

**IN THE MATTER OF**

the Fast-track Approvals Act 2024 ("FTAA")

**AND**

**IN THE MATTER OF**

an application for approvals by **NZ Transport Agency Waka Kotahi** to construct, operate and maintain the State Highway 1 Wellington Improvements Project

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**STATE HIGHWAY 1 WELLINGTON IMPROVEMENTS PROJECT  
TECHNICAL REPORT #7  
URBAN FORM, LANDSCAPE AND VISUAL EFFECTS ASSESSMENT**

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## Table of Contents

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| <b>Table of Contents .....</b>                                           | <b>ii</b> |
| <b>1. INTRODUCTION .....</b>                                             | <b>4</b>  |
| Qualifications and experience .....                                      | 4         |
| Code of conduct .....                                                    | 7         |
| Project description .....                                                | 7         |
| Scope of assessment .....                                                | 7         |
| <b>2. EXECUTIVE SUMMARY .....</b>                                        | <b>9</b>  |
| Existing environment .....                                               | 9         |
| Potential benefits of the Project .....                                  | 10        |
| Potential adverse effects without mitigation .....                       | 11        |
| Proposed measures to avoid, remedy or mitigate adverse effects, .....    | 11        |
| Conclusion .....                                                         | 12        |
| <b>3. ASSESSMENT METHODOLOGY .....</b>                                   | <b>13</b> |
| Introduction .....                                                       | 13        |
| Project guidance and scope .....                                         | 13        |
| Approach to assessing effects .....                                      | 13        |
| <b>4. EXISTING ENVIRONMENT .....</b>                                     | <b>20</b> |
| Introduction .....                                                       | 20        |
| Site description .....                                                   | 20        |
| Future environment (without Project) .....                               | 20        |
| The Terrace and Kelburn .....                                            | 20        |
| Te Aro .....                                                             | 21        |
| Mount Victoria .....                                                     | 23        |
| Basin Reserve, Pukeahu and Mount Cook .....                              | 24        |
| Hataitai, Kilbirnie and Evans Bay .....                                  | 30        |
| <b>5. BENEFITS OF THE PROJECT (POSITIVE EFFECTS) .....</b>               | <b>34</b> |
| Basin Reserve .....                                                      | 34        |
| Mount Victoria Tunnel .....                                              | 36        |
| Eastern Connections – Ruahine Street, Wellington Road to Evans Bay ..... | 36        |
| <b>6. ASSESSMENT OF OPERATIONAL EFFECTS .....</b>                        | <b>38</b> |
| Terrace Tunnel .....                                                     | 38        |
| Te Aro .....                                                             | 43        |
| Basin Reserve .....                                                      | 44        |
| Mount Victoria Tunnel .....                                              | 51        |
| Eastern Connections – Ruahine Street, Wellington Road to Evans Bay ..... | 61        |
| <b>7. ASSESSMENT OF CONSTRUCTION EFFECTS .....</b>                       | <b>66</b> |
| Terrace Tunnel .....                                                     | 66        |
| Te Aro .....                                                             | 67        |
| Basin Reserve .....                                                      | 67        |
| Mt Victoria Tunnel .....                                                 | 68        |

|                                                                                                           |           |
|-----------------------------------------------------------------------------------------------------------|-----------|
| Eastern Connections – Ruahine Street, Wellington Road to Evans Bay .....                                  | 69        |
| <b>8. MEASURES TO AVOID, REMEDY OR MITIGATE ACTUAL OR POTENTIAL ADVERSE EFFECTS .....</b>                 | <b>71</b> |
| Measures to avoid, remedy or mitigate effects during operation .....                                      | 71        |
| Terrace Tunnel .....                                                                                      | 72        |
| Te Aro .....                                                                                              | 74        |
| Basin Reserve .....                                                                                       | 75        |
| Mount Victoria Tunnel .....                                                                               | 81        |
| Eastern Connections – Ruahine Street, Wellington Road to Evans Bay .....                                  | 85        |
| <b>9. COMMENTS ON EARLY ENGAGEMENT RESPONSES FROM ADJACENT PROPERTY OWNERS AND THE WIDER PUBLIC .....</b> | <b>88</b> |
| <b>10. COMMENTS ON FEEDBACK FROM WELLINGTON CITY COUNCIL .....</b>                                        | <b>89</b> |
| Feedback on the design of the Project .....                                                               | 89        |
| Adequacy of information associated with the assessment .....                                              | 89        |
| Assessment methodology .....                                                                              | 90        |
| The nature and degree of effects assessed .....                                                           | 90        |
| Further design development .....                                                                          | 90        |
| <b>11. CONCLUSION AND RECOMMENDATIONS .....</b>                                                           | <b>92</b> |
| <b>ANNEXURE A: DEVELOPMENT ASSUMPTIONS FOR RESIDUAL LAND .....</b>                                        | <b>93</b> |
| <b>ANNEXURE B: VISUAL SIMULATIONS .....</b>                                                               | <b>94</b> |
| <b>ANNEXURE C: RUAHINE STREET SHADING STUDIES METHODOLOGY STATEMENT .....</b>                             | <b>95</b> |
| <b>ANNEXURE D: RUAHINE STREET CROSS-SECTIONS .....</b>                                                    | <b>96</b> |

## 1. INTRODUCTION

1. My full name is Stuart Douglas Houghton. I hold the positions of Technical Lead: Urban Design, Partner, Urban Designer and Registered NZILA Landscape Architect at Boffa Miskell Limited. I have been engaged directly by the New Zealand Transport Agency as an independent urban design and landscape advisor to the Project since February 2025 to input into the investment case, and subsequently to undertake this Assessment of Urban Form, Landscape and Visual Effects.
2. I have been assisted in my assessment by Boffa Miskell Partner and Registered NZILA Landscape Architect Chris Bentley (internal peer review), and Boffa Miskell urban designer Miriam Moore and GIS specialist David Hill in relation to the preparation of mapping and figures supporting my technical assessment. I have also relied on the work of the WSP urban design, landscape and architectural team who have prepared shading studies, representative viewpoint photography, visual simulations, design visualisations and 3d model of the project that has informed my Project understanding and assessment.
3. The urban form and landscape matters addressed in my technical assessment are often, to some degree, closely interrelated with transport, heritage and social matters assessed by other specialists. In particular, I refer to, and where relevant and identified in this assessment, I have relied upon, the Integrated Transport Assessment prepared by Duncan Tindall, the Social and Recreation Impact Assessment prepared by Michala Lander, and the Historic Heritage Assessment prepared by Dr Carolyn Hill.

### Qualifications and experience

4. I am a qualified urban designer, Registered NZILA Landscape Architect and Partner at Boffa Miskell Limited ("Boffa Miskell"). I hold a Master of Architecture in Urban Design from The Bartlett School of Architecture, University College London and a Bachelor of Landscape Architecture (First Class Honours) from Lincoln University in New Zealand. I am a member of the New Zealand Urban Design Forum. I have over 20 years' professional experience as a landscape architect and urban designer, both in New Zealand and the United Kingdom. I have been based in the Auckland office of Boffa Miskell since returning from London in 2010.
5. My work has involved inputting to the development of strategic and spatial plans, urban design frameworks and precinct plans, and site masterplans and development proposals at a range of scales and across a wide spectrum of urban, suburban, coastal and rural environments.
6. I also have extensive involvement in the urban design and landscape integration of infrastructure projects, particularly in the transport sector where I have extensive experience in urban design lead roles providing early phase investigation and design, business case and Multi-Criteria Analysis ("MCA") inputs to transport programmes and projects, as well as involvement in furthering the consenting phases and advising and assessing on the effects of transport infrastructure projects in relation to urban design and landscape matters. I am also experienced in the design of streets and public spaces, with a depth of involvement in streetscape upgrades within the Auckland city centre over the last 15 years in particular, as well as Taupo lakefront, Nelson city centre and in central Wellington where I have advised and inputted to the planning and design development of streetscape proposals in the central city as part of project involvement over the last 6 years. This work includes concept design proposals and detailed studies for improvements to streetscapes and public spaces, working closely with landscape architects, civil engineers and others to achieve closely integrated schemes where transport and public realm investment support the transformation of more

vibrant and people-focused streets and urban centres and can act as catalysts for urban development and intensification in line with strategy and policy goals directing and guiding urban change.

7. In addition to my transport sector experience, I have had involvement in the design and consenting of a wide range of urban projects, including mixed-use urban precincts, large institutional and educational buildings, retirement villages and aged care facilities, apartment buildings and other multi-unit housing projects and commercial office, retail and mixed use buildings within urban centres and intensifying parts of the city.
8. Transport and land use integration issues are often to the fore in my project work, and I have developed particular skills and expertise in this area. I have also, through extension of my expertise, carried out research and developed specialist urban design expertise in relation to walkable streets and the planning and design of urban streets in general, including being the lead author for the development of the New Zealand Transport Agency's Aotearoa Urban Streets Planning and Design Guide, which was ratified by the Agency in 2023 and forms part of the Agency's national suite of design guidance.
9. Of particular relevance to this Project, my previous experience includes:
  - i. Let's Get Wellington Moving Programme ("LGWM"), where I held various urban design roles from 2020 to 2023, including being the Liveability Lead for the 2022 Programme Business Case and 2023 Detailed Business Case phases, acting as urban design advisor across multiple aspects of the planned LGWM programme of investment in Wellington including mass rapid transit, state highway infrastructure, the Basin Reserve and central city streets. My role had a particular focus on addressing walkability and connectedness, urban amenity, built form and land use integration and urban development issues and opportunities. As part of this work, I led and prepared a Central City Spatial Integration Plan exercise in 2022 to help integrate the current and planned projects within the central city
  - ii. Wellington Central City Spatial Vision 2019-2020, appointed by Wellington City Council to co-author a new spatial strategy that set out an integrated spatial vision, directions and actions for the central city to inform Council's subsequent spatial planning work, and articulating a vision, spatial and strategic directions and an action plan for the future of the central city
  - iii. Auckland Light Rail project 2022-2023, where I was engaged in a technical specialist advisor role for urban design and landscape and co-authored an Assessment of Landscape, Visual and Urban Amenity Effects in relation to a planned application for Notices of Requirement (not lodged) for the proposed 15km section of light rail corridor between the central city and Auckland International Airport in Māngere
  - iv. Wellesley Street Bus Priority and Active Modes Improvements Project – Urban design lead for the Indicative Business Case and Detailed Business Case phases and associated Urban Design Framework developed in partnership with mana whenua, and ongoing urban design advisor to the subsequent streetscape design development and delivery of Stage 1 currently under construction
  - v. Auckland City Centre Bus Plan Detailed Business Case and Downtown Development Programme – lead urban design advisor inputting to business case and concept streetscape design development including investigations and design, testing and evaluation of options and preparation of an urban design framework identifying and addressing issues and opportunities for integration and streetscape uplift in conjunction
  - vi. Auckland Downtown Carpark and Hobson Flyover Removal – urban design and public realm advisor to Eke Panuku and Auckland Transport for redevelopment of the Downtown Carpark, including leading design development of initial public realm concepts for surrounding streetscapes and public spaces post-flyover removal and advising with respect evaluation of developer proposals in response to EOI process

- vii. Aotearoa Urban Street Planning and Design Guide for the New Zealand Transport Agency Waka Kotahi, lead role responsible for all content development, between 2019 and 2022
- viii. Auckland City Centre Masterplan – a core member of the team that prepared the first 2012 masterplan and subsequent consultant lead for the 2020 refreshed masterplan responsible for the updated plan and development of all new content
- ix. Urban design roles on a range of cycleway and active mode projects – incl Te Ara Mua Māngere Future Streets, Wellesley Street, the Taupō Town Centre Transformation Programme and advising Eke Panuku with respect the opportunities to improve walking and cycling connections around the Onehunga Foreshore, including in relation to the East West Link Road of National Significance project by NZTA at the time of, and to inform, the Board of Inquiry consenting process
- x. Streetscape and public realm upgrades, including the O'Connell, Federal Street and High Street shared spaces and laneway streets in the Auckland city centre, Emily Place, leading the urban design of the Taupō Town Centre Transformation programme and initial design phases of the Bridge Street upgrade in Nelson's city centre currently under construction
- xi. Wynyard Quarter on the Auckland Waterfront – both the Sea + City led urban design framework and plan change that has enabled redevelopment and subsequent involvement in multiple consented developments including Northbrook Wynyard Quarter for Winton, Auckland Waterfront Apartments for Fu Wah. I have also advised with respect the future planning and design vision for Te Ara Tukutuku, the headland park being developed that is the largest new open space being created in central Auckland for over 100 years
- xii. Private Plan Change to Smales 1 Precinct on the North Shore, to enable significant mixed-use transit-oriented development at the existing Smales Farm business park, including providing for residential activity and tower buildings up to 75-100m in height
- xiii. Dominion and Valley Apartments for Precinct Properties Residential – a mixed-use development in the Eden Valley local centre on Dominion Road, subject to special character overlay and interfacing with a residential context, consented in 2025
- xiv. 256 Queen Street for Precinct Properties Residential – a recently consented (2025) student accommodation tower that integrates with and restores the heritage-protected former banking hall of ASB Bank (formerly McDonald's Queen Street) in Auckland's city centre
- xv. 277 and 309 Broadway Westfield Newmarket
- xvi. New Zealand International Convention Centre and Horizon Hotel
- xvii. Auckland City Mission Homeground development
- xviii. Fabric of Onehunga Apartments
- 10. As part of this experience, I have prepared urban design assessments, and landscape and visual effects assessments, as well as evidence for council hearings for resource consent and plan change applications and mediation through the Environment Court.
- 11. My earlier involvement specific to this Project has included being an urban design and landscape advisor and assessor involved in earlier project development MCA processes, including most recently for the NZTA SH1 Wellington Improvements RoNS Investment Case in 2025, and prior to that, from 2019 to 2023, involvement in extensive business case and MCA processes considering and evaluating alternative options and developing proposals for the Let's Get Wellington Moving Programme, including relevant to this project, investigation and design phases for the Basin Reserve and Mount Victoria Tunnel in particular, as well as bus and active mode improvements in the Eastern Suburbs, and programme level options addressing the whole of the Project area from the Terrace Tunnel to Eastern Suburbs and Newtown.
- 12. I am a Wellingtonian by birth and grew up in the Wellington region until age 11, and have maintained close connections with the city, living and working as a landscape architect in

central Wellington upon graduating from 2003-2005 and continuing to practice professionally as well as visit and spend time in the city regularly each year since relocating to Auckland in 2006. Consequently, I am well familiar with the urban and landscape context of Wellington City.

13. For this Project, I have visited the Project areas from the Terrace Tunnel through to the Eastern Connections in Kilbirnie and Evans Bay on multiple occasions since the start of 2025. These visits have included walking the streets and public open spaces covered by the Project route, observing recent development and the state of land adjoining the corridor, and gaining an understanding of the way in which the Project area is seen and experienced in its surrounding context, and to inform my understanding of how this context is likely to change both physically and perceptually as a consequence of the Project.

## Code of conduct

14. I confirm that I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note 2023. This assessment has been prepared in compliance with that code, as if it were evidence being given in Environment Court proceedings. In particular, unless I state otherwise, this assessment is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

## Project description

15. The State Highway 1 (SH1) Wellington Improvements Project (Project) is a Road of National Significance (RoNS) which seeks to improve SH1 through Wellington City between The Terrace Tunnel and Kilbirnie.
16. The core of the Project are two new tunnels on the state highway duplicating the city's existing road tunnels at The Terrace and Mount Victoria. The Project also involves a new layout and reconfiguration of the state highway network and local streets at the Basin Reserve, as well as modifications along the remainder of the SH1 corridor through the central city streets of Te Aro and in the Eastern suburbs through to the intersection with Evans Bay Parade.
17. For description purposes, the Project has been divided into five sections or sub-areas, being: The Terrace, Te Aro, Basin Reserve, Mount Victoria and Eastern Connections. This assessment has addressed the actual and potential effects of the Project in relation to each of these five sections of the Project and the differing urban and landscape context of each sub-area as it traverses the city.

## Scope of assessment

18. This Assessment of Urban Form, Landscape and Visual Effects (including natural character effects where relevant, where the Project proposes works within the coastal marine area), has been prepared to inform the Assessment of Effects on the Environment (AEE) for the Project for which approvals are being sought by the New Zealand Transport Agency (NZTA) under the Fast Track Approvals Act 2024 (FTAA). Specifically, this report considers the actual and potential effects associated with the construction and operation of the Project on the existing and likely future environment in terms of its urban form and landscape qualities, values and visual amenity, as well as identifying positive effects.
19. My assessment addresses the following matters:
  - i. The methodology I have used to assess the effects of the Project
  - ii. The existing environment

- iii. Benefits (positive effects) of the Project
  - iv. Permanent adverse effects of the Project during operation
  - v. Temporary effects of the Project during construction
  - vi. Recommended measures to avoid, remedy or mitigate adverse effects
20. This report should be read alongside the drawing packages for the Project, and the AEE, which contains further details on the planning context of the Project including a full proposal description, account of the existing environment, relevant objectives and policies, as well as the constructability report that provides information on the typical construction methodologies that will be used to implement this work. This assessment is based upon review of the engineering and design drawings for the Project. I have reviewed this information and have considered it as part of this assessment of urban form, landscape and visual effects. As such, they are not repeated here. Where more particular description or assessment of the existing environment or an activity is necessary to understand the potential urban form, landscape and visual effects, it has been addressed in this report for clarity.

## 2. EXECUTIVE SUMMARY

### Existing environment

#### Terrace Tunnel

21. The termination of the Wellington northern urban motorway passes through the existing Terrace Tunnel to merge with the central city streets of Te Aro at Vivian Street and Karo Drive. This section of motorway, first established in the 1970s, marks the western edge of the central city and is overlooked by the Kelburn character area that includes the adjacent green space of Kelburn Park, the main campus of the Victoria University of Wellington as well as the city fringe dress circle residential suburb of Kelburn.

#### Te Aro

22. Te Aro is located on flat land which formed the edge of the original Wellington Harbour and was subsequently uplifted. It is a densely developed mixed use part of the central city characterised by both low rise historic commercial and former light industrial buildings and more recent development of medium rise apartment buildings, reflecting the incremental intensification in recent decades that has supported a significant share of the urban growth of Wellington over this time. SH1 traffic traverses this central city environment southbound along Vivian Street that runs for the full width of Te Aro west to east, and northbound on Karo Drive that is more peripheral towards the southern edge of Te Aro. Kent and Cambridge Terraces form the eastern edge of Te Aro and the central city, beyond which lies the inner-city neighbourhood of Mount Victoria, developed on the lower hill slopes of its namesake maunga and enjoying close proximity to both the central city and the green space amenity of the Town Belt.

#### Basin Reserve

23. A naturally low-lying area of wetland that once fed the Waitangi Stream that flowed through to the harbour along the alignment of Kent and Cambridge Terraces, the Basin Reserve represents a major confluence or coming together moment in the City's urban form, with the historic cricket ground functioning as a complex traffic gyratory that sits between Te Aro, Mount Victoria, Mount Cook and Newtown. The area is recognised for its high historic heritage values and features a concentration of nationally and regionally significant historic heritage sites as well providing access to a concentration of primary and secondary schools within the immediately adjoining areas. The urban form and streetscape environment of the Basin Reserve has been strongly influenced by the iterative changes to the SH1 infrastructure, which has over the decades eroded the historic urban form through the acquisition of properties and site clearance for corridor widening and other corridor improvements, resulting in areas of vacant and under-developed central city land that in addition to the road infrastructure itself contributes to a level of existing severance within the urban form. The area has significant development potential with greater height and scale of development enabled by the central city zoning under the District Plan.

#### Mount Victoria Tunnel

24. The Mount Victoria Tunnel is a critical transport link that provides a direct and short connection between Wellington's Eastern Suburbs and the rest of the North Island of New Zealand. Constructed in 1931, the tunnel and its approach roads re-shaped the southern edge of the Mount Victoria Residential neighbourhood on its western side and forms a major transport corridor which is recessed from, and separates, the residential neighbourhood from the schools and Newtown Valley to the south. At its western side, the tunnel portal emerges

onto Ruahine Street which forms the eastern edge of the suburb of Hataitai, with the regionally significant recreational facilities and open space amenity of Hataitai Park to the west of SH1 but connected with Hataitai through an existing pedestrian overbridge and access road link at Goa Street. Taurima Street provides a two-way road link between the tunnel and the Hataitai local centre at Moxham Avenue.

#### Eastern Connections

25. Ruahine Street runs around a sharp bend into Wellington Road which forms a major intersection on the flat reclaimed land of Kilbirnie with Kilbirnie Road, Evans Bay Parade and Cobham Drive that is the continuation of SH1 towards the Wellington International Airport. Extensive tree planting along Ruahine Street, in particular large mature pohutukawa trees, is a defining landscape characteristic of moving along the SH1 corridor between Hataitai and the Town Belt. Wellington Road by contrast is largely lined with houses directly adjoining the heavily trafficked route of the highway.

### Potential benefits of the Project

26. I have assessed the potential benefits of the Project to include:
  - i. Wide-ranging benefits from improving the urban form, streetscape and open space amenity around the **Basin Reserve**, that include:
    - (a) Ellice Street intersection – **Low positive urban form and streetscape amenity effects** from the increased spatial definition and improved streetscape composition around this corner of the Basin Reserve
    - (b) Paterson and Dufferin Streets intersection – **Low positive urban form and streetscape amenity effects** from new public space creation
    - (c) Dufferin Street – **Moderate positive urban form and streetscape amenity effects** from removing state highway traffic and improving pedestrian connectivity, comfort and amenity including enhanced main entrance to Government House and the schools along this street frontage as well as to the eastern street edge perimeter of the Basin Reserve that incorporates a new north-south cycleway connection
    - (d) Pukeahu National War Memorial Park – **High positive urban form, landscape and visual effects** from the green space extension through to Cambridge Terrace
    - (e) Termination of Cambridge and Kent Terraces and Canal Reserve – **Moderate positive urban form, streetscape amenity and visual effects** from improved urban form composition and increased landscape amenity space contiguous with Canal Reserve
    - (f) North Gate of Basin Reserve – **Moderate positive urban form, streetscape amenity and visual effects** from enlarged entrance plaza space and increased separation of this activity from traffic at principal entry to cricket ground
  - ii. As a part of the duplicate **Mount Victoria Tunnel**:
    - (a) **Moderate positive urban form effects** from new enhanced walking and cycling connection through the new Mount Victoria Tunnel, that will replace the poor amenity experience of the connection through the existing tunnel
  - iii. **Moderate positive urban form and streetscape amenity effects** from the enhanced connectivity and amenity for active mode users of the wider and more comfortable connection through the new tunnel, replacement active mode overbridge to Hataitai Park, and enhanced connections and streetscape public realm of Taurima Street through to the Hataitai local centre.
  - iv. Within the **Eastern Connections** section of the Project:
    - (a) **Moderate positive urban form, landscape and visual effects** from the enhanced green network connectivity of a new open space corridor between the Town Belt,

Kilbirnie Park and Evans Bay foreshore to the southern side of the expanded SH1 corridor

- (b) **Low positive urban form and visual effects** for adjoining residential properties between Moxham Avenue and Evans Bay Parade through the increased separation from the SH1 corridor and associated streetscape amenity enhancements and areas of planting
- v. The identified benefits to the Basin Reserve, active mode connection through the new Mount Victoria Tunnel, and new green corridor link along Wellington Road are all considered regionally significant given the prominence and high use of the SH1 corridor by people across the Region. The green space extension to Pukeahu National War Memorial is of regional significance in terms of the place-shaping enhancement and extension of the green space through to Cambridge Terrace, which also enhances the setting of a nationally significant public space in front of the National War Memorial and that has national significance given the status of the Park and its role on ceremonial occasion such as ANZAC Day commemorations and wreath-laying ceremonies with visiting dignitaries and delegations from overseas

## Potential adverse effects without mitigation

27. I have assessed the potential adverse effects of the Project to include the following, if no mitigation is provided:
- i. **Terrace Tunnel – High adverse landscape and visual effects** on both public and private viewing audiences from earthworks, vegetation clearance and new retaining walls at the northern portal, and **low to moderate landscape and visual effects** elsewhere in this section in relation to the southern portal, Ghuznee Street replacement bridge, tunnel control buildings and other ancillary infrastructure
  - ii. **Te Aro – Moderate adverse urban form and streetscape amenity effects** from the removal of existing verandahs at the corner of Vivian and Cuba Streets, and **very low adverse urban form and streetscape amenity effects** at the intersection with Cuba Street
  - iii. **Basin Reserve – Low-Moderate adverse urban form and visual effects** at the intersection of Adelaide Road, from the widened corridor and permanent residual land effects at Sussex Street, from the Sussex Street extension and on the Canal Reserve and Kent Terrace from the creation of the new intersection with Sussex Street Extension and re-configured SH1 southbound lanes. This reflects that the land bridge is part of the Project design and has been assessed as such, rather than as a mitigation measure (in which case the potential effects without mitigation would have been worse in this Project section). Elsewhere around the Basin Reserve, adverse urban form and visual effects without mitigation range from **very low to Moderate. Low CPTED risks** have been assessed for the Sussex Street extension between Cambridge Terrace and the underpass taking into account mitigation measures incorporated into the Project
  - iv. **Mount Victoria – High adverse landscape and visual effects** from the Eastern Portal, and **moderate to high adverse urban form and visual effects** from the western portal associated with the residual land at Paterson Street and unmitigated ancillary infrastructure. **Very low adverse visual effects** from the eastern tunnel control building and ancillary infrastructure
  - v. Eastern Connections – High adverse landscape and visual effects on Hāitaitai Park from the construction of the new access road, low to moderate adverse visual effects on adjoining properties, and adverse landscape and visual effects ranging from very low to moderate elsewhere along this section, and very low adverse natural character effects on the reserve and foreshore at Evans Bay from the new stormwater outfall

## Proposed measures to avoid, remedy or mitigate adverse effects,

28. Across each of the five sections of the Project I have made recommendations for measures to avoid, remedy or mitigate potential or actual adverse urban form, landscape and visual effects (and natural character effects, where relevant). A number of measures have been

incorporated into the consent design following earlier recommendations, which has contributed to the avoidance or reduction in the level of adverse effects, for example the inclusion of the land bridge that will seamlessly extend the green open space of Pukeahu down to Cambridge Terrace and the Basin Reserve and provides a high level of mitigation to the potential urban form severance and visual effects of the Sussex Street extension that passes through an underpass below.

29. Where identified, I have made further mitigation recommendations that may support further reduction in the level of effects, as well as to inform potential consent conditions and matters that can be addressed through a subsequent Outline Plan.

## Conclusion

30. In conclusion, I consider that the proposed Project design has, through careful design responses to context, avoided the potential for significant adverse urban form, landscape and visual effects.
31. In my opinion, the Project will result in some high adverse effects, especially during construction where the impacts on areas such as the Basin Reserve, Mount Victoria Tunnel portals, Ruahine Street and Hataitai Park in particular will be extensive. Areas where I have assessed high adverse landscape and visual operational effects relate to the impacts of large-scale earthworks, vegetation clearance and retaining walls and structures within the Town Belt and other areas of open space, where the mitigation from replacement areas of planting will take time to establish and will reduce effects gradually over time. Similarly, where I have assessed high adverse effects from the creation of residual land, in most places (with the exception of residual land to the western side of the existing section of Sussex Street), this land is generally able to be redeveloped in future and the 'urban void' impacts of missing built form and the lack of spatial definition and activation as well as severance issues that vacant residual land can exacerbate can be expected to reduce in the future.
32. Across all five Project sections, mitigation measures have been incorporated that have contributed to the reduction, and in some instances, avoidance of the potential for adverse effects. In addition, in some sections, particularly around the Basin Reserve, I have assessed multiple positive effects that arise from the ways in which the Project will re-shape the urban form and alter aspects of the landscape character. For each section of the Project, and the Project overall, I consider that the urban form, landscape and visual effects arising from the Project are acceptable, taking into account where adverse effects have been avoided or reduced through mitigation, as well as the positive effects identified.

### 3. ASSESSMENT METHODOLOGY

#### Introduction

33. This report assesses the effects of the Project on the urban form and landscape context. It covers matters relating to both the natural and built environment, including effects on urban form, landscape, visual effects and (where appropriate) effects on natural character.
34. This Assessment of Urban Form, Landscape and Visual Effects is consistent with the concepts, principles, terminology, and general investigative approaches set out in 'Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora / New Zealand Institute of Landscape Architects, June 2022.
35. The method summarised below, has been tailored to the specific Pōneke Wellington City urban landscape context and the issues of the Project.

#### Project guidance and scope

36. Relevant industry best practice or management guidance applicable to urban design and landscape assessment, and that has informed this assessment report, includes:
  - i. **Landscape Assessment:** Guidelines for landscape assessment in a statutory planning context are approved and published by Tuia Pito Ora/New Zealand Institute of Landscape Architects: 'Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora/New Zealand Institute of Landscape Architects, June 2022. The Guidelines set out concepts, principles, terminology, and general investigative approaches that the assessment follows. The Guidelines point out that there is no formula or fixed criteria for landscape assessment. Rather, that assessment requires judgement and justification with reasons, having regard to a wide range of factors. The methodology described in the approach to assessing effects below is consistent with the Guidelines
  - ii. Aotearoa Urban Street Planning and Design Guide prepared by the New Zealand Transport Agency Waka Kotahi – these form part of the national suite of design guidance and offer wide-ranging guidance in relation to high level principles, the process of planning and designing streets, and design guidance on planning and designing changes to street networks and specific streets in ways that recognise the different place and movement contexts commonly found in New Zealand's urban areas, as well as offering a number of case studies in relation to achieving better outcomes for urban streets. At a high level the guide points to the need for the Project and the assessment of effects of the Project to address and respond to the particular characteristics of the varying urban and landscape contexts of the Project
  - iii. **Crime Prevention through Environmental Design (CPTED):** The Ministry of Justice publishes National Guidelines for Crime Prevention through Environmental Design in New Zealand. It is structured around Seven Qualities for Well-Designed, Safer Places [Access (safe movement and connections), Surveillance and sightlines (see and be seen), Layout: (clear and logical orientation), Activity mix (eyes on the street), Sense of ownership (showing a space is cared for), Quality environments (well-designed, managed and maintained environments), Physical protection (using active security measures)]

#### Approach to assessing effects

37. This assessment of urban form, landscape and visual effects has been carried out following the steps outlined below.

#### Review proposal

38. A comprehensive desktop review of the proposal information has been the foundation of this assessment. I rely on the Project Description included as part of the application, as well as the engineering and design drawings that form part of the Project application for FTAA approval.

## Review relevant provisions

39. I reviewed the provisions of the Regional Policy Statement for the Wellington Region (“RPS”) and the Wellington City 2024 District Plan: Appeals Version (“District Plan”) relevant to the assessment. This review was undertaken to identify considerations such as objectives and policies relevant to urban design and landscape matters, and any identified environmental layers such as the ridgelines and hilltops and special amenity landscape overlays, view shafts, and areas with identified natural or heritage values.

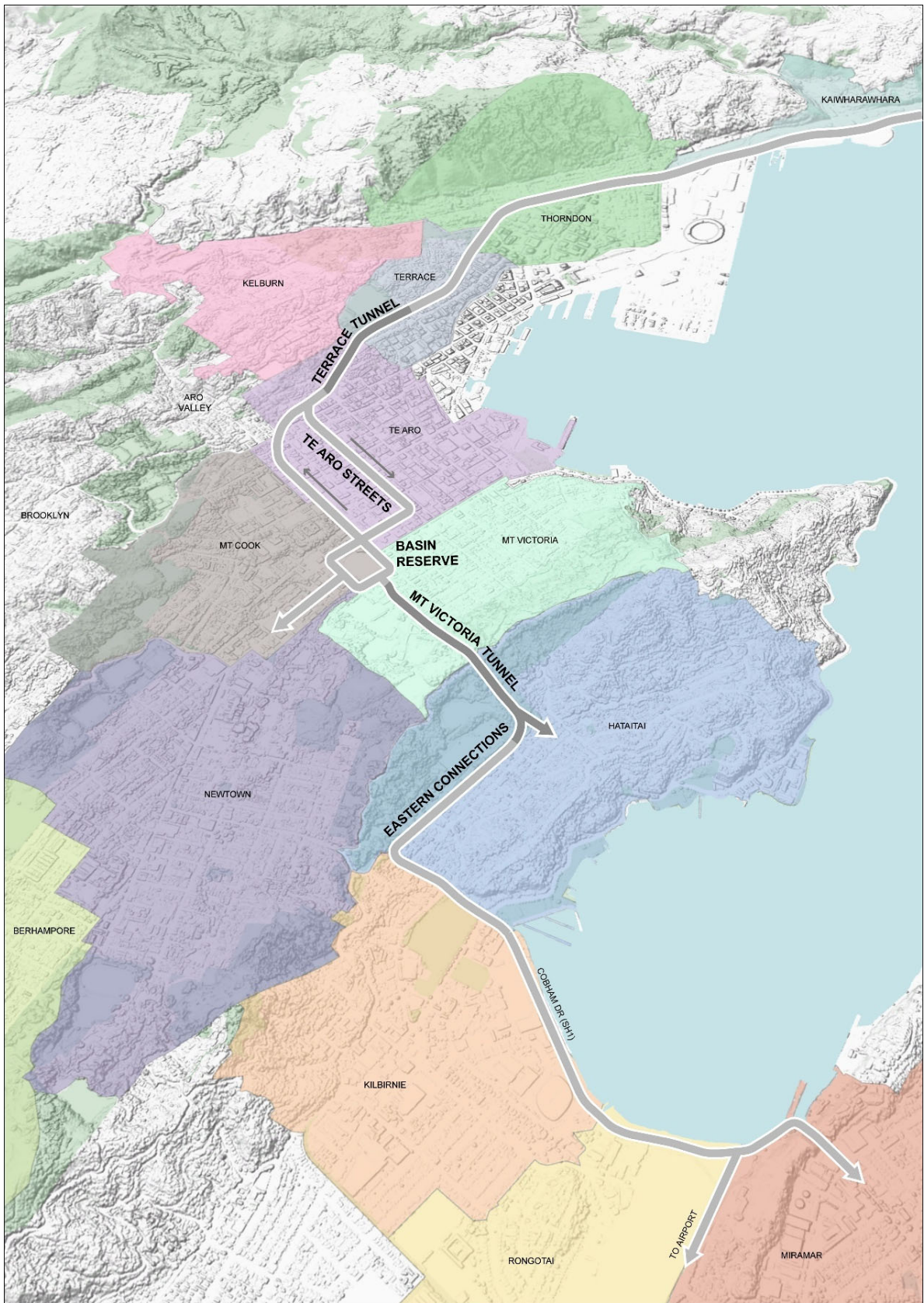
## Relevant scope

40. The scope of this report is to identify the potential urban form, landscape and visual effects of the construction and operation of the Project (and natural character effects, where relevant). I drew on both landscape architecture and urban design technical understanding in determining these effects. While I have separated out visual effects for clarifying the different physical and visual dimensions and sometimes nature of effects at the same location, I understand visual effects as a subset of urban form and landscape effects.
41. This report assesses the effects of each section of the Project. It addresses the potential effects of all above ground elements such as travel lanes, tunnel portals and abutments, bridges, ancillary structures (retaining walls, fencing, overbridges, plant buildings), and the effects resulting from required earthworks, vegetation clearance and retaining and demolition of existing buildings and structures to form new or widened corridors for the transport infrastructure and ancillary infrastructure. The report also considers temporary effects during construction as well as where positive effects are considered to result if the proposal were to be implemented.

## Spatial context and characterisation

42. While the focus for each section of the Project is typically localised – for example the immediate locality of tunnel portals or immediate environs of the boundary of the highway works – my assessments are also contextualised in the broader Pōneke Wellington urban landscape between the Northern Hill Suburbs of Thorndon and Kelburn and the Eastern Suburbs of Hataitai and Kilbirnie through to Evans Bay. This existing environment characterisation, foundational to understanding the qualities of the urban form and landscape context, takes into account six urban landscape character areas that have been defined for the purposes of this assessment. The Project traverses these areas from north to southeast (The Terrace, Te Aro, Mt Cook, Mt Victoria, Hataitai and Kilbirnie) as well as adjoining or being in close proximity to other distinct neighbouring character areas identified on the map and referred to where relevant in the assessment. The landscape and effects are, therefore, described and assessed at varying scales and viewing distances as appropriate (and described in further detail below).
43. The definition of urban landscape character areas across the part of the city potentially impacted by the Project was originally defined to inform earlier phases of investigation and optioneering evaluation. The delineation of areas is deliberately broad-brushed, taking into account a review of the existing landscape and urban character studies and other supplementary material of relevance to landscape and urban character. This included a review of the following documents / publications:
- i. Boffa Miskell Ltd (2017) Wellington City Landscape Evaluation: Draft Technical Assessment
  - ii. Boffa Miskell Ltd (2016) Wellington City and Hutt City Coastal Natural Character Assessment (No. W15016), Wellington
  - iii. Boffa Miskell Ltd (2008) Wellington City Urban Character Assessment

- iv. Boffa Miskell Ltd (2019) Wellington City Council: Pre 1930 Character Area Review
- v. Wellington City Council, Central City Framework: Approach to Implementation
- 44. Boffa Miskell (2002) Greening Central Wellington: A Vision and Guideline.
- 45. Spatial data from these studies has been combined in Arc GIS to analyse the existing landscape character and define character areas along the corridor routes. Spatial data layers that have been reviewed include:
  - i. Spatial areas as defined by the above studies
  - ii. Topography
  - iii. Street pattern (e.g. linear, curvilinear, cul-de-sac)
  - iv. Street trees
  - v. Public open space (e.g. recreation, natural)
  - vi. Land use (e.g. residential, commercial, educational)



**Figure 1 – Urban Landscape Character Areas (Prepared by Boffa Miskell for the purposes of this assessment)**

### **Assess existing landscape and urban form**

46. As noted above, I assessed the urban landscape at varying scales and viewing distances. I first considered the whole urban and landscape context between the inner Northern and Eastern suburbs either side of the central city as the relevant context. I identified a number of distinct urban landscape character areas, six of which the Project directly traverses from The Terrace to Kilbirnie, and other adjoining character areas that form part of the wider landscape and urban context of the Project area (as illustrated on Figure 1 above). Finally, I described more closely the immediate environs of each section identifying characteristics and existing features within and alongside each section of the transport corridor relevant to how the proposal will alter the urban form and landscape context and character of the city.
47. While I acknowledge it is the place of mana whenua to speak to their cultural landscapes and landscape values, I have sought to recognise and incorporate those aspects I am aware of.

### **Assess urban form and landscape effects**

48. My assessment considered effects on such factors as:
- i. Landscape elements:
    - Natural elements (land, water, vegetation), natural patterns (how natural they appear), and natural processes (for example, whether works might affect the quality or natural flow of streams)
    - Natural heritage such as all areas of the Town Belt within and adjoining the Project area, which is identified as a Special Amenity Landscape under the District Plan, Ridgeline and Hilltop Overlay
    - Natural character: I specifically consider natural character on the coastal environment, wetlands, lakes and rivers and their margins. For the assessment of this Project, the primary focus of natural character is at Evans Bay where the Project includes a proposed stormwater outfall. Otherwise, consideration is given through the remainder of the route to urban catchments, modified watercourses, and stormwater ponds/wetlands where applicable
  - ii. Urban form elements:
    - Urban structure: The extent to which the Project will contribute to or detract from the urban elements (street network, activities), patterns (urban form legibility, transport legibility) and processes (connectivity, permeability)
    - Streetscape: The extent to which the Project will contribute to or detract from the spatial definition, activation, and character of streets (including consideration of building scale, grain, type, appearance) and public realm
    - Built Form Spatial Definition: The extent to which the Project will retain and enhance the level of desirable built form spatial definition of streetscapes within the urban context
    - Accessibility: The extent to which the Project elements promote or detract from accessibility to the stations (visibility, pedestrian qualities of surrounding streets)
    - Shading effects on private residential amenity: The extent to which the Project results in adverse shading effects on nearby properties
  - iii. Perceptual aspects:
    - Aesthetic: The extent to which the Project contributes to or detracts from the area's aesthetic qualities (compatibility with character, community views, and visual connections) including visual effects from up close, middle-distance and long-distance viewing opportunities, seen within the surrounding urban landscape context
    - Private visual amenity: The extent to which the Project detracts from visual amenity of adjoining and nearby properties, as well as from middle and long-distance viewing opportunities from private property

iv. Associative aspects:

- Sense of place: The extent to which the Project contributes to or detracts from valued qualities that may relate to history, natural setting, cultural matters, such as at the Wellington Town Belt, which is recognised for its high associative values in being recognised as a Special Amenity Landscape under the District Plan, or the distinctive urban form and landscape qualities of the Basin Reserve and formal boulevard of Kent and Cambridge Terraces which have been recognised in previous decisions
- Mana whenua values: The extent to which the Project will be consistent with or detract from the mana whenua cultural landscape and landscape values - to the best of my knowledge. I acknowledge these matters are the prerogative of mana whenua to describe and we have imperfect knowledge

v. Construction:

- Disruption and temporary visual effects: The extent to which the construction works will have additional effects on urban landscape and visual amenity. We had regard to the raw appearance of construction sites, temporary elements such as construction yards, lighting, and whether construction might be cumulative on other major works
- Direct effects: I acknowledged the properties that will be acquired and directly affected. We considered the extent to which demolition of buildings would detract from streetscape and character of an area, and the extent to which such effects would be remedied by post-construction redevelopment enabled by the Project

49. I have considered the potential redevelopment opportunities of residual land, and of adjoining land to the Project area outside of existing or proposed designations, as part of considering the anticipated future interrelationship between the proposed transport infrastructure and urban form. For residual land where redevelopment is considered feasible (access can be provided and land has a size and shape factor feasible for redevelopment), I have assumed that such redevelopment is able to occur at a future date. This is relevant because enabling buildings that will contribute to the future built spatial definition and streetscape activation is desirable from an urban form perspective. My understanding and conclusions in this regard have been informed by the indicative development potential investigations and assumptions undertaken by the WSP urban design and architectural design team specialists and attached as Annexure A to my assessment report.

50. Where the residual land created by the Project is able to be developed, I have identified this as avoiding the potential for adverse effects on urban form from residual land that is not able to be redeveloped with buildings. However, my assessment has not considered the potential benefits (positive effects) or potential adverse effects of any future development that may be enabled by the Project, nor does it consider the wider urban uplift that may be enabled by the Project.

### Visual Simulations

51. As part of undertaking my assessment, I have been informed by the development of a set of visual simulations that has been prepared for fourteen representative public viewpoints within the surrounding urban and landscape context of the Project. These have been prepared by the WSP urban design, architectural and landscape team and are attached as Annexure B to my assessment report, which includes a methodology statement that details how they have been prepared.

### Shading Studies

52. I have also been informed in my assessment by shading studies prepared by the WSP design team, provided as a series of animation clips as part of the information supporting the substantive application. A methodology / producer statement prepared by WSP, that sets out

how the shading studies have been prepared, is attached as Annnexe C to my assessment report.

#### **Degree (Magnitude) of Effect**

53. Where necessary to elaborate on the degree (magnitude) of effect I have used the following 7-point scale from Te Tangi a te Manu that applies to positive as well as adverse effects:

|          |     |         |          |          |      |           |
|----------|-----|---------|----------|----------|------|-----------|
| Very low | Low | Low-mod | Moderate | Mod-high | High | Very-high |
|----------|-----|---------|----------|----------|------|-----------|

#### **Recommend mitigation**

54. I have recommended measures to avoid, remedy or mitigate potential and actual adverse effects, and to realise potential positive effects. The mitigation section records where earlier mitigation recommendations have been incorporated into the design of the Project, and where further mitigation recommendations are put forward.

## 4. EXISTING ENVIRONMENT

### Introduction

55. This section describes the existing environment for the Project area relevant to this assessment of urban form, landscape and visual effects.

### Site description

56. Chapter 3 of the AEE includes an account of the site of the Project, which is not repeated here. The particular site features relevant to this specialist assessment are included in the existing environment assessment that follows.

### Future environment (without Project)

57. The existing and future environment of each of the five urban landscape character area groupings, which has informed the assessment of urban form, landscape and visual effects as detailed in the methodology section, is set out below.

### The Terrace and Kelburn

58. The Terrace Tunnel duplication section of the Project passes through The Terrace character area and is overlooked by the Kelburn character area to the western side of the SH1 motorway corridor and above the flat low-lying land of Te Aro where the existing and proposed duplicate Terrace Tunnels emerge to join the central city street grid.
59. Landscape and urban form qualities of the existing environment for this section of the Project, relevant to this assessment and building upon that provided in the AEE, are outlined below.
60. From Bolton Street, the motorway corridor narrows south on the approach to the Terrace Tunnel, and there is a sense of enclosure to both sides with vegetated embankments to the west and the tall city centre buildings that line The Terrace to the east.
61. The motorway corridor is situated within / elevated on structural columns running along a low-lying trench, which is emphasised by the buildings along the route which overlook it to the central city side to east and steeply rising topography on the Kelburn side to the west.
62. This creates a contrasting landscape and urban context and character to each side of this stretch of the motorway corridor (between Aurora Terrace and the Terrace Tunnel), with the heavily built-up edge of tall buildings to the central city side and the rising topography and vegetated character of the Kelburn edge to the motorway to the west.
63. Between Aurora Terrace and Everton Terrace, the area of land between and underneath the elevated through-lanes of the motorway and the long off ramp that gives access to The Terrace and Kelburn, is occupied by the Clifton Terrace carpark, a surface carpark that includes piers built for future motorway lanes that have never been built.
64. This area includes complex connections weaving across the motorway both over and under, including the Cable Car that cuts across diagonally underneath the motorway corridor and the closely spaced Everton Terrace and Boulcott Street overbridges that connect Kelburn with The Terrace as well as provide access on to the motorway heading north.
65. There are also a number of secluded walkway connections through the open spaces and carparks that adjoin the motorway and along the edge of the corridor.
66. Along The Terrace, there is a distinct transition south of Boulcott Street in land use pattern (density/scale and activity from predominantly commercial to predominantly residential), and

this change is anticipated to continue under the District Plan which transitions from the Central City Zone to High Density Residential at Boulcott Street.

67. To the west, Boulcott Street also marks the change from the Clifton Terrace residential area to the solidly vegetated and rising ground of the edge of Kelburn Park which along with the nearby Wellington Botanic Gardens, are not formally part of the Wellington Town Belt but share similar characteristics and values and contribute to the green backdrop to this part of the transport corridor.
68. The edge of the motorway corridor along this section features near to vertical concrete retaining walls of high-quality construction featuring vertical patterns that add depth and visual interest for the up-close viewing audience of people passing on the motorway.
69. Opposite Kelburn Park, the row of properties along The Terrace between Boulcott Street through to the existing Terrace Tunnel, is marked by the c.14 storey high, modernist residential tower block of Herbert Gardens, with the balance of the properties being a mix of 2-4 storey large villas and more modern redeveloped or infilled residential or visitor accommodation buildings, accessed from The Terrace and backing on to the vegetated embankment that forms the edge of the motorway below. These properties all sit much higher than the level of the motorway and enjoy views west across to the park to the other side of the SH1 corridor.
70. The tunnel itself forms a primary gateway to the city, the transition to the tunnel emphasises the sense of arrival (or departure).
71. The area above the northern portal to the existing Terrace Tunnel is an open grassed area including a dog park and community orchard, contiguous with Kelburn Park and with a walkway providing access through to The Terrace. The existing tunnel control building sits immediately above the northern portal face at the edge of the Park.
72. The southern portal of the existing Terrace Tunnel emerges into an excavated open trench with associated retaining walls and open landscaped areas that tie back into the central city block bounded by Willis Street, The Terrace, MacDonald Crescent and Ghuznee Street.
73. Public walkways weave through this area providing useful shortcuts for people linking Ghuznee Street, MacDonald Crescent and Willis Street.
74. Existing tunnel control buildings and associated plant are housed in a building to the west of the tunnel portal beside the formed motorway corridor and in a small outhouse fronting MacDonald Crescent above.
75. To the north of this, Kelburn occupies the hillside which rises immediately west of the central city above the motorway, to the north of the motorway corridor.
76. This area is predominantly residential with a grid pattern formed by the south end of The Terrace, Ghuznee Street, Buller Street and Abel Smith Street. The area also contains the main hillside campus of Victoria University of Wellington and associated student accommodation buildings. While elevated, the area is in close proximity to the central city. Routes across the motorway corridor, including MacDonald Crescent and Ghuznee Street, are well used pedestrian routes in both directions for both residents and the university community.

## Te Aro

77. Te Aro is located on flat land which formed the edge of the original Wellington Harbour and was subsequently uplifted.

78. Te Aro is a densely developed mixed use part of the central city characterised by both low rise historic commercial and former warehouse and light industrial buildings, and medium rise apartment buildings from more recent decades (and adaptive reuse) reflecting the incremental intensification and transition into a mixed use central city neighbourhood that has supported a significant share of Wellington's urban growth in recent decades and continues to occur in line with that enabled under the District Plan and its predecessors.
79. SH1 traffic southbound exiting the Terrace Tunnel transitions crossing Willis Street to traverse the central city street grid of Te Aro via Vivian Street.
80. Vivian Street is the only street to run the full length of Te Aro east-west between Willis Street and Kent and Cambridge Terraces with Pirie Street continuing the street grid up onto the lower slopes of Mount Victoria.
81. The full length of Vivian Street functions as the southbound lanes for SH1. The current street space allocation is generally two southbound lanes with kerbside parking, with dedicated turning lanes at some intersections and pedestrian buildouts at some street corners such as Victoria and Cuba Streets.
82. In addition to this important through-movement and cross-city traffic function as part of the SH1 network, the east-west connectivity through the heart of Te Aro is recognised in the District Plan as a key pedestrian route, supported by continuous verandah controls. The road reserve measures typically approximately 15.5m and the typical footpath width to both sides is typically approximately 2.5-3m. Reinforced by the spatial definition afforded by more or less continuous built edges the length of the street, the pedestrian environment for Vivian Street generally feels enclosed, narrow and constrained with the comfort and amenity of the footpath environment strongly influenced by the volume and flow of passing traffic as well as space available at street corners.
83. From west to east, Willis Street, Victoria Street, Taranaki and Cambridge and Kent Terraces are the principal north-south streets that frame up the street grid across Te Aro, with the skinnier intervening streets of Cuba and Tory Streets also playing an important role, particularly as walking streets for people.
84. Of these north-south streets, Cuba Street stands out as the most important walking route north-south through Te Aro, with high numbers of people crossing the SH1 traffic at Vivian Street during the day and at night. This volume of pedestrian traffic reflects the density and concentration of pedestrian-focused retail and hospitality activity along Cuba Street in general and in and around the intersection with Vivian Street in particular. There is strategic direction and intent by Wellington City Council to work towards further increasing pedestrian priority along Cuba Street, building upon the long-established pedestrianised sections of the street north of Ghuznee Street.
85. The junction of Cuba and Vivian Streets is therefore an important nodal point in the pedestrian network of the city, strongly defined and overlooked by heritage and historic buildings on each of the four corners.
86. Traditional wide verandahs with cable stays are a feature of two of these corner buildings (Morgan's Buildings on the southeastern corner that houses Ombra restaurant on its ground floor, and 196 Cuba Street on the northeastern corner which houses Kisa restaurant on its ground floor). Both of these buildings have been renovated and restored in the last decade and offer shelter and comfort for pedestrians waiting to cross the state highway at Vivian Street, as well as strongly activating the street through the restaurant activity overlooking the street corner.

87. The building that marks the northwestern corner, housing Flying Burrito Brothers on the ground floor, has a narrow canopy to its Cuba Street frontage but no canopy along its Vivian Street frontage.
88. The fourth, southwestern corner is marked by the classical architecture of the former National Bank of New Zealand building, with its Corinthian columns above the rusticated, solid base either side of the entry doors. The former bank building, which continues to house long-established restaurant Logan Brown, stands out as having no verandah or building canopies, as per its original design and typical of bank buildings of this period.
89. Further east along Vivian Street, away from the Cuba Street Heritage Area, buildings are typically more modern and often rudimentary in nature, contributing less to the pedestrian environment, although most but not all buildings have a verandah of some kind, they are generally quite narrow reflecting the relatively narrow width of the footpath environment below.
90. From Vivian Street, there are views towards the harbour along Taranaki and Tory Streets, and these have been recognised with protected view shafts under the District Plan, with origin points at or close to the SH1 corridor at Vivian Street.
91. Vivian Street terminates at Cambridge Terrace, with the SH1 traffic crossing over the Canal Reserve at this intersection to veer right along Kent Terrace towards the Basin Reserve.
92. The width and boulevard layout of Kent and Cambridge Terraces, with the central treed median environment of the Canal Reserve, in total measures 50m in width from building edge to building edge and stands out as the only true boulevard street environment in Wellington's central city. Running between the waterfront and the Basin Reserve the Terraces form the eastern boundary between the central city and adjoining residential neighbourhood of Mount Victoria that extends the historic street grid of Te Aro up the lower slopes of Mount Victoria to the edge of the Town Belt.

## **Mount Victoria**

93. The boulevard of Kent and Cambridge Terraces marks the eastern edge of the central city and the boundary with the residential neighbourhood of Mount Victoria.
94. The formal boulevard composition of Kent and Cambridge Terraces terminates at the Basin Reserve, which also aligns with the southern edge of Te Aro and the central city historically defined by Buckle Street, beyond which the natural topography starts to rise into Mount Cook.
95. Mount Victoria is a strongly defined and readily identifiable neighbourhood between Te Aro and the Town Belt. It sits to the east of Kent Terrace on a block layout with principal east-west streets that align with the central city grid of Te Aro extending up the lower slopes of Mount Victoria to the edge of the Town Belt.
96. The Town Belt is recognised as a Special Amenity Landscape. The landscape is highly valued for its open space network and recreational opportunities within an urban context.
97. The Town Belt and Matakairangi / Mount Victoria itself forms the backdrop to the suburb and provides a green focal point at the end of the view shafts of streets sloping up the hill. This includes the view looking east from Pukeahu that is aligned with the view shaft up Ellice Street that terminates in the green backdrop of the Town Belt.
98. The neighbourhood has a much finer scale grain than Te Aro with smaller blocks and lot patterns. As a whole, Mount Victoria is characterised by high density buildings aligned with the street grid with minimum side yards and shallow setbacks, giving strong definition to the street edge.

99. While the area is characterised by the predominance of closely-packed timber houses with pitched roofs that provide a distinctive built character and give the neighbourhood an overall coherence when the residential hill slopes are viewed at a distance, up close and within the neighbourhood reveals more diversity within the built form including Art Deco flats, modernist apartment blocks and infill multi-unit dwellings from more recent decades.
100. The District Plan has zoned Mount Victoria High Density Residential, anticipating residential development of up to 6 storeys in height. As part of the zoning change, the PDP has reduced the spatial extent of special character controls that manage the scale, design and appearance of dwellings in the area.
101. Paterson Street forms a strongly defined hard edge to the southern boundary of the Mount Victoria neighbourhood, with the street edge retained above the trenched traffic lanes of SH1 that lead in and out of the Mount Victoria Tunnel, constructed in 1931.
102. Above the Tunnel, the grounds of Wellington East Girl's College nestle into the edge of the Town Belt, with historic gates and a stepped entrance at the junction of Paterson Street, Austin Street and Austin Terrace. Wellington College occupies the mid-slopes between the Girl's College and St Mark's School and Preschool that occupies much of the constrained block of land bound by SH1 on both Paterson Street and Dufferin Street opposite the Basin Reserve.
103. While the construction of the 1931 tunnel created a major new incision into the natural topography, Paterson Street has always been a "one-sided" street with a row of buildings along its northern side marking the edge of the Mount Victoria neighbourhood, with street-facing entrances and windows elevated above and looking out across the tunnel trench south towards the grounds of Wellington College and St Mark's School.
104. The street and block pattern of the southwestern corner of Mount Victoria, marked by the convergence of Paterson, Ellice, Brougham and Hania Streets in close proximity with the SH1 lanes running from Kent Terrace around the corner of the Basin Reserve to the Mount Victoria Tunnel, has over time been heavily influenced by the construction of the tunnel and incremental expansion of the SH1 road infrastructure and connections to it. These changes, which include changes associated with planned expansion within designated areas, has resulted in the demolition of buildings, site clearance, local road access changes and interim surface carparking and landscape areas, all of which have contributed to the erosion of the historical urban form and in particular the level of spatial definition by built form of this corner of the Mount Victoria neighbourhood and that of the adjoining northeastern quadrant of the Basin Reserve.

### **Basin Reserve, Pukeahu and Mount Cook**

105. The Basin Reserve section of the Project occurs across a large and spatially complex area that is at a major confluence or coming together moment in the city's urban form, marking the visual termination of Kent and Cambridge Terraces, sitting in the naturally low lying land on the edge of Te Aro and overlooked by the elevated the Mount Cook and Mount Victoria urban landscape character areas. To the south, the Basin Reserve marks the transition from the central city to the Newtown area that sits within a long north-south valley linked by Adelaide Road and Riddiford Streets.
106. The Basin Reserve itself, like Kent and Cambridge Terraces that lead to it, occupies naturally low-lying land that was once wetlands feeding into the Waitangi Stream, prior to being uplifted in the 1851 earthquake that modified large parts of central Wellington's landscape.

107. The central circular cricket ground of the Basin Reserve is surrounded by areas for event seating (both covered grandstands and open grassed embankments) and associated facilities and site infrastructure that occupy an outer ring zone between the cricket ground and the surrounding street edges.
108. The eastern side of the Basin Reserve is characterised by its grassed embankment and large-scale mature pohutukawa trees that presents a predominantly unbuilt landscape character to the external street environment as well as within the ground itself.
109. The western side of the Basin Reserve is more built up with the main R A Vance Stand and older Museum Stand, as well as practice nets and the former caretaker's cottage laid out around the western side of the ground, presenting a more built up edge to the rising ground of Sussex Street that wraps around the cricket ground's western side, reflecting the natural topography of Mount Cook to the west and southwest.
110. The Basin Reserve has two principal points of entry, the C S Dempster Gate to the north ("north gate"), facing the termination of Kent and Cambridge Terraces and functioning as the primary entrance on event days oriented to the central city. To the south, the J R Reid Gate ("south gate") provides a secondary point of entry aligned with the junction with Adelaide Road that leads to Newtown and the city's southern suburbs.
111. The location of both of these entry gates reinforces the pivotal position of the Basin Reserve at a major coming-together moment within the urban structure of the city. The visually permeable gates and fencelines to either side of the entry structures open up expansive views into the ground and to the wider landscape setting beyond both from the north and the south, for the large numbers of people that pass through and around the Basin each day.
112. Standing outside the north gate, a view is afforded down the full length of Kent and Cambridge Terraces and the Canal Reserve towards the central city waterfront and harbour. This is a highly valued view at the termination point of the city's only major boulevard. From the south gate, a view is also afforded looking down the length of Adelaide Road to the Newtown Valley. Both of these views are affected to some degree by the passing traffic and high amount of visual clutter in the foreground in terms of the high concentration of streetscape elements including street poles, signage and overhead wires, traffic islands, trees and planting at the complex intersections in front of the Basin Reserve.
113. During the day, when the ground is not in event-mode, the gates are open, providing public access around the edges of the cricket ground, which has become a popular and well used walking and cycling route between Newtown and the central city bypassing the spatially squeezed and traffic-dominated streets around the edges of the Basin Reserve.
114. The urban form structure surrounding the Basin Reserve can be understood as an orthogonal (square-shaped) street grid that frames up the Basin Reserve. For the purposes of my assessment, I have characterised this urban form context around the Basin Reserve as comprising four street-based quadrants around the central circular open space formation of the cricket ground (refer Figure 2). Each of these quadrants has its own particular set of urban form and landscape qualities and characteristics that reflect differences in the immediate context around the Basin Reserve and, in some respects, the influence of the differing urban landscape character areas that adjoin each of these areas and influence the setting of the Basin Reserve.
115. The northeastern quadrant, between Kent Terrace and Paterson Street, interfaces with the edge of the Mount Victoria Residential neighbourhood, and includes the eastbound SH1 traffic lanes leading from Kent Terrace into the Mount Victoria Tunnel, and a number of cleared sites or under-developed areas at the edges of Hania, Ellice and Dufferin Streets both within the

existing transport designation and on neighbouring sites. These areas include the temporary open space that has been formed within the designation at Bogart's Corner to the south of the Grandstand Apartments fronting Kent Terrace, the Regional Wines & Spirits building, and several small surface car parking lots, as well as slip lane connections and traffic island areas demarcating access between the state highway lanes and local streets of Mount Victoria.

116. Beyond this, the existing designation boundary adjoins the St Joseph's Church and associated surface carparking which occupies most of the block between Ellice and Paterson Streets. The Church building itself was redeveloped in the early 2000s following a requirement to relocate to accommodate previous SH1 transport corridor changes. The Church property is separated from Dufferin Street at the Basin Reserve by a partially formed access path and area of mass planting within the NZTA designation, as well as a carpark with permit access associated with the St Mark's Church School located to the other side of Paterson Street, reflecting the access challenges of this compact and constrained school on a corner site bound by the state highway on both of its two street frontages.
117. The southeastern quadrant, between Paterson Street and Adelaide Road, is characterised as a school zone, providing access to Wellington College as well as the St Mark's Church School and associated St Mark's Church and community hall, several Art Deco era apartment buildings, and in the southeastern corner, beside the Wellington College access drive, the gated official entrance to Government House located within the Town Belt above Newtown,
118. The existing street environment in this southeastern quadrant is constrained and traffic-dominated, needing to accommodate high volumes of southbound traffic for both SH1 and people accessing Newtown from the central city and eastern suburbs, as well as the high local access demand of the adjacent community uses to the eastern side of the road. The existing street layout has sought to manage this tension between its busy through traffic and local access functions, with median barriers and traffic islands separating the local access and pick up / drop off arrangements for the schools, church and Government House from the busy through traffic lanes that hug the pohutukawa-lined grass embankment of the Basin Reserve.
119. Adelaide Road is an important gateway which leads to Wellington Hospital, Newtown, Berhampore and Island Bay on the south coast. The intersection is more or less aligned with the South Gate of the Basin Reserve, although the formal streetscape composition of this junction is not strongly defined by the built form to either side of Adelaide Road, which includes a mix of building types and styles from a range of eras, is only one to two storeys high and does not strongly address the street, reflecting the tough pedestrian environment with narrow footpaths hard to the traffic flows around each corner leading to and from the Basin Reserve.
120. The southwestern quadrant, between Adelaide Road and Sussex Streets, rises up and around the western edge of the Basin Reserve from Rugby Street into Sussex Street, and is backdropped by the heavily vegetated knoll of the Carillion and the former Dominion Museum (now part of the Massey University Wellington campus).
121. Rugby Street extends through to Tasman Street as a local street with a traffic lane in each direction plus westbound feeder cycle lane. The street visually terminates in the vegetated knoll around the flanks of the former Museum. The large, cleared site to the south of Rugby Street is consented for the new home of the Chinese Embassy. A recent three storey multi-unit apartment development on the corner of Tasman and Rugby Street shows the potential for redevelopment of sites in this area, although this is less intensive than the 28.5m height enabled for this area under the City Centre Zone under the District Plan.

122. The western side of Sussex Street is lined by a mix of older pre-1920s two storey weatherboard cottages, the rear carpark of the Seventh Day Adventist Church that fronts Tasman Street, the Marksman Moor Inn set back from the road around a surface carpark, and several other three storey multi-block residential accommodation developments built hard to the street with residential units at ground floor, a tough condition for residential amenity living in close proximity to the busy SH1 traffic flows heading into the Arras Tunnel.
123. These properties at the northern end of the row back on to a large site at One Tasman Street that was comprehensively developed in the 1990s as the Tasman Gardens with an apartment block and row of terrace housing fronting Tasman Street. This development has proven to have significant watertightness issues and is earthquake prone. The site has been purchased for redevelopment by Willis Bond who obtained resource consent in 2024 for a new apartment building development in two principal blocks up to 10 storeys in height.
124. The Basin Reserve side of Sussex Street features the back of the Museum Stand built hard to the street edge and centrally located within the otherwise continuously fenced perimeter offering views through to the ground backdropped by the Town Belt to the east. The northwestern corner of the Basin Reserve, to the rear of the curving R.A.Vance Stand, functions as a sloping carpark and service area with a one-way vehicle access entering from Sussex Street and exiting onto the flow of traffic on Buckle Street in close proximity to the main north gate. Pohutukawa trees within the sloping carpark area help to soften views of this area to the rear of the main stand and create a visual green linkage with Pukeahu and the Town Belt in views looking east from within the memorial park.
125. The area to the immediate northwest of the Basin Reserve, is traffic dominated, with walking and cycling connections between the Basin Reserve, Pukeahu and Kent and Cambridge Terraces severed by the section of Buckle Street that wraps tightly around the northern front of the Basin Reserve in close proximity to the north gate, the main entry into the cricket ground, as well as two traffic lanes that merge down from Sussex Street to head north into the central city along Cambridge Terrace. To the other side of these traffic lanes, a planted embankment area contains multiple ramped and stepped active mode pathways that link Pukeahu Memorial Park with Cambridge Terrace below.
126. The corner with Cambridge Terrace is a cleared site functioning as a surface car park as part of the Mitsubishi Motors dealership, but in part subject to the existing NZTA designation. Beyond this, properties fronting Cambridge Terrace and accessed back on the short dead-end local access side streets of Barker and Fifeshire Streets include a number of other major city car dealerships and service centres, as well as other light industrial and commercial activities.
127. The centrally located Canal Reserve that separates the currently northbound traffic flows of Cambridge Terrace from the south and east bound traffic flows on Kent Terrace terminates in a large triangular shaped traffic island separated from the entrance area outside the north gate of the Basin Reserve by the single lane vehicle link from Buckle Street merging with the SH1 traffic around the Basin. A zebra crossing for walking and cycling provides access to the active mode pathways within and beside the Canal Reserve, which includes the new separated cycleway along Cambridge Terrace completed in 2023. This triangular open space includes two large Golden Elm trees that are part of a row of elms interspersed with pohutukawa within the section of Canal Reserve beside SH1 between Vivian Street and the Basin Reserve.
128. The formal spatial composition and boulevard layout of Kent and Cambridge Terraces and the central Canal Reserve is diminished by the incomplete built edges and low scale and level of activation of much of this existing development. This reflects it being a high profile but somewhat 'blighted' existing environment caused by not only the traffic-dominated streets but the severance and separation the Basin Reserve itself causes between central city and

neighbouring areas. This reduces the compactness and walkability of the urban form of this southeastern corner of the central city. Despite these diminished qualities of the existing built form and the lower level of spatial definition and activation it affords the streets surrounding the Basin Reserve, this land is zoned for higher density central city uses with properties along Dufferin and Sussex Streets, in and around the junction with Adelaide Road and fronting Cambridge and Kent Terraces affording significant redevelopment opportunity that could improve the urban form over time.



**Figure 2 – Existing Urban Form Context of the Basin Reserve**

### **Pukeahu and Buckle Street**

129. Buckle Street is the historic east-west street that extended along the front of the Basin Reserve and the National War Memorial as far as the General Headquarters building at Taranaki Street.
130. Buckle Street itself has been significantly de-tuned through the Arras Tunnel Project to no longer provide east-west connectivity, functioning as a narrow local access street only between Tasman and Tory Street, with no vehicle access between Tasman Street and the Basin Reserve at Sussex Street.
131. The Arras Tunnel, completed in 2014, placed the northbound SH1 traffic within an underpass enabling the creation of the Pukeahu National War Memorial Park ("Pukeahu") above and alongside the trenched state highway. This integrated infrastructure and open space Project significantly enhanced the setting of the Carillion as the National War Memorial, and created a generously scaled linear park designed to accommodate multiple war memorials from New Zealand's allies around a central open space overlooked by the Carillion and the focus of national wreath laying and memorial services on ANZAC Day and during the visits of international dignitaries and the diplomatic corps, reflecting and supporting Wellington's capital city status.
132. In addition to its memorial and ceremonial functions, Pukeahu has created a new green space of a scale and structure that reshapes how the central city of Te Aro meets Mount Cook and the Basin Reserve. The terraced lawns and public spaces of Pukeahu enjoy elevated views out to the Town Belt that encloses the central city in both directions to the east and west, with the lowered state highway lanes not being visible at all from the central gathering space between the Carillion and the Australian Memorial. Looking east, this elevated prospect has the effect of strongly accentuating the visual green space connections between Pukeahu and the Town Belt above Mount Victoria uninterrupted by the traffic infrastructure below.
133. The northern edge of Pukeahu is edged by Martin Square, a local access lane to either side of Tory Street, with the Mount Cook Primary School occupying much of the frontage to the west of Tory Street and the Te Papa archives building defining the edge of the tiered section of linear park to the east of Tory Street, which includes the American, Belgian and Pacific Islands memorials, and is bookended by the relocated Home of Compassion creche, a scheduled heritage building that was relocated within the park in close proximity to its original location. The creche currently functions as an education centre associated with Pukeahu's memorial park status. In views from outside the Basin Reserve and at the southern end of Kent and Cambridge Terraces, the solid, red brick façade of the creche is seen sitting above the mass-planted embankments that lead down to low lying land outside the Basin Reserve.
134. While the undergrounding of the state highway traffic into the Arras Tunnel and the creation of Pukeahu has significantly re-shaped and enhanced the landscape setting and amenity values of the national war memorial, these benefits do not currently extend through to the interface with the Basin Reserve and Kent and Cambridge Terraces. Currently, the planted embankment below the creche abruptly transitions from the generously scaled linear park space to a narrow and constrained footpath around the edge of Buckle Street to Cambridge Terrace.

### **Impact of the existing state highway network on the existing environment**

135. In summary, the urban form and streetscape environment around the Basin Reserve is strongly influenced by the existing infrastructure and traffic flows associated with SH1. The designations and physically developed infrastructure of SH1 has had a major influence on not only the setting and visual amenity of the Basin Reserve and the other nationally important

institutions nearby, including the National War Memorial and Government House, but has successively re-shaped the area over time. In places this has eroded the historic urban form through the acquisition of properties, site clearance and corridor widening, reducing the coherence and legibility of the spatial definition originally afforded by the orthogonal city grid layout that tightly edged and enclosed the openness of the Basin Reserve. This erasure has been particularly pronounced to the northern side of the Basin Reserve, which also weakens the formal composition and spatial structure of the termination of Kent and Cambridge Terrace outside the north gate of the Basin Reserve.

136. More recently, the undergrounding of SH1 traffic within the Arras Tunnel and the creation of the significant new green space of the Pukeahu National Memorial Park has demonstrated that it is possible to redevelop transport infrastructure in an integrated way that reduces severance and the physical and visual impacts of traffic and contributes to an enhanced setting and level of amenity in this significant, sensitive and spatially complex coming together moment in the city's urban form.
137. Nevertheless, currently the road layout, including the existing SH1 provision around the Basin Reserve, continues to compromise the urban form and amenity of the urban blocks and development that front these streets and immediately adjoining areas at the edge of the central city, Mount Victoria, Mount Cook and Newtown. These issues also include adversely affecting people's access, use and enjoyment of the streets and navigating around the Basin Reserve. These issues include:
  - i. Poor walkability navigating the streets around the edges of the Basin Reserve on all sides, with narrow footpaths of substandard width and quality, and poor crossings. These are often staggered and complex to navigate, with small traffic islands / waiting room and missing legs / crossings not provided on key desire lines
  - ii. Lack of provision of separated cycling routes north-south and east-west around the Basin Reserve. This creates a major gap in the cycling network that reduces the liveability for people living in areas within otherwise close and easy cycling proximity of the central city and the high number of other destinations within close proximity of the Basin Reserve (e.g., schools, the Massey University campus, the Hospital)
  - iii. Poor pedestrian access into the Basin Reserve, especially from the most heavily used north gate where there is insufficient space outside the entrance, and conflicts with SH1 traffic requiring user to navigate complex, multi-stage crossings
  - iv. Conflicts between heavy state highway traffic, school pick up and drop off movements, and pedestrian flows to and from schools at the beginning and end of the school day, especially in the morning, which coincides with the AM peak commute period. There is also a lack of footpath width along this edge to provide a higher capacity and quality access to the schools
  - v. The urban blight on surrounding land caused by the dominance of the state highway traffic and associated designations and land ownership. General uncertainty on future transport infrastructure changes such that there are high concentrations of cleared, vacant and underdeveloped land around the Basin Reserve, especially around the north-western and north-eastern quadrants. This lack of development exacerbates the dominance of the transport infrastructure and the negative separation and severance that results around the Basin Reserve between more densely developed and active parts of the city

### **Hataitai, Kilbirnie and Evans Bay**

138. The SH1 corridor emerges out of the Mount Victoria Tunnel on the lower eastern facing slopes of the Town Belt and forms the boundary at Ruahine Street between the Town Belt and the inner eastern suburb of Hataitai.

139. The Town Belt is not only an important green backdrop to the city and eastern suburbs but acts as a physical divider, with limited connecting roads between areas either of the city either side of the ridgeline.
140. The section of the Town Belt occupied by Hataitai Park contains a significant concentration of recreational facilities of regional importance to Wellington.
141. The special landscape values of the Town Belt land are recognised in the District Plan, which identifies this area as a Special Amenity Landscape. Schedule 11 of the District Plan identifies relevant values which include natural science (moderate), sensory factors (high) and shared and recognised (very high). This reflects the high degree of visibility this section of the Town Belt gains by being lined by the SH1 corridor that is the principal route connecting the airport and eastern suburbs with the rest of the city. The infrastructure provisions of the District Plan provide for upgrades where this activity is of a scale that maintains or restores the identified values, any adverse effects on the identified values will be avoided, remedied or mitigated, and there is a functional or operational need for the activity to be undertaken in the special amenity landscape.
142. A small portion of the Hataitai Park area is also subject to the Mount Victoria Ridgelines and Hilltops Overlay of the District Plan, which requires adverse effects on visual amenity and landscape values to be managed.
143. The suburb of Hataitai occupies the predominantly southeastern oriented hillslopes of the Melrose Hills that extend down to the harbour at Evans Bay. Hataitai is predominantly a residential neighbourhood, with a grid pattern in flatter areas, and curvilinear streets and some culs-de-sac on the hills. Hataitai has had apartment buildings and infill housing developments since original settlement, giving a diversity to some of the streetscapes.
144. Hataitai has a small but clearly defined and recognisable neighbourhood centre (zoned Local Centre Zone under the District Plan), clustered around the junction of Moxham Avenue, Hataitai Road and Waitoa Road. Taurima Street provides a direct linkage in both directions between the neighbourhood centre of Hataitai and the Mount Victoria Tunnel. This linkage provides a direct route between the neighbourhood and the central city including for people walking and cycling using the existing narrow pathway elevated above the traffic lanes on the northern side of the tunnel.
145. The western blocks of Hataitai that sit between Ruahine Street and Moxham Avenue are predominantly residential, with some mixed use activity at the northern end in proximity to Taurima Street and the neighbourhood centre, and the Latter Day Saint's Church further to the south that occupies a large site the full depth of the block between the two streets.
146. Other than the church site, there are few other through-block properties, with the majority of properties that front Ruahine Street accessed only from the state highway. Residential amenity for these properties is moderated by the high volume of through traffic on the state highway.
147. SH1 sits between the Hataitai residential neighbourhood and the Town Belt, and the presence of the highway along the edge of the Town Belt in this location provides a highly visible "window" on to the open space of the Town Belt in this location, adding to the prominence of this part of the Town Belt to how the city is seen and experienced. This is particularly so considered as part of an arrival sequence from the perspective of a visitor landing at the airport and travelling into the central city.

148. The main road access into Hataitai Park is centrally located along the Park's Ruahine Street frontage, opposite the intersection with Goa Street which provides direct access from the residential neighbourhood of Hataitai up into the Town Belt.
149. An existing wooden footbridge up and over the state highway lanes in and out of the Mount Victoria Tunnel provides pedestrian access directly up to the mid-tier of the park for people coming and going from Taurima Street, the neighbourhood centre and the residential hillslopes to the north.
150. Much of the immediate frontage of Hataitai Park to Ruahine Street is shouldered by a gradually sloping grass berm. North of the access road, the grass shoulder transitions to a dense band of planted vegetation, predominantly native trees and shrubs, on the steep slope between Ruahine Street and the access road which continues to weave its way up the park providing access to the range of playing fields and sports courts terraced within the naturally sloping topography.
151. This band of vegetation creates a green edge to the state highway corridor and largely screens the recreational activity higher up in the park from view. Around the junction with Taurima Street and the pedestrian overbridge, the large pohutukawa tree plantings extend into the traffic island and to the northern edge cut face escarpment between the tunnel portal and Taurima Street. Collectively, this vegetation has landscape value in terms of its amenity contribution for people travelling on the state highway and importantly helps visually integrate the existing Mount Victoria Tunnel and the associated cut faces and retaining wall structures with the green space of the Town Belt.
152. South of the Hataitai Park access road, the Park opens out into an expansive swathe of open mown grass dotted with trees and edged by the hall and carpark of the Wellington Badminton Centre which is built close to the road. Beyond the badminton hall, the topography of the park steepens and is covered by dense trees and vegetation to the roadside, with a large, exposed cut face near the sharp bend from Wellington Road into Ruahine Street.
153. Wellington Road is to some degree aligned to the natural underlying topographical change between the hills of Hataitai and the Town Belt and the reclaimed flats of Kilbirnie. The positioning of the state highway along this corridor has to some degree reinforced a defining boundary between the suburbs at this location, although the boundary is more blurred in the westernmost section of Wellington Road from the Town Belt through to Hamilton Road. The transition is particularly pronounced in the next block between Kilbirnie Crescent/Hamilton Road and Evans Bay Parade, where the flat low-lying land of Kilbirnie Park, part of the Rongotai isthmus, is in stark contrast to the steeply rising escarpment that marks the southern edge of Hataitai to the other side of the road.
154. Residential properties line both sides of Wellington Road between the Town Belt and Evans Bay Parade. Accessing these properties is difficult given the high volumes of through traffic on the state highway, and the traffic detracts from the residential amenity of these properties, some of which are located very close to the road with minimal or no setback, with others set back behind high fences and walls to manage privacy and a sense of separation.
155. Kilbirnie Park is the principal community open space and recreation reserve for the Kilbirnie and Rongotai suburbs with the aquatic and recreation centres at its southern end closer to the town centre and the open playing fields, used for cricket and football, extending through to the northern end beside the state highway.
156. Wellington Road currently widens east at the intersection with Hamilton Road and Kilbirnie Crescent, running between Hataitai escarpment and Kilbirnie Park, before transitioning into

the harbour edge route of Cobham Drive that follows the edge of Evans Bay through to the airport and Miramar Peninsula.

157. The foreshore at Evans Bay is highly legible in the urban form being edged by the coastal road routes of Cobham Drive and Evans Bay Parade. The walking and cycling paths that have been formed within the Cobham Bay foreshore and along Evans Bay Parade are very well used for both commuting and recreation and successive investment in this foreshore reserve and the walkways along Cobham Drive have made this a high amenity coastal open space where people enjoy the expansive views of the harbour and hills. The open waters of the bay, and the visual links to the wider harbour surrounding landscape that encloses it contribute to the natural character of the coastal environment in this location, despite the heavily modified nature of the immediate coastal edge at Evans Bay Parade, which includes an existing stormwater outfall.

## 5. BENEFITS OF THE PROJECT (POSITIVE EFFECTS)

### Basin Reserve

158. The Basin Reserve section of the Project will reshape parts of the urban form and alter aspects of the landscape character around the Basin Reserve. A number of positive effects on the composition and connectedness of the city's urban form as well as the landscape character and streetscape amenity around the Basin Reserve are assessed below.
159. **Low positive urban form and streetscape amenity effects** from the increased spatial definition and improved composition of the reconfigured side street connectivity with Ellice Street and removal of associated surface carparking, which also results in an increase in landscape amenity, and increased comfort for active mode users navigating the northeastern quadrant of the Basin Reserve between Kent Terrace and Paterson Street.
160. **Low positive urban form and streetscape amenity effects** from the creation of a new large triangular space at the reconfigured intersection of Dufferin and Paterson Streets adjacent the Art Deco flats that mark the corner. This space improves the spatial definition of the orthogonal (square-shaped) street grid structure around this edge of the Basin Reserve and increases the separation and buffering of Dufferin Street from the SH1 lanes, adding to the amenity benefits for the redeveloped Dufferin Street school access zone.
161. **Moderate positive streetscape amenity effects** from removing the state highway traffic and improving the street condition on Dufferin Street, that improves the comfort and amenity for the high numbers of school students (c.2000 students) accessing schools in this southeastern quadrant of the Basin Reserve, as well as the main entrance to Government House that will be enhanced with new amenity planting areas outside the front gates. These positive effects also extend to include the connectivity benefits of a new raised zebra crossing connecting across the full street to the footpath and new cycleway around the edge of the Basin Reserve. This crossing and the increased kerb build outs associated with it and at the corner build out with Adelaide Road serve to improve the urban form composition in response to the reduced traffic volumes and delineates a new streamlined one-way traffic flow and separation between access zones.
162. **Low positive urban form and streetscape amenity effects** of a new separated north-south cycleway connection around the eastern side of the Basin Reserve between Te Aro and Adelaide Road, in addition to the route through the Basin Reserve. The current route through the Basin Reserve, while more direct, attractive and well used, cannot be relied upon at night and on game days.
163. **High positive urban form, landscape and visual effects** from the green space extension of Pukeahu through to Cambridge Terrace, that in addition to the increase in high quality open space amenity and enhanced walking and cycling connectivity, positively redefines the composition and spatial definition of the Northwestern Quadrant of the Basin Reserve and its junction with Cambridge Terrace, restoring an orthogonal street corner with green space amenity, replacing an existing surface carpark, and improving the continuity and legibility of this termination of the Cambridge Terrace side of the formal boulevard composition, that has been historically eroded through the clearance of built form and changes to the road geometry between Buckle Street and Cambridge Terrace.
164. **Moderate positive urban form, streetscape amenity and visual effects** from the increased landscape amenity zones in the southernmost blocks of Cambridge and Kent Terrace between the new Sussex Street extension intersection and Buckle Street outside the Basin Reserve, achieved by street space reallocation narrowing down to a single traffic lane on

Cambridge Terrace and from four to two traffic lanes on Kent Terrace. This new green space creation offers opportunities to effectively extend the width of the central Canal Reserve at this southmost termination as well as maximise pedestrian space where the green space extension meets the footpath of Cambridge Terrace. This additional landscape amenity space creation also assists with spatially integrating the green space extension with the Canal Reserve and the north gate entrance of the Basin Reserve and right through to the eastern footpath of Kent Terrace, resulting in a stronger and more legible public realm composition.



**Figure 3 – VP4 Visual Simulation showing the changes in urban form and streetscape that result from the green space extension from Pukeahu to Cambridge Terrace and increased space contiguous with the canal reserve in centre of the boulevard.**

165. **Moderate positive urban form, streetscape amenity and visual effects** from the creation of an enlarged entrance plaza space in front of the north gate of the Basin Reserve that is fully pedestrianised and of a scale that enables much greater levels of people gathering activity in association with events in a space large enough to offer separation from the nearby SH1 traffic lanes. This public space will be of particular benefit on event days at the Basin Reserve, given it will enhance the main arrival point for most people approaching from the central city, but also offers increased amenity for those people who choose to walk or cycle through or beside the Basin Reserve. This enhanced public space creation also contributes to the improved composition and appreciation of the spatial and visual relationships between the Basin Reserve and the boulevard of Kent and Cambridge Terraces to the north. It also has positive visual effects enhancing the setting and appreciation of the north gate as the recognisable main entrance of the Basin Reserve for passersby, affording this entrance more prominence, and space and separation from passing vehicular traffic.



**Figure 4 – VP5 Visual Simulation showing the changes in urban form and streetscape that result from the enlarged plaza space outside the north gate of the Basin Reserve and looking across the SH1 northbound lanes to the green space extension from Pukeahu to Cambridge Terrace.**

166. The positive benefits of the improved walking and cycling connections around the northern and eastern side of the Basin Reserve are high, when considered as part of the “network effect”, i.e. tying in with the new active mode connection the Project will provide through the Mount Victoria tunnel to the eastern suburbs, the reconfigured western link provided by the Project up into the Pukeahu Memorial Park above the Arras Tunnel, and to the north tying in with the existing walkways and separated cycleway to the Cambridge Terrace side of the central Canal Reserve. From an amenity perspective, these new and enhanced routes will be

wider, more separated from traffic, and increase comfort for all active mode users compared to the experience of navigating the existing environment.

167. In the bigger picture, these positive effects help support the changes in the planned future environment through reducing the severance the state highway and other traffic around the Basin Reserve creates between Te Aro and Adelaide Road, the Hospital and Newtown, noting that the District Plan rezoned the area to the south of the Basin Reserve to become City Centre Zone, with significant increases in development potential.
168. Uncertainty of the extent and form of future infrastructure provision around the Basin Reserve has been the cause of considerable urban blight on surrounding land, and the Project will create a clearer spatial framework for the urban blocks that adjoin the Basin Reserve area that can support urban redevelopment and regeneration in future.
169. While there is potential for further positive effects in future arising from the development potential of residual land (where this land can be accessed and has a size and shape factor that makes development feasible), these potential effects have not been assessed as part of this proposal. It is recognised in this assessment that enabling future buildings that will contribute to the future built form, spatial definition and streetscape activation surrounding the Basin Reserve is desirable, and where this has been achieved this has been identified as avoiding the potential for adverse effects on urban form where residual land is not able to be redeveloped.

## Mount Victoria Tunnel

170. **Moderate positive urban form effects** from the enhanced urban form connectivity and amenity for active mode users of the wider and more comfortable connection through the new tunnel and widened path through to Basin Reserve.
171. **Moderate positive urban form and streetscape amenity effects** from the enhanced connectivity and amenity for active mode users of the wider and more comfortable connection through the new tunnel and widened path through to Hataitai local centre along Taurima Street, as well as the increased comfort and amenity of the replacement active mode overbridge connecting Hataitai Park with the neighbourhood centre and provision of a safe controlled crossing for walking and cycling across the narrowed Taurima Street one-way access at the key nodal point connecting with Ruahine Street and the park overbridge. The removal of on-street parking and reduction in carriageway width between the zebra crossing and Moxham Avenue intersection also results in positive effects from the widened footpaths to each side created as part of the Project, and which have the opportunity to support trees, planting and street furniture as a gateway to the Hataitai local centre.

## Eastern Connections – Ruahine Street, Wellington Road to Evans Bay

172. **Moderate positive urban form, landscape and visual effects** from the enhanced green network connectivity between the Town Belt and Kilbirnie Park and the coastal foreshore at Evans Bay, through the new open space corridor created on residual land to the southern edge of the widened Wellington Road SH1 corridor.
173. **Low positive urban form and visual effects** for adjoining residential properties between Moxham Avenue and Evans Bay Parade from the creation of a local access lane separated from the SH1 travel lanes will result in positive effects on the urban form and residential amenity values of properties to the northern side of Wellington Road (between Moxham Avenue and Hamilton Road and Hamilton Road to Evans Bay Parade) which will no longer be

accessed or so directly front on to the state highway, with many of these properties enjoying the greater open space buffer, separation and some screening / filtering of views afforded by the creation of a planted landscape zone between the local access lane and state highway corridor as well as the slow speed environment and reduction in traffic immediately in front of their properties.

## 6. ASSESSMENT OF OPERATIONAL EFFECTS

174. Potential adverse landscape effects include those on natural elements of the landscape such as topography and landforms (including any special features), on water (potential effects on natural streams, wetlands, harbours), on vegetation, and any ecological aspects that form part of the landscape. These have been characterised as **landscape effects** in this assessment. Where these effects relate to the coastal environment, they have been assessed as **natural character effects**.
175. **Potential adverse effects on urban form** (which can also be understood as the built elements of the landscape) include effects on the urban structure (pattern of street and block structure), streetscape and built form characteristics, and qualities such as legibility, coherence and connectivity. Adverse urban form effects can include adverse changes to the positive spatial definition that built form provides to adjacent streetscapes and public spaces. Where adverse effects on pedestrian amenity, or the composition, spatial qualities, and amenity of streetscapes and public spaces are identified, these are considered a type of urban form effect.
176. Potential adverse effects also include **visual effects** on amenity values resulting from the permanent changes in views arising from the Project (seen and experienced from both public places and / or private property). A set of visual simulations from representative viewpoints have been prepared, to assist with an understanding of visual effects and the changes in views arising from the Project. These are appended to this assessment report and in places have been cross-referenced in the assessment sections that follow.
177. The potential for shading effects on adjoining and nearby residential properties – a further type of adverse amenity effect - has also been assessed, with reference to shading studies that have been prepared by the design team as a series of animated video clips.

### Terrace Tunnel

178. **Very Low permanent urban form effects**, given the land required to widen the motorway corridor and accommodate the new northern tunnel portal immediately to the east of the existing tunnel portal does for the most part not permanently impinge on any of the properties adjoining the motorway embankment above, with some small permanent occupation of part of the rear yards of 214 and 216 The Terrace. The permanent effects are for the most part on the vegetated embankment below that is covered by the existing designation and already reads as a part of the motorway environment sitting below the urban edge of the rear of properties fronting The Terrace above. The corridor widening does not require the permanent acquisition or clearance of any dwellings fronting The Terrace, and any permanent effects from the modifications required to the rear of properties at 214 and 216 The Terrace affecting garaging, rear yards and fencing will not alter the urban form overall.
179. **Low to Moderate permanent landscape effects** from the scale and form of cut slope modification and permanent reduction in the area of open space available for revegetation within the designation corridor above these slopes. While the new tunnel is located very close to the existing tunnel and at a comparable low elevation relative to the rising land of The Terrace, to achieve the corridor widening at this location requires a large cut into the vegetated embankment that currently contains the motorway at the existing tunnel portal. These landscape effects will be most pronounced and severe at the immediate southeastern corner interface with the tunnel portal and ranging from 8m up to 23m high. The magnitude of these effects is moderated by the land being largely part of the long-established motorway corridor with lesser sensitivity to change than other vegetated hill slopes in the city.

180. **Low to Moderate permanent adverse visual and residential amenity effects** more generally, on private viewing audiences of adjoining properties, resulting from the perceptible reduction in open space separation between the physically widened motorway corridor and adjoining properties above as well as changes in outlook, that generally increase in magnitude from north to south corresponding to the scale of cut slope and permanent encroachment into the vegetated embankment required. The range of effects assessed are:
- i. **Low visual effects** for the Herbert Garden Apartments at 186 The Terrace where corridor widening will result in a reduction in the width of the existing vegetated buffer, and a change in outlook from apartments with a south-westerly aspect towards the cut slopes and second tunnel portal. The outlook from some units will experience a reduction in the extent of existing greening at the edge of the motorway, and high visibility of the permanently visible retaining walls and cut faces, likely to be perceived as adverse by many people. Some units will also have views of the new tunnel portal; the nature of this visual change is not considered sensitive, given the way in which the existing motorway corridor and existing tunnel portal are already an established part of this view, and the widened corridor and duplicated tunnel portal will remain low in the view relative to the surroundings, not being a dominant part of the outlook
  - ii. **Very Low to Low visual and residential amenity effects** for the adjoining properties between 192 and 212 The Terrace, which have very limited change in outlook and where the extent of change below these properties will not be readily perceptible and a level of separation both horizontal and vertical is maintained with land within the designation above the line of cut slope able to remain a vegetated buffer between these properties and the edge of the widened motorway trench
  - iii. **Moderate visual and residential amenity effects** will be permanently experienced by people within the two properties at 214 and 216 The Terrace to either side of the public accessway to the dog park above the tunnel portals, which will experience a permanent reduction in the size of rear yard areas that are covered by the existing permanent designation boundary for the motorway but currently remain part of these properties and used for garaging and carparking as well as garden areas, and will have an appreciable change in the physical proximity and potentially visual outlook of the edge of the motorway corridor with limited space for a landscape buffer between reconfigured boundaries and the top of cut slopes
181. **Very Low or Low adverse visual effects** for public and private viewing audiences to the west across the motorway. From these areas, the permanent physical changes resulting from the motorway corridor widening will from many places be not seen or be negligible in terms of the change in view. Where seen, the permanent reduction in greening and increase in visible retaining walls and cut slopes will be perceived as adverse, although the visibility of the areas of greatest height and scale in close proximity to the interface with the new tunnel portal are very limited by the heavily vegetated slopes of Kelburn Park opposite. These adverse visual effects from across the motorway are assessed as Very Low or Low, taking into account the separation distance, the established presence of the motorway corridor in these views, and that the works will not be visually dominant or change the overall visual character of the outlook where glimpses or stretches of the motorway corridor are seen as a low lying element above which sits the urban edge of The Terrace and wider central city skyline beyond.
182. **Generally low adverse visual effects** for the public viewing audience of people travelling on the highway itself. The works will be highly visible and prominent viewed up close travelling south on the widened motorway approaching the new southbound tunnel, once south of the Boulcott Street overbridge. Effects remain low as the form and finishes of retaining walls and provision for revegetation areas will integrate closely with the established landscape character of the motorway corridor. High and steep retaining walls and constructed edges are an established feature of the built-up edges of this section of the Wellington urban motorway. The existing retaining walls have been constructed to a high level of visual amenity and typically are topped by heavily vegetated embankments that help with their landscape integration into

the surrounding context. The new retaining walls are proposed to be built with a comparable form and finish to match the existing treatment on the opposite side of the motorway flanking Kelburn Park and also retain space for planting to be established above the walls.

183. **Low to Moderate adverse visual effects** for viewing audiences on the motorway closer to the tunnel portal, reflecting the increase in height and expanse of cut slopes required above the level of the new tunnel portal, which will be appreciably greater in scale and dominance in views from down in the motorway trench than the existing steep retaining wall and vegetated batter on the opposite side of the motorway, and will result in reduced space for a planted buffer zone at the top of slope.
  
184. The tunnel portal itself is considered to **avoid adverse visual effects**, given that the structural form, materials and finishes (as depicted in the North Portal Plan and Elevation) will achieve a level of design quality and visual amenity to the new tunnel portal that closely matches and ties into the design of the existing tunnel portal alongside. This will achieve a high level of physical and visual integration and maintain the high amenity and design quality of the 1978 tunnel, recognising they will read as visually prominent twin tunnels coming and going from the central city at this major gateway location.
  
185. Above the northern portal of the new duplicate tunnel, there are **no permanent adverse urban form, landscape and visual effects** on the existing public access pathways and open space of the park once the pedestrian access path that connects through to The Terrace is reinstated on a new alignment further back from the widened highway corridor around the new tunnel portal, and replacement planting is undertaken beside the pathway and between it and the cut and retained slopes around the tunnel portal. The changes to accommodate the tunnel portal are benign given they reinstate public access, use and enjoyment of this open space amenity above the tunnel portals in a way that will feel closely comparable to that of the existing environment.
  
186. **Low-Moderate to Very Low permanent adverse visual effects** from the northern new tunnel control building, fire hydrant and pump building, tank storage and associated fenced and hard-surfaced operational yard areas to either side of the Boulcott Street overbridge. The range of effects recognises the differences in visibility, acknowledging these areas will be readily visible up close from the Everton Terrace and Boulcott Street overbridges, to some degree from the Kumototo Lane access up to Boulcott Street and from adjoining properties on The Terrace with views down on to the edge of the motorway, as well as for viewing audiences travelling along the motorway itself. The location for this ancillary plant is low lying and closely associated with the motorway corridor, fenced and separated by areas of planting. These measures reduce these effects, particularly for viewing audiences travelling on the motorway, and from adjoining properties above, where effects will range from Low to Very Low. Visibility will be greatest from the footpaths on the Everton Terrace and Boulcott Street overbridges, where the combination of an elevated vantagepoint in close proximity affords a clear view looking down onto these areas, as depicted in the VP1 visual simulation. From these overbridge locations the adverse visual effects are assessed as Low-Moderate.
  
187. **Low permanent adverse visual effects**, and no permanent urban form effects, associated with the southern new tunnel portal, from the permanent reconfiguration of this part of the designated corridor to accommodate the southern new tunnel portal and associated plant. Effects will noticeably reduce once tunnel portal construction and reinstatement of pathways and planted open space areas above and around the twin tunnels is complete and planting established over the medium to long term (from 10 years onwards). These low permanent adverse visual effects stem from the permanently exposed cut slopes and retaining walls to the east side of the new tunnel portal, once the revegetated areas that assist with the visual

integration of the tunnel portal and all ancillary infrastructure, are fully established and readily integrate the infrastructure elsewhere.

188. The Project avoids permanent adverse urban form effects, and will have no more than **Low-Moderate visual effects** from the Southern Tunnel control building, above-ground tank storage and associated ancillary infrastructure. Effects are no more than Low due to their siting in proximity to the tunnel portals, within an area of the existing motorway designation that is low lying and heavily modified from its former use as the Ghuznee Street offramp. The architectural design of the control building itself will ensure an appropriate level of visual amenity is maintained – in particular for the most up-close viewing audience of people moving along the northern footpath to the Ghuznee Street replacement bridge as depicted in the VP2 visual simulation. The architectural intent of the treatments proposed to the control building will help create coherent forms and break down the apparent scale while staying true to the infrastructural function of these elements. This design measure helps ensure this ancillary infrastructure does not cause any more than Low-Moderate adverse visual effects when seen from the surrounding context.
189. **Low-Moderate adverse urban form and visual effects** from the alignment, geometry and more curvilinear form of the Ghuznee Street replacement bridge. This exacerbates the misalignment and disruption the existing bridge and trenched motorway corridor below caused on the historic street pattern. The misaligned and more curvilinear form of the proposed replacement bridge further erodes the legibility of the historic street grid alignment where Ghuznee Street once ran uninterrupted on a straight axis up the lower slopes of Kelburn to meet The Terrace. The adverse visual effects associated with this are most pronounced at the Willis Street intersection and in views from further west on Ghuznee Street looking east back up to The Terrace and the Victoria University of Wellington Kelburn campus above, as well as from tall and elevated buildings in the central city and Kelburn with views down onto this part of the motorway corridor.

**Permanent effects from widened and expanded state highway corridor from Everton Terrace overbridge through to and including the northern duplicate tunnel portal**

190. These works largely fall within the existing permanent NZTA designation corridor, only requiring the permanent acquisition of part of the rear yards of two adjacent properties, and the works do not result in permanent loss to the area of publicly accessible open space above the tunnel portals, ensuring permanent adverse effects on urban form are very low.
191. There will be adverse residential amenity effects for immediately adjoining properties, that for the most part are Low or Very Low, but increase to Moderate for the two properties at 214 and 216 The Terrace that are most affected by works to establish the new tunnel portal.
192. From across the motorway, viewing opportunities are somewhat limited and at considerable viewing distance, noting the heavy vegetated buffer of the immediate edge of the motorway with Kelburn Park, which also provides a high degree of open space separation and low lying elevation of the motorway works relative to the closest residential viewing audiences within the elevated hill suburb of Kelburn. Where visible, it is the permanent extent of high retaining walls and cut faces, where these cannot in time be softened and reduced in visibility through revegetation top of slope and mid slope, that are the elements that contribute to adverse visual effects in views from these locations. Given the distance, the widened and expanded motorway works, where visible, will not be a dominant element in these views, and adverse effects are assessed as **Very Low to Low**.



**Figure 5 – VP1 Visual Simulation showing the widened motorway corridor and duplicate tunnel portal from Boulcott Street bridge**

193. The greatest visibility of the retaining walls and cut slopes required to accommodate the expanded motorway corridor is the up-close viewing audience of people travelling on the motorway corridor itself, particularly heading southbound approaching the new tunnel once past the Boulcott Street overbridge.
194. The finished scale, form and treatment of retaining walls in terms of materials and finishes, and landscape mitigation to cut slopes and earthworked areas above these walls, as proposed, reduces the magnitude of permanent landscape and visual effects seen from the motorway corridor itself, as well as from the nearby road overbridges that cross the corridor.
195. The new retaining walls are proposed to be built with a comparable form and finish to those existing on the opposite side of the motorway flanking Kelburn Park. Given the high design quality of these established retaining structures, and the continued provision for vegetation above walls, the effects will be generally Low. Where the height of retaining walls and cleared and cut hill slopes above is greatest, the adverse visual effects are assessed as Moderate, taking into account the greater appreciable scale of this modification compared to the existing retaining walls, and the lesser ability for landscape mitigation to reduce the permanent visibility of cut slopes above the retaining wall.

#### **Permanent effects from the southern duplicate tunnel portal and ancillary tunnel infrastructure**

196. At and around the twin southern tunnel portals, there is a low sensitivity to change given the works are within the large existing designation area the primary purpose of which is to accommodate the existing tunnel portal and associated infrastructure and operational access requirements. The southern portal of the duplicate twin tunnel can be accommodated within this existing heavily modified area without the need to fundamentally reshape or change the urban form of the surrounding area beyond the existing, long-established designation.
197. The new infrastructure is able to be readily physically and visually integrated within the wide and highly modified open space area in and around the existing tunnel portal within the long-established NZTA designation that relates to the original Terrace Tunnel constructed in the 1970s. The expanse and topography of this open space area, along with retained existing vegetation and replacement planting, ensures the new infrastructure will in the long term read logically and in direct association as an extension and redevelopment of the existing highway infrastructure with no re-shaping of the surrounding urban context required to accommodate it, and no more than Low adverse visual effects given the extent of visual mitigation from planting as well as the open space separation and low sensitivity due to the long-established highway character around the existing tunnel portal.



**Figure 6 – VP2 Visual Simulation showing the southern tunnel portals, tunnel control building, and tank storage**

## Te Aro

198. **Negligible adverse streetscape amenity effects** at the intersection of Vivian and Cuba Street. The area of greatest sensitivity and change is the northeastern corner (outside 196 Cuba Street that houses Kisa restaurant). The proposed changes to the footpath environment in the vicinity of this street corner are overall benign; while there is a slight increase in crossing distance over the busy eastern arm of the signalised intersection associated with the change from two to three through traffic lanes, requiring the removal of the existing kerb build out and footpath extension on Vivian Street. This is more than offset by the large extension to the footpath to the Cuba Street side of the intersection, that in combination with proposed changes to the existing raised planter will result in a net increase in the standing space for people waiting to cross the state highway as well as people spending time in the street as public space.
199. There will be adverse pedestrian amenity effects from a slight reduction in the extent of shelter provided by the verandahs on the corner buildings at 195 and 199 Cuba Street. The effects on pedestrian amenity are limited by the canopy reductions occurring to the Vivian Street frontages back from the intersection itself. Reinstated canopies will still be more than 2.5m in width that will continue to provide shelter, and do not affect the greater width of the corner sections of canopies that wrap around the chamfered corners of both buildings to Cuba Street and where people tend to shelter and congregate.
200. Considering all of the changes to the pedestrian environment at the intersection of Cuba and Vivian Street together, while the sensitivity to change in pedestrian amenity to any corner of this intersection is high given the importance of this junction to the central city walking network and the high volume of people that cross the state highway at this location, the adverse effects have been offset by the proposed side street kerb extensions to Cuba Street on all four corners of the intersection that will increase pedestrian space overall and enhance the sense of separation and buffering of the Cuba Street pedestrian public realm environment from the busy traffic flows of the State Highway. Overall, the adverse effects on pedestrian amenity at the intersection with Cuba Street are assessed as Negligible.
201. **Very low permanent adverse effects on the built form of the two corner heritage buildings** at the Cuba and Vivian Street intersection, resulting from verandah trimming along their Vivian Street frontages back from the Cuba Street corner, taking into account the proposed reinstated heritage verandahs that once complete will not permanently alter the overall appearance and character of these buildings and the ways they contribute positively to the urban form at this important junction in the central city, other than the c.380mm reduction in width to 195 Cuba Street (that houses Kisa restaurant) and 270mm reduction to the greater

width verandah of the Morgan's Building at 199 Cuba Street (that houses Ombra) as indicated in the cross-section in the architectural drawings (reference), with the reinstated / modified verandahs to both buildings remaining over 2.5m in width and unaffected at the prominent street corners where their qualities are most appreciated.

202. **Very low adverse effects on streetscape amenity or urban form** elsewhere along both sides of Vivian Street east of the Cuba Street intersection, through to Cambridge Terrace, in terms of the reduced levels of pedestrian comfort from the localised and small amount of footpath narrowing of kerb build outs and footpath extensions to enable three continuous traffic lanes along Vivian Street, and the resulting reduction in pedestrian comfort from the increase in proximity of moving vehicles to people on the footpath along both sides of the street, as well as adverse effects on building form and appearance as well as pedestrian comfort, from the trimming back or removal of building canopies and verandahs.
203. **Very low effects on streetscape amenity, and no adverse effects on the urban form**, on the western stretch of Vivian Street between Willis Street and Cuba Street, from the changes to Willis Street intersection, small amount of footpath narrowing of kerb buildouts and footpath extensions at Victoria Street West and elsewhere to enable three continuous traffic lanes along Vivian Street, and the resultant reduction in pedestrian comfort from more vehicles moving close to the kerb. There is no requirement to modify or remove building canopies within this section, with the potential for adverse urban form effects avoided.
204. The Project avoids any permanent adverse visual effects on the Taranaki Street sightline to the harbour protected under the District Plan, as the permanent works across this intersection relate only to surface works on the carriageway that will not alter the view north down Taranaki Street towards the waterfront.



**Figure 7 – VP3 Visual Simulation showing the changes to the intersection of Vivian and Cuba Streets**

## Basin Reserve

205. **Low to Moderate adverse urban form and streetscape amenity effects** from the loss of most of the existing open space at Bogart's Corner where Kent Terrace turns into Buckle Street around the Basin Reserve. The adverse effects are assessed not due to the loss of the existing landscape space itself, understood from an urban form perspective as a temporary response to the demolition of the buildings that once defined this corner, and offering little landscape amenity value, but due to the permanent encroachment of the state highway lanes into the urban block at this corner. This change "cements" the erosion and weakening of the built form spatial definition around this quadrant of the Basin Reserve that already occurred when the designation was previously enlarged, properties acquired and buildings demolished. This area is however fully within the existing NZTA designation, and the greatest adverse change has already occurred. In this context the additional changes that result from the change in road layout geometry to more tightly turn around the corner from Kent Terrace and expansion from three to five traffic lanes, and to an extent further increasing the dominance of

vehicular through movement over the adjacent public realm of the footpath environs around the bend, are assessed as Low to Moderate.

206. **Very Low landscape effects** from the removal of the protected English elm tree at the intersection of Dufferin and Paterson Streets. This tree, while mature and reasonably large in scale, is in a location somewhat incidental to the form and layout of the area and offers little amenity to people within the public realm or adjacent property and as such is not considered to make a high contribution to the landscape character of the street environment in the vicinity of the Basin Reserve.
207. **Moderate - High permanent adverse urban form effects** arising from the designation widening, and demolition of existing two storey nineteenth century commercial building at corner of Adelaide Road and Rugby Street, as well as the adjoining building between this and the McDonalds restaurant although the majority of this site will be available for redevelopment with only a narrow portion of frontage required for the Project. The demolition is required to facilitate intersection reconfiguration to enable a dedicated right turn lane from Adelaide Road towards the school zone at Dufferin Street, as well as two left turning lanes to head north on Sussex Street. The moderate-high permanent adverse urban form effects result from the permanent loss of built form defining and activating the southwestern corner of the intersection, and changes to the street geometry and alignment of the western side of Adelaide Road disrupting the continuity and coherence of the historic pattern and scale of the street and block structure at this landmark junction in the urban fabric of the city.
208. This loss of built form spatial definition on one corner is offset to some degree by the changes in kerblines around the intersection as a whole that increase the streetscape spatial definition of the intersection, particularly on the opposite eastern side where a large build out results from the change to one-way access and removal of the existing double left turn lanes into Adelaide Road. This change enables a simplified and shorter single-stage crossing and results in a more compact and tighter “squared up” intersection than exists currently. The reconfigured bus stop arrangement also has positive streetscape amenity effects through the widening of the footpath to this side that also help to offset the adverse effects to the other side of the intersection.



**Figure 8 – VP8 Visual Simulation showing the changes to the intersection of Adelaide Road and Rugby Street**

209. **High permanent adverse urban form effects** arising from the corridor widening through the wholesale acquisition of all properties lining the existing block of Sussex Street between Rugby Street and Buckle Street opposite the Basin Reserve. The geometry of the permanently widened corridor supporting the on-ramp to the Arras Tunnel permanently disrupts and erodes the historic pattern and scale of the street and block structure to this western side of the Basin Reserve. The depth of residual land will only allow for future redevelopment to define and activate this street edge to a limited area of residual land in the centre of the block with the residual land to the north end of the block being too shallow to

support redevelopment. In combination with the lack of built form definition to the southern end of the street, due to the allocation of residual land to the Wellington Seventh-day Adventist Church to continue to provide for surface carparking and site access, this results in permanent adverse effects on the urban form of this part of the city, with a lack of spatial definition and activation of the street edge as anticipated by the City Centre Zone of the District Plan. Together these outcomes result in the road infrastructure becoming the dominant element over the urban block and built form. The area of residual land identified as being able to be redeveloped also has challenges in terms of the size and shape factor for redevelopment that is able to achieve functional access from the right-of-way access in and out of Tasman Street. The opportunities to further mitigate these adverse urban form effects without greater property amalgamation and comprehensive redevelopment (beyond the scope of the Project) are very limited.

210. **Low permanent adverse visual effects** from the corridor widening, taking into account the visual mitigation of proposed planting and landscape treatments of areas of residual land that are not suitable for urban redevelopment, that will to some degree at least screen and soften the exposed rear boundary conditions of adjoining Tasman Street properties.
211. The Project **avoids the potential for adverse urban form, landscape and visual effects** to the Basin Reserve side of Sussex Street, with the new southbound single traffic lane that wraps around behind the R.A Vance Stand from Buckle Street representing a reversal in direction of the existing road link and realigned to provide a tighter turn around into Sussex Street to maximise the extent of additional public space created in front of the Basin Reserve. Along Sussex Street this slip lane is compact and contained in footprint, accommodated between the underpass retaining wall and footpath, with the traffic lane merge with Sussex Street spatially integrated with areas of low groundcover mass planting that contribute to street greening and visual amenity. This layout provides a spatial structure that delineates and separates a street edge zone from the through traffic lanes in the centre of the street grading down to the underpass.
212. These changes to the Sussex Street environment overall will enhance street edge amenity on the eastern Basin Reserve side of the corridor, through the creation of a boulevard-style buffering and separation of local access and the pedestrian environment from the multi-lane highway environment in the centre of the street. This represents an improvement on the existing pedestrian amenity for people who walk on the footpath around this edge of the Basin Reserve, and no permanent adverse effects are identified.
213. In regard to the existing section of Sussex Street, the creation of the underpass itself and the lowering of the centre of Sussex Street to enable 4 lanes of north and south traffic to pass underneath the SH1 traffic leading into the Arras Tunnel does not result in additional adverse urban form, landscape or visual effects beyond those identified at the street edges, noting the straight alignment and levels that logically fit in with the existing street corridor, and the low sensitivity to change given the existing traffic-dominated character and low streetscape amenity of Sussex Street and the strong cues within the design that manage the potential for CPTED issues stemming from unwanted pedestrian activity into areas that are not safe or well-overlooked.
214. **Low to Moderate permanent adverse urban form and visual effects** from the creation of the underpass and road link through to Cambridge Terrace, taking into account the mitigation of the wide land bridge and green space extension that significantly reduces impacts, and the eventual redevelopment of residual land between the Sussex Street extension and Barker Street. The land bridge and anticipated future built form on the residual land together work to

contain the scale and form of the permanent void created in the urban form, with the appreciation of these adverse urban void effects greatest from Cambridge Terrace.

215. **Low to Moderate permanent adverse urban form and amenity effects** on the residual land itself, taking into account the large size and shape factor of residual land that will readily enable redevelopment addressing Cambridge Terrace and with access provided off Barker Street. Adverse effects result from the low amenity offered by the street extension at street level along the southern boundary with this re-developable land. These include adverse visual effects of looking into the underpass and across to the concrete wall of the land bridge, particularly from the ground floor of any future development, as well as the general traffic-dominated character and low pedestrian amenity of this new street environment. To some degree, this is offset by the attractive outlook down onto the green space of the land bridge and open space extension through to Cambridge Terrace for any future multi-storey development on this site taking advantage of the 42.5m building height enabled by the District Plan. The risk that future development may “turn its back” on what is also a southern side boundary, at least at the lower levels that will not benefit from the outlook over the park extension, has been reduced to some degree through the provision of a continuous footpath to the site’s street frontage connecting with a flight of stairs linking to Pukeahu and Tory Street. Overall, there remains a risk of permanent adverse urban form effects and low amenity outcomes from future redevelopment in response to the amenity of this street edge environment.
216. **Low CPTED risks** with the street environment of the Sussex Street extension between Cambridge Terrace and the underpass, taking into account mitigation measures incorporated into the design and the increase in passive surveillance and potentially street activation once a building/s are constructed on the adjacent residual land. This area was identified as having the potential for high CPTED risk, raising the prospect of attracting crime and anti-social activity if it resulted in an isolated dead-end that was publicly accessible, poorly overlooked and lacked a through connection for pedestrian movement. These risks have been significantly reduced through design measures that include the provision of a set of steps and continuous footpath around the northern side of street extension, connecting this new link with Pukeahu and providing a new route for people walking between Pukeahu and Cambridge Terrace, helping to promote use of this footpath as part of the wider pedestrian network and providing a natural reason for people walking through this street environment that provide “eyes on the street”. The Project has also ensured that the adjacent residual land has preserved a large site with significant development potential that can once developed provide passive surveillance, and potentially street activation, over this street environment, which would further reduce the CPTED risk.



**Figure 9 - Extract from VP4 Visual Simulation showing the street environment leading into the underpass from Cambridge Terrace, indicative massing of future development on residual land to the right, and the footpath and pedestrian stair link up to Pukeahu and the land bridge that has been incorporated to address CPTED risks, increase local pedestrian connectivity and improve the streetscape amenity for future development on the adjoining residual land**

217. The Project **avoids permanent adverse urban form, landscape or visual effects** and creates a number of positive effects on the urban form and landscape and visual amenity values at the termination of Cambridge Terrace with the Basin Reserve at Buckle Street. Beyond the line of Cambridge Terrace, the spatial moves of the Project through the green space extension, additional public space outside the north gate of the Basin Reserve, and alignment and treatment of crossings both east-west across the Canal Reserve and north-south between the north gate of Basin Reserve and the Canal Reserve, will enhance the east-west connectivity and the spatial urban form integration to this northwestern quadrant of the Basin Reserve.
218. The positive effects of these changes more than offsets the adverse effects arising from the redirection of the northbound SH1 traffic to this north side of the Basin Reserve, including the need to wait at signals to cross three lanes of SH1 traffic moving between the Basin Reserve and the Canal Reserve and overall the Project is assessed to result in **no permanent adverse urban form, landscape or visual effects and a number of positive effects** being identified at this important coming together moment in the urban form spatial composition and connectivity of the city.
219. **Low to Moderate permanent adverse urban form and visual effects** on the Canal Reserve and southern end of Kent Terrace, associated with the sweeping traffic lane incursions cutting across the central Canal Reserve to create the southbound road link between Kent Terrace and the new Sussex Street extension bypass route, as well as the angled alignment of the SH1 southbound traffic lanes on Kent Terrace through to the signalised crossing at the Basin Reserve. These changes further erode the orthogonal street grid geometry at the significant termination point with the Basin Reserve. These changes to the road layout in combination create permanent adverse urban form and streetscape amenity effects, affecting all of the central and western side of the boulevard (Canal Reserve and Kent Terrace) for the southernmost stretch between Barker Street and the east-west signalised crossing that marks the termination of the boulevard and transition to the Basin Reserve.

220. **Low to Moderate landscape effects** within the Canal Reserve itself, in terms of loss of open space to create the new road crossing, and associated tree removal and canopy works required to accommodate the vehicle link cutting across the reserve. These effects include the need to remove the large and spreading mature pohutukawa tree within the Canal Reserve at the new junction with the Sussex Street extension, as well as two golden elm trees within the existing triangular termination of the Canal Reserve to the immediate north of the Basin Reserve. The existing trees are mature specimens that afford some landscape value, being part of a consistent row of mixed golden elm and pohutukawa specimens in the sections of Canal Reserve through to Vivian Street, and making a contribution to the treed character and cohesiveness of the southernmost stretch of Canal Reserve.
221. These effects are mitigated by the enlargement of the central open space of the Canal Reserve, including provision for replacement tree planting, enabled by the Project on the western Cambridge Terrace side in particular, for the street blocks to the south of the new intersection that forms the termination of the Canal Reserve at the junction with the Basin Reserve. The replacement trees, while in species selection supporting a conscious evolution in the landscape character in support of the cultural landscape opportunities identified by mana whenua, will in time grow to have a scale and presence that will restore a treed character to this stretch of the Canal Reserve that will feel closely integrated and cohesive in character with Pukeahu and the enhanced spaces created outside the northern side of the cricket ground, enhancing the integration between the Canal Reserve, Pukeahu and the Basin Reserve.
222. Further explanation and assessment of areas or aspects of this section of the Project where adverse urban form, landscape or visual effects are identified is set out below.

#### **Adverse effects of the proposed underpass on the existing section of Sussex Street Extension**

223. From within the existing stretch of Sussex Street between Rugby and Buckle Streets, the orientation of the underpass and the containment and buffering afforded by the proposed mass planted embankment and shoulder areas ensures the grade-separated infrastructure is logically integrated into its surroundings and while a noticeably different, wider and more complex road infrastructure arrangement, the sensitivity to this visual change in this context is low.
224. Seeing down into the underpass environment from the footpath edges, adjoining property including the Basin Reserve and from more elevated viewing opportunities beyond the immediate street corridor, is not sensitive taking into account the traffic-dominated character and low amenity of the existing streetscape to this side of the Basin Reserve. From these locations, where there is a view through to the underpass, there will generally be the ability to “see through and out the other side” of the underpass enabling legibility of where the route leads, but also the clear design cues that the underpass is not accessible for pedestrians, enforced by the retaining walls and planted areas that physically separate the underpass route from the accessible street edges. These design cues are important to also manage the potential CPTED risks of this environment, sending clear signals from within the existing Sussex Street environment that the underpass and its approach lanes are out of bounds for pedestrians.
225. As such, the permanent adverse effects on the existing section of Sussex Street are limited to the adverse effects of the corridor widening on urban form of the block of land to the west. These adverse effects, like at Adelaide Road, are not about the loss of the existing buildings per se, which in this case have little urban design merit, but of the permanent change that will mean there will be very little built form definition to this street edge in future, effectively erasing the built form definition to a whole street edge facing the Basin Reserve.

The changes that contribute to these adverse effects, which are assessed as High, are the permanently widened road corridor to accommodate the new local road on-ramp to the Arras Tunnel, the permanent loss of built form definition to both the Rugby and Buckle Street corners and a considerable length of the western edge of Sussex Street, and the associated positive activation and surveillance effects which having buildings directly fronting the street affords a central city street environment.

226. This change is somewhat lessened when taking into account the scale of development and level of positive overlooking onto this street that can occur from the consented One Tasman apartment building redevelopment by Willis Bond of the existing apartment building complex on the corner of Tasman and Buckle Streets, that will become an adjoining property and overlook the landscape mitigation treatment on the narrow remnant of residual land at this end of the Sussex Street widened corridor, as depicted in VP7 visual simulation.



**Figure 10 – VP7 Visual Simulation showing the changes to the built form and streetscape on Sussex Street including the partial potential redevelopment of residual land**

#### **Adverse effects of the proposed underpass and Sussex Street Extension through to Cambridge Terrace**

227. The proposal incorporates a land bridge that extends to the full width of the Pukeahu National War Memorial Park, and continues as a ramped open space embankment through to Cambridge Terrace, reinstating and extending the amount of green space amenity and resolving the current abrupt termination of this nationally significant green space as it comes down to meet the area to the north of the Basin Reserve. The Project also proposes the relocation of the heritage creche building straddling the underpass structure within a location of the reinstated and extended green space where it will continue to play an anchor role. These moves greatly reduce the extent of permanent adverse urban form, landscape and visual effects associated with the grade-separated road infrastructure of the underpass and the changes it incurs on the physical and visual relationships and connections between Pukeahu, the Basin Reserve and Kent and Cambridge.



**Figure 11 – VP4 Visual Simulation showing the extended green space of the land bridge that links Pukeahu with Cambridge Terrace in front of the Basin Reserve, enhancing the spatial composition and physical and visual relationships between Pukeahu, the Basin Reserve and Kent and Cambridge Terraces and limiting the incursion of the underpass and street extension into this sensitive urban context**

228. The alignment of the two SH1 traffic lanes leading into the tunnel, which vertically is very closely tied to the existing topography and levels, and horizontally, has been aligned to the city grid in a way that together with the green space extension to Cambridge Terrace desirably reinforces and strengthens an orthogonal spatial form to this quadrant of the Basin Reserve that currently has been highly eroded and suffers from a void of either built form or landscape space that provides strong spatial definition to this corner.
229. Mitigating factors include the additional area of open space created outside the North Gate, the enhanced east-west walking and cycling connections across Kent and Cambridge Terraces, expanded open space to the southernmost block of the Canal Reserve, as well as the location, width and design of the new north-south active mode crossings across the SH1 lanes, which while introducing a requirement for a new signalised crossing, does so in a way that positively reinforces a formal composition and street geometry between the Basin Reserve and the Canal Reserve. These measures help reduce the adverse effects of re-routing the northbound SH1 travel lanes across the northern edge of the Basin Reserve and that otherwise potentially risk increasing the severance and isolation of the principal entry into the Basin Reserve and detracting from the spatial and visual connections between the cricket ground and Kent and Cambridge Terraces.



**Figure 12 – VP4 Visual Simulation showing the extended plaza space outside the north gate of the Basin Reserve, the proposed SH1 northbound lanes leading into the Arras Tunnel and the redeveloped and extended green space linking Pukeahu with Cambridge Terrace over the top of the Sussex Street underpass**

## Mount Victoria Tunnel

### Western Mount Victoria Portals and Paterson Street

230. Permanent adverse urban form, landscape or visual effects associated with this section of the Project include:
  - i. **Avoids permanent adverse effects on urban form or visual amenity** in relation to the St Joseph's Church block or the intersection of Brougham and Paterson Street

- ii. **Low permanent adverse effects** on urban form or visual amenity from the duplicate new tunnel portal and widened SH1 corridor / approach lanes once construction is complete, due to the orthogonal geometry that ties in with both the Mount Victoria street grid and alignment of the existing tunnel, and relatively contained width and low elevation of the widened state highway corridor to accommodate approach to new tunnel portal
  - iii. **Low adverse urban form and amenity effects** on the southern edge of the Mount Victoria neighbourhood resulting from the residual land to the widened state highway corridor and permanent erosion/weakening of a coherent pattern of built form spatial definition to the southern edge of Mount Victoria neighbourhood and addressing the reconstructed Paterson Street
  - iv. **Very Low adverse visual effects**, and avoids the potential for adverse urban form effects, from the new tunnel control building and associated hardstand area to be located above the new tunnel portal, with no adverse effects from the tank storage infrastructure that are to be buried underneath the highway
  - v. **Avoids permanent adverse urban form and visual amenity effects** through reinstatement of access to Wellington Girl's College and associated landscape reinstatement and mitigation areas atop tunnel portals
  - vi. **Very Low adverse visual effects** from more middle- and long-distance views from areas to the west including around the Basin Reserve, from the Pukeahu National War Memorial Park, and from elevated locations within tall buildings of the central city and from the hill suburbs of Mount Cook, Highbury and Kelburn
231. Further explanation and assessment of areas or aspects of this section of the Project where adverse urban form, landscape or visual effects are identified is set out below.

#### **New tunnel portal, Paterson Street retaining wall and widened SH1 southbound carriageway**

232. The new tunnel portal is located immediately to the north of the existing tunnel portal, completed in 1931. The elevation of the new tunnel portal is comparable to the existing tunnel portal, sitting below the level of the reinstated road access to Wellington East Girls' College above. The widened corridor accommodating the twin tunnel portals will, in a similar way to that of the existing narrower corridor and single tunnel portal, continue to be well defined and visually contained, set below the high retaining wall to a reinstated Paterson Street, and with the permanently visible front face of the new tunnel portal sitting side by side with the existing portal and below the rising elevation of the Girls' College and Austin Terrace up to the edge of the Town Belt, as depicted in the VP9 visual simulation. These factors, along with the curving approach road and existing built form around Ellice and Brougham Streets, contribute to it feeling hidden and "tucked away" from the Basin Reserve, and in medium and long-distance viewing opportunities to the west looking back to Mount Victoria and the Town Belt.



**Figure 13 - VP9 Visual Simulation showing the alignment of the widened corridor and twin tunnel portals, retaining wall, and above the wall to the left, the reinstated Paterson Street, relocated heritage buildings and area of residual land with future development potential**

233. Like the existing tunnel, the alignment of the new duplicate tunnel, positioned immediately to the north of the existing tunnel, takes the same orthogonal alignment through to Brougham Street which works in with and stays parallel with Patterson Street and the wider historical street grid of Mount Victoria. Paterson Street, even prior to the construction of the existing

Mount Victoria Tunnel in 1931, has always historically marked a clearly defined southern boundary to the residential neighbourhood. Paterson Street was only ever a “one-sided street” with residential properties lining its northern side, beyond which lie the cluster of schools and Government House land that separate the area from the Newtown Valley. The location and geometry of the proposed second tunnel and widened SH1 corridor is able to be accommodated while respecting and integrating with these basic characteristics of the area’s urban form.

234. The potential for adverse effects is further reduced through the proposal to reconstruct Paterson Street as a single lane, one-way access road, with footpath, that will continue to form a recognisable street edge as the southern boundary to the Mount Victoria neighbourhood rising above the SH1 corridor in a way that is comparable and retains the same characteristics as the area has currently.
235. The proposed concrete retaining wall has been designed to work in with the natural sloping topography of Mount Victoria. The wall design minimises the total width and intrusion of the physically widened state highway corridor into the Paterson Street environs, and it’s near vertical slope and concrete materiality is appropriate to this inner city context as well as enabling a high quality material treatment with an appearance and finishes that reflect this will be a large scale, visually prominent wall at a gateway moment coming and going from the central city.
236. In summary, a number of these aspects of the Project are mitigating factors that contribute to the assessment conclusion that permanent adverse landscape, visual and urban form effects directly associated with the new tunnel portal and widened SH1 corridor are Low. In summary, these mitigating factors that contribute to permanent effects being no greater than Low are:
  - i. The relatively compact (not land hungry) corridor widening to accommodate the approach to the new tunnel portal
  - ii. The orthogonal alignment that runs parallel with both the existing tunnel portal and approach and Paterson Street which represents the southern edge of Mount Victoria and reflects the historical street grid alignment of that suburb
  - iii. The low elevation of the new tunnel, similar to the existing tunnel, relative to the rising topography of the areas to either side of the tunnel
  - iv. The alignment of the tunnel entrance to be positioned side by side with that of the existing tunnel, such that they will read in the urban landscape as twin tunnels and a singular cohesive (widened) transport corridor
  - v. The geometry and design of the new Paterson Street concrete retaining wall, which while higher in maximum height than the existing wall, has been designed to be a singular, angled plane, that reinforces the natural grade of Mount Victoria and at a near to vertical wall slope maximises land above the wall to mitigate effects. The retaining wall is proposed with quality finishes in recognition that this is within a highly visible and prominent urban context
  - vi. The realigned and reconstructed Paterson Street edge above which, while shifting position to enable the widened highway, retains the existing fundamental urban form characteristics of a one-sided narrow street edge condition above a high retaining wall, that have been in place since the modifications of the existing Mount Victoria Tunnel in the 1930s
  - vii. To some extent, the ability for future built form along the northern side of the reconstructed Paterson Street to further visually contain the extent of the widened SH1 corridor, through both relocated heritage buildings and enabled redevelopment of residual land
237. These qualities of the Project help to contain and limit the physical and visual footprint of the highway infrastructure “intrusion” into the historic urban form and grain of the area and rather reinforcing it as a compact and narrow incision within that urban fabric. While wider than the

existing corridor, the duplicate tunnel and widened corridor essentially still “slots” into the hillside in a relatively low key and low impact way that avoids the potential for high permanent adverse effects from an infrastructure-dominated edge to Mount Victoria or intruding into the setting of the Basin Reserve.

### **Visual effects from the west**

238. The modification to the urban form resulting from the expanded highway infrastructure will be visible in more middle and distant views from the west back to Mount Victoria and the Town Belt.
239. The widened SH1 corridor that leads to and from the expanded twin tunnel portals, high retaining wall, realigned and narrowed Paterson Street and the residual land along its northern edge will be visible in some more distant viewing opportunities from the west, in and around Pukeahu Memorial Park, from within tall buildings within the southern part of Te Aro, and from elevated hillside locations in Mount Cook, Highbury and Kelburn.
240. The nature and degree of permanent visual effects from middle- and long-distance viewing opportunities to the west will be most strongly influenced by the outcomes on the residual land along Paterson Street, which is more elevated and visually prominent than the recessed highway corridor leading in and out of the twin tunnel portals. The relocated heritage buildings, including 140 Austin Street, will continue to be visible in some views, and this reduces the degree of change to the existing landscape character.
241. Areas where there will be discernible visible changes in views include:
  - i. From Sussex Street, looking across the Basin Reserve between the Museum Stand and the R.A. Vance Stand, where the widened SH1 corridor and twin tunnel portals, realigned Paterson Street and residual land at the southern edge of Mount Victoria neighbourhood will be clearly seen on the lower to mid slopes. Adverse visual effects from this location are assessed as Very Low
  - ii. From parts of Pukeahu with elevated views to the east, particularly the central and northeastern parts of the park to either side of the intersection of Martin Square and Tory Street, and from the upper slopes of the redeveloped and extended green space (proposed land bridge) that connects down to Cambridge Terrace. Visual change from these parts of the park will be limited, but with an appreciation of the widened highway corridor, and potentially, the new tunnel portal, possible from points within the park, as well as the partial views of the reinstated Paterson Street and residual land, seen rising above intervening development on Ellice and Brougham Streets that limits the extent of visible change. Once relocated and new buildings are in place on residual land the extent of visible highway infrastructure will further reduce and the adverse visual effects associated with seeing the cleared land at the edge of the Mount Victoria neighbourhood will also dissipate to the extent there will be very little if any change to the overall visual character of views towards the Town Belt from the Park. Closer to Buckle Street, and from the spaces below the Carillion, visibility is shielded by the densely vegetated knoll and intervening development between Tasman Street and the Basin Reserve. These features also restrict visibility from locations further west within the park through to Taranaki Street. Permanent adverse visual effects from Pukeahu are assessed as Very Low
  - iii. Views from more distant and elevated viewing audiences, such as from within tall buildings within Te Aro and the wider central city, and in views to the east from the elevated dress circle hill suburbs of Mount Cook, Brooklyn, Highbury and Kelburn. From these elevated locations, the change in view will generally be a small part of wide panoramic views and at such a distance that the change will be benign and not incur adverse visual effects



**Figure 14 - Existing view from Sussex Street towards the Mount Victoria Tunnel and Paterson Street, looking over the Basin Reserve between the Museum Stand and R.A. Vance Stand**



**Figure 15 - VP6 Visual Simulation from the eastern end of Pukeahu War Memorial Park, looking east towards Mount Victoria and the Town Belt, with the widened SH1 corridor and modified Paterson Street edge to accommodate the duplicate Mount Victoria Tunnel only partially visible in the distance to the right**

242. This part of the Project will not result in more than momentary glimpses of visual change for public viewing audiences moving around the north side of the Basin Reserve and at the southern end of Kent and Cambridge Terraces, due to the intervening vegetation within the Canal Reserve and around the edges of the Basin Reserve, and intervening built form at Ellice and Brougham Streets including the St Joseph's Church, that makes for very limited viewing opportunities of the widened and redeveloped highway corridor approaching the tunnel portals from these street locations.
243. Overall, any permanent adverse visual effects from these more distant viewing locations are assessed as Very Low, with the extent of visible change in most instances being considered benign, with no discernible change to the overall urban form and landscape character.

### Effects Summary

244. Overall, taking into account these mitigating factors, I consider that the adverse landscape, visual and urban form effects of the western tunnel portal and approach lanes, and

reconstructed Paterson Street, including the adverse urban form and amenity effects of permanent residual land, are Low.

#### Eastern Mount Victoria Portals and Taurima Street

245. **High adverse landscape effects** in and around the Town Belt from the construction of the new tunnel portal to the immediate north of the existing tunnel portal and associated re-configured levels and access with Taurima Street.
246. **High adverse visual effects** of the permanently visible changes from the cut faces to the north side of the new tunnel portal upon completion of the Project, **reducing to Low to Moderate** in the long term (10 years plus) taking into account the anticipated revegetation and greening from proposed landscape mitigation measures to areas above and beside the northern retaining wall and east-facing tunnel portal. The nature of visual effects will vary with viewing distance and intervening features, with the greatest adverse visual effects being experienced where the greatest extent of permanently visible modified and exposed cut faces and hill slopes are seen. Generally, this will range from High for up close viewing audiences travelling on the state highway to moderate where visible from the local centre and from the more distant but elevated residential streets of Hataitai with views of this part of the Town Belt.
247. **Very Low permanent adverse landscape and visual effects** from the creation of a new tunnel control plant building and associated yard and operational access on Taurima Street on Town Belt land, taking into account proposed revegetation of areas of Town Belt land cleared for construction purposes that will in time ensure low visibility and adverse effects on the vegetated character of the hillslopes in this part of the Town Belt.
248. The Project **avoids any adverse urban form or visual effects from the proposal to replace the Hataitai Park pedestrian bridge**, with the options for a new design not resulting in any adverse effects and the pathway integration both to the Park and with Taurima and Ruahine Streets ensuring there is no reduction in connectivity for people accessing the park facilities and Town Belt and the benefits the bridge provides in addressing the severance caused by the state highway traffic on a sharp bend in and out of the tunnels.
249. Further explanation and assessment of areas or aspects of this section of the Project where adverse urban form, landscape or visual effects are identified is set out below.

#### Mount Victoria Duplicate Tunnel Eastern Portal and Taurima Street

250. The eastern portal of the duplicate tunnel emerges from the Town Belt at a higher elevation to the existing tunnel and pushing into a section of steep landform. The Project has sought to contain the footprint of the designation to avoid the need to acquire additional residential properties on Hinau and Waitoa Road. This results in steep and high cut faces, benching and retaining up to 30m high above the traffic lanes emerging from the new tunnel.
251. The physically affected area includes the part of the Town Belt above the proposed and existing tunnel portal through to the location of the existing substation, as well as the flank of Town Belt land to the north of the existing tunnel portal that extends to the east approximately halfway along Taurima Street, and containing the site of the Hataitai Kindergarten. The works require the temporary removal of the existing public access path into the Town Belt from Taurima Street, but this is reinstated within the proposed revegetation areas above the cut slopes following construction of the new tunnel portal.



**Figure 16 - VP10 Visual Simulation showing the duplicate tunnel portal, retaining walls and extent of cut slope modification and landscape mitigation works above and to the north of the duplicate tunnel portal**

252. The required earthworks, vegetation clearance and cut face / retaining wall treatments will result in High adverse landscape and visual effects on the localised part of the Town Belt in this location. The greatest extent of permanent (operational) effects relate to the up to 30m vertical height retaining walls and benched cut faces to the hill slopes to the immediate north of the new tunnel, with other areas required to be cleared or regraded as part of construction activity to be revegetated, and reducing the level of landscape and visual effects over time. Retaining walls will be near vertical up to 12.5m high, integrated with the design of the tunnel portal walls.
253. A number of mitigation measures are proposed that will further assist with reducing the level of permanent adverse landscape and visual effects at this portal location, as shown on the indicative landscape plans and depicted in the VP10 visual simulation. These include:
  - i. Scale and form of the retaining wall at the base of the cut face to be near vertical to a height and form that integrates closely with the tunnel portal architecture
  - ii. The proposed material finishes and visual appearance of this retaining wall, that will be the most visible element viewed up close by people travelling on the state highway itself, including active mode users passing the base of the wall in and out of the active mode pathway connection through the new tunnel
  - iii. Above the retaining walls, steeply battered and benched cut slopes are proposed to be hydroseeded with grass and plants into protective matting where slope design allows and shotcrete where this is not possible. Slope design has been undertaken to grade back and tie into existing levels with native revegetation to the upper more gently sloping areas, which will tie in with the vegetated character at the top of the spur through to the interface with adjoining residential properties to the north
  - iv. Continuation of mass native revegetation areas covering the lower affected slopes grading down Taurima Street and wrapping around the rear of the proposed replacement public toilet block and tunnel control building. This planting will reduce visibility of permanently exposed cut faces and increase the visual enclosure of the tunnel portal and immediate northern cut in views from the local centre and residential parts of Hataitai to the east
254. Further indicative details of proposed landscape mitigation treatments of cut slopes above and beside the new tunnel portal, including reference photographs of comparable treatments from other projects, are indicated in Figure 17 below.



**Figure 17 - Information sheet outlining the indicative landscape mitigation of cut slopes and retaining walls associated with the proposed eastern portal of the duplicate Mount Victoria Tunnel**

#### **Visual Effects of Cut Slopes around Eastern Tunnel Portal on Middle Distance Viewing Opportunities**

255. While the vertical height at c.30m is considerable, the area is somewhat visually contained which makes for relatively localised up-close viewing opportunities, with the primary viewing audience, where visual effects are greatest, being largely people using the state highway and Taurima Street.
256. The earthworks, vegetation clearance and engineered retaining to the large cut face associated with the new tunnel portal will result in visual effects seen from within parts of the local centre of Hataitai. The extent of public street-based views from within the Hataitai local centre towards the widened SH1 corridor will remain limited as they do today, due to the centre being primarily located north of Taurima Street and the cut into hill slope is not sufficient, once construction effects have subsided and areas of revegetation on the hill slopes established, to “permanently expose” the cut faces and tunnel portal to the local centre beyond the existing defined view from the intersection of Taurima Street and Moxham Avenue.
257. At the junction of Moxham Avenue and Taurima Street, the Project will result in a widening of the visual opening to the expanded duplicate tunnel portal, reducing the green enclosure from the trees that currently shield the local centre from the busy traffic coming and going from the existing tunnel. The duplicate tunnel portal and associated cut faces and retaining walls, and the sweeping arc of the elevated traffic lanes emerging from the tunnel to join Ruahine Street will be more readily visible and, to some degree, prominent in views from this location. These visual effects will also reduce over time as replacement planting re-establishes itself, but the increased visibility of the state highway from the local centre at this junction will be permanent.



**Figure 18 - Existing view within the local centre looking down Taurima Street towards the Mount Victoria Tunnel and Town Belt from the junction with Moxham Avenue**

258. Further into the local centre, in and around the roundabout junction of Waitoa Road, Hamilton Road and Moxham Avenue, the visual change will be most closely associated with the upper tier of vegetation removal around the top of the cut face and above the new and existing tunnel portal, which forms part of the immediate green backdrop to the local centre, contiguous with the wider Town Belt.



**Figure 19 - Existing view towards the vegetated hill slopes of the Town Belt above the existing Mount Victoria Tunnel portal, within the local centre at the roundabout of Moxham Avenue, Waitoa Road and Hataitai Road**

259. Beyond the local centre, there will be visual effects to some private residential viewing audiences on the more elevated west facing slopes of Hataitai around the junction of Overtoun Terrace, Matai Road and the top of Waitoa Road, which enjoy views east to this part of the Town Belt. These viewing audiences are however at some distance and the extent to which the disturbed area of hillside around the new tunnel portal is seen will only be a small part of the expansive views. The prominence of the widened and duplicated twin tunnel portal itself, while greater than the existing tunnel portal due to its increased width, is at or close to the elevation of the existing tunnel portal, which is low lying and well below the line of residential development on the hill slopes to the northern side of the portal. Permanent visual effects for all viewing audiences will lessen over time as revegetation reduces the extent of disturbed hillside that is noticeable in these views.



**Figure 20 - Existing view from intersection of Waitoa Road and Matai Road, Hataitai looking west towards the Mount Victoria Tunnel portal and Town Belt**

260. The adverse visual effects of the cut faces and retaining are therefore primarily restricted to that viewing audience, and elevated properties on Taurima and Ruahine Streets, or more elevated (but distant) Hataitai locations.
261. It is not the duplicate tunnel portal itself, but rather the extent of permanently modified and exposed hill slopes above and most notably to the north of the duplicate tunnel portal that results in adverse visual effects from these local centre and residential viewing audiences within Hataitai. Where visible, the exposed cut faces and retaining walls to the northern side of the tunnel portal will result in adverse visual effects, in a way that will for many people be seen and perceived as an ugly intrusion of road infrastructure into the vegetated hillside character of the Town Belt. These adverse operational effects will be greatest at the completion of construction but will diminish over time as the landscape mitigation planting and treatments to exposed cut faces and retaining reduce and benched and vertical planting areas establish.
262. Overall, the permanent (operational) adverse visual effects at the eastern tunnel portal and associated cut faces to northern edge of the widened highway corridor at the duplicate tunnel and Taurima Street are assessed as ranging from High to Moderate upon completion of the

Project, reducing to Moderate to Low in the long term (10 years plus) once the revegetated hill slopes and mitigation planting within the designation corridor are established, reducing the visual prominence of the road infrastructure, cut face and retaining walls.

## Eastern Connections – Ruahine Street, Wellington Road to Evans Bay

263. **High adverse landscape and visual effects** upon completion, **potentially reducing to Moderate in the long term (10 years plus)** from the permanent modification of part of the Town Belt at Hataitai Park to accommodate the new access road and overbridge arrangement and including extensive earthworks, vegetation clearance and road construction across a broad circa 350m long swathe of the Town Belt frontage to Ruahine Street either side of the existing access road. These effects are mitigated to some degree by the areas of proposed native revegetation that will in time visually contain the new access road infrastructure and reduce the dominance of the road access changes on the green open space character of the park frontage.
264. **Moderate adverse visual effects** for properties adjoining the widened state highway corridor between Taurima Street and the proposed new local access road to be established approximately 100m south of Tapiri Street. These properties will be adversely affected by the expanded state highway corridor resulting in busy traffic lanes being more proximate and more elevated, and more visible in their views. Effects will lessen over time, as replacement trees and screen planting makes up for the loss of extensive screening afforded by existing trees within the existing designation, noting that the areas available for planting are closely comparable to the areas of existing vegetation that buffer these properties from the state highway, and that the extensive triangular planted embankment area that accommodates the ramped access to the replacement footbridge will assist with screening views of the highway and new tunnel portal from some of these properties.



**Figure 21 - VP11 Visual Simulation on Ruahine Street south of Tapiri Street, looking north towards the replacement pedestrian overbridge into Hataitai Park**

265. **Low adverse shading effects** on adjoining properties between Taurima and Tapiri Streets as a result of the increase in levels of the highway corridor along the boundary interface with these properties. Additional shadowing is limited to circa 60-90 minutes at all times of year, occurring in the latter part of the day prior to the general hill shadow from the Town Belt extending across the dwellings on these properties. The time period of additional shadowing ranges from mid-afternoon in winter where a short period of additional shadowing is experienced before the hill shade moves across these properties, with additional shading occurring later in the afternoon in spring and autumn, and not until the early evening in summer.
266. **Very low adverse shading effects** on adjoining properties between Tapiri Street and the new local access lane from Moxham Avenue, as a result of the increase in levels of the highway

corridor along the boundary interface with these properties. Additional shadowing is limited to less than an hour at all times of year, occurring in the latter part of the afternoon, and not until the evening in summer, prior to the general hill shadow from the Town Belt extending across the dwellings on these properties.

267. **Low adverse visual effects** for adjoining properties along Ruahine Street between the Moxham Avenue access to the proposed local property access lane and Goa Street, from the expanded state highway corridor, noting that most of these dwellings are built in very close proximity to the existing highway, with no or minimal screening by trees or vegetation, and that in this location the highway widening is to the opposite Town Belt side of the road.
268. **Avoids adverse shading effects** to properties adjoining the local access lane between the new Moxham Avenue link road and Goa Street. While in place the widened highway corridor is raised somewhat in level relative to the existing levels at the boundary interface with these properties, this is not sufficient to result in additional shadowing.
269. **Very low adverse urban form effects** from the removal of four residential properties (126A, 128, 130 and 103A Moxham Avenue) to enable the construction of a new link road to the overbridge connection into the Town Belt.
270. **Low to moderate adverse visual effects** for adjoining properties to the new Town Belt access road between Ruahine Street and Moxham Avenue, which includes the northern boundary and side yard of the Church of the Latter-Day Saints and the long side boundary to the south of 126 Moxham Avenue, which runs the full depth of the block.
271. **Very Low adverse shading effects** to properties between Goa Street and the proposed Hataitai Park access bridge, with a small duration of additional shadowing from the proposed bridge experienced by adjoining properties at the end of the day in the spring equinox, and later in the early evening in summer, with no adverse shading during autumn and winter. There are no adverse shading effects to the western boundaries of these properties from the widened highway corridor due to the proposed levels of the highway lanes, shared path and boundary interface being at approximately the same level as the existing infrastructure along this boundary.
272. **Very low adverse shading effects** to the northern edge of the Church of Jesus Christ of Latter-day Saints property from the proposed Hataitai Park access bridge that grades up along the north-eastern boundary of the church property with a ramped retaining wall extending from existing grade at Moxham Avenue to the required clearance to the SH1 corridor. Adverse effects are avoided in summer and are no more than Very Low at other times of the year, with shading being limited to the first part of the morning in spring and autumn, and longer in winter but only covering a narrow northern end portion of the site. The affected area is between the existing northern end elevation of the church building and the boundary, with shadow during the spring and autumn seasons quickly falling away from the building and hard surfaced carpark area during the early morning period. In Winter, the shadowing continues to affect a small triangular-shaped portion in the northern corner of the Church property through the morning and until around mid-afternoon when general hill shade starts to move across the property. This extent of shadowing affects only a small portion of the site currently utilised for carparking and does not affect the ability for this property to continue to enjoy high levels of direct sunshine and daylight through the day at all times of year. There are no adverse shading effects to the balance of the western boundary of the church property with the widened highway corridor due to the proposed levels of the highway lanes, shared path and boundary interface being at approximately the same level as the existing infrastructure along this boundary, as indicated in section 07 of the set of Ruahine Street cross-sections prepared

to inform understanding of effects on adjoining properties along this section of the project (Annexure D).

273. **Low to Moderate permanent adverse visual effects** for Ruahine Street properties adjoining the highway between the new Town Belt access bridge and around the corner with Wellington Road to Moxham Avenue. Properties along the straight of Ruahine Street will experience the loss of the existing open space buffer and visual screening afforded by the mature pohutukawa trees within the berm and rising embankment around the corner to Wellington Road, which is removed to accommodate the widened corridor. These properties will in future experience the traffic flows from the widened corridor in closer proximity, and with greater visibility than they do at present. Some properties around the corner with Wellington Road will experience the effects of directly adjoining the highway where they are currently buffered by neighbouring properties being acquired and demolished to support the widened corridor on this corner. Residual land around the corner will be able to be planted that will reduce effects on these properties over time, but to the north on the straight section of road between the new park bridge access and the corner, the reinstated landscape strip is much narrower and will not support tree planting, with very limited ability to mitigate visual effects through screen planting at the boundary interface.
274. The Project **avoids adverse shading effects** for adjoining residential properties south of the Church of Jesus Christ of Latter-day Saints through to the Wellington Road corner, due to the levels of the widened highway corridor being no higher than existing and the Town Belt edge cut back further away from these properties to east of corridor, as indicated on cross-section 08.
275. **Low adverse urban form and visual effects** from the loss of nine residential properties to be removed around the corner of Ruahine Street into Wellington Road, and the associated permanent widening of the State Highway corridor into the residential block at this corner. These effects are moderated by the creation of a green space buffer between the widened corridor and the rear of adjoining Moxham Avenue properties.
276. **Moderate landscape and visual effects** from the expanded permanently exposed cut face on the edge of the Town Belt, that will be highly visible from the state highway. The exposed cut, up to 8m high, and extending circa 100m long, between the site of the Badminton Hall and the reconfigured side street intersection with Wellington Road, will be considerably longer and in places higher than the existing exposed cut face. Like the existing cut, the increased length and height of cut will be highly visible for people travelling in both directions along the state highway corridor, as well as for a limited number of neighbouring properties with views across the road environment to the park edge.
277. **Low adverse urban form and visual effects** from the loss of the residential properties to be removed along the southern side of Wellington Road between Kilbirnie Park and the Town Belt, and the associated permanent widening of the State Highway corridor. These effects are moderated by the creation of a broad (typically 18-20m) green space buffer between the widened corridor and the rear of Henry Street properties.



**Figure 22 - VP13 Visual Simulation from intersection of Wellington Road and Hamilton Road, showing the separated local access zone for properties to the northern side of Wellington Road, and to the other side of the SH1 corridor the broad green space buffer between the widened corridor and the rear of Henry Street properties**

278. **Low landscape and visual effects** associated with the corridor widening into Kilbirnie Park, that result from the permanent reduction in the area of open space, and taking into account the relocation of the sports club pavilions and terraced seating areas, elsewhere within the northern end of the Park such that the permanent effect is a small reduction in the area of open space but no permanent adverse visual amenity effects, as well as the construction of a new retaining wall and 1.2m high balustrade at the reconstructed park / footpath interface to Wellington Road.



**Figure 23 - VP14 Visual Simulation from intersection of Wellington Road and Hamilton Road, showing the widened corridor interface with Kilbirnie Park, and local access zone on left for properties on northern side of corridor through to Evans Bay Parade**

279. **Very low natural character effects** associated with the installation of a new replacement, larger stormwater outfall into the foreshore within the CMA at Evans Bay, taking into account the heavily modified nature of the foreshore, the limited length of the outfall into the waters of the bay that will be comparable to that of the existing outfall (at circa 7.0m beyond low tide), and the reinstatement of existing areas of the foreshore reserve that are modified as part of construction works including rock revetment around the pipe below the foreshore pathway.
280. **Negligible adverse urban form, landscape and visual effects** at Cobham Drive from the circa 2.0m road widening and corresponding reduction in the width of the grass berm that forms part of the landscape frontage of St Patrick's College and requiring the removal of one pohutukawa tree.
281. Further explanation and assessment of areas or aspects of this section of the Project where adverse urban form, landscape or visual effects are identified is set out below.

#### **Hataitai Park Road Access**

282. The new expanded road access and overbridge arrangement to the Ruahine Street entrance to Hataitai Park involves extensive earthworks, vegetation clearance and road construction across a broad swathe of the Town Belt frontage to Ruahine Street either side of the existing access road.



**Figure 24 - VP12 Visual Simulation on Ruahine Street looking north to the new overbridge and slip lane access into Hataitai Park**

283. These changes will greatly alter the existing open grassed landscape character of this part of the Park, which will as a result of the Project risk reading no longer as a part of the park environment but as a large incursion of the highway road environment into the Town Belt. The increased vehicle access road links also increase the severance of areas of open space land making a larger area of the park inaccessible and unusable for the public.
284. The effects on people's access and use of the open grassed section of the park are moderated to some degree by this area of the Park having no formal active recreation or park amenities. The amenity of this section of the Park is also low, being currently very exposed to the heavy traffic of the adjoining SH1 corridor. The open grass is also at odds with the generally heavy vegetated character of those parts of the Town Belt not used for active recreation purposes and makes a lesser contribution to the landscape character and amenity values of this part of the Town Belt than vegetated slopes to either side of this area along Ruahine Street.
285. The effects of these changes will be Very High during construction, reducing to High upon completion of the Project and reducing to Moderate in the long term (10 years plus) taking into account the proposed landscape planting that will over time assist to some degree with reducing the visual effects of the expanded access road link. However, the proposed areas of revegetation are not sufficient in area or extent of large-scale tree planting to prevent this area reading as a road environment rather than part of the Park.

## 7. ASSESSMENT OF CONSTRUCTION EFFECTS

286. This section of the assessment addresses the temporary urban form, landscape and visual effects of the Project caused by construction and the extent to which the construction works will have additional effects on urban form, landscape and visual amenity. I have had regard to the extent of areas required to be cleared or modified for construction purposes, the raw appearance of construction sites, temporary elements such as construction yards, lighting, and whether construction might be cumulative on other major works.
287. Disruption is typically associated with occupation of streets, public spaces, public parks and reserves and other publicly accessible thoroughfares such as walking and cycling paths. Adverse visual effects are typically associated with demolition, raw earthworks, construction yards (hoardings, temporary structures, storage of machinery and materials) and construction activity. On the one hand, such effects will be temporary in nature and might reasonably be anticipated in a growing or changing city, notwithstanding that the temporal nature of construction effects may be measured in years for a Project of this nature. On the other hand, some areas have specific characteristics that might make them more susceptible to adverse effects of construction, such as the central city streets and blocks of Te Aro that have an elevated sensitivity to matters of pedestrian amenity, being part of key walking routes and active retail streets within the central city, or at Mt Victoria and Hataitai where the Project will involve construction activity on the edge of predominantly residential neighbourhoods. I have considered these factors in assessing the nature and level (magnitude) of construction effects for each section of the Project, as set out below.

### Terrace Tunnel

288. **High to Moderate adverse urban form, landscape and visual effects** associated with forming and constructing the widened state highway corridor between Boulcott Street and the northern portal of the new duplicate Terrace Tunnel, that largely falls within the existing NZTA designation. Effects on up close public viewing opportunities travelling on the state highway itself will be moderate, and for adjoining properties on The Terrace range from Moderate to High from north to south, with three properties at the southern end in close proximity to the tunnel portal construction more greatly impacted by the temporary alteration of the designation to occupy parts of the rear yards of these properties to enable construction. This includes the temporary visual effects during construction of the northern tunnel portal and associated cut slope modification and clearance to the immediate east of the portal and within the dog park area above the tunnels, as well as the construction of the tunnel control building and ancillary infrastructure to the south of Boulcott Street bridge.
289. **Low to Very Low visual effects** associated with the highway widening and northern portal of the second Terrace Tunnel on the more distant public and private viewing opportunities of the area of construction works, from parts of Kelburn to the west of the motorway, and tall buildings in the central city that look down on this area. The effects are moderated because the construction area is closely tied to the existing motorway corridor and at a lower elevation than the surrounding context, and at some distance from publicly accessible pedestrian routes that will remain available during construction.
290. **High to Moderate adverse urban form, landscape and visual effects** around and above the southern portal of the duplicate Terrace Tunnel, that include the temporary removal of the pedestrian connectivity this open space area currently affords people moving between the nearby streets of The Terrace, MacDonald Crescent and Ghuznee Street, as well as the vegetation clearance, earthworks and construction activity, which will predominantly affect those people in adjoining commercial and residential properties adjoining the construction

area and from properties and street-based locations in MacDonald Crescent, The Terrace and upper Ghuznee Street with views down onto the work site. In terms of public viewing opportunities this area while under construction has a lower sensitivity given the large area of land associated with existing designation and associated residual land of open space or surface carparking and limited ability for the public to be in close proximity to the construction areas. Public views into this area from the street and open space network are very limited away from the immediate environs.

291. **High adverse urban form and visual effects** during the construction of the replacement Ghuznee Street bridge. In addition to the high disruptive effects on the pedestrian connectivity and pedestrian amenity for all those people using this street corridor bridging the state highway while the existing bridge is taken down and the replacement bridge constructed, this activity will also be seen and experienced by a larger visual catchment than the southern portal works itself. The affected area includes a larger area of the nearby central city blocks of Willis and Ghuznee Street as well as the more residential areas of Buller Street and The Terrace to the west of the motorway corridor.

## Te Aro

292. **High adverse effects** on pedestrian streetscape amenity due to disruption and reduction in the footpath areas available along Vivian Street, particularly at Cuba Street, where the pedestrian volumes and amenity values of the streetscape public realm are the highest, and the works are more involved, including removal and reinstatement of narrowed building verandahs to heritage buildings, and reconfigured kerblines and pavements to Cuba Street.
293. **Moderate to Low adverse effects** on pedestrian streetscape amenity elsewhere on Vivian Street and the other affected intersections and pedestrian pavements in the Te Aro section of the Project, where the extent of works is less disruptive and the level of sensitivity of the receiving environment in terms of the numbers of people and existing streetscape amenity values are lower.

## Basin Reserve

294. **High to Moderate adverse urban form and visual effects** in the northeastern quadrant, between Kent Terrace and Paterson Street, associated with the realignment and reconfiguration of the state highway to create two-way traffic flows around this corner of the Basin Reserve linking with the Mount Victoria Tunnels, and having a high visual impact for the duration of construction on Bogarts Corner, and the lower reaches of Hania and Ellice Streets.
295. **Moderate adverse visual effects** in the southeastern quadrant of Dufferin Street, associated with the changed interface and intersection with state highway traffic in and out of the Mount Victoria Tunnels, the redeveloped school access zone and reconfigured entrance to Government House, as well as the construction of the cycleway path to the Basin Reserve edge of the street.
296. **High adverse urban form and visual effects** associated with the construction works at the intersection with Adelaide Road. These effects, which are localised to the immediate vicinity, include the direct adverse urban form effects of the demolition and clearance of the existing buildings on sites to be acquired to the western side of Adelaide Road to enable intersection widening. There are also adverse visual effects from this site clearance and the construction of the expanded intersection on the immediate vicinity affecting both public and private viewing audiences on this northernmost end of Adelaide Road (north of Alfred Street and the McDonald's Restaurant) and the stretches of Rugby Street to either side of the junction with Adelaide Road.

297. **Very High adverse urban form, landscape and visual effects** to the two quadrants west of the Basin Reserve associated with the large scale of clearance of acquired properties to establish the widened and extended north-south corridor and grade-separated underpass link below reconfigured state highway access to the Arras Tunnel, as well as the land bridge and green space extension including creche reinstatement. This includes the direct urban form effects of the demolition and clearance of properties to be acquired along Sussex Street between Rugby and Buckle Streets, and at Barker Street fronting Cambridge Terrace, as well as the temporary adverse visual, streetscape and open space amenity effects on existing publicly accessible streets and open spaces affected by the construction, and adverse visual amenity effects on adjoining and neighbouring properties in the close vicinity of these works.
298. The construction will last for a period of several years or longer. The construction works will, for the duration of that time, result in Very High adverse urban form, landscape and visual effects on public viewing audiences in the immediately affected area, which includes Sussex Street, Buckle Street and Old Buckle Street, the affected areas of Pukeahu as far west as Tasman Street, Cambridge Terrace and Barker Street. Adverse effects will also be Very High during this time on adjoining properties to the designation boundaries (both permanently extended and any temporary greater areas for construction purposes). Affected properties include those properties that front Tasman and Rugby Streets and will adjoin the widened designation at Sussex Street, the Te Papa and Wellington City Archives buildings to the north of the affected section of Pukeahu, and the western edge and northwestern corner of the Basin Reserve (to the rear of the Museum and R.A. Vance Stands). The adverse urban form effects from residual land at Sussex and Barker Streets that remains cleared and in a transitional state will last longer, until such time as redevelopment occurs.
299. **Moderate adverse effects** on pedestrian streetscape amenity (including visual effects) from the disturbance to the streetscape and open space amenity of Cambridge and Kent Terraces and the associated section of Canal Reserve between Vivian Street and the Basin Reserve. These effects will be experienced by street users of the boulevard and adjoining properties along Cambridge and Kent Terrace, as well as those passing in close proximity around the northern side of the Basin Reserve.

## Mt Victoria Tunnel

### Western Mount Victoria Portals and Paterson Street

300. **Very High to High adverse urban form and visual effects** on the immediate area from the construction of the duplicate Mount Victoria Tunnel, including the western tunnel portal, widened state highway corridor, replacement retaining wall and reinstated Paterson Street, and the associated clearance of existing Paterson Street residential properties, as well as the construction of the ancillary tunnel infrastructure and reinstated Wellington Girls' College access road above the tunnel portals. The construction of the tunnel, ancillary infrastructure and the widened and reconfigured state highway corridor to connect the expanded twin tunnel connections with the Basin Reserve, will last for a period of several years or longer. The construction works will, for the duration of that time result in Very High to High adverse urban form and visual effects on public and private viewing audiences in the immediately affected areas of Paterson Street, Austin Street, Austin Terrace, Ellice Street, Brougham Street as well as Wellington East Girl's College, and to a lesser degree the sports fields of Wellington College to the south of the highway corridor, as well as users of the State Highway. The adverse urban form effects from residual land that remains cleared and in a transitional state will last longer, until such time as redevelopment occurs.

301. **Moderate to Low adverse visual effects** associated with seeing the disturbance and construction areas around the western tunnel portal, widened SH1 corridor, reinstated Paterson Street and cleared residual land, in the range of public and private viewing opportunities from locations to the west and that will see the construction area as part of views towards Mount Victoria and the Town Belt, including from parts of Pukeahu National War Memorial Park, Te Aro and the wider central city, and elevated hill suburbs of Mount Cook, Brooklyn, Highbury and Kelburn.

#### Eastern Mount Victoria Portals and Taurima Street

302. **Very High to High adverse landscape and visual effects** from the construction of the duplicate Mount Victoria Tunnel, including the eastern tunnel portal and associated vegetation clearance, earthworks and cut slopes above and to the northern side of the tunnel portal, and the construction of a new ancillary tunnel control building within a more elevated part of the Town Belt to the southwest of the tunnel portals, and disturbing a wider area of the Town Belt than the permanent infrastructure in terms of vegetation clearance and temporary site access. The construction of the tunnel, ancillary infrastructure and the widened and reconfigured state highway corridor to connect in with the expanded twin tunnel connections and a reconfigured Taurima Street link to Hataitai will last for a period of several years or longer. The construction works will, for the duration of that time result in Very High adverse landscape and visual effects on the immediately affected areas of the Town Belt and the nearby properties on Ruahine Street through to Tapiri Street, Taurima Street, and properties adjoining the designation boundary on Hinau and Waitoa Roads, as well as users of the State Highway. Adverse construction effects on visual amenity will reduce with distance but remain High for those middle distant views from the elevated residential viewing audiences in Hataitai.

#### Eastern Connections – Ruahine Street, Wellington Road to Evans Bay

303. **High to Moderate adverse visual effects** on Ruahine Street properties adjoining the state highway corridor between Tapiri Street and Goa Streets, associated with constructing the redeveloped edge of the state highway corridor and construction of new local access lanes and modified landscape berm areas between these properties and the eastbound lanes of the state highway, as well as adverse visual effects on views across Ruahine Street to the construction works at Hataitai Park where this open space forms part of the outlook from these properties
304. **Very High to High adverse landscape and visual effects** from the vegetation clearance, earthworks and construction of the new access roads and overbridge in Hataitai Park, that will likely last for a construction period of several years, and for the duration of that time be experienced by users of the state highway, from properties on the opposite side of Ruahine Street, and more distantly from elevated residential properties in Hataitai and the wider Eastern Suburbs with middle and long-distance views to the disturbed area of the Town Belt.
305. **Very High adverse visual effects** from the construction of the Hataitai Park overbridge and new link road through to Moxham Avenue on the adjoining Ruahine Street and Moxham Avenue properties. The affected areas include the demolition and site clearance of the four residential properties to be acquired to form the new corridor, the northern boundary and side yard of The Church of Jesus Christ of Latter Day Saints to the south, and the long side boundary to the south of 126 Moxham Avenue, which runs the full depth of the block to the north of the proposed bridge connection. These two adjoining properties will experience major levels of disturbance to outlook and boundary conditions for the duration of construction through the process of demolishing and clearing the residential properties that are their

neighbours at present, and to construct the new bridge and link road which at least in part will be formed above the levels of these neighbouring properties, exacerbating the visual effects of construction on these neighbouring properties.

306. **Low to Moderate adverse visual effects** associated with the construction of the overbridge and associated link road to Moxham Avenue, on public viewing audiences on the state highway route and from within Hataitai Park, and on private viewing audiences beyond the adjoining properties, where visible from residential properties on Moxham Avenue and more distant and elevated parts of Hataitai.
307. **High adverse landscape and visual effects** from the removal of the Badminton Hall, and formation and construction of the widened SH1 corridor through to the side street intersection with Wellington Road. This includes the Badminton Hall demolition, vegetation clearance and earthworks into the park edge, as well as direct effects from demolition and clearance of properties from Ruahine Street around to the intersection with Moxham Avenue on Wellington Road, and the construction of the widened highway corridor works in this area, experienced by users of the state highway, those people accessing Hataitai Park and residential properties in the vicinity including those on Ruahine Street, Wellington Road and Henry Street.
308. **Moderate adverse visual amenity effects** on residential properties fronting the northern side of Wellington Road between Moxham Avenue and Evans Bay Parade, associated with the redeveloped edge of the state highway corridor and construction of new local access lanes and associated landscape buffer areas between these properties and the eastbound lanes of the state highway.
309. **Very High to High adverse urban form and visual effects** from the clearance of existing properties, vegetation clearance, earthworks and construction of the widened corridor to the west and realigned intersection with Ruahine Street along the section of Wellington Road between Kilbirnie Park and the Town Belt, that will likely last for a construction period of several years, and for the duration of that time be experienced by users of the state highway, from adjoining properties on Henry Street and the northern side of Wellington Road and other nearby residential properties within Hataitai.
310. **Moderate adverse landscape and visual effects** on the northern end of Kilbirnie Park caused by the footprint of the park required for the construction of the permanent corridor widening, and reinstatement of existing park features and assets, including adverse amenity effects associated with limiting people's access, use and enjoyment of this area for the duration of construction.
311. **Moderate to Low adverse landscape and visual effects** on the foreshore reserve at Evan's Bay associated with the construction of the new replacement stormwater outfall, and associated disturbance of a portion of the reserve area and foreshore, including adverse amenity effects associated with limiting people's access, use and enjoyment of this area for the duration of construction.

## 8. MEASURES TO AVOID, REMEDY OR MITIGATE ACTUAL OR POTENTIAL ADVERSE EFFECTS

### Measures to avoid, remedy or mitigate effects during operation

312. The summary tables that follow identify measures to avoid, remedy or mitigate actual or potential adverse effects for each section of the Project, including measures that have been already incorporated into the consent design proposals following earlier recommendations by myself in relation to urban form, landscape and visual issues, as well as further mitigation that has not yet been incorporated or which is recommended to be considered as part of further design development of the Project, and addressed through conditions such as through the development of an Urban and Landscape Design Management Plan(s), and the Outline Plan process. The tables identify an effects rating pre-mitigation, as well as the overall post-mitigation effects rating taking these measures into account.

## Terrace Tunnel

| Issue                       | Effects To Be Mitigated                                                                                                                | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                     | Further mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| <b>Terrace Tunnel</b>       |                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |                                |
| Retaining Walls             | Adverse urban form, landscape, and visual effects from new retaining walls                                                             | <p>Retaining walls to be of concrete construction, with height, slope and form that is sympathetic to existing walls and integrates with the established character of this section of motorway.</p> <p>Indicative material finishes that match those of existing, to ensure close visual integration and a cohesive design with existing walls to be retained, with a comparable high degree of visual interest viewed up close.</p>                                                            | <p>Further design development of the retaining wall treatment including materials and finishes, and any incorporated cultural design expression opportunities, to relate to and tie in with the design of the existing retaining walls and tunnel portals and achieve a high level of visual amenity, in recognition of central city gateway function.</p> <p>While not needing to exactly replicate existing walls, the final design should be sympathetic and recognise and respond to the scale, form, and material design qualities of the existing walls and portals, to fit in with the established character of wall designs that are a high quality and defining feature of this urban section of the Wellington northern motorway adjacent The Terrace.</p> | High                          | Low                            |
| New tunnel portals          | <p>Adverse urban form and visual effects of new tunnel portals</p> <p>Visual disconnection between new and existing tunnel portals</p> | <p>Tunnel portal design including scale and form to closely integrate with and relate positively to the existing tunnel portal and abutment walls, with indicative panel design and materiality to match existing.</p> <p>Tunnel portal design to achieve a high level of visual amenity that recognises the visual prominence of the new and existing tunnel portals as prominent central city gateways seen and experienced up close by large numbers of people (high viewing audiences).</p> | Further details to be provided as part of the Outline Plan/s of the architectural treatment including materials and finishes of the new tunnel portals, including any integrated cultural design expression opportunities, ensuring the detailed design closely relates to and ties in with the design of the existing tunnel portals and retaining walls and achieve a high level of visual amenity, in recognition of central city gateway function.                                                                                                                                                                                                                                                                                                               | Moderate                      | Avoids                         |
| Cut Slopes and Revegetation | Landscape effects and loss of visual amenity from earthworks and exposed cut slopes                                                    | Slope design enables planting and indicative areas of planting proposed to revegetate cut slopes to provide greenery that mitigates visual effects by reducing the extent and visibility of permanently cut slopes over time.                                                                                                                                                                                                                                                                   | Design development to seek to reduce extent of permanently exposed cut slopes and shotcrete treatment and enable planted slopes as much as possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | High                          | Low to Moderate                |

| Issue                                                 | Effects To Be Mitigated                                                                                           | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Further mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| Visual Effects on Adjoining Properties                | Visual effects on adjoining residential properties (214, 216 The Terrace)                                         | Sufficient space and slope design to enable planting and provision of planted buffer areas at the boundary with adjoining residential properties that achieve a degree of screening and separation from the motorway corridor and publicly accessible pathways.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | High                          | Moderate                       |
| Southern Portal Vegetation Removal                    | Landscape and visual effects from vegetation removal at southern portal                                           | Retention of as much existing trees and vegetation as is possible within the existing designation corridor around the southern portal area, to minimise the adverse visual effects during construction and once operational, during the transition phase during which replacement planting is establishing.<br><br>Proposed areas of replacement trees and planting within southern portal area to re-establish following completion of construction to visually integrate infrastructure and mitigate visual effects.                                                                                                                                                                                                                                                                            | Construction management to seek to retain as many existing trees as possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Moderate                      | Very Low                       |
| Tunnel Control Buildings and Ancillary Infrastructure | Visual effects and potential for CPTED issues arising from location and design of tunnel ancillary infrastructure | Locate new tunnel control buildings in areas within the existing designation in close proximity to the highway to avoid or minimise adverse effects on the surrounding context.<br><br>Lowered the height of Tunnel Control Building to south to reduce its visual impact.<br><br>Screen fire hydrant and water tanks to minimise visual effects.<br><br>Do not reinstate existing public access path to Willis Street that would need to traverse a confined area between the highway and the edge of operational area below with poor passive surveillance, entrapment potential, and low visual amenity.<br><br>Planted areas to provide buffering and screening of operational areas from public streets and adjoining private properties to manage the potential for adverse visual effects. | Further design development to demonstrate how visual impact of tanks is to be mitigated through screening, materiality or other measures, to address visibility from elevated viewpoints including nearby bridges, tall buildings and elevated residential areas that look down on this area.<br><br>Details of any fencing, and gates to operational areas required, including heights, materials and finishes, to manage the potential for adverse visual amenity and CPTED effects noting the proximity of publicly accessible areas and ability to look into these areas from above. | Low-Moderate to Very Low      | Very Low - Negligible          |

| Issue                             | Effects To Be Mitigated                                                                                                        | Measures incorporated into consent design following earlier recommendations                    | Further mitigation recommendations                                                                                                                                                                | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| Publicly Accessible Pathways      | Adverse urban form (connectivity) effects from removal of existing paths.<br><br>Potential CPTED issues with reinstated paths. | Proposed reinstatement of public access pathway between Ghuznee Street and MacDonald Crescent. | Further design development of reinstated pathway to address CPTED matters including planting and fencing design to support safe access and use of the path by the public.                         | Moderate                      | Avoids                         |
| Ghuznee Street replacement bridge | Adverse urban form and visual effects from alignment and design of replacement bridge infrastructure on streetscape.           | None.                                                                                          | Further design development of bridge to refine alignment and geometry to align with street grid as much as possible to better reflect historical Ghuznee Street alignment through to The Terrace. | Low-Moderate                  | Negligible                     |

## Te Aro

| Issue                               | Effects To Be Mitigated                                                                                                     | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Further Mitigation recommendations                                                                                                                                                   | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| <b>Te Aro</b>                       |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                      |                               |                                |
| Cuba and Vivian Street intersection | Adverse urban form and streetscape amenity effects from changes in kerblines to provide three travel lanes on Vivian Street | Kerb build outs and footpath extensions to all four street corners on Cuba Street, including a large extension on the busy northeastern corner, to enlarge the standing room for people waiting to cross and spending time in the street, to more than mitigate the effects of reduced footpath width on Vivian Street (net enhancement to pedestrian amenity)<br><br>Reinstated park bench on the northeastern corner noting the historic heritage association of the existing bench on Vivian Street kerblines.<br><br>Modifications to the existing raised planter on the northeastern corner to increase pedestrian space at intersection. | Investigate the potential for relocation of existing signal control box on northeastern corner to reduce streetscape clutter and maximise standing room for people waiting to cross. | Very Low                      | Negligible                     |

| Issue                   | Effects To Be Mitigated                                                               | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                     | Further Mitigation recommendations                                                                                                                                                                                                                                                                      | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| Vivian Street verandahs | Adverse urban form and streetscape amenity effects from removal of existing verandahs | <p>Maximise the width of reinstated verandahs within clearance requirements of new kerblines.</p> <p>Reinstated verandahs to re-use and/or match existing materials and finishes to maintain the built heritage and character values.</p> <p>Avoids impacts on verandahs and building canopies further along Vivian Street.</p> | Further details to be provided as part of the Outline Plan/s of the architectural treatment including final dimensions, materials and finishes of the reinstated verandahs to match existing, to ensure pedestrian shelter is maintained and adverse effects on building form are avoided or minimised. | Moderate                      | Very Low                       |

## Basin Reserve

| Issue                    | Effects To Be Mitigated                                                                                        | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Further Mitigation recommendations | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|--------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------|--------------------------------|
| <b>Basin Reserve</b>     |                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |                               |                                |
| Hania and Ellice Streets | Effects of state highway widening and side street vehicle access changes on urban form and streetscape amenity | <p>Planting areas to treat the permanent residual land at the edges of the stage highway corridor and interface with Hania and Ellice Streets to positively define the edge of the streetscape, provide a level of separation and buffering between the state highway and local streets where possible, reduce the extent of hard surfaces, and visually screen exposed boundary conditions of adjoining properties.</p> <p>Trees incorporated into areas of planting to provide a degree of spatial definition and landscape structure to help reinforce and define the edge of streetscape and spatial definition around the Basin Reserve in places where this is not provided by built form.</p> <p>Area of proposed planting including trees between the turnaround facility for terminated Hania Street and the state highway lanes to provide a level of separation and definition of the shared path environment from the vehicular turnaround and improve streetscape amenity.</p> |                                    | Low to Moderate               | Low                            |

| Issue                         | Effects To Be Mitigated                                                                 | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Further Mitigation recommendations                                                         | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
|-------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
|                               |                                                                                         | Predominantly low planting to garden areas to maintain good sightlines and promote passive surveillance to ensure planting does not create a potential CPTED risk in future.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                            |                               |                                |
| Dufferin and Paterson Streets | Landscape effects from removal of scheduled English elm tree                            | Mitigate the loss of this scheduled tree by the planting of new trees within the new and redeveloped garden bed areas to either side of the intersection with Paterson Street, including within the new large triangular space to the south side that offers the space and connection to natural ground to support a large tree/s in future that would permanently enhance the reconfigured intersection.                                                                                                                                                                                                                                                                            | Replacement to be large grade specimen appropriate as mitigation for loss of notable tree. | Very Low                      | Negligible                     |
| Dufferin and Rugby Streets    | Effects on streetscape amenity from access changes to support school pick up / drop off | Switch to one-way traffic flow to achieve a better spatial fit and integration of the access changes at the street edges including increase in pedestrian space at the corner with Adelaide Road, and creation of increased space for planted areas and improved amenity outcomes outside Government House and around the corner of Basin Reserve through to the midblock zebra crossing.                                                                                                                                                                                                                                                                                            |                                                                                            | Avoids                        | Avoids                         |
| Adelaide Road Intersection    | Adverse urban form and visual effects from loss of built form at street corner          | <p>Minimised permanent corridor widening to western side of Adelaide Road, to maximise the future land development opportunity, achieve expanded pedestrian space at the street corner and an alignment of the western pedestrian crossing beside the south gate entry of the Basin Reserve.</p> <p>Tightening of intersection geometry, with increased build outs and pedestrian space on street corners and reduced crossing distance across the eastern arm.</p> <p>Existing bus stop reconfigured to provide for a widened footpath along the eastern side of Adelaide Road and remove the user conflict between bus boarding and alighting and pedestrian through movement.</p> |                                                                                            | High                          | Moderate                       |

| Issue                           | Effects To Be Mitigated                                                                     | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Pre-Mitigation Effects Rating                                 | Post-Mitigation Effects Rating                           |
|---------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------|
|                                 |                                                                                             | Removal of a proposed triangular corner of soft landscape treatment on residual land at the corner of Adelaide Road in favour of treating the whole street corner of residual land as hard space footpath environment. This provides the opportunity for future development on the residual land site that adjoins this space to the south to address and activate as well as look over this corner. This increases the opportunity for redevelopment to provide an element of built form spatial definition and activation that reads as a corner frontage to Adelaide Road.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                                          |
| Sussex Street corridor widening | Effects from corridor widening and permanent residual land on urban form and visual amenity | <p>Reduced the width of permanent corridor widening to the western side of Sussex Street, through removal of a cycleway connection and second on-ramp to Arras Tunnel, to reduce scale of widened road corridor and increase depth of residual land for redevelopment, to reduce permanent urban form effects.</p> <p>Provide for redevelopment of residual land for urban development purposes where the size and shape factor and ability to provide access from Tasman makes redevelopment a viable prospect in future.</p> <p>Landscape mitigation including planting areas where residual land is not suitable for redevelopment. Planted areas at each end of the street will address visual amenity issues including exposure of basement walls or unsightly boundary conditions to the rear of adjoining Rugby and Tasman Street properties.</p> <p>On the eastern side of the road, provision of low groundcover planting to the traffic island south of the underpass retaining wall through to the intersection of the slip lane and Sussex Street. This ties in with the planting to the other side of this intersection and assists with the integration into the street edge of both the underpass and slip lane road infrastructure and increases street greening and visual amenity in ways that reduce the dominance of hard infrastructure on visual amenity.</p> | <p>While beyond the scope of the Project from a consenting perspective, opportunities to further mitigate adverse urban form effects may present themselves in future through any opportunities for greater property amalgamation and more comprehensive redevelopment that result in a greater level of built form definition and activation to Sussex Street.</p> <p>Landscape treatments should seek to positively define the edge of the streetscape as well as visually screen the exposed boundary conditions of adjoining properties, while maintaining good sightlines and promoting passive surveillance to ensure planting does not create a potential CPTED risk in future.</p> | <p>High urban form effects</p> <p>Moderate visual effects</p> | <p>High urban form effects</p> <p>Low visual effects</p> |

| Issue                                                | Effects To Be Mitigated                                                                                    | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Pre-Mitigation Effects Rating                                                       | Post-Mitigation Effects Rating                                              |
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| Sussex Street Extension through to Cambridge Terrace | Effects on urban form and visual / streetscape amenity<br>CPTED risks                                      | <p>Provision of a footpath along the northern street edge to residual land to provide for pedestrian access and encourage street frontage activation of future redevelopment of residual land.</p> <p>Provision of a stair linking the northern footpath to Pukeahu, to avoid a dead-end corner at termination of footpath and ensure this footpath is linked with the wider network of pedestrian pathways in the area, to promote through-movement of people walking along this edge to increase passive surveillance to reduce the risk of attracting crime and anti-social activity, as well as further improve the pedestrian environment at the street edge in a way that incentivises future development on residual land to front and address this street edge, providing a direct connection up to Pukeahu and the land bridge extension.</p> <p>Location of bus stop on southern side of street extension to provide a level of regular pedestrian activity and passive surveillance coming and going from Cambridge Terrace and looking into the street extension environment.</p> <p>Triangular area of proposed planting in the 'dead corner' on approach to underpass, to provide visual mitigation of high retaining walls to adjoining property interface and to discourage people lingering in this area that lacks activation and passive surveillance.</p> | <p>Details of stair design and its integration with footpath environment to reduce CPTED risks by promoting pedestrian movement and passive surveillance to the street corner.</p> <p>Planting to the corner in front of stairs should maintain good sightlines and promote passive surveillance to ensure planting does not create a potential CPTED risk in future, while allowing for some taller trees and vegetation that can afford a level of greening and visual screening of walls that visually terminate the street corridor from Cambridge Terrace.</p> | <p>Low to Moderate urban form and visual effects</p> <p>Significant CPTED risks</p> | <p>Low to Moderate urban form and visual effects</p> <p>Low CPTED risks</p> |
| Pukeahu and Land Bridge                              | Urban form, landscape, and visual effects of Sussex Street extension on Pukeahu National War Memorial Park | <p>Land bridge to mitigate the urban form and potential physical landscape effects as well as visual effects of the street extension cutting across the edge of the existing Pukeahu National War Memorial Park and avoiding the risk that this street extension severs the Park and reduces the connectivity for people walking and cycling through to Cambridge and Kent Terraces and around the Basin Reserve.</p> <p>The scale of the land bridge mitigation to match the full width of the adjoining section of Pukeahu to create</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Landscape reinstatement of disturbed areas of Pukeahu to ensure that like-for-like reinstatement is achieved such that there are no permanent adverse landscape or visual effects on this nationally significant public space.                                                                                                                                                                                                                                                                                                                                      | High                                                                                | Avoids                                                                      |

| Issue                                             | Effects To Be Mitigated                                                                                                   | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                                                   |                                                                                                                           | <p>a seamless green space extension. Land bridge to extend through to edge of Cambridge Terrace to repair the orthogonal city grid structure that has been eroded with past roadworks and strengthen the urban form composition at the termination of Cambridge Terrace at the Basin Reserve.</p> <p>Relocate creche where it continues to bookend Pukeahu and provides for path connections down to Cambridge Terrace over the land bridge.</p> <p>Reinstate hard and soft landscape works to disturbed part of existing Pukeahu to remedy temporary construction effects and avoid permanent adverse landscape and visual effects.</p> <p>Ensure land bridge design provides for active mode ramped pathway and more direct stepped access paths of a scale to match that of existing path connections.</p> <p>Provide for extensive areas of mass planting including trees to the land bridge to ensure it has the qualities of green space and to provide visual mitigation of the adjacent underpass and state highway road environments to either side.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                |
| Cambridge Terrace and North Gate of Basin Reserve | Urban form, landscape and visual effects of re-routing SH1 northbound traffic to north of Basin Reserve into Arras Tunnel | <p>Align SH1 northbound lanes as far north as is practicable to maximise the enlargement of the plaza space outside the north gate of Basin Reserve.</p> <p>Align SH1 northbound lanes to be as straight as heading into the Arras Tunnel to align with the geometry of the adjacent Pukeahu Park and land bridge extension and support the “squaring up” of the northwestern quadrant of the Basin Reserve and termination of Cambridge Terrace.</p> <p>Locate and design north-south and east-west crossings at the termination of the Canal Reserve to</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Details of the proposed public space design for the enlarged plaza space outside the north gate of the Basin Reserve to be provided as part of the Outline Plan/s, including the final layout and surface treatment of hard and soft landscape areas, and the delineation and treatment of active mode pathway connections to manage the potential for conflict between through movement and people gathering activity in this space.</p> <p>Design of north gate plaza space to balance through movement and gathering activities including through the extent and layout of hard and soft landscape treatments and the definition of active mode pathways, to mitigate</p> | Moderate                      | Avoids                         |

| Issue                          | Effects To Be Mitigated                                                                                                                                       | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Further Mitigation recommendations                                                                | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                                |                                                                                                                                                               | <p>reinforce the formal boulevard composition of the Kent and Cambridge Terrace streetscape and enhance the urban form where these streets and the central open space meet the north face of the Basin Reserve.</p> <p>Widen the active mode crossing from the north gate plaza space into the Canal Reserve, to cater to a high number of users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | potential conflicts between walking and cycling movements and public gathering within this space. |                               |                                |
| Canal Reserve and Kent Terrace | Adverse urban form, landscape, and visual effects from creation of new intersection with Sussex Street intersection and changes to Kent Terrace road geometry | <p>Reduce effects by straightening the eastern kerbline of Kent Terrace and reducing the angled geometry of Kent Terrace traffic lanes to be as straight as possible, and shifting the surplus street space into the centre of the street contiguous with the Canal Reserve to achieve a similar outcome with positive effects as is achieved to the Cambridge Terrace side.</p> <p>Plant replacement tree planting within the extended Canal Reserve areas south of the new intersection with Sussex Street Extension, to mitigate the effects of the intersection cutting across the central open space, and to mitigate the loss of large and mature existing trees over time. These changes will also offer positive effects from an enlarged and enhanced central open space increasing the amenity values of this unique boulevard street within Wellington's City Centre.</p> <p>Locate and design north-south and east-west crossings at the termination of the Canal Reserve to reinforce the formal boulevard composition of the Kent and Cambridge Terrace streetscape in a way that downplays the effects of the sweeping geometry of the new intersection with Sussex Street Extension and enhances the urban form where these streets and the central open space meet the north face of the Basin Reserve.</p> |                                                                                                   | High                          | Low to Moderate                |

## Mount Victoria Tunnel

| Issue                                                             | Effects To Be Mitigated                                                                                                                                     | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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| <b>Mount Victoria Tunnel – Western Portal and Paterson Street</b> |                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               |                                |
| Western Tunnel Portal                                             | Adverse urban form and visual effects of new tunnel portals<br><br>Visual disconnection between new and existing tunnel portals                             | Tunnel portal design including scale and form to closely integrate with and relate positively to the existing tunnel portal and abutment walls, with indicative panel design and materiality to match existing.<br><br>Tunnel portal design to achieve a high level of visual amenity that recognises the visual prominence of the new and existing tunnel portals as prominent central city gateways seen and experienced up close by large numbers of people (high viewing audiences).                                                                                                                                                                                                                                                                                                                                                                   | Design development of tunnel portal, including materials and finishes and any incorporated cultural design expression opportunities, to integrate with existing portal and proposed retaining wall design, to achieve a high level of visual amenity in recognition of the central city gateway function.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Moderate                      | Low                            |
| Paterson Street Retaining Wall                                    | Adverse urban form, landscape and visual effects from new retaining walls                                                                                   | Retaining wall to be of concrete construction, with a slope and form that is close to vertical and is reflective of the natural grade of the hill slope to the north, to integrate with the established character of this southern edge of the Mount Victoria neighbourhood.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Design development of the retaining wall treatment including materials and finishes, and any incorporated cultural design expression opportunities, to integrate with tunnel portals, and achieve a high level of visual amenity in recognition of the central city gateway function.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Moderate                      | Low                            |
| Reinstated Paterson Street and residual land                      | Effects from corridor widening and residual land on urban form and visual amenity from public realm and adjoining properties including construction effects | Alternative location for tunnel control building and all ancillary infrastructure to avoid adverse effects on urban form and residential amenity values.<br>Minimise land take and permanent corridor widening to state highway corridor and maximise the depth of residual land available for redevelopment, through designing the reinstated Paterson Street to be as narrow as possible as a one way local access street, removing the planting strip from the top of Paterson Street retaining wall.<br><br>Aligning the reinstated Paterson Street to relate to the street grid of the Mount Victoria neighborhood running parallel with Ellice Street between Brougham and Austin Streets.<br><br>Removal of an earlier proposed berm between footpath and property boundary on northern side of reinstated Paterson St, to keep street as narrow as | The ability to retain in situ any of the mature trees that exist within the gardens on residual land, particularly at or near the southern boundary, to help manage construction effects on adjacent properties, as well as offering the opportunity for their integration with redevelopment of residual land in future. Particular mitigation benefit would exist to retaining vegetation at the midblock boundary between residual land and properties fronting Ellice and Brougham Streets, which would limit the visual amenity effects on these properties, both permanent and during construction.<br><br>Landscape design around relocated heritage buildings to form defined front, side, and rear yards to ensure they continue to present a residential character to the neighbourhood irrespective of future use. | Moderate to High              | Low                            |

| Issue                                                | Effects To Be Mitigated                                                                                                                                                 | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                    | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                                                      |                                                                                                                                                                         | <p>possible, in keeping with historic streetscape character and to maximise depth of residual land available for redevelopment.</p> <p>Provide for redevelopment of residual land for relocated heritage buildings and urban development purposes wherever the size and shape factor makes redevelopment a viable prospect.</p> <p>Enable a continuity of future built form fronting and addressing the northern side of the reinstated Paterson Street (a mix of relocated heritage buildings and opportunity for new buildings fronting the street). Ensure that relocated heritage buildings, in addition to the heritage mitigation and benefits assessed by others, contribute to the reinstatement of a built form along this street edge, and are sited in areas of residual land where the spatial fit with urban form is positive and best preserves larger areas of residual land for urban redevelopment.</p> <p>Relocate the heritage dwelling at 140 Austin Street to a site as close as possible to its existing location, and retain its existing orientation, so that it continues to have a prominent presence in middle and long-distance views of the Mount Victoria hillslope.</p> | <p>Permanent residual land that does not have sufficient depth to support built form, between the relocated 7 Paterson Street (Laureston House) and 19 Paterson Street (Ettrick Cottage) to be allocated into the curtilage of the relocated houses, to reinforce residential character, rather than be developed as a standalone landscape area within the road reserve with no mitigation function or other particular purpose.</p> |                               |                                |
| Tunnel Control Building and Ancillary Infrastructure | Potential for adverse visual effects on public and private viewing audiences and CPTED issues arising from the location and design of buildings and secured yard areas. | <p>Tunnel Control building relocated out of residual land and above tunnel portal, where it avoids adverse effects on adjoining residential properties. Accommodated in this location it has the benefit of being directly associated with the tunnel below, and not permanently increasing the footprint of the tunnel-related ancillary infrastructure into the Paterson Street environment where it is at odds with the urban form and residential amenity values expected of this context within the Mount Victoria neighbourhood.</p> <p>Lowered the height of Tunnel Control Building to reduce its visual impact.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Details of any fencing and gates to operational areas, including heights, materials and finishes, to manage the potential for adverse visual amenity and CPTED effects noting the proximity of publicly accessible areas and visual prominence of this location directly above the tunnel portal.</p>                                                                                                                              | Moderate to High              | Very Low                       |

| Issue                                                            | Effects To Be Mitigated                                                                                                               | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Further Mitigation recommendations                                                                                                                                                                                                                                                                        | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                                                                  |                                                                                                                                       | <p>Planted areas to provide buffering and screening of Tunnel Control Building and hardstand from public streets and adjoining properties as well as looking from the state highway approaching the tunnel portals, to manage the potential for adverse visual effects.</p> <p>Tanks and pump storage relocated out of residual land and buried under the transport corridor where they avoid the potential for adverse urban form or visual effects.</p>                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                           |                               |                                |
| <b>Mount Victoria Tunnel – Eastern Portal and Taurima Street</b> |                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                           |                               |                                |
| Eastern Portal                                                   | <p>Adverse landscape and visual effects of new tunnel portals</p> <p>Visual disconnection between new and existing tunnel portals</p> | <p>Tunnel portal design including scale and form to closely integrate with and relate positively to the existing tunnel portal and abutment walls, with indicative panel design and materiality to match existing.</p> <p>Tunnel portal design to achieve a high level of visual amenity that recognises the visual prominence of the new and existing tunnel portals as prominent central city gateways seen and experienced up close by large numbers of people (high viewing audiences).</p>                                                                                                                                                                                                                        | Design development of tunnel portal, including materials and finishes and any incorporated cultural design expression opportunities, to integrate with existing portal and proposed retaining wall design, to achieve a high level of visual amenity in recognition of the central city gateway function. | High                          | Low-Moderate                   |
| Eastern Portal and Taurima Street Retaining Walls                | Adverse landscape and visual effects from new retaining walls.                                                                        | <p>Retaining wall to be of concrete construction, with a slope and form that is close to vertical, and architectural form, materials and finishes to tie in with the tunnel height and form of the tunnel portal and function as a blade wall and leading edge through to Taurima Street and the Hataitai local centre including for the active mode path connection that will run alongside.</p> <p>Indicative material finishes that match those of tunnel portal walls, to ensure close visual integration and a cohesive design, with a high degree of visual interest viewed up close, recognising that active mode users will pass the base of the wall in and out of the connection through the new tunnel.</p> | Design development of retaining wall, including materials and finishes and any incorporated cultural design expression opportunities, to integrate with tunnel portals, and achieve a high level of visual amenity in recognition of the central city gateway function.                                   | High                          | Low-Moderate                   |
| Eastern Portal Cut Slopes and Revegetation                       | Adverse landscape and visual effects from permanently                                                                                 | Above the base retaining wall, cut slope design and indicative landscape treatment to maximise the potential for greening of all cut slopes, with slopes to afford revegetation wherever possible and areas of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Further design development to seek to minimise extent of shotcrete treatment to steep batters and permanently cut slopes in preference to greening solutions, to                                                                                                                                          | High                          | Low-Moderate                   |

| Issue                                                                            | Effects To Be Mitigated                                                                                                                                                 | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                                                                                  | exposed cut slopes.                                                                                                                                                     | <p>hydroseed treatment and shotcrete treatment only where this is not achievable.</p> <p>At the top of the cut, slope design be graded back as gradually as possible to tie in to existing levels and maximise the ability to revegetate the upper disturbed slope with trees and shrubs, to reduce the permanent landscape and visual effects and support reinstatement of a continuous vegetated character at the top of the spur through to the interface with adjoining residential properties to north.</p>                                                                                                                                                                                                                               | address visual amenity in recognition of the central city gateway function.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |                                |
| Tunnel Control Building, Ancillary Infrastructure, and changes to Taurima Street | Potential for adverse visual effects on public and private viewing audiences and CPTED issues arising from the location and design of buildings and secured yard areas. | <p>Tunnel Control Building relocated out of elevated Town Belt land where it would appear out of character with the Town Belt and have potentially permanent visual effects in an elevated location.</p> <p>Tank storage to be co-located with replacement public toilet block to reduce clutter of ancillary buildings and operational infrastructure along the edge of Taurima Street.</p> <p>Reinstated public access path to Town Belt.</p> <p>Planted areas to provide a vegetated backdrop and buffering and screening of the rear of Tunnel Control Building and toilet block/pump station from adjoining properties to the rear, while providing for these buildings to front and address the active mode path and Taurima Street.</p> | <p>Architectural form and treatment of the new tunnel control building and toilet block/pump station, to address visual amenity and CPTED considerations recognising these adjoin the active mode path linking the new tunnel with Hataitai local centre.</p> <p>Any fencing and gates to operational areas, including heights, materials and finishes, to manage the potential for adverse visual amenity and CPTED effects noting the proximity of publicly accessible areas and visual prominence of this location beside the new active mode path linking the new tunnel with Hataitai local centre.</p> | Very Low                      | Negligible                     |
| Hataitai Park Pedestrian Overbridge Replacement                                  | Potential adverse urban form (pedestrian connectivity) and visual amenity effects from removal of existing overbridge.                                                  | <p>Provision in same general location continuing to provide logical and legible link between Hataitai Park and Hataitai town centre via Taurima Street as well as connection from Ruahine Street.</p> <p>Provide for areas of extensive trees and planting around the ramp and stair access within the state highway corridor to assist with the landscape and visual integration of the overbridge structure.</p>                                                                                                                                                                                                                                                                                                                             | Architectural treatment of the final bridge design including through its structural form, materials and finishes, and any integrated cultural design expression opportunities, to ensure it achieves a high level of visual amenity, in recognition of central city gateway function as well as address CPTED considerations including sightlines and passive surveillance.                                                                                                                                                                                                                                  | Low-Moderate                  | Avoids                         |

## Eastern Connections – Ruahine Street, Wellington Road to Evans Bay

| Issue                                                                              | Effects To Be Mitigated                                                                                                                                  | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Further Mitigation recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pre-Mitigation Effects Rating                             | Post-Mitigation Effects Rating                                               |
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| <b>Eastern Connections</b>                                                         |                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                           |                                                                              |
| Hataitai Park                                                                      | Landscape and visual effects of earthworks and vegetation clearance, new and reconfigured access roads, bridge, and associated retaining and cut slopes. | <p>Areas of mass planting to traffic islands and modified park edges associated with bridge abutments and park access road changes, as well as to the area modified by the removal of the Badminton Hall and associated carpark</p> <p>Slope design and extent of earthworks, to reduce the steepness of cut slopes and allow slopes to be revegetated, as well as ensuring sufficient planting width between toe of slope and the edge of the access road links internal to the park, to avoid the need for permanently exposed cut faces visible within the park environment and ensure proposed mitigation planting is effective in reducing to some degree the visible effects of the road infrastructure on the landscape character of this part of the Park.</p> | <p>It is recommended that further design development seek to increase the areas of planting to the modified park edges to increase the extent and effectiveness of landscape and visual mitigation provided, to reduce the level of permanent adverse effects over time.</p> <p>Subject to discussion with WCC and mana whenua, it is recommended that further design development increase the extent of large trees to be planted in proposed planting areas along the edge of the park entrance access roads, to increase the level of mitigation provided, to reduce the level of permanent adverse effects over time.</p> <p>Bridge abutment and retaining wall treatments including materials and finishes, including any incorporated cultural design expression opportunities, to ensure the detailed design achieves a high level of visual amenity, in recognition of Town Belt entry and central city gateway functions.</p> | High upon completion, reducing to Moderate after 10 years | High to Moderate upon completion, reducing to Low to Very Low after 10 years |
| Adjoining residential properties – Taurima Street to new Moxham Avenue road access | Adverse visual effects on adjoining properties                                                                                                           | Continuous swathe of replacement native small tree, shrub, and screen planting to property-side landscape berm between the footpath and residential property boundary interface between Taurima Street and the new Moxham Avenue access lane.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Moderate-High visual effects                              | Moderate visual effects                                                      |
| Adjoining residential properties – Moxham Avenue road access to Goa Street         | Adverse visual effects on adjoining properties                                                                                                           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Within the confined space constraints available, seek to find greening solutions in terms of the ability to establish planting, including vertical greening, to the property boundary interface, and retaining wall interface between the edge of the highway and the local access lane, to mitigate adverse visual effects on both the public views for highway and access land users and private views from adjoining residential properties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Low visual effects                                        | Very Low visual effects                                                      |

| Issue                                                                                                                                                            | Effects To Be Mitigated                                                                                                                                                                | Measures incorporated into consent design following earlier recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Further Mitigation recommendations                                                                                                                                                                                                                         | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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| Adjoining Properties to new Hataitai Park Bridge abutments and access road from Moxham Avenue                                                                    | Adverse visual effects from new road and bridge abutments beside side boundaries of adjoining properties.                                                                              | Provide for landscape planting zone at boundary of new road reserve to provide screening and manage the potential for adverse visual effects on adjoining property.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Details of final proposed levels, retaining walls and fencing as well as landscape mitigation planting at or near the boundary interface with adjoining properties, to seek to reduce adverse visual effects on adjoining properties wherever practicable. | Moderate                      | Low to Moderate                |
| Adjoining properties between new Hataitai Park access road and Wellington Road corner (The Church of Jesus Christ of Latter-Day Saints through to Moxham Avenue) | Loss of the existing open space buffer and visual screening afforded by the mature pohutukawa trees and adverse visual effects, and potential shading effects, from corridor widening. | Provide for landscape planting zone at property boundary interface on the straight of Ruahine Street through to corner.<br><br>Plant large trees where space allows on permanent residual land around corner with Wellington Road to provide extensive visual mitigation and buffering to the rear yard interface with neighbouring properties that will now adjoin the highway as a consequence of property acquisition and clearance to wider the corridor. In addition to mitigating the effects on adjoining properties, this planting ensures the backs of properties are not seen from the highway as well as assisting with the integration of the widened state highway corridor with the vegetated character of the Town Belt opposite. |                                                                                                                                                                                                                                                            | Moderate                      | Low to Moderate                |
| Cut slope to edge of Hataitai Park between Badminton Hall site and Wellington Road intersection                                                                  | Adverse landscape and visual effects from corridor widening into Town Belt, including increase in permanently exposed cut face visible to edge of state highway.                       | Cut slope design to provide for planting as visual mitigation where practicable without incurring increased land take and physical landscape effects on the Town Belt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                            | Moderate                      | Moderate                       |
| Corridor widening to south side of Wellington Road                                                                                                               | Adverse effects on urban form from the loss of the residential properties to be                                                                                                        | Creation of a broad landscape buffer strip to edge of widened highway that will provide effective mitigation to rear boundary interface with Henry Street properties and create new green space network link and visual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Design development to determine extent of any public access pathways to be provided within green space buffer, taking account of CPTED considerations.                                                                                                     | Moderate-High                 | Low                            |

| Issue                        | Effects To Be Mitigated                                                                                                                                          | Measures incorporated into consent design following earlier recommendations                                                                  | Further Mitigation recommendations                                                                                                                                                       | Pre-Mitigation Effects Rating | Post-Mitigation Effects Rating |
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|                              | removed along the southern side of Wellington Road between Kilbirnie Park and the Town Belt, and the associated permanent widening of the State Highway corridor | connection between the Town Belt and Kilbirnie Park and Evans Bay foreshore.                                                                 |                                                                                                                                                                                          |                               |                                |
| Kilbirnie Park               | Adverse landscape and visual effects from corridor widening into Kilbirnie Park                                                                                  | Address level change with retaining wall hard to widened road reserve to edge of footpath to minimise intrusion into playing fields.         | Balustrade to top of retaining wall at park edge to be visually porous, to avoid adverse visual effects and ensure sightlines between park and road edge including passive surveillance. | Low-Moderate                  | Low                            |
| Evans Bay stormwater outfall | Adverse natural character and visual effects on reserve and foreshore                                                                                            | Reinstate disturbed areas of foreshore reserve.<br><br>Sought to minimise extent of intrusion of new outfall structure on foreshore and CMA. | Reinstate like-for-like landscape treatments to disturbed areas of foreshore reserve, to ensure that there are no permanent adverse landscape or visual effects.                         | High                          | Very Low                       |

## 9. COMMENTS ON EARLY ENGAGEMENT RESPONSES FROM ADJACENT PROPERTY OWNERS AND THE WIDER PUBLIC

313. In addition to my urban form, landscape and visual assessment, I have been asked to review the early community engagement responses by both adjacent properties and from the wider public that have been received by NZTA as a result of early engagement prior to lodgement of the substantive application carried out between 17 November and 14 December 2025.
314. I have been provided with NZTA's overall summary of the feedback received on the Project, along with a summary of some specific comments noted in feedback that are relevant to my discipline. I understand these were extracted from survey responses and other feedback and included feedback from neighbours to the Project as well as a range of stakeholder and community organisations and the wider public.
315. Feedback from adjacent property owners, stakeholder groups and the public was wide-ranging and raised a number of issues relevant to the matters addressed in my assessment of the urban form, landscape and visual effects of the Project. This included both general issues in relation to a section of the Project or the Project as a whole as well as matters more specific to effects on adjoining properties, including:
- i. Impacts of highways on urban and local character
  - ii. Effects of tree removal and vegetation clearance and importance of replacement planting to mitigate effects
  - iii. Incorporation of green infrastructure, enhancement of public spaces and community amenity outcomes within inner city
  - iv. Concern of impacts on the garden areas of Herbert Garden Apartments
  - v. Concern with severance of Cuba Street impacting local amenity
  - vi. Concern of impacts of vegetation removal on adjoining properties in Mt Victoria
  - vii. Concern with impacts on Town Belt including loss of green character.
  - viii. Concern with increased loss of privacy and visual dominance from the road corridor for adjoining properties along Ruahine Street
  - ix. Impact of existing tree removal on adjoining properties on Ruahine Street, and details of replacement tree planting to mitigate effects and maintain landscape and environmental values
  - x. Concern with impacts on sunlight access on adjoining properties along Ruahine Street from changes to the highway corridor
316. In reviewing and acknowledging this feedback I confirm that all of these matters have been considered and addressed as part of undertaking my assessment and have informed the effects conclusions that I have reached in relation to each section of the Project and for the Project overall.

## 10. COMMENTS ON FEEDBACK FROM WELLINGTON CITY COUNCIL

317. In addition to my urban form, landscape and visual assessment, I have been asked to review and comment on the early engagement feedback received by NZTA in April 2026 from Wellington City Council (“the Council or WCC”) as a result of early engagement prior to lodgement of the substantive application.
318. The feedback from Wellington City Council on urban design and landscape matters was wide-ranging. I have summarised this as relating to five themes. These are:
- i. Feedback on the design of the Project
  - ii. The adequacy of information associated with the assessment
  - iii. Assessment methodology
  - iv. Differences of opinion with respect to outcomes of the project and/or effects conclusions; and
  - v. Comments relating to what guides further design development of the project should FTAA approvals be granted
319. As part of reviewing and responding to this feedback, alongside other members of the Project team I met with representatives of WCC on two occasions in April and May 2026, where we discussed in particular matters relating to adequacy of information and how subsequent stages of design development can continue to address urban design and landscape matters.

### Feedback on the design of the Project

320. WCC included extensive feedback suggesting different approaches to the design of the project to reduce the requirements for land acquisition on the Town Belt and maximise the benefits of the land bridge extension. I considered this feedback alongside the project team and where possible, adjustments have been made to the consent design. This included measures to narrow the corridor widening requirement affecting the permanent land take in the Town Belt and realigning the slip lane from Buckle into Sussex Streets to maximise the size and benefits of the useable public space creation outside the north gate of the Basin Reserve.

### Adequacy of information associated with the assessment

321. The Council requested, in lieu of an urban design and landscape framework being prepared, information on what guiding principles had informed the urban design and landscape outcomes of the Project, and to more clearly make the link with how urban design and landscape considerations have influenced the consent design of the Project and how it relates to the surrounding context.
322. In response to the feedback on this matter, the design team for the Project has documented a set of guiding urban design principles that have informed the design development of the Project to date, and that are intended to continue to inform the subsequent stages of design development to come. To address the information request, the design team has provided WCC a document setting out the key ways in which these high-level guiding principles have informed place-specific design and contextual integration outcomes at key locations across the five sections of the Project between the Terrace Tunnel and the Eastern Connections.
323. The design responses recorded are consistent with the Project understanding that has informed my assessment as reflected in the reasons and rationale I have set out in this report as to the matters that influence the nature and level of effects, both positive and adverse, I have assessed across each section of the Project.
324. The document setting out both the urban design principles and response to principles incorporated into the consent design is set out in Technical Report #4 (Design Assessment, prepared by Gareth

McKay), submitted as part of the supporting information with the substantive application of the Project.

325. More information was requested around the location and extent of future development potential on residual land that has been assumed. The memorandum on indicative development potential investigations and assumptions prepared by the WSP urban design and architectural design team specialists (Annexure A to my assessment report) provides this information. This information has also directly inputted into the preparation of the package of visual simulations, as set out and cross-referenced in the methodology statement set out in that document (Annexure B to my assessment report).
326. The Council requested reference images of examples of the landscape mitigation treatments proposed to mitigate cut slopes in association with the tunnel portal and retaining walls. These have been incorporated into my assessment report at paragraph 254 in relation to the mitigation measures proposed at the eastern portal of the proposed duplicate Mount Victoria Tunnel.

## Assessment methodology

327. Feedback on project guidance and scope queried the omission of the Aotearoa Urban Street Planning and Design Guide from the relevant industry best practice guidance identified as being applicable to urban design and landscape assessment matters addressed in the report. This omission was acknowledged and my report now includes reference to the Guide.
328. Feedback was also received from the Council on the spatial context and characterisation undertaken to inform the assessment, with the purpose of the spatial characterisation, the studies and inputs that have informed it clarified with the Council. In some instances, minor modifications to the spatial extent and naming of character areas depicted in mapped figures has been undertaken in response to Council feedback.
329. Assumptions on future development of residual land and how this has informed the assessment were also queried and clarified.

## The nature and degree of effects assessed

330. Feedback on my draft assessment report included comments on the consistency of factors that have influenced my assessment of effects across different areas of the Project, as well as the degree of effects concluded. In a number of locations, the feedback questioned the conclusions of my assessment in relation to the degree (magnitude or level) of adverse effects of project outcomes in particular locations, such as in relation to the permanent cut slopes associated with the northern portal of the Terrace Tunnel duplicate tunnel, effects on the Basin Reserve and Canal Reserve (the level of both positive and adverse effects), and effects on the Town Belt associated with the eastern portal of the Mount Victoria Tunnel portal and widened highway corridor along Ruahine Street.
331. I have reviewed effects assessment commentary and conclusions in response to the feedback. Where feedback raised questions of consistency with regard to due consideration of matters relevant to assessment of effects across different sections of the Project, this has been reviewed and, in some instances, updates to the assessment carried out to address this feedback.

## Further design development

332. Feedback from and discussion with the Council on the themes of urban design and landscape principles guiding the project extends to how urban design and landscape issues and outcomes will be managed and addressed through the further stages of design development. This includes how the mana whenua values and opportunities being identified will be addressed and incorporated.

333. In addition to the condition requirement that subject to final design, the Project be undertaken in general accordance with the consent drawings, which include the indicative landscape drawing package, I understand that the intent is for urban design and landscape matters to be managed through the provisions of the Outline Plan process. This process will include the preparation of an Urban and Landscape Design Management Plan that will manage the integration of the Project with the adjacent urban and landscape context. Provision for mana whenua involvement through the next stages of design development will also be brought together with urban design and landscape matters through conditions.

## 11. CONCLUSION AND RECOMMENDATIONS

334. The Project will result in some high adverse urban form, landscape and visual effects, especially during construction where the impacts on areas such as the Basin Reserve, Mount Victoria Tunnel portals, Ruahine Street and Hāitaitai Park in particular will be extensive. Areas where I have assessed high adverse landscape and visual operational effects relate to the impacts of large-scale earthworks, vegetation clearance and retaining walls and structures within the Town Belt and other areas of open space, where the mitigation from replacement areas of planting will take time to establish and will reduce effects gradually over time. Similarly, where I have assessed high adverse effects from the creation of residual land, aside from Sussex Street, this land is mostly able to be redeveloped in future, meaning the “urban void” impacts of missing built form and the lack of spatial definition and activation as well as severance issues that can sometimes be associated with vacant residual land can be expected to reduce over time.
335. Across all five sections of the Project, mitigation measures have been incorporated into the Project design that will contribute to the reduction, and in some instances, avoidance of potential adverse effects. In addition, in some sub-areas, particularly around the Basin Reserve, I have assessed multiple positive effects that arise from the ways in which the Project will re-shape the urban form and alter aspects of the landscape character.
336. Overall, I conclude that the Project has, through careful design responses to context, avoided the potential for significant adverse urban form, landscape and visual effects; that the adverse effects arising from the Project are at acceptable levels, that any permanent adverse effects will reduce over time, and the Project outcomes are overall acceptable from an urban design and landscape effects perspective