A-E; (b) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part F: Plans and Drawings, except as updated through the hearing (Refer Schedule A for current plan and drawing references); and (c) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part G: Technical Reports:

- (i) Technical Report G.1 Assessment of Air Quality Effects
- (ii) Technical Report G.2 Assessment of Archaeological Effects
- (iii) Technical Report G.3 Assessment of Avian Ecological Effects
- (iv) Technical Report G.4 Assessment of Coastal Processes
- (v) Technical Report G.5 Assessment of Construction Noise Effects

- (vi) Technical Report G.6 Assessment of Freshwater Ecological Effects
- (vii) Technical Report G.7 Assessment of Groundwater Effects
- (viii) Technical Report G.8 Assessment of Herpetofauna Ecological Effects
- (ix) Technical Report G.9 Assessment of Land and Groundwater Contamination
- (x) Technical Report G.10 Assessment of Lighting Effects
- (xi) Technical Report G.11 Assessment of Marine Ecological Effects
- (xii) Technical Report G.12 Assessment of Operational Noise Effects
- (xiii) Technical Report G.13 Assessment of Ground Settlement Effects
- (xiv) Technical Report G.14 Assessment of Social Effects
- (xv) Technical Report G.15 Assessment of Stormwater and Streamworks Effects
- (xvi) Technical Report G.16 Assessment of Temporary Traffic Effects
- (xvii) Technical Report G.17 Assessment of Terrestrial Vegetation Effects
- (xviii) Technical Report G.18 Assessment of Transport Effects (xix) Technical Report G.19 Assessment of Vibration Effects
- (xx) Technical Report G.20 Assessment of Visual and Landscape Effects (xxi) Technical Report G.21 Construction Environmental Management Plan (CEMP)
- (xxii) Technical Report G.22 Erosion and Sediment Control Plan (ESCP)
- (xxiii) Technical Report G.23 Coastal Works
- (xxiv) Technical Report G.24 Geotechnical Interpretive Report (xxv) Technical Report G.25 Traffic Modelling Report (xxvi) Technical Report G.26 Operational Model Validation Report
- (xxvii) Technical Report G.27 Stormwater Design Philosophy Statement
- (xxviii) Technical Report G.28 Geotechnical Factual Report – 500 Series
- (xxix) Technical Report G.29 Geotechnical Factual Report – 700 Series
- (xxx) Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads
- (xxxi) Technical Report G.31: Technical Addendum Report (September 2010)
- (d) PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).
- (e) Waterview Connection Project, Evidence and Supplementary Information provided to the Board of Inquiry:
  - (i) Evidence in Chief (Numbers 1-37)
  - (ii) Rebuttal Evidence (Numbers 1-33)
  - (iii) Supplementary Information (Numbers 1-8)

#### DC.1A

Within 3 months of the designations being confirmed for the Project (or at least 1 month prior to any Auckland Council approvals or certifications required by these Conditions, whichever is the earlier), the NZTA shall update and finalise to the satisfaction of the Major Infrastructure Team Manager, Auckland Council all drawings and Plans cited in Schedule A, and provide a full set of the information and documentation referred to in Condition DC.1 to the Major Infrastructure Team Manager Auckland Council. At the same time the NZTA shall prepare to the satisfaction of the Major Infrastructure Team Leader, Auckland Council, a document for each designation which sets out the designation and have attached to it in text format a comprehensive set of the conditions imposed by the Board of Inquiry in its Final Decision as summarised in Schedule B, inclusive of any standard conditions and advice notes. In particular (but not limited to), the following Plans will need to be amended in light of these Final Conditions:

- (a) F.2 Operational Scheme Plans (refer Schedule A, Row 3) require amendment detailing the amended location of the ventilation stacks and southern ventilation buildings;
- (b) F.5 Construction Scheme Plans (refer Schedule A, Row 4) require amendment to detail changes to the construction footprint for the amended location of the ventilation stacks and southern ventilation buildings and reconfiguration of Construction Yard 1);
- (c) F.6 Construction Yard Plans 101 and 107 (refer Schedule A, Row 7), detailing amendments to the Construction Yard 1 in light of the reconfiguration of this Yard and for Construction Yard 7 in light of the relocation of the northern ventilation stack (refer Schedule A, Row 34);
- (d) F.8 Plans of Structures and Architectural Features (refer Schedule A, Row 9), detailing the amended location of the northern ventilation stack and the design and location of the southern ventilation building and stack;
- (e) The CNVMP (including flow diagram and the supplementary evidence produced by Ms Wilkening) (refer Schedule A, Rows 36, 37 and 39);
- (f) The areas of the Open Space Restoration Plans (Schedule A, Row 30) to:

(i) Extend these areas in geographic extent to provide for the works identified in the Management Plan notations identified in the OS Conditions (in particular OS.5 and OS.6) (e.g. these areas will (as relevant) include Eric Armishaw Park, Howlett Reserve and Waterview Esplanade Reserve); and  
(ii) Exclude the operational area of designation required for the northern ventilation stack (as identified through the OPW process (refer Condition DC.8); and (e) Schedule A, Row 28 the Plan detailing proposed open space impacts and replacements needs to be updated to recolour the two land parcels on Hendon Avenue (which are excluded from the replacement calculations) to 'brown' to confirm they are part of the operational impact and will not be returned as open space.

#### DC.2

The period within which this designation shall lapse if not given effect to shall be June 2021, being ten years from the date on which it was confirmed in accordance with Section 184(1) of the Resource Management Act 1991. ~~The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

#### DC.3

The NZTA shall update and finalise the relevant Construction and Operational Management Plans required under these conditions to ensure compliance with the designation conditions imposed by the Board of Inquiry. The relevant Management Plans shall be submitted to the Major Infrastructure Team Manager, Auckland Council within the timeframes specified in the following conditions. No works shall be undertaken until the relevant management plans have been finalised and certified or approved in accordance with the relevant conditions.

#### DC.4

Any Management Plans submitted to the Major Infrastructure Team Manager, Auckland Council for approval or certification may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted shall clearly show the integration with adjacent stages and interrelated activities.

#### DC.5

In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager certification/ approvals required by the designation conditions, or as to the implementation of or monitoring required by the conditions, matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a process of resolution. If a resolution cannot be agreed, then the matter may be referred to an independent appropriately qualified expert, agreeable to both parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree. The independent appropriately qualified expert shall be appointed within 10 working days of the NZTA or Auckland Council giving notice of their intention to seek expert determination. The expert shall, as soon as possible, issue his or her decision on the matter. In making the decision, the expert shall be entitled to seek further information and hear from the parties as he or she sees fit.

Advice note: The dispute resolution process provided for in this condition does not prejudice any party's right to take enforcement action in relation to the implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except in urgent situations.

#### DC.6

Except for Conditions DC.7, DC.8 and DC.9, the NZTA shall be exempt from providing an Outline Plan of Works for the Project, as provided for in Section 176A (2)(a) and (b) of the RMA.

Advice note: The Construction and Operational Management Plans, together with the provision of detailed drawings required by Condition DC.1(b) are considered sufficient detail in all aspects of the Project, with the exception of proposed works for the northern and southern ventilation buildings and stacks where further details are required .

### **Outline Plan of works**

#### DC.7

An Outline Plan of Works shall be prepared for the Northern and Southern Ventilation Buildings and Stacks (OPW1 and OPW2) (in the general location as shown in the Operational Scheme Plans F.2 (Schedule A, Row 3) as shown on Figures DC.A and DC.B) in accordance with Section 176A of the RMA and Conditions DC.8 and DC.9 below and submitted to the Major Infrastructure Team Manager, Auckland Council.

For the purposes of Conditions DC.8 and DC.9, the following definitions shall apply:

- (a) Control Building – A building or buildings associated with the staffed control of the tunnel operating systems (including CCTV systems or surveillance). This precludes the inclusion or attached of any equipment unrelated to the structure of operation of the control building.
- (b) Ventilation Building – A building or buildings associated with the operation and maintenance of the tunnels and associated ventilation system (including power and emergency water supply). This precludes the inclusion or attachment of any equipment unrelated to the structure or operation of the ventilation building.
- (c) Ventilation Stack (stack) - A structure which channels air emissions to a height in the atmosphere which is suitable to disperse the emissions and result in an acceptable ambient air quality. This precludes the inclusion or attachment of any equipment unrelated to the structure or operation of the ventilation stack.

#### DC.9

Outline Plan of Works for the Southern Ventilation Building, Control Building and Stack (OPW2) (Refer Figure DC.B). OPW2 shall be prepared in accordance with Section 176A of the RMA. The final form of the Southern Ventilation Building, Control Building and Ventilation Stack shall be in accordance with the design principles of Section B of the Urban Landscape and Design Framework (ULDF June 2010) (refer Schedule A, Row 38) and the following requirements:

- (a) Retention of the same building / structural components underground as per the revised Drawing Set F.8, specifically Drawings of Vent South Option 003 / 003A (refer Schedule A, Row 9);
- (b) Creation of an above ground building arrangement that maximises the separation of the buildings from the houses on Hendon Avenue to the east and the pedestrian / cycle way to the west;
- (c) The location of facilities, accessways, parking and manoeuvring areas to be in general accordance with the revised Plans of Drawing Set F.8, specifically Drawings of Vent South Option 003 / 003A (refer Schedule A, Row 9), providing for a shift of between 70 – 80m to the south east from the position shown in the application documents, the final decision within that 10m range to be taken by the NZTA, to the approval of Major Infrastructure Team Manager, Auckland Council, after consultation with the Community Liaison Group for Owairaka established under Condition PI.5;
- (d) Minimisation of the height of the ventilation building, control building and ventilation stack to limit their visual intrusion/ incursion relative to neighbouring residential properties – other than to enhance the visual aesthetic and cohesion of these key elements;
- (e) Development of an architectural profile, detailing and material palette that is sufficiently varied to avoid the building and vent imparting a monolithic character;
- (f) Employment of an architectural profile, detailing and material palette that references the local landscape/ geology/ tectonic character of the locality, and which is visually/ aesthetically 'grounded' in the remaining open space of Alan Wood Reserve and avoids an industrial character;
- (g) Treatment of the ventilation buildings and ventilation stack as objects of urban sculpture that are integrated with one another;
- (h) Use of the building materials on the ventilation buildings and stack which are sufficiently robust, varied/ modulated, and treated that they remain adverse to graffiti and vandalism;
- (i) Maximisation of the quantum of limbed-up large scale specimen trees (to promote visibility and surveillance (in accordance with CPTED principles)) in the vicinity of the ventilation buildings, related structures and vehicle movement/ parking areas, so as to reduce the apparent scale of the buildings when viewed from residential properties near Hendon Avenue and Methuen Road;
- (j) Documentation of consultation with the Owairaka Community Liaison Group (as established by Condition PI.5) and the Manager, Urban Design Auckland Council and the views and concerns expressed by this consultation;
- (k) Confirmation that the building height (maximum of 7.5m) and above ground area is no greater than the Concept Plan drawings in the updated plan set F.8, specifically Drawings of Vent South Option 003 / 003A (refer Schedule A, Row 9);
- (l) The site configuration should maximise the use of CPTED principles for territorial reinforcements to achieve site security, minimising the necessity for additional fencing;

- (m) If parking areas are secured, they should where possible directly abut the buildings. Any fencing should be kept to a minimum;
- (n) Provision of lighting integrated with the façade design to illuminate the ventilation building, and as appropriate any shared pedestrian / cycle path within Alan Wood Reserve; and
- (o) The ventilation stack will be at a height of 15m calculated from the post-construction ground level of the Alan Wood Reserve averaged at a distance of 10m from the exterior walls of the ventilation stack location.

#### DC.10

The NZTA shall give notice to the Manager Regional and Local Planning, Auckland Council in accordance with Section 182 and 181 respectively of the RMA for:

- (a) Within six months of the State highway opening (being operational), removal of those parts of the designation that are not required for the long term operation, maintenance and mitigation of effects of the State highway Note: this condition is specific to land no longer required for construction purposes once the Project is completed and includes the land of 6 Barrymore Road, refer Condition OS.17.
- (b) The designation to be altered to remove those conditions no longer required for long term operation and maintenance of the Project.

#### DC.11

A number of conditions of the designation require works on land that is to be acquired by the NZTA to provide land for a rail corridor to replace existing rail land required for the Project ("replacement rail land"). Any conditions applying to the replacement rail land must be met by the NZTA up until (and if) construction of rail commences on that land. Once construction of rail commences on the replacement rail land, under a new or altered rail designation imposed through a publicly notified process, any conditions relating to the replacement rail land shall cease to have effect. *Advice note: The expectation is that the planning process authorising the construction of such rail will have imposed appropriate conditions to apply in respect of the rail corridor and any mitigation and interface with the Waterview Project.*

#### DC.12

Unless otherwise provided for by Condition RC.2, if any monitoring required to be undertaken by any party by the designation conditions indicates non-compliance with any designation condition, the NZTA must provide written notice to the Major Infrastructure Team Manager Auckland Council as soon as it becomes aware of same, stating the following:

- (a) A description of the non-compliance; and
- (b) The measures NZTA proposes for addressing the non-compliance, including any additional mitigation measures.

Subject to the Council's approval, the NZTA must implement the additional mitigation measures to address the non-compliance.

#### DC.13

Pursuant to Section 36(1)(d) of the RMA, the requiring authority is required to pay to Auckland Council any administrative charge for the carrying out by the local authority of its functions in relation to the administration, monitoring, and supervision of designation conditions.

#### DC.14

The servants of agents of Auckland Council shall be permitted to have access to relevant parts of the Project at all reasonable times for the purpose of carrying out inspections, investigations, tests, measurements and/or to take samples.

### **Construction Environment Management Plan Conditions**

#### **CEMP.1**

Except where provided for in Condition CEMP.1A below, the NZTA shall update and finalise the draft Construction Environmental Management Plan (CEMP) including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure

Team Manager, Auckland Council for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until certification is obtained.

Advice note: For clarity the CEMP will be updated and finalised in accordance with the conditions. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register. Advice note: Particular care must be taken with development and operation of Construction Yard 7. When the CEMP is being updated and finalised, consideration must be given to the contents of the draft SSCEMP prepared for Construction Yard 7 (Row 41, Schedule A) recognising changes required by inclusion of the ventilation stack in this yard.

#### CEMP.2

The certification process of the CEMP (and its appendices) shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in CEMP.6, and that it includes details of:

- (a) Staff and contractors' responsibilities;
- (b) Training requirements for employees, sub-contractors and visitors;
- (c) Environmental incident and emergency management;
- (d) Communication and interface procedures (in accordance with the Communication Plan required under Condition PI.2);
- (e) Environmental complaints management (including the procedures required under Condition PI.4);
- (f) Compliance monitoring; (g) Reporting (including detail on the frequency of reporting to the Auckland Council);
- (h) Environmental auditing; and (i) Corrective action.

#### CEMP.3

The management of key environmental effects associated with the construction phase of the Project is detailed within environmental management plans that are included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- (a) Construction Noise and Vibration Management Plan (CNVMP);
- (b) Construction Air Quality Management Plan (CAQMP);
- (c) Erosion and Sediment Control Plan (ESCP);
- (d) Temporary Stormwater Management Plan (TSMP);
- (e) Ecological Management Plan (ECOMP);
- (f) Groundwater Management Plan (GWMP);
- (g) Settlement Effects Management Plan (SEMP);
- (h) Contaminated Soils Management Plan (CSMP);
- (i) Hazardous Substances Management Plan (HSMP);
- (j) Archaeological Site Management Plan (ASMP);
- (k) Construction Traffic Management Plan (CTMP);
- (l) Concrete Batching and Crushing Plant Management Plan (CBCPMP);
- (m) Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP) (to be prepared in accordance with Condition CEMP.15);
- (n) Waste Management Plan (to be prepared in accordance with Condition CEMP.10); and Temporary Construction Lighting Management Plan (to be prepared in accordance with Condition L.2).

#### CEMP.4

The CEMP shall be implemented and maintained throughout the entire construction period.

#### CEMP.5

A copy of the CEMP shall be held on each construction site at all times and be available for inspection on request by the Auckland Council.

#### CEMP.6

The finalised CEMP shall include specific details on demolition, construction and management of all works associated with the Project. The certification process of the CEMP shall confirm that the CEMP includes details of the following:

- (a) Details of the site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) The location of large notice boards that clearly identify the NZTA and the Project name, together with the name, telephone, email address and address for service of the site or Project manager and the community liaison person;
- (c) An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- (d) The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;
- (e) Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/ storage of rubbish, storage and unloading of building materials and similar construction activities;
- (f) Location of worker's offices and conveniences (e.g. portaloos);
- (g) Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- (h) Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (Nov 2007);
- (i) Procedures for ensuring that residents within 100m of construction areas or other people whose use of an area may be disrupted by construction works (for example the Te Atatu Boating Club for works on the Whau River) are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- (j) Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- (k) Means of ensuring the safety of the general public;
- (l) Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;
- (m) Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- (n) All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- (o) Confirmation of a Project Arborist and completion of a STEM assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE to confirm the final Amenity Trees; and
- (p) The process to minimise removal of Amenity Trees, maximise the protection of those retained, undertake relocation of Amenity Trees and replacement planting of specimen trees (in accordance with Conditions LV.10 and ARCH.9)).
- (q) Advice note: For the purposes of CEMP.6(o) and (p), Amenity Tree is defined as a tree or trees that contribute significantly to amenity, taking into account its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE).

#### CEMP.7

The layout of the 12 Construction Yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans (Refer Schedule A, Row 7). The layout drawings shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- (a) The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview Connection Project Construction Yards Drawings (Refer Schedule A, Row 7);
- (b) Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings; Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;
- (c) Temporary acoustic fences and visual barriers;
- (d) Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on adjacent residential dwellings; and Location of workers' and Project vehicle parking.

#### CEMP.8

All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

#### CEMP.9

Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

#### CEMP.10

The NZTA shall finalise and implement the Hazardous Substances Management Plan (HSMP), through the CEMP (as per Condition CEMP.1), submitted with this application, prior to works commencing on site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the Project and confirm that there shall be no storage of explosives on the Project site.

#### CEMP.11

The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the CEMP. The Plan shall be provided to the Major Infrastructure Team Manager, Auckland Council and be implemented throughout the entire construction period.

#### CEMP.12

The CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the Project. The review shall take into consideration:

- (a) Compliance with designation and consent conditions;
- (b) Any changes to construction methods;
- (c) Key changes to roles and responsibilities within the Project;
- (d) Changes in industry best practice standards;
- (e) Changes in legal or other requirements;
- (f) Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- (g) Public complaints. A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Team Manager, Auckland Council and made available (with any related data) to the Auckland Council upon request.

#### CEMP.13

Following the review process (as described in Condition CEMP.12), the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

*Advice Note: Material change will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.*

#### CEMP.14

The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP). The EISDCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council, and include:

- (a) Methods and measures:
  - (i) To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.

- (ii) To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines
- (iii) To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures.
- (iv) To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.
- (b) Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.
- (c) Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:
  - (i) Clause 2.2 with respect to excavations near overhead support structures;
  - (ii) Clause 2.4 with respect to buildings near overhead support structures;
  - (iii) Section 3 with respect to minimum separation between buildings and conductors;
  - (iv) Section 5 with respect to minimum safe distances for the operation of mobile plant; and,
  - (v) Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.
- (d) Confirmation that Transpower has been provided a copy of the EISCDMP for their review at least 20 working days prior to construction.

*Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as Project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).*

#### CEMP.15

The NZTA will be responsible for all service relocations required for construction of the Project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to water, gas, stormwater, wastewater, power and telecommunications), and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the Project, with the objective of minimising disruption to the operation of these service networks and onsite services.

*Advice note:*

- (a) It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.*
- (b) Network infrastructure owned and operated by Watercare Services is located within the designations. An operating agreement will be developed by the NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.*

#### **Public Information Conditions**

##### PI.1.

A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

##### PI.2.

The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions). In preparing the Communications Plan, the NZTA will

liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

- (a) The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;
- (c) The database of stakeholders and residents who will be communicated with;
- (d) Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);
- (e) The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);
- (f) Any stakeholder specific communication plans required; and
- (g) Monitoring and review procedures for the Communications Plan. The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these conditions is attached as Figure PI.A.

### PI.3.

At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- (a) Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- (b) Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

### PI.4.

The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- (a) A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- (b) The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- (c) Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- (d) The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;
- (e) Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and (f) All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

#### PI.5.

The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- (a) Te Atatu (including the SH16 Causeway)
- (b) Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- (c) Owairaka and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- (a) Auckland Council and Auckland Transport;
- (b) Educational facilities within the Project area (including schools, kindergartens, childcare facilities and Unitec Institute of Technology);
- (c) Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;
- (d) Department of Conservation;
- (e) Local Boards;
- (f) Iwi groups with Mana Whenua;
- (g) Public transport providers; and
- (h) Housing New Zealand Corporation.

Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.

#### PI.6.

The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things): \

- (a) The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k);
- (b) The Open Space Restoration Plans (as required by Condition OS.3);
- (c) Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);
- (d) The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);
- (e) The detail of the Oakley Creek restoration (as required by Condition STW.20);
- (f) Publicly available results of environmental monitoring as required by the designation and/or these Consents (e.g. air quality monitoring); and
- (g) The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to be removed for consideration of timber use in heritage projects as required by Condition SO.7.

Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.

- (h) Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

### **Temporary Traffic Conditions**

#### TT.1

The NZTA shall update and finalise the Construction Traffic Management Plan (CTMP) submitted with this application, in accordance with these conditions, and implement it through the CEMP. In finalising the CTMP, the NZTA shall:

- (a) Provide simulation modelling demonstrations to better understand the effects of construction of the Project on the affected road network;
- (b) Include measures to avoid road closures and restrictions of vehicle, bus, cycle and pedestrian movements;

(c) Where road closures or restrictions cannot reasonably be avoided the particular vulnerabilities and sensitivities of pedestrian diversions and restricted conditions shall be taken into account in the planning of any closures or restrictions.

#### TT.2

The CTMP shall require the development of Site Specific Traffic Management Plans (SSTMPs) and their approval by the Traffic Management Project Governance Group (as defined by the CTMP), for each construction activity that may affect traffic or transportation infrastructure and services. The SSTMPs shall be provided to the Traffic Management Coordinator(s) for the relevant Road Controlling Authority at least 10 working days prior to each construction activity.

#### TT.3

Each SSTMP shall describe the measures that will be undertaken to avoid, remedy or mitigate the local and network wide effects of construction of the Project. In particular, the SSTMP shall include the following matters:

(a) Traffic management measures to address and maintain, traffic capacity, including bus services, at peak traffic periods during weekdays (6:00 to 9:00 and 16:00 to 19:00) and peak traffic periods at weekends (including Te Atatu Road, Great North Road and Richardson Road);

(b) Methods to manage the effects of traffic during construction including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area;

(c) Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;

(d) Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/ overbridges) and the use of staging to allow sections of the Project to be opened to the traffic while other sections are still under construction;

(e) Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks) during construction;

(f) Any routes where construction traffic movements will be restricted (either for particular times for construction periods);

(g) Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works, measures to provide alternative access arrangements in consultation with the Auckland Council and the affected landowner; and

(h) Measures to maintain pedestrian and cycle access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable (e.g. unless provision of such access is severed by the works or such access will become unsafe as a result of the construction works). Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. (This Condition does not act as a qualification to the commitment to maintain access to open space and education facilities, as required in Condition OS.13).

#### TT.4

The SSTMPs shall include traffic management measures developed in consultation with the Auckland Transport, Bus and Coach Association and the Auckland Council, to address and maintain, where practicable, existing levels of service for buses particularly at peak periods (6:00 to 9:00 and 16:00 to 19:00) on weekdays.

#### TT.5

The NZTA shall consult with the Traffic Operations Manager, Auckland Transport with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation. The NZTA shall also coordinate and consult directly with the proponents of any major construction or major traffic generating event occurring concurrently with, and in the vicinity of the Project.

#### TT.6

The SSTMPs shall include measures developed in consultation with Auckland Transport to, as far as practicable, enable continued public walking and cycling passage along the existing Northwestern Cycleway (between Te Atatu Interchange and St Lukes Interchange) and along Great North Road and the public walkway along Oakley Creek, with any interruptions being as short as feasible.

#### TT.7

The NZTA shall undertake construction works so as to avoid significant long duration impacts or the full closure of Te Atatu Road for all road users heading to or from the Te Atatu Peninsula and to ensure that access for emergency service vehicles is maintained.

#### TT.8

The NZTA shall restrict construction truck movements during peak hours (6:00 to 9:00 and 16:00 to 19:00) on weekdays and during the peak periods at the weekends to avoid the following:

- (a) Te Atatu Road Interchange, during both morning and afternoon peak hours
- (b) Great North Road Interchange, city bound during the morning peak hours
- (c) Great North Road Interchange, west bound onto SH16 and southbound onto Great North road during the afternoon peak. Construction truck movements during these hours shall only be allowed under exceptional circumstances agreed in advance with the Traffic Management Project Governance Group.

#### TT.9

The NZTA shall maintain at least the existing active traffic lane configuration capacity on SH16, at the Te Atatu Interchange area, Te Atatu Road, Richardson Road and on Great North Road during peak periods being 6:00 to 9:00 and 16:00 to 19:00 on weekdays and during the peak periods on weekends, for the duration of the temporary construction programme.

#### TT.10

The NZTA shall monitor the impact of construction traffic in terms of traffic speeds and volumes on SH16, Great North Road, Te Atatu Road and Richardson Road throughout the construction period to confirm the expected traffic effects as set out in the *Temporary Traffic Assessment* (Technical Report G.16) submitted with this application.

- (a) This monitoring will be undertaken on a daily, weekly and monthly basis; and
- (b) Monitoring results will be made available to the Traffic Operations Manager, Auckland Transport on request.

#### TT.11

If monitoring undertaken pursuant to Condition TT.10 indicates that traffic volumes or traffic conditions are significantly different from those expected, the SSTMPs will be reviewed and as appropriate amended to the satisfaction of the Traffic Management Project Governance Group.

### **Operational Traffic Conditions Integration with Local Road Network**

#### OT.1

The NZTA shall prepare in collaboration with Auckland Transport a Network Integration Plan (NIP) for the Project, or relevant Project phases, to demonstrate how the Project integrates with the existing local road network and with future improvements (identified in the Western Ring Route (Northwest) Network Plan) planned by the Auckland Council. The NIP shall include details of proposed physical works at the interface between the State highway and the local road network, and shall address such matters as pedestrian/ cycle ways, lane configuration, traffic signal co-ordination, signage and provision for buses. In addition, the NIP will address:

- (a) The commitment of the NZTA to progress bus priority measures northbound on Great North Road as part of the reinstatement of Great North Road, as proposed by Auckland Transport and indicated on the Plans *Great North Road Option 1 Proposed Road Marking* (Schedule A, Row 33), subject to the agreement with Auckland Transport;
- (b) How the works committed to by the NZTA for pedestrian and cycle ways, as detailed in the PT and Active Mode Transport Routes Plan Set (Condition DC.1(d) (refer Schedule A, Row 22)), integrate with pedestrian and cycle ways on the wider transport network;
- (c) The Richardson Road Bridge, which shall be designed in general accordance with the structural plans (Schedule A, Row 9) and the commitment of the NZTA to provide a 2m footpath on Richardson Road Bridge, subject to confirming appropriate bus stop locations with Auckland Transport;
- (d) Integration of the works proposed on Te Atatu Road to appropriately transition between the Waterview Connection Project and any projects being progressed by Auckland Transport;
- (e) Opportunities to review traffic signal timings at the Te Atatu Interchange with a view to minimising delays to

all users, including cyclists on the SH16 cycle way; and (f) The commitment of the NZTA to provide for cycle “aspects” (cycle signal lights) at the Great North Road Interchange.

(g) As part of detailed design at the Te Atatu Interchange, the installation of underpasses and/or overbridges, provided however that should some not prove feasible in civil or traffic engineering design terms, the installation of coordinated traffic signal operation for cyclists on the north-western cycleway by means of synchronised cycle lights which seek to reduce delays for cyclists. Works identified in the NIP which are the responsibility of the NZTA, will be undertaken as at the time of construction works for the Project.

## **Tunnel Traffic Operation Plan**

### **OT.2**

The NZTA shall prepare a Tunnel Traffic Operation Plan in consultation with the Auckland Transport and Auckland Council. The Plan shall include, but not be limited to:

- (a) Procedures for tunnel operational safety, including fire-life safety;
- (b) Procedures for maintenance requirements.
- (c) Procedures for managing traffic to avoid or minimise potential congestion within the tunnel, particularly during peak periods.
- (d) Procedures for the management of traffic during incidents.
- (e) Procedures for the operation of tunnel fans and the management of portal emissions.
- (f) Confirmation that all equipment has been tested and operates in accordance with requirements and specifications. The Tunnel Traffic Operation Plan shall be completed and provided to Auckland Transport and to the Major Infrastructure Team Manager, Auckland Council (in respect of Condition OT.2(e)), prior to operational use of the tunnelled section of SH20.

Advice note: The operation and maintenance of the air quality monitoring equipment inside the tunnel shall follow manufacturer’s recommendations.

## **Noise and Vibration Conditions – Construction**

### **CNV.1**

The NZTA shall finalise and implement through the CEMP, a Construction Noise and Vibration Management Plan (CNVMP) throughout the entire construction period of the Project. The CNVMP shall describe the measures adopted to meet:

- (a) the noise criteria set out in Conditions CNV.2 and 3 below;
- (b) the vibration criteria set out in Condition CNV.4 below; or
- (c) where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

- (i) Construction noise and vibration criteria (Conditions CNV.2, CNV.3, and CNV.4);
- (ii) Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;
- (iii) Machinery and equipment to be used;
- (iv) Vibration testing of equipment to confirm safe distances to buildings prior to construction;
- (v) Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;
- (vi) Roles and responsibilities of personnel on site;
- (vii) Construction operator training procedures;
- (viii) Methods for monitoring and reporting on construction noise and vibration;
- (ix) A hierarchy of mitigation options that will be assessed for the Project noise mitigation, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved;
- (x) Management schedules containing site specific information;
- (xi) Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically: • PPFs located within a horizontal distance of 35 metres of underground excavation works, along the tunnel alignment shall receive prior notification not greater than 7 days (and not less than 24 hours) prior to the commencement of works.

- Methods for ensuring residents affected by night works (within 100m of the construction site night works, as defined on the maps (refer Schedule A, Row 35) are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.
- The maps showing PPFs to be notified of night works (refer Schedule A, Row 35, shall be reviewed and included within the CNVMP. (xii)Methods for receiving and handling complaints about construction noise and vibration;
- (xiii) Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover); (xiv)Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation (as per Condition CNV.7);
- (xv) Investigations of the practicability of implementing Building Modification mitigation, as required in accordance with Conditions ON.6 and ON.11, prior to commencement of construction within 100m of the relevant PPFs (including those on the Unitec site); and
- (xvi) The process for developing Site Specific Noise Management Plans (SSNMP), in accordance with the SSNMP Flow Chart (refer Schedule A, Row 36), including templates and a certification process for the Major Infrastructure Team Manager, Auckland Council (in accordance with Condition CNV.13) to confirm the process of SSNMP review of noise mitigation options where, the modelled/predicted levels or subsequent actual levels exceed the criteria in Conditions CNV.2 and/or CNV.4.

#### CNV.2

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 "Acoustics - Construction Noise" and shall comply with the following criteria:

Note: In Condition CNV.2 (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999. (a)Project Construction Noise Criteria: Residential Receivers

Time of Week	Time period	Project Construction Noise Criteria (Long Term Construction) dB		
		Sectors 1-7	Sectors 8-9	All Sectors
		LAeq(T)	LAeq(T)	LAeq(T)
Monday- Saturday	0630-0730	60	45	75
	0730-1800	70	70	85
	1800-2000	65	65	80
	2000-0630	60	45	75
Sundays and Public Holidays	0630-0730	45	45	75
	0730-1800	60	45	85
	1800-2000	45	45	75
	2000-0630	45	45	75

#### (b) Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	LAeq(T)
0730-1800	70
1800-0730	75

#### (c) Project Construction Noise Criteria: Internal Structure-borne Noise from tunnelling for Residential Receivers

Time Period	Project Construction Noise Criteria Inside	
0600-2200	35 dB LAeq(T)	All habitable rooms
2200-0600	30 dB LAeq(T)	Bedrooms

#### (d) Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside	
Teaching Hours	45 dB LAeq(T)	Classrooms, library, offices, teaching, laboratories, manual arts, workshops

Teaching Hours	40 dB LAeq(T)	School hall, lecture theatres
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Note: In Condition CNV2(d) "Teaching hours" means: Primary schools and Kindergartens: 9am to 3pm Unitec: 8am to 9pm

CNV.3

Project Construction Noise Criteria: Airblast (excluding Sundays)

Category	Type of Blasting Operations	Peak Sound Pressure Level (LZpeak dB)
<b>Human Comfort Limits</b>		
Sensitive Site	Operations lasting longer than 12 months or more than 20 Blasts	115 dB for 95% blasts per year. 120 dB maximum unless agreement is reached with occupier that a higher limit may apply
Sensitive Site	Operations lasting less than 12 months or less than 20 Blasts	120 dB for 95% blasts per year. 125 dB maximum unless agreement is reached with occupier that a higher limit may apply
Occupied non-sensitive sites such as factories and commercial premises	All blasting	125 dB maximum unless agreement is reached with the occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications of levels that can be shown to adversely affect the equipment operation
<b>Damage Control Limits</b>		
Structures that include masonry, plaster and plasterboard in their construction and also unoccupied structures of reinforced concrete or steel construction	All blasting	133 dB unless agreement is reached with owner that a higher limit may apply.
Service structures such as pipelines, powerlines and cables located above ground	All blasting	Limit to be determined by structural design methodology

CNV.4

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 "Structural vibration – Part 3: Effects of vibration on structures", and shall comply with the criteria set out as follows:

Type of Structure	Short-term vibration			PPV at horizontal plane of highest floor (mm/s)	Long-term vibration
	PPV at the foundation at a frequency of				
	1-10 Hz (mm/s)	1-50 Hz (mm/s)	50-100 Hz (mm/s)		
Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive structures	3	3-8	8-10	8	2.5

#### CNV.5

Notwithstanding Condition CNV.3 above,

(a) Blasting activities shall be conducted so that 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

(b) Construction activities, which occur within Sectors 1, 6, 8 and 9 which are identified in Technical Report no. G.19 Assessment of Vibration Effects, as being at a 'High Risk' of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

#### CNV.6

Blasting shall be undertaken between 09:00h and 17:00h, Monday to Saturday, except that blasting may be undertaken between 09:00h and 17:00h on Sundays where: (a) The blasting is at least 50m inside the Sector 8 tunnel;

(b) The blasting produces peak particle velocities at any residential building not exceeding 0.5mm/s; and

(c) The Project construction noise criteria set out in Condition CNV.2 for Sundays are complied with.

#### CNV.7

Where practicable, permanent (traffic) noise barriers, required in any Sector as Detailed Mitigation Options for operational noise following completion of the Project (in accordance with Conditions ON.3 to ON.5) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented in accordance with the CNVMP, prior to noise generating construction works commencing.

#### CNV.8

Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

#### CNV.9

The concrete batch plants, rock crushing plants and the loading bays and conveyors for such plants shall be fully enclosed.

#### CNV.11

For all other properties, if noise and vibration monitoring of the tunnelling works for the Project (in accordance with Condition CNV.1), indicates that the noise or vibration criteria of Conditions CNV.2 or CNV.4 will potentially be exceeded, then the process set out in the CNVMP will be undertaken including Site Specific Noise Management Plans. Where relocation for residents is proposed, notification of such relocation with residents and property owners will be undertaken in accordance with the processes contained in the CNVMP.

#### CNV.13

SSNMPs (required by Condition CNV.1(xvi)) above, shall be submitted to Major Infrastructure Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing. A decision will be provided by the Council within 5 working days of receipt of the SSNMP. Works will not commence until certification is received from the Major Infrastructure Team Manager, Auckland Council. The Council may, at its discretion, waive the requirement for SSNMPs to be submitted to the Council where an SSNMP is required. If monitoring shows that levels specified in a SSNMP are being exceeded, work generating the exceedence will stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP certified by Council. *Advice note: It is accepted that the criteria of CNV.2 and CNV.4 may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in Condition CNV.1 (ix).*

## Noise Conditions – Operation

### ON.1

For the purposes of Conditions ON.2-ON.14 the following terms will have the following meanings:

- Appendix E – means Appendix E to the Technical Report G.12 'Assessment of Operational Noise Effects' submitted with this application.
- BPO – means Best Practicable Option.
- Building Modification Mitigation – has the same meaning as in NZS 6806:2010.
- Design Year – means a point in time that is 10 years after the opening of the Project to the public
- Emergency Mechanical Services – means mechanical services used for emergency situations only.
- Habitable room – has the same meaning as in NZS 6806:2010.
- Noise Criteria Categories – means groups of preference for time-averaged sound levels established in accordance with NZS 6806:2010 when determining the BPO mitigation option; i.e. Category A - primary noise criterion, Category B - secondary noise criterion and Category C - internal noise criterion.
- NZS 6806:2010 – means NZS 6806:2010 Acoustics – Road-Traffic Noise – New and Altered Roads.
- PPFs – means only the premises and facilities identified in green, yellow or red in Appendix E.
- Structural mitigation – has the same meaning as in NZS 6806:2010.

### ON.2

The NZTA shall implement the traffic noise mitigation measures identified as the “Preferred Mitigation Options” in Appendix E as part of the Project, in order to achieve the Noise Criteria Categories indicated in Appendix E (“Identified Categories”), where practicable and subject to Conditions ON.3-ON.11 below.

### ON.3

The detailed design of the structural mitigation measures of the “Preferred Mitigation Options” (the Detailed Mitigation Options) shall be undertaken by a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council prior to construction of the Project, and, subject to Condition ON.4, shall include, as a minimum, the following:

- (a) Noise barriers with the location, length and height in general accordance with Appendix E and designed in accordance with the ULDF (Section B) (refer Schedule A, Row 38); and
- (b) A requirement that Open Graded Porous Asphalt (“OGPA”) or equivalent low-noise generating road surface be used on all surface roads throughout the Project, except at the Great North Road Interchange; and
- (c) For the Great North Road Interchange, a requirement that Twin Layer Open Graded Porous Asphalt (“Twin Layer OGPA”) or equivalent low-noise generating road surface be used as shown in Appendix E.

### ON.4

Where the design of the Detailed Mitigation Options identifies that it is not practicable to implement a particular structural mitigation measure in the location or of the length or height included in the “Preferred Mitigation Options”, either:

- (a) If the design of the structural mitigation measures could be changed and would still achieve the same Identified Category at all relevant PPFs, and a suitably qualified expert approved by the Major Infrastructure Team Manager, Auckland Council, certifies to the Auckland Council that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed mitigation measures; or
- (b) If the changed design of the structural mitigation measure would change the Noise Criteria Category at any relevant PPF from Category A or B to Category C but Major Infrastructure Team Manager, Auckland Council confirms that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed structural mitigation measures.

### ON.5

The Detailed Mitigation Options shall be implemented prior to completion of construction of the Project.

### ON.6

- (a) **Sectors 1 to 8** - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs

within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options:

- i. A noise level increase of 3 decibels or more will occur due to road-traffic noise from the Project; and
- ii. Habitable spaces are likely to receive in excess of 45 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year. For those PPFs, following the process set out in Conditions ON.7 to ON.11, it shall be determined which Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces.

(b) **Sector 9** - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options, habitable spaces are likely to receive in excess of 40 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year. For those PPFs, following the process set out in ON.7 and ON.8, it shall be determined if Building Modification Mitigation may be required to achieve 40 dB LAeq inside habitable spaces. For those PPFs where Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces, this shall be implemented following the process set out in ON.9 to ON.11.

#### ON.7

(a) Prior to commencement of construction of any sector of the Project in the vicinity of a PPF identified under Condition ON.6, the NZTA shall write to the owner of each such building seeking access for the purpose of measuring internal noise levels and assessing the existing building envelope in relation to noise reduction performance.

(b) If the owner(s) of the building approve the NZTA's access to the property within 12 months of the date of the NZTA's letter (sent pursuant to Condition ON.7(a)), then no more than six months prior to commencement of construction in any sector of the Project, the NZTA shall instruct a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council, to visit the building to measure internal noise levels and assess the existing building envelope in relation to noise reduction performance.

#### ON.8

Where a PPF identified under Condition ON.6 is identified, the NZTA shall be deemed to have complied with Condition ON.7 above where:

- (a) The NZTA (through its acoustics specialist) has visited the building; or
- (b) The owner(s) of the building approved the NZTA's access, but the NZTA could not gain entry for some reason after repeated attempts; or
- (c) The owner(s) of the building did not approve the NZTA's access to the property within the time period set out in Condition ON.7(b) (including where the owner(s) did not respond to the NZTA's letter (sent pursuant to Condition ON.7(a) within that period); or
- (d) The owner(s) of the building cannot, after reasonable enquiry, be found prior to completion of construction of the Project. If any of (b) to (d) above apply to a particular Building, the NZTA shall not be required to implement any Building Modification Mitigation at that Building

#### ON.9

Subject to Condition ON.8, within 6 months of the assessment required under Condition ON.7(b), the NZTA shall give written notice to the owner of each PPF identified under Condition ON.6:

- (a) Advising of the options available for Building Modification Mitigation to the building; and
- (b) Advising that the owner has three months within which to decide whether to accept Building Modification Mitigation for the building, and if the NZTA has advised the owner that more than one options for building modification mitigation is available, to advise which of those options the owner prefers.

#### ON.10

Once an agreement on Building Modification Mitigation is reached between the NZTA and the owner of an affected building, the mitigation shall be implemented (including the NZTA undertaking any required third party authorisation) in a reasonable and practical timeframe agreed between the NZTA and the owner.

Building Modification Mitigation shall be to the standard specified in section 8.3.2 of NZS 6806:2010.

*Advice Note: The NZTA will be responsible for obtaining any necessary building consents or other approvals to undertake the above Building Modification Mitigation.*

#### ON.11

Subject to Condition ON.8, where Building Modification Mitigation is required, the NZTA shall be deemed to have complied with Condition ON.10 above where:

- (a) The NZTA has completed Building Modification Mitigation to the Building; or
- (b) The owner(s) of the Building did not accept the NZTA's offer to implement Building Modification Mitigation prior to the expiry of the timeframe stated in Condition ON.9(b) above (including where the owner(s) did not respond to the Requiring Authority within that period); or
- (c) The owner of the Building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

#### ON.12

The NZTA shall manage and maintain the Detailed Mitigation Options to ensure that, those mitigation works are maintained to retain their noise attenuation performance indefinitely

#### ON.13

All mechanical services associated with the general operation of the tunnels shall be designed such that noise emissions do not exceed the following noise limits, when measured at or within the boundary of any residential- zoned site:

Monday to Saturday	7am to 10pm	50 dB LAeq(15 min)
Sundays & Public Holidays	9am to 6pm	50 dB LAeq(15 min)
At all other times		40 dB L Aeq(15 min) 75 dB LAmax

#### ON.14

(a) Prior to construction, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake a minimum of 8 (eight) representative measurements of ambient noise levels. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(b) Following completion of the work, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake traffic noise monitoring at the same sites surveyed in Condition ON.14 (a) above, within 2 to 3 years following completion of construction of the Project. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.

(c) The results of the noise level monitoring in accordance with ON.14(b) above shall be used to verify the computer noise model of the Detailed Mitigation Option. A report describing the findings of the verification shall be provided to the Major Infrastructure Team Manager, Auckland Council within one month of it being completed.

#### **Vibration Conditions - Operation**

##### OV.1

Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Team Manager, Auckland Council for approval prior to the commencement of works. These baseline measurements will establish pre-Project vibration levels for comparison with future vibration levels.

#### **Air Quality Conditions – Construction GENERAL CONDITIONS**

AQ.1.

The NZTA shall finalise and implement, through the CEMP, the Construction Air Quality Management Plan (CAQMP) and Concrete Batching and Crushing Management Plan (CBCMP) submitted with the application. The CAQMP and CBCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CAQMP and CBCMP includes the following details:

- (a) Daily visual monitoring of dust emissions;
- (b) Procedures for responding to process malfunctions and accidental dust discharges;
- (c) Criteria, including consideration of weather conditions and procedures for use of water sprays on stockpiles and operational areas of the site;
- (d) Continuous monitoring of Total Suspended Particulate (TSP) concentrations and meteorology;
- (e) Monitoring of the times of detectable odour emissions from the ground;
- (f) Procedures for responding to discharges of odour (including in the event of excavation of contaminated sites);
- (g) Monitoring of construction vehicle maintenance;
- (h) Process equipment inspection, maintenance, monitoring and recording, including baghouses, pressure relief valves and high level alarms;
- (i) Complaints investigation, monitoring and reporting; and
- (j) The identification of staff and contractors' responsibilities.

AQ.2.

The NZTA shall review the CAQMP and CBCMP at least annually and as a result of any material change to the Project. Any consequential changes will be undertaken in accordance with Condition CEMP.13.

AQ.3.

All construction activities shall be operated, maintained, supervised, monitored and controlled at all times so that all emissions authorised by this consent are maintained at the minimum practicable level.

AQ.4.

The NZTA shall undertake construction activities in accordance with the CEMP, CAQMP and CBCMP, such that:

- (a) Hard surfaced areas of the construction yards and active construction areas are vacuum swept or scraped down at least twice each week and additionally as reasonably required;
- (b) All unsealed areas of the site used for vehicle movement are maintained visibly damp by the use of water sprays or a water cart during weather conditions where the potential for dust emissions exist;
- (c) Wheel wash systems are installed at all truck exits from unpaved areas of the site onto public roads are used for all trucks that depart from the site;
- (d) All stockpiles are constructed and positioned to minimise the potential for dust emissions. The surfaces of all stockpiles are maintained adequately damp at all times to minimise the release of particulate matter;
- (e) Belt conveyors for moving dry materials are fitted with water sprays or enclosed to minimise wind entrainment of dust. Where installed, water suppression is used whenever the conveyors are used for moving dry materials.

AQ.5.

Unless expressly provided for by conditions of this consent, there shall be no odour, dust or fumes beyond the site boundary caused by discharges from the site which, in the opinion of an enforcement officer, is noxious, offensive or objectionable.

AQ.6.

All offensive or objectionable dust beyond the boundary of the site caused as a result of processes on the site shall be mitigated forthwith in accordance with the requirements of the Construction Air Quality Management

Plan.

AQ.7.

Beyond the site boundary there shall be no hazardous air pollutant caused by discharges from the site that causes, or is likely to cause, adverse effects on human health, environment or property.

AQ.8

No discharges from any activity on site shall give rise to visible emissions, other than water vapour, to an extent which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.

## **MONITORING**

AQ.14

The NZTA shall undertake visual inspections of dust emissions as follows:

(a) Visual inspections of all active construction areas at least three times daily during October to April inclusive, whenever there are construction activities. The results of visual monitoring shall be logged.

(b) Visual inspections of dust emissions from the concrete batching plants and rock crushing plant shall be undertaken daily while the plant is operating

AQ.15

The operation of water sprays shall be checked at least once each day.

AQ.16

Continuous monitoring of TSP concentrations shall be undertaken in at least one location in Sector 1, in at least two locations in Sectors 5 and/or 7, and in at least two locations in Sector 9 while construction activities are being undertaken in those Sectors. The locations of continuous TSP monitors shall, as far as practicable, comply with the requirements of AS/NZ 3580.1.1:2007 Method for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment.

AQ.17

Continuous monitoring of wind speed and direction shall be undertaken in at least one location in each of Sector 1, Sectors 5 or 7 and Sector 9 while construction activities are being undertaken in those Sectors.

The

locations of wind speed and direction monitors shall, as far as practicable, comply with the requirements of AS 2923:1987 Ambient Air – Guide for the Measurement of Horizontal Wind for Air Quality Applications and be at the same locations as the TSP monitors required by Condition AQ.16.

AQ.18

The locations and types of continuous TSP and meteorological monitoring sites required by Conditions AQ.16 and AQ.17 shall be selected by the NZTA in consultation with the Auckland Council. In the event of a failure of the monitoring equipment, this shall be repaired or replaced within 2 working days.

## **REPORTING**

AQ.19

All records, logs, monitoring and test results that are required by the conditions of this consent shall be made available on request, during operating hours, to an Auckland Council enforcement officer and shall be kept for the duration of the consent.

AQ.20

If the monitoring required by Condition AQ.16 shows that concentrations of TSP in ambient air at or beyond the boundary of the site exceeds 80 micrograms/m<sup>3</sup> as a 24-hour average, the NZTA shall undertake an investigation into the cause of the exceedence in accordance with the CAQMP.

AQ.21

A report into the outcome of any investigation required by Condition AQ.20 shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 10 working days of the exceedence. If the cause of the exceedence is identified as being an activity undertaken on the site, the report shall also identify additional measures to be taken to reduce discharges of particulate matter into air from that

activity.

#### AQ.22

Log books shall be maintained that record all relevant information that is required to demonstrate compliance with the conditions of this consent. This information shall include, but is not limited to:

- (a) Visual assessments of any dust emissions from the site and the source;
- (b) Any dust control equipment malfunction and any remedial action taken;
- (c) When a water cart was used and, if so, the frequency of use and the volume of water used (including identification of location);
- (d) All relevant details of the TSP and meteorological monitoring required by Conditions AQ.16 and AQ.17; (e) Any additional dust control measures undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

#### AQ.23

The NZTA shall maintain a log of any complaints received relating to air quality. Details of each complaint received shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 24 hours of receipt of the complaint. The log shall include any complaints lodged with the Auckland Council where the Council has informed the NZTA of the complaint. The log shall include, but not be limited to the following:

- (a) The date, time, location and nature of the complaint;
- (b) Weather conditions at the time of the complaint (including approximate wind speed, wind direction, cloud cover);
- (c) Any possible other contributing factors (such as a fire, smoky vehicle, a local chimney emission, etc.);
- (d) The name, phone number and address of the complainant (unless the complainant elects not to supply these details);
- (e) Any remedial actions undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

### **Operational Air Quality Conditions**

#### OA.1

The vents used to discharge emissions in the tunnels shall discharge vertically into air at a height of 15m, as follows:

- (a) The northern ventilation stack will be at a height of 15m. This height shall be calculated from the lowest existing ground level along the Great North Road boundary, adjacent to the ventilation stack; and
- (b) The southern ventilation stack will be at a height of 15m calculated from the post-construction ground level of the Alan Wood Reserve averaged at a distance of 10m from the exterior walls the ventilation stack location. and shall not be impeded by any obstruction that may in the opinion of the Peer Review Panel (Condition OA. 7) decrease the vertical efflux velocity (in other words, the average velocity of material emitted into the atmosphere).

#### OA.2

Prior to the tunnels becoming operational, the NZTA shall establish two ambient air quality monitoring stations and one portal air quality monitoring station. The location and types of these monitoring stations shall be selected by the NZTA in consultation with the Auckland Council and Peer Review Panel (Condition OA.7), providing that one ambient monitoring station will be located within the Waterview Primary School (subject to agreement by the School). Ambient air quality shall be monitored continuously in real time, to monitor potential effects associated with the operation of the ventilation system from the tunnels. Ambient monitoring shall include fine particulates (PM10 and PM2.5) and nitrogen dioxide. Portal monitoring shall include nitrogen dioxide. Results shall be compared with the relevant National Environmental Standards for air quality and Auckland Regional air quality targets (as identified in Chapter 4 of the Auckland Regional Plan: Air, Land and Water, 2010). Monitoring shall be undertaken at each site until the Peer Review Panel recommends that monitoring is no longer necessary. The locations, operation and maintenance schedules of the continuous monitors shall, as far as practicable, comply with the requirements of AS/NZ 3580.1.1: 2007 Method for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment, and with methods specified in the National Environment Standards.

#### OA.3

Continuous monitoring of wind speed and direction shall be undertaken at each ambient air quality monitoring location as required by Condition OA.2. The locations of wind speed and direction monitors shall, as far as practicable, comply with the requirements of AS 2923:1987 Ambient Air – Guide for the Measurement of Horizontal Wind for Air Quality Applications.

#### OA.4

For the first 12 months of tunnel operation, the results of the ambient air quality monitoring shall be reported via validated reports and issued for information via the Project website (monthly). Following this period, and for a period of at least 12 months, reporting shall take place quarterly as follows: Quarter 1 (December to February) by 31 March, Quarter 2 (March to May) by 30 June, Quarter 3 (June to August) by 30 September and Quarter 4 (September to November) by 31 December.

#### OA.5

If the monitoring required by Condition OA.2 shows that concentrations of contaminants in ambient air at the monitoring locations exceeds the relevant National Environmental Standards for air quality, or Regional Air Quality Targets (as identified in Chapter 4 of the Auckland Regional Plan: Air, Land and Water), the NZTA shall undertake an investigation into the cause of the exceedence and report this to the Peer Review Panel (Condition OA.7) and the Major Infrastructure Team Manager, Auckland Council.

#### OA.6

The air quality monitoring shall be undertaken in general accordance with the Operational Air Quality Management Procedure (Appendix O of *Technical Report G.1 Assessment of Air Quality Effects*) submitted with this application.

#### OA.7

A Peer Review Panel shall be appointed by NZTA with the agreement of Major Infrastructure Team Manager, Auckland Council for the purpose of reviewing the ambient air quality monitoring programme and results. The Peer Review Panel shall consist of two independent experts in air quality with experience in ambient air quality monitoring and emissions from motor vehicles. The Peer Review Panel shall review all ambient monitoring, relevant traffic data and tunnel emissions and provide a summary report including any interpretation and recommendations to NZTA, Auckland Council and the Community Liaison Group(s) within 6 months of the tunnels becoming operational and annually thereafter.

### **Portal Emissions**

#### OA.8

The tunnel ventilation system shall be designed and operated to ensure that any air emitted from the tunnel portals does not cause the concentration of nitrogen dioxide (NO<sub>2</sub>) in ambient air to exceed 200 micrograms per cubic metre, expressed as a rolling 1 hour average, at any point beyond the designation boundary that borders an air pollution sensitive land use.

*Advice Note: The above standard reflects the National Environmental Standard for Nitrogen Dioxide (NO<sub>2</sub>) concentration in ambient air.*

### **Landscape and Visual Conditions**

#### LV.1.

The Urban Design and Landscape Plans (UDL Plans) (Plan Set F.16, refer Schedule A, Row 17) shall be reviewed and revised in accordance with the conditions and submitted to the Major Infrastructure Team Manager, Auckland Council for certification that they comply with the conditions of the consents/ designation prior to construction of the relevant Project stage, at least 20 working days prior to the commencement of construction. The UDL Plans shall be updated to: (a) Reflect relevant details from the PT and Active Mode Transport Routes Plan Set (Schedule A, Row 23); (b) Remove the playing field at Waterview Reserve; (c) Confirm the reconfigured bund design at Alwyn Avenue (Schedule A, Row 42); (d) Reflect landscaping required in relation to the northern vent stack in Waterview Glades pursuant to

Conditions DC.8.

LV.2.

In certifying the UDL Plans, prepared in accordance with Condition LV.1, the Major Infrastructure Team Manager, Auckland Council shall be satisfied the UDL plans includes:

- (a) The visual mitigation of infrastructure as detailed in Section B of the UDLF (refer Schedule A, Row 38).
- (b) Incorporation of art or art through design of structures, particularly as it relates to noise barriers and the Great North Road Interchange piers and ramps (Refer to clauses (g) and (i) below).
- (c) Planting to screen houses and noise walls (including cross section details);
- (d) Planting along the corridor on Traherne Island, in accordance with these conditions and the Ecological Management Plan;
- (e) Specimen planting on the Great North Road Interchange and the Te Atatu Road Interchange;
- (f) Specimen planting at the tunnel portals (except where this is within the OPW area);
- (g) Finalisation of the noise barriers (as required by Condition ON.3(a)) in accordance with the design principles for noise walls (refer Schedule A, Row 32);
- (h) Delineation of the final areas of the Open Space Restoration Plans in accordance with the Open Space Restoration Plans (Schedule A, Row 30), and reference that all works within the Open Space Restoration Plan Areas are subject to Conditions OS.1 to OS.8;
- (i) Oakley Inlet Heritage Plan, prepared in accordance with Conditions OS.5, and in particular, consideration shall be given to the design treatment of the Great North Road Interchange piers and ramps to take into consideration the impact of the structures on the visual quality of the open space beneath;
- (j) Ecological Management Plan, prepared in accordance with Conditions V.1, A.1, H.1, F.1 and M.1;
- (k) Western Ring Route: Maioro Street Interchange and Waterview Connection - Oakley Creek Rehabilitation and Restoration Guidelines (Boffa Miskell, 2010); and
- (l) Details of artworks or art through design of structures within the Project (e.g. design detailing of median barriers, bridge railings, safety barriers, piers, retaining walls and tunnel portals), in accordance with Section B of the Urban Landscape and Design Framework (UDLF June 2010) (refer Schedule A, Row 38) and F.8: Plans of Structures and Architectural Features, but excluding the north and south ventilation buildings, plans sections and elevations.

LV.3.

The NZTA shall have implemented the UDL Plans within 6 months of practical completion of construction of the Project.

LV.4.

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 a period of 10 years thereafter. Should the landscaping be implemented in stages (depending on construction phases), landscaping shall be implemented in accordance with this Condition for each stage unless subsequent construction staging requires use of the proposed landscaping area. *Advice note: On-going control and management of the landscaping within the designation is the responsibility of the NZTA.*

LV.5.

The NZTA shall implement the UDL Plans taking into account the pest plant management guidelines detailed in the Ecological Management Plan (as required by Condition CEMP.3).

LV.8.

The NZTA shall ensure that any areas within the designation 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 and provided to the Major Infrastructure Team Manager, Auckland Council with the

revised UDL Plans submitted pursuant to Condition LV.1.

LV.10.

The UDL Plans shall identify all Amenity Trees required to be removed over the construction of the Project (in accordance with Condition CEMP.6(o) and (p)). Replacement trees shall be sized at 160Lt and will either draw from the Coastal Forest or Basalt Rock Forest ecotypes listed in the Landscape Planting Schedules (provided in F.16, refer Schedule A, 17) or an agreed alternative species (confirmed by Major Infrastructure Team Manager, Auckland Council), except in the case of those trees subject to Condition ARCH.9. *Advice note: This does not necessarily apply to any replacement planting in the Open Space Restoration Plan areas, which will be confirmed in approval from Auckland Council and will be in accordance with relevant Auckland Council Park guidelines (see Condition OS.4).*

## **Open Space Conditions**

OS.1

For the purposes of Conditions OS.2 – OS.15 the following terms will have the following

- meanings: Full size – means a football (soccer) field with the dimensions 100m x 60m.
- Half size – means a football (soccer) field with the dimensions less than 100m x 60m but no smaller than 50m x 30m.
- Toddler – means a playground specifically designed for children between the ages of 1 and 3
- 3 Junior – means a playground specifically designed for children between the ages of 4 and 8
- 8 Youth – means a playground specifically designed for children between the ages of 9 – 14
- 14 years Open Space Restoration Plans – means those plans listed in Schedule A, row 30.
- Open for Play - means the sports field has a level surface and a dense weed-free sward of mature grass, goal posts and lighting if indicated in the Open Space Restoration Plans approved by the Auckland Council.
- Sand - carpeted - means the field has been levelled and irrigated, and conventional sub-soil drains, slit drains and a 50mm deep sand carpet have been installed. The field has been stolonised with a warm season grass such as kikuyu or couch.
- Auckland Council Park Guidelines – means the document by Auckland City Council titled “Furnishing our parks: design guidelines for park furniture”, dated September 2009
- Park furniture – means those items described in the Auckland Council Park Guidelines
- AS2560 – means the Australia New Zealand Standard for lighting of sports fields.
- AS4282 – means the Australia New Zealand Standard for the control of the obtrusive effects of outdoor lighting.
- Way finding exercise – means a process for determining the number, size, location and content of signage to provide clear direction for all park users.
- Skate-park for the purpose of conditions OS.5(b)(iii) means a skate park with a size of approximately 1,400 sq. m. (generally 25 wide x 55m long), incorporating a range of design variations. Suitable for beginners (providing training facilities to develop their skills) but primarily catering for intermediate to advanced level skaters.
- BMX bike track for the purpose of condition OS.5(b)(iii) means a low maintenance, non-competition BMX bike track, incorporating a range of design variations. Primarily catering for beginner and intermediate riders.

OS.2

The NZTA shall prepare Open Space Restoration Plans to outline how the open space replacement land, as defined in the Open Space Restoration Plan Areas (Schedule A, Row 30) (including land occupied during construction) will be reinstated or replaced on completion of construction, for handover to Auckland Council and those areas identified in Condition DC.1A(f) and RC.3(f). Following the consultation detailed in Condition OS.3 below, the Open Space Restoration Plans listed in Condition OS.3(a) to (f) shall be submitted within 12 months

of construction commencing in the specific areas affecting the reserves or within 12 months of occupation

of open space, which ever is the sooner, to the Major Infrastructure Team Manager, Auckland Council.

Advice note: Conditions OS.9 and OS.10 require certain works to be provided prior to occupation of Construction Yards 6 and 7 (Waterview Reserve) and Construction Yards 9- 12 (Alan Wood Reserve) and this may impact on the timing of Open Space Restoration Plans for these areas.

### OS.3

The Open Space Restoration Plans shall be prepared in consultation with the Auckland Council, Iwi, the Community Liaison Groups (Condition PI.5), NZHPT, and other recreation users and other user representatives identified by Auckland Council. The Open Space Restoration Plans shall comprise the following specific plans:

- (a) Waterview Reserve Restoration Plan;
- (b) Alan Wood Restoration Plan (including Hendon Park and 25 Valonia Street);
- (c) Oakley Creek Esplanade (Waterview Glades) Restoration Plan;
- (d) Jack Colvin Park Restoration Plan;
- (e) Rosebank Domain Restoration Plan;
- (f) Harbourview-Orangihina Reserve Restoration Plan.
- (g) The areas of the Open Space Restoration Plans are shown in the Open Space Restoration Plan Areas (Refer Schedule A, Row 30).

### OS.4

All Open Space Restoration Plans shall be prepared in general accordance with the UDL Plans (Schedule A, Row 30), and shall include, but not be limited to, the following:

- (a) Details of, including the location, of any artworks and educational signage, and directional signage. In the case of Alan Wood Reserve, Waterview Reserve and Oakley Creek Esplanade (Waterview Glade) this shall include a "way-finding exercise" in accordance with Auckland Council practice, to determine all signage to be provided; and
- (b) Evidence of integration with the Oakley Creek restoration works required under Conditions STW.5, STW.20, V.16 and LV.2(i); and a summary of the consultation undertaken (as required by Condition OS.3) and the response received; and
- (c) Details of any vehicle access through the reserves and parking areas; and
- (d) Park furniture (including quantity and quality) to be provided in accordance with relevant Auckland Council Park guidelines, except for: (i) The riparian area within Alan Wood Reserve where the only furniture required is a maximum of 10 seats; and (ii) Oakley Creek Esplanade (Waterview Glades) where the only furniture required is replacement of 3 existing seats; and
- (e) The inclusion and integration of the design for all pedestrian and cycleway linkages and facilities detailed on the PT and Active Mode Transport Routes (Schedule A, Row 22). The design integration shall be in accordance with CPTED principles;
- (f) Implementation programme, including sequencing of works and completion dates. This shall include works that could be implemented prior to practical completion of construction works or are outside the Project area  
(e.g. upgrading of the Waterview Esplanade Reserve set out in Condition OS.5(b)(vii);
- (g) Implementation programmes for planting and field reinstatement. This shall include:
  - (i) A 12 month maintenance period for built structures and soft landscaping; and
  - (ii) For any landscaping accessible to horses an assessment to demonstrate that the planting schedule is not toxic to horses and that consultation on this has been undertaken with the Te Atatu Pony Club;
- (h) The specific requirements for each Restoration Plan area as set out in Conditions OS.5 – OS.8;
- (i) Documentation of consultation undertaken required by Condition OS.3 and the views and concerns expressed by this consultation and the written approval of the Manager Community and Cultural Policy.

Advice note: For the avoidance of doubt provision of (a) to (h) above will require elevations, cross sections, engineering drawings and written documentation to supplement the UDL Plans. It is also noted that the UDL Plans identify landscaping, planting and other works beyond the Open Space Restoration Plans (refer Conditions LV.1 – LV.6, LV.9 and LV.10). Educational signs and artworks are particularly

encouraged.

### **Alan Wood Reserve (Specific)**

#### **OS.6**

The Alan Wood Reserve Open Space Restoration Plan, shall be prepared in general accordance with the detail shown for the Open Space Restoration Areas on the UDL Plans (Refer Schedule A, Row 17), the following shall be provided:

(a) Equivalent reinstatement of the following recreational facilities:

(i) Two "open for play" full sized sand-carpeted football (soccer) fields at Valonia Street with artificial lighting (for training purposes to AS2560 and AS4282), associated changing facilities/ ablution block, and associated parking requirements;

(ii) If a financial payment in lieu has not been made under Condition OS.9(b) then one half size football field for training purposes at Alan Wood Reserve;

(iii) One half basketball court; and

(iv) One volleyball court; Except that:

(v) There shall be a general 10m clear space for spectators around the fields and field layout shall be maximised to provide a continuous playing surface (e.g. for summer sports such as softball and cricket) (e.g. by altering drainage and the detailed design for the stream realignment of Oakley Creek).

(b) Other Restoration and Enhancement:

(i) An extension to the pedestrian / cycle access from the Pedestrian/Cycleway to Methuen Road through the existing park access at 174 Methuen Road, following a full CPTED review and response;

(ii) Details of proposed pedestrian/ cycle access within and to/from the reserve areas (including Hendon Park Bridge) (Refer Schedule A, Row 9) including a full CPTED review and response;

(iii) Separation of pedestrian access within the reserve (e.g. linking the carpark to the fields) from the SH20 Cycleway (Refer Schedule A, Row 17);

(iv) Subject to obtaining necessary resource consents and Auckland Council landowner approval, provision of a skate-park;

(v) Design and provision of the Management Plan elements identified on UDL Plan 218 (Refer Schedule A, Row

17) (with the exception of M3 and M7) and notation M2 on Plan 219, subject to approval from Auckland Council;

(vi) Design and provision of the Management Plan elements identified on UDL Plan 220 (noted M1 through to M5), on UDL Plan 221 (Refer Schedule A, Row 17) (noted as M1 – M3, M7 - M10, M12 and M13) and on UDL Plan 222 (noted M1 and M2 and M4 and M6), subject to any necessary resource consents and landowner approval from Auckland Council; and (vii) Landscape planting as provided on UDL Plan 223 (Refer Schedule A, Row 17) (noted as M1 and M3), subject to landowner approval from Auckland Council.

*Advice Note: Condition OS.6(a) needs to be read in conjunction with Condition OS.9(a) as decisions made prior to construction may be relevant to the post construction Open Space Restoration Plan.*

### **Construction Works**

#### **OS.9**

At least 20 working days prior to the occupation of the construction areas within Alan Wood Reserve, the NZTA shall, in consultation and agreement with the Auckland Council, provide:

(a) Three soccer playing fields, maintaining as a minimum the existing dimensions of the playing fields in Alan Wood Reserve that are open for play, including associated access, ablution block and carparking. If the two fields at Valonia Reserve can be provided as an early work these will be done to the standard set in OS.6(a); or

(b) An equivalent financial payment in lieu (or part thereof) to the Auckland Council, which has been paid in full at least 20 working days prior to occupation of Construction Yards 9 - 12; and (c) A half basketball court and volleyball court.

#### **OS.9a**

Prior to occupation of Construction Yards 8, 9 and 10, access to the following areas will be maintained or provided (as shown as Area A on the Accessible Open Space in Sector 9 during Construction Plan (Refer Schedule A, Row 29)):

(a) Approximately 4.6ha of existing passive open space from Methuen Road to New North Road.

(b) Approximately 2.2ha of newly established active recreation open space and existing passive open space, in the vicinity of the Valonia Street Reserve.

#### OS.9b

Following the stream realignment, a passive recreation linkage (including a gravel walkway) between the above open spaces will be provided, establishing a continuous open space linkage from Valonia Street to New North Road (identified as Area B on the Accessible Open Space in Sector 9 During Construction Plan (see Schedule A, Row 29).

#### OS.12

The "Hendon Park Bridge" to the Valonia Reserve area shall be provided within three months of completion of construction works on the SH20 carriageway (up to chainage 1300) and the final stormwater pond proposed at Valonia Street.

#### OS.13

During construction, the NZTA shall maintain pedestrian accessways to all open space available for public use during construction and education facilities where access is affected by the works, including any public access that crosses private land. Such access shall be safe, clearly identifiable, provide appropriate surfacing and seek to minimise significant detours. The access shall be of a same or similar standard as that disrupted and will be provided and maintained by the NZTA.

Advice note: This specifically includes the existing pedestrian access that provides a connection to the crossing over Oakley Creek between 1510 Great North Road and Unitec Mt Albert Campus.

#### OS.14

Where access to Oakley Creek will be disrupted for more than 3 consecutive days, or over a weekend, or there is no provision for a walkway detour, the Community Liaison Person shall notify the Friends of Oakley Creek at least 20 working days in advance of any planned disruption (except where the disruption is of shorter duration, or an emergency situation).

#### OS.17

(a) The NZTA will facilitate the Crown making the property at 6 Barrymore Road (with the exception of land required for the ongoing operation and maintenance of the State Highway or the future rail corridor land) available to Auckland Council for reserve. Any transfer to Auckland Council would be subject to the agreement of both Land Information New Zealand and Council, and only occur after the designation footprint is withdrawn to the operational requirements of the Project (as per Condition DC.10).

(b) If the transfer to Auckland Council does not occur within 12 months of commencement of operations of the motorway in Sector 9, the NZTA shall make a financial payment in lieu of that transfer to Auckland Council in the amount of \$1.13 million, for the same purposes as the payment described in condition SO.14, but not further conditional in the manner provided by SO.14(d).

(c) The purpose of the transfer under (a) or the financial payment under (b) is to mitigate significant adverse effects on passive open space and reserves in Sector 9 (other mitigation having been held by the Board of Inquiry not to be adequate).

Advice Note: The disposal of surplus Crown land is subject to statutory processes (including the Public Works Act) which are managed by Land Information New Zealand and not the NZTA directly.

### **Social Conditions**

#### SO.1

In addition to the Community Liaison Groups established pursuant to Condition PI.5, the NZTA shall establish an Education Liaison Group (including representatives from local schools, kindergartens, childcare facilities, Unitec Institute of Technology, the Ministry of Education and Housing New Zealand Corporation), to provide a forum through which:

(a) Relevant monitoring data can be provided (e.g. air quality monitoring);

(b) Notice can be provided of when particularly noisy activities will occur in close proximity to schools and

education facilities, to enable the opportunity to identify any potential conflict with particular sensitive periods, and the requirement for specific mitigation strategies (e.g. rescheduling of construction activities where practicable); (c) Particular concerns can be raised by educational facilities or parents, discussed and potentially addressed;

(d) Notice can be provided of potential construction impacts on school transport routes (including pedestrian/cycle access) to enable the opportunity to identify specific mitigation preferences of the education facilities (e.g. any detour routes) and to enable these facilities to appropriately inform students and/or parents; and

(e) Learning and teaching opportunities for educational facilities to participate in Project works (e.g. planting or artworks). The Education Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period. The Education Liaison Group shall continue to meet for at least 12 months following the completion of the Project (or less if the members of the Education Liaison Group agree), so that ongoing monitoring information can continue to be disseminated.

## SO.2

In addition to Condition SO.1(b) above, where noisy construction activities (that are projected to exceed the Noise Criteria in the CNVMP) are proposed in close proximity or adjacent to schools/ childcare centres, the NZTA shall, when preparing their SSNMP (in accordance with Condition CNV.1) give specific consideration to options to carry out these works outside school hours or during school holidays as a mitigation option.

## SO.6

In addition to the Community Liaison Group established pursuant to Condition PI.5, the NZTA shall establish a Working Liaison Group (WLG) inviting the following:

- (a) Auckland Council;
- (b) Housing New Zealand Corporation;
- (c) Te Kawerau Iwi Tribal Authority;
- (d) Ngati Whatua o Orakei;
- (e) KiwiRail;
- (f) Department of Conservation;
- (g) Ministry of Education; and
- (h) Local Boards.

The purpose of this WLG will be to provide a forum through which:

(a) Opportunities for public work development (including social housing, passenger transport or recreation / open space) are identified in areas where the NZTA confirms that the designation is no longer required (e.g. following construction activities);

(b) Comment can be provided on updated Urban Design and Landscape Plans, including the finalised designs of structural elements for the Project (prior to their submission to the Auckland Council);

(c) Opportunities for integration of other environmental projects (e.g. restoration plantings) are identified;

(d) Consideration is given to appropriate protocols for commencement and completion of construction activities (including blessings for commencement of construction phases); and

(e) Comment can be provided by Te Kawerau a Maki on the detailed lighting design of SH16, to consider how lighting effects on cultural sites and practices might be mitigated without compromising traffic safety or those performance standards identified in Condition L.1. The Working Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period.

## SO.7

A schedule of trees that require removal for construction of the Project will be identified and reported to the Community Liaison Group for their consideration of potential provision of timber for heritage projects (including in particular the provision of *Robinia* wood for heritage boat building). If the demand for this timber is identified to the Construction Team, appropriate measures for felling and removal from the site will be confirmed.

### SO.13

The NZTA shall appoint a medical specialist qualified and experienced in Environmental and Occupational Medicine for the duration of the operational air quality monitoring of the Project (as defined by Condition OA.4) to be a point of contact for persons concerned about the discharge from the ventilation stacks. This person must be reasonably available by appointment for advice on matters of concern for residents within the Waterview / Point Chevalier and Owairaka / New Windsor communities, and parents of pupils and prospective pupils at schools, kindergartens, playschools, and child care centres within those areas.

### SO.14

For the purpose of mitigating significant adverse effects on passive open space and reserves in Sectors 5, 7 and 9, both during the construction years and longer term, particularly in the Waterview, Owairaka and New Windsor communities (other mitigation having been held by the Board of Inquiry not to be adequate) the following applies:

(a) The NZTA shall, subject to conditions (b), (c) and (d) below, construct the following:

(i) A pedestrian and cycleway to AUSTROADS standards between Waterview and Owairaka/New Windsor (as generally indicated on drawing labelled as "Indicative SH20 Cycleway Route" (refer to Schedule A, Row 40)), subject to any modifications necessary to address design, property or engineering constraints.

(ii) The "Alford St Bridge".

(iii) The "Soljak PI Bridge".

(b) The NZTA's obligations under condition (a)(i) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals on a permanent basis in respect of the facilities described in condition (a)(i); and

(ii) acquired sufficient land to form a cycle and pedestrian way to AUSTROADS standards between Alan Wood Reserve and Unitec; and (iii) obtained all necessary resource consents required for construction and operation of the facilities.

(c) The NZTA's obligations under condition (a)(ii) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals on a permanent basis for the Alford St Bridge; and

(ii) obtained all necessary resource consents required for construction and operation of the Alford St Bridge.

(d) The NZTA's obligations under conditions (a)(iii) arise when the NZTA receives certification from the Auckland Council and Auckland Transport that the Auckland Council and Auckland Transport have:

(i) acquired all necessary land, or obtained all necessary interests and/or landowner approvals for the Soljak PI Bridge either on a permanent basis or on the basis that the Soljak PI Bridge may be constructed and operated unless and until its continued existence and / or operation conflicts with or compromises future works pursuant to the designation for rail purposes; and

(ii) obtained all necessary resource consents required for construction and operation of the Soljak PI Bridge. (e) The certification from Auckland Council required under conditions (b), (c) and (d) above must be received by the NZTA within 8 years of the designations for the Project being confirmed.

(f) Each of the facilities for which certification has been given must be constructed within 1 year of the opening of the motorway, or two years from when certification is given for the relevant facility, whichever is the earlier, subject however to some elements of the facilities towards the northern end needing to await the decommissioning of Construction Yard 7.

(g) The value of the construction works to be undertaken by the NZTA pursuant to condition (a) to (d) above shall not exceed a sum equal to \$8 million in June 2011 New Zealand dollars (with any construction costs above that figure being met by the Council.)"

(h) The pedestrian and cycleway facilities described in condition (a)(i) above are in addition to the cycling and pedestrian facilities required by the other conditions.

#### Advice notes:

The intention of this condition is to construct a continuous pedestrian and cycleway with bridges at Soljak PI and Alford St. To achieve this, the Council and Auckland Transport will use their best endeavours to obtain the necessary consents and landowner approvals, for all three components of the

network.

The approvals required for the Soljak PI Bridge reflect the designation for rail purposes of land under the bridge and the possibility that any bridge structure will be approved for a limited length of time only.

In the event that, despite their best endeavours, the Council and Auckland Transport cannot obtain all of the necessary landowner approvals, the condition allows each part of the network to be constructed in isolation from the others. That will provide some mitigation of the significant adverse effects on passive open space and reserves in Sectors 5, 7 and 9 that the condition is intended to address. It will also enable the Council and Auckland Transport to complete the network in the future at their expense when and if they are able to obtain the outstanding approvals.

Condition (f) above requires the earlier of the 2 named events to be the trigger for NZTA to undertake the works, in order that the required mitigation or at least some of it occur during the construction years. It also recognises that towards the northern end of the pedestrian and cycleway, some of the works may need to await the de-commissioning of Construction Yard 7.

Subject to landowner approvals, the Council and/or Auckland Transport will be the owner of the pedestrian and cycleway and the bridges described in (a) above and shall have full responsibility for the operation and maintenance of those facilities once they have been constructed by NZTA. Accordingly, NZTA will be under no further obligation in respect of any of the facilities once they have been constructed and, in particular, will have no obligation in terms of the removal, alteration or replacement of the Soljak PI Bridge in the event that it conflicts with or compromises proposed works pursuant to the designation for rail purposes.

## **Vegetation Conditions**

### **V.1**

The NZTA shall finalise the ECOMP submitted with this application, prior to works commencing on site. The ECOMP shall be implemented through the CEMP. The ECOMP shall clearly identify the location and identity of: (a) All Significant Vegetation within the designation that is to be fully protected or relocated; and (b) All Valued Vegetation within the designation that is affected by the works (protected or removed). Note: Significant and Valued Vegetation shall be as defined in the ECOMP.

### **V.2**

The NZTA shall employ a suitably experienced botanist ('nominated botanist') for the duration of the works to monitor, supervise and direct all works affecting or otherwise in close proximity to the Significant Vegetation and Valued Vegetation identified in the ECOMP.

### **V.3**

Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions that pertain to the Significant Vegetation and Valued Vegetation and all vegetation in general (both native and exotic) are explained by the nominated botanist to all contractors or sub-contractors who will be working on site within the close vicinity of that vegetation.

### **V.4**

The NZTA shall minimise the amount of vegetation (both native and exotic) which is to be cleared, with the exception of weeds (both woody and otherwise, unless agreed with the Major Infrastructure Team Manager, Auckland Council and the Community Liaison Group that the retention of these 'weeds' has other environmental or ecological benefits that warrant their retention). All vegetation clearance shall be undertaken in accordance with the measures set out in the ECOMP.

### **V.5**

The NZTA shall install protective fencing around, or otherwise clearly demarcate, all of the Significant Vegetation identified in the ECOMP as requiring full protection, under the supervision of the nominated botanist.

V.6

The NZTA shall replace any terrestrial Valued Vegetation that is required to be removed as a result of construction activities, in accordance with the ECOMP and the Urban Design and Landscape Plans.

V.7

The nominated botanist shall supervise all trimming, pruning and relocation work associated with the Significant Vegetation and Valued Vegetation required as part of the works.

V.8

Immediately prior to planting, and for a period of 2 years following completion of construction, the NZTA shall undertake weed control and management of all invasive plant pests within the vegetated areas of the surface designation for the Project. Following this 2 year period, on-going control and management of all invasive plant pests within these areas will be the responsibility of the NZTA.

V.9

The nominated botanist shall undertake a monitoring programme throughout the construction period, including monitoring of:

- (a) The condition, repair and location of the temporary protective fencing or other forms of demarcation used to identify the Significant Vegetation;
- (b) Any works within the vicinity of the Significant Vegetation and Valued Vegetation;
- (c) The general health of the Significant Vegetation and Valued Vegetation (including any Significant or Valued Vegetation that has been relocated away from the works area); and
- (d) Compliance with the vegetation conditions of designation by way of fortnightly inspections during the construction period.

V.10

Any planting utilising native plants shall use plants genetically sourced from the Tamaki Ecological District where possible or otherwise shall use plants that have been genetically sourced from within the Auckland Ecological Region.

V.12

Should the taxonomic and rarity status of the Geranium species growing alongside Oakley Creek in Hendon Park and Alan Wood Reserve not be confirmed before the commencement of works in this area, then this species shall be treated as Significant Vegetation and shall either be:

- (a) Protected in full or in part, and/or
- (b) Where protection is not practicable, relocated to a suitable and safe habitat elsewhere; or
- (c) Where protection or translocation are not practicable, this population shall be cleared in locations where required to allow works to proceed, but replaced with an equal extent of replacement plantings of the same species (from propagated material sourced from the existing population) planted at a safe and suitable habitat nearby in Hendon Park/Alan Wood Reserve.

V.13

Any clearance of the Geranium in accordance with Condition V.12 shall be restricted to the minimum necessary to facilitate the works.

V.16

All realignments and riparian enhancements of Oakley Creek shall be carried out in accordance with the Oakley Creek Realignment and Rehabilitation Guidelines and in general accordance with the Urban Design and Landscape plans (Refer Schedule A, Row 17).

**Avian Conditions**

A.1

The NZTA shall finalise, and implement through the CEMP, ECOMP submitted with this application to

include the matters set out in Conditions A.2 to A.6.

### **Herpetofauna Conditions**

#### **H.1**

The NZTA shall finalise and implement through the CEMP, the ECOMP submitted with this application to include details of lizard management to be undertaken, including the following:

- (a) Lizard capture methodology, including timing;
- (b) Lizard release location(s);
- (c) Lizard habitat enhancement at population release sites, including a detailed pest control programme for a minimum of one month prior to release and for a minimum of three consecutive years' duration after release;
- (d) Location(s), monitoring and maintenance of lizard protective fencing;
- (e) Post-release monitoring methodology; and
- (f) Lizard captive management methodology.

### **Lighting Conditions Operation**

#### **L.1**

Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, in general accordance with the Waterview Connection Lighting Plan (Drawing Set F.11 (Refer Schedule A, Row 12):

- a) All motorway lighting shall be designed in accordance with "Roadlighting Standard AS/NZS1158";
- b) All other lighting shall be designed in accordance with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- c) Fully cut off luminaires shall be used on SH20 from the Southern Tunnel Portal to the Maioro Street Interchange to minimise lighting overspill, as shown on Drawing Set F.11 (Refer Schedule A, Row 12).

### **Construction Zones and Construction Yards**

#### **L.2**

A Temporary Construction Lighting Management Plan shall be prepared for all construction zones and construction yards prior to commencement of any night time works within the construction zones and construction yards. The Temporary Construction Lighting Management Plan shall be independently verified by a lighting specialist and provided to the Major Infrastructure Team Manager, Auckland Council for certification of compliance 10 working days prior to any night time work commencing. The certification process shall ensure that the Plan includes (but is not limited to):

- a) The layout and arrangement of all temporary lighting required for night time works, and shall show how this avoids the "Light Spill Restriction Zone" identified on the Construction Yard Plans (Refer Schedule A, Row 7) submitted with the application, and that the temporary lighting complies with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- b) Provision for a 10m buffer between the night time work and any residential boundary at all times to minimise potential for light spill; and
- c) General operating procedures outlined in the CEMP.

### **Lighting Conditions**

#### **L.3**

Asymmetrical floodlights with horizontal glass visors that are not raised more than 3 degrees above the horizontal plane shall be used for any temporary construction night time lighting requirements.

Alternative temporary lighting arrangements may be used, subject to the prior approval of the Major Infrastructure Team Manager, Auckland Council, where it can be demonstrated that the proposed lighting is similar or better to asymmetrical floodlights with glass visors. Glare shall be kept below the recommendation given in AS 4282 – 1997 "Control of the Obtrusive Effects of Outdoor Lighting" Tables 2.1 and 2.2.

### **Archaeology Conditions**

#### **ARCH.1**

The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:

- a) Identification of the Project archaeologist, their role and responsibility on the Project;
- b) Who reports to the Project archaeologist;
- c) Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;
- d) Whether ~~NZHPT~~ Heritage New Zealand and/or Auckland Council heritage and/or iwi supervision is required for the specific consultation with the relevant iwi groups); and
- e) Accidental discovery protocols in the event that unknown archaeological sites are uncovered.

#### ARCH.2.

The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:

- (a) All unmodified areas in the vicinity of Rosebank Road;
- (b) All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;
- (c) Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;
- (d) Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.

#### ARCH.3

If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:

- (a) Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- (b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;
- (c) The Project archaeologist shall inspect the site to assess the relevance of the find, and then the Auckland Council shall be advised of the significance;
- (d) If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, and the Auckland Council that an archaeological site has been exposed so that appropriate action can be taken
- (e) In the case of human remains, the NZ Police shall be notified.

#### ARCH.8

All contractors and subcontractors working on the Project shall be trained on the archaeological requirements set out in the ASMP.

#### Advice note:

Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

### **Ground Settlement Conditions**

#### S.1

The NZTA shall finalise, and implement through the CEMP, the Settlement Effects Management Plan (SEMP) lodged with the application prior to construction activities being undertaken. Prior to construction (following detailed investigation and design), the total estimated settlements and building damage categories shall be confirmed using the methodology in Technical Report G.13 *Assessment of Ground Settlement Effects* and the SEMP shall be updated accordingly. In the event that settlement predictions are greater (than those allowed for in Figure E.14 (refer Schedule A, Row 26)) or building damage categories increase in ranking or buildings affected from those identified in Figures G1-G4 (refer Schedule A, Row 27), mitigation measures shall be introduced as part of the detailed design and construction process to avoid

any adverse effects greater than predicted by the application lodged in August 2010.

## **Settlement Monitoring**

### **S.2**

The NZTA shall establish a series of ground settlement monitoring markers to monitor potential settlement in relation to the construction of the tunnels. The survey markers will be located generally as follows:

- (a) Along the tunnel alignment and extending out to a maximum of 400m either side of the tunnels to correlate with cross sections that have been used for the settlement estimates and to infill between them.
- (b) To cover the more extensive eastern zone area of settlement at Chainage 3400 (Figure E.14 refer Schedule A, Row 26).
- (c) On or around buildings or features considered to be particularly sensitive as defined in the SEMP (including those buildings identified in Condition S.7) and as may be updated to reflect detailed analysis and interpretation of monitoring results as the Project proceeds. Two types of markers shall be established: Framework Markers which shall form the main basis of monitoring, and Intermediate Markers which shall provide additional monitoring information for interpretation of Alerts and Alarms. The locations of each type of settlement monitoring marker shall be confirmed in the SEMP. Each Framework Marker shall have an alert and alarm level set in relation to Figure E.14, where alert = 75% of the theoretical value and alarm = 100% of the theoretical value with due consideration of the seasonal range of ground movement identified by pre-construction monitoring.

### **S.3**

The NZTA shall survey the settlement monitoring markers at the following frequency:

- (a) Pre-construction
  - (i) All Framework Markers – Vertical and selected horizontal at 3 monthly intervals, starting at least 12 months prior to construction commencing; and
  - (ii) All Intermediate Markers - Vertical and selected horizontal once.
- b) During Construction
  - (i) All Framework Markers - Vertical on a monthly basis; and
  - (ii) Selected Framework Markers only - Horizontal on a monthly basis.
- (c) During Active Construction
  - (i) All Framework and Intermediate Markers – Vertical on a weekly basis; and
  - (ii) Selected Framework Markers only - Horizontal on a monthly basis.

“Active construction” shall be defined as:

- (a) Starting when the advancing tunnel face comes within 150m and ending when the final tunnel lining has been installed 150m beyond the section; and
- (b) When excavation in front of a retaining wall comes within 100m of a section and ending when the permanent wall supports are in place beyond a distance of 100m.

### **S.4**

Within three days of each monitoring round, the NZTA shall use the settlement monitoring results (together with the results of groundwater monitoring where they may provide an earlier indication of future settlements) to reassess the ground settlements and building damage categories and compare them to those estimated in Figures E.14 and G1-G4 (refer Schedule A, Row 26 and 27).

If alert and alarm levels are exceeded, the trigger marker shall be resurveyed within 24 hours.

If the reassessment indicates that a building has increased its damage category from that in Figures G1 – G4 (refer Schedule A, Row 27) then this shall be considered to be an Alert Level and additional specific assessment of the building shall be carried out by the NZTA to confirm this reassessment within 72 hours.

If the additional assessment confirms the increase in damage category, this shall be considered to be an Alarm Level and the property owner and occupier will be notified within 48 hours. Following consultation with the property owner and occupier(s); subsequent actions may include increased frequency and/or extent of monitoring, modification to the construction approach or mitigation works to the affected building.

#### S.5

Settlement monitoring shall be undertaken for a period of 2 years following completion of the tunnels. The NZTA may reduce the frequency of settlement monitoring, required by Condition S.3, to 6-monthly:

- (a) Once the active construction stage has passed; and
- (b) Monthly monitoring has been undertaken for a minimum of 6 months; and
- (c) The monitoring indicates that any potential settlement effects are within a satisfactory range as specified in the SEMP; and
- (d) The criteria in (a) to (c) above has been certified by the Auckland Council.

#### S.6

The NZTA shall collate the results of the settlement monitoring (undertaken pursuant to Conditions S.2 – S.5) and prepare a report that shall be made available to the Auckland Council. A settlement monitoring report shall be prepared prior to the commencement of construction, and then at monthly intervals throughout the construction period. Following the completion of construction, a settlement monitoring report shall be prepared following each round of settlement monitoring undertaken (i.e. monthly and then 6-monthly when monitoring is reduced pursuant to Condition S.5).

The settlement reports shall highlight any alert or alarm level exceedences and provide a full interpretation and/or explanation as to why these levels are exceeded, the likely effects and detail any remedial or mitigation measures initiated as a result of these trigger exceedences.

### **Building Condition Surveys**

#### S.7

The NZTA shall review and update the schedule of buildings and structures considered to be at risk in accordance with the criteria of the SEMP and maintain this for review by the Auckland Council. This shall include, but not be limited to, the following properties identified in the Technical Report G.13 *Assessment of Ground Settlement Effects* provided in support of this application:

- (a) Buildings on properties within the substrata designation;
- (b) Buildings where total estimated settlement is greater than 50mm (defined in Figure E.14 – Refer Schedule A, Row 26);
- (c) Buildings in areas estimated to have a risk of damage more than negligible (defined in Figures G1-G4 as categories 1-5 (Refer Schedule A, Row 27));
- (d) Unitec Buildings 76, and 310-313 (as per Unitec Site Plan in Schedule A, Row 31);
- (e) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (f) Pak'n Save Supermarket;
- (g) Metro Football Clubhouse, Phyllis Street;
- (h) Building at 1550 Great North Road;
- (i) BP Service station at 1380 Great North Road; (j) Modern Chairs Building (Richardson Road);
- (k) Waterview Primary School;
- (l) Operational septic tanks where total estimated settlement is greater than 50mm; and
- (m) Buildings on the western side of the alignment between Chainage 3000 and 3400 where total estimated settlement is greater than 20mm.

#### S.8

The NZTA shall consult with owners of buildings and structures identified in Condition S.7 and, subject to the owner's approval of terms acceptable to the NZTA, shall undertake a preconstruction condition assessment of these structures in accordance with the SEMP.

S.9 The NZTA shall employ a suitably qualified person (e.g. a Chartered Professional Engineer) to undertake the building assessments required pursuant to Conditions S.8 and S.12 and identify this person in the SEMP.

S.10 The NZTA shall undertake monthly visual inspections of the following buildings during the “active construction” phase of the Project as defined in Condition S.3:

- (a) All Type 1 Dwellings within a zone where “more than negligible” effects have been predicted;
- (b) All Type 2 Dwellings within a zone where “slight” effects or greater have been predicted
- (c) Unitec Building 76;
- (d) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (e) Pak’n Save supermarket; and
- (f) Waterview Primary School (pool and hall).

Note: Type 1 and 2 Dwellings are those as defined in Technical Report G.13 *Assessment of Ground Settlement Effects*.

S.11 The NZTA shall undertake level and/or wall inclination surveys on a monthly basis during the “active construction” phase of the Project on the following buildings:

- (a) All Type 1 Dwellings within a zone where “slight” effects or greater have been predicted;
- (b) Unitec Building 76;
- (c) 1510 Great North Road, Unitec Residential Flats (two buildings);
- (d) Waterview Primary School (pool); and
- (e) Pak ‘n’ Save Supermarket

S.12

The NZTA shall, subject to the owner(s) approval, ensure that within 6 months of completion of construction activities, a post-construction condition assessment covering the matters identified in the SEMP is undertaken and shall be provided to the owner(s). The assessment report shall include a determination of the cause of damage identified (if any) since the preconstruction condition assessments. The NZTA shall agree with the owner(s) appropriate remedial works (if any) in conjunction with arrangements for implementation and/or compensation. The requirements of this condition need not be fulfilled for any particular building with the written approval of the current owner of a building or where the NZTA can provide reasonable evidence to the Auckland Council that the current owner of that building has agreed they do not require such a survey.

S.13

The NZTA shall ensure that a copy of the pre, post-construction and any additional building condition assessment reports for each building be forwarded to the respective property owner(s) within 15 working days of completing the reports. The NZTA shall notify the Auckland Council that the assessments have been completed. The community liaison person appointed pursuant to Condition PI.1 shall be the contact person for owner(s) subject to assessment and reporting under Conditions S.1 to S.11 and S.16 and remedial works or compensation payments under Condition S.12 and S.16.

### **Retaining Wall Monitoring**

S.14

The NZTA shall establish inclinometer and surface monitoring of the retaining walls for the tunnel portals and cut and cover tunnel to determine any potential effect from the tunnels. The nature and timing of the monitoring shall be determined during detailed design of the retaining walls and specified in the SEMP.

### **Services Monitoring**

S.15

Prior to construction commencing, the NZTA shall undertake CCTV surveys of services identified in the SEMP as being susceptible to damage or particularly critical. This shall include, but not be limited to:

- (a) Waterview Orakei No. 9 trunk sewer.

The NZTA shall monitor these services by undertaking additional CCTV surveys throughout the construction period. If any damage is determined in relation to the Project, the NZTA shall undertake any remedial action as required in consultation with the service provider.

## **Slope Stability Assessments**

S.16

Prior to construction commencing, the NZTA shall undertake geotechnical investigations of slopes or sites that have been identified as potentially being susceptible to movement. This shall include, but not be limited to:

- (a) 14H and 14J Cradock Street
- (b) 34 Cradock Street
- (c) 40 Cradock Street
- (d) 56 Powell Street;
- (e) 1590A Great North Road; and
- (f) Other sites on the western slopes of Oakley Creek identified under Condition S.7(b) and S.7(m) which are assessed in the course of a pre-construction condition assessment undertaken in accordance with Condition S.8 as potentially being susceptible to slope movement.

The NZTA shall undertake monitoring throughout the active construction period in accordance with Condition S.10 above and shall assess and agree remedial action as required, in consultation with the owner, in accordance with Condition S.12 above.

## **Differential Settlement**

S.17

Pairs of settlement markers shall be established on each side of the cross sections identified on Figure E.14 to monitor differential movements. The markers in each pair shall be no more than 20m apart, and each pair shall be within 100m of the centreline of the closest tunnel. Monitoring installed in accordance with Condition S.11 can be utilised for this purpose. Each pair of markers shall have Alert and Alarm values set based on the calculated differential settlements at that location and consistent with the relevant calculated Building Damage Category (Figures G1-G4, (Refer Schedule A Row 27)), Alert and Alarm levels shall be as defined in Condition S.2. Monitoring frequency shall be as defined for Framework Markers in Condition S.3.

## **Streamworks Conditions**

### **General conditions**

STW.1 The streamworks and associated works (such as stormwater outfalls) shall be undertaken in accordance with the plans and information contained within Technical Report G.15 *Assessment of Stormwater and Streamworks Effects* and Technical Report G.22 *Erosion and Sediment Control Plan*, submitted with this application. The design of streamworks and associated works shall follow the approach expressed in the Oakley Creek Re-alignment and Rehabilitation Guidelines, appended to *Technical Report G.6 Assessment of Freshwater Ecological Effects*.

STW.2

Any future amendments that may affect the performance of the streamworks shall be approved by the Major Infrastructure Team Manager, Auckland Council in writing, prior to construction. Any amendments to the design shall be in accordance with the Western Ring Route: Oakley Creek Re-alignment and Rehabilitation Guidelines (Boffa Miskell, 2010), appended to *Technical Report G.6 Assessment of Freshwater Ecological Effects*.

STW.3

The NZTA shall inform the Major Infrastructure Team Manager, Auckland Council in writing at least 10 working days prior to any streamworks commencing, and again 10 working days before any environmental protection measures are removed.

STW.4

Prior to streamworks commencing on site, the NZTA shall arrange and conduct a preconstruction site meeting between Auckland Council, NZTA and the primary contractor.

STW.5

At least 20 working days prior to commencement of streamworks associated with the realignments of

Oakley Creek and the Stoddard Road tributary, the construction design details associated with these works shall be submitted to the Major Infrastructure Team Manager, Auckland Council for approval. The details shall include but not be limited to:

- (a) Detailed design of the proposed streamworks including long sections, cross sections and details of the design including freshwater habitat improvement and riparian planting;
- (b) Construction erosion and sediment control plans (ESCP).

#### STW.6

The NZTA shall forward a detailed construction programme and methodology to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the commencement of works, and shall provide monthly updates during the streamworks. These shall include details of:

- (a) The commencement date and expected duration of the streamworks;
- (b) The location of any works and structures in relation to the streamworks; and
- (c) Dates for the implementation of erosion and sediment controls.

#### STW.7

No streamworks shall be undertaken between 1 May and 30 September unless written approval has been obtained from the Major Infrastructure Team Manager, Auckland Council. Any such approval shall be sought at least 10 working days prior to the proposed commencement of the works.

#### STW.8

All erosion and sediment controls associated with the streamworks shall be constructed and installed in accordance with Technical Report G.22 *Erosion and Sediment Control Plan* submitted with this application.

#### STW.9

The site shall be stabilised against erosion as soon as practicable and in a progressive manner as streamworks are finished.

#### STW.10

All uncompacted material shall be kept clear of the channel during and after streamworks.

#### STW.11

The NZTA shall ensure that any temporary dam structure built within the stream shall be constructed from non-erodible material (such as sandbags or sheet piles).

#### STW.12

The NZTA shall ensure that when dewatering the in-stream works area, no sediment-laden water shall be discharged directly into a watercourse. Any sediment-laden water must be treated in an appropriate sediment treatment device in accordance with TP90.

#### STW.13

All machinery shall be maintained and operated in a way which ensures that spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing.

#### STW.14

The NZTA shall ensure that:

- (a) Any excavated sediment that requires temporary stockpiling shall not be placed within the 1% AEP 100-year ARI flood plain, and
- (b) Erosion and sediment control measures around the stockpile perimeter shall be constructed in accordance with TP90.

#### STW.15

The design engineer and Project ecologist shall monitor the construction of the streamworks. The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council a certificate signed by an appropriately qualified and experienced engineer and ecologist to certify that the streamworks have been undertaken in accordance with the drawings supplied with this application, or as otherwise amended under Condition STW.2, within three months of completion of the streamworks.

#### STW.16

The NZTA shall obtain approval of the constructed stream realignment works from the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to diversion of Oakley Creek into the new channel.

#### **Bridge Structure**

#### STW.17

The NZTA shall submit a certificate signed by an appropriately qualified and experienced engineer to certify that the Oakley Creek SH20 motorway bridge has been constructed in accordance with the drawings supplied with this application, within 3 months of completion of the structure.

#### STW.18

Any erosion occurring as a result of construction of the Oakley Creek bridge (SH20) shall be remedied as soon as possible and to the satisfaction of the Major Infrastructure Team Manager, Auckland Council.

#### STW.19

The area of Oakley Creek beneath the Oakley Creek bridge (SH20) shall be maintained free of debris to ensure stream flows are not restricted.

#### **Streamworks Environmental Management Plan (SWEMP)**

#### STW.20

The NZTA shall submit for approval to the Major Infrastructure Team Manager, Auckland Council a Streamworks Environmental Management Plan (SWEMP) which shall include details of the final freshwater mitigation and environmental enhancement works associated with the Project to give effect to the design set out in Technical Report G.15 and principles of the "Western Ring Route – Maioro Street Interchange and Waterview Connection - Oakley Creek Realignment and Rehabilitation Guidelines" described in Condition STW.22. This SWEMP shall cover the mitigation for the loss of an area of Pixie Stream, Oakley Creek and the Stoddard Road tributary. It shall be submitted to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the proposed enhancement works being commenced under this consent and shall include, but not be limited to, the following:

- (a) The nature of works to be undertaken;
- (b) The location of works;
- (c) Detailed design and plans of all enhancements to the stream bed and/or stream channel, including any structures or other engineering works. This includes replication of the existing waterfall located on the Stoddard Road tributary near the confluence with Oakley Creek in a similar position within the new realignment;
- (d) Riparian planting programmes, including detailed planting plans and specifications relating to species mix, location, density, size and maintenance to achieve an overall average of 70% shading of stream at maturity within those reaches where realignments or the SEV off-setting mitigation associated with the Project are proposed;
- (e) Timing of implementation;
- (f) The outcomes of consultation with Iwi (Ngati Whatua o Orakei and Te Kawerau Tribal Authority), the Community Liaison Group (see Condition PI.6), and Friends of Oakley Creek; and
- (g) How the basalt blocks from sections of the existing Oakley Creek channel that are to be realigned will be reused, with preference given to use within the channel realignment works and within other works identified in the Alan Wood Open Space Restoration Plan. Options for reuse shall take into account, but not be limited to:
  - (i) The heritage (cultural) values of the basalt blocks in the channel walls, in-situ basalt e.g. at the Stoddard Confluence and the basalt columnar blocks; and
  - (ii) The ecological values of the basalt block substrates with terrestrial and aquatic vegetation e.g.

endangered moss *Fissidens berteroi*.

Advice Note: The intent is to include the SEV off-setting mitigation associated with the Maioro Interchange Project within Hendon Park and Alan Wood Reserve, and to the same shading standard as specified in Condition STW 20(d).

#### STW.21

The realignments necessary for highway construction will be rehabilitated separately to the Project's SEV off-set mitigation requirement of 343 metres. The Project's SEV off-set mitigation requirements will be undertaken within the areas demarcated as areas A to D on the "Oakley Creek Realignment Layout Plan, drawing 20.1.11- 3-D-D-330-21" (Refer Schedule A, Row 23).

Advice Note: The SEV off-set mitigation associated with the Maioro Interchange Project is intended to be undertaken upstream and downstream of those areas shown for Realignment and Rehabilitation (Refer Schedule A, Row 23), for the purposes of creating a coherent ecological corridor in this area.

#### STW.22

The SWEMP shall be prepared in general accordance with the "Western Ring Route – Maioro Street Interchange and Waterview Connection - Oakley Creek Realignment and Rehabilitation Guidelines" (Boffa Miskell, 2010) appended to *Technical Report G.6 Assessment of Freshwater Ecological Effects*.

#### STW.23

The NZTA shall implement the mitigation and environmental enhancement works contained in the approved SWEMP within 12 months of practical completion of the Project.

#### STW.24

The NZTA shall supply to the Major Infrastructure Team Manager, Auckland Council within three months of the completion of the riparian planting works written confirmation from an appropriately qualified landscape architect or ecologist that the riparian plantings have been implemented in accordance with the SWEMP approved under Condition STW.20.

#### STW.25

Any material amendments to the SWEMP shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to any amendment being implemented.

### **Fish Passage**

#### STW.26

All proposed stream bed and/or stream channel structures shall not impede the passage of fish both upstream and downstream.

### **Flooding**

#### STW.27

Works in the floodplain (including motorway embankments, ancillary earthworks and streamworks) shall be in accordance with the final design of the streamworks approved by the Major Infrastructure Team Manager, Auckland Council (as per Conditions STW.5 and STW.29) and be undertaken in accordance with the plans and information submitted with this application including, but not limited:

- (a) Waterview Connection Project. Assessment of Environmental Effects Report (Dated August 2010).
  - (i) Plan F.2 Operation Scheme Plans (Refer Schedule A, Row 3); and
  - (ii) Plan F.14 Streamworks and Stormwater Discharges (Refer Schedule A, Row 15).
- (b) Technical Report G.15 *Assessment of Stormwater and Streamworks Effects*.

#### STW.28

Within three months of completion of the works, the NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council "as built" plans certified by a qualified and experienced engineer to confirm

that the works have been carried out in accordance with Condition STW.27.

#### STW.29

Any amendments to works by the NZTA in the floodplain that may increase the flooding effects shall be submitted to the Major Infrastructure Team Manager, Auckland Council for approval in writing at least 20 working days prior to construction. These proposed amendments shall include updated drawings and hydraulic modelling using the Oakley Creek Catchment Model to assess the effects of the change.

#### STW.30

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council a certificate signed by an appropriately qualified and experienced engineer to certify that the flood protection works for the tunnels have been constructed in accordance with the drawings, approach and standards supplied with this application, prior to the opening of the Project.

#### STW.31

Design of flood defences for the southern portal shall be in accordance with the catchment management option preferred by Auckland Council with allowances for climate change, sea-level rise and Maximum Probable Development.

### **Contaminated Land and Contaminated Discharges Conditions**

CL.1 The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- (a) Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- (b) Soil validation testing and groundwater testing;
- (c) Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential reuse or disposal options;
- (d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and
- (e) Measures to be undertaken for the handling of asbestos containing material.

#### CL.2

Prior to the main construction works commencing, the baseline quality of soils and groundwater within Sector 5 (the southern bank of Oakley Creek coincident with the location of the former tannery) and Sector 7 (particularly in relation to works in the vicinity of Great North Road) shall be investigated and established. The investigations shall be carried out in accordance with appropriate Ministry for the Environment and Auckland Council guidelines. The findings of the soil and groundwater investigations shall be used to determine the specific construction methods during work in this area to manage any likely environmental effects in relation to the Project.

#### CL.3

Prior to the main construction works commencing, soils and fill materials within Alan Wood Reserve (Sector 9) shall be further classified so as to determine the distribution and extent of cleanfill, managed fill and contaminated/hazardous fill materials.

#### CL.4

All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

#### CL.5

The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support

of this application, including contaminated soil, surface water or groundwater. CL.6 The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP. CL.7 The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material. CL.8. All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

#### CL.9

During and following the tunnel construction works beneath Sector 8, groundwater quality monitoring shall be carried out at locations within and down hydraulic gradient of Phyllis Street Landfill. Monitoring shall be undertaken on at least a monthly basis, and for a period up to 12 months following completion of the tunnel construction works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.10

Prior to, during and following tunnel construction works beneath Phyllis Street Landfill, monitoring for landfill gas shall be carried out from existing monitoring boreholes within the landfill. Monitoring shall be undertaken on at least a monthly basis, for a period of no less than 6 months prior to, and up to 12 months following completion of the tunnelling works. The monitoring programme shall be submitted for approval by the Auckland Council as landowner.

#### CL.11

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

- (a) Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;
- (b) Volumes of soil removed from site;
- (c) Copies of the waste disposal receipts; and
- (d) Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the site works

### **Freshwater Conditions**

F.1 The NZTA shall finalise, and implement through the CEMP, the ECOMP submitted with this application. The ECOMP shall be updated to ensure compliance with the conditions of this consent and include changes to the details of construction processes prior to construction commencing. The ECOMP shall include, but not be limited to details of:

- (a) Monitoring of freshwater ecology;
- (b) Monitoring of freshwater and stream sediment quality;
- (c) Trigger event criteria for undertaking additional monitoring;
- (d) Procedures for responding to accidental discharges of contaminants to the freshwater environment; and
- (e) Contingency plans and/or remedial measures in the event monitoring results identify adverse effects.

#### F.2

The NZTA shall engage a suitably qualified ecologist and water quality scientist to undertake freshwater monitoring programme prior to, during and following construction to monitor the effect of the Project on the freshwater ecology. The freshwater monitoring shall be undertaken in Oakley Creek, Pixie Stream and Meola Creek. The freshwater monitoring programme shall be undertaken in accordance with the details set out in the ECOMP and include:

- (a) Cross sectional profiles;
- (b) Macro invertebrate sampling; and
- (c) Freshwater fish monitoring.

#### F.3

The freshwater monitoring programme shall, as a minimum, be undertaken in accordance with the following frequency:

- (a) Prior to construction – two baseline ecological surveys.
- (b) During construction – twice per year for fish and macro invertebrates and cross sectional profiles, within one month prior to the beginning of the earthworks season and within one month either side of the end of the earthworks season.
- (c) Post construction – on an annual basis for a maximum period of three years, or less if the Major Infrastructure Team Manager, Auckland Council is satisfied that no adverse effects have occurred or are likely to occur from the Project.
- (d) Monthly water quality samples at the five existing Oakley Creek sample locations to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb) and nutrients.
- (e) Four “event based” samples per annum from each of the current two Oakley Creek sites. The samples are to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb), hydrocarbons (TPH) and nutrients.
- (f) Two sediment quality samples per annum (January and July) at the five existing water quality Oakley Creek sites (if there is sufficient sediment to sample). The samples are to be analysed for metals (Zn, Cu and Pb), polycyclic aromatic hydrocarbons (PAH), hydrocarbons (TPH) and semi-volatile organic compounds.

Advice note: The sample collection and analysis required under sub-clauses (d) to (f) shall be undertaken following an IANZ accredited methodology by a suitably accredited laboratory (International Accreditation New Zealand).

F.4 The NZTA shall undertake additional freshwater monitoring in the event of a ‘trigger event’ for freshwater habitats. For the purposes of this consent, a ‘trigger event’ for freshwater habitats is defined in the ECOMP. F.5 The NZTA’s ecologist/hydrologist (required by condition F.2) shall review, every six months, the freshwater monitoring results, provided from Conditions F.2 to F.4, and results in monitoring detailed in earthworks Conditions E.9 and E.19 and Groundwater Condition G.10. In the event that potential adverse effects are identified, including through review of the Condition G.10 monitoring results by the hydrologist and freshwater ecologist required by Condition G.12, the NZTA shall develop and submit for the approval of the Major Infrastructure Team Manager, Auckland Council appropriate contingency plans and/or remedial measures in accordance with the measures set out in the ECOMP.

F.5

The NZTA’s ecologist/hydrologist (required by condition F.2) shall review, every six months, the freshwater monitoring results, provided from Conditions F.2 to F.4, and results in monitoring detailed in earthworks Conditions E.9 and E.19 and Groundwater Condition G.10. In the event that potential adverse effects are identified, including through review of the Condition G.10 monitoring results by the hydrologist and freshwater ecologist required by Condition G.12, the NZTA shall develop and submit for the approval of the Major Infrastructure Team Manager, Auckland Council appropriate contingency plans and/or remedial measures in accordance with the measures set out in the ECOMP.

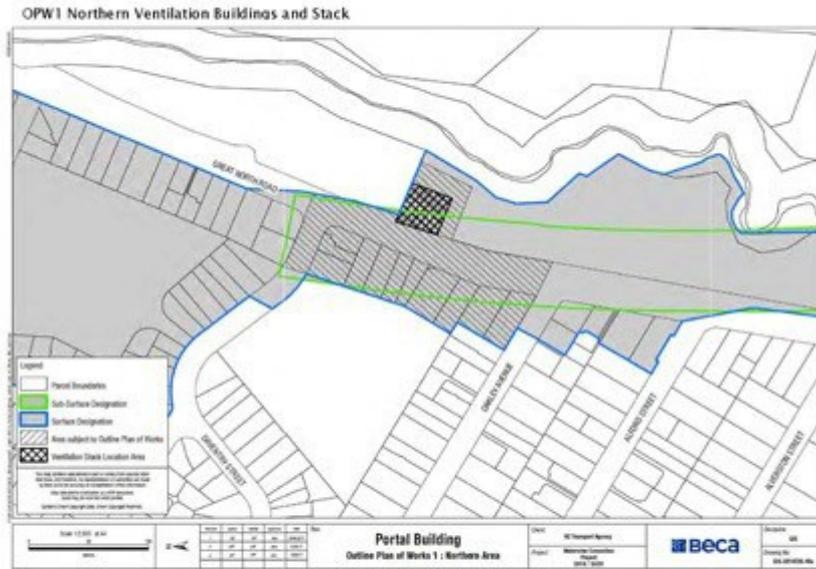
F.6

Freshwater monitoring reports shall be compiled from the monitoring undertaken pursuant to Conditions F.2 to

F.4 and the review of Condition F.5, and a report provided to the Major Infrastructure Team Manager, Auckland Council every 6 months.

## Attachments

### Figure DC.A - OPW1 Northern Ventilation Buildings and Stack

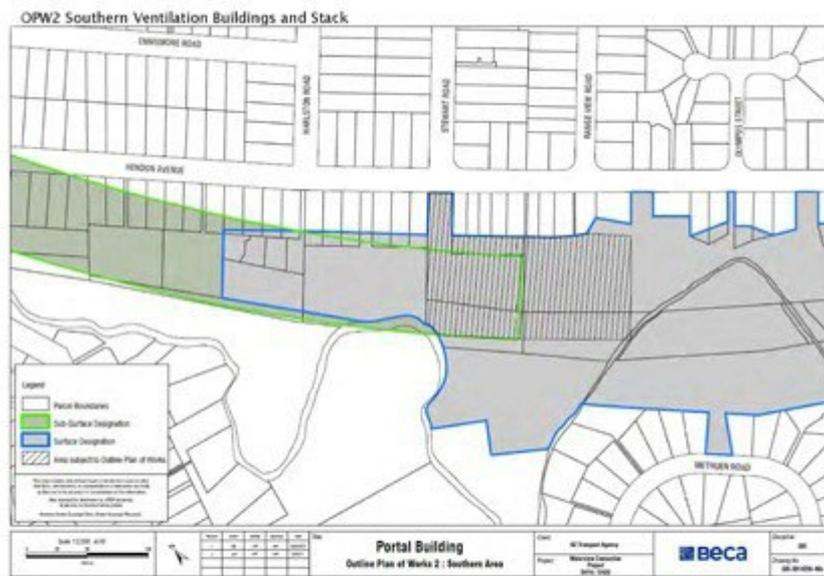


NZTA Document Reference No. 20.1.11-3-R-N-1024

Conditions

29 June 2011

Figure DCB - OPW2 Southern Ventilation Buildings and Stack



NZTA Document Reference No. 20.1.11-3-R-N-1024

Conditions

29 June 2011

Figure CEMP.A - Construction Environmental Management Framework

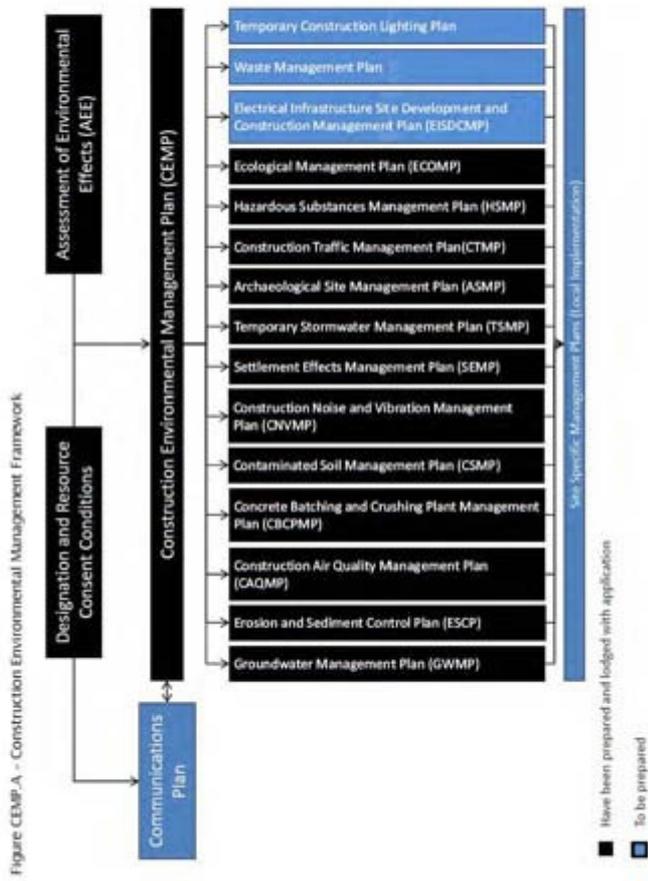
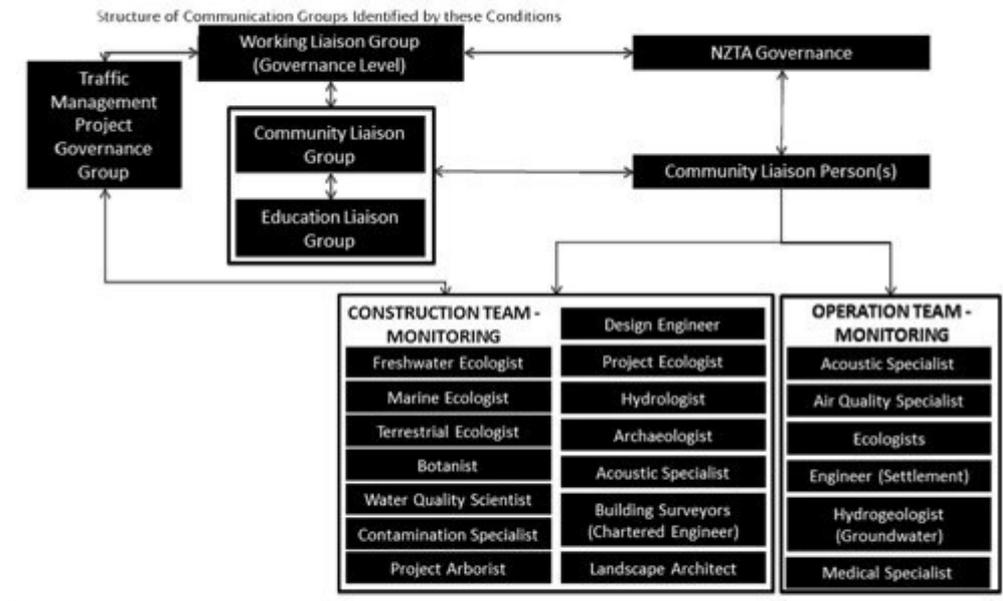


Figure PI.A - Structure of Communication Groups



NZTA Document Reference No. 20.1.11-3-R-N-1024

Conditions

29 June 2011

## 6731 State Highway 20 - Hillsborough to Mt Roskill

Designation Number	6731
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Queenstown Road, Hillsborough to Ernie Pinches Street, Mt Roskill Hillsborough Road
Rollover Designation	Yes
Legacy Reference	Designation H08-05, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The designation is for the following work:

- A designation of land between Queenstown Road and the eastern end of Ernie Pinches Street as a road for state highway / motorway purposes (Map Ref H08-05);
- A designation of land between Queenstown Road and New Windsor Road as road, accessway or service lane for access (Map Ref H08-06);
- A designation of land westward from a point opposite Sandringham Road as road for access to and / or for state highway / motorway purposes; this component of the designation being necessary to allow for the connection of the proposed motorway to the local roading network and future grade separation between road and rail when an adjoining railway purposes designation is given effect to (Map Ref H08-07);

including the construction, operation and maintenance of those roads, accessways and service lanes and all ancillary structures, works and activities directly associated with the proposed extension of State Highway 20 from Hillsborough Road to Maioro Road.

## Conditions

### 1. General

1.1 To move the requirement boundary to the southeast (towards Ernie Pinches Street) to minimise encroachment over the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road as shown on Plan 1/86/32/3914/8 Revision C.

1.1A That the designation be modified by reducing its size so that the part of the designation extending from Carr Road does not extend onto Lot 2, DP 77953 owned by Swift New Zealand Limited and held in Certificate of Title 34A/1386. This modification shall be as shown on Drawing Number 1/86/32/1914/2. The part of the designation on the Hayr Road boundary shall remain.

1.1B No work shall occur within the area of Winstone Park which is currently protected by the Reserves Act 1977 until determination of the High Court appeal AP123/02 (or any subsequent and related Court of Appeal proceeding), dismissing the appeal and / or authorising work within the Winstone Park Reserve.

1.1C That the designation be altered by adjusting its boundaries at 133 Stoddard Road, 67 Ernie Pinches Street and 90 May Road (the Roseman Avenue pond). This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

a. P-03-087, P-03-088, P-03-89 (dated 26 Sept 02);  
and b. P-02-057, P-02-058, P-02-061 (dated 13 Aug 02).

1.1D That the designation be altered by adjusting its boundaries at 43 to 53 Hendry Avenue and 1 to 11A Maioro Street. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

a. P-03-086, P-03-090 (dated 26 Sept 02);  
and b. P-02-055, P-02-060 (dated 4 Feb 03).

1.1E That the designation be altered by adjusting its boundaries at Mt Roskill Grammar School. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

a. P-03-092 dated 26 Sept 2002;  
b. P-02-064 dated 4 February 2003;  
c. S-35-126 revision OD dated 28 May 2003;  
d. S-35-101 revision B dated 14 November 2002; and e. P-03-086-091 dated 4 Oct 2002.

1.1F That the designation be altered by adjusting its boundaries at the Dominion Road frontage to Winstone Park. This alteration shall be as shown on the following drawings drawn by URS Ltd:

a. P-100-200 'Figure A' dated 21 May 2004; and  
b. P-100-202 'Figure B' dated May 2004.

1.1G That the designation be altered by adjusting its boundaries at the corner of Hendry Avenue and Queenstown Road (Lot 2 DP 55660). This alteration shall be as shown on the following drawings drawn by Transit NZ and URS NZ Ltd:

a. P-100-011 dated March 2004; and  
b. C-121A, dated April 2004.

1.1H That the designation be altered by adjusting its boundaries at 110, 138A and 155 Hillsborough Road. This alteration shall be as shown on the 'SH20 - Mt Roskill Extension Proposed Alteration to Designation' drawings drawn by Transit NZ and URS NZ Ltd and referred to as:

a. Figure 2 Rev A, Site 138 Hillsborough Road (dated October 2004);  
b. Figure 3 Rev A, Site 155 Hillsborough Road (dated October 2004); and  
c. Figure 4, Rev A, Site 110 Hillsborough Road (dated October 2004).

1.2 Except as modified by the conditions below, the work shall be undertaken in general accordance

with the information provided by Transit New Zealand at the hearing; the Notice of Requirement and supporting documents, namely:

- a. 'SH20 Hillsborough to Richardson Road, Assessment of Effects on the Environment', Traffic Design Group and URS NZ Ltd, dated 2 November 2000;
- b. 'SH20 Hillsborough to Richardson Road, Scheme Assessment Report', Volume 1 – Report, Volume 2 – Drawings, Traffic Design Group and URS NZ Ltd, dated 2 November 2000;
- c. Revised attachments to the Notice of Requirement. In particular, the following drawings drawn by Traffic Design Group and URS NZ Ltd;
  - 'Proposed designation as amended in response to matters raised during hearing 26 March-6 April 2001'
  - Drawing numbers 1/86/32/1914/1-4 Revision E; and
  - 'Property identification and designation boundaries (as revised post-notification)', 1/86/32/3914/1-9 Revision C.

### 1.3

- a. Except as modified by conditions below, works on and disturbance of the northern slopes of the Mt Roskill volcanic cone between Dominion Road and Roseman Avenue shall be generally in accordance with the works shown on Figure A (Project Drawing Number P-100-200) drawn by URS NZ Ltd dated 21 May 2004 (hereafter referred to as "Figure A"); and
- b. If as a result of detailed design, the Requiring Authority proposes any departure from the works shown on Figure A that affects Mt Roskill volcanic cone between Dominion Road and Roseman Avenue but which remains in general accordance with the drawing, the Requiring Authority shall consult with the Department of Conservation before adopting any such a departure; and
- c. No excavation beyond that associated with the extent of work shown on Figure A is permitted, except where:-
  - i. the work does not result in any further excavation of unmodified parts of the cone within Winstone Park; and
  - ii. the work is consistent with Condition 2.1B.

1.4 Where the State highway connects with Richardson Road, the route shall be redesigned and shifted towards the southeast so as to minimise the need for works to encroach across the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road.

1.5 The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1)(c) of the Resource Management Act 1991.

~~1.6 Condition deleted. Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by S78 of the Local Government (Auckland Transitional Provisions) Act 2010.~~

1.7 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation F05-05 'proposed motorway; proposed motorway and railway; proposed road, Hayr Road to Richardson Road.

1.8 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation A07-01 'motorway' in the vicinity of Hendry Road where designation A07-01 is replaced by the new designation.

1.9 As soon as practicable, following completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation and maintenance of the State highway.

### 1.9A

- a. Within three months following completion of construction of the state highway between Dominion Road

and Roseman Avenue, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for the adjustment of the southern boundary of the designation between Dominion Road and Roseman Avenue to a new position approximately 18 metres northwards; and

b. Activities within the zone 2 metres to the north of the adjusted designation boundary shall thereafter be limited to inspection and maintenance purposes.

1.9B Works within Winstone Park along the Dominion Road frontage shall be undertaken in accordance with the following:

a. The design of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be generally in accordance with the works shown on Figure A (Project Drawing Number P- 100-200) drawn by URS NZ Ltd dated 21 May 2004.

b. The detailed design of the new footpath between the Winstone Park access road and the Dominion Road interchange shall be determined in consultation with the council. The following matters shall be taken into account in the final design:

i. The appropriate width;

ii. Lighting;

iii. The connection between the new footpath and the existing footpath along Dominion Road;

iv. The need to ensure changes to the Winstone Park vehicle access clearly define the pedestrian crossing point.

c. The construction of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be undertaken in a manner which minimises excavation of the natural ground surface.

~~d. Prior to any construction work commencing protective fencing shall be erected to protect the trees near the area of works. Where practicable the fencing shall be to the standard described within Attachment 2 – Protective Fencing 4.1 Protective Fencing in Annexure 5 (Guidelines for works within the vicinity of trees) of the District Plan.~~

e. All pruning works and construction activity at the base of the existing mature puriri and totara trees adjacent to the proposed footpath shall be undertaken in consultation with the council's parks arborist. The work shall also be undertaken in accordance with the arborist's report dated 27 February 2004, included with the notice of requirement.

f. With regard to the mature puriri to the immediate south of the Winstone Park access road, the portion of the batter within the dripline of the puriri shall be excavated under arborist's supervision, incorporating hand digging as required. All roots encountered shall be cut cleanly back to the soil face with sharp pruning tools. The exposed face shall be immediately covered with up to 50mm of high quality topsoil and the topsoil lightly compacted.

g. Any pruning of trees required to achieve clearance for the footpath shall be undertaken by a recognised arboricultural contractor who is approved by the council's parks arborist.

h. Transit's contractor shall contact the council's parks arborist a minimum of five working days prior to any arboricultural work commencing to arrange for a pre-works commencement meeting. All contractors and sub- contractors involved in the arboricultural work shall be present. The location of protective fencing shall be agreed in consultation with the council's parks arborist at that time.

1.10 The Requiring Authority shall pay the Council a compliance monitoring charge of \$5,000 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance. (This charge is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files and all work required to ensure compliance with the conditions on the designation). This monitoring charge shall be paid at the time an Outline Plan is submitted.

1.11 Any land taken or held for works shall be maintained to a reasonable standard until physical works commence to the satisfaction of the Council.

1.12 That a permanent liaison person shall be appointed by the Requiring Authority for the duration of the State Highway 20 extension project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be available for

on-going consultation on all matters of concern to affected persons.

1.13 Access shall be maintained to the land currently leased by the Pat Noton (1984) Trust under New Zealand Railways Corporation Leases L43520 and N2080, and to the land currently leased by South International Finance under New Zealand Railways Corporation Lease L44406/C25209 while those parties remain in valid occupation of the land.

## **2. Construction**

2.1 Prior to commencement of any works on any part of the land included within the designation, the Requiring Authority shall submit a Construction Management Plan to the Council in respect of that land. The Construction Management Plan shall include specific details relating to the demolition, construction and management of all works associated with this development, including:

- a. Details of the site or project manager, including their contact details (phone, facsimile, postal address);
- b. The location of large noticeboards that clearly identify the name, telephone number and address for service of the site or project manager;
- c. Any means, such as a restriction on the size of construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period;
- d. Any means of protection of services such as pipes and watermains within the road reserve;
- e. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Measures to be adopted to ensure that pedestrian access past the works is provided where practicable and that such access is safe;
- g. Location of workers conveniences (e.g. portaloos);
- h. Ingress and egress to and from the works for vehicles during the construction period;
- i. Proposed maximum numbers and timing of truck movements throughout each day and the proposed routes;
- j. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- k. Location of vehicle and construction machinery access during the construction period;
- l. Procedures to be followed for ensuring that residents within 100 metres of blast sites receive at least 24 hours written notice of any imminent blasting;
- m. Hours of operation and days of the week for construction activities;
- n. Means of providing safe pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road during construction;
- o. Means of ensuring the safety of the general public;
- p. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
- q. Procedures to be followed to ensure that those working in the vicinity of Mt Roskill volcanic cone are aware of the heritage values of the cone and the steps which need to be taken to meet the conditions applying to work in this area.

The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction period.

2.1A With respect to the 20 metre wide strip situated to the north of the southern boundary of the designation within Winstone Park, during construction:

- a. Storage of materials, and vehicle or machinery parking shall only be carried out within the same area 10 metres extending from and parallel to the southern boundary of the designation;
- b. Prior to the commencement of any construction activity, a temporary 2 metre high fence shall be erected along the southern boundary of the designation to separate the Winstone Park reserve from all construction activities, and the fence shall not be removed until either all related construction activity is completed or the area is no longer required for that purpose.

2.1B Once construction of the motorway within the designated area between Dominion Road and Roseman Avenue is completed, any land on Mount Roskill, within the 18 metre strip previously designated (as

referred to in Condition 1.8A), must be reinstated in conformity with the natural landscape and form in that vicinity, as soon as practicable.

2.2 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of this designation at all times and not on surrounding streets.

2.3 All storage of materials and loading and unloading of equipment associated with the construction works shall take place within the boundaries of this designation.

2.4 Pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable.

2.5 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the road during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage.

2.6 During construction, the New Zealand Standard NZS 6803:1999 Acoustics – Construction Noise, shall be complied with. The limits of Table 2 shall also be applied to school buildings.

2.7 Appropriate measures shall be taken during construction to minimise potential dust nuisance.

2.8 Pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road shall be maintained during construction.

2.9 Prior to the commencement of construction in the vicinity of Winstone Park (at the Mt Roskill cone), the New Zealand Transport Agency (NZTA) Transit shall use its best endeavours to relocate the existing childrens' playground in the Park to a location approved by the Council.

### **3. Landscape and Visual Effects**

3.1 A detailed landscape plan, including an implementation and maintenance programme, shall be prepared by a suitably qualified landscape architect in consultation with the Council, at the time of submitting an Outline Plan.

- a. The plan shall include details of the plant sizes at the time of planting and intended species.
- b. In preparing the landscape plan, the following matters shall be taken into account:
  - i. The integration of the highway alignment into the surrounding landscape;
  - ii. Mitigation of effects on properties in the vicinity of the alignment;
  - iii. Any proposed planting of mature trees (including replanting);
  - iv. Planting in respect of waterways, including stormwater ponds;
  - v. Planting of earth bunds;
  - vi. The suitability of particular species of plants to the conditions of any particular area, and the beneficial effects of any particular species in terms of air quality;
  - vii. The staging of landscaping with the staging of construction;
  - viii. Landscaping in respect of Maioro Street.
- c. Such a plan is to include appropriate measures for:
  - i. screening views of the motorway from adjacent properties and public places;
  - ii. screening noise attenuation fences;
  - iii. retention or relocation of existing trees where practicable;
  - iv. revegetation of the realigned stream located between Ernie Pinches Street and Stoddard Road.
- d. The landscaping shall be implemented in accordance with the landscaping plan within the first planting season following the completion of the construction works, and shall be maintained for the next five years.

### 3.2

- a. The Requiring Authority shall consult with the Department of Conservation ('DOC'), Auckland Conservation Board ('ACB') and the Auckland Volcanic Cones Society Inc ('AVCS') on the final design of the works shown on Figure A and associated safety fence at the base of the Mt Roskill Cone;
- b. The design of the safety fence shall incorporate materials, textures and colours appropriate to the visual and historical context of the cone;
- c. Batter slopes shall be planted with trees or shrubs suited to the conditions of the site and to the natural context of the cone;
- d. The associated safety fence shall be a minimum 1.4 metres in height and shall include appropriate safety features. The fence shall be designed to be as visually transparent as possible, while still meeting the required safety standards;
- e. The results of consultation with DOC, ACB and AVCS shall be taken into account in finalising the design of the batter slopes, reinstatement works and safety fence;
- f. Plans for the design of the batter slopes, reinstatement works and safety fence, together with a report on the consultation with DOC, ACB and AVCS, shall be provided to the Auckland City Council at the time an Outline Plan is submitted.
- g. A photographic record shall be taken as the cut proceeds to provide a visual record of the geology of the cone

3.3 Vehicle access past the oak tree at the rear of St Martin's Church (1358 Dominion Road) shall be provided in a manner which minimises excavation and damage to the tree roots.

3.4 To the extent that stormwater management allows, a landscape bund shall be constructed along the boundary of Keith Hay Park and the motorway to achieve visual and landscaping mitigation. No part of the bund shall extend beyond the boundary of the designation without specific approval from Auckland City Council as land owner.

### **3A. Somerset Road Tress**

*Trees requiring trimming or removal for the construction of the Keith Hay Park pedestrian and cycle bridge*

3A.1 All tree work identified on drawing S-35-126 revision OD dated 28 May 2003 (produced by Transit and URS NZ Ltd) shall be undertaken by a recognised arboricultural contractor who is approved by the Council's parks arborist.

3A.2 The New Zealand Transport Agency (NZTA) ~~Transit's~~ Contractor shall contact the Council's parks arborist a minimum of 5 working days prior to any arboricultural work commencing to arrange for a pre works commencement meeting. All contractors and sub- contractors involved in the arboricultural works shall be present.

3A.3 All tree removals and pruning works shall be undertaken in consultation with Council's parks arborist.

3A.4 All tree pruning works shall employ recognised arboricultural target pruning practices. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.5 All tree removal work shall employ recognised arboricultural felling and dismantling practices, and shall be undertaken in a manner that avoids or minimises damage or disturbance to adjacent trees to be retained.

*Protection of seven trees on southern side of Somerset Road*

3A.6 Prior to any construction activities commencing a temporary barrier shall be erected as close as practicable to the edge of the dripline of trees numbered 1211-1217 (as identified on drawing S-35-126 revision OD dated 28 May 2003 produced by Transit and URS NZ Ltd). The location of the temporary barrier shall be determined in consultation with the Council parks arborist. The temporary barrier shall be a minimum of 2 metres in height and shall be of sturdy construction. It shall remain in place for the entire

duration of all works within the vicinity of the Somerset Road trees. The temporary barrier shall be clearly identified as a 'restricted area / tree protection area' by the placement of the appropriate signage.

3A.7 Any pruning on the southern side of the poplar trees numbered 1211-1217 that may be required to provide clearance from the construction site shall be undertaken in consultation with Council's parks arborist.

3A.8 All pruning works shall be performed by a qualified competent arborist using recognised arboricultural target pruning practice. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.9 Prior to any construction activities commencing, a layer of mulch shall be laid over the entire area within the fenced area referred to in 3A.6 above. The mulch shall be a minimum thickness of 200mm, and shall be maintained at this level for the entire duration of the construction works within the vicinity of the Somerset Road trees.

3A.10 At no time shall the fenced area referred to in 3A.6 above be used for storage even temporarily of construction materials, fill, or any other materials associated with the State Highway 20 project.

3A.11 At no time shall any vehicles or equipment be even temporarily parked, stored, or manoeuvred within the fenced area referred to in 3A.6 above.

3A.12 All excavations in close proximity to the dripline of trees 1211-1217 shall require direct supervision by a competent arborist. Any root pruning which is required shall be undertaken by the arborist using recognised root pruning procedures.

#### **4. Sediment Control and Stormwater**

4.1 The Requiring Authority shall implement suitable sediment control measures during all earthworks and after construction to ensure that all stormwater run off from the site is managed and controlled to ensure that in so far as is practicable no silt, sediment or water containing silt or sediment is discharged into stormwater pipes, drains, channels or soakage systems in accordance with ~~the Auckland City Operative District Plan 1999 (Isthmus) Annexure 14 Guidelines Appendix 1: Silt and Sediment Control Measures~~ for sediment control. In the event that material is deposited on the street, the Requiring Authority shall take immediate action at their own expense, to clean the street.

4.2 The Requiring Authority shall implement suitable arrangements for stormwater treatment and detention in accordance with relevant ~~ARC~~ Auckland Council guidelines.

#### **5. Noise (Following Construction)**

5.1 A noise management plan, detailing noise reduction measures to be implemented, and prepared by a suitably qualified acoustic expert, shall be submitted to the Council at the time an Outline Plan is lodged. The noise management plan shall include:

a. Measures to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999), provided that the noise management plan shall not apply to the Christ the King Parish Precinct zoned land occupied by Christ the King Church and School at 288- 292 Richardson Road.

5.2 The noise management plan shall identify existing dwellings for which acoustic treatment is required in order to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999). Those dwellings shall be referred to as 'affected dwelling(s)'.

5.3 Not less than three months prior to the completion of construction of the State highway, the

Requiring Authority shall give written notice to the owner of each affected dwelling as follows:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels;
- b. Advising that the owner has nine months within which to decide whether or not to accept mitigation treatment to the dwelling.

5.4 The Requiring Authority shall advise the Council of:

- a. All written notices served in accordance with condition 5.3;
- b. Any responses received to those written notices;
- c. Those affected dwellings in respect of which no response has been received.

5.5 Where acoustic treatment is required to a dwelling, the Requiring Authority shall be deemed to have complied with condition 5.1 above where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the completion of the State highway; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of the State highway construction.

5.6 Subject to condition 5.5, all noise mitigation work identified by the noise management plan shall be implemented before the use of the State highway commences.

5.7 Low noise generating surfaces, such as friction course surfacing, shall be investigated for use on the motorway and in Maioro Street as a method of meeting New Zealand Transport Agency (NZTA) Transit's Guidelines.

## **6. Noise and Vibration from Blasting**

6.1 Blasting activities shall be so controlled as to ensure that any ground vibration as the result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause a reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings – Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular directions. The units are millimetre per second (mm/s).

6.2 The noise created by the use of explosives for blasting shall either not exceed a peak overall sound pressure level of 128 dB (i.e. peak over pressure of 0.05 kPa) or alternatively the noise shall not exceed a peak sound level of 122 dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

[Refer also condition 2.1(l) relating to notifying residents of imminent blasting.]

## **7. Parking, Roding and Property Access**

7.1 During the detailed design stage, the Requiring Authority will consult with the Council with regard to the most appropriate means (e.g. flush medians, right turn bays) for providing access on Council roads within the designation.

7.2 Any existing on-site parking and manoeuvring areas which are affected by the works shall, as far as practicable, and in consultation with the Council and the affected landowner, be relocated or reinstated to achieve compliance with District Plan standards. Details of any such relocations or reinstatements shall be provided to the Council at the time an Outline Plan is submitted.

7.3 Alternative access arrangements shall be provided as far as practicable, and in consultation with the Council and the affected landowner, where existing property access is removed or becomes unsafe as a

result of the works. Details of any alternative access arrangements shall be provided to the Council at the time an Outline Plan is submitted.

7.4 The right of way serving the properties at 55B and 55C Stamford Park Road (Lots 1 and 2, DP46097) shall not be used by the Requiring Authority for construction access.

7.5 Any bus stops which need to be moved or shifted as direct a result of the proposed works shall be relocated in consultation with the Council. Christ the King School shall also be consulted about the relocation of the bus stop serving the school.

7.6 The Requiring Authority shall consult with the Council to preserve the Council's ability to construct a rapid transit connection at the Dominion Road interchange as set out in the Council's Notice of Requirement for designation for 'proposed enhancement of the Dominion Road passenger transport services'.

7.7 Hendry Avenue shall be severed into two cul-de-sacs for the purposes of construction of certain aspects of the project. The Requiring Authority shall reconsider whether the final form of Hendry Avenue should constitute cul-de-sacs or a through road after undertaking both further consultation with residents of Hendry Avenue, Stephen Lysnar Place and Kelsey Crescent and a further assessment of effects of both options. The New Zealand Transport Agency (NZTA) Transit will consult with Council officers regarding the results of the further consultation and further assessment of effects before determining the final form of Hendry Avenue.

7.8 The State highway shall be constructed with 3m wide shoulders for traffic safety purposes and to provide for potential future bus lanes.

## **8. Pedestrian Access**

8.1 Appropriate crossing facilities for pedestrians, to mitigate the effects of the proposed works, design and consultation with the Council, shall be provided at the following intersections and roads:

- a. the Hillsborough interchange;
- b. Sandringham Road / Stoddard Road intersection;
- c. Richardson Road / Maioro Street intersection;
- d. Maioro Street / New Windsor Road intersection;
- e. the Dominion Road interchange;
- f. Maioro Street;
- g. any other intersections included within the designation.

Details of crossing facilities shall be provided to the Council at the time an Outline Plan is submitted.

8.2 Fully signalised pedestrian crossings, with a separate phase for pedestrians shall be provided at Richardson Road / Maioro Street, and Maioro Street / New Windsor Road, for the safety of school children using these intersections.

8.3 Pedestrian access shall be provided from Hillsborough Road to Melrose Road.

8.4 Provision shall be made to ensure that the works do not preclude the Council's ability to construct the proposed southwestern cycleway. In particular, and in partnership with the Council, provision shall be made for a southwestern cycleway at the following locations:

- a. Adjacent to the motorway where it passes under May Road;
- b. To be accessed from the pedestrian / cycleway bridge at Ernie Pinches Street (with adequate provision for bicycle turning movements);
- c. In the vicinity of Hendry Avenue (particularly if a decision is made that the final form of Hendry Avenue shall constitute cul-de-sac heads).

8.5 Pedestrian / cycle bridges conforming to the design standards of the Austroads Guide to Traffic

Engineering Part 6: Pedestrians shall be provided between Somerset Road / Frost Road and Keith Hay Park, and between Ernie Pinches Street and Stoddard Road. The Requiring Authority shall also consult with Mt Roskill Schools regarding the design and location of the pedestrian / cycle bridge between Somerset Road / Frost Road and Keith Hay Park. Details of the pedestrian / cycle bridges shall be provided to the Council at the time an Outline Plan is submitted.

8.6 Boundary fencing for pedestrian safety shall be constructed along the shared boundaries of the motorway and Keith Hay Park, Akarana Golf Club, and Winstone Park.”

## **9. Archaeological and Geological Areas**

9.1 The Requiring Authority shall employ at its expense a qualified archaeologist who shall:

- a. Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone, including surface stripping of the site, to establish whether any sub-surface archaeological features are present;
- b. Advise the Council in writing within 24 hours if any archaeological features have been discovered.

9.2 Detailed protocols for the management of archaeological and waahi tapu discoveries shall be specifically discussed with tangata whenua prior to construction.

9.3 If any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

- a. Immediately it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;
- c. The site supervisor shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the Department of Conservation, City Planning of the Auckland ~~City~~ Council that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any authority required from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained.

9.4 The Requiring Authority shall employ at their expense a qualified geologist who shall:

- a. Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone;
- b. Periodically review construction activities in the vicinity of the Mt Roskill cone;
- c. Be available on call to inspect any geological features encountered during excavation at the base of the Mt Roskill cone and to enable identification of any significant geological features;
- d. Advise the Council in writing within 24 hours if any significant geological features have been discovered.

9.5 Any geological discoveries such as lava caves shall be recorded and, where practicable, damage to these features minimised. Records of any such geological discoveries shall be provided to the Auckland ~~City~~ Council, ~~Auckland Regional Council~~ and the Department of Conservation for information and future reference.

## **10. Lighting**

10.1 Where encroachment into areas subject to view protection controls in the District Plan cannot be avoided by structures such as lighting poles and fixtures, such structures shall be designed to have minimum impact, taking into account the assessment criteria in any Volcanic Viewshafts and Height-sensitive Areas sections of the Auckland Unitary Plan ~~Clause 5C.7.6.5 Rules: Volcanic Cones of the District Plan~~. Details of any such encroachments together with an assessment of effects shall be provided to the Council at the time an Outline Plan is submitted.

10.2 Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## **11. Air Emissions**

11.1 Onsite monitoring of air emissions from vehicles shall be carried out over a six week period at the

Mauro Street / Richardson Road intersection, adjacent to Christ the King Church and School prior to any physical works associated with the motorway being undertaken in the vicinity. The results shall be provided to the Council at the time an Outline Plan is lodged. The monitoring results shall measure the levels of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines.

11.2 A plan for post construction monitoring of air emissions from vehicles at the Mauro Street / Richardson Road intersection adjacent to Christ the King Church and School shall be provided to the Council at the time an Outline Plan is lodged. The monitoring programme shall include the following:

- a. Engagement of an air emissions expert with specialist equipment to monitor air emissions at the above location;
- b. Measurement of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines;
- c. Details of the number and location of monitoring positions;
- d. A requirement for copies of all air emissions monitoring reports to be provided to the Council;

The monitoring shall be carried out over a six week period within one year of the opening of the SH 20 extension. Monitoring shall be undertaken during the time of year which is expected to give rise to worse case meteorological conditions in terms of air quality.

#### **Advice Notes**

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.
2. Under the ~~Historic Places Act~~ Heritage New Zealand Pouhere Taonga Act 2014 an Authority to Modify an Archaeological Site is required from the ~~NZ Historic Places Trust~~ Heritage New Zealand before any work takes place on an archaeological site.
3. Some of the land is subject to existing designations. The provisions of Section 177 of the Resource Management Act 1991 apply accordingly.
4. The Council holds a comprehensive discharge consent and has a comprehensive stormwater management plan for the Oakley catchment.
5. The Requiring Authority and the Council will continue to work together to progress the design of the southwestern cycleway generally following the alignment of the State Highway 20 extension.

## **Attachments**

### **Attachment 1 – Silt and Sediment Control Measures**

#### **SILT AND SEDIMENT CONTROL MEASURES**

#### **EARTHWORKS**

Uncontrolled earthwork activities can remove or smother valuable vegetation and cause silt runoff into streams and coastal waters. This silt can smother biological life and affect fish feeding and breeding areas. By choosing the right methods you can prevent unnecessary soil erosion and help the community protect the streams, beaches and coastal areas of the Auckland region. This pamphlet is aimed at helping you make those choices when planning and carrying out earthworks.

The land owner is responsible for making sure that any activity disturbing the soil is carried out in a way to prevent soil erosion and to stop sediment entering waterways.

To carry out earthworks a resource consent may be needed, depending on the area where the work is to take place and the size of the job. You should enquire with Auckland Council, to find out whether a consent is needed. For very large earthworks you may also need a consent from the Auckland Council. The Council has

comprehensive guidelines (Technical Publication No 90) which will be helpful for larger projects.

Regardless of the size of the earthworks, you are required to take the appropriate measures to prevent soil loss and erosion.

#### Some facts about siltation

- earthworks sites generate up to 1000 times as much silt as undisturbed land
- doubling the angle of the slope produces a 4 fold increase in silt
- doubling the area of earthworks can produce a 3 fold increase in silt

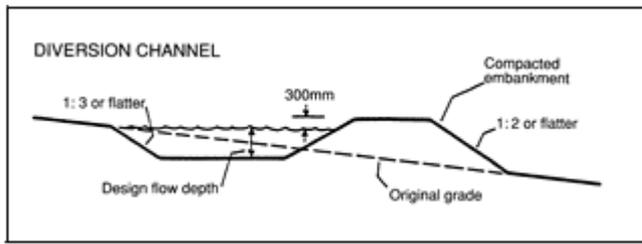
#### **METHODS TO PREVENT EROSION AND SEDIMENT LOSS**

- a. Prevent silt runoff by employing erosion control measures
  - i. expose only as much ground as needed at any one time
  - ii. provide runoff diversion channels, contour drains, or earth bunds to divert clean water away from the site onto stable ground (grassed or sealed)
- b. Use one or more of these sediment control measures to capture silt
  - i. silt fences
  - ii. hay bales
  - iii. vegetation buffer strips
  - iv. sediment ponds
  - v. earth bunds
- c. To finish
  - i. topsoil and regrass the exposed ground, or cover with a mulch, as soon as possible.

#### **EROSION CONTROL METHODS**

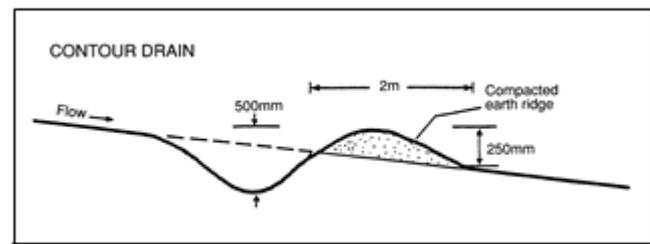
##### Runoff Diversion Channels

- a. used to protect work areas from up-slope runoff
- b. water from channel can be discharged to areas of vegetation
- c. can be used to divert water to other sediment retention systems
- d. have shallow grades on channel to prevent scouring (1%-2%)
- e. may need to be stabilised against erosion by regrassing



##### Contour Drains

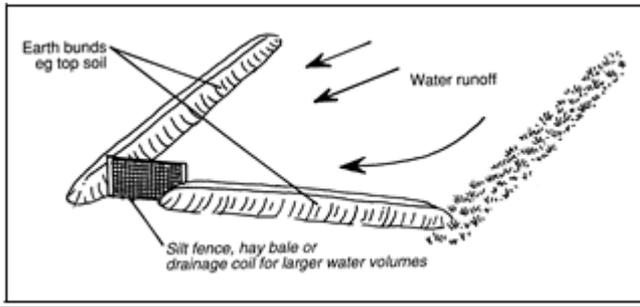
- a. use across earthworks area to break up slope
- b. use more than one drain on steeply sloping sites
- c. decrease spacing of drains as slope increases
- d. water can be discharged to vegetation or into sediment control structures



#### **SEDIMENT CONTROL METHODS**

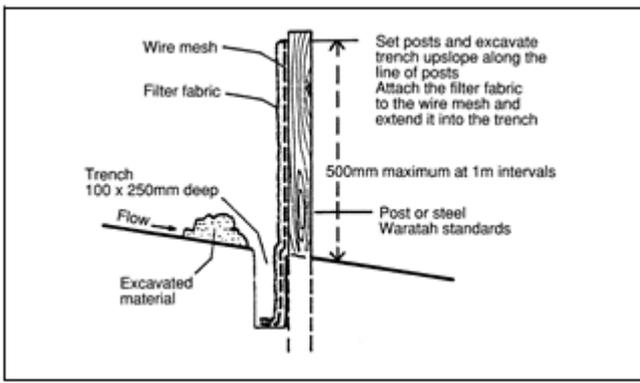
##### Earth Bunds

- a. construct across slope to control and detain runoff
- b. use near edge of site to prevent sediment from leaving area
- c. can use topsoil from site to create bund



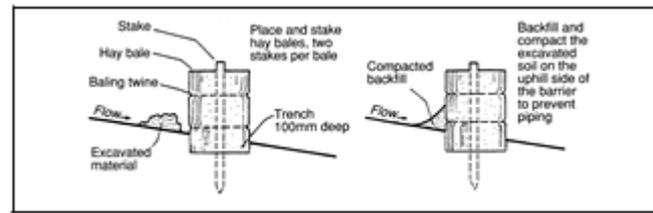
### Silt Fences

- for small disturbed areas or low slope angles
- use more than one on steeply sloping sites
- decrease spacing between fences with increasing site slope
- filter fabric is stretched between posts at maximum spacing of 1 metre



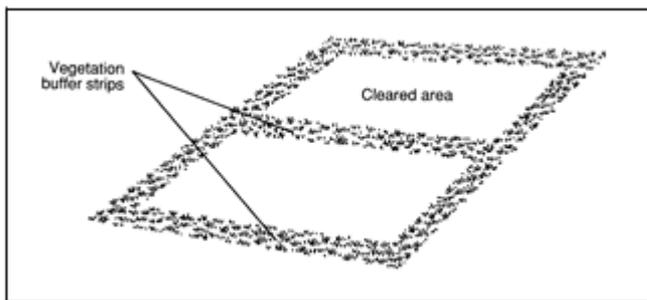
### Hay Bales

- for small sites and short term control
- should be dug into ground, tied together and anchored by staking
- regular inspection and maintenance is essential



### Vegetation Buffer Strips

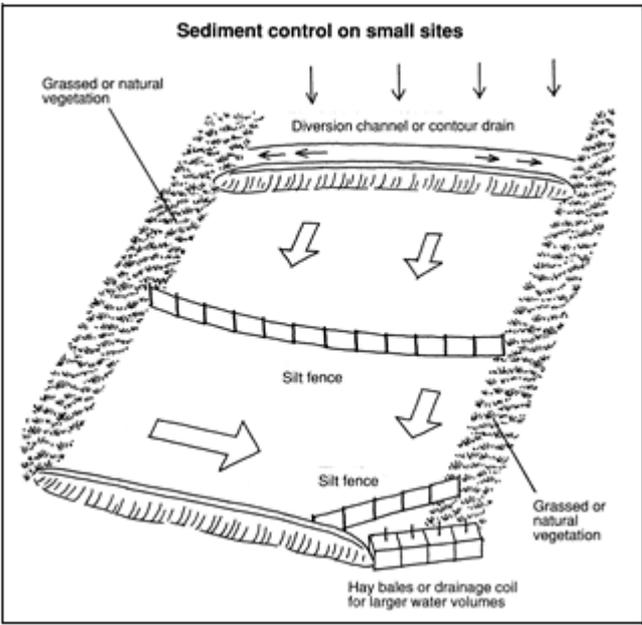
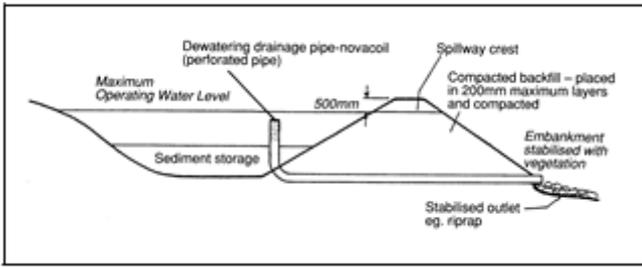
- should always be provided along watercourses
- to filter sediment from overland flow where runoff rates are low and not concentrated
- use more than one buffer strip on steep slopes
- decrease buffer strip spacing with increasing slope
- to keep machinery away from watercourses



### Sediment Ponds

- do not construct in streams
- size at 1-2% of site area (ie 1-2m<sup>3</sup>/100m<sup>2</sup>)

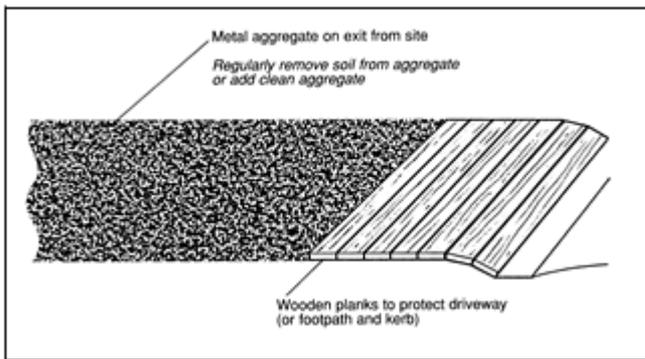
- c. clean out sediment regularly
- d. must have dewatering/drainage facility



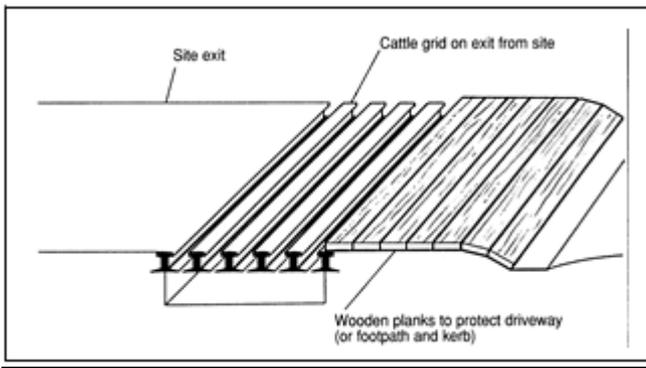
For more details see the Auckland Council publication "Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region" (Technical Publication Number 90).

**KEEPING THE ROADS CLEAN**

It is important that soil from the site is not spread onto the road by vehicle tyres. To prevent this from occurring a stabilised entranceway must be built. The simplest method is to spread metal aggregate on all exitways from the site, where the soil will have a chance to fall off before the vehicle enters the road. Other methods for larger sites are cattle grids or wheel washes. The site manager or site owner is responsible for cleaning up any spilt soil to other materials that get on to the road from the site.

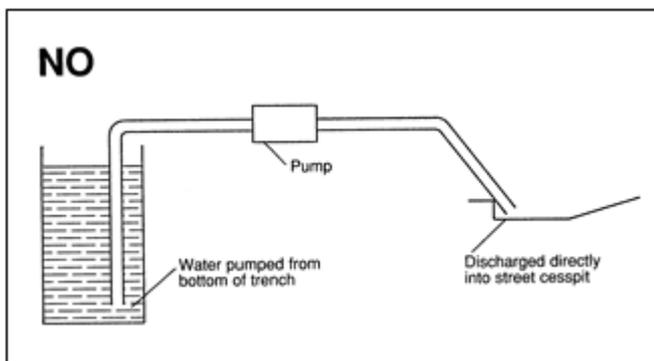
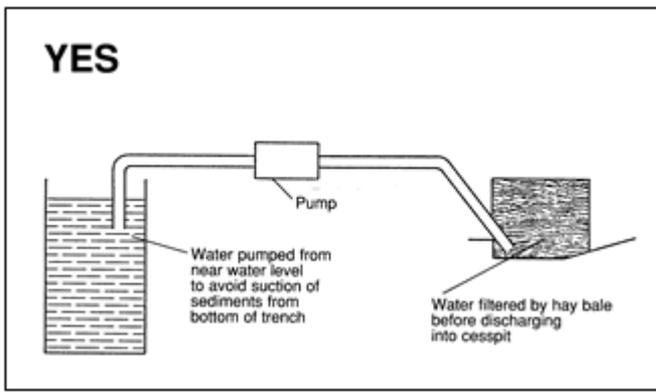


Remember also to protect the footpath, berm and kerb from damage by crossing vehicles.



**PUMPING WATER FROM THE SITE**

If it is necessary to remove water from trenches or other areas of the site, then this should be done in a manner to prevent sediment in the water from entering any drain or watercourse. Water should not be taken from the bottom of any trench and sediment should be properly filtered out from the dirty water by some appropriate means such as the use of hay bales. Once the sediment has been filtered out it can then be discharged to a cesspit or a grassed area, or a watercourse if no other disposal point is available.



~~No attachments.~~

**Attachment 2 – Protective Fencing**

Before any materials or machinery are brought on site, or before any demolition, or development begins protective fencing must be erected around all trees which are to be retained. Trees on adjacent properties affected by the construction works must also receive appropriate protective fencing. See Figure 1.

The fencing must be strong and appropriate to the degree of construction activity taking place on the site.

The protected area around trees must be of dimensions recommended in Figure 2. The temporary fencing around this area must be maintained throughout construction works. The temporary fencing shall be 1.8 - 2m high and must prevent access within the protected area.

No works shall be carried out within the protected area. No materials shall be stored within the protected area.

Notices should be erected on the fencing with words such as 'Protected area - no operations within fenced area'.

**Figure 1: The fencing must be strong and appropriate to the degree of construction activity taking place**

on the site.

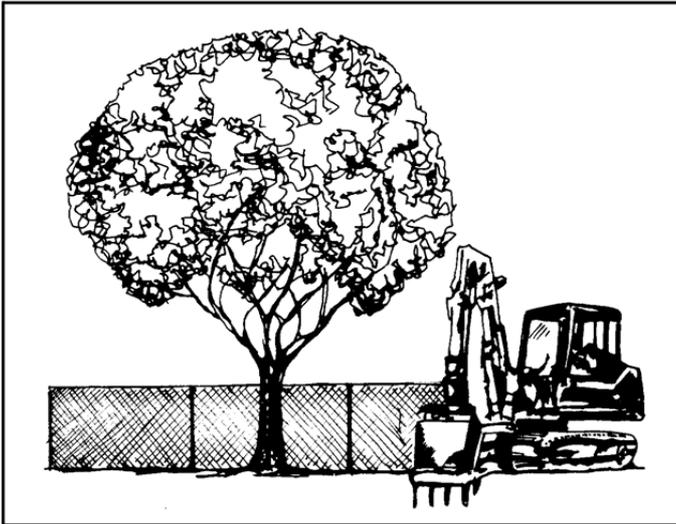
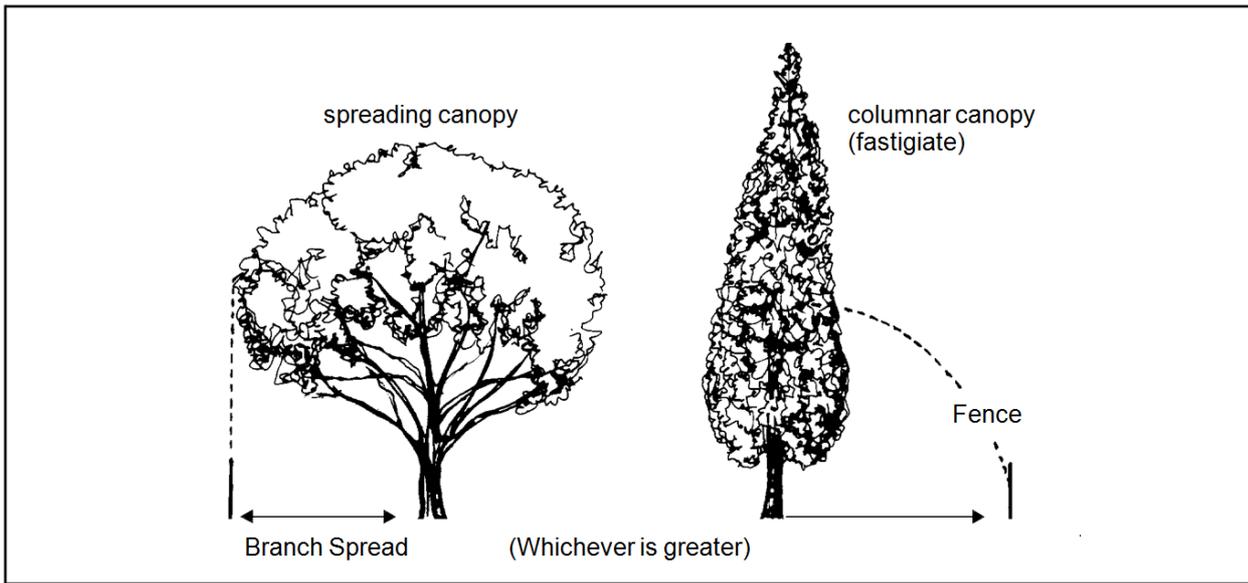


Figure 2: Dimensions for locating protective fencing



## 6732 State Highway 20 - Hillsborough to Mt Roskill

Designation Number	6732
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 from Queenstown Road, Hillborough to Maioro Street, Mt Roskill
Rollover Designation	Yes
Legacy Reference	Designation H08-06, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

### Purpose

The designation is for the following work:

- a. A designation of land between Queenstown Road and the eastern end of Ernie Pinches Street as a road for state highway / motorway purposes (Map Ref H08-05);
  - b. A designation of land between Queenstown Road and New Windsor Road as road, accessway or service lane for access (Map Ref H08-06);
  - c. A designation of land westward from a point opposite Sandringham Road as road for access to and / or for state highway / motorway purposes; this component of the designation being necessary to allow for the connection of the proposed motorway to the local roading network and future grade separation between road and rail when an adjoining railway purposes designation is given effect to (Map Ref H08-07);
- including the construction, operation and maintenance of those roads, accessways and service lanes and all ancillary structures, works and activities directly associated with the proposed extension of State Highway 20 from Hillsborough Road to Maioro Road.

### Conditions

#### 1. General

1.1 To move the requirement boundary to the southeast (towards Ernie Pinches Street) to minimise encroachment over the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road as shown on Plan 1/86/32/3914/8 Revision C.

1.1A That the designation be modified by reducing its size so that the part of the designation extending from Carr Road does not extend onto Lot 2, DP 77953 owned by Swift New Zealand Limited and held in Certificate of Title 34A/1386. This modification shall be as shown on Drawing Number 1/86/32/1914/2. The part of the designation on the Hayr Road boundary shall remain.

1.1B No work shall occur within the area of Winstone Park which is currently protected by the Reserves Act 1977 until determination of the High Court appeal AP123/02 (or any subsequent and related Court of Appeal proceeding), dismissing the appeal and / or authorising work within the Winstone Park Reserve.

1.1C That the designation be altered by adjusting its boundaries at 133 Stoddard Road, 67 Ernie Pinches Street and 90 May Road (the Roseman Avenue pond). This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

- a. P-03-087, P-03-088, P-03-89 (dated 26 Sept 02);
- and b. P-02-057, P-02-058, P-02-061 (dated 13 Aug 02).

1.1D That the designation be altered by adjusting its boundaries at 43 to 53 Hendry Avenue and 1 to 11A Maioro Street. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

a. P-03-086, P-03-090 (dated 26 Sept 02);  
and b. P-02-055, P-02-060 (dated 4 Feb 03).

1.1E That the designation be altered by adjusting its boundaries at Mt Roskill Grammar School. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

a. P-03-092 dated 26 Sept 2002;  
b. P-02-064 dated 4 February 2003;  
c. S-35-126 revision OD dated 28 May 2003;  
d. S-35-101 revision B dated 14 November 2002; and e. P-03-086-091 dated 4 Oct 2002.

1.1F That the designation be altered by adjusting its boundaries at the Dominion Road frontage to Winstone Park. This alteration shall be as shown on the following drawings drawn by URS Ltd:

a. P-100-200 'Figure A' dated 21 May 2004; and  
b. P-100-202 'Figure B' dated May 2004.

1.1G That the designation be altered by adjusting its boundaries at the corner of Hendry Avenue and Queenstown Road (Lot 2 DP 55660). This alteration shall be as shown on the following drawings drawn by Transit NZ and URS NZ Ltd:

a. P-100-011 dated March 2004; and  
b. C-121A, dated April 2004.

1.1H That the designation be altered by adjusting its boundaries at 110, 138A and 155 Hillsborough Road. This alteration shall be as shown on the 'SH20 - Mt Roskill Extension Proposed Alteration to Designation' drawings drawn by Transit NZ and URS NZ Ltd and referred to as:

a. Figure 2 Rev A, Site 138 Hillsborough Road (dated October 2004);  
b. Figure 3 Rev A, Site 155 Hillsborough Road (dated October 2004); and  
c. Figure 4, Rev A, Site 110 Hillsborough Road (dated October 2004).

1.2 Except as modified by the conditions below, the work shall be undertaken in general accordance with the information provided by Transit New Zealand at the hearing; the Notice of Requirement and supporting documents, namely:

a. 'SH20 Hillsborough to Richardson Road, Assessment of Effects on the Environment', Traffic Design Group and URS NZ Ltd, dated 2 November 2000;  
b. 'SH20 Hillsborough to Richardson Road, Scheme Assessment Report', Volume 1 – Report, Volume 2 – Drawings, Traffic Design Group and URS NZ Ltd, dated 2 November 2000;  
c. Revised attachments to the Notice of Requirement. In particular, the following drawings drawn by Traffic Design Group and URS NZ Ltd;  
d. 'Proposed designation as amended in response to matters raised during hearing 26 March-6 April 2001', Drawing numbers 1/86/32/1914/1-4 Revision E; and  
f. 'Property identification and designation boundaries (as revised post-notification)', 1/86/32/3914/1-9 Revision C.

1.3

a. Except as modified by conditions below, works on and disturbance of the northern slopes of the Mt Roskill volcanic cone between Dominion Road and Roseman Avenue shall be generally in accordance with the works shown on Figure A (Project Drawing Number P-100-200) drawn by URS NZ Ltd dated 21 May 2004 (hereafter referred to as "Figure A"); and  
b. If as a result of detailed design, the Requiring Authority proposes any departure from the works shown on Figure A that affects Mt Roskill volcanic cone between Dominion Road and Roseman Avenue but which remains in general accordance with the drawing, the Requiring Authority shall consult with the Department of Conservation before adopting any such a departure; and  
c. No excavation beyond that associated with the extent of work shown on Figure A is permitted, except where:-

- i. the work does not result in any further excavation of unmodified parts of the cone within Winstone Park; and
- ii. the work is consistent with Condition 2.1B.

1.4 Where the State highway connects with Richardson Road, the route shall be redesigned and shifted towards the southeast so as to minimise the need for works to encroach across the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road.

~~1.5 Condition deleted. The period within which this designation shall lapse if not given effect to shall be 40 years from the date on which it is confirmed in accordance with Section 184(1)(c) of the Resource Management Act 1994.~~

1.6 Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by S78 of the Local Government (Auckland Transitional Provisions) Act 2010.

1.7 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation 6729 (formerly F05-05) 'proposed motorway; proposed motorway and railway; proposed road, Hayr Road to Richardson Road.

1.8 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation 6718 (formerly A07-01) 'motorway' in the vicinity of Hendry Road where designation 6718 A07-01 is replaced by the new designation.

1.9 As soon as practicable, following completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation and maintenance of the State highway.

1.9A

- a. Within three months following completion of construction of the state highway between Dominion Road and Roseman Avenue, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for the adjustment of the southern boundary of the designation between Dominion Road and Roseman Avenue to a new position approximately 18 metres northwards; and
- b. Activities within the zone 2 metres to the north of the adjusted designation boundary shall thereafter be limited to inspection and maintenance purposes.

1.9B Works within Winstone Park along the Dominion Road frontage shall be undertaken in accordance with the following:

- a. The design of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be generally in accordance with the works shown on Figure A (Project Drawing Number P- 100-200) drawn by URS NZ Ltd dated 21 May 2004.
- b. The detailed design of the new footpath between the Winstone Park access road and the Dominion Road interchange shall be determined in consultation with the council. The following matters shall be taken into account in the final design:
  - i. The appropriate width;
  - ii. Lighting;
  - iii. The connection between the new footpath and the existing footpath along Dominion Road;
  - iv. The need to ensure changes to the Winstone Park vehicle access clearly define the pedestrian crossing point.
- c. The construction of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be undertaken in a manner which minimises excavation of the natural ground surface.
- d. Prior to any construction work commencing protective fencing shall be erected to protect the trees near

the area of works. Where practicable the fencing shall be to the standard described within Attachment 2 – Protective Fencing 4.1 Protective Fencing in Annexure 5 (Guidelines for works within the vicinity of trees) of in the Unitary District Plan.

e. All pruning works and construction activity at the base of the existing mature puriri and totara trees adjacent to the proposed footpath shall be undertaken in consultation with the council's parks arborist. The work shall also be undertaken in accordance with the arborist's report dated 27 February 2004, included with the notice of requirement.

f. With regard to the mature puriri to the immediate south of the Winstone Park access road, the portion of the batter within the dripline of the puriri shall be excavated under arborist's supervision, incorporating hand digging as required. All roots encountered shall be cut cleanly back to the soil face with sharp pruning tools. The exposed face shall be immediately covered with up to 50mm of high quality topsoil and the topsoil lightly compacted.

g. Any pruning of trees required to achieve clearance for the footpath shall be undertaken by a recognised arboricultural contractor who is approved by the council's parks arborist.

h. The New Zealand Transport Agency (NZTA) 's Transit's contractor shall contact the council's parks arborist a minimum of five working days prior to any arboricultural work commencing to arrange for a pre-works commencement meeting. All contractors and sub- contractors involved in the arboricultural work shall be present. The location of protective fencing shall be agreed in consultation with the council's parks arborist at that time.

1.10 The Requiring Authority shall pay the Council a compliance monitoring charge of \$5,000 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance. (This charge is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files and all work required to ensure compliance with the conditions on the designation). This monitoring charge shall be paid at the time an Outline Plan is submitted.

1.11 Any land taken or held for works shall be maintained to a reasonable standard until physical works commence to the satisfaction of the Council.

1.12 That a permanent liaison person shall be appointed by the Requiring Authority for the duration of the State Highway 20 extension project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be available for on-going consultation on all matters of concern to affected persons.

1.13 Access shall be maintained to the land currently leased by the Pat Noton (1984) Trust under New Zealand Railways Corporation Leases L43520 and N2080, and to the land currently leased by South International Finance under New Zealand Railways Corporation Lease L44406/C25209 while those parties remain in valid occupation of the land.

## **2. Construction**

2.1 Prior to commencement of any works on any part of the land included within the designation, the Requiring Authority shall submit a Construction Management Plan to the Council in respect of that land. The Construction Management Plan shall include specific details relating to the demolition, construction and management of all works associated with this development, including:

- a. Details of the site or project manager, including their contact details (phone, facsimile, postal address);
- b. The location of large noticeboards that clearly identify the name, telephone number and address for service of the site or project manager;
- c. Any means, such as a restriction on the size of construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period;
- d. Any means of protection of services such as pipes and watermains within the road reserve;
- e. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Measures to be adopted to ensure that pedestrian access past the works is provided where practicable and that such access is safe;

- g. Location of workers conveniences (e.g. portaloos);
- h. Ingress and egress to and from the works for vehicles during the construction period;
- i. Proposed maximum numbers and timing of truck movements throughout each day and the proposed routes;
- j. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- k. Location of vehicle and construction machinery access during the construction period;
- l. Procedures to be followed for ensuring that residents within 100 metres of blast sites receive at least 24 hours written notice of any imminent blasting;
- m. Hours of operation and days of the week for construction activities;
- n. Means of providing safe pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road during construction;
- o. Means of ensuring the safety of the general public;
- p. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
- q. Procedures to be followed to ensure that those working in the vicinity of Mt Roskill volcanic cone are aware of the heritage values of the cone and the steps which need to be taken to meet the conditions applying to work in this area.

The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction period.

2.1A With respect to the 20 metre wide strip situated to the north of the southern boundary of the designation within Winstone Park, during construction:

- a. Storage of materials, and vehicle or machinery parking shall only be carried out within the same area 10 metres extending from and parallel to the southern boundary of the designation;
- b. Prior to the commencement of any construction activity, a temporary 2 metre high fence shall be erected along the southern boundary of the designation to separate the Winstone Park reserve from all construction activities, and the fence shall not be removed until either all related construction activity is completed or the area is no longer required for that purpose.

2.1B Once construction of the motorway within the designated area between Dominion Road and Roseman Avenue is completed, any land on Mount Roskill, within the 18 metre strip previously designated (as referred to in Condition 1.8A), must be reinstated in conformity with the natural landscape and form in that vicinity, as soon as practicable.

2.2 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of this designation at all times and not on surrounding streets.

2.3 All storage of materials and loading and unloading of equipment associated with the construction works shall take place within the boundaries of this designation.

2.4 Pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable.

2.5 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the road during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage.

2.6 During construction, the New Zealand Standard NZS 6803:1999 Acoustics – Construction Noise, shall be complied with. The limits of Table 2 shall also be applied to school buildings.

2.7 Appropriate measures shall be taken during construction to minimise potential dust nuisance.

2.8 Pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road shall be maintained during construction.

2.9 Prior to the commencement of construction in the vicinity of Winstone Park (at the Mt Roskill cone), Transit shall use its best endeavours to relocate the existing childrens' playground in the Park to a location approved by the Council.

### **3. Landscape and Visual Effects**

3.1 A detailed landscape plan, including an implementation and maintenance programme, shall be prepared by a suitably qualified landscape architect in consultation with the Council, at the time of submitting an Outline Plan.

- a. The plan shall include details of the plant sizes at the time of planting and intended species.
- b. In preparing the landscape plan, the following matters shall be taken into account:
  - i. The integration of the highway alignment into the surrounding landscape;
  - ii. Mitigation of effects on properties in the vicinity of the alignment;
  - iii. Any proposed planting of mature trees (including replanting);
  - iv. Planting in respect of waterways, including stormwater ponds;
  - v. Planting of earth bunds;
  - vi. The suitability of particular species of plants to the conditions of any particular area, and the beneficial effects of any particular species in terms of air quality;
  - vii. The staging of landscaping with the staging of construction;
  - viii. Landscaping in respect of Maioro Street.
- c. Such a plan is to include appropriate measures for:
  - i. screening views of the motorway from adjacent properties and public places;
  - ii. screening noise attenuation fences;
  - iii. retention or relocation of existing trees where practicable;
  - iv. revegetation of the realigned stream located between Ernie Pinches Street and Stoddard Road.
- d. The landscaping shall be implemented in accordance with the landscaping plan within the first planting season following the completion of the construction works, and shall be maintained for the next five years.

### **3.2**

- a. The Requiring Authority shall consult with the Department of Conservation ('DOC'), Auckland Conservation Board ('ACB') and the Auckland Volcanic Cones Society Inc ('AVCS') on the final design of the works shown on Figure A and associated safety fence at the base of the Mt Roskill Cone;
- b. The design of the safety fence shall incorporate materials, textures and colours appropriate to the visual and historical context of the cone;
- c. Batter slopes shall be planted with trees or shrubs suited to the conditions of the site and to the natural context of the cone;
- d. The associated safety fence shall be a minimum 1.4 metres in height and shall include appropriate safety features. The fence shall be designed to be as visually transparent as possible, while still meeting the required safety standards;
- e. The results of consultation with DOC, ACB and AVCS shall be taken into account in finalising the design of the batter slopes, reinstatement works and safety fence;
- f. Plans for the design of the batter slopes, reinstatement works and safety fence, together with a report on the consultation with DOC, ACB and AVCS, shall be provided to the Auckland City Council at the time an Outline Plan is submitted.
- g. A photographic record shall be taken as the cut proceeds to provide a visual record of the geology of the cone

3.3 Vehicle access past the oak tree at the rear of St Martin's Church (1358 Dominion Road) shall be provided in a manner which minimises excavation and damage to the tree roots.

3.4 To the extent that stormwater management allows, a landscape bund shall be constructed along the boundary of Keith Hay Park and the motorway to achieve visual and landscaping mitigation. No part of the bund shall extend beyond the boundary of the designation without specific approval from Auckland City Council as land owner.

### **3A. Somerset Road Tress**

*Trees requiring trimming or removal for the construction of the Keith Hay Park pedestrian and cycle bridge*

3A.1 All tree work identified on drawing S-35-126 revision OD dated 28 May 2003 (produced by Transit and URS NZ Ltd) shall be undertaken by a recognised arboricultural contractor who is approved by the Council's parks arborist.

3A.2 The New Zealand Transport Agency (NZTA)'s ~~Transit's~~ Contractor shall contact the Council's parks arborist a minimum of 5 working days prior to any arboricultural work commencing to arrange for a pre works commencement meeting. All contractors and sub- contractors involved in the arboricultural works shall be present.

3A.3 All tree removals and pruning works shall be undertaken in consultation with Council's parks arborist.

3A.4 All tree pruning works shall employ recognised arboricultural target pruning practices. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.5 All tree removal work shall employ recognised arboricultural felling and dismantling practices, and shall be undertaken in a manner that avoids or minimises damage or disturbance to adjacent trees to be retained.

#### *Protection of seven trees on southern side of Somerset Road*

3A.6 Prior to any construction activities commencing a temporary barrier shall be erected as close as practicable to the edge of the dripline of trees numbered 1211-1217 (as identified on drawing S-35-126 revision OD dated 28 May 2003 produced by Transit and URS NZ Ltd). The location of the temporary barrier shall be determined in consultation with the Council parks arborist. The temporary barrier shall be a minimum of 2 metres in height and shall be of sturdy construction. It shall remain in place for the entire duration of all works within the vicinity of the Somerset Road trees. The temporary barrier shall be clearly identified as a 'restricted area / tree protection area' by the placement of the appropriate signage.

3A.7 Any pruning on the southern side of the poplar trees numbered 1211-1217 that may be required to provide clearance from the construction site shall be undertaken in consultation with Council's parks arborist.

3A.8 All pruning works shall be performed by a qualified competent arborist using recognised arboricultural target pruning practice. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.9 Prior to any construction activities commencing, a layer of mulch shall be laid over the entire area within the fenced area referred to in 3A.6 above. The mulch shall be a minimum thickness of 200mm, and shall be maintained at this level for the entire duration of the construction works within the vicinity of the Somerset Road trees.

3A.10 At no time shall the fenced area referred to in 3A.6 above be used for storage even temporarily of construction materials, fill, or any other materials associated with the State Highway 20 project.

3A.11 At no time shall any vehicles or equipment be even temporarily parked, stored, or manoeuvred within the fenced area referred to in 3A.6 above.

3A.12 All excavations in close proximity to the dripline of trees 1211-1217 shall require direct supervision by a competent arborist. Any root pruning which is required shall be undertaken by the arborist using recognised root pruning procedures.

#### **4. Sediment Control and Stormwater**

4.1 The Requiring Authority shall implement suitable sediment control measures during all earthworks and after construction to ensure that all stormwater run off from the site is managed and controlled to ensure that in so far as is practicable no silt, sediment or water containing silt or sediment is discharged into stormwater pipes, drains, channels or soakage systems in accordance with Attachment 1 – Silt and Sediment Control Measures, ~~the Auckland City Operative District Plan 1999 (Isthmus) Annexure 14 – Guidelines for sediment control~~. In the event that material is deposited on the street, the Requiring Authority shall take immediate action at their own expense, to clean the street.

4.2 The Requiring Authority shall implement suitable arrangements for stormwater treatment and detention in accordance with relevant ARC guidelines.

#### **5. Noise (Following Construction)**

5.1 A noise management plan, detailing noise reduction measures to be implemented, and prepared by a suitably qualified acoustic expert, shall be submitted to the Council at the time an Outline Plan is lodged. The noise management plan shall include:

a. Measures to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999), provided that the noise management plan shall not apply to the Christ the King Parish Precinct zoned land occupied by Christ the King Church and School at 288- 292 Richardson Road.

5.2 The noise management plan shall identify existing dwellings for which acoustic treatment is required in order to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999). Those dwellings shall be referred to as 'affected dwelling(s)'.

5.3 Not less than three months prior to the completion of construction of the State highway, the Requiring Authority shall give written notice to the owner of each affected dwelling as follows:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels;
- b. Advising that the owner has nine months within which to decide whether or not to accept mitigation treatment to the dwelling.

5.4 The Requiring Authority shall advise the Council of:

- a. All written notices served in accordance with condition 5.3;
- b. Any responses received to those written notices;
- c. Those affected dwellings in respect of which no response has been received.

5.5 Where acoustic treatment is required to a dwelling, the Requiring Authority shall be deemed to have complied with condition 5.1 above where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the completion of the State highway; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of the State highway construction.

5.6 Subject to condition 5.5, all noise mitigation work identified by the noise management plan shall be implemented before the use of the State highway commences.

5.7 Low noise generating surfaces, such as friction course surfacing, shall be investigated for use on the motorway and in Maoro Street as a method of meeting Transit's Guidelines.

## **6. Noise and Vibration from Blasting**

6.1 Blasting activities shall be so controlled as to ensure that any ground vibration as the result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause a reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings – Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular directions. The units are millimetre per second (mm/s).

6.2 The noise created by the use of explosives for blasting shall either not exceed a peak overall sound pressure level of 128 dB (i.e. peak over pressure of 0.05 kPa) or alternatively the noise shall not exceed a peak sound level of 122 dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

[Refer also condition 2.1(l) relating to notifying residents of imminent blasting.]

## **7. Parking, Rooding and Property Access**

7.1 During the detailed design stage, the Requiring Authority will consult with the Council with regard to the most appropriate means (e.g. flush medians, right turn bays) for providing access on Council roads within the designation.

7.2 Any existing on-site parking and manoeuvring areas which are affected by the works shall, as far as practicable, and in consultation with the Council and the affected landowner, be relocated or reinstated to achieve compliance with ~~District Plan~~ Auckland Unitary Plan standards. Details of any such relocations or reinstatements shall be provided to the Council at the time an Outline Plan is submitted.

7.3 Alternative access arrangements shall be provided as far as practicable, and in consultation with the Council and the affected landowner, where existing property access is removed or becomes unsafe as a result of the works. Details of any alternative access arrangements shall be provided to the Council at the time an Outline Plan is submitted.

7.4 The right of way serving the properties at 55B and 55C Stamford Park Road (Lots 1 and 2, DP46097) shall not be used by the Requiring Authority for construction access.

7.5 Any bus stops which need to be moved or shifted as direct a result of the proposed works shall be relocated in consultation with the Council. Christ the King School shall also be consulted about the relocation of the bus stop serving the school.

7.6 The Requiring Authority shall consult with the Council to preserve the Council's ability to construct a rapid transit connection at the Dominion Road interchange as set out in the Council's Notice of Requirement for designation for 'proposed enhancement of the Dominion Road passenger transport services'.

7.7 Hendry Avenue shall be severed into two cul-de-sacs for the purposes of construction of certain aspects of the project. The Requiring Authority shall reconsider whether the final form of Hendry Avenue should constitute cul-de-sacs or a through road after undertaking both further consultation with residents of Hendry Avenue, Stephen Lysnar Place and Kelsey Crescent and a further assessment of effects of both options. The New Zealand Transport Agency (NZTA) Transit will consult with Council officers regarding the results of the further consultation and further assessment of effects before determining the final form of Hendry Avenue.

7.8 The State highway shall be constructed with 3m wide shoulders for traffic safety purposes and to provide for potential future bus lanes.

## **8. Pedestrian Access**

8.1 Appropriate crossing facilities for pedestrians, to mitigate the effects of the proposed works, design and consultation with the Council, shall be provided at the following intersections and roads:

- a. the Hillsborough interchange;
- b. Sandringham Road / Stoddard Road intersection;
- c. Richardson Road / Maioro Street intersection;
- d. Maioro Street / New Windsor Road intersection;
- e. the Dominion Road interchange;
- f. Maioro Street;
- g. any other intersections included within the designation.

Details of crossing facilities shall be provided to the Council at the time an Outline Plan is submitted.

8.2 Fully signalised pedestrian crossings, with a separate phase for pedestrians shall be provided at Richardson Road / Maioro Street, and Maioro Street / New Windsor Road, for the safety of school children using these intersections.

8.3 Pedestrian access shall be provided from Hillsborough Road to Melrose Road.

8.4 Provision shall be made to ensure that the works do not preclude the Council's ability to construct the proposed southwestern cycleway. In particular, and in partnership with the Council, provision shall be made for a southwestern cycleway at the following locations:

- a. Adjacent to the motorway where it passes under May Road;
- b. To be accessed from the pedestrian / cycleway bridge at Ernie Pinches Street (with adequate provision for bicycle turning movements);
- c. In the vicinity of Hendry Avenue (particularly if a decision is made that the final form of Hendry Avenue shall constitute cul-de-sac heads).

8.5 Pedestrian / cycle bridges conforming to the design standards of the Austroads Guide to Traffic Engineering Part 6: Pedestrians shall be provided between Somerset Road / Frost Road and Keith Hay Park, and between Ernie Pinches Street and Stoddard Road. The Requiring Authority shall also consult with Mt Roskill Schools regarding the design and location of the pedestrian / cycle bridge between Somerset Road / Frost Road and Keith Hay Park. Details of the pedestrian / cycle bridges shall be provided to the Council at the time an Outline Plan is submitted.

8.6 Boundary fencing for pedestrian safety shall be constructed along the shared boundaries of the motorway and Keith Hay Park, Akarana Golf Club, and Winstone Park."

## **9. Archaeological and Geological Areas**

9.1 The Requiring Authority shall employ at its expense a qualified archaeologist who shall:

- a. Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone, including surface stripping of the site, to establish whether any sub-surface archaeological features are present;
- b. Advise the Council in writing within 24 hours if any archaeological features have been discovered.

9.2 Detailed protocols for the management of archaeological and waahi tapu discoveries shall be specifically discussed with tangata whenua prior to construction.

9.3 If any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

- a. Immediately it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;
- c. The site supervisor shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New

Zealand, the Department of Conservation, City Planning of the Auckland City Council that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any authority required from ~~the NZ Historic Places Trust~~ Heritage New Zealand is obtained.

9.4 The Requiring Authority shall employ at their expense a qualified geologist who shall:

- a. Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone;
- b. Periodically review construction activities in the vicinity of the Mt Roskill cone;
- c. Be available on call to inspect any geological features encountered during excavation at the base of the Mt Roskill cone and to enable identification of any significant geological features;
- d. Advise the Council in writing within 24 hours if any significant geological features have been discovered.

9.5 Any geological discoveries such as lava caves shall be recorded and, where practicable, damage to these features minimised. Records of any such geological discoveries shall be provided to the Auckland City Council, ~~Auckland Regional Council~~ and the Department of Conservation for information and future reference.

## **10. Lighting**

10.1 Where encroachment into areas subject to view protection controls in the ~~District Plan~~ Auckland Unitary Plan cannot be avoided by structures such as lighting poles and fixtures, such structures shall be designed to have minimum impact, taking into account the assessment criteria in any Volcanic Viewshafts and Height-sensitive Areas sections of the Auckland Unitary Plan ~~Clause 5C.7.6.5 Rules: Volcanic Cones of the District Plan~~. Details of any such encroachments together with an assessment of effects shall be provided to the Council at the time an Outline Plan is submitted.

10.2 Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## **11. Air Emissions**

11.1 Onsite monitoring of air emissions from vehicles shall be carried out over a six week period at the Maioro Street / Richardson Road intersection, adjacent to Christ the King Church and School prior to any physical works associated with the motorway being undertaken in the vicinity. The results shall be provided to the Council at the time an Outline Plan is lodged. The monitoring results shall measure the levels of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines.

11.2 A plan for post construction monitoring of air emissions from vehicles at the Maioro Street / Richardson Road intersection adjacent to Christ the King Church and School shall be provided to the Council at the time an Outline Plan is lodged. The monitoring programme shall include the following:

- a. Engagement of an air emissions expert with specialist equipment to monitor air emissions at the above location;
  - b. Measurement of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines;
  - c. Details of the number and location of monitoring positions;
  - d. A requirement for copies of all air emissions monitoring reports to be provided to the Council;
- The monitoring shall be carried out over a six week period within one year of the opening of the SH 20 extension. Monitoring shall be undertaken during the time of year which is expected to give rise to worse case meteorological conditions in terms of air quality.

## **Advice Notes**

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.

2. Under the Historic Places Act Heritage New Zealand Pouhere Taonga Act 2014 an Authority to Modify an Archaeological Site is required from ~~the NZ Historic Places Trust~~ Heritage New Zealand before any

work takes place on an archaeological site.

3. Some of the land is subject to existing designations. The provisions of Section 177 of the Resource Management Act 1991 apply accordingly.

4. The Council holds a comprehensive discharge consent and has a comprehensive stormwater management plan for the Oakley catchment.

5. The Requiring Authority and the Council will continue to work together to progress the design of the southwestern cycleway generally following the alignment of the State Highway 20 extension.

## Attachments

### Attachment 1 – Silt and Sediment Control Measures

#### SILT AND SEDIMENT CONTROL MEASURES

##### EARTHWORKS

Uncontrolled earthwork activities can remove or smother valuable vegetation and cause silt runoff into streams and coastal waters. This silt can smother biological life and affect fish feeding and breeding areas. By choosing the right methods you can prevent unnecessary soil erosion and help the community protect the streams, beaches and coastal areas of the Auckland region. This pamphlet is aimed at helping you make those choices when planning and carrying out earthworks.

The land owner is responsible for making sure that any activity disturbing the soil is carried out in a way to prevent soil erosion and to stop sediment entering waterways.

To carry out earthworks a resource consent may be needed, depending on the area where the work is to take place and the size of the job. You should enquire with Auckland Council, to find out whether a consent is needed. For very large earthworks you may also need a consent from the Auckland Council. The Council has comprehensive guidelines (Technical Publication No 90) which will be helpful for larger projects.

Regardless of the size of the earthworks, you are required to take the appropriate measures to prevent soil loss and erosion.

##### Some facts about siltation

- earthworks sites generate up to 1000 times as much silt as undisturbed land
- doubling the angle of the slope produces a 4 fold increase in silt
- doubling the area of earthworks can produce a 3 fold increase in silt

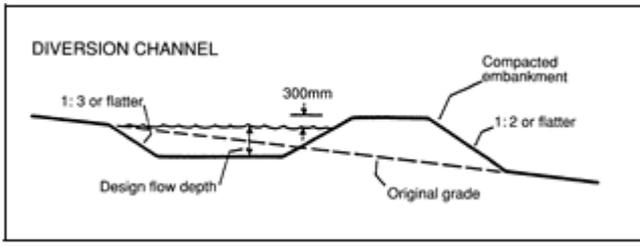
##### METHODS TO PREVENT EROSION AND SEDIMENT LOSS

- a. Prevent silt runoff by employing erosion control measures
  - iii. expose only as much ground as needed at any one time
  - iv. provide runoff diversion channels, contour drains, or earth bunds to divert clean water away from the site onto stable ground (grassed or sealed)
- b. Use one of more of these sediment control measures to capture silt
  - vi. silt fences
  - vii. hay bales
  - viii. vegetation buffer strips
  - ix. sediment ponds
  - x. earth bunds
- c. To finish
  - ii. topsoil and regrass the exposed ground, or cover with a mulch, as soon as possible.

##### EROSION CONTROL METHODS

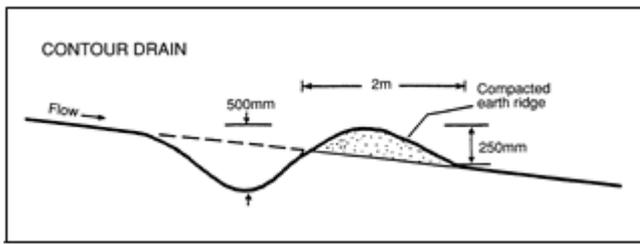
###### Runoff Diversion Channels

- a. used to protect work areas from up-slope runoff
- b. water from channel can be discharged to areas of vegetation
- c. can be used to divert water to other sediment retention systems
- d. have shallow grades on channel to prevent scouring (1%-2%)
- e. may need to be stabilised against erosion by regrassing



### Contour Drains

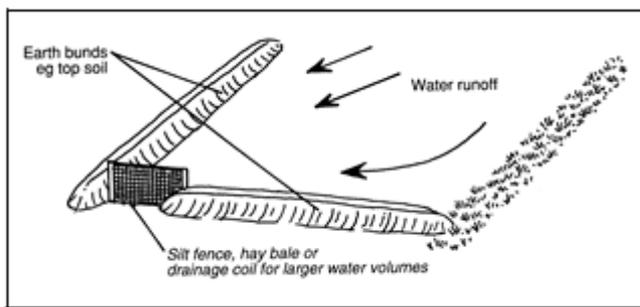
- a. use across earthworks area to break up slope
- b. use more than one drain on steeply sloping sites
- c. decrease spacing of drains as slope increases
- d. water can be discharged to vegetation or into sediment control structures



### SEDIMENT CONTROL METHODS

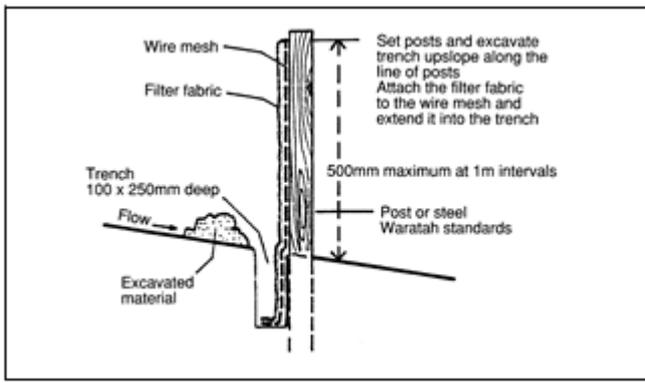
#### Earth Bunds

- a. construct across slope to control and detain runoff
- b. use near edge of site to prevent sediment from leaving area
- c. can use topsoil from site to create bund



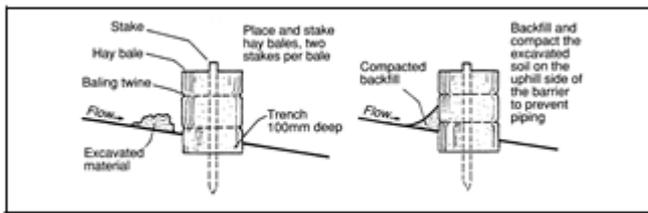
#### Silt Fences

- a. for small disturbed areas or low slope angles
- b. use more than one on steeply sloping sites
- c. decrease spacing between fences with increasing site slope
- d. filter fabric is stretched between posts at maximum spacing of 1 metre



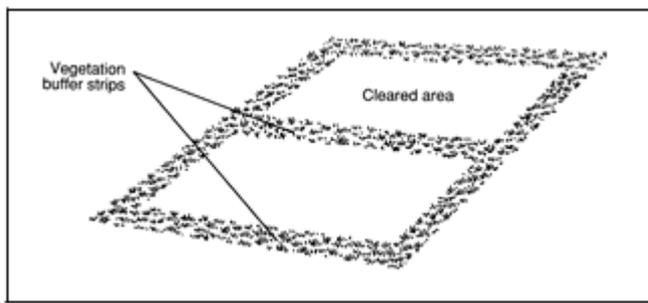
### **Hay Bales**

- for small sites and short term control
- should be dug into ground, tied together and anchored by staking
- regular inspection and maintenance is essential



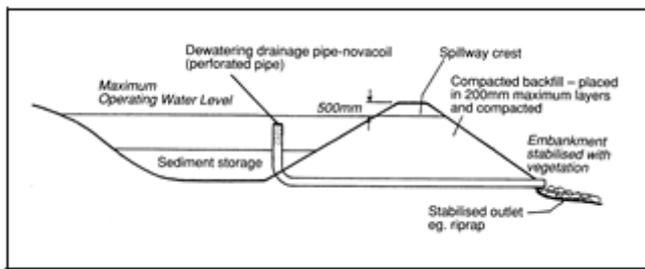
### **Vegetation Buffer Strips**

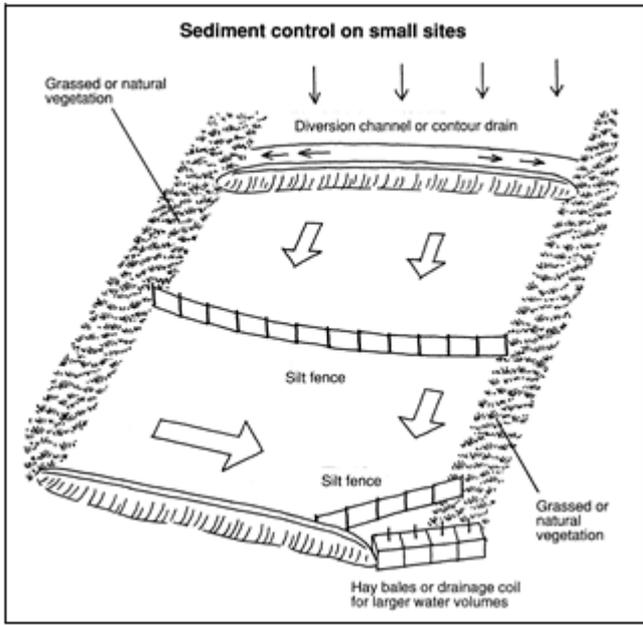
- should always be provided along watercourses
- to filter sediment from overland flow where runoff rates are low and not concentrated
- use more than one buffer strip on steep slopes
- decrease buffer strip spacing with increasing slope
- to keep machinery away from watercourses



### **Sediment Ponds**

- do not construct in streams
- size at 1-2% of site area (ie 1-2m<sup>3</sup>/100m<sup>2</sup>)
- clean out sediment regularly
- must have dewatering/drainage facility

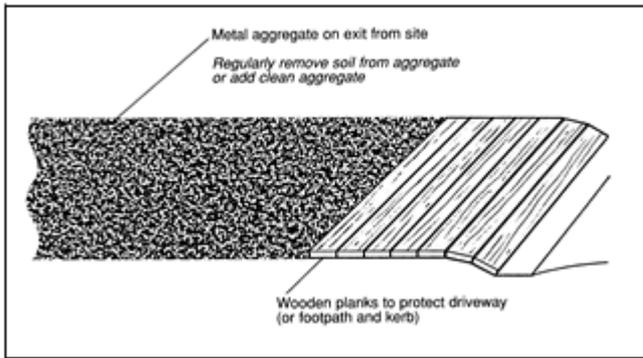




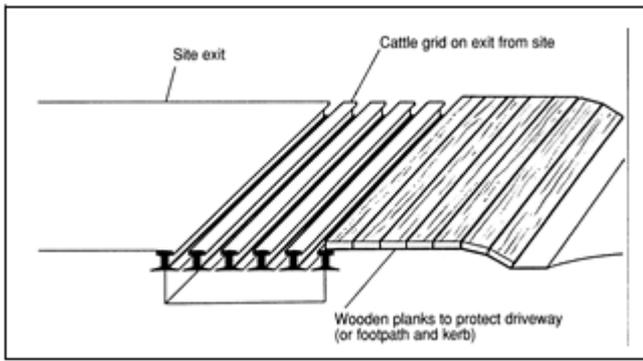
*For more details see the Auckland Council publication "Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region" (Technical Publication Number 90).*

**KEEPING THE ROADS CLEAN**

It is important that soil from the site is not spread onto the road by vehicle tyres. To prevent this from occurring a stabilised entranceway must be built. The simplest method is to spread metal aggregate on all exitways from the site, where the soil will have a chance to fall off before the vehicle enters the road. Other methods for larger sites are cattle grids or wheel washes. The site manager or site owner is responsible for cleaning up any spilt soil to other materials that get on to the road from the site.

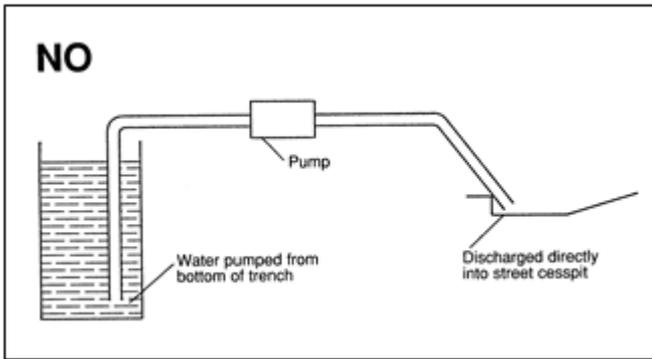
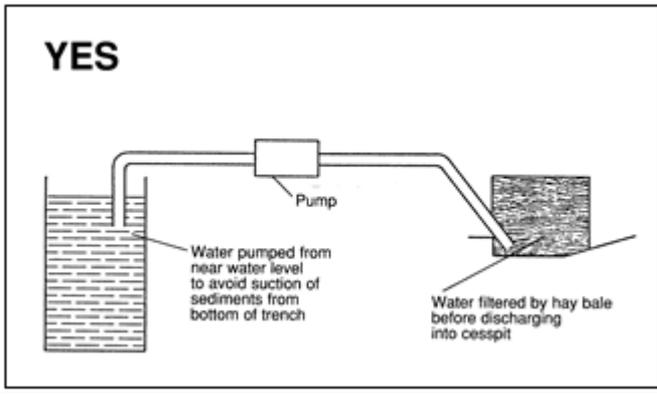


Remember also to protect the footpath, berm and kerb from damage by crossing vehicles.



**PUMPING WATER FROM THE SITE**

If it is necessary to remove water from trenches or other areas of the site, then this should be done in a manner to prevent sediment in the water from entering any drain or watercourse. Water should not be taken from the bottom of any trench and sediment should be properly filtered out from the dirty water by some appropriate means such as the use of hay bales. Once the sediment has been filtered out it can then be discharged to a cesspit or a grassed area, or a watercourse if no other disposal point is available.



~~No attachments.~~

**Attachment 2 – Protective Fencing**

Before any materials or machinery are brought on site, or before any demolition, or development begins protective fencing must be erected around all trees which are to be retained. Trees on adjacent properties affected by the construction works must also receive appropriate protective fencing. See Figure 1.

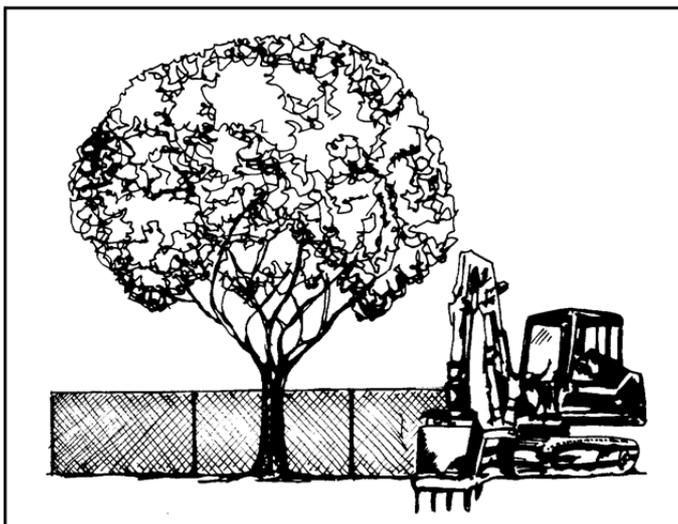
The fencing must be strong and appropriate to the degree of construction activity taking place on the site.

The protected area around trees must be of dimensions recommended in Figure 2. The temporary fencing around this area must be maintained throughout construction works. The temporary fencing shall be 1.8 - 2m high and must prevent access within the protected area.

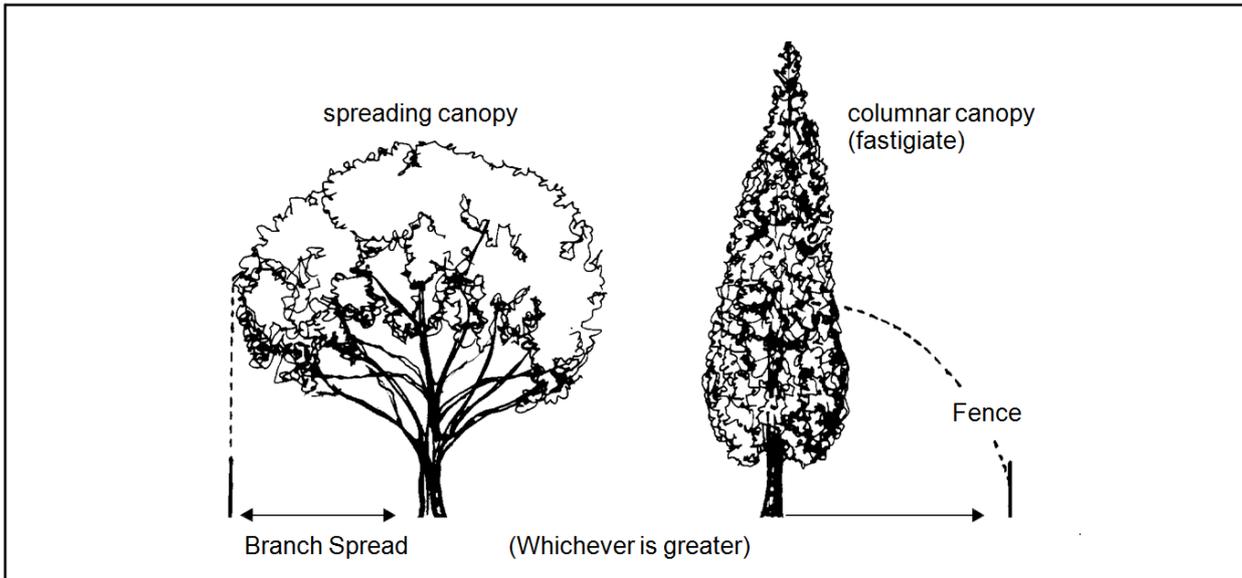
No works shall be carried out within the protected area. No materials shall be stored within the protected area.

Notices should be erected on the fencing with words such as 'Protected area - no operations within fenced area'.

**Figure 1: The fencing must be strong and appropriate to the degree of construction activity taking place on the site.**



**Figure 2: Dimensions for locating protective fencing**



## 6733 State Highway 20 - Road Access Mt Roskill

Designation Number	6733
Requiring Authority	New Zealand Transport Agency
Location	State Highway 20 in the vicinity of Earnie Pinches Street, Mt Roskill
Rollover Designation	Yes
Legacy Reference	Designation H08-07, Auckland Council District Plan (Isthmus Section) 1999
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The designation is for the following work:

- a. A designation of land between Queenstown Road and the eastern end of Ernie Pinches Street as a road for state highway / motorway purposes (Map Ref [6731 \(formerly H08-05\)](#));
- b. A designation of land between Queenstown Road and New Windsor Road as road, accessway or service lane for access (Map Ref [6732 \(formerly H08-06\)](#));
- c. A designation of land westward from a point opposite Sandringham Road as road for access to and / or for state highway / motorway purposes; this component of the designation being necessary to allow for the connection of the proposed motorway to the local roading network and future grade separation between road and rail when an adjoining railway purposes designation is given effect to (Map Ref [6733 \(formerly H08-07\)](#)); including the construction, operation and maintenance of those roads, accessways and service lanes and all ancillary structures, works and activities directly associated with the proposed extension of State Highway 20 from Hillsborough Road to Maioro Road.

## Conditions

### 1. General

1.1 To move the requirement boundary to the southeast (towards Ernie Pinches Street) to minimise encroachment over the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road as shown on Plan 1/86/32/3914/8 Revision C.

1.1A That the designation be modified by reducing its size so that the part of the designation extending from Carr Road does not extend onto Lot 2, DP 77953 owned by Swift New Zealand Limited and held in Certificate of Title 34A/1386. This modification shall be as shown on Drawing Number 1/86/32/1914/2. The

part of the designation on the Hayr Road boundary shall remain.

1.1B No work shall occur within the area of Winstone Park which is currently protected by the Reserves Act 1977 until determination of the High Court appeal AP123/02 (or any subsequent and related Court of Appeal proceeding), dismissing the appeal and / or authorising work within the Winstone Park Reserve.

1.1C That the designation be altered by adjusting its boundaries at 133 Stoddard Road, 67 Ernie Pinches Street and 90 May Road (the Roseman Avenue pond). This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

- a. P-03-087, P-03-088, P-03-89 (dated 26 Sept 02);
- and b. P-02-057, P-02-058, P-02-061 (dated 13 Aug 02).

1.1D That the designation be altered by adjusting its boundaries at 43 to 53 Hendry Avenue and 1 to 11A Maioro Street. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

- a. P-03-086, P-03-090 (dated 26 Sept 02);
- and b. P-02-055, P-02-060 (dated 4 Feb 03).

1.1E That the designation be altered by adjusting its boundaries at Mt Roskill Grammar School. This alteration shall be as shown on the following drawings produced by Transit NZ and URS NZ Ltd:

- a. P-03-092 dated 26 Sept 2002;
- b. P-02-064 dated 4 February 2003;
- c. S-35-126 revision OD dated 28 May 2003;
- d. S-35-101 revision B dated 14 November 2002; and e. P-03-086-091 dated 4 Oct 2002.

1.1F That the designation be altered by adjusting its boundaries at the Dominion Road frontage to Winstone Park. This alteration shall be as shown on the following drawings drawn by URS Ltd:

- a. P-100-200 'Figure A' dated 21 May 2004; and
- b. P-100-202 'Figure B' dated May 2004.

1.1G That the designation be altered by adjusting its boundaries at the corner of Hendry Avenue and Queenstown Road (Lot 2 DP 55660). This alteration shall be as shown on the following drawings drawn by Transit NZ and URS NZ Ltd:

- a. P-100-011 dated March 2004; and
- b. C-121A, dated April 2004.

1.1H That the designation be altered by adjusting its boundaries at 110, 138A and 155 Hillsborough Road. This alteration shall be as shown on the 'SH20 - Mt Roskill Extension Proposed Alteration to Designation' drawings drawn by Transit NZ and URS NZ Ltd and referred to as:

- a. Figure 2 Rev A, Site 138 Hillsborough Road (dated October 2004);
- b. Figure 3 Rev A, Site 155 Hillsborough Road (dated October 2004); and
- c. Figure 4, Rev A, Site 110 Hillsborough Road (dated October 2004).

1.2 Except as modified by the conditions below, the work shall be undertaken in general accordance with the information provided by Transit New Zealand at the hearing; the Notice of Requirement and supporting documents, namely:

- a. 'SH20 Hillsborough to Richardson Road, Assessment of Effects on the Environment', Traffic Design Group and URS NZ Ltd, dated 2 November 2000;
- b. 'SH20 Hillsborough to Richardson Road, Scheme Assessment Report', Volume 1 – Report, Volume 2 – Drawings, Traffic Design Group and URS NZ Ltd, dated 2 November 2000;
- c. Revised attachments to the Notice of Requirement. In particular, the following drawings drawn by

Traffic Design Group and URS NZ Ltd;

d. 'Proposed designation as amended in response to matters raised during hearing 26 March-6 April 2001', Drawing numbers 1/86/32/1914/1-4 Revision E; and

f. 'Property identification and designation boundaries (as revised post-notification)', 1/86/32/3914/1-9 Revision C.

### 1.3

a. Except as modified by conditions below, works on and disturbance of the northern slopes of the Mt Roskill volcanic cone between Dominion Road and Roseman Avenue shall be generally in accordance with the works shown on Figure A (Project Drawing Number P-100-200) drawn by URS NZ Ltd dated 21 May 2004 (hereafter referred to as "Figure A"); and

b. If as a result of detailed design, the Requiring Authority proposes any departure from the works shown on Figure A that affects Mt Roskill volcanic cone between Dominion Road and Roseman Avenue but which remains in general accordance with the drawing, the Requiring Authority shall consult with the Department of Conservation before adopting any such a departure; and

c. No excavation beyond that associated with the extent of work shown on Figure A is permitted, except where:-

i. the work does not result in any further excavation of unmodified parts of the cone within Winstone Park; and

ii. the work is consistent with Condition 2.1B.

1.4 Where the State highway connects with Richardson Road, the route shall be redesigned and shifted towards the southeast so as to minimise the need for works to encroach across the southeastern boundary of Christ the King Church and School at 288-292 Richardson Road.

~~1.5 Condition deleted. The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1)(c) of the Resource Management Act 1991.~~

1.6 Unless lapsed prior to 15 June 2010, the expiry date of this designation was extended to 1 November 2015, by S78 of the Local Government (Auckland Transitional Provisions) Act 2010.

1.7 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation 6729 (formerly F05-05) 'proposed motorway; proposed motorway and railway; proposed road, Hayr Road to Richardson Road.

1.8 As soon as practicable following confirmation of the designation and completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of the existing designation 6718 (formerly A07-01) 'motorway' in the vicinity of Hendry Road where designation 6718 A07-04 is replaced by the new designation.

1.9 As soon as practicable, following completion of construction, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation and maintenance of the State highway.

### 1.9A

a. Within three months following completion of construction of the state highway between Dominion Road and Roseman Avenue, the Requiring Authority shall give notice to the Council in accordance with Section 182 of the RMA for the adjustment of the southern boundary of the designation between Dominion Road and Roseman Avenue to a new position approximately 18 metres northwards; and

b. Activities within the zone 2 metres to the north of the adjusted designation boundary shall thereafter be limited to inspection and maintenance purposes.

1.9B Works within Winstone Park along the Dominion Road frontage shall be undertaken in accordance

with the following:

- a. The design of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be generally in accordance with the works shown on Figure A (Project Drawing Number P- 100-200) drawn by URS NZ Ltd dated 21 May 2004.
- b. The detailed design of the new footpath between the Winstone Park access road and the Dominion Road interchange shall be determined in consultation with the council. The following matters shall be taken into account in the final design:
  - i. The appropriate width;
  - ii. Lighting;
  - iii. The connection between the new footpath and the existing footpath along Dominion Road;
  - iv. The need to ensure changes to the Winstone Park vehicle access clearly define the pedestrian crossing point.
- c. The construction of the proposed footpath between the Winstone Park access road and the Dominion Road interchange shall be undertaken in a manner which minimises excavation of the natural ground surface.
- d. Prior to any construction work commencing protective fencing shall be erected to protect the trees near the area of works. Where practicable the fencing shall be to the standard described within Attachment 2 – Protective Fencing 4.1 Protective Fencing in Annexure 5 (Guidelines for works within the vicinity of trees) of in the Unitary District Plan.
- e. All pruning works and construction activity at the base of the existing mature puriri and totara trees adjacent to the proposed footpath shall be undertaken in consultation with the council's parks arborist. The work shall also be undertaken in accordance with the arborist's report dated 27 February 2004, included with the notice of requirement.
- f. With regard to the mature puriri to the immediate south of the Winstone Park access road, the portion of the batter within the dripline of the puriri shall be excavated under arborist's supervision, incorporating hand digging as required. All roots encountered shall be cut cleanly back to the soil face with sharp pruning tools. The exposed face shall be immediately covered with up to 50mm of high quality topsoil and the topsoil lightly compacted.
- g. Any pruning of trees required to achieve clearance for the footpath shall be undertaken by a recognised arboricultural contractor who is approved by the council's parks arborist.
- h. The New Zealand Transport Agency (NZTA)'s Transit's contractor shall contact the council's parks arborist a minimum of five working days prior to any arboricultural work commencing to arrange for a pre-works commencement meeting. All contractors and sub- contractors involved in the arboricultural work shall be present. The location of protective fencing shall be agreed in consultation with the council's parks arborist at that time.

1.10 The Requiring Authority shall pay the Council a compliance monitoring charge of \$5,000 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance. (This charge is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files and all work required to ensure compliance with the conditions on the designation). This monitoring charge shall be paid at the time an Outline Plan is submitted.

1.11 Any land taken or held for works shall be maintained to a reasonable standard until physical works commence to the satisfaction of the Council.

1.12 That a permanent liaison person shall be appointed by the Requiring Authority for the duration of the State Highway 20 extension project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be available for on-going consultation on all matters of concern to affected persons.

1.13 Access shall be maintained to the land currently leased by the Pat Noton (1984) Trust under New Zealand Railways Corporation Leases L43520 and N2080, and to the land currently leased by South International Finance under New Zealand Railways Corporation Lease L44406/C25209 while those parties

remain in valid occupation of the land.

## **2. Construction**

2.1 Prior to commencement of any works on any part of the land included within the designation, the Requiring Authority shall submit a Construction Management Plan to the Council in respect of that land. The Construction Management Plan shall include specific details relating to the demolition, construction and management of all works associated with this development, including:

- a. Details of the site or project manager, including their contact details (phone, facsimile, postal address);
- b. The location of large noticeboards that clearly identify the name, telephone number and address for service of the site or project manager;
- c. Any means, such as a restriction on the size of construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period;
- d. Any means of protection of services such as pipes and watermains within the road reserve;
- e. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Measures to be adopted to ensure that pedestrian access past the works is provided where practicable and that such access is safe;
- g. Location of workers conveniences (e.g. portaloos);
- h. Ingress and egress to and from the works for vehicles during the construction period;
- i. Proposed maximum numbers and timing of truck movements throughout each day and the proposed routes;
- j. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- k. Location of vehicle and construction machinery access during the construction period;
- l. Procedures to be followed for ensuring that residents within 100 metres of blast sites receive at least 24 hours written notice of any imminent blasting;
- m. Hours of operation and days of the week for construction activities;
- n. Means of providing safe pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road during construction;
- o. Means of ensuring the safety of the general public;
- p. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
- q. Procedures to be followed to ensure that those working in the vicinity of Mt Roskill volcanic cone are aware of the heritage values of the cone and the steps which need to be taken to meet the conditions applying to work in this area.

The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction period.

2.1A With respect to the 20 metre wide strip situated to the north of the southern boundary of the designation within Winstone Park, during construction:

- a. Storage of materials, and vehicle or machinery parking shall only be carried out within the same area 10 metres extending from and parallel to the southern boundary of the designation;
- b. Prior to the commencement of any construction activity, a temporary 2 metre high fence shall be erected along the southern boundary of the designation to separate the Winstone Park reserve from all construction activities, and the fence shall not be removed until either all related construction activity is completed or the area is no longer required for that purpose.

2.1B Once construction of the motorway within the designated area between Dominion Road and Roseman Avenue is completed, any land on Mount Roskill, within the 18 metre strip previously designated (as referred to in Condition 1.8A), must be reinstated in conformity with the natural landscape and form in that vicinity, as soon as practicable.

2.2 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of this designation at all times and not on surrounding streets.

2.3 All storage of materials and loading and unloading of equipment associated with the construction works shall take place within the boundaries of this designation.

2.4 Pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable.

2.5 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the road during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage.

2.6 During construction, the New Zealand Standard NZS 6803:1999 Acoustics – Construction Noise, shall be complied with. The limits of Table 2 shall also be applied to school buildings.

2.7 Appropriate measures shall be taken during construction to minimise potential dust nuisance.

2.8 Pedestrian access between Keith Hay Park and the Mt Roskill Schools, and between Ernie Pinches Street and Stoddard Road shall be maintained during construction.

2.9 Prior to the commencement of construction in the vicinity of Winstone Park (at the Mt Roskill cone), The New Zealand Transport Agency (NZTA) Transit shall use its best endeavours to relocate the existing childrens' playground in the Park to a location approved by the Council.

### **3. Landscape and Visual Effects**

3.1 A detailed landscape plan, including an implementation and maintenance programme, shall be prepared by a suitably qualified landscape architect in consultation with the Council, at the time of submitting an Outline Plan.

- a. The plan shall include details of the plant sizes at the time of planting and intended species.
- b. In preparing the landscape plan, the following matters shall be taken into account:
  - i. The integration of the highway alignment into the surrounding landscape;
  - ii. Mitigation of effects on properties in the vicinity of the alignment;
  - iii. Any proposed planting of mature trees (including replanting);
  - iv. Planting in respect of waterways, including stormwater ponds;
  - v. Planting of earth bunds;
  - vi. The suitability of particular species of plants to the conditions of any particular area, and the beneficial effects of any particular species in terms of air quality;
  - vii. The staging of landscaping with the staging of construction;
  - viii. Landscaping in respect of Maioro Street.
- c. Such a plan is to include appropriate measures for:
  - i. screening views of the motorway from adjacent properties and public places;
  - ii. screening noise attenuation fences;
  - iii. retention or relocation of existing trees where practicable;
  - iv. revegetation of the realigned stream located between Ernie Pinches Street and Stoddard Road.
- d. The landscaping shall be implemented in accordance with the landscaping plan within the first planting season following the completion of the construction works, and shall be maintained for the next five years.

### **3.2**

- a. The Requiring Authority shall consult with the Department of Conservation ('DOC'), Auckland Conservation Board ('ACB') and the Auckland Volcanic Cones Society Inc ('AVCS') on the final design of the works shown on Figure A and associated safety fence at the base of the Mt Roskill Cone;
- b. The design of the safety fence shall incorporate materials, textures and colours appropriate to the

visual and historical context of the cone;

c. Batter slopes shall be planted with trees or shrubs suited to the conditions of the site and to the natural context of the cone;

d. The associated safety fence shall be a minimum 1.4 metres in height and shall include appropriate safety features. The fence shall be designed to be as visually transparent as possible, while still meeting the required safety standards;

e. The results of consultation with DOC, ACB and AVCS shall be taken into account in finalising the design of the batter slopes, reinstatement works and safety fence;

f. Plans for the design of the batter slopes, reinstatement works and safety fence, together with a report on the consultation with DOC, ACB and AVCS, shall be provided to the Auckland **City** Council at the time an Outline Plan is submitted.

g. A photographic record shall be taken as the cut proceeds to provide a visual record of the geology of the cone

3.3 Vehicle access past the oak tree at the rear of St Martin's Church (1358 Dominion Road) shall be provided in a manner which minimises excavation and damage to the tree roots.

3.4 To the extent that stormwater management allows, a landscape bund shall be constructed along the boundary of Keith Hay Park and the motorway to achieve visual and landscaping mitigation. No part of the bund shall extend beyond the boundary of the designation without specific approval from Auckland **City** Council as land owner.

### **3A. Somerset Road Tress**

*Trees requiring trimming or removal for the construction of the Keith Hay Park pedestrian and cycle bridge*

3A.1 All tree work identified on drawing S-35-126 revision OD dated 28 May 2003 (produced by Transit and URS NZ Ltd) shall be undertaken by a recognised arboricultural contractor who is approved by the Council's parks arborist.

3A.2 The New Zealand Transport Agency (NZTA) Transit's Contractor shall contact the Council's parks arborist a minimum of 5 working days prior to any arboricultural work commencing to arrange for a pre works commencement meeting. All contractors and sub- contractors involved in the arboricultural works shall be present.

3A.3 All tree removals and pruning works shall be undertaken in consultation with Council's parks arborist.

3A.4 All tree pruning works shall employ recognised arboricultural target pruning practices. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.5 All tree removal work shall employ recognised arboricultural felling and dismantling practices, and shall be undertaken in a manner that avoids or minimises damage or disturbance to adjacent trees to be retained.

#### *Protection of seven trees on southern side of Somerset Road*

3A.6 Prior to any construction activities commencing a temporary barrier shall be erected as close as practicable to the edge of the dripline of trees numbered 1211-1217 (as identified on drawing S-35-126 revision OD dated 28 May 2003 produced by Transit and URS NZ Ltd). The location of the temporary barrier shall be determined in consultation with the Council parks arborist. The temporary barrier shall be a minimum of 2 metres in height and shall be of sturdy construction. It shall remain in place for the entire duration of all works within the vicinity of the Somerset Road trees. The temporary barrier shall be clearly identified as a 'restricted area / tree protection area' by the placement of the appropriate signage.

3A.7 Any pruning on the southern side of the poplar trees numbered 1211-1217 that may be required to provide clearance from the construction site shall be undertaken in consultation with Council's parks arborist.

3A.8 All pruning works shall be performed by a qualified competent arborist using recognised arboricultural target pruning practice. All such works shall be supervised by the Council's parks arborist who shall be available in accordance with the 5 days notice required in condition 3A.2.

3A.9 Prior to any construction activities commencing, a layer of mulch shall be laid over the entire area within the fenced area referred to in 3A.6 above. The mulch shall be a minimum thickness of 200mm, and shall be maintained at this level for the entire duration of the construction works within the vicinity of the Somerset Road trees.

3A.10 At no time shall the fenced area referred to in 3A.6 above be used for storage even temporarily of construction materials, fill, or any other materials associated with the State Highway 20 project.

3A.11 At no time shall any vehicles or equipment be even temporarily parked, stored, or manoeuvred within the fenced area referred to in 3A.6 above.

3A.12 All excavations in close proximity to the dripline of trees 1211-1217 shall require direct supervision by a competent arborist. Any root pruning which is required shall be undertaken by the arborist using recognised root pruning procedures.

#### **4. Sediment Control and Stormwater**

4.1 The Requiring Authority shall implement suitable sediment control measures during all earthworks and after construction to ensure that all stormwater run off from the site is managed and controlled to ensure that in so far as is practicable no silt, sediment or water containing silt or sediment is discharged into stormwater pipes, drains, channels or soakage systems in accordance with Attachment 1 – Silt and Sediment Control Measures, the Auckland City Operative District Plan 1999 (Isthmus) Annexure 14 – Guidelines for sediment control. In the event that material is deposited on the street, the Requiring Authority shall take immediate action at their own expense, to clean the street.

4.2 The Requiring Authority shall implement suitable arrangements for stormwater treatment and detention in accordance with relevant ARC guidelines.

#### **5. Noise (Following Construction)**

5.1 A noise management plan, detailing noise reduction measures to be implemented, and prepared by a suitably qualified acoustic expert, shall be submitted to the Council at the time an Outline Plan is lodged. The noise management plan shall include:

a. Measures to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999), provided that the noise management plan shall not apply to the Christ the King Parish Precinct zoned land occupied by Christ the King Church and School at 288- 292 Richardson Road.

5.2 The noise management plan shall identify existing dwellings for which acoustic treatment is required in order to ensure compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise – State Highway Improvements' (December 1999). Those dwellings shall be referred to as 'affected dwelling(s)'.

5.3 Not less than three months prior to the completion of construction of the State highway, the Requiring Authority shall give written notice to the owner of each affected dwelling as follows:

- a. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels;
- b. Advising that the owner has nine months within which to decide whether or not to accept mitigation treatment to the dwelling.

5.4 The Requiring Authority shall advise the Council of:

- a. All written notices served in accordance with condition 5.3;
- b. Any responses received to those written notices;

c. Those affected dwellings in respect of which no response has been received.

5.5 Where acoustic treatment is required to a dwelling, the Requiring Authority shall be deemed to have complied with condition 5.1 above where:

- a. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
- b. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the completion of the State highway; or
- c. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of the State highway construction.

5.6 Subject to condition 5.5, all noise mitigation work identified by the noise management plan shall be implemented before the use of the State highway commences.

5.7 Low noise generating surfaces, such as friction course surfacing, shall be investigated for use on the motorway and in Maioro Street as a method of meeting Transit's Guidelines.

## **6. Noise and Vibration from Blasting**

6.1 Blasting activities shall be so controlled as to ensure that any ground vibration as the result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause a reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings – Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular directions. The units are millimetre per second (mm/s).

6.2 The noise created by the use of explosives for blasting shall either not exceed a peak overall sound pressure level of 128 dB (i.e. peak over pressure of 0.05 kPa) or alternatively the noise shall not exceed a peak sound level of 122 dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

[Refer also condition 2.1(l) relating to notifying residents of imminent blasting.]

## **7. Parking, Rooding and Property Access**

7.1 During the detailed design stage, the Requiring Authority will consult with the Council with regard to the most appropriate means (e.g. flush medians, right turn bays) for providing access on Council roads within the designation.

7.2 Any existing on-site parking and manoeuvring areas which are affected by the works shall, as far as practicable, and in consultation with the Council and the affected landowner, be relocated or reinstated to achieve compliance with ~~District Plan~~ Auckland Unitary Plan standards. Details of any such relocations or reinstatements shall be provided to the Council at the time an Outline Plan is submitted.

7.3 Alternative access arrangements shall be provided as far as practicable, and in consultation with the Council and the affected landowner, where existing property access is removed or becomes unsafe as a result of the works. Details of any alternative access arrangements shall be provided to the Council at the time an Outline Plan is submitted.

7.4 The right of way serving the properties at 55B and 55C Stamford Park Road (Lots 1 and 2, DP46097) shall not be used by the Requiring Authority for construction access.

7.5 Any bus stops which need to be moved or shifted as direct a result of the proposed works shall be relocated in consultation with the Council. Christ the King School shall also be consulted about the relocation of the bus stop serving the school.

7.6 The Requiring Authority shall consult with the Council to preserve the Council's ability to construct a rapid transit connection at the Dominion Road interchange as set out in the Council's Notice of Requirement for designation for 'proposed enhancement of the Dominion Road passenger transport services'.

7.7 Hendry Avenue shall be severed into two cul-de-sacs for the purposes of construction of certain aspects of the project. The Requiring Authority shall reconsider whether the final form of Hendry Avenue should constitute cul-de-sacs or a through road after undertaking both further consultation with residents of Hendry Avenue, Stephen Lysnar Place and Kelsey Crescent and a further assessment of effects of both options. The New Zealand Transport Agency (NZTA) Transit will consult with Council officers regarding the results of the further consultation and further assessment of effects before determining the final form of Hendry Avenue.

7.8 The State highway shall be constructed with 3m wide shoulders for traffic safety purposes and to provide for potential future bus lanes.

## **8. Pedestrian Access**

8.1 Appropriate crossing facilities for pedestrians, to mitigate the effects of the proposed works, design and consultation with the Council, shall be provided at the following intersections and roads:

- a. the Hillsborough interchange;
- b. Sandringham Road / Stoddard Road intersection;
- c. Richardson Road / Maioro Street intersection;
- d. Maioro Street / New Windsor Road intersection;
- e. the Dominion Road interchange;
- f. Maioro Street;
- g. any other intersections included within the designation.

Details of crossing facilities shall be provided to the Council at the time an Outline Plan is submitted.

8.2 Fully signalised pedestrian crossings, with a separate phase for pedestrians shall be provided at Richardson Road / Maioro Street, and Maioro Street / New Windsor Road, for the safety of school children using these intersections.

8.3 Pedestrian access shall be provided from Hillsborough Road to Melrose Road.

8.4 Provision shall be made to ensure that the works do not preclude the Council's ability to construct the proposed southwestern cycleway. In particular, and in partnership with the Council, provision shall be made for a southwestern cycleway at the following locations:

- a. Adjacent to the motorway where it passes under May Road;
- b. To be accessed from the pedestrian / cycleway bridge at Ernie Pinches Street (with adequate provision for bicycle turning movements);
- c. In the vicinity of Hendry Avenue (particularly if a decision is made that the final form of Hendry Avenue shall constitute cul-de-sac heads).

8.5 Pedestrian / cycle bridges conforming to the design standards of the Austroads Guide to Traffic Engineering Part 6: Pedestrians shall be provided between Somerset Road / Frost Road and Keith Hay Park, and between Ernie Pinches Street and Stoddard Road. The Requiring Authority shall also consult with Mt Roskill Schools regarding the design and location of the pedestrian / cycle bridge between Somerset Road / Frost Road and Keith Hay Park. Details of the pedestrian / cycle bridges shall be provided to the Council at the time an Outline Plan is submitted.

8.6 Boundary fencing for pedestrian safety shall be constructed along the shared boundaries of the motorway and Keith Hay Park, Akarana Golf Club, and Winstone Park."

## **9. Archaeological and Geological Areas**

- 9.1 The Requiring Authority shall employ at its expense a qualified archaeologist who shall:
- Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone, including surface stripping of the site, to establish whether any sub-surface archaeological features are present;
  - Advise the Council in writing within 24 hours if any archaeological features have been discovered.

9.2 Detailed protocols for the management of archaeological and waahi tapu discoveries shall be specifically discussed with tangata whenua prior to construction.

9.3 If any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

- Immediately it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;
- The site supervisor shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the Department of Conservation, City Planning of the Auckland ~~City~~ Council that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any authority required from ~~the NZ Historic Places Trust~~ Heritage New Zealand is obtained.

9.4 The Requiring Authority shall employ at their expense a qualified geologist who shall:

- Be on site to monitor all initial earthworks in the immediate vicinity of the Mt Roskill cone;
- Periodically review construction activities in the vicinity of the Mt Roskill cone;
- Be available on call to inspect any geological features encountered during excavation at the base of the Mt Roskill cone and to enable identification of any significant geological features;
- Advise the Council in writing within 24 hours if any significant geological features have been discovered.

9.5 Any geological discoveries such as lava caves shall be recorded and, where practicable, damage to these features minimised. Records of any such geological discoveries shall be provided to the Auckland ~~City Council, Auckland Regional Council~~ and the Department of Conservation for information and future reference.

## 10. Lighting

10.1 Where encroachment into areas subject to view protection controls in the ~~District Plan~~ Auckland Unitary Plan cannot be avoided by structures such as lighting poles and fixtures, such structures shall be designed to have minimum impact, taking into account the assessment criteria in any Volcanic Viewshafts and Height-sensitive Areas sections of the Auckland Unitary Plan ~~Clause 5C.7.6.5 Rules:- Volcanic Cones of the District Plan~~. Details of any such encroachments together with an assessment of effects shall be provided to the Council at the time an Outline Plan is submitted.

10.2 Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## 11. Air Emissions

11.1 Onsite monitoring of air emissions from vehicles shall be carried out over a six week period at the Maioro Street / Richardson Road intersection, adjacent to Christ the King Church and School prior to any physical works associated with the motorway being undertaken in the vicinity. The results shall be provided to the Council at the time an Outline Plan is lodged. The monitoring results shall measure the levels of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines.

11.2 A plan for post construction monitoring of air emissions from vehicles at the Maioro Street / Richardson Road intersection adjacent to Christ the King Church and School shall be provided to the Council at the time an Outline Plan is lodged. The monitoring programme shall include the following:

- Engagement of an air emissions expert with specialist equipment to monitor air emissions at the

above location;

b. Measurement of carbon monoxide, nitrogen dioxide, particulate matter (PM10), and hydrocarbons in relation to air quality guidelines;

c. Details of the number and location of monitoring positions;

d. A requirement for copies of all air emissions monitoring reports to be provided to the Council;

The monitoring shall be carried out over a six week period within one year of the opening of the SH 20 extension. Monitoring shall be undertaken during the time of year which is expected to give rise to worse case meteorological conditions in terms of air quality.

### **Advice Notes**

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.

2. Under ~~the Historic Places Act~~ Heritage New Zealand Pouhere Taonga Act 2014 an Authority to Modify an Archaeological Site is required from the ~~NZ Historic Places Trust~~ Heritage New Zealand before any work takes place on an archaeological site.

3. Some of the land is subject to existing designations. The provisions of Section 177 of the Resource Management Act 1991 apply accordingly.

4. The Council holds a comprehensive discharge consent and has a comprehensive stormwater management plan for the Oakley catchment.

5. The Requiring Authority and the Council will continue to work together to progress the design of the southwestern cycleway generally following the alignment of the State Highway 20 extension.

## **Attachments**

### **Attachment 1 – Silt and Sediment Control Measures**

#### **SILT AND SEDIMENT CONTROL MEASURES**

#### **EARTHWORKS**

Uncontrolled earthwork activities can remove or smother valuable vegetation and cause silt runoff into streams and coastal waters. This silt can smother biological life and affect fish feeding and breeding areas. By choosing the right methods you can prevent unnecessary soil erosion and help the community protect the streams, beaches and coastal areas of the Auckland region. This pamphlet is aimed at helping you make those choices when planning and carrying out earthworks.

*The land owner is responsible for making sure that any activity disturbing the soil is carried out in a way to prevent soil erosion and to stop sediment entering waterways.*

To carry out earthworks a resource consent may be needed, depending on the area where the work is to take place and the size of the job. You should enquire with Auckland Council, to find out whether a consent is needed. For very large earthworks you may also need a consent from the Auckland Council. The Council has comprehensive guidelines (Technical Publication No 90) which will be helpful for larger projects.

*Regardless of the size of the earthworks, you are required to take the appropriate measures to prevent soil loss and erosion.*

#### **Some facts about siltation**

- earthworks sites generate up to 1000 times as much silt as undisturbed land
- doubling the angle of the slope produces a 4 fold increase in silt
- doubling the area of earthworks can produce a 3 fold increase in silt

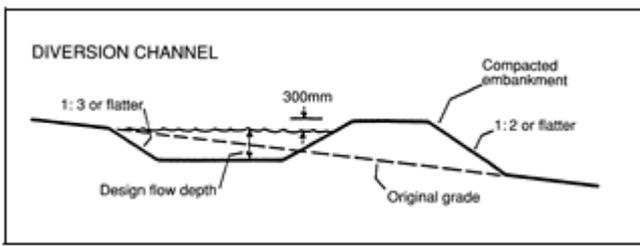
## **METHODS TO PREVENT EROSION AND SEDIMENT LOSS**

- a. Prevent silt runoff by employing erosion control measures
  - i. expose only as much ground as needed at any one time
  - ii. provide runoff diversion channels, contour drains, or earth bunds to divert clean water away from the site onto stable ground (grassed or sealed)
- b. Use one of more of these sediment control measures to capture silt
  - i. silt fences
  - ii. hay bales
  - iii. vegetation buffer strips
  - iv. sediment ponds
  - v. earth bunds
- c. To finish
  - i. topsoil and regrass the exposed ground, or cover with a mulch, as soon as possible.

## **EROSION CONTROL METHODS**

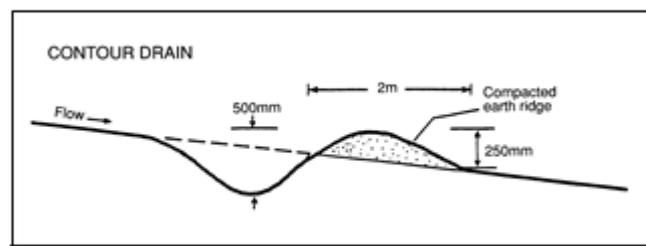
### Runoff Diversion Channels

- a. used to protect work areas from up-slope runoff
- b. water from channel can be discharged to areas of vegetation
- c. can be used to divert water to other sediment retention systems
- d. have shallow grades on channel to prevent scouring (1%-2%)
- e. may need to be stabilised against erosion by regrassing



### Contour Drains

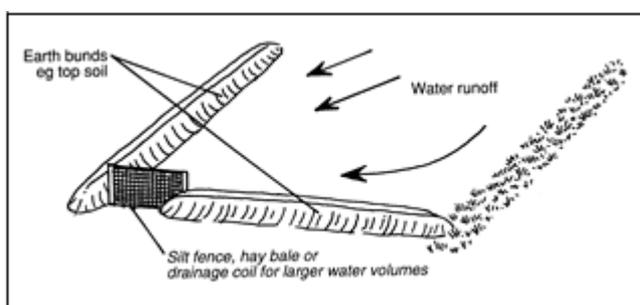
- a. use across earthworks area to break up slope
- b. use more than one drain on steeply sloping sites
- c. decrease spacing of drains as slope increases
- d. water can be discharged to vegetation or into sediment control structures



## **SEDIMENT CONTROL METHODS**

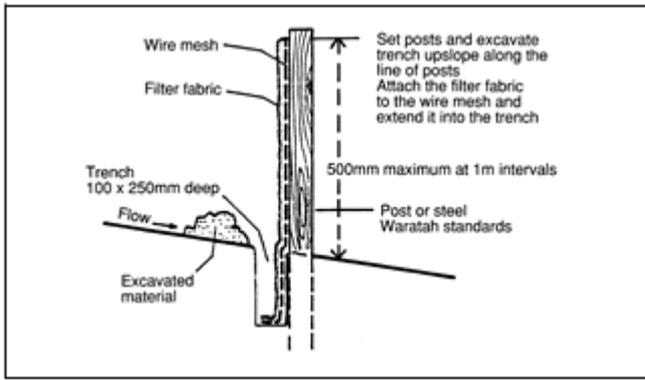
### Earth Bunds

- a. construct across slope to control and detain runoff
- b. use near edge of site to prevent sediment from leaving area
- c. can use topsoil from site to create bund



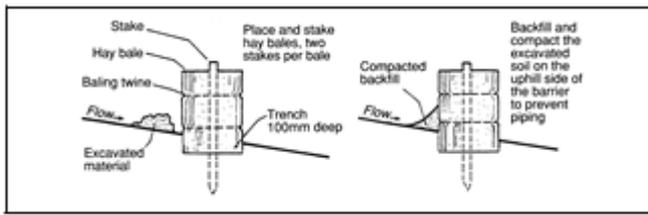
### Silt Fences

- a. for small disturbed areas or low slope angles
- b. use more than one on steeply sloping sites
- c. decrease spacing between fences with increasing site slope
- d. filter fabric is stretched between posts at maximum spacing of 1 metre



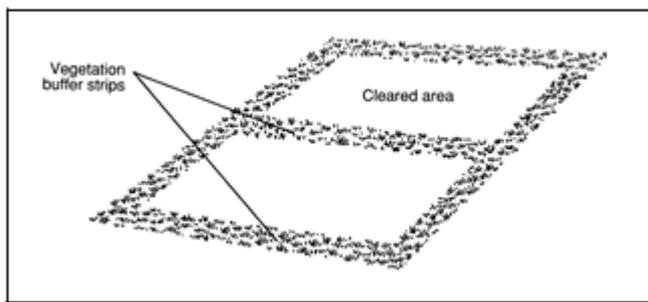
### Hay Bales

- a. for small sites and short term control
- b. should be dug into ground, tied together and anchored by staking
- c. regular inspection and maintenance is essential



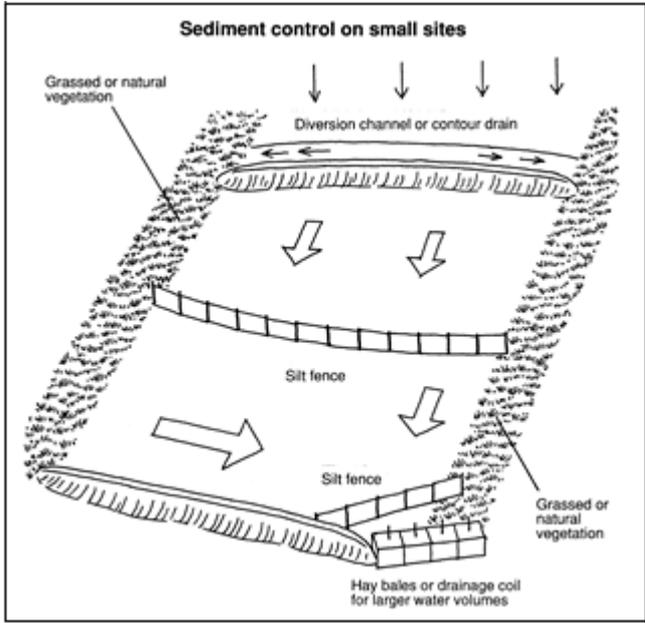
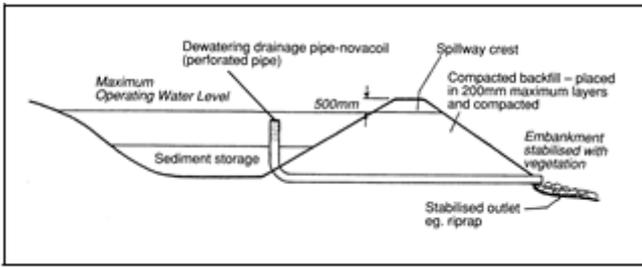
### Vegetation Buffer Strips

- a. should always be provided along watercourses
- b. to filter sediment from overland flow where runoff rates are low and not concentrated
- c. use more than one buffer strip on steep slopes
- d. decrease buffer strip spacing with increasing slope
- e. to keep machinery away from watercourses



### Sediment Ponds

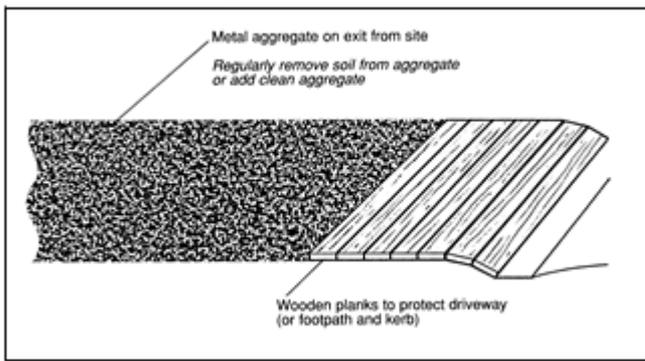
- a. do not construct in streams
- b. size at 1-2% of site area (ie 1-2m<sup>3</sup>/100m<sup>2</sup>)
- c. clean out sediment regularly
- d. must have dewatering/drainage facility



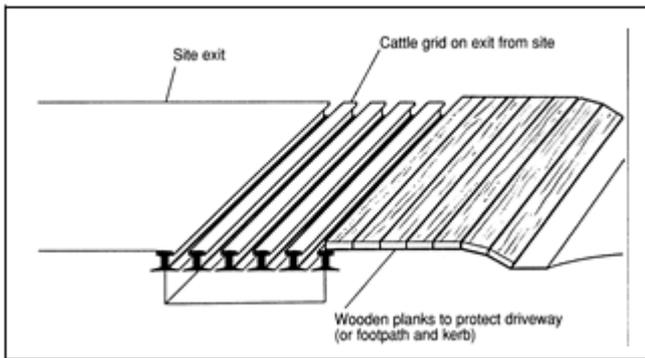
*For more details see the Auckland Council publication "Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region" (Technical Publication Number 90).*

### **KEEPING THE ROADS CLEAN**

It is important that soil from the site is not spread onto the road by vehicle tyres. To prevent this from occurring a stabilised entranceway must be built. The simplest method is to spread metal aggregate on all exitways from the site, where the soil will have a chance to fall off before the vehicle enters the road. Other methods for larger sites are cattle grids or wheel washes. The site manager or site owner is responsible for cleaning up any spilt soil to other materials that get on to the road from the site.

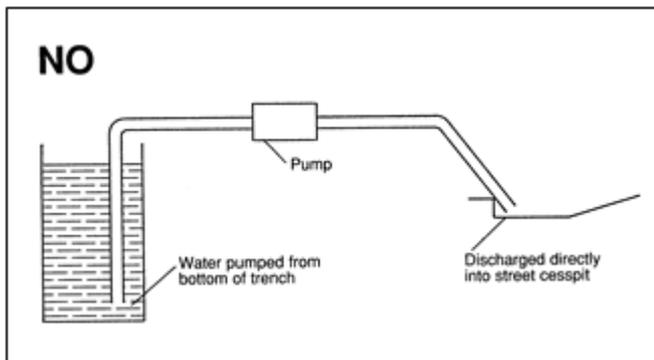
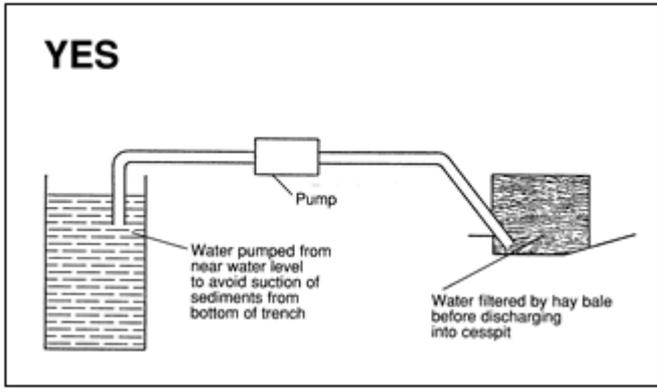


Remember also to protect the footpath, berm and kerb from damage by crossing vehicles.



### **PUMPING WATER FROM THE SITE**

If it is necessary to remove water from trenches or other areas of the site, then this should be done in a manner to prevent sediment in the water from entering any drain or watercourse. Water should not be taken from the bottom of any trench and sediment should be properly filtered out from the dirty water by some appropriate means such as the use of hay bales. Once the sediment has been filtered out it can then be discharged to a cesspit or a grassed area, or a watercourse if no other disposal point is available.



**No attachments.**

### **Attachment 2 – Protective Fencing**

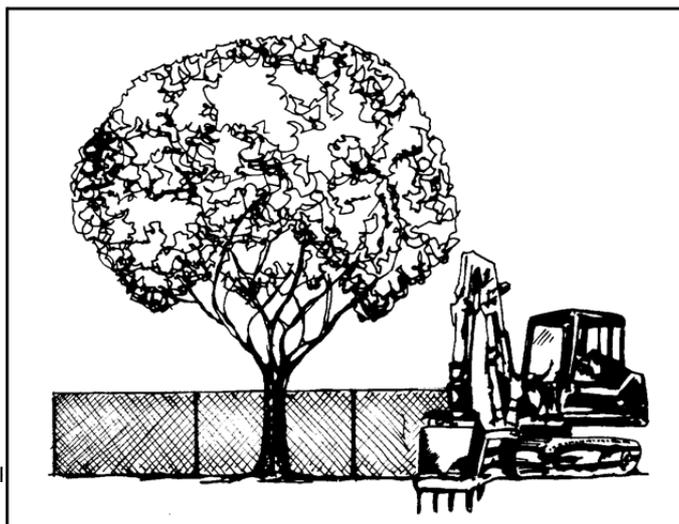
Before any materials or machinery are brought on site, or before any demolition, or development begins protective fencing must be erected around all trees which are to be retained. Trees on adjacent properties affected by the construction works must also receive appropriate protective fencing. See Figure 1.

The fencing must be strong and appropriate to the degree of construction activity taking place on the site.

The protected area around trees must be of dimensions recommended in Figure 2. The temporary fencing around this area must be maintained throughout construction works. The temporary fencing shall be 1.8 - 2m high and must prevent access within the protected area.

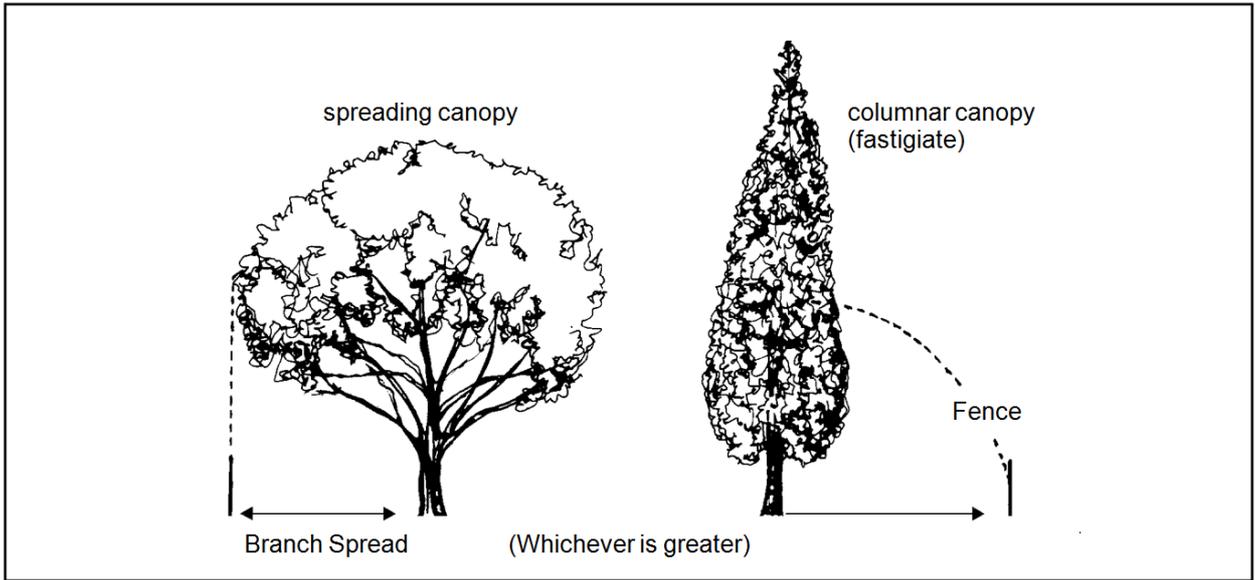
No works shall be carried out within the protected area. No materials shall be stored within the protected area.

Notices should be erected on the fencing with words such as 'Protected area - no operations within fenced area'.



**Figure 1: The fencing must be strong and appropriate to the degree of construction activity taking place on the site.**

**Figure 2: Dimensions for locating protective fencing**



**6734 State Highway 1 - Otahuhu Interchange**

Designation Number	6734
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 at Otahuhu interchange, Otahuhu
Rollover Designation	Yes
Legacy Reference	Designation I14-38, Auckland City Council (Isthmus Section) District Plan 1999
Lapse Date	Given effect to (i.e. no lapse date)

**Purpose**

Otahuhu Southern Motorway interchange.

**Conditions**

**1. General**

1.1 Except as modified by the conditions below, the work shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA) (formerly Transit) at the hearing; the notice of requirement and supporting documents; namely, Waiouru Peninsula to S.H.1 Connection, Assessment of Effects on the Environment (Vol. 1 – Vol. 6).

**2. Construction**

2.1 Prior to commencement of any works on any part of the land included within designation, the Requiring Authority shall submit a Construction Management Plan to the Auckland City Council. The Construction Management Plan shall include specific details relating to the demolition, construction and management of all works associated with this project, including:

- a. Details of the site manager, including contact details (phone, facsimile, postal address);
- b. The location of a large notice board on the site that clearly identifies the name, telephone number, address for the service of the site or project manager
- c. Any means, such as restriction on the size of the construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period;
- d. Any means of protection of services such as pipes and water mains within the road reserve;
- e. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- f. Measures to be adopted to ensure that pedestrian access past the works is provided where practicable and that such access is safe;
- g. Location of workers conveniences (i.e. portaloos);
- h. Ingress and egress to and from the works for vehicles during the construction period;
- i. Proposed maximum numbers and timing of truck movements throughout each day and the proposed route;
- j. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures, including the use of water sprays to control dust nuisance on dry or windy days; and
- k. Location of vehicle and construction machinery accesses during the construction period.

2.2 The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction period.

2.3 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times and not on surrounding streets.

2.4 All storage of materials and loading or unloading of equipment associated with the construction works shall take place within the boundaries of the designation.

2.5 Pedestrian access and thoroughfare shall be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable.

2.6 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the road during the site preparation and construction phase of development. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existing prior to such damage to the satisfaction of the Auckland City Council.

### **3. Dust**

3.1 A Dust Mitigation Plan shall be prepared by the Requiring Authority and submitted to the Council for approval prior to the commencement of works. The purpose of the Plan is to minimise dust nuisance from construction works. The Plan shall:

- a. Specify all methods proposed to be employed to control dust from earthworks;
- b. Specify the methods proposed to address problems if the dust is not satisfactorily mitigated;
- c. Include the contact details of a contact person for residents and the Auckland City Council in the event of a dust problem.

The Requiring Authority shall ensure that the approved Dust Mitigation Plan is complied with.

### **4. Landscape and Visual Effects**

4.1 On completion of the works, or on completion of each stage of the works, all bare land, including batter slopes, shall be grassed and planted or otherwise treated to achieve slope stability and prevent siltation through runoff and dust.

4.2 A Landscape Plan shall be prepared and submitted by the Requiring Authority with the outline plan of works for the approval of the Auckland City Council. Planting shall be carried out in accordance with the

Landscape Plan. The following matters shall be incorporated into the Landscape Plan by the Requiring Authority:

- a. The angle and extent of cut and batter slopes;
- b. The preparation and implementation of a planting plan that will enable the integration of the proposed interchange into the existing landscape as far as possible;
- c. The retention of existing vegetation and trees along the motorway corridor where practicable, and the identification of existing vegetation and trees along the motorway to be removed;
- d. The use of locally sourced native species where practicable;
- e. The methods for removal and control of plant pests;
- f. The use of vegetation on embankments and berms suitable for the diffusion of stormwater discharge;
- g. Methods for screening views of the motorway from adjacent properties and public places where practicable;
- h. The Landscape Concepts prepared by Opus and submitted as part of the Notice of Requirements in September 2000;
- j. The integration of noise barriers, final details of which (in relation to design, specification and placement) shall be determined during the detailed design and incorporated in any outline plan, if required;
- k. Details on species proposed to be planted, and any specimen tree theme, including their size at the time of planting. Where conditions are suitable, specimen trees shall be at least PB95 and 2.5 metres in height.
- l. The arboricultural techniques proposed to protect trees, which are to be retained, and for any works to trees that are to be retained.

Planting in accordance with the approved plan shall be implemented no later than the first planting season immediately following completion of construction and maintained thereafter to the satisfaction of the Auckland City Council.

## **5. Sediment and Stormwater Control**

5.1 The Requiring Authority shall implement suitable sediment control measures during all earthworks and after construction to ensure that all stormwater run off from the site is managed and controlled to ensure that, in so far as it is practicable no silt, sediment or water containing silt or sediment is discharged into stormwater pipes, drains, channels or soakage systems in accordance with Attachment 1 – Silt and Sediment Control Measures

~~the Auckland City Operative District Plan 1999 (Isthmus) Annexure 14 Guidelines For Sediment Control.~~ In the event that material is deposited on the street, the Requiring Authority shall take immediate action, at its own expense, to clean the street.

5.1 The Requiring Authority shall implement suitable arrangements for stormwater treatment and detention in accordance with relevant Auckland Regional Council guidelines.

## **6. Noise**

6.1 The works shall be designed and constructed to ensure compliance with the noise limits specified in Transit New Zealand's Guidelines for the Management of Traffic Noise for State Highway Improvements, December 1999 (Transit's Noise Guidelines), or to ensure that existing noise levels as a result of the works do not exceed those included in the column labelled Existing Level (dBA 24 hour Leq) of Appendix 1 to these Conditions, whichever is the lower noise level, except that for those properties with frontage on to the western side of Fencible Place, the noise levels shall not exceed 62dBA as measured 1 metre from the facade of any habitable building on the site. For the purpose of this condition, the Sikh Temple in Princes Street shall be classified as a school.

6.2 A suitably qualified consultant shall prepare, on behalf of the Requiring Authority, a detailed Noise Management Plan after consultation with the Auckland City Council. The Noise Management Plan shall be submitted for approval to the Auckland City Council prior to construction commencing and the approved plan shall be complied with. The purpose of the Plan is to describe the method by which noise associated with traffic using the roading within the designation will comply with noise limits specified in 6.1 above. Such methods may include, but not be limited to:

- a. Additional acoustic fencing;
- b. Acoustic insulation on dwellings and buildings; and
- c. Material on the motorway carriageway.

Where a fence and/or bunding are used, and the location allows, the barrier shall be landscaped with plantings where practicable.

6.3 Noise monitoring shall be undertaken in accordance with NZS 6801:1999 Measurement of Sound to ensure compliance with this condition. The Requiring Authority shall ensure that representative noise monitoring of the motorway route is undertaken at its expense by a suitably qualified and experienced acoustic consultant within nine months of opening the whole route. Results of all noise monitoring of the motorway route shall be supplied to the Auckland City Council within six weeks of the monitoring being complete. Where such monitoring demonstrates non-compliance with the Guidelines or an increase above the existing noise levels included as Appendix 1 to these Conditions, the Requiring Authority shall take steps to ensure compliance with the Guidelines, or to ensure the existing noise levels included as Appendix 1 to these Conditions are not exceeded, whichever is the lesser level, except that for those properties with frontage on to the western side of Fencible Place, the noise levels shall not exceed 62dBA as measured 1 metre from the facade of any habitable building on the site.

6.4 During construction, New Zealand noise standard "NZ 6803:1999 Acoustics-Construction Noise" shall apply and noise shall comply with the limits set down in Table 2 of NZ6803: 1999 or, where this is impracticable, alternative strategies to be outlined in the Construction Noise Management Plan shall be implemented to ensure that construction noise does not exceed the above-mentioned levels for affected persons.

6.5 Prior to commencement of any construction activity on the site the Requiring Authority or its contractors, shall submit a Construction Noise Management Plan to the Auckland City Council for approval. The purpose of this Plan is to describe the methods by which noise associated with the construction works is to be managed to reduce (where required) any impacts on adjoining residential areas. In particular, the Construction Noise Management Plan shall identify:

- a. The matters referred to in paragraph 8.4(a) to (e) of NZ6803:1999 Acoustics – Construction Noise;
- b. Methods of managing noise such as temporary acoustically designed construction noise fence;
- c. Noise monitoring methods, including details of methods, equipment, location and frequency (referenced to NZ6803:1999);
- d. Contingency methods in the event of any incidence of non-compliance; and
- e. Procedures for handling noise complaints.

The Requiring Authority shall ensure that the Construction Management Plan is complied with at all times during the construction works.

## **7. Construction Hours**

7.1 Except for unseen emergency situations and in accordance with Notes 1 and 2 below, hours of work during the construction phase shall be:

- a. Weekdays: 7.00 am to 6.00 pm;
- b. Saturdays: 8.00 am to 5.00 pm; and
- c. Sundays and Public Holidays: No work.

### *Note 1:*

These restrictions exclude any special operations subject to the notification of, and discussion with, affected parties.

### *Note 2:*

Except that any construction works within the motorway may involve work outside the above hours and such works are excluded from the above hours of work. All construction works within the motorway must be carried out in such a way that they comply with NZS6803:1999 Acoustics - Construction Noise (in accordance with Condition 6.4 above). For this purpose, 'construction works within the motorway' shall be all land within the designation boundary.

## **8. Parking, Roading, and Property Access**

8.1 Details of the improvements to the Princes Street/Albert Street intersection shall be submitted by the Requiring Authority to the Council, prior to construction. This shall include a safe and

efficient signalized pedestrian crossing.

8.2 A standard cul-de-sac shall be formed at the northern end of Todd Place.

8.3 Any existing on-site parking and manoeuvring areas which are affected by the works shall, as far as practicable, and in consultation with the Auckland ~~City~~ Council, and the affected landowner, be relocated or reinstated to achieve compliance (or not increase non-compliance) with ~~District Plan~~ Unitary Plan standards.

8.4 Alternative access arrangements shall be provided in consultation with the Auckland ~~City~~ Council where existing property access is removed or becomes unsafe as a result of the works.

8.5 Any bus stops, which need to be moved or shifted as a direct result of the proposed works, shall be relocated in consultation with the Auckland ~~City~~ Council.

8.6 Any altered roading or footpath layout or any new roading or footpath layout shall provide safe and efficient space for pedestrian and cycle traffic.

8.7 McManus Place shall be used as a construction access only during construction of the fourth lane to the motorway in its vicinity and during reclamation works as set out in the Construction Management Plan.

## **9. Archaeological and Geological Areas**

9.1 Detailed protocols for the management of archaeological and waahi tapu discoveries shall be specifically discussed with tangata whenua prior to construction.

9.2 If any archaeological sites, including human remains, are exposed during site works then the following procedures shall apply:

- a. Immediately it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- b. The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched;
- c. The site supervisor shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the Department of Conservation, and the ~~Manager: City Planning of the Auckland City Council~~ Auckland Council: Chief Planning Officer that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any authority required from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained.

9.3 Any geological discoveries (such as lava caves) shall be recorded by the Requiring Authority and, where practicable, damage to these features minimised. Records of any such geological discoveries shall be provided to the Auckland Council: Chief Planning Officer ~~Auckland Regional Council and Manager: City Planning of the Auckland City Council~~ for information and future reference.

## **10. Lighting**

10.1 The Requiring Authority shall ensure that lighting is so designed and screened to minimise the amount of lighting over spill and illumination of residential areas.

## **11. Vibration Management Plan**

11.1 A Vibration Management Plan shall be submitted by the Requiring Authority for approval to the Auckland ~~City~~ Council prior to the commencement of the works. The approved plan shall include details of how the works will comply with the requirements of German Standard DIN4150 "Structural Vibration in Buildings – Effects on Structures" during construction. The Requiring Authority shall ensure that all works associated with the designation comply with the approved plan.

## **12. Ecological Impact Mitigation**

12.1 The exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

12.2 Prior to any disturbance or removal of trees subject to general tree protection in the District Plan, the Requiring Authority shall contact Auckland City Council and identify the affected trees and the proposed mitigation works. Mitigation works could include avoiding the tree (if practicable), relocation or removal and replacement.

12.3 Where trees are to be retained and, where practicable, the trees shall be fenced no closer than the drip-line of the tree with a 1.0m high fence. No equipment or material shall be stored within the fenced off area for the duration of the works. Where roots of such trees need to be cut, they shall be cut and treated according to recognised arboricultural practice.

### **13. Protection of Existing Network Utility Operators**

13.1 The Requiring Authority, in consultation with Auckland City Council and ~~Manukau City Council~~ (in its capacity as requiring authority), shall prepare a Network Utility Operators Management Plan that has particular regard to the needs of other network utility operators affected by the proposed works, with the objective of allowing those operators to maintain their existing level of service. The Management Plan shall be prepared after consultation with the various Network Utility Operators and shall address issues such as, but not limited to:

- a. Access;
- b. Protection of existing infrastructure;
- c. Mitigation / remediation measures;
- e. Safety measures;
- f. Landscaping;
- g. Runoff; and
- h. Dust and vibration.

The Management Plan shall be submitted for approval to the Auckland City Council prior to the works commencing and the approved plan subsequently complied with.

13.2 The Network Utility Operators' Plan shall include provision for the following matters in relation to Transpower New Zealand Limited ("Transpower"):

- a. Adequate protection of the six existing transmission lines and Otahuhu Substation from any adverse effects of the proposed works; and
- b. Details of the works that are likely to have an adverse effect on Transpower assets, to be determined in consultation with Transpower, prior to the commencement of any works and shall be included in the approved Management Plan.
- c. Transpower shall be notified of all works likely to adversely affect Transpower assets within a reasonable timeframe, to enable sufficient time for Transpower to plan and carry out any works on its assets required due to the works subject to the designation.

In particular, the Network Utility Operators Management Plan shall address the following matters in relation to Transpower:

- i. Ensure that existing access arrangements to transmission towers are retained where practicable. Where the Requiring Authority requires or causes a change in access arrangements, then alternative arrangements shall be made that ensures safe 4-wheel drive 24hr access to the tower base (including during the construction period) or other options that will enable Transpower to undertake necessary works. Details of such access arrangements are to be provided in the Plan;
- ii. Show final details of the construction of all retaining structures to be constructed within 6 metres of the outer edge of the visible foundation of a transmission tower.
- iii. Ensure that all works comply with the following, unless specifically provided in terms of clause 3(f) below: All mobile plant operated in relation to the proposed works to maintain a 4-metre clearance from Transpower conductors at all times.
  - No temporary buildings, scaffolding or stationary plant be located within 8m of any conductor.

- All earthworks (including stockpiles) underneath the conductors to maintain a minimum of 7.5m vertical clearance distances from conductors at all times.
  - Transpower's written approval is required prior to undertaking any earthworks within 6m of the outer edge of the visible foundation of a transmission tower, or greater than 3m in depth between 6m and 12m from the outer edge of a tower, or any works that could create an unstable batter which may adversely affect a tower.
- iv. Where the Requiring Authority wishes to undertake works or activities within distances specified in the clause above, the Management Plan shall outline the procedures and requirements necessary for Transpower to be able to consider and approve or modify such an encroachment as appropriate.
- v. Final details on suitable vehicle collision protection for the following transmission towers to an agreed standard in consultation with Transpower:
- Tower #4 on the Henderson – Otahuhu A line;
  - Any other towers that are affected as a result of the works subject to the designation.
- vi. Provide a Dust and Vibration Management Plan for the works which shall include mitigation measures to be undertaken to minimise dust and vibration effects on the existing transmission lines and Otahuhu Substation equipment.
- vii. Final details of landscape plantings to ensure that:
- No part of any vegetation will encroach into an area closer than 4 metres to any conductors of the lines. The 4-metre clearance relates to vertical, horizontal and felling distance clearances;
  - Vegetation planted in close proximity to tower bases does not adversely affect existing tower foundations (i.e. cause corrosion by creating a damp environment); and
  - Vegetation does not preclude physical access to a tower.

#### **14. Management Plans, Mitigation Plans and Outline Plans**

14.1 Prior to the commencement of the works, ~~Transit New Zealand~~ the New Zealand Transport Agency (NZTA) shall submit to Council the relevant Management or Mitigation Plans required under Conditions 2.1, 3.1, 4.2, 6.2, 6.5, 11.1 and 13.1 above.

14.2 The Plans shall be submitted to Council as soon as reasonably practicable, and in any event, allowing sufficient time for review by Council and discussion with ~~Transit New Zealand~~ the New Zealand Transport Agency (NZTA).

14.3 Any Management, Mitigation or Outline Plans may be submitted in stages to reflect any proposed staging of the physical works.

14.4 If Council and ~~Transit New Zealand~~ the New Zealand Transport Agency (NZTA) agree on the terms of such Management or Mitigation Plans, that agreement shall be deemed to be a waiver (such waiver may be subject to specific reservations) in relation to that Plan or relevant part of that Plan pursuant to section 176A(2)(c) of the RMA of the requirement for an Outline Plan under section 176A.

14.5 If Council and ~~Transit New Zealand~~ the New Zealand Transport Agency (NZTA) do not agree on the terms of such Plan or Plans, the relevant provisions of section 176A of the RMA shall apply in respect of any part not agreed.

14.6 The works shall be undertaken in accordance with the approved Management or Mitigation Plan or accepted Outline Plan (as the case may be).

#### **Advice Notes**

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.

2. Under the ~~Historic Places Act~~ Heritage New Zealand Pouhere Taonga Act 2014 an Authority to Modify an Archaeological Site is required from ~~the NZ Historic Places Trust~~ Heritage New Zealand before any

work takes place on an archaeological site.

3. Some of the land is subject to existing designations. The provisions of Section 177 of the Resource Management Act 1991 apply accordingly.

4. The Public Works Act 1981 makes provision for the following (among other things):

a. For those landowners whose property is required to be taken (either in whole or in part) for the purpose of the project works, they will have a basic entitlement to compensation under Section 60 of the Public Works Act, irrespective of whether the land is acquired compulsorily or on a willing-buyer, willing-seller basis.

b. Disturbance payments, compensation for loss on repayment of mortgage, and compensation for business loss may in some cases also be claimed under sections 66 to 68 of the Public Works Act.

c. Compensation for injurious affection can be claimed under Section 63 of the Public Works Act.

d. Compensation for tenants under section 75 of the Public Works Act 1981 if vacant possession of the tenant's land or premises is required to carry out the project. This includes certain compensation for removal costs (within a distance of 80 km) for residential and business tenants. The booklet titled "A Guide to Landowners Rights: When the Crown wishes to acquire your Land for a Public Work" published by Land Information New Zealand provides useful information on the entitlements under the Public Works Act. This is not a full description of the compensation available under the Public Works Act. Any landowners/tenants who consider themselves potentially or actually affected by the designation are encouraged to seek their own legal advice in terms of their entitlement.

## Attachments

### **Attachment 1 – Silt and Sediment Control Measures**

#### **SILT AND SEDIMENT CONTROL MEASURES**

##### **EARTHWORKS**

Uncontrolled earthwork activities can remove or smother valuable vegetation and cause silt runoff into streams and coastal waters. This silt can smother biological life and affect fish feeding and breeding areas. By choosing the right methods you can prevent unnecessary soil erosion and help the community protect the streams, beaches and coastal areas of the Auckland region. This pamphlet is aimed at helping you make those choices when planning and carrying out earthworks.

*The land owner is responsible for making sure that any activity disturbing the soil is carried out in a way to prevent soil erosion and to stop sediment entering waterways.*

To carry out earthworks a resource consent may be needed, depending on the area where the work is to take place and the size of the job. You should enquire with Auckland Council, to find out whether a consent is needed. For very large earthworks you may also need a consent from the Auckland Council. The Council has comprehensive guidelines (Technical Publication No 90) which will be helpful for larger projects.

*Regardless of the size of the earthworks, you are required to take the appropriate measures to prevent soil loss and erosion.*

Some facts about siltation

- earthworks sites generate up to 1000 times as much silt as undisturbed land
- doubling the angle of the slope produces a 4 fold increase in silt
- doubling the area of earthworks can produce a 3 fold increase in silt

##### **METHODS TO PREVENT EROSION AND SEDIMENT LOSS**

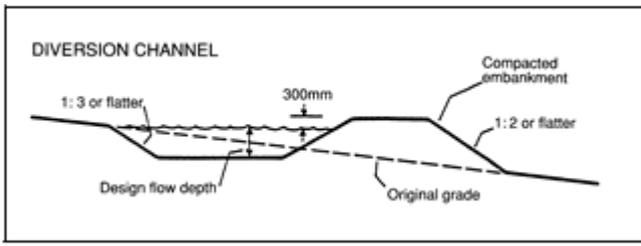
- a. Prevent silt runoff by employing erosion control measures
  - i. expose only as much ground as needed at any one time
  - ii. provide runoff diversion channels, contour drains, or earth bunds to divert clean water away from the site onto stable ground (grassed or sealed)
- b. Use one of more of these sediment control measures to capture silt
  - i. silt fences

- ii. hay bales
  - iii. vegetation buffer strips
  - iv. sediment ponds
  - v. earth bunds
- c. To finish
- i. topsoil and regrass the exposed ground, or cover with a mulch, as soon as possible.

**EROSION CONTROL METHODS**

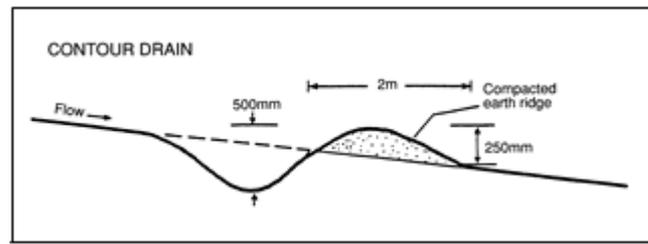
Runoff Diversion Channels

- a. used to protect work areas from up-slope runoff
- b. water from channel can be discharged to areas of vegetation
- c. can be used to divert water to other sediment retention systems
- d. have shallow grades on channel to prevent scouring (1%-2%)
- e. may need to be stabilised against erosion by regrassing



Contour Drains

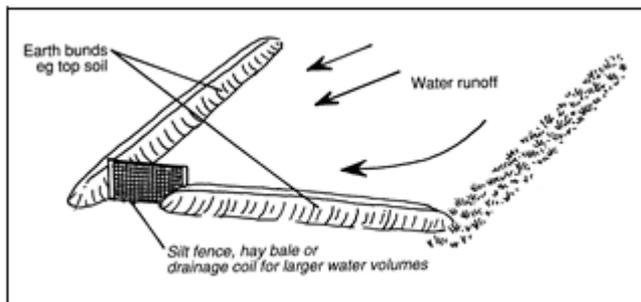
- a. use across earthworks area to break up slope
- b. use more than one drain on steeply sloping sites
- c. decrease spacing of drains as slope increases
- d. water can be discharged to vegetation or into sediment control structures



**SEDIMENT CONTROL METHODS**

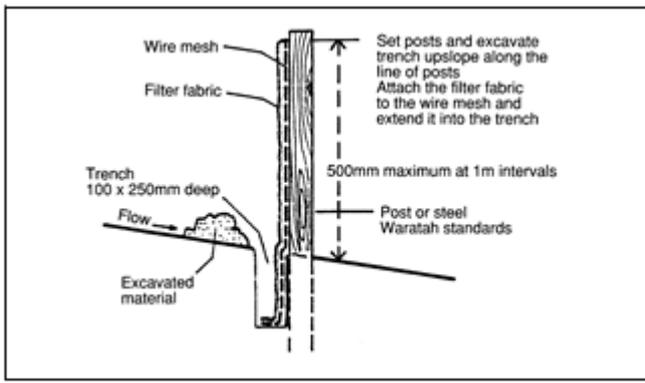
Earth Bunds

- a. construct across slope to control and detain runoff
- b. use near edge of site to prevent sediment from leaving area
- c. can use topsoil from site to create bund



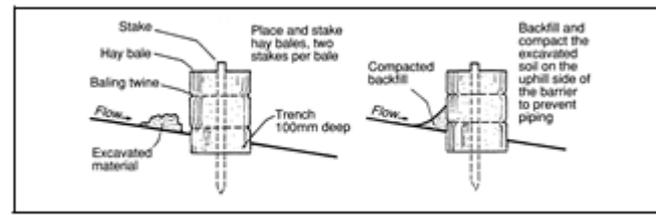
Silt Fences

- a. for small disturbed areas or low slope angles
- b. use more than one on steeply sloping sites
- c. decrease spacing between fences with increasing site slope
- d. filter fabric is stretched between posts at maximum spacing of 1 metre



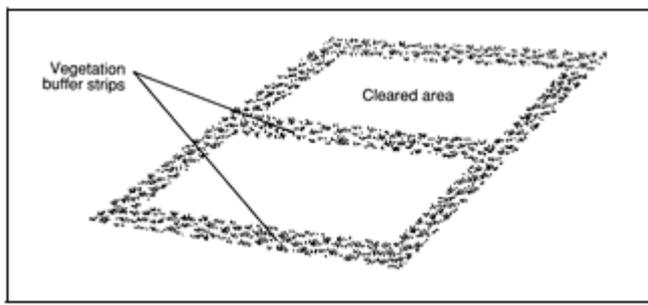
### Hay Bales

- for small sites and short term control
- should be dug into ground, tied together and anchored by staking
- regular inspection and maintenance is essential



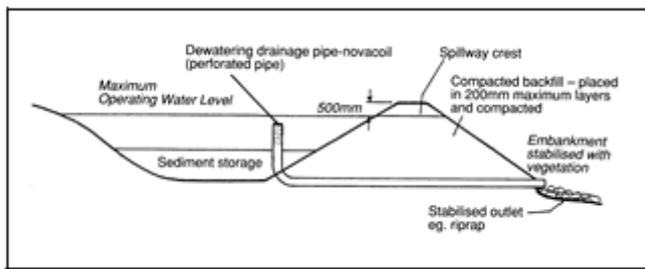
### Vegetation Buffer Strips

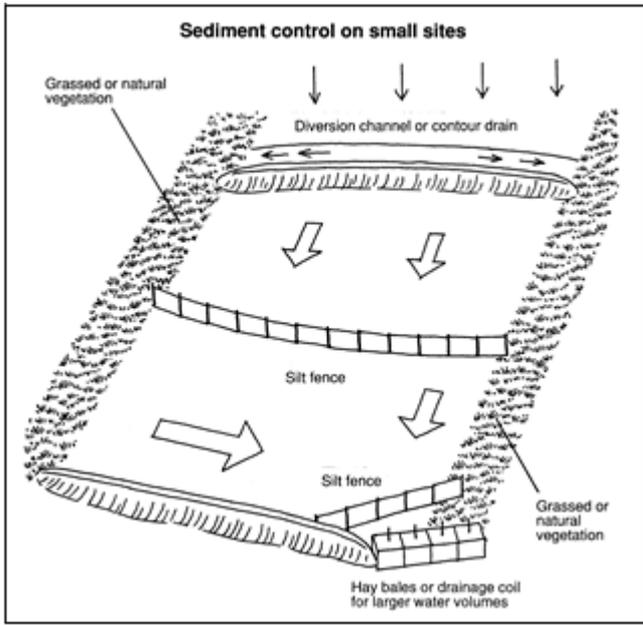
- should always be provided along watercourses
- to filter sediment from overland flow where runoff rates are low and not concentrated
- use more than one buffer strip on steep slopes
- decrease buffer strip spacing with increasing slope
- to keep machinery away from watercourses



### Sediment Ponds

- do not construct in streams
- size at 1-2% of site area (ie 1-2m<sup>3</sup>/100m<sup>2</sup>)
- clean out sediment regularly
- must have dewatering/drainage facility

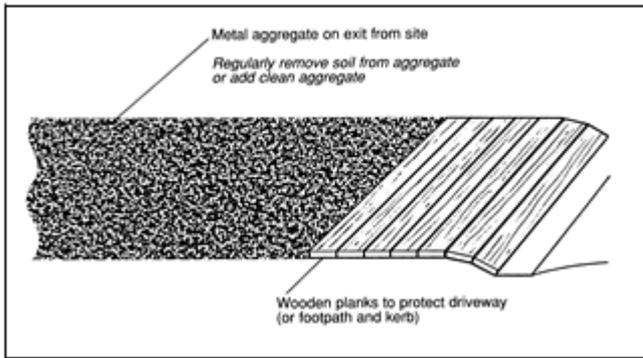




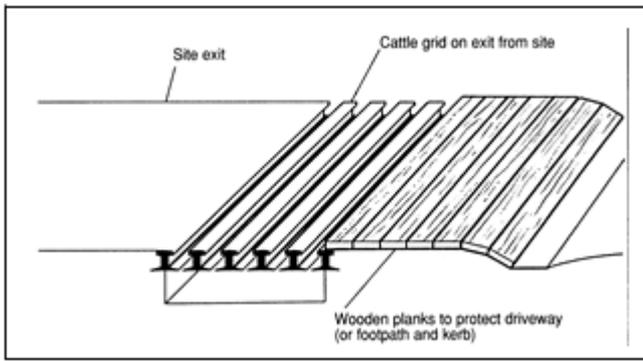
For more details see the Auckland Council publication “Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region” (Technical Publication Number 90).

**KEEPING THE ROADS CLEAN**

It is important that soil from the site is not spread onto the road by vehicle tyres. To prevent this from occurring a stabilised entranceway must be built. The simplest method is to spread metal aggregate on all exitways from the site, where the soil will have a chance to fall off before the vehicle enters the road. Other methods for larger sites are cattle grids or wheel washes. The site manager or site owner is responsible for cleaning up any spilt soil to other materials that get on to the road from the site.

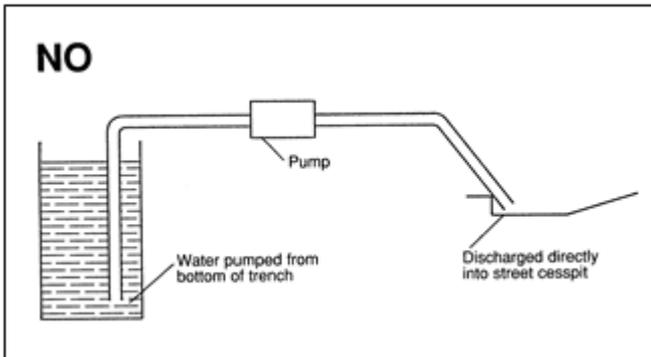
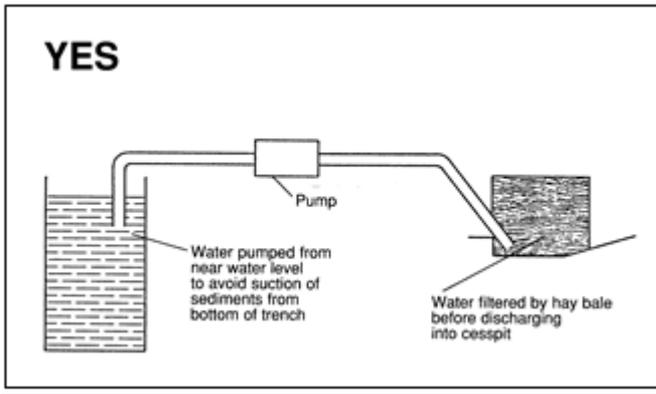


Remember also to protect the footpath, berm and kerb from damage by crossing vehicles.



**PUMPING WATER FROM THE SITE**

If it is necessary to remove water from trenches or other areas of the site, then this should be done in a manner to prevent sediment in the water from entering any drain or watercourse. Water should not be taken from the bottom of any trench and sediment should be properly filtered out from the dirty water by some appropriate means such as the use of hay bales. Once the sediment has been filtered out it can then be discharged to a cesspit or a grassed area, or a watercourse if no other disposal point is available.



~~No attachments.~~

## 6735 State Highway 1 - Victoria Park Tunnel

Designation Number	6735
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Wellington Street to Victoria Park, Auckland Central
Rollover Designation	Yes
Legacy Reference	Designation 283, Auckland Council District Plan (Central Area) 2005
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The designation is to include, and allow for, the control of this State Highway, including planning, design, supervision, construction and maintenance in accordance with the provisions of the Government Roading Powers Act 1989.

## Conditions

### GENERAL

#### 1. General

1.1 Except as modified by the conditions below and subject to final design, the project works shall be undertaken in general accordance with the information provided at the hearing by the Requiring Authority the New Zealand Transport Agency (formerly Transit New Zealand), the Notices of Requirement and the supporting documents, namely:

- 'Harbour Bridge To City Project - Overview, Notices of Requirement and Attachments - Volume 1', prepared for Transit New Zealand by Beca Infrastructure Ltd, dated October 2005;
- 'Harbour Bridge To City Project - Assessment of Environmental Effects - Volume 2', prepared for Transit New Zealand by Beca Infrastructure Ltd, dated October 2005;
- 'Harbour Bridge To City Project - Technical Appendices - Volume 3', prepared for Transit New Zealand by Beca Infrastructure Ltd [et al.] dated October 2005;
- 'Harbour Bridge To City Project -A3 Plans - Volume 4', prepared for Transit New Zealand by Beca Infrastructure Ltd, dated October 2005;

e. Further information provided with the response provided under Section 92 Resource Management Act 1991 (dated 2 February 2006).

Note: The Harbour Bridge to City project has been renamed the "Vic Park Tunnel Project" (the Project).

1.2 As soon as practicable following completion of construction of the Vic Park Tunnel (VPT) Project, the Requiring Authority shall give notice to the Auckland City Council in accordance with Section 182 of the Resource Management Act ("RMA") for removal of those parts of the existing designations (those in existence prior to the lodgement of the new designation subject to condition 1.1 above) between the Auckland Harbour Bridge and Wellington Street overbridge, being:

1. A07-01 'Motorway' and A07-01A 'Motorway': Shelly Beach Priority Lane in the Auckland City District Plan: Isthmus; and
2. 283 'Motorway' in the Auckland City District Plan: Central Area.

1.3 As soon as practicable following completion of construction of the Project, the Requiring Authority shall give notice to Auckland City Council in accordance with Section 182 of the RMA for removal of those parts of the designation which are not required for the long term operation, maintenance and mitigation of effects of the State highway.

*Note:*

This condition is specific to land no longer required for construction purposes once the Project is completed.

1.4 A liaison person shall be appointed by the Requiring Authority for the duration of the Project to be the main and readily accessible point of contact for persons affected by the designation and construction work. The liaison person's name and contact details shall be advised to affected parties by the Requiring Authority. This person must be reasonably available for on-going consultation on all matters of concern to affected persons.

1.5 Where requested by the owners, the Requiring Authority shall physically peg out the extent of the designation boundary on individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is later.

~~1.6 Condition deleted. The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

## **2. Project Management Plan ("PMP") and Outline Plans**

2.1 The Requiring Authority shall prepare a PMP, which shall include mitigation/management plans as referred to in conditions dealing with specific issues below. A schedule of how the subsidiary plans that are required by these conditions relate back to the PMP follows these conditions as Annexure A.

2.2 No works shall be undertaken in any particular location(s) until:

1. The PMP, or such part(s) of the PMP as are relevant to the location(s) are submitted to and approved by the Auckland City Council (~~Group Manager: City Chief Planning Officer~~); and
2. Any outline plan(s) required by section 176A of the Resource Management Act 1991 (RMA) in relation to the works in the location(s), have been submitted to the Auckland City Council.

2.3 Where an outline plan or plans are required by section 176A of the RMA for works in any particular location(s) and the Auckland City Council agrees that the PMP or relevant part(s) of the PMP contains adequate details to satisfy section 176 of the RMA, then the PMP or relevant part(s) of the PMP shall be deemed to be a waiver of the requirement for an outline plan in respect of the works in the particular location(s), as provided for in section 176(2)(c) RMA.

2.4 The works shall be undertaken in accordance with the approved PMP and outline plan of works (where required).

## **3. Other Plans**

3.1 The PMP shall include an Environmental Management Plan (EMP) to be provided to the Auckland City

Council prior to the commencement of works. The purpose of the Environmental Management Plan is to avoid, remedy or mitigate all adverse environmental effects associated with the construction and operation of the Project. The EMP is to include a Construction Environmental Management Plan (CEMP) and Environmental Monitoring Guidelines (EMG).

3.2 The PMP shall include a Construction Management Plan (CMP) to be provided to Auckland City Council (~~Group Manager: City Chief Planning Officer~~) prior to commencement of works. The purpose of the CMP is to avoid, remedy or mitigate any effects of construction, through methods identified in the CMP, including the preparation of management plans. The CMP shall be prepared in consultation with the directly affected parties and parties affected by proximity (including other neighbouring submitters) as shown in Appendix 1 to the decision (refer to Plan Modification 32).

3.3 The CMP shall include specific details relating to the demolition, construction and management of all works associated with the Project, including the details indicated below:

1. Details of the site or project manager, including their contact details (phone, facsimile (if any), postal address, email address);
2. The location of large notice boards that clearly identify the name, telephone number and address for service of the site or project manager;
3. An outline construction programme of the works indicating in particular likely time periods for partial or complete road closures and anticipated traffic diversion effects;
4. Any means to ensure that no damage occurs to street trees throughout the construction period;
5. Any means of protection of services such as pipes and watermains within the road reserve;
6. Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
7. Location of workers' offices and conveniences (e.g. portaloos);
8. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places, including wheel wash for construction vehicles. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
9. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;
10. Procedures for ensuring that blasting events, if any, occur at times least likely to disturb all people in the immediate vicinity of the construction areas, and for reasonable notice or warning of any blasting events to be given;
11. Procedures to be followed to ensure that those working in the vicinity of identified heritage features are aware of the heritage values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
12. Procedures to be followed to ensure that iwi representatives are notified of the proposed commencement of works and of the discovery of any koiwi or other artefacts;
13. Procedures to be followed in the event that any historic artefacts are disturbed, being in accordance with any Authority obtained under the ~~Historic Places Act~~; Heritage New Zealand Pouhere Taonga Act 2014;
14. Means of ensuring the safety of the general public;
15. Methods for receiving and responding to complaints about construction dust and odour from the works;
16. Protocols for offering mitigation such as temporary relocation of households where noise and other impacts cannot be managed to comply with relevant standards.

## **NOISE AND VIBRATION**

### **4. Operational Noise**

4.1 A Noise Management Plan (NMP) shall be prepared by a suitably qualified acoustics expert for the purposes of avoiding, mitigating or remedying any adverse noise effects from the operation of the Project following its construction. The NMP shall be provided to the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) prior to the commencement of works.

4.2 The NMP shall include:

1. General measures to achieve, at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999), including (but not limited to) the following mitigation measures:

- i. the construction of noise walls (to a maximum of 5 metres in height in the St Mary's Bay area);
- ii. the use of Open Graded Porous Asphalt "OGPA" or equivalent material to surface the carriageway;

2. Specific measures for existing dwellings, where these are necessary in addition to the general measures under (a) above to achieve at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999).

4.3 The NMP shall identify the existing dwellings for which specific measures are required in accordance with condition 4.2.2) above. These dwellings are referred to as the 'affected dwelling(s)'.

4.4 Not less than three months prior to the completion of construction of the Project, the Requiring Authority shall give written notice to the owner of each affected dwelling:

1. Advising the options available for mitigation treatment to the affected dwelling and the predicted benefits of implementation of such options in term of noise levels; and
2. Advising that the owner has six months within which to decide whether or not to accept mitigation treatment to the dwelling.
3. Once an agreement on mitigation is reached between the Requiring Authority and the owner, the mitigation shall be implemented in an accepted timeframe between the Requiring Authority and the owner.

4.5 The Requiring Authority shall advise the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) of:

1. All written notices served in accordance with condition 4.4;
2. Any responses received to those written notices;
3. Those affected dwellings in respect of which no response has been received.

4.6 Where specific measures are required for an affected dwelling, the Requiring Authority shall be deemed to have complied with condition 4.1 where:

1. The Requiring Authority has completed noise mitigation treatment to an affected dwelling; or
2. The owner of the affected dwelling has refused to accept the Requiring Authority's offer to implement noise mitigation treatment to the dwelling prior to the expiry of six months after the practical completion of the Project; or
3. The owner of the affected dwelling cannot after reasonable enquiry be found prior to the expiry of six months after the completion of construction of the Project.

4.7 Subject to condition 4.6, all noise mitigation measures identified by the NMP shall be implemented prior to the completion of construction of the Project.

4.8 As required by the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999), measurements of noise levels existing prior to construction shall be used to establish ambient noise levels. Measurements shall be undertaken by a suitably qualified person and the results of 24 hour ambient noise measurements at a total of six (6) positions within 100 metres of the designation boundary, together with site maps and photographs detailing the measurement positions and key data on measurement conditions shall be forwarded to the Auckland City Council (Group Manager: City Planning) prior to the commencement of construction.

4.9 Following completion of the Project, the Requiring Authority shall arrange for an appropriately qualified person to undertake monitoring of the level of traffic noise at the above six (6) sites for which ambient noise level data has been previously recorded, within a period between 2 and 3 years following completion of construction of the Project and shall report the findings of monitoring to the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) within one month of the monitoring being undertaken.

## 5. Operational Vibration

5.1 Vibration levels of the existing State Highway 1 operations shall be measured at critical locations nominated by ~~Transit New Zealand~~ the New Zealand Transport Agency (NZTA), and submitted to the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

## 6. Construction Noise and Vibration

6.1 The Construction Management Plan shall be implemented and maintained throughout the entire demolition and construction periods of the Project and shall include the following:

### Noise

1. The CMP shall include a Construction Noise and Vibration Management Plan (CNVMP) describing the measures adopted to, as far as practicable, meet the requirements of NZS6803:1999 Acoustics - Construction Noise. The CNVMP shall refer to noise management measures set out in Annexure E of NZS6803:1999, and as a minimum shall address the following;

- i. Construction sequence;
- ii. Machinery and equipment to be used, including the use of non-percussive machinery where practicable;
- iii. Hours of operation, including times and days when noisy construction work would occur;
- iv. The design of noise mitigation measures such as temporary barriers or enclosures;
- v. Construction noise limits for specific areas;
- vi. Development of alternative strategies where full compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes;
- vii. Methods for monitoring and reporting on construction noise.
- viii. Methods for receiving and responding to complaints about construction noise.

### Vibration

2. The CNVMP shall also describe measures adopted to, as far as practicable, meet the vibration criteria of the German Standard DIN 4150, and shall address the following aspects:

- i. Vibration monitoring measures;
- ii. Criteria;
- iii. Possible mitigation measures;
- iv. Complaint response;
- v. Reporting procedures;
- vi. Notification and information for the community of the proposed works;
- vii. Vibration testing of equipment to confirm that the vibration limits will not be exceeded;
- viii. Location for vibration monitoring when construction activities are adjacent to critical buildings;
- ix. Operational times;
- x. Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.

## 7. Blasting

7.1 If any blasting is required during construction, it shall be so controlled as to ensure that any ground vibration as a result of any blasting will not adversely affect the structural stability of any building or structure including electrical equipment (that is not connected with the site covered by this designation) or cause any reduction in its utility value. Peak particle velocities measured on any foundation or uppermost full storey of any building not related to the site, which do not exceed the limits set out in Table 1 of German Standard DIN 4150 Part 3:1986 'Structural Vibration in Buildings - Effect on Structures', will be deemed to meet these requirements. Peak particle velocity means the maximum particle velocity in any of the three mutually perpendicular directions. The units are millimetre per second (mm/s).

7.2 The noise created by the use of explosives for blasting shall not exceed a peak overall sound pressure of 128dB (i.e. peak over pressure of 0.05kPa) or alternatively the noise shall not exceed a peak sound level of 122dBC. The measurement shall be made in either case at 1m from the most exposed window or door of any occupied building (that is not subject to this designation).

## CONSTRUCTION TRAFFIC

### 8. Traffic Management Plan

8.1 The Construction Management Plan shall include a Traffic Management Plan (TMP). In developing the TMP:

1. The Requiring Authority shall use advanced traffic modelling tools to better understand the effects of construction of the Project on the affected road network. These tools will be developed and calibrated in conjunction with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) and have the ability to simulate lane restrictions and road closures;
2. The Requiring Authority shall undertake measures to avoid road closures and also the restriction of vehicle and pedestrian movements to the greatest extent practicable. In particular, the measures shall ensure that vehicle and pedestrian accesses in the vicinity of the Victoria Street / Franklin Road intersection are maintained to the greatest extent practicable during the construction period, so as to provide full access for vehicle movements from Franklin Road into Victoria Street and at a minimum left turn access from Victoria Street into Franklin Road.

8.2 The TMP shall describe the measures that will be undertaken to achieve, as far as practicable, the following:

1. Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the Project. In particular, the TMP shall describe:
  - i. Traffic management measures to address and maintain, where practicable traffic capacity, including bus services, at traffic peak hours during week days and weekends in Victoria Street, Beaumont Street, Fanshawe Street, Franklin Road, Cook Street, College Hill and Union Street;
  - ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses (including the restriction of right turn movements into Franklin Road);
  - iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (eg intersections/tunnel) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
  - iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks);
  - v. The numbers, frequencies, routes and timing of construction traffic movements; and
  - vi. Monitoring to measure the impact of traffic, in terms of traffic speeds and volumes on those roads described in 8.2.1(i);
  - vii. Alternative locations to mitigate the temporary loss of off street parking during construction;
  - viii. Traffic management measures to ensure, to the greatest extent practicable, that during the peak trading hours of the Victoria Park New World, namely 4.00pm to 7.00pm on weekdays and 11.00am to 4.00pm on weekends:
    - a. access for vehicle movements from Franklin Road into Victoria Street (and at a minimum left turn access from Victoria Street into Franklin Road) is maintained; and
    - b. access is maintained to the carpark of the Victoria Park New World.
2. Methods to manage the effects of traffic during construction, including the requirement to detour or divert traffic. These methods shall:
  - i. Seek to avoid, remedy or mitigate effects on access to and from residential areas in Franklin Road, Beaumont Street and Victoria Street and the effects of traffic noise at night.
  - ii. Seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area particularly on Franklin Road, Victoria Street and Beaumont Street including the New World supermarket and the Victory Christian Church.
3. Traffic management measures during construction to be developed in consultation with ~~the Auckland Regional Transport Authority (ARTA)~~, Auckland Transport, Bus and Coach Association and the Auckland City Council to address and maintain, where practicable, traffic capacity at peak hours to provide for passenger transport services on the road network.
4. Consultation with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation.
5. Identification of any existing on-site parking and manoeuvring areas which are affected by the works. Then, as far as practicable, and in consultation with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) and the affected landowners, how the affected areas will be relocated or reinstated

to achieve compliance with the Auckland City District Plan: Isthmus Section 1999 or Auckland City District Plan: Central Area Section 2004 or to a similar standard to that existing.

6. Measures to maintain existing vehicle access to the greatest extent practicable or where the existing property access is to be removed or becomes unsafe as a result of the works, to provide alternative access arrangements to an equivalent standard as that removed, as far as practicable, and in consultation with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) and the affected landowner.

7. Details on the maintenance of pedestrian access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable. Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. This shall include the areas of high pedestrian traffic of Fanshawe Street, Wellington Street, Franklin Road, Union Street, Cook Street,

Victoria Street and Beaumont Street as well as Point Erin, St Mary's Bay and Victoria Park reserve areas.

8. Consistency with Transit New Zealand 'Code of Practice for Temporary Traffic Management' (COPTTM).

9. Recognition of the need for the Auckland City Council to access and maintain its roading network during the construction phase of the Project.

10. Recognition of the need to coordinate and to consult directly with the proponents of any major construction occurring concurrently with, and in the vicinity of, the Project during construction.

8.3 During construction of the proposed tunnel, Transit shall ensure that all storage and vehicle parking takes place within the boundaries of the designation or in compliance with all parking restrictions and Council bylaws.

8.4 Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times and not on surrounding streets.

8.5 All storage of materials and equipment associated with the construction works shall take place within the boundaries of the designation.

8.6 Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standard as existed prior to such damage at no cost to the Auckland City Council.

## **OPERATIONAL TRAFFIC**

9. Traffic management measures that are practicable will be developed by ~~Transit~~ the New Zealand Transport Agency (NZTA) in consultation with ~~ARTA~~ Auckland Transport and the Northern Busway partners and implemented, if required, to provide northbound bus priority through the Fanshawe Street / Beaumont Street intersection and the St Mary's Bay section of the motorway corridor.

## **PUBLIC OPEN SPACE AND AMENITY**

### **10. Trees**

10.1 The Requiring Authority is to produce a feasibility report, prepared by a qualified arboriculturalist and transplanting specialist, on transplanting the scheduled London Plane Trees in Victoria Park which are affected by the proposed designation and works to a location to be determined in consultation with Auckland City Council. This feasibility report shall address the likelihood of tree survival, the effects of relocation (temporary or permanent), the timeframes required and their effects on the Project, and the overall benefits/costs. If transplanting one or more of the trees is found to be feasible by the transplanting specialist, and ~~Transit~~ the New Zealand Transport Agency (NZTA) agrees with the estimated cost of transplantation, the transplantation shall be undertaken prior to the commencement of the works in that vicinity. The transplanting shall be accompanied by a maintenance programme approved in advance by the Auckland ~~Council~~ City Arborist.

10.2 The methodology for relocating any such trees shall be approved by the Auckland City Council

Arborist.

10.3 In the event that it is not feasible to transplant one or more of the scheduled London plane trees, their removal shall be mitigated by the planting of an appropriate number of London plane trees in Victoria Park with the intent that the ring of trees that delineates the Park is maintained. The Auckland ~~City~~ Council Arborist is to determine how many replacement trees will be required in the case of each London plane tree so removed. The replacement trees shall be planted within the next available planting season. If the planting positions are not available until after the construction period is complete, the trees shall be grown on in a nursery until required. These trees shall be a minimum of 6m high when planted. Each of the trees shall have a two year maintenance programme approved by the Auckland ~~City~~ Council Arborist. The planting locations for the replacement trees shall be addressed as part of the Requiring Authority's landscape mitigation package and shall be approved by the Auckland ~~City~~ Council Arborist.

10.4 The Requiring Authority shall develop a tree mitigation package comprising transplanting or replanting of trees, and planting of new trees.

10.5 The removal of any elm trees is to follow ~~MAF (Biosecurity New Zealand)~~ Ministry of Primary Industries requirements. All plant and machinery used during any such removal must be cleaned before off-site use.

10.6 Monitoring of the groundwater conditions is to be undertaken around trees in the vicinity of the tunnel excavation during construction. If, in the opinion of the Auckland ~~City~~ Council Arborist, groundwater levels decline to a level that may adversely affect tree health, appropriate remedial measures shall be undertaken by the Requiring Authority to the satisfaction of the ~~City~~ Council Arborist.

10.7 Conditions 10.8 to 10.15 apply to trees within the designation area that would be subject to Tree Protection rules under the underlying zoning provisions of the District Plan ("Protected Trees").

10.8 Removal, trimming/pruning or works within the drip line of Protected Trees shall be limited to those trees identified in Appendix 2 of the decision (refer to Plan modification 32). A tree may be added to this Appendix with the approval of the Auckland ~~City~~ Council Arborist.

10.9 A suitably experienced, Council approved arborist ('nominated arborist') shall be employed by the Requiring Authority for the duration of the works, at the Requiring Authority's expense, to monitor, supervise and direct all works within the drip line or in the vicinity of those Protected Trees to be retained.

10.10 Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions of designation that pertain to the retained vegetation are explained by the nominated arborist to all contractors or sub-contractors who will be working on site within the drip-line of, or adjacent to, any protected vegetation that is covered by the designation.

10.11 A copy of the conditions of designation pertaining to the Protected Trees shall be held at the main construction site office, on site, at all times.

10.12 The following measures shall be taken in respect of the remaining Protected Trees within the designation area:

1. Prior to the commencement of construction activity temporary protective fencing shall be erected around the Protected Trees to be retained, and shall remain in place for the duration of the Project. The purpose of the temporary protective fencing is to provide an area around the retained trees that will facilitate their successful retention during the construction process. The parameters of the enclosure shall be as directed by the nominated arborist.
2. Except as provided for in conditions below, the area within the temporary protective fencing shall be considered a total exclusion zone. The Requiring Authority and/or its agents shall not:

- i. Enter into the delineated area without prior consultation and agreement from the nominated arborist;
  - ii. Alter the dimensions of the delineated area without prior consultation and agreement from the nominated arborist;
  - iii. Store diesel, cement, building materials, site huts, spoil, equipment, or machinery within the delineated area;
  - iv. Spill substances likely to be injurious to tree health within seepage distance of the delineated area
3. The temporary protective fencing shall be constructed with a solid face (e.g. plywood or corrugated iron) and attached to a sturdy framework of freestanding scaffolding or posts. It must be constructed to a minimum height of 1.8m and must remain in place for the duration of the Project.

10.13 The nominated arborist shall undertake all necessary trimming and pruning works, including the pruning of tree roots uncovered during excavations. Exposed roots shall be covered and kept moist.

10.14 The nominated arborist shall undertake a tree monitoring program throughout the construction phase, including monitoring of:

- a. The condition repair and location of the temporary protective fencing;
- b. Any excavation within the drip line of Protected Trees;
- c. General tree health; and
- d. Compliance with the conditions of designation by way of fortnightly inspections during the construction period. A copy of the monitoring results from each visit shall be sent to the Auckland ~~City~~ Council Arborist, with one copy being retained on site by the Project Manager, while a further copy is to be retained by the nominated arborist.

10.15 During the construction process the Requiring Authority shall implement, where practicable, any recommendations made by the nominated arborist on the installation of irrigation systems, mulch, or remedial pruning works if they are required to improve tree health.

## **11. Auckland City Parks and Reserves**

11.1 The design of the Victoria Park tunnel shall not preclude undergrounding of the southbound carriageway in the future.

11.2 The design of the Victoria Park tunnel shall not unreasonably preclude surface parks and recreational land uses from locating above it.

11.3 All land owned by the Auckland ~~City~~ Council shall be restored to its pre-construction state, or as otherwise agreed by the Auckland ~~City~~ Council (Manager Property Group) and the Requiring Authority in accordance with the Urban Design and Landscape Mitigation Plan.

11.4 Any structures and associated infrastructure required to be located within Victoria Park to provide emergency access to and egress from the Victoria Park tunnel shall be:

1. Made as unobtrusive as practicably possible, while achieving their necessary functionality;
2. Located in a manner consistent with existing buildings and site features, or otherwise near the periphery of Victoria Park, to the extent practicable;
3. If possible integrated into other Park features or structures;
4. Suitably designed and landscaped to minimise their adverse effects.

11.5 The design and location of any such structures in Victoria Park shall be approved by the Auckland ~~City~~ Council (~~Group Manager: City Chief Planning Officer~~) prior to its construction.

11.6 A site-specific slope stability assessment shall be carried out by a suitably qualified engineer for the southern abutments of the Shelly Beach Road overbridge and Jacob's Ladder Pedestrian Bridge, as well as at any location where Tunnel Project works are within 10m of the St Mary's Bay cliff face. Where a moderate or greater risk of instability is assessed as a result of works on the Project, a slope movement monitoring system shall be installed with site-specific stability criteria and trigger levels. If the slope movement monitoring system observes deformation in excess of specified trigger levels as a result of the

Project works, Auckland City Council (~~Group Manager: City Chief Planning Officer~~) in consultation with ~~Transit~~ the New Zealand Transport Agency (NZTA)'s nominated contractor shall coordinate the appropriate remedial actions. Where practicable, stabilisation works shall be undertaken in a manner that is sensitive to the natural character and gateway values of this area.

## **12. Integrated Urban Design and Landscape Mitigation Plan**

12.1 The PMP shall include an integrated Urban Design and Landscape Mitigation Plan ("UDLMP") to be provided to the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) prior to or together with the outline plan of works for the Project or relevant Project stage. The UDLMP shall be prepared by a suitably qualified person or persons and shall take into account the following:

1. Transit New Zealand's "Guidelines for Highway Landscaping" (dated September 2002);
2. Transit New Zealand's "Central Motorway Improvements: Urban Design Framework" (dated 6 September 2001); and
3. Transit New Zealand's "Urban Design Implementation Principles" (2006).

12.2 The UDLMP is to be based on the draft "Vic Park Tunnel Urban Design Framework" dated 20 October 2006, prepared for Transit New Zealand by Boffa Miskell Limited, and shall include the following key principles:

1. The importance of the tree-lined St Mary's Bay cliffs as a gateway to Auckland City;
2. The existing landscape values of the area;
3. Treatment of the motorway corridor subject of the notices of requirement in a unified way;
4. The considered and careful use of major structural elements;
5. The design of noise barriers as possible sculptural elements (i.e., well designed, elegant and functional structures) but without detracting from principles 1 and 2 above;
6. Support for a strong pedestrian experience;
7. Recognition of Maori values, associated with the history of settlement and use of the area, including the connection with Watchmans Island (Motu Ngaengae) and the former pa site on Te To headland.

12.3 The UDLMP shall consist of:

1. The Final Urban Design Framework: The Framework shall depict the overall urban design concept, the design intent, layout and mitigation proposals for key components and areas (or sectors) of the Project, and provide a framework for the design, layout, landscape planting and streetscape measures. The Framework will:
  - i. Be determined in consultation with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~) and relevant iwi (by way of a joint working party);
  - ii. Consider further comments that may be obtained from the Auckland City Council Urban Design Panel (which shall be obtained prior to lodgement of the UDLMP with the Auckland City Council (~~Group Manager: City Chief Planning Officer~~); and
  - iii. Consider further comments from a stakeholder workshop to which affected parties listed in Appendix 1 to the decision (refer to Plan Modification 32) will be invited.
2. Detailed Design Plans: These plans shall depict landscape and streetscape design elements for the Project, as appropriate, and shall consist of:
  - i. An overall "masterplan" of the Project showing the location and extent of landscape and streetscape improvements and mitigation measures;
  - ii. Where required, detailed concept plans for each sector of the route, including cross-sections and elevations of common and site-specific landscape and streetscape elements.

### **12.4 Contents of detailed design plans.**

1. Streetscape elements to be included in the detailed design plans as described in condition 12.3 (2.) shall include:
  - i. Noise attenuation barriers no greater than 5m in height;
  - ii. Road safety barriers;
  - iii. Retaining walls;
  - iv. External appearance and safety consideration (eg stone-throwers) of tunnel portals, the edges of the tunnel portal approaches, and emergency egress;

- v. The relocated Birdcage (Rob Roy) Hotel and surrounding Franklin Road precinct;
- vi. Open space in front of the relocated Birdcage Hotel and between the southern tunnel portal and Franklin Road;
- vii. Replacement of pedestrian and park facilities displaced by the Project;
- viii. The new pedestrian footbridge and other new pedestrian facilities proposed by the Project, including those within the St Mary's Bay reserve and Victoria Park;
- ix. Local road reserves affected by the designation, including Franklin Road, Victoria Street, Beaumont Street, and Fanshawe Street;
- x. The Fanshawe Street/Beaumont Street intersection and the Victoria Street West/Franklin Road/Union Street intersection, including the following elements:
  - Sensitivity to the safety of pedestrians;
  - Improved pedestrian linkages;
  - Consistency with local traffic plans and requirements;
  - Landscaping and design consistent with the Urban Design Framework which also recognises the setting and context of the surrounding area including significant cultural and historic features (if any);
- xi. Streetlights and sign gantries;
- xii. Preservation of the Jacob's Ladder pedestrian route in recognition of that route's historic significance and social value.

2. Landscape elements to be included in the detailed design plans as described in 12.3 (2) shall include the following:

- i. A plan for the St Mary's Bay Reserve from Shelley Beach Road through to Beaumont Street, developed in accordance with the following concepts:
  - The final Urban Design Framework;
  - The recognition of the tree-lined St Mary's Bay cliffs as a gateway to Auckland City; The existing high natural character of the area;
  - The importance of good pedestrian linkages including footpaths, boardwalks and the access to the pedestrian overbridge and Jacob's Ladder;
  - The need for ground contouring and landscaping which avoids surface water ponding, where practicable, and that is sensitive to user amenity and safety and the ability to appreciate existing views, having regard to the effects of any noise barriers that are installed;
  - Replacement and replanting of trees affected by the works and noise barrier.
- ii. A plan for the western end of Victoria Park, developed in accordance with the following concepts:
  - The Victoria Park Management Plan (2005);
  - The final Urban Design Framework;
  - Recognition of the existing character and design of the Park;
  - The maintenance of a ring of Plane Trees and the location of landscaping features having regard to the amenity of the Park;
  - Public access and use including access ways and recreational activities;
  - Effective and imaginative use of the space directly under the viaduct structure;
  - Minimising the effect of the location and design of any structures and associated infrastructure required for emergency access to or egress from the tunnel;
  - Areas identified for active recreation including re-establishment of existing activities or new activities such as playgrounds etc and associated parking.
- iii. Specific vegetation removal and modification plans showing all scheduled and non-scheduled trees and significant vegetation to be removed/relocated/modified and the landowner(s) involved;
- iv. Specific planting plans showing the trees and vegetation to be retained, all new planting, and a detailed plant list and specifications including number, size and species;
- v. Planting programme - the staging of planting in relation to the construction programme;
- vi. Detailed specifications relating to (but not limited to) the
  - following: Vegetation protection (for desirable vegetation to be retained); Weed control and clearance;
  - Ground preparation (topsoiling and decompaction to ensure rapid plant establishment and ongoing

vigour); Mulching;

- Plant supply and planting;
- Maintenance regime (requirements and programme);
- Performance standards (for site preparation, plant supply, planting and maintenance).

12.5 Where appropriate, landscape mitigation proposals outside of the designation (e.g. Victoria Park, St Mary's Bay reserve, Westhaven Drive and Point Erin) may be agreed by the Requiring Authority with the appropriate landowner and subsequently implemented.

12.6 In developing the UDLMP consideration shall also be given to:

1. Other measures that may assist the Auckland City Council to promote safety and security for local residents and open space users;
2. Other measures to assist the Auckland City Council to promote a positive pedestrian experience within the Project area, including the development of pedestrian links in Freeman's Bay (Napier Street to the Birdcage Hotel), through Victoria Park and the St Mary's Bay reserve;
3. Cooperating with the Auckland City Council to identify and to provide opportunities to accommodate any stakeholder funded art works;
4. The requirement that ~~Transit's~~ the New Zealand Transport Agency (NZTA)'s financial commitment to the urban design process is limited to the mitigation of Project-related effects resulting from within its designation.

12.7 The noise barrier along the St Mary's Bay Reserve shall be designed in accordance with the principles of the Urban Design Framework. This design shall take into account the following considerations:

- The provision of acoustic barriers beside the carriageway to achieve, at a minimum, compliance with the Transit New Zealand 'Guidelines for the Management of Road Traffic Noise - State Highway Improvements' (December 1999). Such barriers, where appropriate, shall be transparent.
- Allowing maximum appreciation by southbound motorists of the gateway effect of the tree-lined cliffs;
- Allowing good views of the Westhaven Marina and the Waitemata Harbour from properties on the cliffs and also from the adjacent walkway;
- Making the barrier itself an attractive landscape element;
- The cost, constructability, and the maintenance requirements of the barrier (including cleaning, removal of graffiti and any advertising posters).

12.8 A management and maintenance plan shall be prepared by the requiring authority and implemented for all noise barriers to ensure that, to the extent practicable, the barriers are continually maintained in good condition and free of graffiti and other defacements that may affect the visual amenity of the surrounding areas.

12.9 Prior to planting and throughout the ensuing maintenance period, all weed species declared as plant pests in the Auckland region by the ARC Auckland Council (including Total Control/Containment Pests/Surveillance Pests & Research Organisms) shall be controlled and removed from the designated areas by the requiring authority

12.10 In areas where shrub mixes are used, planting densities shall ensure low canopy coverage has been attained by the end of the maintenance period, which will run for three years following the completion of the construction works.

12.11 Where native plants are used, the composition shall reflect the natural plant associations of the area, and the mixes (where relevant) shall be of suitable richness and diversity to encourage self-sustainability once established. This will require the inclusion of appropriate successional species, including canopy tree species either in the initial planting mix or as enrichment planting.

12.12 Where practicable, any planting utilising native plants shall use plants genetically sourced

from the ecological district.

12.13 Planting areas shall be mulched using suitable weed-free, granular organic mulch. The only exceptions to this shall be where the slopes are too steep to allow for its retention. In such cases a neutral or black coloured biodegradable or photodegradable geotextile is to be used.

12.14 The landscaping shall be implemented in accordance with the UDLMP 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 3 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.

### **13. Lighting**

13.1 Motorway lighting should be designed and screened to minimise the amount of lighting overspill and illumination of residential areas.

## **AIR QUALITY**

### **14. Dust**

14.1 The Requiring Authority shall ensure that the Construction Environmental Management Plan developed for the Project contains measures to control dust, generated during the construction process, in order to minimise dust deposition and nuisance beyond the designation boundaries.

### **Contaminated site/odour**

14.2 The Requiring Authority shall ensure that the Construction Environmental Management Plan developed for the Project contains appropriate mitigation measures to control offensive odours, generated as a result of the construction process, occurring beyond the designation boundaries.

### **15. Monitoring and Review**

15.1 At least 6 months prior to commencement of construction of the project, an air quality monitoring station is to be established at a site comparable with the station located within the car park of the Victory Christian Church during 2005 / 2006.

1. The station will monitor the following parameters for a period of six months prior to construction of the project commencing:

- i. Fine particulates (PM10) in accordance with the specifications given in the National Environmental Standards, Air Quality;
- ii. Meteorological measurements of wind speed, wind direction and temperature.

2. The station will monitor the following parameters during construction of the project:

- i. Dust, measured as Total Suspended Particulates (TSP) using a continuous particulate monitor equivalent to that used to measure fine particulates prior to construction;
- ii. Meteorological measurements of wind speed, wind direction and temperature.

3. The station will monitor the following parameters for a period of twelve (12) months after completion of construction of the Project:

- i. Fine particulates (PM10), carbon monoxide (CO) and oxides of nitrogen (NOx) in accordance with the specifications given in the National Environmental Standards, Air Quality;
- ii. Meteorological measurements of wind speed, wind direction and temperature.

4. Results of the monitoring in summary form, assessed against the National Environmental Standards, Air Quality and the Auckland Regional Council target values, shall be reported quarterly to the Auckland City Council.

15.2 Prior to commissioning of the air quality monitoring station, ~~Transit the New Zealand Transport Agency (NZTA)~~ will submit a plan to the Auckland City Council ~~(Group Manager: City Chief Planning~~

~~Officer~~ detailing how it will comply with condition 15.1 above.

## **16. Iwi Matters, Archaeological, Heritage**

16.1 An Auckland ~~City~~ Council approved and qualified archaeologist and a Kaitiaki monitor approved by Ngati Paoa and Ngati Whatua shall be provided with 7 working days' notice of the commencement of initial earthworks for the Project in relation to each of the tunnel alignment, its approaches, the basement excavation of the Birdcage Hotel and the relocation site for the Hotel in order that they may be present to monitor those activities.

16.2 Detailed protocols for the management of archaeological, koiwi and waahi tapu discoveries shall be developed in conjunction with tangata whenua prior to construction.

16.3 If any koiwi are exposed during site works the following procedures shall apply:

- a. Immediately after it becomes apparent that koiwi have been exposed, all site works in the immediate vicinity shall cease;
- b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched;
- c. The Requiring Authority shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, the Auckland ~~City~~ Council (~~Group Manager: City Chief Planning Officer~~) and, where appropriate, the New Zealand Police as soon as possible so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the koiwi until any approval required has been obtained.

16.4 The Requiring Authority shall develop a methodology and monitoring programme for the relocation and restoration of the Birdcage Hotel (formerly the Rob Roy) to be agreed in writing by the Auckland ~~City~~ Council (~~Group Manager: City Chief Planning Officer~~) prior to the works commencing and shall:

- a. Take into account the Conservation Plan undertaken by Matthews and Matthews Architects, dated January 2003, and in particular, the policies and schedule of significant features; and
- b. Include an inventory of those parts of the Birdcage Hotel (interior and exterior) which are proposed to be: left in place and protected during relocation; removed and reinstated; and those to be removed and not reinstated;
- c. Include a schedule of the planned restoration and reinstatement works for the Birdcage Hotel and surrounds (including the forecourt area) and additions to the building as part of the relocation; and
- d. Include regular liaison and consultation with the Auckland ~~City~~ Council (~~Group Manager: City Chief Planning Officer~~) and ~~the New Zealand Historic Places Trust~~ Heritage New Zealand during the relocation phase.

16.5 All work concerned with the relocation and restoration of the Birdcage Hotel as approved under Condition 16.4 shall be carried out under the direction of an appropriately qualified architectural conservation specialist, the appointment of whom is to be agreed in advance in writing by the Auckland ~~City~~ Council (~~Group Manager: City Chief Planning Officer~~).

16.6 Prior to the commencement of construction activities in the vicinity of the Campbell Free Kindergarten, a Condition (Dilapidation) Report on the structure of the Kindergarten building shall be agreed in writing by the Auckland ~~City~~ Council (Manager Property Group) and shall:

- a. Be prepared by a suitably qualified building certifier;
- b. Make any necessary recommendations for reinforcing the Kindergarten;
- c. Include a definition of the level of effects to be considered 'significant' pursuant to Condition 16.8; and
- d. Include consultation by the requiring Authority with ~~the New Zealand Historic Places Trust~~ Heritage New Zealand.

16.7 Prior to the commencement of construction activities in the vicinity of the Campbell Free Kindergarten, the structure of the Kindergarten building shall be reinforced as per the recommendations of the Condition (Dilapidation) Report of Condition 16.6. This reinforcement work shall be certified by a building certifier familiar with the Condition (Dilapidation) Report and shall be completed, inspected and

agreed in writing by the Auckland City Council (Manager Property Group) prior to the Project works commencing.

16.8 During construction, the effects of vibration on the Birdcage Hotel, Campbell Free Kindergarten, Auckland Municipal Destructor and Depot (also known as the Victoria Park Market) and the former Auckland Gas Company buildings in Beaumont Street shall be monitored by the Requiring Authority and the results of the monitoring provided to the Auckland City Council (~~Group Manager: City Chief Planning Officer~~). Appropriate action shall be undertaken if the effects of vibration are significant, including any reasonable restoration or reconstruction of any heritage elements of the buildings noted above, and in the event of damage or failure as a direct result of the Project works, at the cost of the Requiring Authority and to the written approval of the Auckland City Council.

16.9 Prior to the commencement of the Project works, recording of the historical significance of the HMNZS Ngaona, including exterior and interior photographic archival documentation, shall be undertaken and a report prepared. This report is to be completed in consultation with ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and the Auckland City Council.

## SERVICES

### 17. Infrastructure Service Networks

17.1 The Requiring Authority shall liaise with the providers of infrastructure service networks including, but not limited to: water, gas, stormwater, wastewater, power and telecommunications, to develop methodologies and timing for necessary services relocation with the objective of minimising disruption to the operation of these networks during construction of the Project.

### Advice Notes

1. The Requiring Authority shall obtain all other necessary consents and permits and comply with all relevant Auckland City Council bylaws, and obtain any approvals under the Reserves Act (where required.)

2. The Requiring Authority shall obtain all necessary resource consents and permits in relation to sediment and stormwater discharges from the Auckland ~~Regional~~ Council.

3. Under the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, an Authority to Modify an Archaeological Site is required from ~~the NZ Historic Places Trust~~ Heritage New Zealand before any work takes place on an archaeological site.

4. All archaeological sites are protected under the provisions of the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014. It is an offence under that Act to modify, damage or destroy any archaeological site, whether the site is recorded or not. Application must be made to ~~the NZ Historic Places Trust~~ Heritage New Zealand for an authority to modify or destroy archaeological site(s).

5. Some of the land is subject to existing designations and the provisions of Section 177 of the Resource Management Act 1991 apply accordingly.

## Attachments

No attachments.

### 6736 State Highway 1 and 16 - Central Motorway Junction, Auckland Central

Designation Number	6736
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 and 16 from Grafton Road, Grafton to Wellington Street, Auckland Central and State Highway 16 from Parnell Rise to Newton Road, Auckland Central

Rollover Designation	Yes
Legacy Reference	Designation 284, Auckland Council District Plan (Central Area) 2005
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The designation is to include, and allow for, the control of this State Highway, including planning, design, supervision, construction and maintenance in accordance with the provisions of the Government Roadway Powers Act 1989.

## Conditions

1. Prior to the lodgement of any outline plan of works for activities on the following sites:
  - a. 11 Stanley Street (Lot 11 DP 19627);
  - b. 13-15 Stanley Street (Part Allotment 19 Section 9 Auckland City);
  - c. 17 Stanley Street (Lot 3 DP 19627);
  - d. 21 Stanley Street (Lots 1 and 2 DP 19627);
  - e. 1-3 Beach Road (Lot 15 DP 19627);
  - f. 17-35 Beach Road (Lots 8, 9 and 10 DP 19627); and
  - g. 20 Churchill Street (Lot 7 DP 19627).

The NZTA will consult with ~~the NZ Historic Places Trust~~ Heritage New Zealand and Ngati Whatua o Orakei regarding the effects of the works on historic features on the affected sites.

## Attachments

No attachments.

### 6738 State Highway 16 - Te Atatu

Designation Number	6738
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from Whau Creek to Henderson Creek, Te Atatu
Rollover Designation	Yes
Legacy Reference	Designation NZTA1, Auckland Council District Plan (Waitakere Section) 2003
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Alteration to designation NZTA1, SH16, between Whau River and Henderson Creek, to include widening of the SH16 carriageway, modifications to the existing Te Atatu interchange, ancillary safety and operational services, temporary works, a cycleway and pedestrian path, and ancillary works and services – NOR1.

## Conditions

For a complete set of conditions, refer to the Waterview Connection Proposal Board of Inquiry decision titled "Final Report and Decision of the Board of Inquiry into the New Zealand Transport Agency Waterview Connection Proposal - Volume 2" dated June 2011.

### **General Designation Conditions**

#### **DC.1**

Except as modified by the conditions below, the works shall be undertaken in general accordance with the information provided by the New Zealand Transport Agency (NZTA being the Requiring Authority), the Notice(s) of Requirement and the supporting documents, and supplementary information provided in evidence. This information is summarised as follows:

(a) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Parts A- E;

(b) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part F: Plans and Drawings, except as updated through the hearing (Refer Schedule A for current plan and drawing references); and

(c) Waterview Connection Project. Assessment of Environmental Effects Report (dated August 2010). Part G: Technical Reports:

(i) Technical Report G.1 Assessment of Air Quality Effects

(ii) Technical Report G.2 Assessment of Archaeological Effects

(iii) Technical Report G.3 Assessment of Avian Ecological Effects

(iv) Technical Report G.4 Assessment of Coastal Processes

(v) Technical Report G.5 Assessment of Construction Noise Effects

(vi) Technical Report G.6 Assessment of Freshwater Ecological Effects

(vii) Technical Report G.7 Assessment of Groundwater Effects

(viii) Technical Report G.8 Assessment of Herpetofauna Ecological Effects

(ix) Technical Report G.9 Assessment of Land and Groundwater Contamination

(x) Technical Report G.10 Assessment of Lighting Effects

(xi) Technical Report G.11 Assessment of Marine Ecological Effects

(xii) Technical Report G.12 Assessment of Operational Noise Effects

(xiii) Technical Report G.13 Assessment of Ground Settlement Effects

(xiv) Technical Report G.14 Assessment of Social Effects

(xv) Technical Report G.15 Assessment of Stormwater and Streamworks Effects

(xvi) Technical Report G.16 Assessment of Temporary Traffic Effects

(xvii) Technical Report G.17 Assessment of Terrestrial Vegetation Effects

(xviii) Technical Report G.18 Assessment of Transport Effects

(xix) Technical Report G.19 Assessment of Vibration Effects

(xx) Technical Report G.20 Assessment of Visual and Landscape Effects

(xxi) Technical Report G.21 Construction Environmental Management Plan (CEMP)

(xxii) Technical Report G.22 Erosion and Sediment Control Plan (ESCP)

(xxiii) Technical Report G.23 Coastal Works

(xxiv) Technical Report G.24 Geotechnical Interpretive Report

(xxv) Technical Report G.25 Traffic Modelling Report

(xxvi) Technical Report G.26 Operational Model Validation Report

(xxvii) Technical Report G.27 Stormwater Design Philosophy Statement

(xxviii) Technical Report G.28 Geotechnical Factual Report – 500 Series

(xxix) Technical Report G.29 Geotechnical Factual Report – 700 Series

(xxx) Technical Report G.30 Assessment of Associated Sediment and Contaminant Loads

(xxxi) Technical Report G.31: Technical Addendum Report (September 2010)

(d) PT & Active Mode Transport Routes Existing and Proposed (Refer Schedule A, Row 22).

(e) Waterview Connection Project, Evidence and Supplementary Information provided to the Board of Inquiry:

(i) Evidence in Chief (Numbers 1-37)

(ii) Rebuttal Evidence (Numbers 1-33)

(iii) Supplementary Information (Numbers 1-8)

#### **DC.1A**

Within 3 months of the designations being confirmed for the Project (or at least 1 month prior to any

Auckland Council approvals or certifications required by these Conditions, whichever is the earlier), the NZTA shall update and finalise to the satisfaction of the Major Infrastructure Team Manager, Auckland Council all drawings and Plans cited in Schedule A, and provide a full set of the information and documentation referred to in Condition DC.1 to the Major Infrastructure Team Manager Auckland Council. At the same time the NZTA shall prepare to the satisfaction of the Major Infrastructure Team Leader, Auckland Council, a document for each designation which sets out the designation and have attached to it in text format a comprehensive set of the conditions imposed by the Board of Inquiry in its Final Decision as summarised in Schedule B, inclusive of any standard conditions and advice notes.

In particular (but not limited to), the following Plans will need to be amended in light of these Final Conditions:

- (a) F.2 Operational Scheme Plans (refer Schedule A, Row 3) require amendment detailing the amended location of the ventilation stacks and southern ventilation buildings;
- (b) F.5 Construction Scheme Plans (refer Schedule A, Row 4) require amendment to detail changes to the construction footprint for the amended location of the ventilation stacks and southern ventilation buildings and reconfiguration of Construction Yard 1);
- (c) F.6 Construction Yard Plans 101 and 107 (refer Schedule A, Row 7), detailing amendments to the Construction Yard 1 in light of the reconfiguration of this Yard and for Construction Yard 7 in light of the relocation of the northern ventilation stack (refer Schedule A, Row 34);
- (d) F.8 Plans of Structures and Architectural Features (refer Schedule A, Row 9), detailing the amended location of the northern ventilation stack and the design and location of the southern ventilation building and stack;
- (e) The CNVMP (including flow diagram and the supplementary evidence produced by Ms Wilkening) (refer Schedule A, Rows 36, 37 and 39);
- (f) The areas of the Open Space Restoration Plans (Schedule A, Row 30) to:
  - (i) Extend these areas in geographic extent to provide for the works identified in the Management Plan notations identified in the OS Conditions (in particular OS.5 and OS.6) (e.g. these areas will (as relevant) include Eric Armishaw Park, Howlett Reserve and Waterview Esplanade Reserve); and
  - (ii) Exclude the operational area of designation required for the northern ventilation stack (as identified through the OPW process (refer Condition DC.8); and
- (e) Schedule A, Row 28 the Plan detailing proposed open space impacts and replacements needs to be updated to recolour the two land parcels on Hendon Avenue (which are excluded from the replacement calculations) to 'brown' to confirm they are part of the operational impact and will not be returned as open space.

#### DC.2

~~Condition deleted. The period within which this designation shall lapse if not given effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act 1991.~~

#### DC.3

The NZTA shall update and finalise the relevant Construction and Operational Management Plans required under these conditions to ensure compliance with the designation conditions imposed by the Board of Inquiry. The relevant Management Plans shall be submitted to the Major Infrastructure Team Manager, Auckland Council within the timeframes specified in the following conditions. No works shall be undertaken until the relevant management plans have been finalised and certified or approved in accordance with the relevant conditions.

#### DC.4

Any Management Plans submitted to the Major Infrastructure Team Manager, Auckland Council for approval or certification may be submitted in stages to reflect any proposed staging of the physical works. Plans submitted shall clearly show the integration with adjacent stages and interrelated activities.

#### DC.5

In the event of any dispute, disagreement or inaction arising as to any Auckland Council Manager

certification/ approvals required by the designation conditions, or as to the implementation of or monitoring required by the conditions, matters shall be referred in the first instance to the NZTA Regional State Highway Manager and to the Resource Consents Manager, Auckland Council to determine a process of resolution. If a resolution cannot be agreed, then the matter may be referred to an independent appropriately qualified expert, agreeable to both parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree. The independent appropriately qualified expert shall be appointed within 10 working days of the NZTA or Auckland Council giving notice of their intention to seek expert determination. The expert shall, as soon as possible, issue his or her decision on the matter. In making the decision, the expert shall be entitled to seek further information and hear from the parties as he or she sees fit.

Advice note: The dispute resolution process provided for in this condition does not prejudice any party's right to take enforcement action in relation to the implementation of the designation conditions. However, the dispute resolution process will be applied before any formal enforcement action is taken by the Council, except in urgent situations.

#### DC.6

Except for Conditions DC.7, DC.8 and DC.9, the NZTA shall be exempt from providing an Outline Plan of Works for the Project, as provided for in Section 176A (2)(a) and (b) of the RMA.

Advice note: The Construction and Operational Management Plans, together with the provision of detailed drawings required by Condition DC.1(b) are considered sufficient detail in all aspects of the Project, with the exception of proposed works for the northern and southern ventilation buildings and stacks where further details are required.

#### DC.10

The NZTA shall give notice to the Manager Regional and Local Planning, Auckland Council in accordance with Section 182 and 181 respectively of the RMA for:

(a) Within six months of the State highway opening (being operational), removal of those parts of the designation that are not required for the long term operation, maintenance and mitigation of effects of the State highway.

Note: this condition is specific to land no longer required for construction purposes once the Project is completed and includes the land of 6 Barrymore Road, refer Condition OS.17.

(b) The designation to be altered to remove those conditions no longer required for long term operation and maintenance of the Project.

#### DC.12

Unless otherwise provided for by Condition RC.2, if any monitoring required to be undertaken by any party by the designation conditions indicates non-compliance with any designation condition, the NZTA must provide written notice to the Major Infrastructure Team Manager Auckland Council as soon as it becomes aware of same, stating the following:

(a) A description of the non-compliance; and

(b) The measures NZTA proposes for addressing the non-compliance, including any additional mitigation measures.

Subject to the Council's approval, the NZTA must implement the additional mitigation measures to address the non-compliance.

#### DC.13

Pursuant to Section 36(1)(d) of the RMA, the requiring authority is required to pay to Auckland Council any administrative charge for the carrying out by the local authority of its functions in relation to the administration, monitoring, and supervision of designation conditions.

#### DC.14

The servants of agents of Auckland Council shall be permitted to have access to relevant parts of the Project at all reasonable times for the purpose of carrying out inspections, investigations, tests,

measurements and/or to take samples.

### **Construction Environment Management Plan Conditions**

#### **CEMP.1**

Except where provided for in Condition CEMP.1A below, the NZTA shall update and finalise the draft Construction Environmental Management Plan (CEMP) including all the Management Plans which form part of the CEMP and are included as appendices, submitted with this application to ensure compliance with the consent and designation conditions imposed by the Board of Inquiry. The CEMP shall be provided to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to the commencement of works to certify compliance and consistency with the conditions. Construction shall not commence until certification is obtained.

Advice note: For clarity the CEMP will be updated and finalised in accordance with the conditions. Any amendments will be limited to reflecting the requirements of the conditions, specifying personnel, and completing the Environmental Risk Register.

Advice note: Particular care must be taken with development and operation of Construction Yard 7. When the CEMP is being updated and finalised, consideration must be given to the contents of the draft SSCEMP prepared for Construction Yard 7 (Row 41, Schedule A) recognising changes required by inclusion of the ventilation stack in this yard.

#### **CEMP.1A**

In the case of the trial embankment, where works will commence well in advance of the main construction works for the Causeway, the NZTA will provide to the Major Infrastructure Team Manager, Auckland Council, a site-specific CEMP for review and approval at least 20 working days prior to commencement of the trial embankment works.

#### **CEMP.1B**

For the purposes of staging works, as some works may commence well in advance of others, the NZTA may provide staged or site specific CEMPs for those works to the Major Infrastructure Team Manager, Auckland Council. The NZTA shall consult with the Team Manager about the need and timing for any other site-specific or staged CEMPs and shall provide any required site-specific or staged CEMPs to the Major Infrastructure Team Manager, Auckland Council for review at least 20 working days prior to commencement of such the specific stage (including enabling) or site works.

#### **CEMP.2**

The certification process of the CEMP (and its appendices) shall confirm that the CEMP gives effect to the relevant conditions, as well as those matters in CEMP.6, and that it includes details of:

- (a) Staff and contractors' responsibilities;
- (b) Training requirements for employees, sub-contractors and visitors;
- (c) Environmental incident and emergency management;
- (d) Communication and interface procedures (in accordance with the Communication Plan required under Condition PI.2);
- (e) Environmental complaints management (including the procedures required under Condition PI.4);
- (f) Compliance monitoring;
- (g) Reporting (including detail on the frequency of reporting to the Auckland Council);
- (h) Environmental auditing; and
- (i) Corrective action.

#### **CEMP.3**

The management of key environmental effects associated with the construction phase of the Project is detailed within environmental management plans that are included in the CEMP as appendices. This suite of management plans as shown on Figure CEMP.A comprises:

- (a) Construction Noise and Vibration Management Plan (CNVMP);
- (b) Construction Air Quality Management Plan (CAQMP);

- (c) Erosion and Sediment Control Plan (ESCP);
- (d) Temporary Stormwater Management Plan (TSMP);
- (e) Ecological Management Plan (ECOMP);
- (f) Groundwater Management Plan (GWMP);
- (g) Settlement Effects Management Plan (SEMP);
- (h) Contaminated Soils Management Plan (CSMP);
- (i) Hazardous Substances Management Plan (HSMP);
- (j) Archaeological Site Management Plan (ASMP);
- (k) Construction Traffic Management Plan (CTMP);
- (l) Concrete Batching and Crushing Plant Management Plan (CBCPMP);
- (m) Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP) (to be prepared in accordance with Condition CEMP.15);
- (n) Waste Management Plan (to be prepared in accordance with Condition CEMP.10); and
- (o) Temporary Construction Lighting Management Plan (to be prepared in accordance with Condition L.2).

#### CEMP.4

The CEMP shall be implemented and maintained throughout the entire construction period.

#### CEMP.5

A copy of the CEMP shall be held on each construction site at all times and be available for inspection on request by the Auckland Council.

#### CEMP.6

The finalised CEMP shall include specific details on demolition, construction and management of all works associated with the Project. The certification process of the CEMP shall confirm that the CEMP includes details of the following:

- (a) Details of the site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);
- (b) The location of large notice boards that clearly identify the NZTA and the Project name, together with the name, telephone, email address and address for service of the site or Project manager and the community liaison person;
- (c) An outline construction programme of the work indicating in particular likely time periods for road closures and anticipated traffic diversion effects;
- (d) The hours of work, which should reflect the need to ensure that residents enjoy reasonable freedom from noisy or intrusive construction activity in their neighbourhood at night, on Sundays and during public holidays;
- (e) Measures to be adopted to maintain the land affected by the works in a tidy condition in terms of disposal/ storage of rubbish, storage and unloading of building materials and similar construction activities;
- (f) Location of worker's offices and conveniences (e.g. portaloos);
- (g) Procedures of controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- (h) Methods to stabilise ingress and egress points to construction sites, to the standard required by ARC Technical Publication 90 (Nov 2007);
- (i) Procedures for ensuring that residents within 100m of construction areas or other people whose use of an area may be disrupted by construction works (for example the Te Atatu Boating Club for works on the Whau River) are given notice of the commencement of construction activities and are informed about the expected duration of the works, including potentially through the community liaison person;
- (j) Procedures to be followed to ensure that those working in the vicinity of identified heritage and ecological features are aware of the heritage or ecological values of these features and the steps which need to be taken to meet the conditions applying to work on the site;
- (k) Means of ensuring the safety of the general public;
- (l) Procedures for the community liaison person to receive and respond to complaints about construction activities, including dust and odour from the works;

- (m) Methods of mitigating the local and network wide effects of construction of individual elements of the Project, including measures to ensure that parking of staff vehicles on surrounding streets is restricted;
- (n) All temporary boundary/ security fences shall be maintained in good order, with any graffiti removed as soon as possible;
- (o) Confirmation of a Project Arborist and completion of a STEM assessment of the preliminary list of Amenity Trees in Schedule E.7 of the AEE to confirm the final Amenity Trees; and
- (p) The process to minimise removal of Amenity Trees, maximise the protection of those retained, undertake relocation of Amenity Trees and replacement planting of specimen trees (in accordance with Conditions LV.10 and ARCH.9)).
- (q) Advice note: For the purposes of CEMP.6(o) and (p), Amenity Tree is defined as a tree or trees that contribute significantly to amenity, taking into account its form, size, health, ecological or historical significance (a preliminary list of these trees is provided in Appendix E.7 of the AEE).

#### CEMP.7

The layout of the 12 Construction Yards, including associated buildings, fencing and site access shall be developed in accordance with Waterview Connection Project Construction Yards Plans (Refer Schedule A, Row 7). The layout drawings shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to the occupation of the yard, for review and certification that the final layout of the construction yards is in accordance with the conditions. The layout drawings shall incorporate the following:

- (a) The main access to the construction yards to be located as far as practicable from residential dwellings, taking into account site and public safety and environmental constraints, in the locations shown on Waterview Connection Project Construction Yards Drawings (Refer Schedule A, Row 7);
  - (b) Noisy construction activities to be located as far as practicable, and preferably no less than 100m, from residential dwellings; Construction of temporary boundary/ security fences to be undertaken in a manner which minimises impacts on existing trees;
  - (c) Temporary acoustic fences and visual barriers;
  - (d) Temporary buildings greater than 8 metres in height to be located in a position which minimises visual impact on adjacent residential dwellings; and
- Location of workers' and Project vehicle parking.

#### CEMP.8

All storage of material and equipment associated with the construction works shall take place within the boundaries of the designation.

#### CEMP.9

Temporary protection shall be installed to prevent vehicles damaging drains, footpaths, berms, kerbs, vehicle crossings and the roads during the site preparation and construction phase of the Project. Any damage to the drains, footpaths, berms, kerbs, vehicle crossings and the road attributable to any vehicle associated with construction activities shall be repaired to the same or similar standards as existed prior to such damage at no cost to the Auckland Council.

#### CEMP.10

The NZTA shall finalise and implement the Hazardous Substances Management Plan (HSMP), through the CEMP (as per Condition CEMP.1), submitted with this application, prior to works commencing on site. The certification process of the CEMP shall confirm that the HSMP clearly identifies the requirements for proper storage, handling, transport and disposal of hazardous substances during the construction phase of the Project and confirm that there shall be no storage of explosives on the Project site.

#### CEMP.11

The NZTA shall develop and implement a Waste Management Plan in accordance with the waste management principles, controls and methods set out in the CEMP. The Plan shall be provided to the Major Infrastructure Team Manager, Auckland Council and be implemented throughout the entire construction period.

#### CEMP.12

The CEMP shall be reviewed by the NZTA at least annually or as a result of a material change to the Project. The review shall take into consideration:

- (a) Compliance with designation and consent conditions;
- (b) Any changes to construction methods;
- (c) Key changes to roles and responsibilities within the Project;
- (d) Changes in industry best practice standards;
- (e) Changes in legal or other requirements;
- (f) Results of inspections, monitoring, incidents, corrective actions, internal or external assessments; and
- (g) Public complaints.

A summary of the review process undertaken shall be kept by the NZTA, provided annually to the Major Infrastructure Team Manager, Auckland Council and made available (with any related data) to the Auckland Council upon request.

#### CEMP.13

Following the review process (as described in Condition CEMP.12), the CEMP may require updating. Any material change proposed to the CEMP (including appended Management Plans) shall be submitted for approval to the Major Infrastructure Team Manager, Auckland Council at least 10 working days prior to the proposed changes taking effect.

#### Advice note:

Material change will include amendment to any base information informing the CEMP or any process, procedure or method of the CEMP (such as the environmental constraints map, compliance monitoring process, complaints procedure or mitigation / remedial methods identified) which has the potential to increase adverse effects on a particular value. For clarity changes to personnel and contact schedules do not constitute a material change.

#### CEMP.14

The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan (EISDCMP). The EISDCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council, and include:

- (a) Methods and measures:
  - (i) To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities.
  - (ii) To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines
  - (iii) To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures.
  - (iv) To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.
- (b) Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including, but not limited to, the provisions of Schedule (Growth Limit Zones) to those Regulations.
- (c) Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001), including, but not limited to, the provisions of:
  - (i) Clause 2.2 with respect to excavations near overhead support structures;
  - (ii) Clause 2.4 with respect to buildings near overhead support structures;
  - (iii) Section 3 with respect to minimum separation between buildings and conductors;
  - (iv) Section 5 with respect to minimum safe distances for the operation of mobile plant; and,
  - (v) Table 4 with respect to minimum safe separation distances between the ground and the overhead conductors.
- (d) Confirmation that Transpower has been provided a copy of the EISDCMP for their review at least 20

working days prior to construction.

Advice note: With respect to clause (c), specific consideration must be given to the height and location of temporary structures (such as Project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).

#### CEMP.15

The NZTA will be responsible for all service relocations required for construction of the Project. The NZTA shall liaise with the providers of infrastructure service networks (including, but not limited to water, gas, stormwater, wastewater, power and telecommunications), and private property owners with on-site services to develop methodologies and timing for necessary services relocation required for the Project, with the objective of minimising disruption to the operation of these service networks and onsite services.

Advice note:

(a) It is noted that if separate consents are required for relocations for any services of network utility operators or landowners, such consents will be obtained before construction commences in the relevant area, and any effects of those relocations would be considered at that time. The same applies to any alteration of consents if required.

(b) Network infrastructure owned and operated by Watercare Services is located within the designations. An operating agreement will be developed by the NZTA and Watercare Services which will include appropriate notification and access protocols where works are to be undertaken by either network operator on or adjacent to Watercare Services infrastructure within the designations.

#### Public Information Conditions

##### PI.1.

A community liaison person shall be appointed by the NZTA for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by the Project. The liaison person's name and contact details shall be made available in the CEMP and on site signage by the NZTA. This person must be reasonably available for on-going consultation on all matters of concern to affected parties arising from the Project.

##### PI.2.

The NZTA shall prepare and implement a Communications Plan that sets out procedures detailing how the public, Ministry of Social Development, Housing New Zealand Corporation and other organisations representing the particular demographic characteristics of the community (including but not limited to Primary Health Organisations, general practitioners, youth, education organisations, aged care groups and groups representing ethnic and migrant communities) will be communicated with throughout the construction and monitoring periods (as prescribed in the designation and consent conditions).

In preparing the Communications Plan, the NZTA will liaise with Auckland Council to access its community liaison databases. The Communications Plan will include details of:

(a) The site or Project manager and the community liaison person, including their contact details (phone, facsimile, postal address, email address);

(b) In accordance with these Conditions, the database of the key construction activities and monitoring requirements that are the subject of the Communications Plan;

(c) The database of stakeholders and residents who will be communicated with;

(d) Communication methods, an assessment of how these methods reach the different audience/ stakeholder groups (including those methods set out in Condition CEMP.6), and detail on when each of these methods will be used (e.g. regular communication or event specific methods);

(e) The appointed specialist in Environmental and Occupational Medicine, including contact details (as per Condition SO.13);

(f) Any stakeholder specific communication plans required; and

(g) Monitoring and review procedures for the Communications Plan.

The Communications Plan shall be written in accordance with the external communication procedures set out in the CEMP and provided at least 20 working days prior to construction commencing, to the Major Infrastructure Team Manager, Auckland Council, Working Liaison Group and the Community Liaison Group(s) established by Condition PI.5. The structure of the communication groups set out in these

conditions is attached as Figure PI.A.

#### PI.3.

At least 15 working days prior to the commencement of construction, and at 15 working day intervals thereafter, or as required depending on the scale of works and effects on the community, advertisements will be placed in the relevant local newspapers and community notice boards (as identified in Condition CEMP.6(b)) detailing the nature of the forthcoming works, the location of the forthcoming works and hours of operation. All advertisements will include reference to a 24 hour toll free complaints telephone number. Where relevant, advertisements will also include but not be limited to details of:

- (a) Any traffic disruptions or controls or changes to property access, pedestrian/ cycle routes and bus stops; and
- (b) Any other construction activities, including night time works, blasting, and structure-borne noise, as identified in the conditions.

#### PI.4.

The NZTA shall manage, investigate and resolve (as appropriate) all complaints for the duration of the construction works in accordance with the environmental complaints section of the CEMP. The implementation strategy for complaints includes:

- (a) A 24 hour toll free telephone number and email address, which shall be provided to all potentially affected residents and businesses. The number shall be available and answered at all times during the entire duration of the works for the receipt and management of any complaints. A sign containing the contact details shall be located at each site specific work activity;
- (b) The NZTA shall maintain a record of all complaints made to this number, email or any site office, including the full details of the complainant and the nature of the complaint;
- (c) Upon receiving a complaint, within 10 days of complaint receipt, a formal written response will be provided to the complainant and Auckland Council;
- (d) The NZTA shall undertake corrective action where necessary to resolve any problem identified. All action taken and relevant information shall be documented. For the avoidance of doubt, 'where necessary' refers to where the works are not being carried out in accordance with conditions of this designation;
- (e) Where issues and complaints about effects cannot be resolved through the CEMP complaints management process, a meeting shall be held between the NZTA, the complainant and the Auckland Council representative(s) to discuss the complaint and ways in which the issue may be resolved. If parties cannot agree on a resolution, an independent qualified mediator will be appointed, agreeable to all parties and at the shared cost of all parties, to undertake mediation of the dispute or concerns; and
- (f) All information collected in Conditions PI.4 (b), (c) and (d) shall be detailed in a Construction Compliance Report (including the means by which the complaint was addressed, whether resolution was reached and how the response was carried out) prepared by the NZTA. This Report shall be submitted to the Major Infrastructure Team Manager, Auckland Council on a quarterly basis commencing at the beginning of the works and for the entire duration of construction.

#### PI.5.

The NZTA shall establish Community Liaison Group(s) at least two months prior to construction commencing in each of the following key construction areas:

- (a) Te Atatu (including the SH16 Causeway)
- (b) Waterview (including works to St Lukes on SH16 and on the Waterview Estuary and Causeway Bridges)
- (c) Owairaka

and hold regular meetings (at least three monthly) throughout the construction period and up to 24 months following construction completion relevant to these areas (or less if the members of the Group agree), so that on-going monitoring information can continue to be disseminated.

The Community Liaison Group(s) shall be open to all interested parties within the Project area including, but not limited to the following groups:

- (a) Auckland Council and Auckland Transport;
- (b) Educational facilities within the Project area (including schools, kindergartens, childcare facilities and

Unitec Institute of Technology);

(c) Relevant community/ environmental groups (including but not limited to Friends of Oakley Creek, Star Mills Preservation Group, Cycle Action Auckland and representatives from those organisations identified in the Communications Plan (as required by Condition PI.2) and local residents;

(d) Department of Conservation;

(e) Local Boards;

(f) Iwi groups with Mana Whenua;

(g) Public transport providers; and

(h) Housing New Zealand Corporation.

Advice note: The purpose of the Community Liaison Group(s) is to provide a regular forum through which information about the Project can be provided to the community, and an opportunity for concerns or issues to be raised.

PI.6.

The Community Liaison Group(s) shall be provided opportunities to review and comment on the following (amongst other things):

(a) The Outline Plan of Works detailing designs for the northern and southern ventilation buildings and stacks (the outcomes of this consultation will be reported in accordance with the processes required in DC.8(n) and DC.9(k);

(b) The Open Space Restoration Plans (as required by Condition OS.3);

(c) Finalisation and amendment to Urban Design and Landscape Plans (UDL Plans) (as required by Condition LV.1);

(d) The Oakley Inlet Heritage Plan (as required by Conditions OS.5(b)(i) and ARCH.6);

(e) The detail of the Oakley Creek restoration (as required by Condition STW.20);

(f) Publicly available results of environmental monitoring as required by the designation and/or these Consents

(e.g. air quality monitoring); and

(g) The finalisation of the STEM assessment required by CEMP.6(o) and a schedule of trees that are required to be removed for consideration of timber use in heritage projects as required by Condition SO.7.

Advice Note: Attention is drawn to the Vegetation conditions concerning identification and protection of Significant Vegetation and Valued Vegetation.

(h) Detailed design features of the Te Atatu underpass (e.g. lighting and architectural treatment).

### **Temporary Traffic Conditions**

TT.1

The NZTA shall update and finalise the Construction Traffic Management Plan (CTMP) submitted with this application, in accordance with these conditions, and implement it through the CEMP.

In finalising the CTMP, the NZTA shall:

(a) Provide simulation modelling demonstrations to better understand the effects of construction of the Project on the affected road network;

(b) Include measures to avoid road closures and restrictions of vehicle, bus, cycle and pedestrian movements;

(c) Where road closures or restrictions cannot reasonably be avoided the particular vulnerabilities and sensitivities of pedestrian diversions and restricted conditions shall be taken into account in the planning of any closures or restrictions.

TT.2

The CTMP shall require the development of Site Specific Traffic Management Plans (SSTMPs) and their approval by the Traffic Management Project Governance Group (as defined by the CTMP), for each construction activity that may affect traffic or transportation infrastructure and services. The SSTMPs shall be provided to the Traffic Management Coordinator(s) for the relevant Road Controlling Authority at least 10 working days prior to each construction activity.

TT.3

Each SSTMP shall describe the measures that will be undertaken to avoid, remedy or mitigate the local and network wide effects of construction of the Project. In particular, the SSTMP shall include the following matters:

- (a) Traffic management measures to address and maintain, traffic capacity, including bus services, at peak traffic periods during weekdays (6:00 to 9:00 and 16:00 to 19:00) and peak traffic periods at weekends (including Te Atatu Road, Great North Road and Richardson Road);
- (b) Methods to manage the effects of traffic during construction including the requirement to detour or divert traffic. These methods shall seek to avoid, remedy or mitigate effects on access to and from businesses and other organisations in the area;
- (c) Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- (d) Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections/ overbridges) and the use of staging to allow sections of the Project to be opened to the traffic while other sections are still under construction;
- (e) Methods to manage the effects of the delivery of construction material, plant and machinery (including cranes and oversized trucks) during construction;
- (f) Any routes where construction traffic movements will be restricted (either for particular times for construction periods);
- (g) Measures to maintain existing vehicle access, as far as practicable, or where the existing property access is to be removed or becomes unsafe as a result of the construction works, measures to provide alternative access arrangements in consultation with the Auckland Council and the affected landowner; and
- (h) Measures to maintain pedestrian and cycle access with thoroughfare to be maintained on all roads and footpaths adjacent to the construction works, where practicable (e.g. unless provision of such access is severed by the works or such access will become unsafe as a result of the construction works). Such access shall be safe, clearly identifiable, provide permanent surfacing and seek to minimise significant detours. (This Condition does not act as a qualification to the commitment to maintain access to open space and education facilities, as required in Condition OS.13).

#### TT.4

The SSTMPs shall include traffic management measures developed in consultation with the Auckland Transport, Bus and Coach Association and the Auckland Council, to address and maintain, where practicable, existing levels of service for buses particularly at peak periods (6:00 to 9:00 and 16:00 to 19:00) on weekdays.

#### TT.5

The NZTA shall consult with the Traffic Operations Manager, Auckland Transport with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation. The NZTA shall also coordinate and consult directly with the proponents of any major construction or major traffic generating event occurring concurrently with, and in the vicinity of the Project.

#### TT.6

The SSTMPs shall include measures developed in consultation with Auckland Transport to, as far as practicable, enable continued public walking and cycling passage along the existing Northwestern Cycleway (between Te Atatu Interchange and St Lukes Interchange) and along Great North Road and the public walkway along Oakley Creek, with any interruptions being as short as feasible.

#### TT.7

The NZTA shall undertake construction works so as to avoid significant long duration impacts or the full closure of Te Atatu Road for all road users heading to or from the Te Atatu Peninsula and to ensure that access for emergency service vehicles is maintained.

#### TT.8

The NZTA shall restrict construction truck movements during peak hours (6:00 to 9:00 and 16:00 to 19:00)

on weekdays and during the peak periods at the weekends to avoid the following:

- (a) Te Atatu Road Interchange, during both morning and afternoon peak hours
- (b) Great North Road Interchange, city bound during the morning peak hours
- (c) Great North Road Interchange, west bound onto SH16 and southbound onto Great North road during the afternoon peak.

Construction truck movements during these hours shall only be allowed under exceptional circumstances agreed in advance with the Traffic Management Project Governance Group.

#### TT.9

The NZTA shall maintain at least the existing active traffic lane configuration capacity on SH16, at the Te Atatu Interchange area, Te Atatu Road, Richardson Road and on Great North Road during peak periods being 6:00 to 9:00 and 16:00 to 19:00 on weekdays and during the peak periods on weekends, for the duration of the temporary construction programme.

#### TT.10

The NZTA shall monitor the impact of construction traffic in terms of traffic speeds and volumes on SH16, Great North Road, Te Atatu Road and Richardson Road throughout the construction period to confirm the expected traffic effects as set out in the Temporary Traffic Assessment (Technical Report G.16) submitted with this application.

- (a) This monitoring will be undertaken on a daily, weekly and monthly basis; and
- (b) Monitoring results will be made available to the Traffic Operations Manager, Auckland Transport on request.

#### TT.11

If monitoring undertaken pursuant to Condition TT.10 indicates that traffic volumes or traffic conditions are significantly different from those expected, the SSTMPs will be reviewed and as appropriate amended to the satisfaction of the Traffic Management Project Governance Group.

### **Operational Traffic Conditions**

#### **Integration with Local Road**

##### **Network**

#### OT.1

The NZTA shall prepare in collaboration with Auckland Transport a Network Integration Plan (NIP) for the Project, or relevant Project phases, to demonstrate how the Project integrates with the existing local road network and with future improvements (identified in the Western Ring Route (Northwest) Network Plan) planned by the Auckland Council. The NIP shall include details of proposed physical works at the interface between the State highway and the local road network, and shall address such matters as pedestrian/ cycle ways, lane configuration, traffic signal co-ordination, signage and provision for buses. In addition, the NIP will address:

- (a) The commitment of the NZTA to progress bus priority measures northbound on Great North Road as part of the reinstatement of Great North Road, as proposed by Auckland Transport and indicated on the Plans Great North Road Option 1 Proposed Road Marking (Schedule A, Row 33), subject to the agreement with Auckland Transport;
- (b) How the works committed to by the NZTA for pedestrian and cycle ways, as detailed in the PT and Active Mode Transport Routes Plan Set (Condition DC.1(d) (refer Schedule A, Row 22)), integrate with pedestrian and cycle ways on the wider transport network;
- (c) The Richardson Road Bridge, which shall be designed in general accordance with the structural plans (Schedule A, Row 9) and the commitment of the NZTA to provide a 2m footpath on Richardson Road Bridge, subject to confirming appropriate bus stop locations with Auckland Transport;
- (d) Integration of the works proposed on Te Atatu Road to appropriately transition between the Waterview Connection Project and any projects being progressed by Auckland Transport;
- (e) Opportunities to review traffic signal timings at the Te Atatu Interchange with a view to minimising delays to all users, including cyclists on the SH16 cycle way; and
- (f) The commitment of the NZTA to provide for cycle "aspects" (cycle signal lights) at the Great North

Road Interchange.

(g) As part of detailed design at the Te Atatu Interchange, the installation of underpasses and/or overbridges, provided however that should some not prove feasible in civil or traffic engineering design terms, the installation of coordinated traffic signal operation for cyclists on the north-western cycleway by means of synchronised cycle lights which seek to reduce delays for cyclists.

Works identified in the NIP which are the responsibility of the NZTA, will be undertaken as at the time of construction works for the Project.

## **Noise and Vibration Conditions – Construction**

### **CNV.1**

The NZTA shall finalise and implement through the CEMP, a Construction Noise and Vibration Management Plan (CNVMP) throughout the entire construction period of the Project.

The CNVMP shall describe the measures adopted to meet:

- (a) the noise criteria set out in Conditions CNV.2 and 3 below;
- (b) the vibration criteria set out in Condition CNV.4 below; or
- (c) where (a) or (b) cannot be met, the process that will be followed to appropriately mitigate noise and vibration effects including methods that may be applied outside the designation.

The CNVMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CNVMP, as a minimum, addresses the following:

- (i) Construction noise and vibration criteria (Conditions CNV.2, CNV.3, and CNV.4);
- (ii) Hours of operation, including times and days when noisy and/or vibration inducing construction activities would occur;
- (iii) Machinery and equipment to be used;
- (iv) Vibration testing of equipment to confirm safe distances to buildings prior to construction;
- (v) Preparation of building condition surveys of critical dwellings prior to, during and after completion of construction works;
- (vi) Roles and responsibilities of personnel on site;
- (vii) Construction operator training procedures;
- (viii) Methods for monitoring and reporting on construction noise and vibration;
- (ix) A hierarchy of mitigation options that will be assessed for the Project noise mitigation, including alternative strategies where full compliance with the relevant noise and/or vibration criteria cannot be achieved;
- (x) Management schedules containing site specific information;
- (xi) Measures for liaising with and notifying potentially affected receivers of proposed construction activities and the potential for noise and vibration effects, specifically:
  - PPFs located within a horizontal distance of 35 metres of underground excavation works, along the tunnel alignment shall receive prior notification not greater than 7 days (and not less than 24 hours) prior to the commencement of works.
  - Methods for ensuring residents affected by night works (within 100m of the construction site night works, as defined on the maps (refer Schedule A, Row 35) are notified of such works (i.e. any works during the hours of 20:00 to 06:30) at least 5 days prior to the commencement of any such work.
  - The maps showing PPFs to be notified of night works (refer Schedule A, Row 35, shall be reviewed and included within the CNVMP.
- (xii) Methods for receiving and handling complaints about construction noise and vibration;
- (xiii) Measures for preventing the occurrence of rogue fly rock, including management of charge weights and face loading procedures, stemming of charge holes and profiling of the face to maintain minimum burden (face cover);
- (xiv) Investigations on the practicability of implementing permanent noise mitigation works for construction mitigation (as per Condition CNV.7);
- (xv) Investigations of the practicability of implementing Building Modification mitigation, as required in accordance with Conditions ON.6 and ON.11, prior to commencement of construction within 100m of the relevant PPFs (including those on the Unitec site); and
- (xvi) The process for developing Site Specific Noise Management Plans (SSNMP), in accordance with the

SSNMP Flow Chart (refer Schedule A, Row 36), including templates and a certification process for the Major Infrastructure Team Manager, Auckland Council (in accordance with Condition CNV.13) to confirm the process of SSNMP review of noise mitigation options where, the modelled/predicted levels or subsequent actual levels exceed the criteria in Conditions CNV.2 and/or CNV.4.

**CNV.2**

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction noise (excluding noise from blasting Monday to Saturday inclusive) shall be measured and assessed in accordance with NZS 6803:1999 “Acoustics - Construction Noise” and shall comply with the following criteria: Note: In Condition CNV.2 (T) means a duration between 15 minutes and 60 minutes, in accordance with NZS6803:1999.

(a) Project Construction Noise Criteria: Residential Receivers

Time of week	Time period	Project Construction Noise Criteria (Long Term Construction) dB		
		Sectors 1 to 7	Sectors 8 and 9	All Sectors
		LAeq(T)	LAeq(T)	LAeqT/LAFmax
Monday - Saturday	0630-0730	60	45	75
	0730-1800	70	70	85
	1800-2000	65	65	80
	2000-0630	60	45	75
Sundays and Public Holidays	0630-0730	45	45	75
	0730-1800	60	45	85
	1800-2000	45	45	75
	2000-0630	45	45	75

(b) Project Construction Noise Criteria: Commercial and Industrial Receivers

Time Period	Project Construction Noise Criteria (Long Term Construction) dB
	LAeq(T)
0730-1800	70
1800-0730	75

(c) Project Construction Noise Criteria: Internal Structure-borne Noise from tunnelling for Residential Receivers

Time Period	Project Construction Noise Criteria Inside
0600-2200	35 dB LAeq(T) All habitable rooms
2200-0600	30 dB LAeq(T) Bedrooms

(d) Project Construction Noise Criteria: Internal noise for Licensed Educational Facilities

Time Period (School Days)	Project Construction Noise Criteria Inside
Teaching Hours	45 dB LAeq(T) Classrooms, library, offices, teaching, laboratories, manual arts, workshops
Teaching Hours	40 dB LAeq(T) School hall, lecture theatres

Note: In Condition CNV2(d) “Teaching hours” means: Primary schools and Kindergartens: 9am to 3pm  
Unitec: 8am to 9pm

**CNV.4**

Except where certified by the Council through the SSNMP (in accordance with Condition CNV.13), construction vibration received by any building shall be measured and assessed in accordance with the German Standard DIN 4150-3:1999 “Structural vibration – Part 3: Effects of vibration on structures”, and shall comply with the criteria set out as follows:

Type of Structure vibration	Short-term vibration	Long-term
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	PPV at the foundation at a frequency of			PPV at horizontal plane of highest floor (mm/s)	PPV at horizontal plane of highest floor (mm/s)
	1-10 Hz (mm/s)	1-50 Hz (mm/s)	50-100 Hz (mm/s)		
Commercial/Industrial	20	20-40	40-50	40	10
Residential/School	5	5-15	15-20	15	5
Historic or Sensitive structures	3	3-8	8-10	8	2.5

#### CNV.5

Notwithstanding Condition CNV.3 above,

(a) Blasting activities shall be conducted so that 95% of the blasts undertaken (measured over any twenty blasts on the foundation of any building outside the designation boundary) shall produce peak particle velocities not exceeding 5mm/s and 100% of the blasts undertaken shall produce peak particle velocities not exceeding 10mm/s irrespective of the frequency of the blast measured.

(b) Construction activities, which occur within Sectors 1, 6, 8 and 9 which are identified in Technical Report no.

G.19 Assessment of Vibration Effects, as being at a 'High Risk' of exceeding the DIN 4150-3:1999 criteria (being excavation, piling, compaction and drilling) shall be conducted so that 95% of the activities undertaken (measured over at least 20 representative samples of the relevant activity on any residential building) shall produce peak particle velocities not exceeding the relevant criterion in DIN 4150-3:1999 and 100% of the activities undertaken shall not exceed 10mm/s irrespective of the frequency of the activity measured.

#### CNV.6

Blasting shall be undertaken between 09:00h and 17:00h, Monday to Saturday, except that blasting may be undertaken between 09:00h and 17:00h on Sundays where:

- (a) The blasting is at least 50m inside the Sector 8 tunnel;
- (b) The blasting produces peak particle velocities at any residential building not exceeding 0.5mm/s; and
- (c) The Project construction noise criteria set out in Condition CNV.2 for Sundays are complied with.

#### CNV.7

Where practicable, permanent (traffic) noise barriers, required in any Sector as Detailed Mitigation Options for operational noise following completion of the Project (in accordance with Conditions ON.3 to ON.5) shall be erected prior to noise generating construction works commencing. Where this is not practicable, temporary noise mitigation measures shall be implemented in accordance with the CNVMMP, prior to noise generating construction works commencing.

#### CNV.8

Pile driving or pile removal shall not be undertaken at night (i.e. during the hours of 20:00 – 06:30).

#### CNV.9

The concrete batch plants, rock crushing plants and the loading bays and conveyors for such plants shall be fully enclosed.

#### CNV.13

SSNMPs (required by Condition CNV.1(xvi)) above, shall be submitted to Major Infrastructure Team Manager, Auckland Council for review and certification at least 7 working days prior to the proposed works commencing. A decision will be provided by the Council within 5 working days of receipt of the SSNMP. Works will not commence until certification is received from the Major Infrastructure Team Manager, Auckland Council. The Council may, at its discretion, waive the requirement for SSNMPs to be submitted to the Council where an SSNMP is required.

If monitoring shows that levels specified in a SSNMP are being exceeded, work generating the exceedence will stop and not recommence until further mitigation is implemented in accordance with an amended SSNMP certified by Council.

Advice note: It is accepted that the criteria of CNV.2 and CNV.4 may not be met at all times, but that the NZTA will take all practical steps to achieve compliance, taking into account the hierarchy of mitigation options outlined in Condition CNV.1 (ix).

## **Noise Conditions – Operation**

### **ON.1**

For the purposes of Conditions ON.2-ON.14 the following terms will have the following meanings:

- Appendix E – means Appendix E to the Technical Report G.12 'Assessment of Operational Noise Effects' submitted with this application.
- BPO – means Best Practicable Option.
- Building Modification Mitigation – has the same meaning as in NZS 6806:2010.
- Design Year – means a point in time that is 10 years after the opening of the Project to the public
- Emergency Mechanical Services – means mechanical services used for emergency situations only.
- Habitable room – has the same meaning as in NZS 6806:2010.
- Noise Criteria Categories – means groups of preference for time-averaged sound levels established in accordance with NZS 6806:2010 when determining the BPO mitigation option; i.e. Category A - primary noise criterion, Category B - secondary noise criterion and Category C - internal noise criterion.
- NZS 6806:2010 – means NZS 6806:2010 Acoustics – Road-Traffic Noise – New and Altered Roads.
- PPFs – means only the premises and facilities identified in green, yellow or red in Appendix E.
- Structural mitigation – has the same meaning as in NZS 6806:2010.

### **ON.2**

The NZTA shall implement the traffic noise mitigation measures identified as the “Preferred Mitigation Options” in Appendix E as part of the Project, in order to achieve the Noise Criteria Categories indicated in Appendix E (“Identified Categories”), where practicable and subject to Conditions ON.3-ON.11 below.

### **ON.3**

The detailed design of the structural mitigation measures of the “Preferred Mitigation Options” (the Detailed Mitigation Options) shall be undertaken by a suitably qualified and experienced acoustics specialist approved

by the Major Infrastructure Team Manager, Auckland Council prior to construction of the Project, and, subject to Condition ON.4, shall include, as a minimum, the following:

- (a) Noise barriers with the location, length and height in general accordance with Appendix E and designed in accordance with the ULDF (Section B) (refer Schedule A, Row 38); and
- (b) A requirement that Open Graded Porous Asphalt ("OGPA") or equivalent low-noise generating road surface be used on all surface roads throughout the Project, except at the Great North Road Interchange; and
- (c) For the Great North Road Interchange, a requirement that Twin Layer Open Graded Porous Asphalt ("Twin Layer OGPA") or equivalent low-noise generating road surface be used as shown in Appendix E.

### **ON.4**

Where the design of the Detailed Mitigation Options identifies that it is not practicable to implement a particular structural mitigation measure in the location or of the length or height included in the “Preferred Mitigation Options”, either:

- (a) If the design of the structural mitigation measures could be changed and would still achieve the same Identified Category at all relevant PPFs, and a suitably qualified expert approved by the Major Infrastructure Team Manager, Auckland Council, certifies to the Auckland Council that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed mitigation measures; or
- (b) If the changed design of the structural mitigation measure would change the Noise Criteria Category at any relevant PPF from Category A or B to Category C but Major Infrastructure Team Manager, Auckland Council confirms that the changed structural mitigation measure would be consistent with adopting BPO in accordance with NZS 6806:2010, the Detailed Mitigation Options may include the changed structural mitigation measures.

#### ON.5

The Detailed Mitigation Options shall be implemented prior to completion of construction of the Project.

#### ON.6

(a) Sectors 1 to 8 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options:

- i. A noise level increase of 3 decibels or more will occur due to road-traffic noise from the Project; and
- ii. Habitable spaces are likely to receive in excess of 45 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year.

For those PPFs, following the process set out in Conditions ON.7 to ON.11, it shall be determined which Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces.

(b) Sector 9 - Prior to construction of the Project, a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council shall identify those PPFs within 100m of the edge of the closest traffic lane of the motorway carriageway where, following implementation of all the structural mitigation measures included in the Detailed Mitigation Options, habitable spaces are likely to receive in excess of 40 dB LAeq(24h) from motorway operational noise with windows closed, in the Design Year. For those PPFs, following the process set out in ON.7 and ON.8, it shall be determined if Building Modification Mitigation may be required to achieve 40 dB LAeq inside habitable spaces. For those PPFs where Building Modification Mitigation is required to achieve 40 dB LAeq inside habitable spaces, this shall be implemented following the process set out in ON.9 to ON.11.

#### ON.7

(a) Prior to commencement of construction of any sector of the Project in the vicinity of a PPF identified under Condition ON.6, the NZTA shall write to the owner of each such building seeking access for the purpose of measuring internal noise levels and assessing the existing building envelope in relation to noise reduction performance.

(b) If the owner(s) of the building approve the NZTA's access to the property within 12 months of the date of the NZTA's letter (sent pursuant to Condition ON.7(a)), then no more than six months prior to commencement of construction in any sector of the Project, the NZTA shall instruct a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council, to visit the building to measure internal noise levels and assess the existing building envelope in relation to noise reduction performance.

#### ON.8

Where a PPF identified under Condition ON.6 is identified, the NZTA shall be deemed to have complied with Condition ON.7 above where:

- (a) The NZTA (through its acoustics specialist) has visited the building; or
- (b) The owner(s) of the building approved the NZTA's access, but the NZTA could not gain entry for some reason after repeated attempts; or
- (c) The owner(s) of the building did not approve the NZTA's access to the property within the time period set out in Condition ON.7(b) (including where the owner(s) did not respond to the NZTA's letter (sent pursuant to Condition ON.7(a) within that period); or
- (d) The owner(s) of the building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

If any of (b) to (d) above apply to a particular Building, the NZTA shall not be required to implement any Building Modification Mitigation at that Building

#### ON.9

Subject to Condition ON.8, within 6 months of the assessment required under Condition ON.7(b), the NZTA shall give written notice to the owner of each PPF identified under Condition ON.6:

- (a) Advising of the options available for Building Modification Mitigation to the building; and

(b) Advising that the owner has three months within which to decide whether to accept Building Modification Mitigation for the building, and if the NZTA has advised the owner that more than one options for building modification mitigation is available, to advise which of those options the owner prefers.

#### ON.10

Once an agreement on Building Modification Mitigation is reached between the NZTA and the owner of an affected building, the mitigation shall be implemented (including the NZTA undertaking any required third party authorisation) in a reasonable and practical timeframe agreed between the NZTA and the owner. Building Modification Mitigation shall be to the standard specified in section 8.3.2 of NZS 6806:2010.

Advice Note: The NZTA will be responsible for obtaining any necessary building consents or other approvals to undertake the above Building Modification Mitigation.

#### ON.11

Subject to Condition ON.8, where Building Modification Mitigation is required, the NZTA shall be deemed to have complied with Condition ON.10 above where:

- (a) The NZTA has completed Building Modification Mitigation to the Building; or
- (b) The owner(s) of the Building did not accept the NZTA's offer to implement Building Modification Mitigation prior to the expiry of the timeframe stated in Condition ON.9(b) above (including where the owner(s) did not respond to the Requiring Authority within that period); or
- (c) The owner of the Building cannot, after reasonable enquiry, be found prior to completion of construction of the Project.

#### ON.12

The NZTA shall manage and maintain the Detailed Mitigation Options to ensure that, those mitigation works are maintained to retain their noise attenuation performance indefinitely

#### ON.14

- (a) Prior to construction, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake a minimum of 8 (eight) representative measurements of ambient noise levels. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.
- (b) Following completion of the work, the NZTA shall arrange for a suitably qualified and experienced acoustics specialist approved by the Major Infrastructure Team Manager, Auckland Council to undertake traffic noise monitoring at the same sites surveyed in Condition ON.14 (a) above, within 2 to 3 years following completion of construction of the Project. Measurements shall be undertaken in accordance with the requirements of Section 5.2 of NZS6806:2010.
- (c) The results of the noise level monitoring in accordance with ON.14(b) above shall be used to verify the computer noise model of the Detailed Mitigation Option. A report describing the findings of the verification shall be provided to the Major Infrastructure Team Manager, Auckland Council within one month of it being completed.

Vibration Conditions - Operation

#### OV.1

Existing ambient vibration levels shall be measured at critical locations nominated by the NZTA, and submitted to the Major Infrastructure Team Manager, Auckland Council for approval prior to the commencement of works. These baseline measurements will establish pre-Project vibration levels for comparison with future vibration levels.

### **Air Quality Conditions – Construction**

#### **GENERAL CONDITIONS**

##### AQ.1.

The NZTA shall finalise and implement, through the CEMP, the Construction Air Quality Management

Plan (CAQMP) and Concrete Batching and Crushing Management Plan (CBCMP) submitted with the application. The CAQMP and CBCMP shall be provided to the Major Infrastructure Team Manager, Auckland Council at least 20 working days prior to construction activities being undertaken for review and certification that the CAQMP and CBCMP includes the following details:

- (a) Daily visual monitoring of dust emissions;
- (b) Procedures for responding to process malfunctions and accidental dust discharges;
- (c) Criteria, including consideration of weather conditions and procedures for use of water sprays on stockpiles and operational areas of the site;
- (d) Continuous monitoring of Total Suspended Particulate (TSP) concentrations and meteorology;
- (e) Monitoring of the times of detectable odour emissions from the ground;
- (f) Procedures for responding to discharges of odour (including in the event of excavation of contaminated sites);
- (g) Monitoring of construction vehicle maintenance;
- (h) Process equipment inspection, maintenance, monitoring and recording, including baghouses, pressure relief valves and high level alarms;
- (i) Complaints investigation, monitoring and reporting; and
- (j) The identification of staff and contractors' responsibilities.

#### AQ.2.

The NZTA shall review the CAQMP and CBCMP at least annually and as a result of any material change to the Project. Any consequential changes will be undertaken in accordance with Condition CEMP.13.

#### AQ.3.

All construction activities shall be operated, maintained, supervised, monitored and controlled at all times so that all emissions authorised by this consent are maintained at the minimum practicable level.

#### AQ.4.

The NZTA shall undertake construction activities in accordance with the CEMP, CAQMP and CBCMP, such that:

- (a) Hard surfaced areas of the construction yards and active construction areas are vacuum swept or scraped down at least twice each week and additionally as reasonably required;
- (b) All unsealed areas of the site used for vehicle movement are maintained visibly damp by the use of water sprays or a water cart during weather conditions where the potential for dust emissions exist;
- (c) Wheel wash systems are installed at all truck exits from unpaved areas of the site onto public roads are used for all trucks that depart from the site;
- (d) All stockpiles are constructed and positioned to minimise the potential for dust emissions. The surfaces of all stockpiles are maintained adequately damp at all times to minimise the release of particulate matter;
- (e) Belt conveyors for moving dry materials are fitted with water sprays or enclosed to minimise wind entrainment of dust. Where installed, water suppression is used whenever the conveyors are used for moving dry materials.

#### AQ.5.

Unless expressly provided for by conditions of this consent, there shall be no odour, dust or fumes beyond the site boundary caused by discharges from the site which, in the opinion of an enforcement officer, is noxious, offensive or objectionable.

#### AQ.6.

All offensive or objectionable dust beyond the boundary of the site caused as a result of processes on the site shall be mitigated forthwith in accordance with the requirements of the Construction Air Quality Management Plan.

#### AQ.7.

Beyond the site boundary there shall be no hazardous air pollutant caused by discharges from the site that causes, or is likely to cause, adverse effects on human health, environment or property.

AQ.8

No discharges from any activity on site shall give rise to visible emissions, other than water vapour, to an extent which, in the opinion of an enforcement officer, is noxious, dangerous, offensive or objectionable.

## **MONITORING**

AQ.14

The NZTA shall undertake visual inspections of dust emissions as follows:

- (a) Visual inspections of all active construction areas at least three times daily during October to April inclusive, whenever there are construction activities. The results of visual monitoring shall be logged.
- (b) Visual inspections of dust emissions from the concrete batching plants and rock crushing plant shall be undertaken daily while the plant is operating

AQ.15

The operation of water sprays shall be checked at least once each day.

AQ.16

Continuous monitoring of TSP concentrations shall be undertaken in at least one location in Sector 1, in at least two locations in Sectors 5 and/or 7, and in at least two locations in Sector 9 while construction activities are being undertaken in those Sectors. The locations of continuous TSP monitors shall, as far as practicable, comply with the requirements of AS/NZ 3580.1.1:2007 Method for Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment.

AQ.17.

Continuous monitoring of wind speed and direction shall be undertaken in at least one location in each of Sector 1, Sectors 5 or 7 and Sector 9 while construction activities are being undertaken in those Sectors. The locations of wind speed and direction monitors shall, as far as practicable, comply with the requirements of AS 2923:1987 Ambient Air – Guide for the Measurement of Horizontal Wind for Air Quality Applications and be at the same locations as the TSP monitors required by Condition AQ.16.

AQ.18.

The locations and types of continuous TSP and meteorological monitoring sites required by Conditions AQ.16 and AQ.17 shall be selected by the NZTA in consultation with the Auckland Council. In the event of a failure of the monitoring equipment, this shall be repaired or replaced within 2 working days

## **REPORTING**

AQ.19.

All records, logs, monitoring and test results that are required by the conditions of this consent shall be made available on request, during operating hours, to an Auckland Council enforcement officer and shall be kept for the duration of the consent.

AQ.20. If the monitoring required by Condition AQ.16 shows that concentrations of TSP in ambient air at or beyond the boundary of the site exceeds 80 micrograms/m<sup>3</sup> as a 24-hour average, the NZTA shall undertake an investigation into the cause of the exceedance in accordance with the CAQMP.

AQ.21.

A report into the outcome of any investigation required by Condition AQ.20 shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 10 working days of the exceedance. If the cause of the exceedance is identified as being an activity undertaken on the site, the report shall also identify additional measures to be taken to reduce discharges of particulate matter into air from that activity.

AQ.22.

Log books shall be maintained that record all relevant information that is required to demonstrate

compliance with the conditions of this consent. This information shall include, but is not limited to:

- (a) Visual assessments of any dust emissions from the site and the source;
- (b) Any dust control equipment malfunction and any remedial action taken;
- (c) When a water cart was used and, if so, the frequency of use and the volume of water used (including identification of location);
- (d) All relevant details of the TSP and meteorological monitoring required by Conditions AQ.16 and AQ.17;
- (e) Any additional dust control measures undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

#### AQ.23.

The NZTA shall maintain a log of any complaints received relating to air quality. Details of each complaint received shall be forwarded to the Major Infrastructure Team Manager, Auckland Council within 24 hours of receipt of the complaint. The log shall include any complaints lodged with the Auckland Council where the Council has informed the NZTA of the complaint. The log shall include, but not be limited to the following:

- (a) The date, time, location and nature of the complaint;
- (b) Weather conditions at the time of the complaint (including approximate wind speed, wind direction, cloud cover);
- (c) Any possible other contributing factors (such as a fire, smoky vehicle, a local chimney emission, etc.);
- (d) The name, phone number and address of the complainant (unless the complainant elects not to supply these details);
- (e) Any remedial actions undertaken; and
- (f) The date and time of the entry and the signature of the person entering the information.

### **Landscape and Visual Conditions**

#### LV.1.

The Urban Design and Landscape Plans (UDL Plans) (Plan Set F.16, refer Schedule A, Row 17) shall be reviewed and revised in accordance with the conditions and submitted to the Major Infrastructure Team Manager, Auckland Council for certification that they comply with the conditions of the consents/ designation prior to construction of the relevant Project stage, at least 20 working days prior to the commencement of construction.

The UDL Plans shall be updated to:

- (a) Reflect relevant details from the PT and Active Mode Transport Routes Plan Set (Schedule A, Row 23);
- (b) Remove the playing field at Waterview Reserve;
- (c) Confirm the reconfigured bund design at Alwyn Avenue (Schedule A, Row 42);
- (d) Reflect landscaping required in relation to the northern vent stack in Waterview Glades pursuant to Conditions DC.8.

#### LV.2.

In certifying the UDL Plans, prepared in accordance with Condition LV.1, the Major Infrastructure Team Manager, Auckland Council shall be satisfied the UDL plans includes:

- (a) The visual mitigation of infrastructure as detailed in Section B of the UDLF (refer Schedule A, Row 38).
- (b) Incorporation of art or art through design of structures, particularly as it relates to noise barriers and the Great North Road Interchange piers and ramps (Refer to clauses (g) and (i) below).
- (c) Planting to screen houses and noise walls (including cross section details);
- (d) Planting along the corridor on Traherne Island, in accordance with these conditions and the Ecological Management Plan;
- (e) Specimen planting on the Great North Road Interchange and the Te Atatu Road Interchange;
- (f) Specimen planting at the tunnel portals (except where this is within the OPW area);
- (g) Finalisation of the noise barriers (as required by Condition ON.3(a)) in accordance with the design principles for noise walls (refer Schedule A, Row 32);
- (h) Delineation of the final areas of the Open Space Restoration Plans in accordance with the Open Space Restoration Plans (Schedule A, Row 30), and reference that all works within the Open Space Restoration Plan Areas are subject to Conditions OS.1 to OS.8;
- (i) Oakley Inlet Heritage Plan, prepared in accordance with Conditions OS.5, and in particular,

consideration shall be given to the design treatment of the Great North Road Interchange piers and ramps to take into consideration the impact of the structures on the visual quality of the open space beneath;

(j) Ecological Management Plan, prepared in accordance with Conditions V.1, A.1, H.1, F.1 and M.1;

(k) Western Ring Route: Maioro Street Interchange and Waterview Connection - Oakley Creek Rehabilitation and Restoration Guidelines (Boffa Miskell, 2010); and

(l) Details of artworks or art through design of structures within the Project (e.g. design detailing of median barriers, bridge railings, safety barriers, piers, retaining walls and tunnel portals), in accordance with Section B of the Urban Landscape and Design Framework (UDLF June 2010) (refer Schedule A, Row 38) and F.8:Plans of Structures and Architectural Features, but excluding the north and south ventilation buildings, plans sections and elevations.

LV.3.

The NZTA shall have implemented the UDL Plans within 6 months of practical completion of construction of the Project.

LV.4.

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 a period of 10 years thereafter. Should the landscaping be implemented in stages (depending on construction phases), landscaping shall be implemented

in accordance with this Condition for each stage unless subsequent construction staging requires use of the proposed landscaping area.

Advice note: On-going control and management of the landscaping within the designation is the responsibility of the NZTA.

LV.5.

The NZTA shall implement the UDL Plans taking into account the pest plant management guidelines detailed in the Ecological Management Plan (as required by Condition CEMP.3).

LV.6.

The UDL Plans shall make provision for close planting of fast growing native shrubs or small trees (Griselinia, Karo, Tarata or similar) along the security boundary of Construction Yard 1 facing Te Atatu Road. This planting shall be implemented prior to operational use of the yard and maintained in a healthy state for the duration of the works programme. Such planting shall occur at no greater than 1.0m centres and shall comprise plants that are Pb28 or larger at the time of planting.

LV.8.

The NZTA shall ensure that any areas within the designation 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 and provided to the Major Infrastructure Team Manager, Auckland Council with the revised UDL Plans submitted pursuant to Condition LV.1.

LV.10.

The UDL Plans shall identify all Amenity Trees required to be removed over the construction of the Project (in accordance with Condition CEMP.6(o) and (p)). Replacement trees shall be sized at 160Lt and will either draw from the Coastal Forest or Basalt Rock Forest ecotypes listed in the Landscape Planting Schedules (provided in F.16, refer Schedule A, 17) or an agreed alternative species (confirmed by Major Infrastructure Team Manager, Auckland Council), except in the case of those trees subject to Condition ARCH.9.

Advice note: This does not necessarily apply to any replacement planting in the Open Space Restoration Plan areas, which will be confirmed in approval from Auckland Council and will be in accordance with relevant Auckland Council Park guidelines (see Condition OS.4).

LV.11.

The UDL Plans shall make provision for the rehabilitation of McCormick Green at the completion of the SH16 construction works and removal of the construction stormwater pond. Works will be in general accordance with the UDL Plans 202 and 203, (Refer Schedule A, Row 17), providing for replacement Amenity Tree planting in accordance with Condition LV.10 above.

### **Open Space Conditions**

OS.1 For the purposes of Conditions OS.2 – OS.15 the following terms will have the following meanings:

- Full size – means a football (soccer) field with the dimensions 100m x 60m.
- Half size – means a football (soccer) field with the dimensions less than 100m x 60m but no smaller than 50m x 30m.
- Toddler – means a playground specifically designed for children between the ages of 1 and 3
- Junior – means a playground specifically designed for children between the ages of 4 and 8
- Youth – means a playground specifically designed for children between the ages of 9 – 14 years
- Open Space Restoration Plans – means those plans listed in Schedule A, row 30.
- Open for Play - means the sports field has a level surface and a dense weed-free sward of mature grass, goal posts and lighting if indicated in the Open Space Restoration Plans approved by the Auckland Council.
- Sand - carpeted - means the field has been levelled and irrigated, and conventional sub-soil drains, slit drains and a 50mm deep sand carpet have been installed. The field has been stolonised with a warm season grass such as kikuyu or couch.
- Auckland Council Park Guidelines – means the document by Auckland City Council titled “Furnishing our parks: design guidelines for park furniture”, dated September 2009
- Park furniture – means those items described in the Auckland Council Park Guidelines
- AS2560 – means the Australia New Zealand Standard for lighting of sports fields.
- AS4282 – means the Australia New Zealand Standard for the control of the obtrusive effects of outdoor lighting.
- Way finding exercise – means a process for determining the number, size, location and content of signage to provide clear direction for all park users.
- Skate-park for the purpose of conditions os.5(b)(iii) means a skate park with a size of approximately 1,400 sq. m. (generally 25 wide x 55m long), incorporating a range of design variations. Suitable for beginners (providing training facilities to develop their skills) but primarily catering for intermediate to advanced level skaters.
- BMX bike track for the purpose of condition OS.5(b)(iii) means a low maintenance, non-competition BMX bike track, incorporating a range of design variations. Primarily catering for beginner and intermediate riders.

OS.2

The NZTA shall prepare Open Space Restoration Plans to outline how the open space replacement land, as defined in the Open Space Restoration Plan Areas (Schedule A, Row 30) (including land occupied during construction) will be reinstated or replaced on completion of construction, for handover to Auckland Council and those areas identified in Condition DC.1A(f) and RC.3(f). Following the consultation detailed in Condition OS.3 below, the Open Space Restoration Plans listed in Condition OS.3(a) to (f) shall be submitted within 12 months of construction commencing in the specific areas affecting the reserves or within 12 months of occupation of open space, whichever is the sooner, to the Major Infrastructure Team Manager, Auckland Council.

Advice note: Conditions OS.9 and OS.10 require certain works to be provided prior to occupation of Construction Yards 6 and 7 (Waterview Reserve) and Construction Yards 9-12 (Alan Wood Reserve) and

this may impact on the timing of Open Space Restoration Plans for these areas.

### OS.3

The Open Space Restoration Plans shall be prepared in consultation with the Auckland Council, Iwi, the Community Liaison Groups (Condition PI.5), NZHPT, and other recreation users and other user representatives identified by Auckland Council. The Open Space Restoration Plans shall comprise the following specific plans:

- (a) Waterview Reserve Restoration Plan;
- (b) Alan Wood Restoration Plan (including Hendon Park and 25 Valonia Street);
- (c) Oakley Creek Esplanade (Waterview Glades) Restoration Plan;
- (d) Jack Colvin Park Restoration Plan;
- (e) Rosebank Domain Restoration Plan;
- (f) Harbourview-Orangihina Reserve Restoration Plan.
- (g) The areas of the Open Space Restoration Plans are shown in the Open Space Restoration Plan Areas (Refer Schedule A, Row 30).

### OS.4

All Open Space Restoration Plans shall be prepared in general accordance with the UDL Plans (Schedule A, Row 30), and shall include, but not be limited to, the following:

- (a) Details of, including the location, of any artworks and educational signage, and directional signage. In the case of Alan Wood Reserve, Waterview Reserve and Oakley Creek Esplanade (Waterview Glade) this shall include a "way-finding exercise" in accordance with Auckland Council practice, to determine all signage to be provided; and
- (b) Evidence of integration with the Oakley Creek restoration works required under Conditions STW.5, STW.20, V.16 and LV.2(i); and a summary of the consultation undertaken (as required by Condition OS.3) and the response received; and
- (c) Details of any vehicle access through the reserves and parking areas; and
- (d) Park furniture (including quantity and quality) to be provided in accordance with relevant Auckland Council Park guidelines, except for:
  - (i) The riparian area within Alan Wood Reserve where the only furniture required is a maximum of 10 seats; and
  - (ii) Oakley Creek Esplanade (Waterview Glades) where the only furniture required is replacement of 3 existing seats; and
- (e) The inclusion and integration of the design for all pedestrian and cycleway linkages and facilities detailed on the PT and Active Mode Transport Routes (Schedule A, Row 22). The design integration shall be in accordance with CPTED principles;
- (f) Implementation programme, including sequencing of works and completion dates. This shall include works that could be implemented prior to practical completion of construction works or are outside the Project area
- (e.g. upgrading of the Waterview Esplanade Reserve set out in Condition OS.5(b)(vii);
- (g) Implementation programmes for planting and field reinstatement. This shall include:
  - (i) A 12 month maintenance period for built structures and soft landscaping; and
  - (ii) For any landscaping accessible to horses an assessment to demonstrate that the planting schedule is not toxic to horses and that consultation on this has been undertaken with the Te Atatu Pony Club;
- (h) The specific requirements for each Restoration Plan area as set out in Conditions OS.5 – OS.8;
- (i) Documentation of consultation undertaken required by Condition OS.3 and the views and concerns expressed by this consultation and the written approval of the Manager Community and Cultural Policy.

#### Advice note:

For the avoidance of doubt provision of (a) to (h) above will require elevations, cross sections, engineering drawings and written documentation to supplement the UDL Plans. It is also noted that the UDL Plans identify landscaping, planting and other works beyond the Open Space Restoration Plans (refer Conditions LV.1 – LV.6, LV.9 and LV.10). Educational signs and artworks are particularly encouraged.

#### OS.13

During construction, the NZTA shall maintain pedestrian accessways to all open space available for public use during construction and education facilities where access is affected by the works, including any public access that crosses private land. Such access shall be safe, clearly identifiable, provide appropriate surfacing and seek to minimise significant detours. The access shall be of a same or similar standard as that disrupted and will be provided and maintained by the NZTA.

Advice note: This specifically includes the existing pedestrian access that provides a connection to the crossing over Oakley Creek between 1510 Great North Road and Unitec Mt Albert Campus.

#### **Jack Colvin Park Restoration Plan (Specific)**

##### OS.8

In preparing the Jack Colvin Park Open Space Restoration Plan, equivalent reinstatement of the benched seating area will be offered to Auckland Council.

##### OS.15

The works shall not result in any permanent loss of carparking from Western Springs Garden carpark.

#### **Social Conditions**

##### SO.1

In addition to the Community Liaison Groups established pursuant to Condition PI.5, the NZTA shall establish an Education Liaison Group (including representatives from local schools, kindergartens, childcare facilities, Unitec Institute of Technology, the Ministry of Education and Housing New Zealand Corporation), to provide a forum through which:

- (a) Relevant monitoring data can be provided (e.g. air quality monitoring);
- (b) Notice can be provided of when particularly noisy activities will occur in close proximity to schools and education facilities, to enable the opportunity to identify any potential conflict with particular sensitive periods, and the requirement for specific mitigation strategies (e.g. rescheduling of construction activities where practicable);
- (c) Particular concerns can be raised by educational facilities or parents, discussed and potentially addressed;
- (d) Notice can be provided of potential construction impacts on school transport routes (including pedestrian/cycle access) to enable the opportunity to identify specific mitigation preferences of the education facilities (e.g. any detour routes) and to enable these facilities to appropriately inform students and/or parents; and
- (e) Learning and teaching opportunities for educational facilities to participate in Project works (e.g. planting or artworks).

The Education Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period. The Education Liaison Group shall continue to meet for at least 12 months following the completion of the Project (or less if the members of the Education Liaison Group agree), so that ongoing monitoring information can continue to be disseminated.

##### SO.2

In addition to Condition SO.1(b) above, where noisy construction activities (that are projected to exceed the Noise Criteria in the CNVMP) are proposed in close proximity or adjacent to schools/ childcare centres, the NZTA shall, when preparing their SSNMP (in accordance with Condition CNV.1) give specific consideration to options to carry out these works outside school hours or during school holidays as a mitigation option.

##### SO.6

In addition to the Community Liaison Group established pursuant to Condition PI.5, the NZTA shall establish a Working Liaison Group (WLG) inviting the following:

- (a) Auckland Council;
- (b) Housing New Zealand Corporation;

- (c) Te Kawerau Iwi Tribal Authority;
- (d) Ngati Whatua o Orakei;
- (e) KiwiRail;
- (f) Department of Conservation;
- (g) Ministry of Education; and
- (h) Local Boards.

The purpose of this WLG will be to provide a forum through which:

- (a) Opportunities for public work development (including social housing, passenger transport or recreation / open space) are identified in areas where the NZTA confirms that the designation is no longer required (e.g. following construction activities);
- (b) Comment can be provided on updated Urban Design and Landscape Plans, including the finalised designs of structural elements for the Project (prior to their submission to the Auckland Council);
- (c) Opportunities for integration of other environmental projects (e.g. restoration plantings) are identified;
- (d) Consideration is given to appropriate protocols for commencement and completion of construction activities (including blessings for commencement of construction phases); and
- (e) Comment can be provided by Te Kawerau a Maki on the detailed lighting design of SH16, to consider how lighting effects on cultural sites and practices might be mitigated without compromising traffic safety or those performance standards identified in Condition L.1.

The Working Liaison Group shall be established at least 2 months prior to construction commencing and shall have regular meetings (at least three monthly) throughout the construction period.

#### SO.7

A schedule of trees that require removal for construction of the Project will be identified and reported to the Community Liaison Group for their consideration of potential provision of timber for heritage projects (including in particular the provision of Robinia wood for heritage boat building). If the demand for this timber is identified to the Construction Team, appropriate measures for felling and removal from the site will be confirmed.

#### SO.8

The NZTA will provide financial support to Te Atatu Pony Club over the period of occupation of Construction Yard 1 for additional feed supplement required as a consequence of the area of lost grazing. Support will be paid on receipt of proof of purchase up to a maximum of \$12,000/yr and excluding any existing feed purchase that is required by the club (e.g. the amount of additional feed purchased in the 2010 and 2011 years, when the club had full use of the proposed construction yard 1).

Except this condition will be amended if additional grazing land becomes available or is provided by the Auckland Council (Areas A and B identified in the Henderson Massey Local Board Minutes, dated 7 April 2011). In this instance, providing the forage on that pasture is suitable for food for horses, the amount payable would be pro-rated based on the shortfall in area from the 'pre-construction' lease area only.

#### SO.9

The NZTA will provide annual financial support to Te Atatu Pony Club for monies lost from the 'One Day Events' held on the Harbourview - Orangihina Park, calculated on the basis of average annual funds derived from such events over the Feb 2008 to Feb 2011 years (up to a limit of \$8,000). This payment will be over the period from the contractor's occupation of Construction Yard 1 to the confirmation of the Open Space Restoration Plan (required by Condition OS.2 – OS.4). If the Open Space Restoration Plan for Harbourview - Orangihina Park confirms that the Pony Club will be reinstated on the site, then payment will continue up until restoration is completed to the satisfaction of Auckland Council.

SO.10 Subject to any necessary consent and landowner approvals, the NZTA will construct a raceway on the alignment shown on the Plan 'Te Atatu Interchange': Construction Yard 1, including annotations (see Schedule A, Row 34). The raceway shall be not less than five metres wide and enclosed on both sides by timber rail fencing.

#### SO.11

The NZTA shall form a level, grassed area having approximate dimensions of 90 metres by 170 metres suitable for the exercise of horses, within the general location shown on the Drawing 'Te Atatu Interchange': Construction Yard 1 (see Schedule A, Row 34). Except this condition will cease to have effect if other adjacent land becomes available or is provided by the Auckland Council to the Te Atatu Pony Club for the duration of the NZTA's occupation of the land for Construction Yard 1 (for example, if the Areas A and B identified in the Henderson Massey Local Board Minutes, dated 7 April 2011 are made available).

#### SO.12

The NZTA shall comply with the obligations offered by the NZTA in its letter to the Te Atatu Pony Club, 21 March 2011, including the following:

- (a) Development of a Construction Yard Plan in consultation with the Te Atatu Pony Club and the Auckland Council to minimise the impacts on ponies and horses which will address:
  - (i) The location, timing and monitoring of construction yard activities which could affect ponies and horses; and
  - (ii) Confirm the programme of key events in the Te Atatu Pony Club calendar so that, any construction yard activities with the potential to cause disruption can be rescheduled; and
  - (iii) Confirm communication protocols between the NZTA and its contractors and the TAPC;

#### Advice note:

The attention of NZTA and the club is drawn to the PI suite of conditions concerning communication, consultation, and liaison.

(b) Subject to any necessary consent and landowner approvals, undertake the following works (where relevant, these works are to be in accordance with the details identified on the plan Te Atatu Interchange: Construction Yard 1 (see Schedule A, Row 34)):

- (i) Relocate existing water troughs (and their supply lines), trees (in accordance with Condition CEMP.6(n) and CEMP.6(o)) and horse jumps located within the construction yard to elsewhere in the remaining area leased by the Te Atatu Pony Club;
- (ii) Provide surface water drainage for the south western paddock adjacent to the Motorway (SH16).

### **Vegetation Conditions**

#### V.1

The NZTA shall finalise the ECOMP submitted with this application, prior to works commencing on site. The ECOMP shall be implemented through the CEMP. The ECOMP shall clearly identify the location and identity of:

- (a) All Significant Vegetation within the designation that is to be fully protected or relocated; and
- (b) All Valued Vegetation within the designation that is affected by the works (protected or removed). Note: Significant and Valued Vegetation shall be as defined in the ECOMP.

#### V.2

The NZTA shall employ a suitably experienced botanist ('nominated botanist') for the duration of the works to monitor, supervise and direct all works affecting or otherwise in close proximity to the Significant Vegetation and Valued Vegetation identified in the ECOMP.

#### V.3

Prior to any site works commencing, a pre-commencement site meeting shall be held so that the conditions that pertain to the Significant Vegetation and Valued Vegetation and all vegetation in general (both native and exotic) are explained by the nominated botanist to all contractors or sub-contractors who will be working on site within the close vicinity of that vegetation.

#### V.4

The NZTA shall minimise the amount of vegetation (both native and exotic) which is to be cleared, with the exception of weeds (both woody and otherwise, unless agreed with the Major Infrastructure Team Manager, Auckland Council and the Community Liaison Group that the retention of these 'weeds' has other environmental or ecological benefits that warrant their retention). All vegetation clearance shall be

undertaken in accordance with the measures set out in the ECOMP.

V.5

The NZTA shall install protective fencing around, or otherwise clearly demarcate, all of the Significant Vegetation identified in the ECOMP as requiring full protection, under the supervision of the nominated botanist.

V.6

The NZTA shall replace any terrestrial Valued Vegetation that is required to be removed as a result of construction activities, in accordance with the ECOMP and the Urban Design and Landscape Plans.

V.7

The nominated botanist shall supervise all trimming, pruning and relocation work associated with the Significant Vegetation and Valued Vegetation required as part of the works.

V.8

Immediately prior to planting, and for a period of 2 years following completion of construction, the NZTA shall undertake weed control and management of all invasive plant pests within the vegetated areas of the surface designation for the Project. Following this 2 year period, on-going control and management of all invasive plant pests within these areas will be the responsibility of the NZTA.

V.9

The nominated botanist shall undertake a monitoring programme throughout the construction period, including monitoring of:

- (a) The condition, repair and location of the temporary protective fencing or other forms of demarcation used to identify the Significant Vegetation;
- (b) Any works within the vicinity of the Significant Vegetation and Valued Vegetation;
- (c) The general health of the Significant Vegetation and Valued Vegetation (including any Significant or Valued Vegetation that has been relocated away from the works area); and
- (d) Compliance with the vegetation conditions of designation by way of fortnightly inspections during the construction period.

V.10

Any planting utilising native plants shall use plants genetically sourced from the Tamaki Ecological District where possible or otherwise shall use plants that have been genetically sourced from within the Auckland Ecological Region.

### **Avian Conditions**

A.1

The NZTA shall finalise, and implement through the CEMP, ECOMP submitted with this application to include the matters set out in Conditions A.2 to A.6.

A.3 The NZTA shall employ a suitably qualified ecologist to undertake monitoring of the roosting areas located at:

- (a) The existing high tide roost in Harbourview-Orangihina Park; and
- (b) The temporary construction roosting structure(s) pursuant to Condition A.2.

Monitoring shall be undertaken on a monthly basis, with a monitoring report prepared on a quarterly basis. The monitoring report shall be made available to the Major Infrastructure Team Manager, Auckland Council and Department of Conservation upon request.

A.4

Should the monitoring results indicate that the roosting sites have been abandoned, consultation shall be undertaken with the Department of Conservation and the Major Infrastructure Team Manager, Auckland Council to determine the need for and type of further management strategies (if any) required.

## **Herpetofauna Conditions**

### **H.1**

The NZTA shall finalise and implement through the CEMP, the ECOMP submitted with this application to include details of lizard management to be undertaken, including the following:

- (a) Lizard capture methodology, including timing;
- (b) Lizard release location(s);
- (c) Lizard habitat enhancement at population release sites, including a detailed pest control programme for a minimum of one month prior to release and for a minimum of three consecutive years' duration after release;
- (d) Location(s), monitoring and maintenance of lizard protective fencing;
- (e) Post-release monitoring methodology; and
- (f) Lizard captive management methodology.

## **Lighting**

### **Conditions**

#### **Operation**

##### **L.1**

Lighting shall be designed and screened to minimise the amount of lighting overspill and illumination of residential areas, in general accordance with the Waterview Connection Lighting Plan (Drawing Set F.11 (Refer Schedule A, Row 12):

- a) All motorway lighting shall be designed in accordance with "Roadlighting Standard AS/NZS1158";
- b) All other lighting shall be designed in accordance with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- c) Fully cut off luminaires shall be used on SH20 from the Southern Tunnel Portal to the Maioro Street Interchange to minimise lighting overspill, as shown on Drawing Set F.11 (Refer Schedule A, Row 12). Construction Zones and Construction Yards

##### **L.2**

A Temporary Construction Lighting Management Plan shall be prepared for all construction zones and construction yards prior to commencement of any night time works within the construction zones and construction yards. The Temporary Construction Lighting Management Plan shall be independently verified by a lighting specialist and provided to the Major Infrastructure Team Manager, Auckland Council for certification of compliance 10 working days prior to any night time work commencing.

The certification process shall ensure that the Plan includes (but is not be limited to):

- a) The layout and arrangement of all temporary lighting required for night time works, and shall show how this avoids the "Light Spill Restriction Zone" identified on the Construction Yard Plans (Refer Schedule A, Row 7) submitted with the application, and that the temporary lighting complies with relevant rules provided in Rule 14 of the Waitakere City District Plan or Part 13 of the Auckland City Bylaw (April 2008);
- b) Provision for a 10m buffer between the night time work and any residential boundary at all times to minimise potential for light spill; and
- c) General operating procedures outlined in the CEMP.

##### **L.3**

Asymmetrical floodlights with horizontal glass visors that are not raised more than 3 degrees above the horizontal plane shall be used for any temporary construction night time lighting requirements.

Alternative temporary lighting arrangements may be used, subject to the prior approval of the Major Infrastructure Team Manager, Auckland Council, where it can be demonstrated that the proposed lighting is similar or better to asymmetrical floodlights with glass visors. Glare shall be kept below the recommendation given in AS 4282 – 1997 "Control of the Obtrusive Effects of Outdoor Lighting" Tables 2.1 and 2.2.

## **Archaeology Conditions**

### **ARCH.1**

The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:

- a) Identification of the Project archaeologist, their role and responsibility on the Project;
- b) Who reports to the Project archaeologist;
- c) Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;
- d) Whether ~~NZHPT~~ Heritage New Zealand and/or Auckland Council heritage and/or iwi supervision is required for the specific site (the latter to be determined through consultation with the relevant iwi groups); and
- e) Accidental discovery protocols in the event that unknown archaeological sites are uncovered.

### **ARCH.2**

The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:

- (a) All unmodified areas in the vicinity of Rosebank Road;
- (b) All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;
- (c) Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;
- (d) Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.

### **ARCH.3**

If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:

- (a) Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- (b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;
- (c) The Project archaeologist shall inspect the site to assess the relevance of the find, and then the Auckland Council shall be advised of the significance;
- (d) If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand, and the Auckland Council that an archaeological site has been exposed so that appropriate action can be taken;
- (e) In the case of human remains, the NZ Police shall be notified.

### **ARCH.8**

All contractors and subcontractors working on the Project shall be trained on the archaeological requirements set out in the ASMP.

Advice note:

Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from ~~the NZ Historic Places Trust~~ Heritage New Zealand.

## **Contaminated Land and Contaminated Discharges Conditions**

### **CL.1**

The NZTA shall finalise and implement through the CEMP, the Contaminated Soil Management Plan (CSMP) submitted with this application prior to commencement of any site works. The CSMP shall include, but not be limited to:

- (a) Measures to be undertaken in the handling, storage and disposal of all material excavated during the construction works;
- (b) Soil validation testing and groundwater testing;
- (c) Soil verification testing to be undertaken to determine the nature of the excavated spoil and potential

reuse or disposal options;

(d) Measures to be undertaken in the event of unexpected contamination being identified during construction activities; and

(e) Measures to be undertaken for the handling of asbestos containing material.

#### CL.4

All excavated soil shall be tested by the NZTA in general accordance with the CSMP, prior to either reuse on site or disposal off site. The testing regime shall be submitted for approval by the Major Infrastructure Team Manager, Auckland Council.

#### CL.5

The NZTA shall notify the Major Infrastructure Team Manager, Auckland Council within 5 working days of identification of any contamination at the site which was not identified in the reports submitted in support of this application, including contaminated soil, surface water or groundwater. The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.6

The removal of any excavated contaminated soil shall be in accordance with the CSMP. The removal and disposal of any contaminated groundwater/ surface water from the site shall be in accordance with the GWMP and the ESCP.

#### CL.7

The NZTA shall engage a suitably qualified contaminated land specialist to supervise the works, excavation and removal of any contaminated soils from the site and undertake sampling (if required) of imported material.

#### CL.8

All testing / sampling techniques shall be carried out in accordance with the Ministry for the Environment Contaminated Land Management Guidelines or other equivalent standards approved in writing by the Major Infrastructure Team Manager, Auckland Council.

#### CL.11

The NZTA shall submit to the Major Infrastructure Team Manager, Auckland Council, a Site Closure Report no later than three (3) months after the completion of the earthworks. The Report shall be prepared in accordance with Schedule 13 (Schedules for Reporting on Contaminated Land) of the Proposed Auckland Regional Plan: Air Land and Water and include:

(a) Results of any soil reuse and imported material testing carried out to ensure compliance with the CSMP;

(b) Volumes of soil removed from site;

(c) Copies of the waste disposal receipts; and

(d) Reports of any non-compliance with the CSMP procedures or complaints received while undertaking the site works.

### **Freshwater Conditions**

#### F.1

The NZTA shall finalise, and implement through the CEMP, the ECOMP submitted with this application. The ECOMP shall be updated to ensure compliance with the conditions of this consent and include changes to the details of construction processes prior to construction commencing. The ECOMP shall include, but not be limited to details of:

(a) Monitoring of freshwater ecology;

(b) Monitoring of freshwater and stream sediment quality;

(c) Trigger event criteria for undertaking additional monitoring;

(d) Procedures for responding to accidental discharges of contaminants to the freshwater environment; and

(e) Contingency plans and/or remedial measures in the event monitoring results identify adverse effects.

## F.2

The NZTA shall engage a suitably qualified ecologist and water quality scientist to undertake freshwater monitoring programme prior to, during and following construction to monitor the effect of the Project on the freshwater ecology. The freshwater monitoring shall be undertaken in Oakley Creek, Pixie Stream and Meola Creek. The freshwater monitoring programme shall be undertaken in accordance with the details set out in the ECOMP and include:

- (a) Cross sectional profiles;
- (b) Macro invertebrate sampling; and
- (c) Freshwater fish monitoring.

## F.3

The freshwater monitoring programme shall, as a minimum, be undertaken in accordance with the following frequency:

- (a) Prior to construction – two baseline ecological surveys.
- (b) During construction – twice per year for fish and macro invertebrates and cross sectional profiles, within one month prior to the beginning of the earthworks season and within one month either side of the end of the earthworks season.
- (c) Post construction – on an annual basis for a maximum period of three years, or less if the Major Infrastructure Team Manager, Auckland Council is satisfied that no adverse effects have occurred or are likely to occur from the Project.
- (d) Monthly water quality samples at the five existing Oakley Creek sample locations to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb) and nutrients.
- (e) Four “event based” samples per annum from each of the current two Oakley Creek sites. The samples are to be analysed for pH, turbidity, suspended solids, metals (Zn, Cu and Pb), hydrocarbons (TPH) and nutrients.
- (f) Two sediment quality samples per annum (January and July) at the five existing water quality Oakley Creek sites (if there is sufficient sediment to sample). The samples are to be analysed for metals (Zn, Cu and Pb), polycyclic aromatic hydrocarbons (PAH), hydrocarbons(TPH) and semi-volatile organic compounds.

Advice note: The sample collection and analysis required under sub-clauses (d) to (f) shall be undertaken following an IANZ accredited methodology by a suitably accredited laboratory (International Accreditation New Zealand).

## F.4

The NZTA shall undertake additional freshwater monitoring in the event of a ‘trigger event’ for freshwater habitats. For the purposes of this consent, a ‘trigger event’ for freshwater habitats is defined in the ECOMP.

## F.5

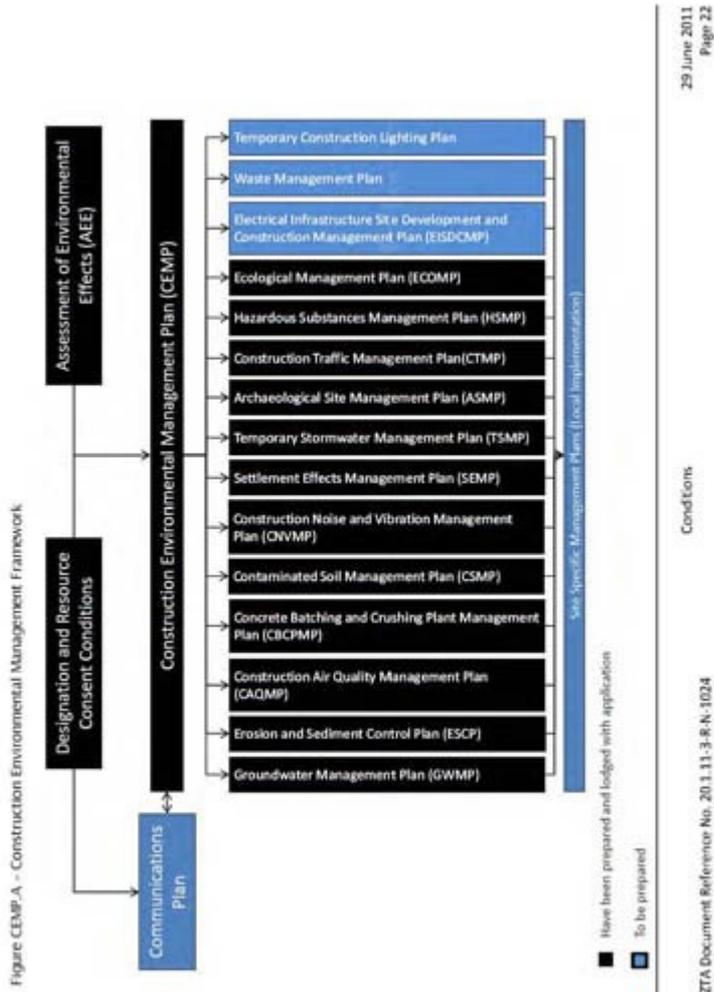
The NZTAs ecologist/hydrologist (required by condition F.2) shall review, every six months, the freshwater monitoring results, provided from Conditions F.2 to F.4, and results in monitoring detailed in earthworks Conditions E.9 and E.19 and Groundwater Condition G.10. In the event that potential adverse effects are identified, including through review of the Condition G.10 monitoring results by the hydrologist and freshwater ecologist required by Condition G.12, the NZTA shall develop and submit for the approval of the Major Infrastructure Team Manager, Auckland Council appropriate contingency plans and/or remedial measures in accordance with the measures set out in the ECOMP.

## F.6

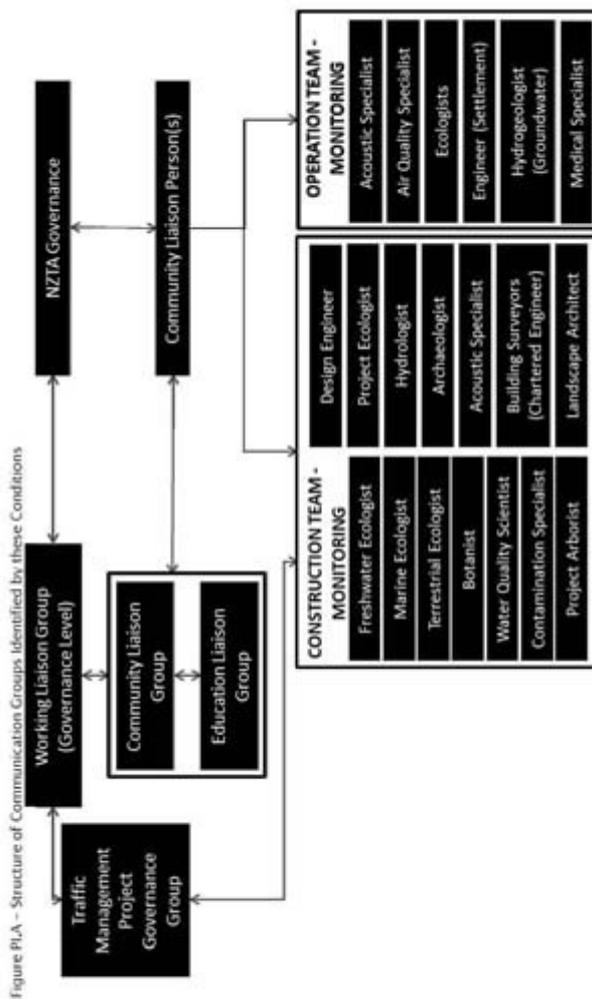
Freshwater monitoring reports shall be compiled from the monitoring undertaken pursuant to Conditions F.2 to F.4 and the review of Condition F.5, and a report provided to the Major Infrastructure Team Manager, Auckland Council every 6 months.

## Attachments

Attachment 1: Figure CEMP.A - Construction Environmental Management Framework



Attachment 2: Figure PI.A - Structure of Communication Groups



## 6741 State Highway 16 and 18 - Westgate to Whenuapai and Hobsonville

Designation Number	6741
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from Westgate interchange, Westgate to Brigham Creek Road intersection, Whenuapai and State Highway 18 from Westgate interchange, Westgate to Greenhithe Bridge, Hobsonville
Rollover Designation	Yes
Legacy Reference	Designation NZTA4, Auckland Council District Plan (Waitakere Section) 2003
Lapse Date	Given effect to (i.e. no lapse date)

### Purpose

N/A.

### Conditions

#### 1. General

### ***Modification of SH16B***

i. That the proposed SH16B designation be modified by reducing its size so that it does not extend northward of the current SH16 intersection with Brigham Creek Road. This modification shall be as shown on Plan TNZ/03 attached to these conditions.

### ***Maintenance of Land***

ii. That any land taken or held for the works shall be maintained to a reasonable standard until physical works commence.

### ***Access***

iii. Where private access to private property is directly affected by the designation, ~~Transit the~~ New Zealand Transport Agency, in consultation with each affected owner, shall provide suitable alternative vehicular access to those properties unless the affected landowner agrees otherwise. Such alternative access shall:

- a. In those cases where the proposed access serves the same or lesser number of properties as the existing access or accesses, be of no lesser construction standard than the existing access.
- b. In those cases where the proposed access serves a greater number of properties than an existing access or accesses, comply with the ~~Waitakere City~~ Auckland Council construction standards applicable at the time. In all cases works must be completed and maintained to ensure access to those properties at all times. For the purposes of this condition, the term "properties" shall include only those properties existing at the time of confirmation of the designation or once appeals have been determined (whichever is the later).

### ***Vehicular access***

iv. At all times reasonable vehicular access shall be maintained to private properties not directly affected by construction and/or operation. Where private properties are directly affected by construction and/or operations causing vehicular access to be temporarily prevented and no alternative can be utilised, ~~Transit the~~ New Zealand Transport Agency shall ensure that the property owner is consulted about the most suitable time for carrying out the work and shall minimise the period during which vehicular access is prevented.

### ***Liaison person***

v. That a permanent liaison person shall be immediately appointed by ~~Transit the~~ New Zealand Transport Agency for the duration of the highway project to be the main and readily accessible point of contact for persons affected by the designation and construction works. The liaison person's name and contact details shall be advised to affected parties by ~~Transit the~~ New Zealand Transport Agency. This person must be available for ongoing consultation on all matters of concern to affected persons.

### ***Iwi protocols***

vi. The iwi protocols submitted with the Notice of Requirement (Appendix 14, Volume 2 of the AEE) shall be followed.

### ***Pegging properties***

vii. That, where requested by owners, ~~Transit the~~ New Zealand Transport Agency shall physically peg out the extent of the alignments on individually affected properties once the designation has been confirmed or once all appeals have been determined (whichever is the later).

### ***Monterey Park Signage***

viii. That appropriate signage shall be provided directing access to Monterey Park, in consultation with the owner of that site.

### ***Specific properties***

ix. In carrying out detailed design, ~~Transit the~~ New Zealand Transport Agency shall consult with the owners of 143, 147 and 155 SH16, 21 Brigham Creek Road and 122 Hobsonville Road and shall to the greatest practicable extent minimise land take from those properties.

**Definition of “practicable”**

x. For the purpose of these conditions, in determining whether a proposed activity is “practicable” or “impracticable”, ~~Transit~~ the New Zealand Transport Agency shall have regard to:

- The nature of the proposed activity; and
- The sensitivity of the environment which will be affected by the proposed activity; and
- The financial implications of the proposed activity when compared with other options; and
- Relevant planning instrument; and
- The effects on the environment of the proposed activity when compared with other options;
- and The current state of technical knowledge and the likelihood that the proposed activity
- can be successfully carried out.

**Outline Plans and Management Plans**

xi.

a. Prior to the commencement of the works, ~~Transit~~ the New Zealand Transport Agency shall submit to Auckland Council the relevant Management or Mitigation Plans required under Conditions 3.ii. and 6.i.

b. The Plans shall be submitted to Auckland Council as soon as reasonably practicable, and in any event, allowing sufficient time for review by Auckland Council and discussion with ~~Transit~~ the New Zealand Transport Agency.

c. Any Management, Mitigation or Outline Plans may be submitted in stages to reflect any proposed staging of the physical works.

d. If Auckland Council and ~~Transit~~ the New Zealand Transport Agency agree on the terms of such Management or Mitigation Plans, that agreement shall be deemed to be a waiver pursuant to section 176A(2)(c) of the RMA of the requirement for an Outline Plan and under section 176A.

e. If Auckland Council and ~~Transit~~ the New Zealand Transport Agency do not agree on the terms of such Plan or Plans, the provision of section 176A of the RMA shall apply of any matter not agreed.

f. The works shall be undertaken in accordance with the relevant Management or Mitigation Plan or Outline Plan (as the case may be).

**2. Road Design**

Shoulder bus lanes

i. That a motorway cross-section shall be provided for that can accommodate future 3.5m shoulder bus lanes.

**Hobsonville Road interchange**

ii. That ~~Transit~~ the New Zealand Transport Agency shall incorporate facilities for pedestrians and cyclists at the Hobsonville Road interchange in general accordance with the attached plan entitled Figure 1 - Hobsonville Road Cyclist Facilities.

**Cycle and pedestrian paths**

iii. That ~~Transit~~ the New Zealand Transport Agency shall reinstate or replace existing cycle or pedestrian paths affected by the designation to a similar standard as existing.

**Cyclists and Pedestrians**

iv. That adequate provision shall be made to ensure that cyclists and pedestrians can travel between the Upper Harbour Bridge and Hobsonville Road.

### **Utility Operators**

v. Subject to the general powers and obligations as set out in section 54 of the ~~Transit New Zealand Act 1989~~ Government Roadway Powers Act 1989, during the detailed design processes and subsequent construction processes, ~~Transit~~ the New Zealand Transport Agency and its agents shall liaise with all relevant utility operators prior to undertaking any work in reliance on the designation and shall ensure that all existing utility services located in or adjacent to the motorway designation are:

- a. Either protected from any activity which may interfere with the proper functioning of the services, or relocated; and
- b. If damaged, repaired; at ~~Transit~~ the New Zealand Transport Agency's expense, to the reasonable satisfaction of the affected utility operator.

### **3. Noise Impact Mitigation**

i. That the alignments be designed and constructed in accordance with ~~Transit~~ the New Zealand Transport Agency's "Guidelines for the Management of Traffic Noise for State Highway Improvements", December 1999.

ii. That a detailed Noise Mitigation Plan shall be prepared by a suitably qualified noise consultant in consultation with the ~~Director of Planning, Waitakere City Council~~ Manager Resource Consents, Auckland Council. The Noise Mitigation Plan shall be submitted to the ~~Director of Planning, Waitakere City Council~~ Manager Resource Consents, Auckland Council, prior to construction. The purpose of the plan is to describe the method by which noise associated with traffic using the roading within the designation will be made to comply with specified noise limits. Where the ambient sound level is required to be monitored to determine design limits then this shall be done prior to construction commencing.

iii. Noise monitoring shall be undertaken in accordance with NZS6801:2008 "Acoustics – Measurement of environmental sound". ~~NZS6801:1991 Measurement of Sound~~.

~~Transit~~ the New Zealand Transport Agency shall ensure that representative noise monitoring of the Highway route is undertaken at its expense by a suitably qualified and experienced acoustical consultant if so requested by ~~Waitakere City~~ Auckland Council within nine months of the opening of the whole route if that occurs separately. Results of all noise monitoring shall be supplied to Auckland Council within six weeks of the monitoring being completed.

iv. That during construction, New Zealand noise standard 6803: 1999 "Acoustics – Construction noise" be complied with. ~~NZS 6803P: 1984 The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Works be complied with.~~

v. Notwithstanding the generality of Condition 3.iii. above, at such time as the new Highway is operational, ~~Transit~~ the New Zealand Transport Agency shall:

a. Undertake specific noise monitoring on the properties at:

- 70 Trig Road owned by C & S Birch, legally described as Lot 8 DP 64470;
- 72 Trig Road owned by Jon Winifred Boyle, legally described as Lot 7 DP 64470;
- Kedgley Drive, legally described at Lot 3 DP 117530 owned by Annemarie de Vos,

to ensure that the specified noise limits set out in Condition 3.i. are being complied with; and If such limits are not being complied with, take such further action in consultation with each of those parties and/or their authorised representative as may be necessary to ensure compliance

### **4. Archaeological Remains**

i. That, should construction work uncover any archaeological remains, ~~Transit~~ the New Zealand Transport Agency immediately advise local Kaumatua and ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and cease working in the affected area until any necessary authority required by ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained.

ii. That ~~Transit~~ the New Zealand Transport Agency engage a recognised archaeologist:

- a. To undertake a scientific archaeological investigation of the Sinton Store site (R11/2000) and make the requisite applications to the New Zealand Historic Places Trust for authority to modify or destroy the site (on behalf of ~~Transit~~ the New Zealand Transport Agency); and

b. To be present during construction of the section of the new SH18 alignment between Upper Harbour Drive (Hobsonville Road) and Sinton Road and to determine whether any subsurface remains are present in this section of the alignment.

iii. That ~~Transit~~ the New Zealand Transport Agency implement, where practicable, any recommendations made by the archaeologist in relation to conditions 4.i. and 4.ii. above.

## 5. Heritage

### ***Relocation of Heritage Buildings***

i. With respect to the buildings at 1, 2 and 3 Clarks Lane, 1 Brigham Creek Road and 130 Hobsonville Road, ~~Transit~~ the New Zealand Transport Agency shall pay the reasonable costs (including the costs of any consents required) for each building of:

a. relocating it appropriately to a new location within the wider Hobsonville area which recognises the historical significance of that building; then

b. refurbishing to its "pre-removal" standard.

This Condition shall remain operative until such time as the construction of the SH16/18 realignment project requires that the building or buildings (as the case may be) need to be removed. ~~Transit~~ the New Zealand Transport Agency shall commence consultation with appropriate heritage authorities (including the ~~Waitakere City Auckland~~ Council) and landowners regarding relocation options not later than six months prior to the commencement of construction works. If no party has come forward who is willing to provide a suitable site for relocation, then ~~Transit~~ the New Zealand Transport Agency shall, subject to any necessary investigation and recording of heritage significance as required by the appropriate heritage authorities, be entitled to dismantle and/or dispose of the building or buildings at that time. It is noted that ~~the New Zealand Historic Places Trust~~ Heritage New Zealand authorisations may also be required.

ii. 2-4 Sinton Road

a. Subject to compliance with the mitigation requirements set out in this Condition, ~~Transit~~ the New Zealand Transport Agency is authorised under the designation to demolish the heritage building at 2-4 Sinton Road.

b. Demolition shall be undertaken under the supervision and instruction of a suitably qualified archaeological expert. Demolition shall be undertaken in a manner, and at a rate, that allows careful recording and appropriate sampling of materials to provide an archive of the historical evidence that is to be destroyed. The guiding principles that are to be followed in undertaking the demolition are those set out in the ICOMOS document 'Principles for the Recording of Monuments, Groups of Buildings and Sites (1996)'.

c. In addition to the detailed recording set out in paragraph b. above, ~~Transit~~ the New Zealand Transport Agency shall use all reasonable endeavours to save parts of the building for display in a suitable archival institution. Assuming that suitable institution can

be located that is interested in hosting such a display, ~~Transit~~ the New Zealand Transport Agency shall fully fund all steps necessary to prepare the display, including costs of transport, storage, and the preparation of explanatory materials showing the construction techniques and the materials utilised in construction.

d. In addition to the foregoing, ~~Transit~~ the New Zealand Transport Agency shall fund the preparation of an illustrated booklet outlining the history, architecture and technology of the building (in the context of the history of experimentation with concrete structures and the relationship with the ceramics industry, particularly the Hobsonville ceramics industry). This study will also include information relating to the broader heritage context at the site, including its relationship with other historic houses in nearby Clarks Lane.

e. In undertaking the mitigation works referred to in paragraphs (b) - (d) above, ~~Transit~~ the New Zealand Transport Agency shall not be required to expend more than a total of \$100,000.

f. In addition to the mitigative works referred to above, ~~Transit~~ the New Zealand Transport Agency shall make a contribution to the ~~Waitakere City Auckland~~ Council of the sum of \$300,000 as offsetting mitigation for the loss of the heritage values associated with 2-4 Sinton Road. That sum is to be utilised by ~~Waitakere City Auckland~~ Council on such heritage projects within the ~~broader former~~ Waitakere City area, and if possible the Hobsonville area, as the Auckland Council deems appropriate.

**Hobsonville State Highway 16B and 18C: Mitigation Measures in Regard to Ecological Effects. Prepared by Boffa Miskell Limited March 1999**

**5.1 Wallace Inlet**

It appears that SH18 C will pass close enough (i.e. the toe of the fill batter) to the Wallace Inlet that the native vegetation here will be affected through clearance, and that the existing riparian (buffer) vegetation will be disturbed. Adequate mitigation will involve the revegetation of an appropriate riparian buffer zone at the head of the Wallace Inlet (including road side batter slopes within the estuary area). It will also involve the promotion of natural regeneration of estuary inlet vegetation through weed control, monitoring and enhancing the establishment of mangroves either through using mangrove seed traps (which is as yet an experimental method and simply involves the installation of small stakes at strategic positions with which to encourage the settlement of mangrove seeds washed in by the full tide) or by direct planting of recently germinated seedlings thinned from the adjacent mangrove estuary. This should promote the re-establishment of estuary habitat with the eradication of the existing weed populations within the immediate area (including adjacent areas less affected by the roadway) and the revegetation of cleared or weeded areas. Because the batter toe appears to remove the small salt marsh at the inlet head, changing the topography as it does this vegetation type may not return to occupy its former position, however, with the proposed mitigation the system is highly likely to return to a native, natural, estuary condition.

The species used for revegetation should reflect the transition from estuary inlet to terrestrial and potentially be comprised species such as:

Canopy	Common Name	Spacing	Plant Size	% Composition
<i>Metrosiderus excelsa</i>	Pohutakawa	7m	PB5	5
<i>Corynocarpus laevitagus</i>	Karaka	3m	PB5	10
<i>Sophora microphylla</i>	Kowphai	3m	PB5	10
<b>Lower Tier</b>				
<i>Pseudopanax lessonii</i>	Coastal Five Finger	0.5m	PB2	20
<i>Leptospermum scoparium</i>	Manuka	0.5m	PB2	25
<i>Phormium tenax</i>	Flax	1m	PB2	10
<i>Coprosma lucida</i>	Karamu	0.5m	PB2	10
<i>Cordyline australis</i>	Cabbage Tree	0.5m	PB2	5
<i>Pittosporum crassifolium</i>	Karo	1m	PB2	5

**5.2 SH16 B - SH18 C Intersection Wetland**

Just north and immediately down stream of the proposed intersection of SH16 B and SH18 C is one of the better native wetland habitats through which the new highways pass (though it is nevertheless modified). A bridge for SH 18 C and a bridge like structure for SH 16 B in these areas may avoid adverse

effects, but only if it retained habitat beneath its structure - this would be an expensive option and probably not warranted given the modified nature of the wetland. Suitable mitigation for the loss of some of this area could involve the following:

1. Plant the remainder of the alluvial flood plain north of SH 16 B beyond the earthworks (see Fig. 1, wetland corridor) with appropriate species to form a thin natural habitat corridor;
2. Begin the establishment of a swamp forest / flood plain forest habitat on the alluvial plain immediately adjacent to the designation in between SH 18 C and SH 16 B (Fig.1, swamp forest);
3. Recreate a new wetland of better (without the exotic tree components etc) quality than the existing one between SH 16 B and SH 18 C (Fig. 1, wetland) including an open water area;
4. Replace or create native riparian vegetation on the bank side-slopes and wetland edges and batter slopes (Fig. 1 riparian edges); and
5. Construct fish "friendly" culverts beneath the highways as these will be necessary in order to link the wetland with the wider freshwater ecosystem. For SH 16 B this may mean long lengths of culvert which are likely to need to have passage devices (such as baffles) to ensure no lamina flows (culverts

over 20m and/or those that change the flow dynamics).

For establishment of a wetland this may involve some or all of the following:

- Creation of a shallow pond or ponds (minor earth works with associated sediment discharge precautions); A weir or weirs with suitable fish passage devices connecting the ponds and lower reaches and ensuring at least minimal water retention within the ponds;
- Planting of appropriate wetland vegetation.

This area could potentially also be used for stormwater treatment utilising the wetland vegetation to remove suspended solids and absorb and trap pollutants.

Wetland vegetation should be with species such as:

Inundated Area	Common Name	Spacing	Plant Size	% Composition
Phormium tenax	Flax	1m	PB5	50
Typha orientalis	Raupo	In clusters		Clusters in water
Carex secta	Carex	1m	PB2	20
Juncus articulartris	Jointed Rush	In clusters	PB2	20
Cordyline australis	Cabbage Tree	0.5m	PB2	10
<b>Drier Areas</b>				
Cordyline australis	Cabbage Tree	0.5m	PB2	20
Leptospermum scoparium	Manuka	0.5m	PB2	40
Cordaderia splendens	Toe-toe	1m	PB2	10
Coprosma lucida	Karamu	0.5m	PB2	10
Phormium tenax	Flax	1m	PB2	10

For establishment of the swamp forest / flood plain forest habitat vegetation should be with species such as:

Canopy (later planting)	Common Name	Spacing	Plant Size	% Composition
Darcrycarpus dacrydioides	Kahikatea	3m	PB8	30
Podocarpus totara (drier areas)	Totara	5m	PB8	5
Agathus australis (drier areas)	Kauri	5m	PB8	5
Sophora microphylla (edges)	Kowphai	5m	PB8	5
<b>Lower Tier (initial nursery planting)</b>				
Cordyline australis	Cabbage Tree	0.5m	PB2	10
Leptospermum scoparium	Manuka	0.5m	PB2	30
Cordaderia splendens	Toe-toe	1m	PB2	5
Coprosma lucida	Karamu	0.5m	PB2	10

For terrestrial riparian vegetation (which maintains the terrestrial corridor connections beyond the wetland / swamp forest) (Fig. 1, riparian vegetation) the following species should be planted:

Canopy	Common Name	Spacing	Plant Size	% Composition
Sophora microphylla (edges)	Kowphai	5m	PB5	5
Cordyline australis	Cabbage Tree	0.5m	PB2	10
Phormium tenax	Flax	1m	PB2	10
Leptospermum scoparium	Manuka	0.5m	PB2	65
Coprosma lucida	Karamu	0.5m	PB2	10

For the corridor connection beyond the wetland / swamp forest area towards the lower existing flax swamp (Fig. 1, wetland corridor) the following species should be planted adjacent to the existing water channel to form a thin linear vegetation corridor:

Canopy	Common Name	Spacing	Plant Size	% Composition
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Cordyline australis	Cabbage Tree	0.5m	PB2	20
Phormium tenax	Flax	1m	PB2	60
Carex secta	Carex	1m	PB2	10
Coprosma lucida	Karamu	0.5m	PB2	10

iv. Should the existing wetland located next to the intersection of SH16 and SH18 be used for the purposes of providing stormwater treatment, then it shall also continue to provide for wildlife habitats. This shall be achieved by ensuring that all stormwater is pre-treated prior to entering this wetland and all structures associated with pre-treatment are located, as far as practicable, adjacent to (rather than within) the wetland itself. In addition to this wetland being enhanced in accordance with condition 5.iii. above, all potential adverse effects on the existing water regime within this wetland, its stream and its adjacent flood plain shall be avoided if practicable or, if unavoidable, shall be minimised.

v. Where there is continuous water flow, ~~Transit~~ the New Zealand Transport Agency shall design and position culverts (with the assistance of a suitably qualified freshwater biologist) to facilitate the passage of fish species which are resident upstream at the following locations: Waiarohia Stream (chainages 2950 and 3950), Trig Stream (chainage 3050), Rawiri Stream (chainage 3300), Totara Creek (chainage 1500), Lower Totara Creek (chainage 2800), Upper Totara Creek (chainages 110-1350 and 1550) and Pikau Stream.

vi. Any realigning of existing perennial waterways shall be voided or, if unavoidable, shall be minimised. Where streams are realigned, the design of any new channel shall be carried out with the advice of a fresh water biologist, and shall include the creation of appropriate habitat opportunities for aquatic fauna and the retention and establishment of riparian vegetation.

## 6. Ecological Impact Mitigation

i. Prior to the commencement of any works, an Ecological Mitigation Plan shall be prepared by a suitably qualified ecologist in consultation with the ~~Waikare City~~ Auckland Council. This Plan shall address the matters raised in Conditions 6.ii. to 6.vii. below.

ii. That a revegetation programme be carried out for those parts of the Totara Stream within or adjoining the proposed SH16B designation footprint. This programme shall focus on revegetation with native species, eco- sourced and densely planted.

iii. The Wallace Inlet and wetland areas are to be rehabilitated in accordance with the Boffa Miskell Ecological Mitigation report Sections 5.1 and 5.2 (as below):

## 7. Visual Impact Mitigation

i. That ~~Transit~~ the New Zealand Transport Agency engage a landscape architect to investigate and make recommendations with regard to the following conditions.

a. That all borrow and disposal areas for excess fill be designed and constructed to avoid significant impact, be in keeping with the general form of the surrounding landscape, and that all such areas be restored, in consultation with relevant land owners, upon completion of project construction.

b. That restoration measures include grassing and other planting for slope stability, together with landscape planting, using locally sourced native species where available.

c. That wherever possible embankment and slopes associated with the alignments be planted as soon as practicable, using locally sourced native species where available.

d. That in carrying out the detailed design for the alignment, ~~Transit~~ the New Zealand Transport Agency shall take advice from a practising landscape architect and shall pay particular attention to:

i The attached plans entitled:

- Concept Landscape and Visual Mitigation (Plans 1 to 5) dated 2 March 1999;
- Landscape Mitigation for 70 & 72 Trig Road (Figure 1) dated 20 June 2001; and
- Kedgley Drive Replacement Planting Concept Plan (Figure 2) dated 12 February 2000.

ii. The angle and extent of cut and batter slopes;

iii. Oblique cuts through highly visible ridge lines:

- In order to achieve, as far as practicable, unity between the road and the surrounding landscape units;
- and Shall prepare, with advice from a practising landscape architect, and in due course implement, a planting plan that will integrate the alignments into the various landscape units through which it passes.

iv. Mitigation by appropriate replacement vegetation of any existing vegetation that must be removed within the designation.

e. That a landscape plan be finalised during the detailed design stage by an experienced landscape architect appointed by ~~Transit~~ the New Zealand Transport Agency.

ii. That ~~Transit~~ the New Zealand Transport Agency implement, to the greatest extent practicable, the recommendations of the landscape architect in relation to conditions 7.i.a to e. above.

## **8. Transpower New Zealand**

a. All mobile plant operated in relation to the road alignment shall maintain a 6.5 metre clearance from Transpower New Zealand lines at all times and no temporary buildings or stationary plant shall be located within 8 metres of any line.

b. Any landscaping planting shall be selected and located to ensure that no part of any tree will be within or grow into an area closer than 4 metres vertical clearance within the 15 metre horizontal clearance from Transpower New Zealand lines.

c. All earthworks around the transmission lines of Transpower New Zealand shall maintain a ground level that provides a minimum 6.5 metre vertical clearance at all times.

d. Subject to the further condition 8.viii. below, no excavation works shall be undertaken within 12 metres of tower foundations, unless otherwise agreed to by Transpower New Zealand.

e. Activities relating to the road alignment shall ensure that 4 wheel drive access to the existing support structures of Transpower New Zealand is possible at all times, provided that no access from the motorway lanes shall be permitted without the prior permission of ~~Transit~~ the New Zealand Transport Agency.

f. ~~Transit~~ the New Zealand Transport Agency shall inform Transpower New Zealand before any work is carried out within 30 metres of the existing transmission lines.

g. No excavation works shall be undertaken or structure built within 12 metres of the foundation of the pylon marked on the attached plan ("Transpower Plan") unless all necessary engineering calculations for the construction of the retaining wall have been submitted and approved by Transpower New Zealand.

## **9. Kedgley Road**

a. Transit shall use its best endeavours to designate as "local access ancillary to State Highway purposes" the parts of Lots 1, 2, 3 and 4 DP 11750, Lots 3 and 4 DP 96884, and Lot 2 DP 127335 shown as "proposed

road designation: on the plan entitled "Kedgley Drive - Proposed Designation" attached as Figure 3; and

b. In the event that the land referred to in Condition 1 above is designated and either acquired or rights of access secured by landowner agreement by 30 June 2003, then Transit will:

i. Build a replacement of the existing Kedgley Drive ("the new Kedgley Drive") in the location shown in Plan entitled "Kedgley Drive Replacement - Initial Development attached as Figure 4. The new Kedgley Drive will be constructed to ~~Waitakere City~~ Auckland Council standards with a 6m carriageway width with a design profile allowing for future widening to full road width and will be completed and operational before the existing Kedgley Drive is closed off.

ii. Undertake all legal steps necessary to establish a right of way over the new Kedgley Drive to the owners of land to be served by it. The right of way shall be established on terms which give those

owners:

- Common and exclusive rights of occupation of the new private way; and
  - Sole obligation for its maintenance and upkeep - subject to the Auckland Council choosing at some time in the future to acquire the relevant land and take over responsibility for the new Kedgley Drive as a public road;
- iii. Form one vehicle crossing on to the new Kedgley Drive for each block of land served by it. Such vehicle crossings shall be constructed to the standards set out in the attached extract from Waitakere City Council's Engineering Standards Manual Issue 3.1, entitled "Heavy Commercial Vehicle Crossing - SD.3.11", November 1999 (Figure 5). The vehicle crossings shall be established in the location specified by each landowner (as far as that location is consistent with the ~~Waitakere City~~ Auckland Council standards);
- iv. Form an additional residential standard crossing place onto Lot 3 DP 117530 at the location specified by the owner of that property; and
- v. Form a "cul-de-sac" termination to the end of the new Kedgley Drive to ~~Waitakere City~~ Auckland Council Council standards in the general location shown on Plan SK8004/15 [Figure 4].
- c. In the event that the land referred to in Condition 1 above is not designated by 30 June 2003 or the land cannot either be acquired or rights of access secured to it by that date, then ~~Transit~~ the New Zealand Transport Agency will:
- i. Build a replacement of the existing Kedgley Drive ("the new private way") in the general location shown on Plan entitled "SH16/18 - Original Kedgley Drive" attached as Figure 6. The new private way will be constructed to the same specifications as the existing Kedgley Drive and will be completed and operational before the existing Kedgley Drive is closed off.
  - ii. Form a "cul-de-sac" termination to the end of the new private way to ~~Waitakere City~~ Auckland Council Council standards in the general location shown on Figure 6. From one vehicle crossing on to the new private way for each of block of land served by it. Such vehicle crossings shall be constructed to the standards set out in the attached extract from Waitakere City Council's Engineering Standards Manual Issue 3.1, entitled "Heavy Commercial Vehicle Crossing - SD.3.11", November 1999 (Figure 5). The vehicle crossings shall be established in the location specified by each landowner (as far as that location is consistent with the ~~Waitakere City~~ Auckland Council standards; and
  - iii. Upon completion of the SH16/18 project:
    - Undertake all legal steps necessary to establish a right of way over the new private way to the owners of land which will be served by it on terms which give those owners:
    - Common and exclusive rights of occupation of the new private way;
    - and Sole obligation for its maintenance and upkeep; and
    - Vest the new private way with the landowners served by the new private way in the same proportions as those owners presently own the existing Kedgley Drive.

## 10. Duration of the Designation

In accordance with Section 184(1)(c) of the Resource Management Act 1991, the designation will lapse on the expiry of fifteen years after the date on which it is included in the District Plan unless:

- a. It is given effect to before the end of that period; or
- b. The territorial authority determines, on an application made within 3 months before the expiry of that period, that substantial progress or effort has been made towards giving effect to the designation and is continuing to be made and fixes a longer period to give effect to the designation.

### Advise Notes

1. ~~The transit~~ New Zealand Transport Agency is to take part as appropriate in investigations with the ~~Waitakere City~~ Auckland Council covering the following matters:

- a. Possible provision of linkages between SH18B and SH18C (including east-facing ramp arrangements for Trig Road);
- b. Possible provision of linkages between SH16B/SH18C, and Red Hills and Westgate; and
- c. Possible provision of an interchange at SH18C/Buckley Avenue/Monterey Park.

It is expected that these investigations shall be conducted in the 2001/2002 financial year.

2. It is expected that ~~Transit~~ the New Zealand Transport Agency will, as undertaken at the hearing, proceed immediately to initiate the formal procedures necessary to designate the land required for the Buckley Avenue interchange and altered SH18C alignment in that area.

3. It is noted that ~~Transit~~ the New Zealand Transport Agency will meet the relevant minimum site size standards applying in the Proposed District Plan when arranging for the disposal of surplus land.

4. That, should an agreement be reached between land owners obtaining access from Kedgley Drive and the ~~Waitakere City~~ Auckland Council with regard to the position of Kedgley Drive which would best serve the future roading pattern for the area, then Transit shall give consideration to providing a financial contribution to the establishment of that road to the same level as it would otherwise contributed towards (and in lieu of) works to replace Kedgley Drive.

5. Waitakere City Council requests that ~~Transit~~ the New Zealand Transport Agency take all necessary steps to resolve issues of land purchase as soon as reasonably practicable.

## Attachments

No attachments.

## 6742 State Highway 16 - Henderson to Massey

Designation Number	6742
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from Henderson Creek, Henderson to Huruwuru Road Bridge, Massey
Rollover Designation	Yes
Legacy Reference	Designation NZTA5, Auckland Council District Plan (Waitakere Section)2003
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Refer NOR-2010-1559.

## Conditions

### Description of Works

1. Except as modified by the conditions below, the works which give effect to this alteration to the designation for State Highway 16 from the eastern abutments of Henderson Creek (at approximately chainage 8080) as shown on the Schedule of Plans and Drawings shall be undertaken in general accordance with the Notice of Requirement for an alteration to designation and the Assessment of Environment Effects titled "SH16 Western Ring Route Henderson Creek to Huruwuru Road Bridge" dated October 2010, referenced by the Auckland Council as "NOR-2010-1559" and subject to the conditions which follows.

### Construction Environment Management Plan ("CEMP")

2. Prior to commencement of construction activity within the designation boundaries, the Requiring Authority shall submit a CEMP to the Auckland Council in respect of that stage of works. The CEMP shall include specific details relating to the demolition, construction and management of all works associated with the project, including:

i. Details of the site or project manager, including their contact details (phone, email, postal address,

The location of large noticeboards that clearly identify the name and telephone number of the project manager

- ii. Any means, such as a restriction on the size of construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period
- iii. Any means of protection of services such as pipes and water mains (including infrastructure operated by Watercare Services Limited) within the road reserve
- iv. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building/construction materials and similar construction activities
- v. Measures to be adopted to ensure that pedestrian and cycle access past the works is provided where practicable and that such access is safe
- vi. Location of workers conveniences (e.g. portaloos)
- vii. Ingress and egress to and from the works for vehicles during the construction period
- viii. Proposed maximum numbers and timing of truck movements throughout each day and the proposed routes to be used
- ix. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days
- x. Location of vehicle and construction machinery access and storage areas/facilities during the construction period
- xi. Hours of operation and days of the week for construction activities
- xii. Means of ensuring the safety of the general public
- xiii. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works
- xiv. Provision for the saltmarsh protection methods referred to in condition 19 of resource consent 35599
- xvi. The appendix required by condition 4, the CTMP required by condition 6, the measures to protect Vodafone infrastructure required by condition 5 and the various management plans required by conditions 10 to 14.

3. The approved CEMP shall be implemented and maintained throughout the relevant stage of works. Any amendments are to receive the prior approval of the Council and are then to be incorporated into a single document.

#### **Electrical Infrastructure**

4. The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan ("EISDCMP"). The EISDCMP is to include:

- i. Methods and measures to:
  - a. Ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities;
  - b. Appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines;
  - c. Ensure that no activity is undertaken during construction that would result in ground vibrations or ground instability likely to cause material damage to the transmission lines, including the support structures;
  - d. Section 5 with respect to minimum safe differences for the operation of mobile plant; and,
- ii. Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including but not limited to, the provisions of the Schedule (Growth Limit Zones) to those Regulations.
- iii. Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZCEP 34:2001), including but not limited to the provisions of:
  - a. Clause 2.2 with respect to excavations near overhead support structures;
  - b. Clause 2.4 with respect to buildings near overhead support structures;
  - c. Section 3 with respect to minimum Section 5 with respect to minimum safe differences for the operation of mobile plant; and,
  - d. separation between buildings and conductors;

e. Table 4 with respect to minimum safe separation distances between the ground and overhead conductors.

*Note:*

With respect to clause c), specific consideration must be given to the height and location of temporary structures (such as project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers).

**Vodafone Infrastructure**

5. The CEMP prepared for the purpose of condition 2 shall include methods and measures:

- i. To ensure that the existing Vodafone infrastructure in the vicinity of the designation area can be accessed for maintenance at all reasonable times, or emergency works at all times, during construction activities;
- ii. To manage appropriately the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the tower and the equipment shelter and the equipment within it;
- iii. To ensure that no activity is undertaken during construction that would result in ground vibration and/or ground instability likely to cause material damage to the tower, including support structures and the equipment shelter together with the associated electrical equipment in the shelter. This clause also covers cables associated with the Vodafone infrastructure, including any running from the Vodafone site to the Concourse;
- iv. To ensure that no plant or equipment of 18m or higher is used in the immediate vicinity of the cell tower;
- v. If plant or equipment used for the project works is likely to intrude into the path from the existing microwave dish on the Vodafone mast (located at 18 metres above ground level with an azimuth of 301 degrees True), NZTA shall endeavour to provide advance warning prior to these works being undertaken;
- vi. NZTA, together with its invitees, employees and or contractors, acknowledge that the operation of the telecommunications facility relies on the transmission and reception of radiofrequency emissions 38Ghz licensed band Tx 37667.0 Hz 7 Rx 38927.0 Hz, GSM900: UL: 899.8 – 915 MHz\_DL:945- 960MHz GSM1800: UL 1710-1725 MHz\_DL:1805 – 1820 MHz, UMTS2100: UL:1920-1935 MHz\_DL:2110-2125 MHz and will use its best endeavours not to permit any act that causes interference with the telecommunications facility (as defined in section 2 of the Radio Communications Act 1989).

**Construction Traffic**

6. Any CEMP prepared in terms of condition 2 shall include a Construction Traffic Management Plan (“CTMP”) for the project which shall be prepared by a suitably qualified person.

7. In developing the CTMP the Requiring Authority shall:

- i. Use best practice to understand the effects of construction of the project or project stage on the affected road network better which may include the use of appropriate traffic modelling tools. Any such assessment should be undertaken in consultation with the Auckland Council, and have the ability to simulate lane restrictions and road closures; and
- ii. As far as practicable, undertake measures to avoid road closures and also the restriction of vehicle, cycle and pedestrian movements.

8. The CTMP shall describe the measures that will be undertaken to address the following, as far as practicable:

Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the project. In particular, the CTMP shall describe:

- i. Traffic management measures to address and maintain, where practicable, traffic capacity at traffic peak hours during weekdays and weekends at the Lincoln Interchange and Lincoln Road;
- ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (eg. intersections/overbridges) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;

- iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including oversized trucks);
- v. The numbers, frequencies, routes and timing of construction traffic movements.

9. Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times and not on surrounding streets.

#### **Air Quality**

10. The Requiring Authority shall ensure that the CEMP developed for the project includes a dust monitoring programme to control dust generated during the construction and earthworks phases of the project, in order to minimise dust deposition and nuisance beyond the designation boundaries.

Monitoring activities shall include:

- i. Monitoring of total suspended particulate using e-BAMs or equivalent adjacent to particularly sensitive receiving environments such as dwellings and ecological habitat areas;
- ii. Daily inspection of all unsealed surfaces (including earthworks sites) for dampness and to ensure that surface exposure is minimised;
- iii. Daily inspection of all sealed surfaces to ensure that they are clean and all spillages have been cleared;
- iv. Daily inspection of stockpiles to ensure enclosure, covering, stabilisation or a damp condition;
- v. Monitoring of dust generating activities and water application rate in winds over 5.5m/s at ground level;
- vi. Weekly inspection of watering systems to ensure equipment is maintained and functioning to effectively dampen all exposed areas;
- vii. Weekly inspection of wheel wash equipment to ensure effective operation;
- viii. Weekly checking that all site windbreak fences are intact.

#### **Construction Noise and Vibration Management Plan (“CNVMP”)**

11. Any CEMP prepared in terms of condition 2 shall include a CNVMP for the project or relevant project stage, which shall be prepared by an appropriately qualified person.

12. The CNVMP shall include specific details relating to the control of noise and vibration associated with demolition, construction and management of all works associated with the project.

13. The CNVMP be formulated to detail as far as practicable the manner in which construction noise will be managed to achieve compliance with the relevant construction noise limits. In summary this would address the following matters:

- i. the construction noise limits which apply to particular areas
- ii. construction techniques
- iii. machinery and equipment to be utilised
- iv. days and times when noisy construction work would occur
- v. the use of noise barriers
- vi. the design of noise mitigation measures
- vii. alternative mitigation measures
- viii. monitoring and reporting of noise levels at critical locations and methods for managing complaints.

14. As far as practicable the CNVMP shall be formulated to be in accordance with the vibration standards of German Standard DIN 4150 and shall address the following aspects:

- i. vibration limits
- ii. vibration monitoring measures
- iii. possible mitigation measures
- iv. complaint response
- v. reporting procedures.

15. The approved CNVMP shall be implemented and maintained throughout the entire demolition and construction periods. Any amendments must receive the prior approval of the Council and are then to be incorporated into a single document.

## **Landscape and Visual**

16. The landscape planting shall be implemented in accordance with the Landscape Plan (Plan PD11901 to PD11903) and the Visual Assessment and Ecological Assessment (lodged with the Notice of Requirement) 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 3 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.

17. Where practicable, any planting utilising native species shall use plants genetically sourced from the ecological district.

18. Planting areas shall be mulched using suitable weed-free, granular organic mulch. The only exceptions to this shall be where the slopes are too steep to allow for its retention. In such cases a neutral or black coloured biodegradable or photodegradable geotextile is to be used.

## **Iwi Matters, Archaeology and Heritage**

19. In the event of an accidental discovery of any unrecorded archaeological sites, including human remains, the following steps shall be taken:

- i. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease.
- ii. The site construction supervisor will notify the NZTA archaeological consultant who in turn will contact the project manager at NZTA. In the event of the project manager being unavailable the matter will be reported by the consultant to the Regional Manager of the NZTA.
- iii. NZTA will ensure that the matter is reported to the Regional Archaeologist at ~~the NZHPT~~ Heritage New Zealand, the tangata whenua and to any required statutory agencies if that has not already occurred.
- iv. In the event that the accidental discovery material is confirmed as being archaeological, under the terms of ~~the Historic Places Act~~, The Heritage New Zealand Pouhere Taonga Act 2014 the NZTA shall ensure that the archaeologist carries out an archaeological assessment, and if appropriate, an archaeological authority is obtained from the NZHPT before work resumes.
- v. NZTA will ensure that representatives of the consultant and the contractor, as appropriate, shall be available to meet and guide representatives of ~~the NZHPT~~ Heritage New Zealand and tangata whenua, and any other party with statutory responsibilities, to the discovery site.
- vi. Works in the site area shall not recommence until authorised by NZTA after consultation with ~~the NZHPT~~ Heritage New Zealand, tangata whenua, the NZ Police (and any other authority with statutory responsibility) to ensure that all statutory and cultural requirements have been met.
- vii. Work may recommence in the shortest possible timeframe provided that any archaeological sites discovered are protected until as much information as practicable (in the opinion of the archaeological consultant) is gained and a decision regarding their appropriate management is made, including obtaining an archaeological authority if necessary. (Note: Appropriate management could include recording or removal of archaeological material.)

## **Replacement of Kauri Trees**

20. The Requiring Authority shall replace the two kauri trees identified on Plan SKC700 with two trees (Size PB 100, species - *Agathis australis* (Kauri), or *Dacrycarpus dacrydioides* (Kahikatea), or *Weinmania silvicola* (Towai)) in a new location, known as "Sherwood Park", 460 metres due south from the current Kauri location, the exact position of each new tree to be as approved by the Auckland Council. The trees are to be eco-sourced from the Tamaki Ecological District and if possible planted by members of the local community.

## **Provisions for QTN infrastructure**

21. The Requiring Authority shall not remove or reduce in capacity the bus shoulder lanes on the on-ramps, or on the mainline motorway at Lincoln Road, without first consulting with Auckland Transport.

## **Integration with the local road network**

22. In collaboration with Auckland Transport, within 60 days of the alteration of NZTA1 becoming operative

the Requiring Authority shall prepare a Network Integration Plan ("NIP") to demonstrate how the project integrates with the existing local road network and with future improvements planned by Auckland Transport. The NIP shall include details of proposed physical works at the interface between the State Highway and the local road network, and shall address such matters as pedestrian / cycleways, lane configuration, traffic signal coordination, signage and provision for buses. In addition the NIP is to consider and to identify:

- i. opportunities to progress bus priority measures on Lincoln Road;
- ii. opportunities to provide an off-road cycle way, or on-road cycle lanes on both sides of Lincoln Road;
- iii. integration of the works proposed on Lincoln Road to transition appropriately between the SH16 Western Ring Route Henderson Creek to Huruheru Road Bridge Project and any projects proposed by Auckland Transport at the time the NIP is prepared;
- iv. integration of works proposed on the Huruheru Road bridge with the local road network;
- v. opportunities to review traffic signal timings at the Lincoln Road Interchange with a view to minimising delays to all users, including cyclists on the SH16 cycleway;
- vi. opportunities to progress bus priority measures on the on- and off-ramps at the Lincoln Road Interchange and on the Selwood Road Bridge.

### **Operational Noise**

23. The operational noise emissions from State Highway 16 shall be managed in accordance with the recommendations of the Noise and Vibration Technical Report submitted with the Notice of Requirement being Volume 3 of "Western Ring Route – SH16 Henderson Creek to Huruheru Road Bridge". This management shall include the provision of noise mitigation for protected premises and facilities where necessary to comply with NZS6806:2010. Design details of operational noise mitigation barriers are to be designed in accordance with Plan PD11361 (Revision B), Plan PD11362 (Revision B), Plan PD11363 (Revision B), Plan PD11364 (Revision B), Plan PD11365 (Revision B), Plan PD11366 (Revision B), Plan PD113637 (Revision A) and Plan PD11372 (Revision B).

### **Vehicle Crossing**

24. Vehicle access through the existing vehicle crossings to properties off Selwood Road and The Concourse shall be retained.

### **Vibration**

25. If construction work requiring any one of the following activities: piling, blasting, vibratory roller and/or rock breaking, is to take place within 30 metres of a residential dwelling, the following shall be undertaken:

- a. At least one month prior to the commencement of construction activities, the Requiring Authority shall (with the permission of the landowner) commission an independent consultant with expertise in the building effects arising from vibration effects to undertake a preconstruction condition survey of all dwellings that are within 30 metres or less from the edges of the construction zone. The condition survey shall identify and measure all exterior cracks and other features that may be subject to movement and shall record these for the information of the landowner, the Council and the Requiring Authority. A copy of the preconstruction survey shall be provided to the relevant landowner, the Council and the Requiring Authority prior to the commencement of construction works.
- b. No less than 3 months and no more than 6 months after the completion of the construction works within the vicinity of the residential properties in respect of which the condition survey was undertaken, the Requiring Authority shall commission an independent consultant with expertise in the building effects arising from vibration effects to undertake a post construction condition survey of all dwellings surveyed as a requirement of condition 25.a. The survey shall measure and record the exterior cracks and other features surveyed previously and shall make recommendations as to what works and/or remediation, if any, are required to return the building(s) to their pre construction condition. A copy of the post-construction survey report shall be provided to the landowner, the Council and the Requiring Authority within 1 month of the completion of the report.
- c. Within one month of the receipt of the post-construction survey report, the Requiring Authority shall inform the Council in writing as to the actions it will undertake to respond to each of the report's recommendations. Any actions required to be carried out as a result of the post construction report shall be completed within 4 months of the receipt of the post-construction report, provided that the relevant landowner agrees to the undertaking of the work and enables the Requiring Authority to access the

property for the purposes of undertaking that work. If agreement or access is not forthcoming within one month of the request being made, the Requiring Authority shall be deemed to have complied with this condition.

### Lighting

26. All lighting will be designed to comply with AS/NZS 1158.1.1:2005.

27. Maximum light spill at the boundary of the designation will be 10 lux.

### Advice Notes

1. Network infrastructure owned and operated by Watercare Services is located within the designation boundaries. Agreements are being developed by the NZTA and Watercare Services which will include appropriate relocation, notification and access protocols for the construction duration and for notification and access protocols and the replacement of existing and installation of new infrastructure in the operations phase.

### Attachments

No attachments.

### 6743 State Highway 16 - Massey to Westgate

Designation Number	6743
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 from west of Huruuru Road bridge, Massey to Westgate interchange, Westgate
Rollover Designation	Yes
Legacy Reference	Designation NZTA6, Auckland Council District Plan (Waitakere Section) 2003
Lapse Date	Fifteen years from being included in the Auckland Council District Plan (Waitakere Section) 2003 unless given effect to prior

### Purpose

Refer NOR-2010-1136.

### Conditions

#### Description of Works

1. Except as modified by the conditions below, the works which give effect to this alteration to designation for State Highway 16 from west of Huruuru Road Bridge (at approximately chainage 8450) to Westgate (at approximately chainage 9725) as shown on the General Arrangement Plans C-GA-001 to C-GA-003 in Volume 4 (the Project) shall be undertaken in general accordance with the Notice of Requirement for an Alteration to Designation and Assessment of Environmental Effects titled "SH16 Western ring route Huruuru Road Bridge to Westgate" dated 2 September 2010, referenced by Auckland Council as NOR 2010 - 1136 and subject to the conditions which follow.

For the purposes of this condition, the works comprise the following (more specifically described in the NOR and AEE) –

- i. Between Chainage 8300 and Chainage 8450, the provision of one additional lane in each direction, a bus shoulder in each direction and a pedestrian/cycleway adjacent to the westbound shoulder.
- ii. Between Chainage 8300 and Chainage 9300, the realignment of the centre-line 2.7m north to align with the Henderson Creek to Huruuru Road Bridge Project.
- iii. Between Chainage 8450 and Chainage 9725 at Royal Road Interchange, the provision of one

additional lane in each direction, a bus shoulder in each direction, a water quality wetland, a pedestrian/cycleway adjacent to the westbound shoulder and allowing for a centre-line shift.

iv. At Chainage 9150 improvements and lengthening of the Royal Road Westbound Off-ramp.

v. Between Chainage 9725 and 10100, the provision of one additional lane in each direction, a bus shoulder in each direction and a pedestrian/cycleway adjacent to the westbound shoulder.

vi. Between Chainage 8300 and Chainage 10100, the treatment of stormwater.

vii. Between Chainage 10100 and 10800, the provision of a pedestrian/cycle way.

### **Construction Environmental Management Plan**

2. Prior to commencement of construction activity within the designation boundaries, the Requiring Authority shall submit a Construction Environmental Management Plan ("CEMP") to the Major Infrastructure Team Manager, Auckland Council, in respect of the project or relevant project stage. The CEMP shall include specific details relating to the demolition, construction and management of all works associated with this development or relevant stage of the development, including:

i. Details of the site or project manager, including their contact details (phone, facsimile/email, postal address);

ii. The location of large noticeboards that clearly identify the name and telephone number of the project manager;

iii. An outline construction programme of the works;

iv. Any means, such as a restriction on the size of construction vehicles and machinery, required to ensure that no damage occurs to street trees throughout the construction period;

v. Any means of protection of services such as pipes and water mains (including infrastructure operated by Watercare Services Limited) within the designation boundaries. The CEMP is to be provided to Watercare Services Limited for review and comment prior to the commencement of construction activity;

vi. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;

vii. Measures to be adopted to ensure that pedestrian access past the works is provided where practicable and that such access is safe;

viii. Location of workers' conveniences (e.g. portaloos);

ix. Ingress and egress to and from the works for vehicles during the construction period;

x. Proposed maximum numbers and timing of truck movements throughout each day and the proposed routes;

xi. Procedures for controlling sediment runoff, dust and the removal of soil, debris and demolition and construction materials from public roads or places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;

xii. Location of vehicle and construction machinery access during the construction period;

xiii. Hours of operation and days of the week for construction activities;

xiv. Means of ensuring the safety of the general public;

xv. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works;

xvi. A Construction Noise and Vibration Management Plan ("CNVMP") as required by condition 11;

xvii. A Construction Traffic Management Plan ("CTMP") as required by condition 6;

xviii. A dust monitoring programme as required by condition 10.

3. The approved CEMP required by condition 2 shall be implemented and maintained throughout the relevant stage of works.

### **Electrical Infrastructure**

4. The CEMP shall include, as an appendix, an Electrical Infrastructure Site Development and Construction Management Plan ("EISDCMP"). The EISDCMP is to include:

i. Methods and measures to:

a. Ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during and after construction activities;

b. Appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission

lines;

- c. Ensure that no activity is undertaken during construction that would result in ground vibrations or ground instability likely to cause material damage to the transmission lines, including support structures; and
- d. Ensure that changes to drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations of any high voltage transmission line support structure;
- i. Sufficient detail to confirm that new planting and maintenance of vegetation will comply with the New Zealand Electricity (Hazard from Trees) Regulations 2003, including but not limited to, the provisions of the Schedule (Growth Limit Zones) to those Regulations;
- ii. Sufficient detail to confirm that the works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZCEP 34:2001), including but not limited to the provisions of:
  - a. Clause 2.2 with respect to excavations near overhead support structures;
  - b. Clause 2.4 with respect to buildings near overhead support structures;
  - c. Section 3 with respect to minimum separation between buildings and conductors;
  - d. Section 5 with respect to minimum safe differences for the operation of mobile plant; and
  - e. Table 4 with respect to minimum safe separation distances between the ground and overhead conductors.

Note: with respect to clause c), specific consideration must be given to the height and location of temporary structures (such as project offices and other construction site facilities) and permanent structures (such as lighting poles, signage, gantries and acoustic barriers). Watercare Infrastructure

5. Unless otherwise specified in an agreement between NZTA and Watercare, the CEMP shall include methods and measures to ensure that:

- i. the existing Watercare Services Limited infrastructure can be accessed for maintenance at all reasonable times or emergency works at all times, during and after construction activities; and written notice is provided to Watercare Services Limited of any works within 10 metres of Watercare Services Limited infrastructure prior to commencement of works.

### **Construction Infrastructure**

6. The CEMP shall include a Construction Traffic Management Plan ("CTMP") for the project or relevant project stage which shall be prepared by an appropriately qualified person.

7. In developing the CTMP the Requiring Authority shall:

- i. use best practice to understand the effects of construction of the project or project stage on the affected road network better which may include the use of appropriate traffic modelling tools. Any such assessment should be undertaken in consultation with the Auckland Council, and have the ability to simulate lane restrictions and road closures; and
- ii. as far as practicable, undertake measures to avoid road closures and also the restriction of vehicle, cycle and pedestrian movements.

8. The CTMP shall describe the measures that will be undertaken to address the following, as far as practicable:

Methods of avoiding, remedying or mitigating the local and network wide effects of construction of the project or relevant project stage. In particular, the CTMP shall describe:

- i. Traffic management measures to address and maintain, where practicable, traffic capacity at traffic peak hours during weekdays and weekends at Royal Road Interchange, Royal Road and Makora Road;
- ii. Any road closures that will be required and the nature and duration of any traffic management measures that will result, including any temporary restrictions, detours or diversions for general traffic and buses;
- iii. Methods to avoid, remedy or mitigate the local and network wide effects of the construction of individual elements of the project (e.g. intersections / overbridges) and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
- iv. Methods to manage the effects of the delivery of construction material, plant and machinery (including oversized trucks);

v. The numbers, frequencies, routes and timing of construction traffic movements.

9. Any commercial earthmoving equipment or similar shall be stored or parked within the boundaries of the designation at all times and not on surrounding streets.

### **Air Quality**

10. The Requiring Authority shall ensure that the CEMP developed for the project or relevant project stage includes a dust monitoring programme to control dust generated during the construction and earthworks phases of the project, in order to minimise dust deposition and nuisance beyond the designation boundaries. Monitoring activities shall include:

- i. Monitoring of total suspended particulate using e-BAMs or equivalent adjacent to particularly sensitive receiving environments such as dwellings and ecological habitat areas;
- ii. Daily inspection of all unsealed surfaces (including earthworks sites) for dampness and to ensure that surface exposure is minimised;
- iii. Daily inspection of all sealed surfaces to ensure that they are clean and all spillages have been cleared;
- iv. Daily inspection of stockpiles to ensure enclosure, covering, stabilisation or a damp condition;
- v. Monitoring of dust generating activities and water application rate in winds over 5.5m/s at ground level;
- vi. Weekly inspection of watering systems to ensure equipment is maintained and functioning to effectively dampen all exposed areas;
- vii. Weekly inspection of wheel wash equipment to ensure effective operation;
- viii. Weekly checking that all site windbreak fences are intact;
- ix. Mitigation measures that will be implemented to remediate any neighbouring buildings / sites from dust build up as a result of construction e.g. house washing.

### **Construction Noise and Vibration Management Plan (“CNVMP”)**

11. The CEMP shall include a CNVMP for the project or relevant project stage, which shall be prepared by a professionally qualified person.

12. The CNVMP shall include specific details relating to the control of noise and vibration associated with demolition, construction and management of all works associated with the project or relevant project stage.

13. The CNVMP be formulated to detail as far as practicable the manner in which construction noise will be managed to achieve compliance with the relevant construction noise limits. In summary this would address the following matters:

- i. the construction noise limits which apply to particular areas
- ii. construction techniques
- iii. machinery and equipment to be utilised
- iv. days and times when noisy construction work would occur
- v. the use of noise barriers
- vi. the design of noise mitigation measures
- vii. alternative mitigation measures
- viii. monitoring and reporting of noise levels at critical locations and methods for managing complaints
- ix. areas where construction involving piling, vibrator rollers, or any other activity likely to generate high levels of vibration and buildings within 40m of those areas for the purpose of condition 16.a.

14. The CNVMP shall be formulated to be in accordance with the vibration standards of German Standard DIN 4150 and address the following aspects:

- i. vibration limits
- ii. vibration monitoring measures
- iii. possible mitigation measures
- iv. complaint response
- v. reporting procedures.

15. The approved CNVMP for the project or relevant project stage shall be implemented and maintained throughout the entire demolition and construction periods for the project or relevant project stage. Any amendments must receive the prior approval of the Major Infrastructure Team Manager, Auckland Council, and are then to be incorporated into a single document.

16. The following measures shall be undertaken with respect to all buildings identified in the approved CNVMP pursuant to condition 13.ix.:

a. At least one month prior to the commencement of construction activities, the Requiring Authority shall (with the permission of the landowner and where necessary, the occupier) commission an independent consultant with expertise in the building effects arising from vibration effects to undertake a preconstruction condition survey of all buildings identified in the approved CNVMP. The condition survey shall identify and measure all exterior cracks and other features that may be subject to movement and shall record these for the information of the landowner, the Council and the Requiring Authority. A copy of the preconstruction survey shall be provided to each of the relevant landowner, the Council and the Requiring Authority prior to the commencement of construction works on site; and

b. No less than three months and no more than six months after the completion of the construction works within the vicinity of the residential properties in respect of which the condition survey was undertaken, the Requiring Authority shall commission an independent consultant with expertise in the building effects arising from vibration effects to undertake a post construction condition survey of all dwellings surveyed as a requirement of condition

16.a above. The survey shall measure and record the exterior cracks and other features surveyed previously and shall make recommendations as to what works and/or remediation, if any, are required to return the building(s) to their preconstruction condition. A copy of the post-construction survey report shall be provided to each of the landowner, the Council and the Requiring Authority within one month of the completion of the report; and

c. Within one month of the receipt of the post-construction survey report, the Requiring Authority shall inform the Council in writing as to the actions it will undertake to respond to the report's recommendations. Any actions required to be carried out as a result of the post-construction report shall be completed within four months of the receipt of the post-construction report, provided that the relevant landowner agrees to the undertaking of the work and enables the Requiring Authority to access the property for the purposes of undertaking that work. If agreement or access is not forthcoming within one month of the request being made, the Requiring Authority shall be deemed to have complied with this condition.

### **Operational Noise**

For the purposes of conditions 17-19 the following terms will have these meanings:

- i. "Building Modification Mitigation" – has the same meaning as in NZS 6806:2010
- ii. "Habitable room" – has the same meaning as in NZS 6806:2010
- iii. "NZS 6806:2010" – means NZS 6806:2010 Acoustics – Road-traffic Noise – New and altered roads
- iv. "PPFs" – means the protected premises and facilities identified in Appendix E of the Noise and Vibration Technical Report (see Volume 3 – Technical Appendix 6)
- v. "Structural mitigation" – has the same meaning as in NZS 6806:2010.

17. No later than 20 working days prior to the commencement of works on the project to or relevant project stage (excluding site investigations and enabling works), the Requiring Authority shall submit a Traffic Noise Mitigation Plan ("TNMP") to the Major Infrastructure Team Manager, Auckland Council. The TNMP shall be prepared by a qualified acoustics specialist in accordance with NZS 6806:2010 and shall describe the noise mitigation measures to be employed to ensure noise associated with road traffic within the designation boundaries will comply with the requirements of NZS 6806:2010 and shall include:

- i. The size, type, form and location of any noise barriers and bunds including height and lengths of the barriers;
- ii. The road surface type to be used; and
- iii. Specific measures to be employed for any PPFs where these are necessary in addition to the measures under 17(i) and 17(ii) above to achieve compliance with the requirements of NZS 6806:2010.

18. In the event that the TNMP identifies any PPFs where, following implementation of any structural mitigation measures, Building Modification Mitigation may be required to achieve 40 dB LAeq inside habitable rooms ("Category C Buildings") the following conditions will apply:

- i. Prior to commencement of construction of the project in the vicinity of a Category C building, the Requiring Authority shall write to the owner of each Category C building seeking access to their building for the purpose of measuring internal noise levels and assessing the existing building envelope in relation to noise reduction performance;
- ii. If the owners of the Category C building approve the Requiring Authority's access to the property, then no more than six months prior to commencement of construction of the project, the Requiring Authority shall instruct a suitably qualified acoustic specialist to visit the building to measure internal noise levels and assess the existing building envelope in relation to noise reduction performance;
- iii. Where a Category C building is identified, the Requiring Authority shall be deemed to have complied with condition 18.ii. above where:
  - a) The Requiring Authority (through its acoustics specialist) has visited the building; or
  - b) The owner of the Category C building did not approve the Requiring Authority's access to the property or secure appropriate access with the occupier; or
  - c) The owner of the Category C building cannot, after reasonable enquiry, be found prior to completion of the construction project. In such instances, a log of the attempts made to contact the owner shall be kept by the Requiring Authority.
- iv. At least six months from the assessment required under condition 18.ii., the Requiring Authority shall give written notice to the owner of each Category C building;
  - a) Advising of the options available for Building Modification Mitigation to the building; and
  - b) Advising that the owner has three months within which to decide whether to accept Building Modification Mitigation for the building, and if the Requiring Authority has advised the owner that options for Building Modification Mitigation are available, to advise which of those options the owner prefers.
- v. Once an agreement on Building Modification Mitigation is reached between the Requiring Authority and the owner of a Category C building, the mitigation shall be implemented in a reasonable and practical timeframe agreed between the Requiring Authority and the owner.
- vi. Where Building Modification Mitigation is required, the Requiring Authority shall be deemed to have complied with condition 18.v. above where:
  - a. The Requiring Authority has completed Building Modification Mitigation to the Category C building; or
  - b. The owner of the Category C building did not accept the Requiring Authority's offer to implement Building Modification Management prior to the expiry of the timeframe stated in condition 18.iv.b. above; or
  - c. The owner of the Category C building cannot, after reasonable enquiry, be found prior to completion of construction of the project.

19. Prior to opening for general traffic on any parts of the project, subject to condition 18.vi.b. and c., the appropriate noise mitigation measures that are identified for those parts in the TNMP shall be fully implemented with the exception of any low noise surfacing which shall be implemented within 12 months of practical completion.

### **Landscape and Visual**

20. Prior to commencement of any works on any part of the land included in the designation, the Requiring Authority shall submit a Landscape Concept Plan to the Major Infrastructure Team Manager, Auckland Council, for approval. The Landscape Concept Plan shall include the following information:
- i. plans at an appropriate scale showing finished ground levels and the location of plantings;
  - ii. the species of plants to be planted including but not limited to an appropriate number of larger framework trees;
  - iii. the nature of any built elements to the landscaping, e.g. patterned or textured surfaces, sculptures or other artwork;
  - iv. how the landscaping is integrated with the proposed cycle and walk way and stormwater wetland;
  - v. how the recommendations of the Landscape and Visual Assessment have been taken into account, including the provision of landscaping to mitigate any adverse visual effects associated with noise / retaining walls and the loss of existing vegetation screens;
  - vi. suitable replacement planting along the eastern boundary of 1/234 Triangle Road in the event

that the existing jacaranda and pohutukawa trees located within the designation boundary require removal;

vii. suitable planting in Lowtherhurst Reserve to generally enhance the habitat values for native fauna, and in particular those of the copper skink or mokomoko.

21. The approved landscape planting shall be implemented in accordance with the Landscape Concept Plan 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 at the Requiring Authority's cost for the next three 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.

22. Where practicable, any planting utilising native species shall use plants sourced from the ecological district.

23. Planting areas shall be mulched using suitable weed-free, granular organic mulch. The only exceptions to this shall be where the slopes are too steep to allow for its retention. In such cases a neutral or black coloured biodegradable or photodegradable geotextile is to be used.

### **Parks**

24. In respect of the proposed Lowtherhurst wetland, the Requiring Authority shall submit to the Auckland Council for approval by the Major Infrastructure Team Manager prior to the construction of the Lowtherhurst Reserve wetland, a detailed Wetland Landscape Plan that clearly shows the following:

- i. plan and cross section drawings of the wetland, including the emergency spillway to be constructed;
- ii. plant species, location, pb size, numbers, spacing and overall square metres of planted area;
- iii. location and size and type of any proposed fence.

The plan should be designed with specific attention to the interface between the stormwater infrastructure and the open space area of the reserve having specific regard to amenity, usability and public safety. In addition the design principles of 'Crime Prevention through Environmental Design' and 'Injury Prevention through Environmental Design' should be clearly demonstrated. Plant species to the west and north-west of the Lowtherhurst Reserve wetland area shall include species that assist to screen views to the motorway corridor from the Reserve and surrounding residential properties.

25. The approved Wetland Landscape Plan shall be implemented in 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 at the Requiring Authority's cost. Should the landscaping be implemented in stages (depending on construction phases), landscaping may be implemented after the first planting season of each stage.

26. The emergency spillway should be located and/or designed, in accordance with the Auckland Regional Council technical publication TP10, so that the stormwater overflow is directed efficiently to Rarawaru Stream so as to minimise the degradation of the open grassed area of Lowtherhurst Reserve.

### **Iwi Matters, Archaeology and Heritage**

27. In the event of an accidental discovery of any unrecorded archaeological sites, including human remains, the following steps shall be taken:

- i. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease.
- ii. The site construction supervisor will notify the NZTA archaeological consultant who in turn will contact the project manager at NZTA. In the event of the project manager being unavailable the matter will be reported by the consultant to the Regional Manager of the NZTA.
- iii. NZTA will ensure that the matter is reported to the Regional Archaeologist at the NZHPT Heritage New Zealand, the tangata whenua and to any required statutory agencies if that has not already occurred.
- iv. In the event that the accidental discovery material is confirmed as being archaeological, under the terms of ~~the Historic Places Act~~ Heritage New Zealand Pouhere Taonga Act 2014, the NZTA shall ensure

that the archaeologist carries out an archaeological assessment, and if appropriate, an archaeological authority is obtained from ~~the NZHPT~~ Heritage New Zealand before work resumes.

v. NZTA will ensure that representatives of the consultant and the contractor, as appropriate, shall be available to meet and guide representatives of ~~the NZHPT~~ Heritage New Zealand and tangata whenua, and any other party with statutory responsibilities, to the discovery site.

vi. Works in the site area shall not recommence until authorised by the NZTA after consultation with ~~the NZHPT~~ Heritage New Zealand, tangata whenua, the NZ Police (and any other authority with statutory responsibility) to ensure that all statutory and cultural requirements have been met.

vii. Work may recommence in the shortest possible timeframe provided that any archaeological sites discovered are protected until as much information as practicable (in the opinion of the archaeological consultant) is gained and a decision regarding their appropriate management is made, including obtaining an archaeological authority if necessary. (Note: Appropriate management could include recording or removal of archaeological material.)

28 NZTA shall consult with Te Kawerau a Maki and the consultation will be based on the following principles:

- i. Input and involvement in the detailed design process; and
- ii. Involvement in archaeological monitoring and recording throughout the duration of the Project, particularly within those areas of significance to Iwi.

### **Integration with the local network**

29. The Requiring Authority shall not remove or reduce in capacity the bus shoulder lanes without first consulting with Auckland Transport.

30. In collaboration with Auckland Transport, and prior to submission of the OPW for approval by the Council, the Requiring Authority shall prepare a Network Integration Plan ("NIP"), to demonstrate how the project integrates with the existing local road network (and in particular Moire Road) and with future improvements planned by Auckland Transport. The NIP shall include details of proposed physical works at the interface between the State Highway and the local road network, and shall address such matters as integration with any potential Rapid Transport Network ("RTN"), pedestrian / cycleways, lane configuration, traffic signal coordination, signage and provision for buses. The NIP will consider and identify:

- i. Opportunities to improve cycling / walking connections
- ii. Opportunities to progress bus priority measures on both on/off ramps at Royal Road and on the Royal Road bridge
- iii. Opportunities to future proof for RTN connections and a future bus-to-bus interchange in vicinity of Royal Road interchange.

### **Information Requirement for Outline of Plans of Works**

31. The following information shall be supplied with any outline plan submitted under section 176A of the Act:

- i. The location and design details of operational noise barriers and/or bunds for protected premises and facilities. This shall include but is not limited to design details of the location, height, length, materials and visual appearance of the noise barriers. Evidence of consultation with adjoining landowners shall be submitted to ensure that the size and scale of the proposed wall is appropriate;
- ii. The design details of all bus shoulders and bus priority lanes. This shall include but is not limited to their location, length, width, markings and the priority rules that will apply;
- iii. The design details for all works on Royal Road and Makora Road. This shall include but is not limited to cross sections and elevations, design details of all vehicle lanes, any bus priority methods, cycle lanes, cycle ways, footpaths, pedestrian crossings, cycle crossings, traffic signals, vehicle crossings, road markings, signage, median barriers and any other barriers;
- iv. The design details of the shared cycle way and footpath;
- v. The design details of any retaining walls over 1.5 metres in height, including but not limited to the location, height, materials and visual appearance of the walls;
- vi. The details of planting and other landscaping in accordance with condition 20;
- vii. The design details of any motorway lighting adjacent to residential properties; and
- viii. The design details of any works relating to the Royal Road bridge, including but not limited to all dimensions.

## Lighting

32. All lighting will be designed to comply with AS/NZS 1158.1.1:2005.

33. The maximum light spill at the boundary of the designation will be 10 lux.

## Lapse Date

34. Pursuant to Section 184 of the Act, this designation will lapse fifteen years after the date on which it is included in the District Plan, unless given effect to before that date, or an extension is given in terms of Section 184(1)(b) of the RMA.

## Advice Notes

1. Network infrastructure owned and operated by Watercare Services is located within the designation boundaries. Agreements are being developed by the NZTA and Watercare Services which will include appropriate relocation, notification and access protocols for the construction duration and for notification and access protocols and the replacement of existing and installation of new infrastructure in the operations phase.

## Attachments

No attachments.

## 6744 State Highway 16 - Westgate

Designation Number	6744
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 south of Westgate interchange, Westgate
Rollover Designation	Yes
Legacy Reference	Designation NZTA7, Auckland Council District Plan (Waitakere Section) 2003
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

N/A.

## Conditions

1. Where an outline plan of works is submitted in accordance with s176A of the Act, prior to commencing the project of work, that plan shall be accompanied by:
  - a. a statement detailing the degree to which the works described in the outline plan meet the relevant objectives, policies and rules of the Plan; and
  - b. an assessment of the effects the works described in the outline plan will have on the environment.

### *Explanation:*

While it is accepted that the project or works will be (or should be) in accordance with the designated purpose, the Council wishes to be reasonably assured that the specific works to be carried out will not unnecessarily compromise the objectives, policies and rules of the Plan or adversely affect the environment.

The

Council's principal opportunity to influence the works to assist the requiring authority to meet its environmental responsibilities is through the outline plan, and the assessment of compliance and effects will assist it in determining whether to request changes.

2. Appropriate sedimentation and erosion control measures shall be employed for any

earthworks on the designated site.

*Explanation:*

This Plan outlines erosion and sediment control measures for earthworks which are above a certain threshold, with that threshold varying according to the particular environment. Compliance with these measures would generally satisfy condition 2. Note that major earthworks may require a consent from ~~the~~ [Regional Auckland Council](#).

## Attachments

No attachments.

### 6747 Motorway Administration and Maintenance - Northcote

Designation Number	67467
Requiring Authority	New Zealand Transport Agency and Minister of Police*
Location	28 Sulphur Beach Road, Northcote
Rollover Designation	Yes
Legacy Reference	Designation 58, Auckland Isthmus District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

\* Indicates this is a joint designation with the Minister of Police designation (Designation 5738).

## Purpose

Motorway administration and maintenance.

## Conditions

No conditions.

## Attachments

No attachments.

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### 6750 State Highway 1 - Auckland Harbour Bridge to Albany

Designation Number	6750
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Auckland Harbour Bridge, Northcote to Greville Road interchange, Albany
Rollover Designation	Yes
Legacy Reference	Designation 110, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Auckland-Waiwera Motorway (State Highway 1), including planning, design, supervision, construction and maintenance in accordance with the ~~Transit New Zealand Act 1989~~ Government and Roading Powers Act

1989.

## Conditions

These conditions apply to the section 181 alteration to the designation for widening of the motorway between Constellation Drive and Greville Road:

1. That prior to any development commencing on the extension to the motorway an outline plan of works shall be submitted to the Council showing the exact boundary of the designation, detailed design drawings and proposed landscape and noise mitigation measures and specifically providing details:
  - a. Ensuring the protection of native planting within the treatment plant site;
  - b. Ensuring that satisfactory treatment plant tunnel access can be provided under the motorway along with any protection of banks from erosion;
  - c. Ensuring that stormwater runoff from the motorway extensions is prevented from entering the Oxidation Ponds and grounds;
  - d. Ensuring that EnviroWaste's activities are not compromised in any way;
  - e. Ensuring that the Treatment Pond's activities are not compromised in any way.
  
2. That should ~~Transit~~ the New Zealand Transport Agency construct additional lanes on the state highway between Constellation Drive and Greville Road before construction of the busway priority lane provided for by this requirement the construction of the additional lane shall be undertaken in a manner which does not preclude subsequent construction of the priority lane.

## Attachments

No attachments.

### 6751 State Highway 1 - Albany

Designation Number	6751
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Greville Road interchange, Albany to Lonely Track Road, Albany
Rollover Designation	Yes
Legacy Reference	Designation 111, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Proposed Motorway (Auckland/Waiwera Motorway State Highway 1), including planning, design, supervision, construction and maintenance in accordance with the Government and Roadway Powers Act 1989 ~~Transit New Zealand Act 1989~~.

## Conditions

No conditions.

## Attachments

No attachments.

### 6753 State Highway 18 - Rosedale

Designation Number	6753
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Requiring Authority	New Zealand Transport Agency
Location	State Highway 18 from Constellation Drive interchange (State Highway 1) to west of Paul Matthews Road, Rosedale
Rollover Designation	Yes
Legacy Reference	Designation 113, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

State Highway 18 - the control, management and improvement of the State Highway, including planning, design, research, construction, operation and maintenance relating to all land within the State Highway designation and in accordance with the Government and Roading Powers Act 1989 ~~Transit New Zealand Act 1989~~.

## Conditions

No conditions.

## Attachments

No attachments.

## 6756 State Highway 18 - Upper Harbour Highway

Designation Number	6756
Requiring Authority	New Zealand Transport Agency
Location	State Highway 18 (Upper Harbour Highway) from west of Paul Matthews Road, Rosedale to Upper Harbour Bridge, Greenhithe
Rollover Designation	Yes
Legacy Reference	Designation 160, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

State Highway 18 - the control, management and improvement of the State Highway, including planning, design, research, construction, operation and maintenance relating to all land within the State Highway designation and in accordance with the Government and Roading Powers Act 1989 ~~Transit New Zealand Act 1989~~.

## Conditions

### 1. General

i. The scope and extent of the works envisaged within the designation shall be generally in accordance with the requirement, the plans contained in "Appendix C – Designation Drawings" accompanying the Notice of Requirement, and the relevant detailed plans in the Technical Documents in Appendix A, subject to the final design and the conditions set out below and modifications to the designation boundaries approved by the Environment Court.

ii. Prior to any works being commenced ~~Transit the~~ New Zealand Transport Agency shall obtain all

requisite resource consents under the Resource Management Act 1991, including the Auckland Regional Council's relevant Regional Plans.

iii. ~~Transit the~~ New Zealand Transport Agency and its contractors, in addition to complying with any other construction-related conditions, shall take all reasonable steps to avoid, minimize or mitigate any nuisance or damage (including dust and ground vibration) to adjacent properties during construction.

iv. Any land taken or held for the works shall be maintained to a reasonable standard until physical works commence.

v. At all times reasonable vehicular access shall be maintained to private properties not directly affected by construction and/or operation. Where private properties are directly affected by construction and/or operations causing vehicular access to be temporarily prevented and no alternative can be utilised, ~~Transit the~~ New Zealand Transport Agency shall ensure that the property owner is consulted about the most suitable time for carrying out the work and ~~Transit the~~ New Zealand Transport Agency shall minimize the period during which vehicular access is prevented.

vi. A permanent liaison person shall be immediately appointed for the duration of the Highway project to be the main and readily accessible point of contact for all persons affected by the designation and construction works. The liaison person's name and contact details shall be advised to affected parties by ~~Transit the~~ New Zealand Transport Agency. This person must be available for ongoing consultation on all matters of concern to affected persons.

vii. ~~Transit the~~ New Zealand Transport Agency shall use its best endeavours to ensure that all existing network utility services are protected during construction phases of State Highway 18 and that adequate access (other than from the Highway itself) is provided to all such services for operational and maintenance purposes.

viii. All contract documentation for physical works shall include copies of the designation conditions, any other resource consents (including conditions) and any approved outline plan(s) held for the project.

ix. ~~Transit the~~ New Zealand Transport Agency shall use its best endeavours to secure the requisite funding to enable it to complete the earthworks for the ultimate 4-lane width of the Highway at the time of initial construction.

x. For the purposes of these conditions, in determining whether a proposed activity is "practicable", ~~Transit the~~ New Zealand Transport Agency shall have regard to:

- a. The nature of the proposed activity; and
- b. The sensitivity of the environment which will be affected by the proposed activity; and
- c. The financial implications of the proposed activity when compared with other options; and
- d. The effects on the environment of the proposed activity when compared with other options; and
- e. The current state of technical knowledge and the likelihood that the proposed activity can be successfully carried out.

xi. The works which are the subject of conditions 2.i., 4.ii., 4.v., 5.i. and 6.i. below shall not be implemented until the relevant Management or Mitigation Plans are finalized:

- a. In the manner requested by the ~~North Shore City~~ Auckland Council, which requests must be made within a reasonable timeframe, or if ~~Transit the~~ New Zealand Transport Agency does not accept the Council's requests for finalization of any part(s) of the Plan(s), then;
- b. In accordance with section 176A of the Resource Management Act 1991 as to any part of a Plan in respect of which ~~Transit the~~ New Zealand Transport Agency and the Council have been unable to reach agreement pursuant to subclause (a) above.

## **2. Dust and Ground Vibration Management Plan**

i. Prior to the commencement of any construction activity authorised by the designation (excluding site investigations), ~~Transit the New Zealand Transport Agency~~ shall ensure that a Dust and Ground Vibration Management Plan is prepared and submitted to the ~~Team Leader, Planning Services, North Shore City Council Manager Resource Consents, Auckland Council~~ (or equivalent officer if that position no longer exists).

ii. The purpose of the Dust and Ground Vibration Management Plan is to set out methods by which any dust nuisance from construction will, as far as practicable, be avoided or minimized and by which the possibility of ground vibration during construction can be notified to adjacent land owners and occupiers. In particular, the Dust and Ground Vibration Management Plan shall identify:

- a. Specific methods by which dust will be managed, including cleaning vehicle wheels or tracks before vehicles enter public roads, wetting or covering surfaces and remediation of disturbed areas;
- b. Monitoring, auditing and reporting procedures;
- c. Contingency measures to ensure that, in the event of any dust nuisance arising, remedial measures are implemented (including cleaning out and refilling of roof-water tanks on properties adjoining the designation as necessary, if water in those roof-water tanks becomes unpotable);
- d. Procedures for prior notification to affected land owners and occupiers of the use of machinery likely to generate vibration effects beyond the area of the designation; and
- e. Procedures for handling any dust and ground vibration complaints.

iii. ~~Transit the New Zealand Transport Agency~~ shall ensure that the Dust and Ground Vibration Management Plan is complied with at all times during construction work.

### 3. Social Impact Mitigation

i. Should construction work uncover any archaeological remains, ~~Transit the New Zealand Transport Agency~~ will immediately advise local Kaumatua and ~~the New Zealand Historic Places Trust Heritage New Zealand~~ and cease working in the affected area until any necessary authority required by ~~the New Zealand Historic Places Trust Heritage New Zealand~~ is obtained. (All archaeological sites are protected under the provisions of the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, whereby it is unlawful to modify, damage or destroy an archaeological site, whether recorded or not, without the prior consent of ~~the New Zealand Historic Places Trust Heritage New Zealand~~).

ii. Where requested by the owners, ~~Transit the New Zealand Transport Agency~~ shall physically peg out the extent of the alignment on individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is the later.

iii. If any or all of the properties at numbers 105, 175 and 177 Kyle Road affected by the alignment are in private ownership at the time of construction of the alignment then ~~Transit the New Zealand Transport Agency~~, in consultation with the affected owner(s), shall provide suitable alternative access to the said property or compensate the owner(s) in compliance with the Public Works Act 1981.

iv. Within 12 months of the date of the sealing of the Consent Order determining the ~~UnitedNetworksVector~~ appeal (RMA 1175/99), ~~UnitedNetworksVector~~, in consultation with the ~~UnitedNetworksVector~~ Limited (or its successor), shall provide a suitable alternative substation site adjacent to the existing site. The new substation site shall be located fronting Kyle Road, shall be of the same land areas as the existing site and, subject to the relevant provision of the Resource Management Act 1991, shall be designated in the District Plan in accordance with the relevant provision of the Act.

v. ~~Transit the New Zealand Transport Agency~~ shall provide footpaths on both sides of structures proposed to carry existing roads across the motorway at Albany Highway, Greenhithe Road and Tauhinu Road, and on one side of the structure proposed to carry the existing road across the motorway at Ashby Place.

vi. ~~Transit the New Zealand Transport Agency~~ shall ensure that the design and construction methods for the Highway do not preclude the achievement of the required linkages in the ~~Proposed North Shore District Unitary~~ Plan and in the Greenhithe South Structure Plan.

vii. ~~Transit the New Zealand Transport Agency~~ shall provide lighting along the entire route to ~~Transit the~~

New Zealand Transport Agency's normal urban arterial standards.

viii. The intersection of the Ashby Place extension with Upper Harbour Drive shall be designed to provide sufficient sight distance for a 60 km/hr design speed west-bound on Upper Harbour Drive and for a 70 km/hr design speed east-bound on Upper Harbour Drive.

ix. ~~Transit the~~ New Zealand Transport Agency shall construct that section of State Highway 18 which is the subject of this designation as a route suitable for appropriate over-dimension vehicles.

x. In carrying out detailed design, ~~Transit the~~ New Zealand Transport Agency shall consult with the owners of 30 Wicklam Lane and implement the following mitigation measures to minimise the adverse effects on that property:

- a. The minimisation of the land take from the property;
- b. The minimization of the size of the settlement pond on the property;
- c. Prior to opening of the motorway to traffic, noise mitigation measures shall be implemented so as to achieve compliance with noise conditions 4(i) to 4(vi) below, but in any event, a noise design level of 55dB(A) Leq (24 hours) shall apply and shall relocate or replace to a similar standard the affected vegetation on the property (including the Tasmanian Blackwood trees).

xi. In relation to the property at 38 Wicklam Lane, Greenhithe, being Lot 6, DP 102714 and Part Allotment 84 Parish of Paremoremo ("the property"), ~~Transit the~~ New Zealand Transport Agency shall:

- a. Design and implement the works pursuant to this designation so as to avoid:
  - Any adverse geotechnical or structural effects on the tennis court, shed and adjacent carport (shown on the plan attached to this Order entitled "SH18 Requirement Plan 38 Wicklam Lane – E.J McEwan" (sic) ) ("the Structures"); or
  - The drainage and soak holes situation on the Property;
- b. Remedy, at ~~Transit the~~ New Zealand Transport Agency's cost, any damage to the Structures, drainage or soak holes on the Property resulting from the designation works if ~~Transit the~~ New Zealand Transport Agency is unable to comply with subclause (a) above;
- c. Construct retaining walls at ~~Transit the~~ New Zealand Transport Agency's cost on the Crown's land to support the Structures if necessary;
- d. Consult with Ms McEwen (or the registered proprietor of the Property at the relevant time) during the process of completing detailed design of the works regarding the design of any fence and/or other noise mitigation measures relating to the Property; and
- e. Clean out the water tank at the property and pay for the tank to be refilled with potable water in the event that the tank and water become contaminated by dust or dirt from ~~Transit the~~ New Zealand Transport Agency's works during the construction period on the designation, if reasonably requested to do so by Ms McEwen or the registered proprietor of the Property at the relevant time.

#### **4. Noise Impact Mitigation**

i. The alignment shall be designed and constructed in accordance with Transit New Zealand's Draft Guidelines for the Management of Traffic Noise for State Highway Improvements, November 1994.

ii. A detailed Noise Mitigation Plan shall be prepared by a suitably qualified noise consultant in consultation with the ~~Team Leader, Planning Services, Manager Resource Consents, North Shore City-Auckland Council~~ (or equivalent officer if that position no longer exists). The Noise Mitigation Plan shall be submitted to the ~~Team Leader, Planning Services, North Shore City Council Manager Resource Consents, Auckland Council~~, prior to construction. The purpose of the Plan is to describe the method by which noise associated with traffic using the roading within the designation will be made to comply with specified noise limits. Where the ambient sound level is required to be monitored to determine design limits then this shall be done prior to construction commencing.

iii. Noise monitoring shall be undertaken in accordance with NZS6801:2008 Acoustics – Measurement of environmental sound ~~S6801:1991 Measurement of Sound~~. ~~Transit The~~ New Zealand Transport Agency shall ensure that representative noise monitoring of the Highway route

is undertaken at its expense by a suitably qualified and experienced acoustical consultant within nine months of the opening of the Highway over any part of the route and subsequently within nine months of the opening of the whole route if that occurs separately. Results of all noise monitoring shall be supplied to Auckland Council within six weeks of the monitoring being completed.

iv. ~~Transit~~ The New Zealand Transport Agency shall ensure that all construction works are carried out in accordance with NZS 6803: 1999 "Acoustics – Construction noise" ~~S6803P:1984 The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work and that noise shall comply with the limits set down in Table 1 of S6803P:1984 including the appropriate adjustments included in Section 6.1 of that Standard.~~

v. Prior to commencement of any construction activity (excluding site investigations), ~~Transit~~ the New Zealand Transport Agency shall prepare a Construction Noise Management Plan which shall be submitted to the ~~Team Leader, Planning Services, North Shore City Council~~ Manager Resource Consents, Auckland Council (or equivalent officer if that position no longer exists). The purpose of the Plan is to describe the methods by which noise associated with the construction of the work will be managed to comply with condition 4(iv) above. In particular, the Construction Noise Management Plan shall identify:

- a. The matters referred to in paragraph 2.1.1(a) to (e) of NZS 6803: 1999 "Acoustics – Construction noise" ~~S6803P:1984 The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work;~~
- b. Methods of managing noise;
- c. Noise monitoring methods, including details of methods, equipment, location and frequency (by reference to NZS 6803: 1999 "Acoustics – Construction noise" ~~S6803P:1984~~);
- d. Contingency measures in the event of any incidence of non-compliance; and
- e. Procedures for handling noise complaints.

vi. ~~Transit~~ The New Zealand Transport Agency shall ensure that the Construction Noise Management Plan is complied with at all times during construction works.

## **5. Ecological Mitigation Impact**

i. An Ecological Impact Mitigation Plan shall be prepared by a suitably qualified ecologist and submitted to the ~~Team Leader, Planning Services, North Shore City Council~~ Manager Resource Consents, Auckland Council (or equivalent officer if that position no longer exists). The Plan shall be included in all relevant Environmental Management Plan documentation. The Plan shall address the matters contained in conditions 5.ii.-xiii. below.

ii. Wherever practicable, any disturbance to areas of existing vegetation and those areas to be revegetated as specifically demarcated within red on the attached figure entitled "Sensitive Areas Within the Designation but Outside of the Alignment Footprint" shall be avoided. Where vegetation disturbance in these areas cannot be practicably avoided, ~~NZTA~~ Transit the New Zealand Transport Agency shall ensure that any necessary disturbance is minimised as far as practicable. For the avoidance of doubt, this condition is not intended to prohibit necessary disturbance, which is defined as including, but is not limited to vegetation clearance, the construction and operation of all roads, depots, storage facilities and spoil disposal areas.

iii. Prior to construction ~~Transit~~ The New Zealand Transport Agency shall, in consultation with a suitably qualified freshwater ecologist:

- a. Offer to the owner of that land containing an artificial pond adjacent to the ~~North Shore City~~ Auckland Council reserve near Wicklam Ave to carry out remedial works on the presently perched culvert downstream of the artificial pond shown on the attached figure entitled "Sensitive Areas Within the Designation but Outside of the Alignment Footprint". For the purposes of this condition, "remedial works" means the placement of rock/concrete aprons which will connect overhanging (or "perched") culvert outlets with the stream waters below, so as not to impede the movement of migratory native fish species.

iv. ~~Transit~~ The New Zealand Transport Agency, in consultation with relevant landowners and a

terrestrial ecologist shall investigate reasonable and practicable bush protection mechanisms and, if the landowners are amenable, shall implement these before the conclusion of the construction period. The mechanisms to be considered shall include fencing (where the bush and adjacent land is or could be grazed) and covenanting. Costs for this are to be met by ~~Transit~~The New Zealand Transport Agency. Bush blocks covered by this condition are those depicted in Figure 4 attached, as follows:

- a. The areas of native forest and regenerating native bush outside of the designation which adjoin the alignment;
- b. The swamp maire population located to the south of the NSCC reserve; and
- c. The Kahikatea and swamp maire forest in the vicinity of Black's Road.

v. ~~Transit~~The New Zealand Transport Agency shall transplant all saplings and seedlings of swamp maire found within the carriageway footprint of the Highway in Area A shown on Figure 1 attached, and replant them within an environment in the Greenhithe area that is appropriate to their habitat preferences.

vi. ~~Transit~~The New Zealand Transport Agency shall ensure that all specimens of swamp maire located within the area demarcated as the "Swamp Maire Non-Disturbance Zone" on the attached plan titled entitled "Sensitive Areas Within the Designation But Outside of the Alignment Footprint" are neither damaged nor destroyed as a result of ~~Transit~~The New Zealand Transport Agency's construction activities.

vii. A fauna salvage operation is to be undertaken where the new Highway within the proposed designation crosses the native bush areas shown as Area A and Area B in Figure 1 attached prior to work commencing in those areas. The fauna to be salvaged include native lizard species (i.e. geckos and skinks), and any native fish species in accordance with the advice of a suitably qualified freshwater biologist. The salvage operations are to take place directly prior to works beginning in the relevant habitats.

viii. In the case of perennial streams (i.e. those that flow all year round), culverts shall be designed and placed in a manner to facilitate the passage of fish and aquatic life through the natural stream system. These culverts shall be designed and placed with the assistance of a suitably qualified freshwater biologist.

ix. Revegetation of native bush shall be undertaken to the level of that which will be lost due to road construction, to the extent that such can be practicably accommodated within the areas demarcated for revegetation in Figures 3 and 5 attached.

x. In consultation with a suitably qualified ecologist, a revegetation programme is to be carried out upon those batter slopes demarcated in Figure 3 attached. This revegetation programme will focus upon the planting of hardy native edge species appropriate to the site (with manuka predominant) as soon as practicable after construction. These species are to be sourced from local genetic stock and be densely planted. Once this initial vegetation has established then native forest canopy trees appropriate to the local environment should be interplanted at suitable spacings to promote a future canopy of these trees.

xi. Any realigning of existing perennial waterways shall be minimised as far as is practicable. Where streams are realigned, the design of any new channel shall be carried out with the advice of a freshwater biologist, and shall include the creation of appropriate habitat opportunities for aquatic fauna and the retention and establishment of riparian vegetation.

xii. That placement of silt ponds within existing waterways be minimised as far as possible, but where such ponds must occur then fish passes are to be provided in those cases where the ponds will be permanent features. In the case of temporary ponds (i.e., those in place during the construction period only) no fish passes are necessary, but the stream areas affected will be reinstated to at least their previous condition (including provision for the unobstructed passage of aquatic fauna).

xiii. ~~Transit~~The New Zealand Transport Agency shall implement enrichment planting in that land within the designation not required for road construction which is situated adjacent to the ~~North Shore City~~ Auckland Council reserve to the south of Wicklam Lane. The objective of such planting is to reinforce the existing gully wetland bush type, by the use of appropriate and locally sourced species.

## 6. Visual Impact Mitigation

i. A Landscape Mitigation Plan shall be prepared by a suitably qualified landscape architect in consultation with the ~~Team Leader, Planning Services, North Shore City Council~~ Manager Resource Consents, Auckland Council (or equivalent officer if that position no longer exists) and the ~~Director of~~ Manager Heritage, ~~Auckland Regional~~ Council or nominated representative. The landscape plan shall be submitted to the ~~Team Leader, Planning Services, North Shore City Council~~ Manager Resource Consents, Auckland Council, prior to construction and shall take into account, where practicable:

- a. The integration of the Highway alignment into the surrounding landscape;
- b. Mitigation of effects on properties in the vicinity of the alignment;
- c. Appropriate consideration of the angle and extent of batter slopes;
- d. Design of borrow and disposal areas for excess fill to avoid significant visual impact, and to maximize integration with the general form of the surrounding landscape;
- e. Noise mitigation measure (e.g. noise barriers) required in accordance with the Noise Impact Mitigation Conditions;
- f. Ecological mitigation measures (.e.g revegetation) required in accordance with the Ecological Impact Mitigation Conditions;
- g. Planting to screen horizontal edges and hard landscaping associated with the works (such as noise barriers), up to a height that is level with the height of those features (excluding lighting and bridges); and
- h. Planting in those areas identified for re-vegetation and planting in the attached figure titled "State Highway 18: Greenhithe: Proposed Mitigation Plan" April 1999 Sheet 95221/02/01 Figures a-d inclusive, including the planting of appropriate native species alongside streams in those areas demarcated as "Proposed Mass Planting (Exotic/Native Species)" on that figure.

ii. The Landscape Mitigation Plan shall include details of:

- a. All proposed planting (including species, species size, densities, areas and locations);
- b. The planting programme;
- c. The maintenance programme. This programme shall include details of weed control, performance standards specifying allowable percentage survival rates, and replacement of any planting failures;
- d. The sufficiency of the soil medium to sustain all planting proposed.

iii. The Landscape Mitigation Plan shall be implemented to the satisfaction of the landscape architect engaged by ~~Transit~~The New Zealand Transport Agency. All landscape mitigation planting shall be implemented during the first planting season following completion of the project construction works for the relevant section of the road. Following completion of planting, ~~NZTA~~~~Transit~~ the New Zealand Transport Agency shall submit to the ~~North Shore City~~ Auckland Council a report by the landscape architect on the implementation of the landscape plan.

iv. The maintenance programme shall be implemented to the satisfaction of the landscape architect engaged by ~~Transit~~The New Zealand Transport Agency, for a minimum period of three years following planting. Three months prior to expiry of the maintenance period, ~~Transit~~The New Zealand Transport Agency shall submit to the ~~North Shore City~~ Auckland Council a report by the landscape architect on the implementation of the maintenance programme. ~~Transit~~The New Zealand Transport Agency shall also submit one interim report during the maintenance period if required to do so in writing by the ~~North Shore City~~ Auckland Council.

v. Where practicable, any planting utilising native plants shall use plants genetically sourced from the ecological district.

## Duration of the designation

7.i. In accordance with Section 184(1)(c) of the Resource Management Act 1991, the designation will

lapse on the expiry of fifteen years after the date on which it is included in the District Plan unless:

- a. It is given effect to before the end of that period; or
- b. The territorial authority determines, on an application made within three months before the expiry of that period, that substantial progress or effort has been made towards giving effect to the designation and is continuing to be made and fixes a longer period to give effect to the designation.

#### **Advice Notes**

1. ~~North Shore City~~ Auckland Council requests that ~~Transit~~The New Zealand Transport Agency take all necessary steps to resolve issues of land purchase as soon as possible.

2. Prior to preparing an assessment of effects under section 88(4)(b) of the Resource Management Act 1991 for resource consents required from the Auckland ~~Regional~~ Council, ~~Transit~~The New Zealand Transport Agency (or its agents) is to prepare and submit a Scoping Report to the Auckland ~~Regional~~ Council. The report should include a comprehensive annotated table of contents which indicate what will be addressed in the assessment of effects.

3. In a consent order approved by the Environment Court in September 2000, ~~Transit~~The New Zealand Transport Agency agreed to amend its existing requirement for designation by removing that part of the requirement relating to land east of a point approximately 22 metres east of Unsworth Drive in accordance with a plan prepared by Beca Cater Hollings & Ferner Fig L1.9, Reference 2106485 (Rev. 3.4.00), File 6485L209 DWG. In agreeing to exclude the land east of Unsworth Drive from its requirement, ~~Transit~~The New Zealand Transport Agency also acknowledges that in any future relevant requirement or application which may be necessary as part of a subsequent motorway development, ~~NZTA~~Transit the New Zealand Transport Agency will address:

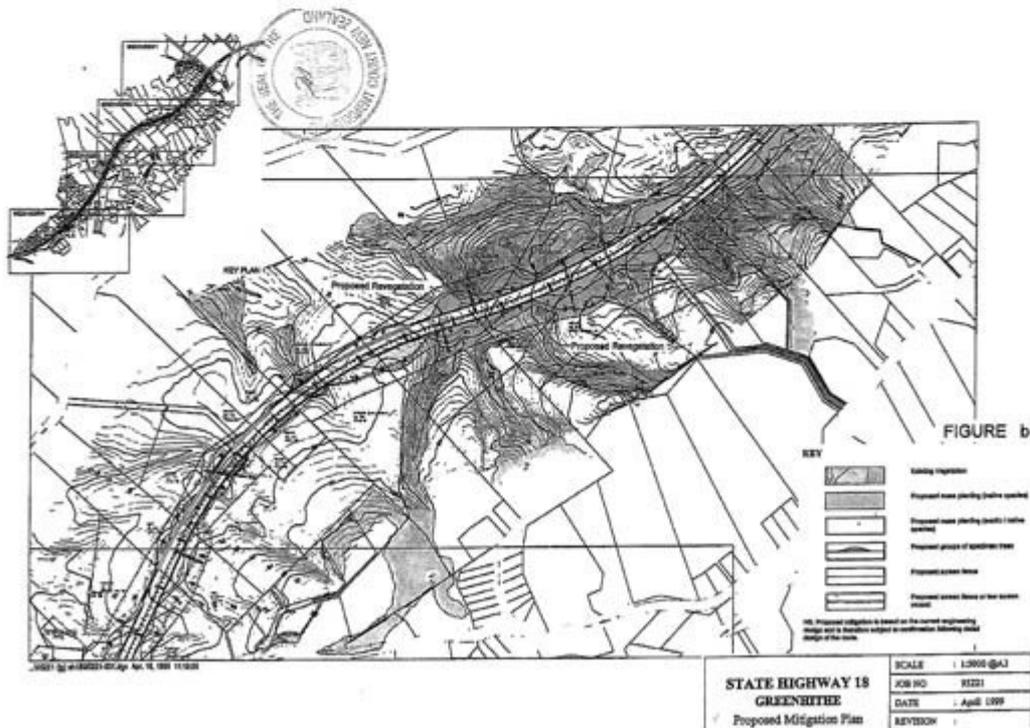
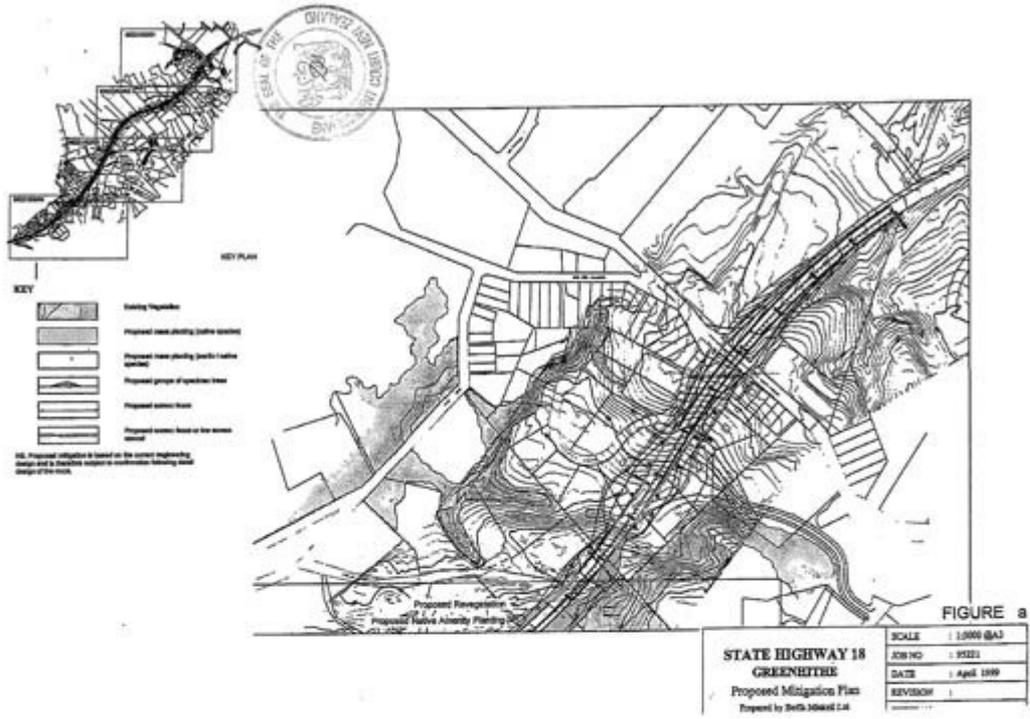
- a. The issue of the potential for an extended highway to interfere with access between Unsworth Heights and North Harbour Industrial Estate; and
- b. Provision of any bus shoulder lanes between Unsworth Drive and State Highway 1.

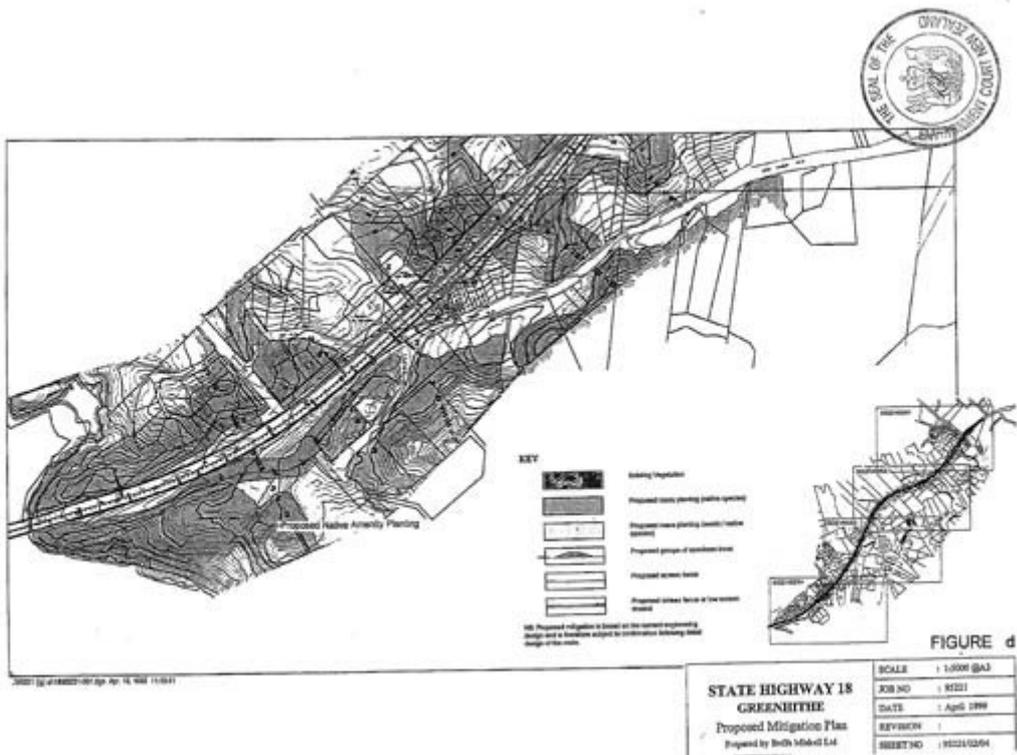
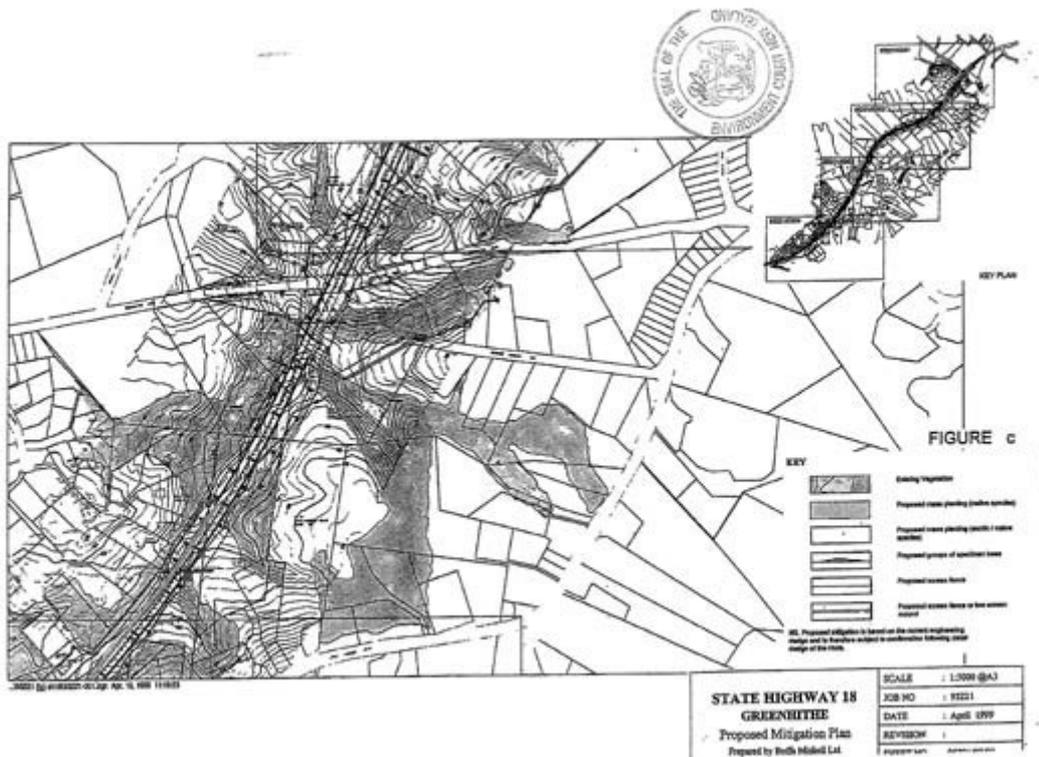
4. Where the "details" of the proposed works (as that term is defined in s176A Resource Management Act 1991) have not been incorporated into the designation or the works have not been otherwise approved under the Resource Management Act 1991 or the ~~North Shore City~~ Auckland Council does not waive the requirement for an outline plan, then an outline plan or plans shall be submitted by ~~Transit~~The New Zealand Transport Agency to the ~~North Shore City~~ Auckland Council under section 176A of the Resource Management Act 1991. Any outline plan or plans may be submitted in stages to reflect any proposed staging of the physical works.

5. Where agreement is reached between ~~Transit~~The New Zealand Transport Agency and the ~~North Shore City~~ Auckland Council pursuant to condition 1(xi) above in relation to any plan or part of a plan, that shall constitute waiver pursuant to section 176A(2)(c) of the Resource Management Act 1991 in relation to that plan or the relevant part of that plan.

#### **Attachments**

**State Highway 38: Greenhithe: Proposed Mitigation Plan" April 1999 Sheet 95221/02/01 Figures A-D**





### 6757 State Highway 1 - North Shore Busway

Designation Number	6757
Requiring Authority	New Zealand Transport Agency
Location	North Shore Busway from south of Onewa Road interchange, Onewa to Constellation Drive interchange, Rosedale

Rollover Designation	Yes
Legacy Reference	Designation 169, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

The North Shore Busway - for the construction, operation and maintenance of a State highway with provision for bus and high occupancy vehicle rapid transit facilities.

## Conditions

### 1. General

1.1 The scope and extent of the works envisaged within the designation shall be generally in accordance with the Notices of Requirement, the plans contained in "Volume 3 – A3 Plans" forming part of the documentation supporting the Notice of Requirement, and the relevant detailed plans in the Technical Reports in Volume 5, subject to the final design and the conditions set out below.

1.2 Prior to any works being commenced in particular location(s) of work, the Requiring Authority shall obtain all requisite resource consents for the location(s) affected under the Resource Management Act 1991.

1.3 Any land taken or held for the works shall be maintained to a reasonable standard until physical works commence.

1.4 At all times reasonable vehicular access shall be maintained to private properties not directly affected by construction and/or operation in the area affected. Where private properties are directly affected by construction and/or operations causing vehicular access to be temporarily prevented and no alternative can be utilised, the Requiring Authority shall ensure that the property owner is consulted with respect to the most suitable time for carrying out the work and the Requiring Authority shall minimise the period during which vehicular access is prevented.

1.5 A permanent liaison position from within the joint Project Governance Team of Auckland Council ~~NSCC~~ and the Requiring Authority will be appointed for the duration of the project. This person is to be available for ongoing consultation on all matters of concern to affected persons.

1.6 All contract documentation for physical works shall include reference to the designation conditions, any other resource consents (including conditions) and any approved mitigation or outline plan(s) held for the project.

1.7 Where requested by the owners, the Requiring Authority shall physically peg out the extent of the alignment in individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is the later.

### 2. Duration of the Designation

2.1 In accordance with Section 184(1)(c) and Section 184A(2)(c) of the Resource Management Act 1991, the designation will lapse on the expiry of ten years, except for NOR 8 which will lapse on the expiry of five years, after the date on which it is included in the District Plan unless:

2.2 It is given effect to before the end of that period; or

2.3 The territorial authority determines, on an application made not later than three months before the expiry of that period; that substantial progress or effort has been made towards giving effect to the designation and is continuing to be made and fixes a longer period to five effect to

the designation.

### **3. Project Management Plans (PMP) and Outline Plans**

3.1 The requiring authority shall prepare a PMP which shall include mitigation/management plans as referred to in conditions 5, 6, 7, 8, 9, 10 and 11.

3.2. No works shall be undertaken in any particular location(s) until:

- a. The PMP, or such part(s) of the PMP as are relevant to the location(s) are approved in the manner provided for in condition 3.3; and
- b. Any outline plan(s) required by section 176A of the Resource Management Act 1991 (*RMA*) in relation to the works in the location(s), are approved in the manner provided in condition 3.3.

3.3 Approvals pursuant to condition 3.2.a. shall be obtained from the ~~General Manager of Environmental Services, North Shore City Council~~ Manager Resource Consents, Auckland Council, and a senior regulatory officer of the NSCC who is at the time of the approval a member of the Project Governance Team for the management of the works (*the approval officers*).

#### *Advice Note:*

Where an outline plan or plans are required by section 176A RMA for works in any particular location(s) and the approval officers agree that the PMP or relevant part(s) of the PMP contains adequate details to satisfy section 176 RMA, then the Council may waive the requirement for an Outline Plan.

3.4 The works shall only be undertaken in accordance with an approved PMP and outline plan (where required).

3.5 If for any reason the PMP is not approved, the outline plan procedure under s 176A shall apply. For the avoidance of any doubt, the mitigation/management plans prepared under conditions 5, 6, 7, 8, 9, 10 and 11 shall be included with any outline plan lodged for approval pursuant to s 176A.

### **4. Archaeological Mitigation**

4.1 If construction work uncovers any archaeological remains, the Requiring Authority will immediately advise local iwi and ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and cease working in the affected area until any necessary authority required by ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained. (All archaeological sites are protected under the provisions of the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, whereby it is unlawful to modify, damage or destroy an archaeological site, whether recorded or not, without prior consent of the ~~Historic Places Trust~~ Heritage New Zealand).

4.2 That all recorded archaeological sites and other cultural heritage sites in the vicinity of the works shall be clearly marked on the construction plans.

4.3 Any significant native trees removed from Smiths bush as part of the works to construct the busway shall be offered as gifts to Te Hao o Ngati Whatua and/or Ngati Whatua o Orakei.

4.4 Preliminary earthworks in the vicinity of Onewa Road and Sylvan Ave realignment will be monitored by a suitably qualified and experienced archaeologist.

### **5. Ecological Mitigation**

5.1 The PMP shall include an Ecological Mitigation Plan prepared by a suitably qualified and experienced ecologist who shall have regard to:

- i. The recommendations contained in the audit by Shona Myers – Natural Heritage Scientist, ARC as to planting and the implementation of mitigation measures;
- ii. The planting of appropriate plant species as identified in ARC Technical Publication 148: Riparian

Zone Management: Strategy for the Auckland Region, June 2001.

5.2 The Plan shall provide for:

- i. Planting in riparian zones where consent of the landowner is obtained;
- ii. Mitigation of potential coastal effects.

5.3 Wherever practicable, any disturbance of existing vegetation shall be avoided.

5.4 Where riparian vegetation disturbance cannot be practicably avoided, the Requiring Authority shall take care that any necessary disturbance is minimised as far as practicable. For the avoidance of doubt, this condition is not intended to prohibit necessary disturbance, which is defined as including, but is not limited to, vegetation clearance, the construction and operation of all roads, depots, storage facilities and spoil disposal areas.

5.5 The PMP shall include a plan of the proposed works within the eastern remnant of Smiths Bush in sufficient detail to determine the impact on existing vegetation and the Requiring Authority shall undertake its best endeavours to minimise the removal of vegetation from Smiths Bush.

5.6 All works within the eastern remnant of Smiths Bush shall be supervised by a suitably qualified and experienced arboriculturist.

5.7 As a means of attempting to retain the overall ecological viability of Smiths Bush, any vegetation removed from the eastern remnant of the bush shall be replaced where practicable in accordance with a native tree planting and maintenance regime approved under condition 3.3. and following consultation with appropriate staff at the Auckland Regional Council.

## **6. Landscape Mitigation**

6.1 The PMP shall include a Landscape Mitigation Plan prepared by a suitably qualified and experienced landscape architect who shall have regard to:

- a. The Landscape Mitigation Plan prepared by LA4 Landscape Architects and contained in the Esmonde Interchange Project: Assessment of Environmental Effects Volume 10c; and
- b. The recommendations contained in the audits by Melean Absolum and Chris Boucher.

6.2 The Landscape Mitigation Plan shall provide for:

- a. The integration of the proposed works into the surrounding landscape;
- b. Appropriate consideration of the angle and extent of batter slopes;
- c. Appropriate screening of existing land-uses along Fred Thomas Drive;
- d. Design of borrow and disposal areas for excess fill to avoid significant visual impact, and to maximise integration with the general form of the surrounding landscape;
- e. Ecological mitigation measures (eg revegetation) required in accordance with the Ecological Mitigation Condition;
- f. Mitigation of effects on properties in the vicinity of the busway;
- g. Noise mitigation measures (eg noise barriers) required in accordance with the Noise Mitigation Conditions and the screening of such measures with planting between barriers and the busway carriageway;
- h. Detailed designs of the acoustic barriers, retaining walls, and earth bunds in conjunction with the engineers where necessary; and
- i. The identification of existing trees and vegetation sited on the boundary of the Busway designation that ought to be retained for screening purposes.

6.3 The Landscape Mitigation Plan shall include details of:

- j. All proposed planting (including species, species size, densities, areas and locations);
- k. The planting programme;
- l. The maintenance programme. This programme shall include details of weed control, performance standards specifying allowable percentage survival rates, and replacement of any planting features;
- m. The sufficiency of the soil medium to sustain all planting proposed; and

n. An appropriate maintenance regime.

6.4 All landscape mitigation planting shall be implemented during the first planting season following completion of the project construction works providing climatic conditions are suitable, otherwise at the first practicable opportunity thereafter. Following completion of planting, the Requiring Authority shall submit to the ~~North Shore City~~ Auckland Council a report by the landscape architect on the implementation of the landscape plan.

6.5 Where practicable, any planting utilising native plants shall use plants genetically sourced from the ecological district.

6.6 Exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

## **7. Noise Mitigation**

7.1 The project shall, as a minimum standard, be designed and constructed to comply with the limits within the Transit NZ Guidelines for the Management of Traffic Noise for State Highway Improvements and with the acoustic report 'North Shore Busway Project, SH1 busway, Report No 97245B' by Marshall Day Acoustic Limited.

7.2 The PMP shall include a Noise Mitigation Plan prepared by a suitably qualified noise consultant. The purpose of the plan is to describe the methods by which noise associated with traffic using the roading and the bus stations within the designation will be made to comply with specified noise limits at all affected dwellings and schools in the vicinity of the area affected. Where the ambient sound level is required to determine design limits then this shall be done prior to construction commencing.

7.3 The Requiring Authority shall ensure that all construction works are carried out in accordance with ~~NZS 6803: 1999 'Acoustics – Construction noise'~~ NZS 6803:1984 "The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work".

7.4 The PMP shall include a Construction Noise Management Plan. The purpose of the Plan is to describe the methods by which noise associated with the construction of the work will be managed to comply with condition

7.3 above. In particular, the Construction Noise Management Plan shall identify:

- a. The location of permanent acoustic fences to be installed prior to the commencement of the main construction works;
- b. Methods of managing noise;
- c. Noise monitoring methods, including details of methods, equipment, location and frequency;
- e. Contingency measures in the event of any incidence of non-compliance; and
- f. Procedures for handling noise complaints.

7.5 Where the requirements of condition 7.4 are unable to be met, the alternative strategies that have been developed following consultation with affected landowners will be implemented. Such alternatives may include, but not be limited to, temporary relocation of occupiers, compensation for occupiers and purchase of the affected properties.

7.6 Construction works shall at all times be undertaken in accordance with the Construction Noise Management Plan.

7.7 Where practicable, acoustic barriers required to meet Transit Noise Guidelines in particular locations, shall be erected prior to commencement of the construction works in those locations.

7.8 Where temporary acoustic barriers are proposed in the Marshall Day Report, and where their

retention would result in effective traffic noise reduction for residents or educational facilities, they shall be built to a standard such that the barriers will be able to remain permanently in place at heights approved under condition 3.3, taking into consideration traffic noise reduction visual and landscaping factors and consultation with adjoining property owners.

7.9 Unless:

- a. Otherwise agreed between Ministry of Education (MOE) and the requiring authority; or
- b. MOE agrees to compensation with the Requiring Authority for the noise effects from the Busway and associated new works; where *additional* traffic noise resulting from the Busway or associated new works increases above 45 dBA Leq (0830 to 1530 hrs Monday to Friday) in any classroom, then the requiring authority shall, immediately following commissioning of the Busway, implement mitigation measures which result in the noise level not *exceeding* 45 dBA Leq, or the ambient noise level *existing* prior to the establishment of the Busway, whichever is the higher. This noise level shall be achieved together with the ventilation requirements of The New Zealand Building Code, Clause ~~C4G4~~.

## **8. Geotechnical Mitigation**

8.1 A Geotechnical Mitigation Plan shall be prepared by a suitably qualified Geotechnical Engineer in consultation with ~~North Shore City~~Auckland Council. The plan shall be submitted to the ~~North Shore City~~Auckland Council Council prior to construction of any stage and shall take into account the recommendations of the report prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues' – November 2001.

## **9. Vibration Mitigation**

9.1 The PMP shall include a Vibration Mitigation Plan having regard to the report prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues – November 2001'. This Mitigation plan shall include details of how the works will comply with the requirement of German Standards DIN4150 "Structural Vibration in Buildings – Effects on Structures" during construction and shall take into account the recommendations.

9.2 A dilapidation survey of 'at risk' buildings, as per the recommendations of the audit prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues – November 2001', shall be undertaken prior to during and after completion of the construction works, provided the consent of any landowner and/or occupier can be obtained.

## **10 . Traffic Mitigation**

10.1 The PMP shall include a Traffic Mitigation Plan based on its adopted design for the project. The Traffic Mitigation Plan shall include:

- a. Methods of mitigating the local and network wide effects of both the construction of individual elements of the project and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
- b. Methods of helping to accommodate the bus transport needs of pupils of Westlake Girls' High School through the development and operation of Westlake Station and the busway system, in the light of consultation with the School;
- c. Methods of limiting the use of the busway to emergency vehicles and no more than 350HOVs (excluding buses) per hour north of Esmonde Road, including a restriction on the access of HOVs through Constellation Drive Station to no more than 350HOVs;
- d. Details of a monitoring programme to be undertaken detailing the demand for car parking in the vicinity of the Sunnynook Station and Westlake Station prior to the opening of the Station and at regular intervals (a minimum of 2 per annum) for a minimum period of five years following the opening of the Station to the public and measures to manage any such demand. (This condition shall only apply to Notices of Requirement 8 and 9); and
- e. Details of pedestrian access to be provided within the Westlake Bus Station and along Shakespeare Road Extension. (This condition shall apply only to Notice of Requirement 8).

10.2 In order to prevent potentially significant traffic disruption during and after construction, the existing Onewa Interchange shall continue to be fully operational (that is in the manner in which it

currently operates) until such time as the works proposed as part of the Esmonde Interchange project have been completed and the Esmonde Interchange is fully operational.

10.3 The public use of the Westlake Station shall not be allowed until such time as the works proposed as part of the Esmonde Interchange project have been completed and the Esmonde Interchange is fully operational.

## **11. Construction Management**

11.1 The PMP shall include a Construction Management Plan which shall refer to all conditions imposed on any relevant resource consents granted by the Auckland Regional Council.

11.2 The purpose of the Construction Management Plan is to set out methods by which any dust nuisance from construction will be avoided or minimised and by which the possibility of ground vibration during construction can be notified to adjacent land owners and occupiers.

In particular, the Management Plan shall identify amongst other things:

- a. Specific methods by which dust will be managed, including cleaning vehicle tyres before vehicles enter public roads, wetting or covering surfaces and replanting disturbed areas;
- b. Contingency measures to ensure that, in the event of any dust nuisance arising, immediate remedial measures are implemented;
- c. Procedures for prior notification of the use of machinery likely to generate vibration effects beyond the area of the designation to properties where ground vibration may be felt;
- d. The means by which loss of vehicle access to be (sic) properties will minimise inconvenience to each property owner affected following consultation with affected property owners;
- e. Methods of ensuring pedestrian safety along public footpaths and particularly where works are proposed in close proximity to any school;
- f. Procedures for handling any dust and ground vibration complaints; and .

In respect of Takapuna Normal Intermediate School the Management Plan shall include measures to address the following, in consultation with the School:

- i. Preventing students from gaining access to the construction site via the parking area off Northcote road or Smiths bush by the erection of such gates or fencing as may be agreed to by the School and the Requiring Authority;
- ii. Control of construction traffic moving between the construction site and Northcote Road so as to encourage the safe movement of students along Northcote Road; and
- iii. Minimising any adverse effects of construction on the playing field, in particular, dust nuisance.

11.3 The Requiring Authority shall ensure that the Construction Management Plan is complied with at all times during construction and that a copy is kept at all site offices.

11.4 The Requiring Authority and its contractors shall, in addition to complying with all other construction related conditions, take all reasonable steps to prevent or mitigate any nuisance or damage to adjacent properties during construction.

11.5 The Requiring Authority shall advise neighbouring owners and occupiers in the vicinity of the affected area of the date on which construction is to start, the expected duration of the work, and the telephone number of Site Liaison Officer who is able to respond to queries.

11.6 The location and extent of each stage of the site works will be identified and the North Shore City Council advised of the construction timetable.

11.7 The earthworks contractor shall be required to maintain the stability of the land and property at the boundary of the site by the best practicable method and to monitor that such works are and remain effective.

11.8 Control measures shall be in place to ensure that any vehicles leaving the designated site

do not deposit soil or other debris on public roads. Any such material deposited on any public road shall be cleaned up as soon as practicably possible at the Requiring Authority's expense.

11.9 Adequate provision shall be made during the earthworks construction for the protection of the existing public drains that traverse the designation. It is the Requiring Authority's responsibility to remedy any damages to the public drains that may occur during construction.

11.10 Protected vegetation areas and trees identified in the Landscape Mitigation Plan are to be retained and protected. Other sensitive areas of the site are to be identified and marked for protection prior to the commencement of works.

11.11 Spoil from earthworks, surplus to site requirements, shall be disposed of at an approved landfill site.

## **12. Exmouth Road Pedestrian Overbridge**

12.1 The Requiring Authority will use its best endeavours to obtain all necessary resource consents to allow reinstatement of the existing Exmouth Road pedestrian overbridge in the same or a similar location but extended to provide access across the bus lane to the foreshore. If such consents are granted the Requiring Authority shall reinstate the overbridge prior to the consents lapsing.

## **13. Westlake Boys High School**

13.1 The School accessway, adjoining the western boundaries of the Altona road properties and connecting the northern and southern playing fields, shall be constructed with a minimum width of 4m and designed so that service vehicles and pedestrians can obtain safe and convenient access.

13.2 The western embankment adjoining the southern playing fields of the School shall be planted with *Alnus incana* and *Alnus rubra* at a size and spacing to be detailed within the Landscape Mitigation Plan.

13.3 The Requiring Authority shall use its best endeavours to undertake construction of the works in the area adjoining the northern playing fields during the School Summer holidays (approximately 10 December – 31 January the following year).

## **14. Westlake Girls High School**

14.1 The Requiring Authority shall use its best endeavours to ensure that the pin oak trees along the western boundary of the School are retained.

14.2 The Requiring Authority shall use its best endeavours to undertake construction of the works along the School boundary during the School Summer holidays (approximately 10 December – 31 January the following year).

## **15. Takapuna Normal Intermediate School**

15.1 A permanent 1.8 metre close boarded and battened wooden fence shall be erected along the western boundary of the school (as identified in the **attached** plan titled "Building Locations Takapuna Normal Intermediate School") prior to commencement of construction of the Busway.

15.2 Where the operation of the Busway results in increases in traffic noise above 45 dBA Leq (0830 to 1530 hrs Monday to Friday) in any existing Takapuna Normal Intermediate School classroom with windows open (identified in the **attached** plan), then the requiring authority shall implement mitigation measures which result in the noise level not exceeding either 45 dBA Leq, or the ambient noise levels existing prior to the establishment of the Busway, whichever is higher. This noise level shall be achieved together with the ventilation requirements of the New Zealand Building Code, Clause G4 and New Zealand Standard 4303:1990 'Ventilation Requirements for acceptable indoor air quality' and in particular the requirements for educational institutions.

15.3 The Requiring Authority shall provide for:

- a. Replanting, or replacement where replanting is not practicable, of trees along the western boundary that are required to be removed for construction of the Busway; and
- b. Planting along the inside of the 1.8 metre fence (as described in condition 15.1) to mitigate the visual impact of the fence.

#### **16. Smales Farm**

16.1 The requiring authorities shall consult with a liaison person appointed by Shea Investments Limited and Betty Leila Holdings Limited in respect of:

- a. The detailed landscape plan to be prepared for the Busway in the vicinity of Smales Farm, for the purpose of ensuring that the landscaping for the Busway is integrated with the landscape development of Smales Farm; and
- b. That part of the Traffic Mitigation Plan that relates to Shakespeare Road Extension and Westlake Bus Station.

#### **17. T D Jane, L J & M F Bilton & A S & S J Church**

17.1 Subject to access being granted by the landowners of the properties legally described as Lot 127, DP 56740 (CT 9C/703), Lot 128, DP 56740 (CT C/104) and Lot 129, DP 56740 ("the properties"), the Requiring Authority will implement the landscaping plan prepared by LA4 Landscape Architects for the properties (titled "Proposed Planting to Mitigate Busway" **attached**) and any amendments to the planting shown on the plan as reasonably agreed between the landowners and the Requiring Authority. Failing agreement within 12 months of completion of construction of the fence, the Requiring Authority shall implement the LA4 landscaping plan (or its equivalent in value).

17.2 The Requiring Authority shall construct a fence on the properties' western boundaries prior to construction of the Project commencing adjacent to the landowners properties. The fence shall have the following specifications:

- a. To be located along the properties' western legal boundaries at 2 metres above ground level (as at 16 May 2003) at 7 and 10 Altona Road, and at 2 metres and rising to 2.5 metres above ground level at the northern end at 9 Altona road, for the full length of the boundaries of those properties;
- b. To be constructed of exterior grade (marine) plywood having a thickness of 17.5 mm or more;
- c. Plywood panels to be bolted to a framework so as to ensure no gaps or cracks and to meet the surface of the ground at their lower edge;
- d. Fence posts and framework to be specified by engineering design;
- e. Transit shall construct gates in the fence if requested by the landowners of 7 and 9 Altona Road; and
- f. To be certified by an engineer as having a design life of 20 years (except that certification of the design life of the fence shall not apply to any gates requested to be constructed).

#### *Advice note:*

It is the Requiring Authority's intention to construct the fence as part of the enabling works during 2003 or by April 2004 at the latest.

17.3 Any construction activities exceeding the Construction Standard set out in condition 7.3 between chainage 13200 to 13000 shown on the designation plan "Harbour Bridge to Constellation Drive Designation Plans Westlake Boys High School, Drawing No. 7716C609" (the affected area") shall be undertaken between the hours of 8.00am – 6.00pm on weekdays only and shall exclude the two weeks following Christmas Eve. For the avoidance of any doubt, condition 7.5 relating to works exceeding the Construction Standard continues to apply to the landowners as affected parties.

17.4 The Requiring Authority shall undertake earthworks in the affected area in one stage.

17.5 The Requiring Authority shall consult with the landowners on the mitigation plans referred to in the conditions 5, 6, 7, 8, 9, 10 and 11 on the designation insofar as the mitigation plans affect the landowners' properties

## **18. Bateman Property**

### ***Stormwater***

18.1 As part of the busway construction works, ~~Transit~~The New Zealand Transport Agency and ~~NSCC-Auckland Council~~ shall provide the following measures to address stormwater effects:

- a. ~~Transit~~The New Zealand Transport Agency shall pipe the existing drain from chainage 15100 down to 14960 (see Figs 1a – 1c, attached);
- b. ~~Transit~~The New Zealand Transport Agency and ~~NSCC-Auckland Council~~ shall widen by 4m the motorway side of the existing drain located on the eastern side of the motorway, from the level of the top of the present vertical concrete wall, from chainage 14960m to Sunnynook Road Culvert (as shown on the attached Figs 1a – 1c), such widening shall be at a grade as flat as possible from the existing concrete wall, consistent with efficient fall;
- c. ~~NSCC-Auckland Council~~ shall use its best endeavours to reduce the volume of debris caught on the central wall of the Sunnynook Road Culvert by reshaping the leading edge of the central wall;
- e. ~~Transit~~The New Zealand Transport Agency and ~~NSCC-Auckland Council~~ shall undertake the following measures to avoid slope instability and scour:
  - i. Provide a batter toe restraint retaining wall to buttress the lower position of the batter;
  - ii. Construct a gabion wall or timber pole wall to support the toe restraint retaining wall; and
  - iii. To undertake grass seedling over the four metre widening of the berm.

### ***Advice Note:***

It is recorded that Mr Bateman has agreed to provide access to ~~Transit~~The New Zealand Transport Agency and ~~NSCC-Auckland Council~~ or their contractors to enable them to undertake any drainage improvement works required within or adjacent to the Bateman family property.

### ***Noise***

18.2 Transit shall construct a concrete 0.8 metre high barrier between the Busway and the property in compliance with the letter from Marshall Day Acoustics Limited dated 18 December 2002 (attached as Appendix 1). The detailed design of this barrier is to be finalized as part of the busway detailed design.

18.3 ~~Transit~~The New Zealand Transport Agency shall construct a 0.8 metre high solid concrete New Jersey Barrier on top of the retaining wall between the motorway and the busway as also described in Appendix 1; the detailed design of this barrier is to be finalised as part of the busway detailed design.

18.4 ~~Transit~~The New Zealand Transport Agency shall construct a 1.8 metre high barrier at the rear of the Sunnynook Station between the proposed bus shelter and the end of the platform to mitigate any reflection of noise from the northbound bus shelter, the detailed design of this barrier is to be finalised as part of the busway detailed design.

18.5 ~~Transit~~The New Zealand Transport Agency agrees that any retaining wall to be constructed for the purposes of the Sunnynook Station shall be constructed from non-reflective materials to mitigate any potential noise effects.

### ***Landscaping***

18.6 ~~Transit~~The New Zealand Transport Agency shall undertake screen planting, consisting of native trees, shrubs and ground cover between Sunnynook Station, the busway and the property, as shown on the attached plan (titled "North Shore Busway Project: Amended Landscape Development for Sunnynook Bus Station, Figure 2") to provide effective screening. The planting, including the planting shown on the embankment between the busway and the motorway, will be undertaken as soon as practicable following the construction works and within the first planting

season to provide effective screening.

18.7 The landscaping and planting provided for under clause 18.6 shall be planted at Pb28 grade so that the plants are approximately 1.5 metres high when planted.

18.8 All planting shall be tended and maintained to ensure the full establishment and effectiveness of the landscaping including replacement planting where necessary.

## Attachments

No attachments.

## 6758 State Highway 1 - Constellation Drive Station

Designation Number	6758
Requiring Authority	New Zealand Transport Agency
Location	Southeast corner Constellation Drive and State Highway 1, Rosedale
Rollover Designation	Yes
Legacy Reference	Designation 170, Auckland Council District Plan (North Shore Section) 2002
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Constellation Drive Station - for the construction, operation and maintenance of roads, buildings, facilities and amenities and park and ride facilities (including a Busway control room and any ancillary structures, works and activities) for the purpose of providing a rapid transit facility for buses and high occupancy vehicles.

## Conditions

Notice of Requirement 3 - ~~Transit~~ The New Zealand Transport Agency – Constellation Drive

The conditions from Notice 1 listed below shall also apply to Notice 3 other than as varied below.

1. General Conditions (with appropriate amendments to refer to the separate assessments undertaken which specifically relate to the Constellation Drive Station).

1.10 A formal review of the adequacy of parking provision at the Station shall be carried out within twelve months of commencement operations at the Station and within a period of six months from any date if requested by the ~~North Shore City~~ Auckland Council. The review shall include preparation of a report by a suitably qualified and experienced traffic engineer analysing the on site car parking demand and supply situation based on surveys within and around the busway Station site and identifying any adverse effects and possible mitigation methods, which may form the basis for any further or amended conditions relating to car parking and parking management.

1.11 The Sunset Road access is to be limited to use by authorised busway users only, with appropriate signage being raised to this effect.

2. Duration Of Designation
3. PMP and Outline Plan
4. Archaeological Mitigation Conditions (other than 4.3 and 4.4)
5. Ecological Mitigation Conditions (other than 5.5, 5.6 and 5.7)
6. Landscape Mitigation Conditions

7. Noise Mitigation Conditions (other than 7.8)
8. Geotechnical Mitigation Conditions
9. Vibration Mitigation Conditions
10. Traffic Mitigation Conditions (other than 10.1(ii), (iv) and (v), 10.2 and 10.3)
11. Construction Management Conditions

## **1. General Conditions**

1.1 The scope and extent of the works envisaged within the designation shall be generally in accordance with the Notices of Requirement, the plans contained in "Volume 3 – A3 Plans" forming part of the documentation supporting the Notice of Requirement, and the relevant detailed plans in the Technical Reports in Volume 5, subject to the final design and the conditions set out below.

1.2 Prior to any works being commenced in particular location(s) of work, the Requiring Authority shall obtain all requisite resource consents for the location(s) affected under the Resource Management Act 1991.

1.3 Any land taken or held for the works shall be maintained to a reasonable standard until physical works commence.

1.4 At all times reasonable vehicular access shall be maintained to private properties not directly affected by construction and/or operation in the area affected. Where private properties are directly affected by construction and/or operations causing vehicular access to be temporarily prevented and no alternative can be utilised, the Requiring Authority shall ensure that the property owner is consulted with respect to the most suitable time for carrying out the work and the Requiring Authority shall minimise the period during which vehicular access is prevented.

1.5 A permanent liaison position from within the joint Project Governance Team of ~~NSCC~~ Auckland Council and the Requiring Authority will be appointed for the duration of the project. This person is to be available for ongoing consultation on all matters of concern to affected persons.

1.6 All contract documentation for physical works shall include reference to the designation conditions, any other resource consents (including conditions) and any approved mitigation or outline plan(s) held for the project.

1.7 Where requested by the owners, the Requiring Authority shall physically peg out the extent of the alignment in individually affected properties once the designation has been confirmed or all appeals have been determined, whichever is the later.

## **2. Duration of the Designation**

2.1 In accordance with Section 184(1)(c) and Section 184A(2)(c) of the Resource Management Act 1991, the designation will lapse on the expiry of ten years, except for NOR 8 which will lapse on the expiry of five years, after the date on which it is included in the District Plan unless:

2.2 It is given effect to before the end of that period; or

2.3 The territorial authority determines, on an application made not later than three months before the expiry of that period; that substantial progress or effort has been made towards giving effect to the designation and is continuing to be made and fixes a longer period to five effect to the designation.

## **3. Project Management Plans (PMP) and Outline Plans**

3.1 The requiring authority shall prepare a PMP which shall include mitigation/management plans as referred to in conditions 5, 6, 7, 8, 9, 10 and 11. 3.2.

No works shall be undertaken in any particular location(s) until:

- a. The PMP, or such part(s) of the PMP as are relevant to the location(s) are approved in the manner provided for in condition 3.3; and
- b. Any outline plan(s) required by section 176A of the Resource Management Act 1991 (*RMA*) in relation to the works in the location(s), are approved in the manner provided in condition 3.3.

3.3 Approvals pursuant to condition 3.2(a) shall be obtained from the ~~General Manager of Environmental Services, North Shore City Council~~ Manager Resource Consents, Auckland Council, and a senior regulatory officer of the ~~NSCC Auckland Council~~ who is at the time of the approval a member of the Project Governance Team for the management of the works (*the approval officers*).

*Advice Note:*

Where an outline plan or plans are required by section 176A RMA for works in any particular location(s) and the approval officers agree that the PMP or relevant part(s) of the PMP contains adequate details to satisfy section 176 RMA, then the Council may waive the requirement for an Outline Plan.

3.4 The works shall only be undertaken in accordance with an approved PMP and outline plan (where required).

3.5 If for any reason the PMP is not approved, the outline plan procedure under s 176A shall apply. For the avoidance of any doubt, the mitigation/management plans prepared under conditions 5, 6, 7, 8, 9, 10 and 11 shall be included with any outline plan lodged for approval pursuant to s 176A.

#### **4. Archaeological Mitigation Conditions**

4.1 If construction work uncovers any archaeological remains, the Requiring Authority will immediately advise local iwi and ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and cease working in the affected area until any necessary authority required by ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained. (All archaeological sites are protected under the provisions of the ~~Historic Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, whereby it is unlawful to modify, damage or destroy an archaeological site, whether recorded or not, without prior consent of the ~~Historic Places Trust~~ Heritage New Zealand).

4.2 That all recorded archaeological sites and other cultural heritage sites in the vicinity of the works shall be clearly marked on the construction plans.

4.3 Any significant native trees removed from Smiths bush as part of the works to construct the busway shall be offered as gifts to Te Hao o Ngati Whatua and/or Ngati Whatua o Orakei.

4.4 Preliminary earthworks in the vicinity of Onewa Road and Sylvan Ave realignment will be monitored by a suitably qualified and experienced archaeologist.

#### **5. Ecological Mitigation Conditions**

5.1 The PMP shall include an Ecological Mitigation Plan prepared by a suitably qualified and experienced ecologist who shall have regard to:

- i. The recommendations contained in the audit by Shona Myers – Natural Heritage Scientist, ARC as to planting and the implementation of mitigation measures;
- ii. The planting of appropriate plant species as identified in ARC Technical Publication 148: Riparian Zone Management: Strategy for the Auckland Region, June 2001.

5.2 The Plan shall provide for:

- i. Planting in riparian zones where consent of the landowner is obtained;
- ii. Mitigation of potential coastal effects.

5.3 Wherever practicable, any disturbance of existing vegetation shall be avoided.

5.4 Where riparian vegetation disturbance cannot be practicably avoided, the Requiring Authority shall take care that any necessary disturbance is minimised as far as practicable. For the avoidance of doubt, this condition is not intended to prohibit necessary disturbance, which is defined as including, but is not limited to, vegetation clearance, the construction and operation of all roads, depots, storage facilities and spoil disposal areas.

5.5 The PMP shall include a plan of the proposed works within the eastern remnant of Smiths Bush in sufficient detail to determine the impact on existing vegetation and the Requiring Authority shall undertake its best endeavours to minimise the removal of vegetation from Smiths Bush.

5.6 All works within the eastern remnant of Smiths Bush shall be supervised by a suitably qualified and experienced arboriculturist.

5.7 As a means of attempting to retain the overall ecological viability of Smiths Bush, any vegetation removed from the eastern remnant of the bush shall be replaced where practicable in accordance with a native tree planting and maintenance regime approved under condition 3.3. and following consultation with appropriate staff at the Auckland Regional Council.

## **6. Landscape Mitigation Conditions**

6.1 The PMP shall include a Landscape Mitigation Plan prepared by a suitably qualified and experienced landscape architect who shall have regard to:

- a. The Landscape Mitigation Plan prepared by LA4 Landscape Architects and contained in the Esmonde Interchange Project: Assessment of Environmental Effects Volume 10c; and
- b. The recommendations contained in the audits by Melean Absolum and Chris Boucher.

6.2 The Landscape Mitigation Plan shall provide for:

- a. The integration of the proposed works into the surrounding landscape;
- b. Appropriate consideration of the angle and extent of batter slopes;
- c. Appropriate screening of existing land-uses along Fred Thomas Drive;
- d. Design of borrow and disposal areas for excess fill to avoid significant visual impact, and to maximise integration with the general form of the surrounding landscape;
- e. Ecological mitigation measures (eg revegetation) required in accordance with the Ecological Mitigation Condition;
- f. Mitigation of effects on properties in the vicinity of the busway;
- g. Noise mitigation measures (eg noise barriers) required in accordance with the Noise Mitigation Conditions and the screening of such measures with planting between barriers and the busway carriageway;
- h. Detailed designs of the acoustic barriers, retaining walls, and earth bunds in conjunction with the engineers where necessary; and
- i. The identification of existing trees and vegetation sited on the boundary of the Busway designation that ought to be retained for screening purposes.

6.3 The Landscape Mitigation Plan shall include details of:

- j. All proposed planting (including species, species size, densities, areas and locations);
- k. The planting programme;
- l. The maintenance programme. This programme shall include details of weed control, performance standards specifying allowable percentage survival rates, and replacement of any planting features;
- m. The sufficiency of the soil medium to sustain all planting proposed; and
- n. An appropriate maintenance regime.

6.4 All landscape mitigation planting shall be implemented during the first planting season following completion of the project construction works providing climatic conditions are suitable,

otherwise at the first practicable opportunity thereafter. Following completion of planting, the Requiring Authority shall submit to the ~~North Shore City~~ Auckland Council a report by the landscape architect on the implementation of the landscape plan.

6.5 Where practicable, any planting utilising native plants shall use plants genetically sourced from the ecological district.

6.6 Exposed cut and fill batters and slopes shall be re-vegetated as soon as practicable after construction.

## **7. Noise Mitigation Conditions**

7.1 The project shall, as a minimum standard, be designed and constructed to comply with the limits within the Transit NZ Guidelines for the Management of Traffic Noise for State Highway Improvements and with the acoustic report 'North Shore Busway Project, SH1 busway, Report No 97245B' by Marshall Day Acoustic Limited.

7.2 The PMP shall include a Noise Mitigation Plan prepared by a suitably qualified noise consultant. The purpose of the plan is to describe the methods by which noise associated with traffic using the roading and the bus stations within the designation will be made to comply with specified noise limits at all affected dwellings and schools in the vicinity of the area affected. Where the ambient sound level is required to determine design limits then this shall be done prior to construction commencing.

~~7.3 The Requiring Authority shall ensure that all construction works are carried out in accordance with NZS 6803: 1999 "Acoustics – Construction noise", ~~NZS 6803P:1984 "The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work"~~.~~

7.4 The PMP shall include a Construction Noise Management Plan. The purpose of the Plan is to describe the methods by which noise associated with the construction of the work will be managed to comply with condition 7.3 above. In particular, the Construction Noise Management Plan shall identify:

- a. The location of permanent acoustic fences to be installed prior to the commencement of the main construction works;
- b. Methods of managing noise;
- c. Noise monitoring methods, including details of methods, equipment, location and frequency;
- e. Contingency measures in the event of any incidence of non-compliance; and
- f. Procedures for handling noise complaints.

7.5 Where the requirements of condition 7.4 are unable to be met, the alternative strategies that have been developed following consultation with affected landowners will be implemented. Such alternatives may include, but not be limited to, temporary relocation of occupiers, compensation for occupiers and purchase of the affected properties.

7.6 Construction works shall at all times be undertaken in accordance with the Construction Noise Management Plan.

7.7 Where practicable, acoustic barriers required to meet Transit Noise Guidelines in particular locations, shall be erected prior to commencement of the construction works in those locations.

7.8 Where temporary acoustic barriers are proposed in the Marshall Day Report, and where their retention would result in effective traffic noise reduction for residents or educational facilities, they shall be built to a standard such that the barriers will be able to remain permanently in place at heights approved under condition 3.3, taking into consideration traffic noise reduction visual and landscaping factors and consultation with adjoining property owners.

7.9 Unless:

- a. Otherwise agreed between Ministry of Education (MOE) and the requiring authority; or
- b. MOE agrees to compensation with the Requiring Authority for the noise effects from the Busway and associated new works; where *additional* traffic noise resulting from the Busway or associated new works increases above 45 dBA Leq (0830 to 1530 hrs Monday to Friday) in any classroom, then the requiring authority shall, immediately following commissioning of the Busway, implement mitigation measures which result in the noise level not *exceeding* 45 dBA Leq, or the ambient noise level *existing* prior to the establishment of the Busway, whichever is the higher. This noise level shall be achieved together with the ventilation requirements of The New Zealand Building Code, Clause G4G4.

## **8. Geotechnical Mitigation Condition**

8.1 A Geotechnical Mitigation Plan shall be prepared by a suitably qualified Geotechnical Engineer in consultation with ~~North Shore City~~ Auckland Council. The plan shall be submitted to ~~North Shore City~~ Auckland Council prior to construction of any stage and shall take into account the recommendations of the report prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues' – November 2001.

## **9. Vibration Mitigation Conditions**

9.1 The PMP shall include a Vibration Mitigation Plan having regard to the report prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues – November 2001'. This Mitigation plan shall include details of how the works will comply with the requirement of German Standards DIN4150 "Structural Vibration in Buildings – Effects on Structures" during construction and shall take into account the recommendations.

9.2 A dilapidation survey of 'at risk' buildings, as per the recommendations of the audit prepared by Riley Consultants entitled 'Technical Review of Geotechnical and Civil Engineering Issues – November 2001', shall be undertaken prior to during and after completion of the construction works, provided the consent of any landowner and/or occupier can be obtained.

## **10 . Traffic Mitigation Conditions**

10.1 The PMP shall include a Traffic Mitigation Plan based on its adopted design for the project. The Traffic Mitigation Plan shall include:

- a. Methods of mitigating the local and network wide effects of both the construction of individual elements of the project and the use of staging to allow sections of the project to be opened to traffic while other sections are still under construction;
- b. Methods of helping to accommodate the bus transport needs of pupils of Westlake Girls' High School through the development and operation of Westlake Station and the busway system, in the light of consultation with the School;
- c. Methods of limiting the use of the busway to emergency vehicles and no more than 350HOVs (excluding buses) per hour north of Esmonde Road, including a restriction on the access of HOVs through Constellation Drive Station to no more than 350HOVs;
- d. Details of a monitoring programme to be undertaken detailing the demand for car parking in the vicinity of the Sunnynook Station and Westlake Station prior to the opening of the Station and at regular intervals (a minimum of 2 per annum) for a minimum period of five years following the opening of the Station to the public and measures to manage any such demand. (This condition shall only apply to Notices of Requirement 8 and 9); and
- e. Details of pedestrian access to be provided within the Westlake Bus Station and along Shakespeare Road Extension. (This condition shall apply only to Notice of Requirement 8).

10.2 In order to prevent potentially significant traffic disruption during and after construction, the existing Onewa Interchange shall continue to be fully operational (that is in the manner in which it currently operates) until such time as the works proposed as part of the Esmonde Interchange project have been completed and the Esmonde Interchange is fully operational.

10.3 The public use of the Westlake Station shall not be allowed until such time as the works proposed as part of the Esmonde Interchange project have been completed and the Esmonde

Interchange is fully operational.

## **11. Construction Management Conditions**

11.1 The PMP shall include a Construction Management Plan which shall refer to all conditions imposed on any relevant resource consents granted by the Auckland ~~Regional~~ Council.

11.2 The purpose of the Construction Management Plan is to set out methods by which any dust nuisance from construction will be avoided or minimised and by which the possibility of ground vibration during construction can be notified to adjacent land owners and occupiers. In particular, the Management Plan shall identify amongst other things:

- a. Specific methods by which dust will be managed, including cleaning vehicle tyres before vehicles enter public roads, wetting or covering surfaces and replanting disturbed areas;
- b. Contingency measures to ensure that, in the event of any dust nuisance arising, immediate remedial measures are implemented;
- c. Procedures for prior notification of the use of machinery likely to generate vibration effects beyond the area of the designation to properties where ground vibration may be felt;
- d. The means by which loss of vehicle access to be (sic) properties will minimise inconvenience to each property owner affected following consultation with affected property owners;
- e. Methods of ensuring pedestrian safety along public footpaths and particularly where works are proposed in close proximity to any school;
- f. Procedures for handling any dust and ground vibration complaints; and ·

In respect of Takapuna Normal Intermediate School the Management Plan shall include measures to address the following, in consultation with the School:

- i. Preventing students from gaining access to the construction site via the parking area off Northcote road or Smiths bush by the erection of such gates or fencing as may be agreed to by the School and the Requiring Authority;
- ii. Control of construction traffic moving between the construction site and Northcote Road so as to encourage the safe movement of students along Northcote Road; and
- iii. Minimising any adverse effects of construction on the playing field, in particular, dust nuisance.

11.3 The Requiring Authority shall ensure that the Construction Management Plan is complied with at all times during construction and that a copy is kept at all site offices.

11.4 The Requiring Authority and its contractors shall, in addition to complying with all other construction related conditions, take all reasonable steps to prevent or mitigate any nuisance or damage to adjacent properties during construction.

11.5 The Requiring Authority shall advise neighbouring owners and occupiers in the vicinity of the affected area of the date on which construction is to start, the expected duration of the work, and the telephone number of Site Liaison Officer who is able to respond to queries.

11.6 The location and extent of each stage of the site works will be identified and the ~~North Shore City~~ Auckland Council advised of the construction timetable.

11.7 The earthworks contractor shall be required to maintain the stability of the land and property at the boundary of the site by the best practicable method and to monitor that such works are and remain effective.

11.8 Control measures shall be in place to ensure that any vehicles leaving the designated site do not deposit soil or other debris on public roads. Any such material deposited on any public road shall be cleaned up as soon as practicably possible at the Requiring Authority's expense.

11.9 Adequate provision shall be made during the earthworks construction for the protection of the

existing public drains that traverse the designation. It is the Requiring Authority's responsibility to remedy any damages to the public drains that may occur during construction.

11.10 Protected vegetation areas and trees identified in the Landscape Mitigation Plan are to be retained and protected. Other sensitive areas of the site are to be identified and marked for protection prior to the commencement of works.

11.11 Spoil from earthworks, surplus to site requirements, shall be disposed of at an approved landfill site.

## **12. Exmouth Road Pedestrian Overbridge**

12.1 The Requiring Authority will use its best endeavours to obtain all necessary resource consents to allow reinstatement of the existing Exmouth Road pedestrian overbridge in the same or a similar location but extended to provide access across the bus lane to the foreshore. If such consents are granted the Requiring Authority shall reinstate the overbridge prior to the consents lapsing.

## **13. Westlake Boys High School**

13.1 The School accessway, adjoining the western boundaries of the Altona road properties and connecting the northern and southern playing fields, shall be constructed with a minimum width of 4m and designed so that service vehicles and pedestrians can obtain safe and convenient access.

13.2 The western embankment adjoining the southern playing fields of the School shall be planted with *Alnus incana* and *Alnus rubra* at a size and spacing to be detailed within the Landscape Mitigation Plan.

13.3 The Requiring Authority shall use its best endeavours to undertake construction of the works in the area adjoining the northern playing fields during the School Summer holidays (approximately 10 December – 31 January the following year).

## **14. Westlake Girls High School**

14.1 The Requiring Authority shall use its best endeavours to ensure that the pin oak trees along the western boundary of the School are retained.

14.2 The Requiring Authority shall use its best endeavours to undertake construction of the works along the School boundary during the School Summer holidays (approximately 10 December – 31 January the following year).

## **15. Takapuna Normal Intermediate School**

15.1 A permanent 1.8 metre close boarded and battened wooden fence shall be erected along the western boundary of the school (as identified in the **attached** plan titled "Building Locations Takapuna Normal Intermediate School") prior to commencement of construction of the Busway.

15.2 Where the operation of the Busway results in increases in traffic noise above 45 dBA Leq (0830 to 1530 hrs Monday to Friday) in any existing Takapuna Normal Intermediate School classroom with windows open (identified in the **attached** plan), then the requiring authority shall implement mitigation measures which result in the noise level not exceeding either 45 dBA Leq, or the ambient noise levels existing prior to the establishment of the Busway, whichever is higher. This noise level shall be achieved together with the ventilation requirements of the New Zealand Building Code, Clause G4 and New Zealand Standard 4303:1990 'Ventilation Requirements for acceptable indoor air quality' and in particular the requirements for educational institutions.

15.3 The Requiring Authority shall provide for:

a. Replanting, or replacement where replanting is not practicable, of trees along the western boundary that are required to be removed for construction of the Busway; and

b. Planting along the inside of the 1.8 metre fence (as described in condition 15.1) to mitigate the visual impact of the fence.

#### **16. Smales Farm**

16.1 The requiring authorities shall consult with a liaison person appointed by Shea Investments Limited and Betty Leila Holdings Limited in respect of:

- a. The detailed landscape plan to be prepared for the Busway in the vicinity of Smales Farm, for the purpose of ensuring that the landscaping for the Busway is integrated with the landscape development of Smales Farm; and
- b. That part of the Traffic Mitigation Plan that relates to Shakespeare Road Extension and Westlake Bus Station.

#### **17. T D Jane, L J & M F Bilton & A S & S J Church**

17.1 Subject to access being granted by the landowners of the properties legally described as Lot 127, DP 56740 (CT 9C/703), Lot 128, DP 56740 (CT C/104) and Lot 129, DP 56740 ("the properties"), the Requiring Authority will implement the landscaping plan prepared by LA4 Landscape Architects for the properties (titled "Proposed Planting to Mitigate Busway" **attached**) and any amendments to the planting shown on the plan as reasonably agreed between the landowners and the Requiring Authority. Failing agreement within 12 months of completion of construction of the fence, the Requiring Authority shall implement the LA4 landscaping plan (or its equivalent in value).

17.2 The Requiring Authority shall construct a fence on the properties' western boundaries prior to construction of the Project commencing adjacent to the landowners properties. The fence shall have the following specifications:

- a. To be located along the properties' western legal boundaries at 2 metres above ground level (as at 16 May 2003) at 7 and 10 Altona Road, and at 2 metres and rising to 2.5 metres above ground level at the northern end at 9 Altona road, for the full length of the boundaries of those properties;
- b. To be constructed of exterior grade (marine) plywood having a thickness of 17.5 mm or more;
- c. Plywood panels to be bolted to a framework so as to ensure no gaps or cracks and to meet the surface of the ground at their lower edge;
- d. Fence posts and framework to be specified by engineering design;
- e. Transit shall construct gates in the fence if requested by the landowners of 7 and 9 Altona Road; and
- f. To be certified by an engineer as having a design life of 20 years (except that certification of the design life of the fence shall not apply to any gates requested to be constructed).

#### *Advice note:*

It is the Requiring Authority's intention to construct the fence as part of the enabling works during 2003 or by April 2004 at the latest.

17.3 Any construction activities exceeding the Construction Standard set out in condition 7.3 between chainage 13200 to 13000 shown on the designation plan "Harbour Bridge to Constellation Drive Designation Plans Westlake Boys High School, Drawing No. 7716C609" (the affected area") shall be undertaken between the hours of 8.00am – 6.00pm on weekdays only and shall exclude the two weeks following Christmas Eve. For the avoidance of any doubt, condition 7.5 relating to works exceeding the Construction Standard continues to apply to the landowners as affected parties.

17.4 The Requiring Authority shall undertake earthworks in the affected area in one stage.

17.5 The Requiring Authority shall consult with the landowners on the mitigation plans referred to in the conditions 5, 6, 7, 8, 9, 10 and 11 on the designation insofar as the mitigation plans affect the landowners' properties

#### **18. Bateman Property**

### **Stormwater**

18.1 As part of the busway construction works, The New Zealand Transport Agency-~~Transit~~ and ~~NSCC~~ Auckland Council shall provide the following measures to address stormwater effects:

- a. The New Zealand Transport Agency-~~Transit~~ shall pipe the existing drain from chainage 15100 down to 14960 (see Figs 1a – 1c, attached);
- b. The New Zealand Transport Agency-~~Transit~~ and ~~NSCC~~ Auckland Council shall widen by 4m the motorway side of the existing drain located on the eastern side of the motorway, from the level of the top of the present vertical concrete wall, from chainage 14960m to Sunnynook Road Culvert (as shown on the attached Figs 1a – 1c), such widening shall be at a grade as flat as possible from the existing concrete wall, consistent with efficient fall;
- c. ~~NSCC~~ Auckland Council shall use its best endeavours to reduce the volume of debris caught on the central wall of the Sunnynook Road Culvert by reshaping the leading edge of the central wall;
- e. The New Zealand Transport Agency and Auckland Council ~~Transit~~ and ~~NSCC~~ shall undertake the following measures to avoid slope instability and scour:
  - i. Provide a batter toe restraint retaining wall to buttress the lower position of the batter;
  - ii. Construct a gabion wall or timber pole wall to support the toe restraint retaining wall; and
  - iii. To undertake grass seedling over the four metre widening of the berm.

#### *Advice Note:*

It is recorded that Mr Bateman has agreed to provide access to The New Zealand Transport Agency-~~Transit~~ and ~~North Shore City~~ Auckland Council or their contractors to enable them to undertake any drainage improvement works required within or adjacent to the Bateman family property.

### **Noise**

18.2 The New Zealand Transport Agency-~~Transit~~ shall construct a concrete 0.8 metre high barrier between the Busway and the property in compliance with the letter from Marshall Day Acoustics Limited dated 18 December 2002 (attached as Appendix 1). The detailed design of this barrier is to be finalized as part of the busway detailed design.

18.3 The New Zealand Transport Agency-~~Transit~~ shall construct a 0.8 metre high solid concrete New Jersey Barrier on top of the retaining wall between the motorway and the busway as also described in Appendix 1; the detailed design of this barrier is to be finalised as part of the busway detailed design.

18.4 The New Zealand Transport Agency-~~Transit~~ shall construct a 1.8 metre high barrier at the rear of the Sunnynook Station between the proposed bus shelter and the end of the platform to mitigate any reflection of noise from the northbound bus shelter, the detailed design of this barrier is to be finalised as part of the busway detailed design.

18.5 The New Zealand Transport Agency-~~Transit~~ agrees that any retaining wall to be constructed for the purposes of the Sunnynook Station shall be constructed from non-reflective materials to mitigate any potential noise effects.

### **Landscaping**

18.6 The New Zealand Transport Agency-~~Transit~~ shall undertake screen planting, consisting of native trees, shrubs and ground cover between Sunnynook Station, the busway and the property, as shown on the **attached** plan (titled "North Shore Busway Project: Amended Landscape Development for Sunnynook Bus Station, Figure 2") to provide effective screening. The planting, including the planting shown on the embankment between the busway and the motorway, will be undertaken as soon as practicable following the construction works and within the first planting season to provide effective screening.

18.7 The landscaping and planting provided for under clause 18.6 shall be planted at Pb28 grade so that the plants are approximately 1.5 metres high when planted.

18.8 All planting shall be tended and maintained to ensure the full establishment and effectiveness of the landscaping including replacement planting where necessary.

## Attachments

No attachments.

### 6759 State Highway 1 - Silverdale

Designation Number	6759
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 <del>at Silverdale interchange</del> <u>from Silverdale interchange to Wainui Road bridge</u> , Silverdale
Rollover Designation	Yes
Legacy Reference	Designation 401, Auckland Council District Plan (Rodney Section) 2011
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Motorway.

## Conditions

No conditions.

## Attachments

No attachments.

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### 6761 State Highway 1 - Silverdale to Puhoi

Designation Number	6761
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 from Bankside Road, Silverdale to Titfords Bridge, Puhoi
Rollover Designation	Yes
Legacy Reference	Designation 401, Auckland Council District Plan (Rodney Section) 2011
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Motorway and limited access highway and associated interchange structures.

## Conditions

### 1. General

1.1 That the scope and extent of the works envisaged within the designation be generally in accordance with the plans contained in Appendix C accompanying the notice of requirement dated 9 May 1994 (held on Vol 1 of RDC file No. L18810), subject to final design and any modification required to comply with the conditions set out below.

1.2 That the Regional Manager of ~~the Transit~~ New Zealand Transport Agency

recommend to the ~~Transit New Zealand Authority~~ New Zealand Transport Agency Board that the realignment of State Highway No. 1 from Albany to Puhoi be treated as one integrated and complete project for funding and construction purposes.

1.3 That, prior to any stage being commenced, ~~the Transit~~ New Zealand Transport Agency shall obtain all requisite resource consents required under the Resource Management Act 1991 and the Operative ~~Rodney District~~ Auckland Unitary Plan, and any authority necessary to modify any archaeological sites likely to be affected, from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand. The application to the ~~New Zealand Historic Places Trust~~ Heritage New Zealand shall be made at least six months prior to the commencement of construction of each stage.

1.4 That ~~the Transit~~ New Zealand Transport Agency and its contractors shall take all reasonable steps to prevent or mitigate any nuisance to adjacent properties during construction.

1.5 That any land taken or held for the works be maintained to a reasonable standard until physical works commence.

1.6 That at all times reasonable access be maintained to private properties not directly affected by construction and operation.

1.7 That the extent of land required to be taken for the designation, and to be acquired for mitigation purposes, be provisionally identified on the land forthwith, and that this information be made available to the affected property owners and occupiers and the ~~Rodney District~~ Auckland Council as soon as possible after the designation is confirmed. Prior to this provisional identification of land taking place, the liaison person (required by condition 1.9) shall have discussions with all affected land owners and occupiers, in order that the final alignment and all associated works are located to best mitigate, as far as practicable, any adverse effects on each property physically affected.

1.8 That the design and construction of the motorway in the vicinity of Bankside Road shall not preclude the option of a full intersection being constructed at this location in the future, or of provision being made for parallel service roads between Bankside Road and the proposed Link Road.

1.9 That a liaison person be appointed by ~~the Transit~~ New Zealand Transport Agency to be the main and readily accessible point of contact for persons affected by the designation and construction works.

## **2. Noise Mitigation Actions**

2.1 The highway shall be designed in accordance with Transit's Guidelines for the Management of Traffic Noise - State Highway Improvements, November 1994. Where the noise standards could be exceeded, the appropriate noise reduction options identified in the Draft document shall be implemented.

2.2 Construction noise shall meet the limits in, and shall be measured and assessed in accordance with NZS 6803: 1999 "Acoustics – Construction noise". ~~NZS 6803P:1984 – The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work.~~

3.1 Prior to the commencement of construction, a detailed archaeological study of the provisionally identified route shall be undertaken, including field survey, completion of archival searches and subsurface testing where appropriate.

3.2 Appropriate provision is to be made to protect historical/archaeological sites in situ during

construction. This will include the fencing off of sites adjacent to the route.

3.3 the New Zealand Transport Agency Transit NZTA shall ensure that roading contractors are briefed regarding the location and significance of archaeological sites on or close to the selected route.

3.4 An archaeologist shall be appointed by the New Zealand Transport Agency Transit NZTA to monitor the roadworks, particularly in those areas which cannot be adequately surveyed owing to dense bush cover. The role of the archaeologist will be to record archaeological evidence from any sites not located during the survey.

3.5 the New Zealand Transport Agency Transit NZTA shall use its best endeavours to consult with the Tangata Whenua to achieve the implementation of the recommendations of the cultural impact assessment (Section 8.4 of the EIA). The following recommendations were made by Iwi:

3.5.1 That the New Zealand Transport Agency Transit NZTA continue ongoing dialogue and liaise with Tangata Whenua during the detailed design phase.

3.5.2 That the Transit-New Zealand Transport Agency take on board the concerns expressed by Tangata Whenua with respect to safeguarding the violation of Waahi Tapu and other sacred sites.

3.5.3 That the the Transit-New Zealand Transport Agency employ representatives of Tangata Whenua at the construction stage to act as Kaitiaki during earthworks, to ensure that no Waahi Tapu are violated.

3.5.4 That the the Transit-New Zealand Transport Agency give an undertaking that no Urupa will be disturbed.

3.5.5 That the the Transit-New Zealand Transport Agency purchase land in the vicinity of the alignment in consultation with Tangata Whenua, for the reburial of remains accidentally unearthed, and that this process be carried out according to Maori ceremony and kaupapa.

3.5.6 That areas defined by Tangata Whenua as being places of Mauri adjacent to the final route be set aside as reserve, and treated appropriately in conjunction with Tangata Whenua.

3.5.7 That traditional Maori names for the area, including geographic features along the final route, be reused and expressed in plans, road signs and maps.

3.5.8 That the Maori history of the area as defined by Tangata Whenua be promoted in any newsletter, publications or periodicals to do with the works.

3.5.9 That the Transit-New Zealand Transport Agency ensure that Maori spiritual values, especially of water are recognised and catered for in the design of the final route of road water, discharge and seepage.

3.5.10 That the Transit-New Zealand Transport Agency ensure that no nett effects of the new roadway as a result of design, construction or utilisation, will detrimentally affect kaimoana or fishing grounds along the rivers, estuaries or foreshore of local waterways.

3.5.11 That the New Zealand Transport Agency Transit NZTA allow for the substantial use of native plants and trees in its landscaping plans as buffer against adjoining landowners.

3.5.12 That Maori values be recognised as matters of national importance and that their concerns as expressed to the New Zealand Transport Agency Transit NZTA be resolved in that light.

3.5.13 That the New Zealand Transport Agency Transit NZTA undertaken to inform Tangata Whenua of any changes in policy, programme or design which may detrimentally affect them. A cultural consultant will be retained by the New Zealand Transport Agency Transit NZTA to assist in this consultation.

3.6 the New Zealand Transport Agency Transit NZTA shall pursue a proactive land purchase programme following confirmation of the designation and land surveys of the alignment.

#### **4. Ecological Impact Actions**

##### **General**

4.1 the New Zealand Transport Agency Transit NZTA shall make use of bridges, as opposed to causeways or culverts, for the following river or estuary crossings: Orewa River, Otanerua Stream, and Waiwera River. Where possible construction of stream, estuary and river crossings shall minimise disturbance of the stream, estuary or river bed.

4.2 Appropriate sediment management techniques shall be implemented during construction. In areas that

are particularly sensitive to sediment build up, consideration should be given to adopting the following methods:

- a. Minimisation of stock piling of loose soil where run-off into water courses could occur;
- b. Revegetation of any areas of exposed soil as quickly as possible;
- c. Control of run-off from working areas, ensuring that all such run-off passes through settling ponds before entering a water course;
- d. Retaining existing vegetation and wetlands to act as additional buffers between stormwater treatment areas and water courses;
- e. Careful storage and handling of construction material.

4.3 the New Zealand Transport Agency Transit NZ shall implement appropriate stormwater quality treatment systems as may be required by the Auckland ~~Regional~~ Council.

4.4 the New Zealand Transport Agency Transit NZ shall make provision for appropriate funding within the project estimate, for land purchase and fencing to protect the important ecosystems on the land identified as severance areas. If the project (inclusive of the said funding) is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ shall use its best endeavours to acquire this land by negotiation with the current owner, at a price advised to it by a registered valuer to represent market value, and failing such purchase, shall fund any purchase thereof by the Department of Conservation up to the sum approved as aforesaid. The land so acquired shall become reserve, which the New Zealand Transport Agency Transit NZ shall fence beside the State Highway on behalf of the Department.

4.5 Where the roadway passes through native bush areas careful detailed alignment and design of the roadway shall be undertaken to minimise habitat loss, wildlife isolation effects and construction impacts. the New Zealand Transport Agency Transit NZ shall consult with the Department of Conservation on these matters. Where, during the process of completing final design, it appears that minor alterations to the designation will:

- a. Better achieve the objectives of this condition without additional construction costs or adverse impacts on the efficiency of the proposed State Highway; or
- b. Reduce construction costs or improve traffic efficiency without adversely impacting on the achievement of the objectives of this condition then the New Zealand Transport Agency Transit NZ shall give full and proper consideration, in consultation with the Department of Conservation and any owner or occupier of land directly affected by the proposed alteration, to the lodging of an application to alter the designation pursuant to Section 181 Resource Management Act. For the avoidance of doubt, the New Zealand Transport Agency Transit NZ shall be at liberty to withdraw the application to alter the designation, if the territorial authority declines to alter the

designation pursuant to Section 181(3) Resource Management Act. The native cover through these areas must be kept as close as practicable to the carriageway, and the carriageway maintained at a minimum width having regard to operational and capacity requirements.

4.6 In ecologically sensitive areas, plants, seeds and cuttings used for restoration work programmes should, where available, be taken from the same ecological district as the area where restoration is to be carried out and preferably, from as close as possible to the restoration site.

4.7 In carrying out plant pest control programmes, techniques that avoid or mitigate adverse effects on nontarget species and the environment in general should be used. Wherever possible, these should be of low toxicity and low residue.

***Straka's Wildlife Refuge (Pond)***

4.8 ~~the New Zealand Transport Agency Transit NZ~~ shall make provision for appropriate funding within the project estimate, for the purchase of a buffer strip up to 100 m in width between the roadway and the Pond. If the project (inclusive of the said funding) is approved in the National Land Transport programme, ~~the New Zealand Transport Agency Transit NZ~~ shall use its best endeavours to acquire this buffer strip by negotiation with the current owners, at a price advised to it by a registered valuer to represent market value, and failing such purchase, shall fund any purchase thereof by the Department of Conservation, up to the sum approved as aforesaid. Any land so acquired shall become reserve and ~~the New Zealand Transport Agency Transit NZ~~ shall fence it off from stock.

4.9 There shall be a 50 m minimum distance between the zone of construction disturbance and the Pond edge. 4.10 In order to minimise any adverse effects of construction, ~~the New Zealand Transport Agency Transit NZ~~ shall consult with the Department of Conservation, ~~Rodney District Auckland~~ Council, a consultant ecologist and, if possible, the land owner, when preparing the detailed design of the works in the vicinity of this refuge. Consideration shall be given to the following:

- a. Construction disturbance zones;
- b. Extent of cut and batter slopes;
- c. The need for any artificial retention structures;
- d. Bridging and culverts;
- e. Stormwater runoff (construction and operation);
- f. Silt ponds;
- g. Wetland filtration.

4.11 In order to reduce siltation of Straka's Pond, ~~the New Zealand Transport Agency Transit NZ~~ shall construct a silt pond system in the upper catchment and establish appropriate riparian vegetation along the connecting creek boundary. This system shall be constructed prior to the commencement of the works in the upper catchment above the pond, and shall be retained as a complement to Straka's Pond.

4.12 ~~the New Zealand Transport Agency Transit NZ~~ ~~TA~~ ~~the New Zealand Transport Agency Transit NZ~~ shall endeavour to arrange with the land owner, Mr C Wech, (at its own cost) the covenanting of the main block of bush west of the roadway, and shall endeavour to arrange for the planting of a dense buffer of appropriately mixed native vegetation in this area.

***Otanerua Bridge***

4.13 If the highway is approved in the National Roding Programme, ~~the New Zealand Transport Agency Transit NZ~~ shall construct a viaduct across the Otanerua stream. The bridge shall be capable of achieving an ecological corridor beneath the bridge of not less than 173 metres, measured horizontally, including revegetation of the embankment on the northern side. Measurement of the ecological corridor shall not include any land that is less than 5 metres below the viaduct carriageway superstructure.

### ***Protection of Willis Buffer Strip***

4.14 If the New Zealand Transport Agency Transit NZ exercises the option it holds to acquire all of the Willis land on the eastern side of the highway, then if the highway is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ shall establish an ecological buffer strip beside the highway. The buffer strip shall be established by planting RAP type vegetation for habitat restoration on cleared areas, and by felling the pine trees within the buffer strip in the first summer season after acquisition, and revegetating that cleared land with RAP type vegetation in the autumn immediately following the felling of the pines.

4.15 Pending the exercise of the option and if the New Zealand Transport Agency Transit NZ decides not to exercise the option, the New Zealand Transport Agency Transit NZ shall use its best endeavours to acquire the buffer strip, and upon acquisition thereof if the highway is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ shall plant RAP type vegetation.

4.16 the New Zealand Transport Agency Transit NZ undertakes not to destroy or damage the existing vegetation within the buffer strip except in so far as it is within the batter slopes and/or the carriageway and/or it requires an access strip.

4.17 In the event of the sale by the New Zealand Transport Agency Transit NZ of the buffer strip, or any part thereof, the New Zealand Transport Agency Transit NZ undertakes to sell subject to a conservation covenant.

### ***Median Strip***

4.18 If the New Zealand Transport Agency Transit NZ does not acquire the buffer strip and if the highway is approved in the National Roding Programme, then it shall construct the highway to include a median strip, located south of Hillcrest Road and north of the Nukumea stream, of approximately 10 metres width and 250 metres in length to be planted with RAP type vegetation.

4.19 If the Eder severance land is acquired by the New Zealand Transport Agency Transit NZ and it is intended that access will be provided to the Haines House Haulage land over the Eder severance land, then the New Zealand Transport Agency Transit NZ shall transfer the balance of the Eder land to the Department of Conservation pursuant to the condition relating to severance land below.

### ***Waiwera Bridge***

4.20 If the highway is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ shall construct a bridge at Waiwera no less than 350 metres in length, and the abutment on the northern side of the bridge shall abut directly onto unfilled land.

4.21 the New Zealand Transport Agency Transit NZ shall consult with the Department of Conservation and the Auckland Conservation Board in the process of final design, with a view to maximising the ecological corridor on the northern bank of the Waiwera River.

### ***Severances***

4.22 If the highway is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ shall use its best endeavours to acquire severance lands, by negotiation with the current owners at prices advised to it by a registered valuer to represent market value, and failing such purchase, shall fund any purchase thereof by the Department of Conservation up to the sum aforesaid, should the Department of Conservation, wish to acquire the land. Any land so acquired shall become reserve, which the New Zealand Transport Agency Transit NZ shall fence beside the highway on behalf of the Department of Conservation, if required by the Department of Conservation.

### ***Kett Land***

4.23 If the highway is approved in the National Roding Programme, the New Zealand Transport Agency Transit NZ will use its best endeavours to acquire the Kett land at market value assessed in the manner referred to in the condition relating to severances above, and the New Zealand Transport Agency Transit NZ shall only sell the balance of the Kett land subject to a conservation covenant.

## **5. Visual Impact Mitigation Actions**

5.1 Restoration of the construction areas shall be an essential part of the project. The restoration shall include grassing and other planting for slope stability, together with landscape planting for the visual enhancement of the new road.

5.2 All borrow or disposal areas for excess fill shall be designed to avoid significant impact on the environment, be in keeping with the general form of the surrounding landscape and be restored, in consultation with the affected landowners, as described in Condition 5.1.

5.3 In carrying out the detailed design for the alignment, the New Zealand Transport Agency Transit NZ shall take advice from a practising landscape architect and shall pay particular attention to:

- a. The angle and extent of cut and batter slopes
- b. Possible purchase of additional land to achieve better slope integration
- c. Oblique cuts through highly visible ridge lines
  - i. In order to achieve, as far as practicable, unity between the road and the surrounding landscape
  - ii. And shall prepare, with advice from a practising landscape architect, and in due course implement, a planting plan which will integrate the road into the various landscape characters through which it passes.

This advice shall be taken in order to achieve, as far as practicable, unity between the road and the surrounding landscape, and shall prepare with advice from a practising landscape architect, and in due course implement, a planting plan which will integrate the road into the various landscape characters through which it passes.

## **6. Property Owned by Mr and Mrs Eder**

6.1 For the purpose of assisting Mr and Mrs Eder to preserve a residential building site on their land, the plan contained in Appendix C accompanying the notice of requirement dated 9 May 1994, shall be modified so that the designation boundary is relocated in the position identified in the plan attached to these conditions. (Note: No plan attached. The designation boundary on Planning Map 21 includes this modification.)

## **Attachments**

No attachments.

...

## **6764 State Highway 1 Road Widening - Hudson Road, Warkworth**

Designation Number	6764
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 intersection with Hudson Road, Warkworth
Rollover Designation	Yes
Legacy Reference	Designation 404A, Auckland Council District Plan (Rodney Section) 2011
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

Road widening.

## Conditions

### 1. General

1.1 Except as modified by the conditions below and subject to final design, the works shall be undertaken in general accordance with the information provided by the Requiring Authority, being the New Zealand Transport Agency (NZTA), the Notice of Requirement and supporting documents, as follows:

a. "State Highway 1 Warkworth — Hudson Road/State Highway 1 Intersection Upgrade — Alteration to Designation — "SH 1 Region RS 363, Warkworth Stage 1 Intersection Improvements RP 363/1/31/SH1 and Hudson Road," prepared for NZTA and RDC by Opus International Consultants Ltd, comprising of plans:

i. Plans titled "Concept Layout — Sheets 1-5," and referenced "Feature Identifier 1/21/40, Code 6104, Revision RO".

1.2 The period within which this alteration to designation shall lapse if not give effect to shall be 10 years from the date on which it is confirmed in accordance with Section 184(1) of the Resource Management Act, 1991 as amended.

### 2. Outline Plans of Work and Management Plans

2.1 Prior to the commencement of works, the Requiring Authority shall submit to the ~~Resource Consents Manager of Rodney District Council~~ Manager Resource Consents, Auckland Council the relevant Management Plans required under Conditions 3 (Construction), 4 (Noise), 6 (Construction Traffic) and 8 (Urban Design and Landscape), below.

2.2 The approval in writing of all the above Management Plans referred to in condition 2.1 above may also, if considered appropriate by the ~~Resource Consents Manager of Rodney District Council~~ Council, be deemed to be a waiver, in whole or part, pursuant to Section 176A(2)(c) of the RMA of the requirement for an Outline Plan of Works under section 176A. If such a waiver is sought through the management plan approvals, this should be stated in writing when these management plans are submitted for approval.

2.3 The works shall be undertaken in accordance with the approved Management Plan or accepted Outline Plan of Works (as the case may be).

### 3. Construction

3.1 At least 10 working days prior to commencement of works on the project, the Requiring Authority shall prepare and submit for approval to the ~~Resource Consents Manager of Rodney District Council~~ Manager Resource Consents, Auckland Council, a Construction Management Plan (CMP). The purpose of the CMP is to set out the management procedures and construction methods to be undertaken in order to avoid, remedy or mitigate potential adverse effects arising from construction activities. The submission and approval of detailed engineering plans shall also be undertaken through the CMP approval.

3.2 The CMP shall be implemented and maintained throughout the entire construction period. The CMP shall include specific details relating to the construction and management of all works associated with the Project, including;

- a. Details of the site or project manager, including their contact details (phone, facsimile, postal address, e-mail address);
- b. The location of large notice boards that clearly identify the name, telephone number and address for service of the site or project manager;
- c. An outline construction programme of the works indicating in particular likely time periods for

- road closures and anticipated traffic diversion effects;
- d. A tree protection methodology with arboricultural input, which ensures no damage occurs to the trees along the Showgrounds boundary and the boundary of Lot 1 DP 150324 that are otherwise unaffected by the Project throughout the entire construction period;
- e. Any means of protection of services such as pipe and watermains within the legal road;
- f. Measures to be adopted to maintain the land in a tidy condition in terms of disposal/storage of rubbish, storage and unloading of building materials and similar construction activities;
- g. Location of workers offices and conveniences (e.g. portaloos);
- h. Procedures for controlling sediment run-off, dust and the removal of soil, debris and demolition and construction materials from public roads and places. Dust mitigation measures should include use of water sprays to control dust nuisance on dry or windy days;
- i. Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of construction activities and are informed about the expected duration of the works; and
- j. Means of ensuring the safety of the general public.

3.3 Upon completion of the upgrade project, the Requiring Authority shall submit to the ~~Resource Consents Manager of Rodney District Council~~ Resource Consents, Auckland Council as-built plans in relation to all construction works undertaken as part of the intersection upgrade.

#### **4. Noise**

##### ***Construction Noise***

4.1 The CMP shall include a Construction Noise and Vibration Management Plan (CNVMP) describing the measures adopted to as far as practicable meet the requirements of the NZS6803:1999 Acoustics — Construction Noise. The CNVMP shall be submitted to and approved by ~~Rodney District~~ Auckland Council's Environmental Health Officer prior to any works commencing on the upgrade. The CNVMP shall refer to noise management measures set out in Appendix E of NZS6803:1999, and as a minimum shall address the following:

- a. Construction sequence;
- b. Machinery and equipment to be used;
- c. Hours of operation, including time and days when noisy construction work would occur;
- e. The design of noise mitigation measures such as temporary barriers or enclosures;
- f. Construction noise limits for specific areas;
- g. Development of alternative strategies where full compliance with NZS6803:1999 cannot be achieved, including consultation with residents and other occupiers to achieve acceptable outcomes.
- h. Methods for monitoring and reporting on construction noise.
- j. Onsite contact for local residents and operations;
- k. Where an activity is predicted to generate noise levels above the limits prescribed in NZS 6803:1999, the Requiring Authority shall provide a site specific construction noise and vibration management plan. This plan shall describe the noise mitigation and management measures which will be implemented by adopting the best practicable option in accordance with section 16 of the RMA.

4.2 Every reasonable effort shall be made to notify residents/ occupiers of properties situated within 50m of the construction site in writing at least 3 days prior to the commencement of the proposed works, including information of duration and type of noise activities. A contact telephone number shall be provided to these residents/ occupiers and a complaint monitoring procedure shall be established so that complaints relating to individual contractors are managed centrally.

##### ***Operational Noise***

4.3 A Noise Management Plan (NMP) shall be prepared by a suitably qualified acoustic expert for the purposes of avoiding, mitigating or remedying adverse noise effects from the operation of the project following its construction.

4.4 The NMP shall include general measures, which shall include but not be limited to the installation of noise attenuation barriers or low noise road surface material, to the extent necessary to achieve at a minimum, compliance with the NZTA (Transit New Zealand) "Guidelines for the Management of Road Traffic Noise — State Highway Improvements" (December 1999).

#### ***Noise Monitoring***

4.5 As required by the NZTA (Transit) Noise Guidelines, measurements of noise levels existing prior to construction shall be used to establish ambient noise levels. The result of 24 hour ambient noise measurements at one (1) position within 50m of the project, together with site maps detailing measurement positions and key data on measurement conditions shall be forwarded to the Council prior to the commencement of construction. Measurements shall be undertaken by a suitably qualified person and the results, together with the site maps and photographs detailing the measurement position and key data, shall be forwarded to the ~~Rodney District~~ Auckland Council.

#### ***Compliance Monitoring***

4.6 Following completion of the work, the Requiring Authority shall arrange for an appropriately qualified person to undertake monitoring of the level of traffic noise at the above one (1) position for which ambient noise level data has been previously recorded, within a period between 2 and 3 years following completion of construction of the Work, but not post construction of the Western Collector Route. The Requiring Authority shall report the findings of monitoring to the ~~Rodney District~~ Auckland Council. If as a result of this, non-compliance with the NZTA Guidelines is identified, then specific measures shall be adopted to achieve compliance.

### **5. Vibration**

5.1 The CNMVP shall describe how the vibration standards of the German Standard DIN 4150 shall be met as far as practicable, and shall address the following aspects:

- a. Vibration monitoring measures;
- b. Criteria;
- c. Possible mitigation measures;
- d. Complaint response;
- e. Reporting procedures;
- f. Notification and information for the community of the proposed works;
- g. Vibration testing of equipment to conform that the vibration limits will not be exceeded;
- h. Location for vibration monitoring when construction activities are adjacent to critical buildings;
- i. Operational times;
- j. Preparation of dilapidation reports on critical dwellings prior to, during and after completion of works.
- k. Site specific CNVMPs where required to address potential exceedances of the vibration standards.

#### ***Operational Vibration***

5.2 Vibration levels of the existing operations at the existing State Highway 1 operations shall be measured by a suitable qualified person at not more than one nominated critical location, and submitted to the ~~Rodney District~~ Auckland Council, prior to the commencement of works. These baseline measurements will provide levels for current use and for comparison with future levels.

### **6. Construction Traffic**

6.1 The CMP shall include a Temporary Traffic Management Plan (TTMP), for the project, which shall be prepared by a suitably qualified expert(s). The TTMP shall be submitted to and be approved by the ~~Rodney District~~ Auckland Council prior to the commencement of works.

6.2 The TTMP shall be implemented and maintained throughout the entire construction period. The TTMP shall include details relating to:

- a. Methods of mitigating the local and network wide effects of both construction of individual elements of the Project, and the use of staging to allow sections of the project to be opened to

traffic while other sections are still under construction.

- b. Methods to manage the effects if the delivery of construction material, plant and machinery.
- c. The numbers, frequencies and timing of construction traffic movements.
- d. Methods to manage the effects of traffic that is required to detour or be diverted during construction, in particular seeking to minimise effects on residential and commercial areas.
- e. Contingencies for traffic diversion.
- f. Consultation with ~~Rodney District~~ Auckland Council with regard to the most appropriate means for providing access on Council roads within and adjacent to the designation.
- g. Identification of any existing on-site parking and manoeuvring areas which are affected by the works. Then, as far as practicable, and in consultation with ~~Rodney District~~ Auckland Council and the affected land owner, identify how the affected areas will be relocated or reinstated to achieve compliance with the ~~District Auckland Unitary~~ Plan or to similar standard to that existing.
- h. Where necessary, provision of alternative access arrangements as far as practicable, and in consultation with ~~Rodney District~~ Auckland Council and the affected landowner.
- i. Details on the maintenance of pedestrian access and thoroughfare to be maintained on all roads and footpaths adjacent to the construction works where practicable. Such access shall be safe and clearly identifiable. Specific measures shall also be provided to mitigate the effects of construction works on pedestrians and cyclists.
- j. Consistency with the NZTA (Transit New Zealand) "Code of Practice for Temporary Traffic Management" (COPTTM).
- k. Provision of pedestrian access/egress to properties adjacent to the works at all times.

## **7. Archaeological and Heritage**

7.1 Subject to condition 7.2, if any archaeological sites, including human remains are exposed during site works then the following procedures shall apply:

- a. Immediately after it becomes apparent that an archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;
- b. The Requiring Authority shall immediately secure the area so that any artefacts or remains are untouched; and
- c. The Requiring Authority shall notify tangata whenua, ~~the New Zealand Historic Places Trust~~ Heritage New Zealand and the ~~Rodney District~~ Auckland Council (and in the case of human remains, the New Zealand Police) as soon as practicable that an archaeological site has been exposed so that appropriate action can be taken. Works shall not commence in the immediate vicinity of the archaeological site until any approval required from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand is obtained.

7.2 Condition 7.1 shall not apply where the Requiring Authority holds all relevant approvals under the ~~Historical Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, apart from the requirement to contact the New Zealand Police in the event of discovery of human remains.

## **8. Urban Design and Landscape Mitigation**

8.1 Prior to the commencement of works on the project, the Requiring Authority shall submit to the ~~Rodney District~~ Auckland Council and have approved in writing an "Urban Design and Landscape Mitigation Plan" (UDLMP).

This UDLMP shall be prepared by a suitably qualified expert(s) and shall take into account the following:

- a. NZTA's "Guidelines for Highway Landscaping" (September 2006); and
- b. NZTA's ~~"Urban Design Implementation Principles" (2006)~~. Bridging the Gap: NZTA Urban Design Guidelines (2013)

8.2 The UDLMP shall in particular provide for:

- a. The integration of the permanent works into the surrounding landscape;
- b. Mitigation of effects on properties in the vicinity of the alignment;
- c. Pedestrian and cycle linkages proposed in respect of the project;
- d. Retention or relocation of existing trees where practicable;
- e. Replacement planting or mitigation for loss of trees that are protected by the general provisions of the District Plan; and

f. The outcomes of any consultation undertaken with the Rodney District Council.

8.3 The UDLMP shall be prepared in general accordance with the “Landscape Mitigation Plans” prepared by Opus International Consultants Limited, referenced PA2847-SH1, dated June 2009, and shall include the following:

- a. An Urban Design Framework that depicts the overall urban design concept, the design intent, layout and mitigation proposals, and
- b. Landscape and Urban Design Details — these shall include:
  - i. Identification of vegetation to be retained and removed;
  - ii. Proposed planting, including plant species, mixes, spacing/densities, sizes (large specimen trees shall be used, of at least pb95 size at time of planting) and layout,
  - iii. Planting programme — the staging of planting in relation to the construction programme; and
  - vi. A maintenance programme providing specific measures as how the planting will be maintained following its establishment for 3 years thereafter for specimen trees and for 2 years thereafter for other planting.

8.4 The works as set out in the UDLMP shall be implemented as soon as practicable and works shall be completed no later than 12 months after the practical completion date of the Project.

#### Advice Notes

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.

2. Under the ~~Historical Places Act 1993~~ Heritage New Zealand Pouhere Taonga Act 2014, an Authority is required from ~~the New Zealand Historic Places Trust~~ Heritage New Zealand before any work commences which may destroy damage or modify the whole or any part of an archaeological site or sites.

3. Applications for resource consent to the Auckland ~~Regional~~ Council will be sought for the following activities:

- a. Earthworks; and
- b. Stormwater discharge.

4. The Requiring Authority (NZTA) proposes to undertake the works authorised by these designation conditions as a joint project with the ~~Rodney District~~ Auckland Transport Council (RDC) which is the relevant Requiring Authority for the related local road improvements. ~~The RDC~~ Auckland Transport has a separate (but nearly identical) set of designation conditions authorising the works for which it is responsible.

#### Attachments

No attachments.

#### 6765 State Highway 1 - Wayby Valley Road, Wellsford

Designation Number	6765
Requiring Authority	New Zealand Transport Agency
Location	State Highway 1 intersection with Wayby Station Road and Wayby Valley Road, Wellsford
Rollover Designation	Yes
Legacy Reference	Designation 404B, Auckland Council District Plan (Rodney Section) 2011
Lapse Date	Given effect to (i.e. no lapse date)

## Purpose

State Highway 1 / Wayby Valley Road / Wayby Station Road intersection.

## Conditions

### General

1. Conditions 2 to 12 inclusive are applicable only to ~~the alteration to the designation (404B)~~ this section of SH1 (6765) and not to the SH1 designation in its entirety ~~(404)~~ and shall only apply until such time that construction is completed.
2. That the scope and extent of the works within the designated area be generally in accordance with the Notice of an Alteration to a Designation, dated 14 April 2011, as shown in ~~Attachment~~ Figure 1 — Land Designation Plan (Drawing No. 51-29153-SK001), and in accordance with the conditions set out below.

### Construction

3. Any variation or changes to the engineering plans provided with the Notice of Requirement shall be submitted for approval to the Auckland Council's Development Engineer, Northern Resource Consenting and Compliance (Orewa Service Centre) as an Amendment and approval received thereto prior to construction of the varied works.

The term 'engineering works' includes, but is not limited to:

- a. The formation of roads, the laying of pipes and other ancillary equipment to be vested in the Council for water supply, drainage or sewage disposal;
- b. Street lights, landscaping or structures on land vested, or to be vested, in the Council;
- c. The installation of gas, electrical or telecommunication reticulation including ancillary equipment; and
- d. Any other works required by conditions of this consent.

As built record plans to requirements of the Council's "Standards for Engineering Design and Construction" shall be submitted to the Consents Engineer on completion of the works.

Note: Engineering Plan approvals, monitoring of construction and processing of As Built plans will be subject to charges in terms of the Schedule of Fees and Charges determined from time to time by the Council.

4. The Applicant's Representative shall give the Auckland Council's Consents Field Supervisor at least 5 working days notice of the on-site pre-construction site meeting (refer section 103.15 of the "Standards for Engineering Design and Construction"). Construction work shall not commence on the site until such meeting has been held and all necessary documentation presented.

Note: Attention is drawn to the requirements of section 103.15.3 "Standards for Engineering Design and Construction" for the following documentation to be presented at the preconstruction meeting:

- a. Approved engineering plans and copy of approval letter;
- b. Health and Safety Plan;
- c. The Signed Road Opening Notice;
- d. The relevant Resource or Subdivision Consent (and all conditions attached thereto); and
- e. Signed copies of all Consents to Enter for Construction for works on land (including Council land) not owned by the consent holder.

5. A detailed Health and Safety Plan to the requirements of the Health and Safety in Employment Act 1992, specifically addressing control of works on and adjacent to public land, and the protection of the public, shall be submitted to the Auckland Council's Consents Engineer prior to the commencement of any works on the site (refer s.109.1 of the "Standards for Engineering Design and Construction"). A copy of the Health and Safety Plan shall be kept on the site at all

times. All measures for the protection of the public and other personnel set out in the Plan shall be maintained and complied with at all times until such time as the works are completed.

6. A detailed Traffic Management Plan in accordance with the Code of Practice for Temporary Traffic Management specifically addressing control of construction access to the site and traffic control adjacent to the site, and the protection of the public, shall be submitted to the Auckland Council Consents Engineer.

Verification that it meets the Council's requirements shall have been received in writing, prior to the commencement of any works on the site (refer s.109.2 of the "Standards for Engineering Design and Construction".) A copy of the Traffic Management Plan, together with the verification letter shall be kept on the site at all times. A copy of the Traffic Management Plan shall also be forwarded to the Auckland Transport Operations Team for information purposes. All measures for the protection of the public and other personnel set out in the verified Plan shall be maintained and complied with at all times until such time as the works are completed.

### **Construction Management Plan**

7. Prior to the commencement of any earthworks or construction activity associated with the upgrade of the intersection (excluding site investigations), the NZTA shall submit a Construction Management Plan (CMP) to the Auckland Council's Northern Resource Consenting and Compliance Team (Orewa Service Centre) two weeks prior to construction commencing. Any amendments to the CMP required by the Auckland Council's Northern Resource Consenting and Compliance Team (Orewa Service Centre) shall be requested in writing prior within the two week period. The Construction Management Plan shall include the procedures, methods and measures to be applied to address the following:

- a. Notification to the Auckland Council, Auckland Transport, network utility operators, and the owners and occupier of all properties with direct access off that area of SH1 and Wayby Station Road affected by the proposed work of the likely commencement date for the works and expected timeframe of the construction programme;
- b. Provision of a single point of contact to field general enquiries and complaints from the public and maintenance of a complaints register. The liaison person's name and contact details shall be advised to Auckland Council and all owners and occupiers of properties with direct access off the proposed area of works;
- c. Management procedures to be implemented by the NZTA and its contractors to minimise dust emissions, including monitoring, auditing and reporting procedures;
- d. Parking and loading of construction related vehicles during the period of construction;
- e. Provision of access for emergency vehicles; and
- f. Hours of operation of trucks and service vehicles and methods to be employed to address the effects of construction traffic on local roads.

The Construction Management Plan may be submitted in stages in accordance with the construction programme. The NZTA and contractors shall implement the Construction Management Plan at all times.

### **Construction Noise**

8. Noise generated by the construction works associated with the upgrade to the SH1, Wayby Valley Road and Wayby Station Road intersection shall, where practicable, comply with New Zealand NZS 6803:1999 "Acoustics

— Construction Noise". Where compliance with this standard is not practicable, alternative methodologies that will minimise the adverse effects shall be developed in consultation with the owners and/or occupiers of the affected properties.

### **Management of Effects on Utilities, Continuity of Supply**

9. During the design of the project the NZTA shall give reasonable notice and make all reasonable endeavours to:

- vii. Liaise with all relevant network utility operators in relation to any part of the works within

the designation where infrastructure may be affected.

viii. Make all reasonable changes requested by network utility operators to the relevant design plans and methodologies, to ensure that access to, maintenance and the operation of all network utility infrastructure within the designated area is not adversely affected.

#### **Works on Public Land**

10. Reinstatement of the surface(s) within or adjoining public land including legal road shall be completed as soon as possible on completion of the works affecting the said surface(s), and until such reinstatement is completed the requirements of the verified Traffic Management Plan and Health and Safety Plan shall be complied with in all respects.

#### **Silt retention**

11. Before commencement of any works, adequate silt retention structures as detailed in drawings submitted with the application (Drawing No. 51-29153-C109) shall be installed. These structures shall be maintained and cleaned out as necessary until such time as complete grass cover, or other non-erodible surfacing, has been re-established over the site.

#### **Archaeological Remains**

12. In the event that any archaeological sites, remains, artefacts, taonga are unearthed, dislodged, uncovered or otherwise found or discovered during the earthworks, NZTA shall:

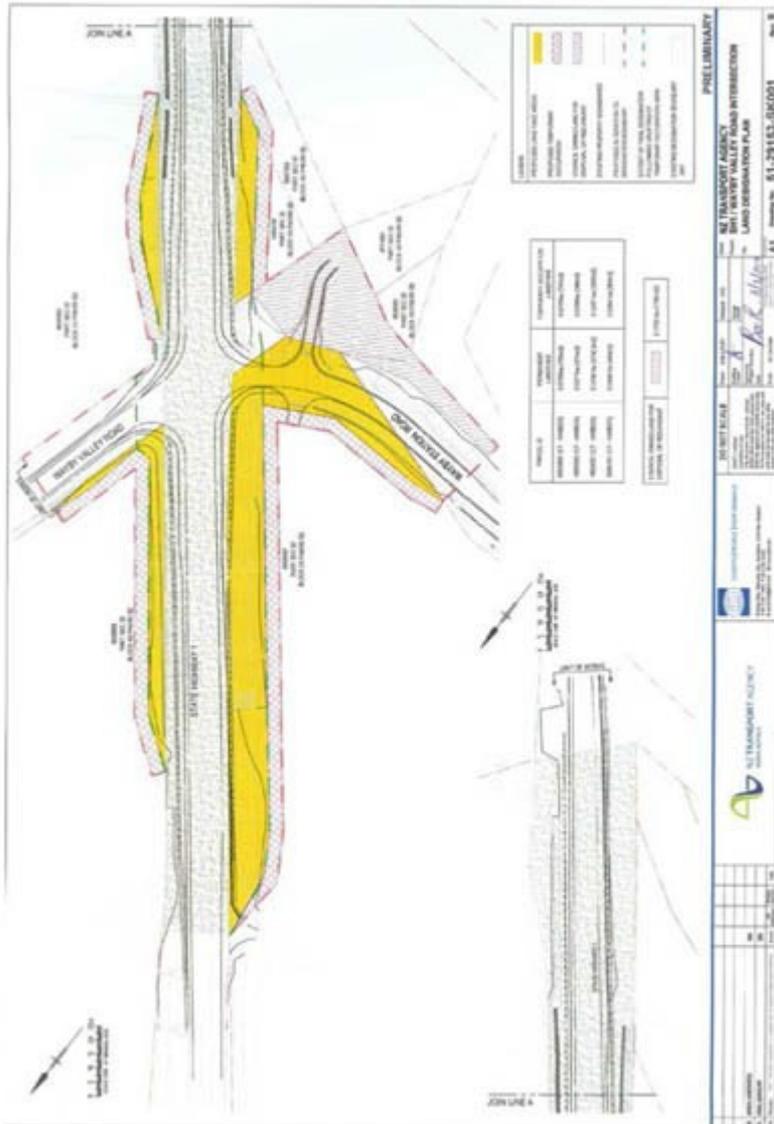
- a. Advise the Heritage Specialist — Environmental Services of the Auckland Council;
- b. Cease works in any part of the site affected by the discovery;
- c. Contact NZ Police, Coroner, Tangata Whenua and ~~Historic Places Trust~~ Heritage New Zealand as appropriate; and
- d. Not recommence works in any part(s) of the project site affected by the discovery until all necessary statutory authorisations or consents are obtained and protocols for undertaking earthworks have been observed.

#### **Advice Notes**

1. The Requiring Authority needs to obtain all other necessary consents and permits and comply with all relevant Council bylaws.

### **Attachments**

**Map in Rodney District Plan Appendix 15AD: Chapter 15 p4 Figure 1: State Highway Wayby Road Intersection Land Designation Plan.**



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### 6768 State Highway 16 Road Widening - Kumeu/Huapai

Designation Number	6768
Requiring Authority	New Zealand Transport Agency
Location	State Highway 16 (Main Road), Kumeu and Huapai
Rollover Designation	Yes
Legacy Reference	Designation (no number) listed under Road Widening in Chapter 15, Auckland Council District Plan (Rodney Section) 2011
Lapse Date	Five years from being included in the operative Unitary Plan unless given effect to prior <u>31 August 2022</u>

### Purpose

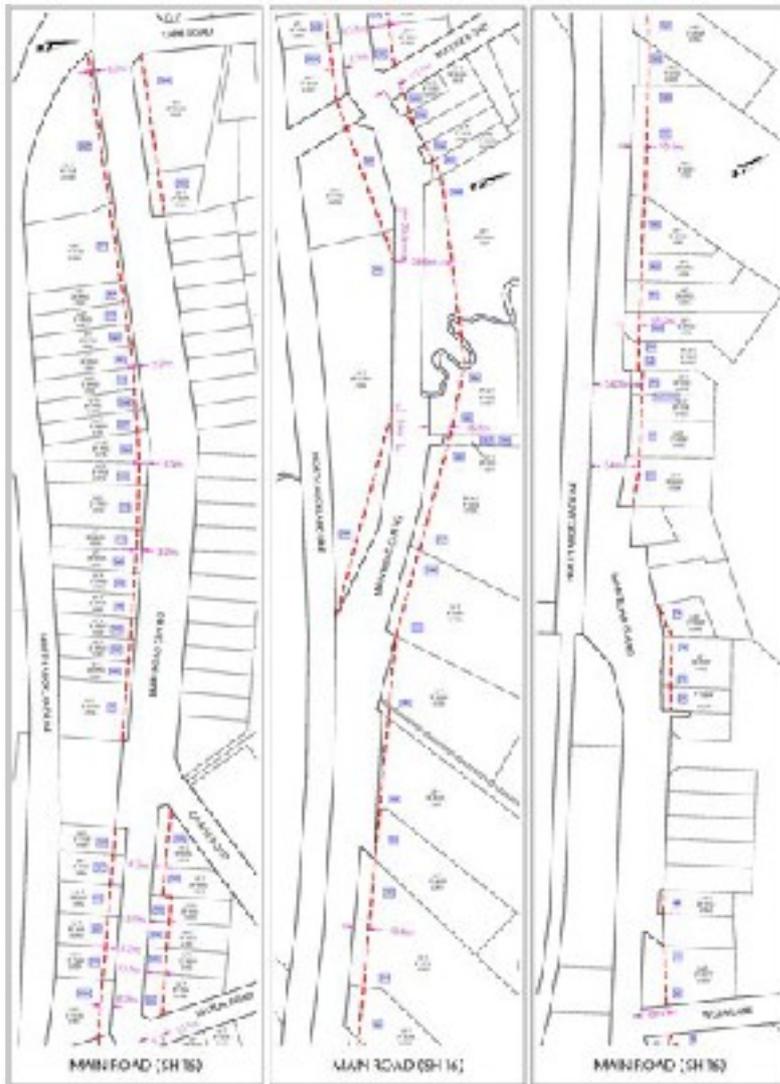
Road widening.

### Conditions

No conditions.

### Attachments

**Sheet 1 (Drawings 1-3) and 2 (Drawing 1 only) Figure 1: Roads to be widened: Huapai**  
 No attachments



Scale: 1:1000

**Figure 2: Roads to be widened: Kumeu and Silverdale**

