

ANNEXURE B – Visual Simulations (including methodology statement)

State Highway 1 Wellington Improvements

Project Technical Assessment #7 Urban Form, Landscape and Visual Effects Assessment

STATE HIGHWAY 1 WELLINGTON IMPROVEMENTS VISUAL SIMULATIONS PACKAGE

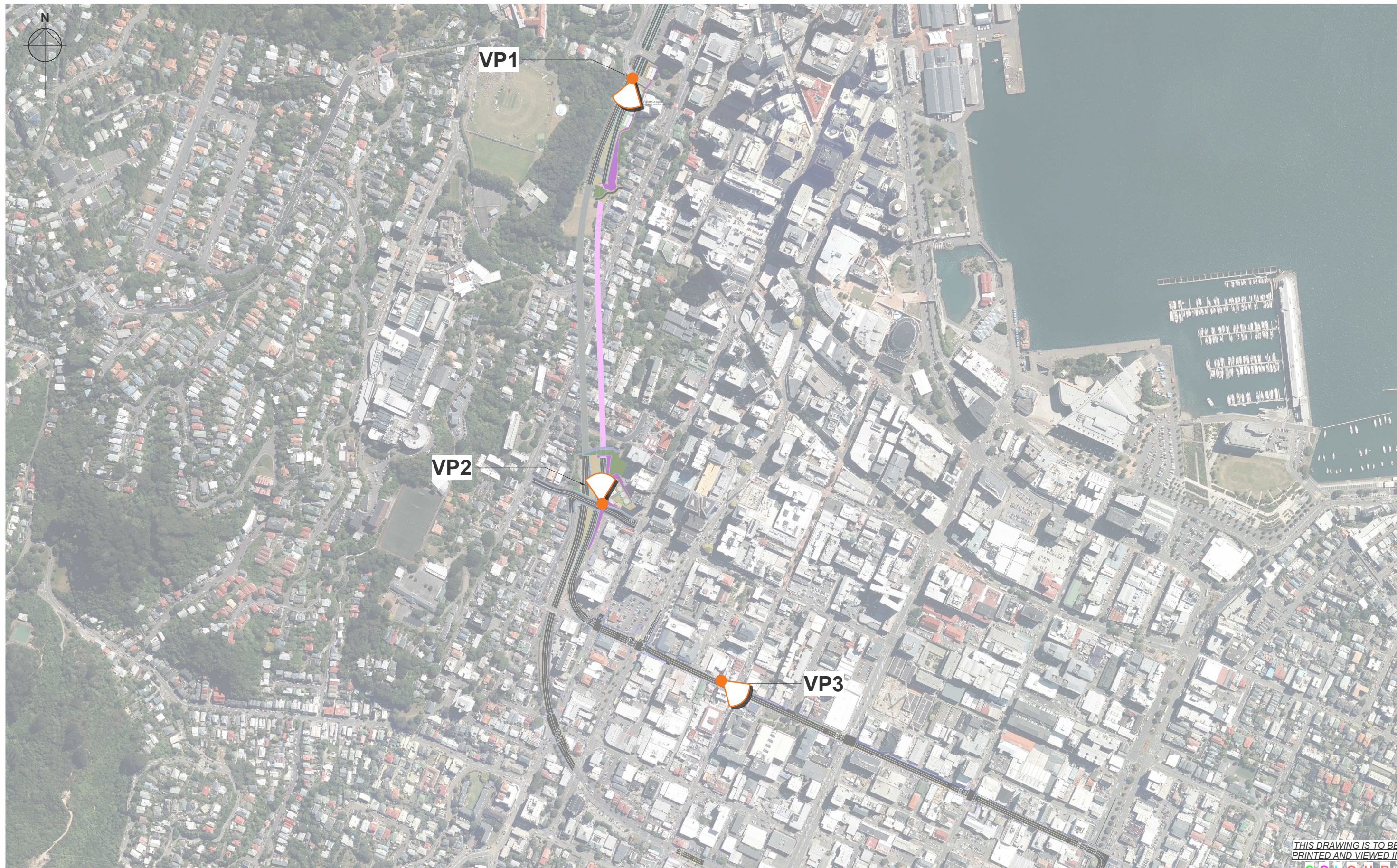
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Viewpoint Plan 1





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Viewpoint Plan 2



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Viewpoint Plan 3

VP1 | TERRACE TUNNEL NORTH FROM BOULCOTT STREET



VP1 | TERRACE TUNNEL NORTH FROM x STREET | **EXISTING VIEW**



VP1 | TERRACE TUNNEL NORTH FROM BOULCOTT STREET | **VISUAL SIMULATION OF PROPOSED VIEW**

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VP 2

TERRACE TUNNEL SOUTH FROM GHUZZEE STREET
BRIDGE



VP2 | TERRACE TUNNEL SOUTH FROM GHUZZEE STREET BRIDGE | EXISTING VIEW



VP2 | TERRACE TUNNEL SOUTH FROM GHUZZEE STREET BRIDGE | VISUAL SIMULATION OF PROPOSED VIEW

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VP 3 | VIVIAN ST LOOKING TOWARDS CUBA STREET INTERSECTION



VP3 | VIVIAN ST LOOKING TOWARDS CUBA STREET INTERSECTION | EXISTING VIEW



VP3 | VIVIAN ST LOOKING TOWARDS CUBA STREET INTERSECTION | VISUAL SIMULATION OF PROPOSED VIEW

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VP 4 | CANAL RESERVE NORTH OF BASIN RESERVE



VP4 | CANAL RESERVE NORTH OF BASIN RESERVE | EXISTING VIEW



VP4 | CANAL RESERVE NORTH OF BASIN RESERVE | VISUAL SIMULATION OF PROPOSED VIEW

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VP 4 | CANAL RESERVE NORTH OF BASIN RESERVE



VP4 | CANAL RESERVE NORTH OF BASIN RESERVE | VISUAL SIMULATION OF PROPOSED VIEW



VP4 | CANAL RESERVE NORTH OF BASIN RESERVE | DEVELOPMENT ENVELOPE

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VP5 | NORTH GATE OF BASIN RESERVE | EXISTING VIEW



VP5 | NORTH GATE OF BASIN RESERVE | VISUAL SIMULATION OF PROPOSED VIEW

VP 5 | NORTH GATE OF BASIN RESERVE



VP5 | NORTH GATE OF BASIN RESERVE | **VISUAL SIMULATION OF PROPOSED VIEW**



VP5 | NORTH GATE OF BASIN RESERVE | **DEVELOPMENT ENVELOPE**

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VP 6

PUKEAHU NATIONAL WAR MEMORIAL PARK



VP6 | PUKEAHU NATIONAL WAR MEMORIAL PARK | EXISTING VIEW



VP6 | PUKEAHU NATIONAL WAR MEMORIAL PARK | VISUAL SIMULATION OF PROPOSED VIEW

VP 7 | SUSSEX STREET LOOKING NORTH



VP7 | SUSSEX STREET LOOKING NORTH | EXISTING VIEW



VP7 | SUSSEX STREET LOOKING NORTH | VISUAL SIMULATION OF PROPOSED VIEW
(INCLUDING INDICATIVE MASSING OF 1 TASMAN DEVELOPMENT)

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VP 7 | SUSSEX STREET LOOKING NORTH



VP7 | SUSSEX STREET LOOKING NORTH | VISUAL SIMULATION OF PROPOSED VIEW
(INCLUDING INDICATIVE MASSING OF 1 TASMAN DEVELOPMENT)



VP7 | SUSSEX STREET LOOKING NORTH | DEVELOPMENT ENVELOPE

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VP 8 | ADELAIDE ROAD INTERSECTION LOOKING TO BASIN RESERVE



VP8 | ADELAIDE ROAD INTERSECTION LOOKING TO BASIN RESERVE | **EXISTING VIEW**



VP8 | ADELAIDE ROAD INTERSECTION LOOKING TO BASIN RESERVE | **VISUAL SIMULATION OF PROPOSED VIEW**

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VP 8 | ADELAIDE ROAD INTERSECTION
LOOKING TO BASIN RESERVE



VP8 | ADELAIDE ROAD INTERSECTION LOOKING TO BASIN RESERVE | VISUAL SIMULATION OF PROPOSED VIEW



VP8 | ADELAIDE ROAD INTERSECTION LOOKING TO BASIN RESERVE | DEVELOPMENT ENVELOPE

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VP 9 | PATERSON STREET LOOKING TO WESTERN PORTAL OF MT VICTORIA TUNNEL



VP9 | PATERSON STREET LOOKING TO WESTERN PORTAL OF MT VICTORIA TUNNEL | EXISTING VIEW



VP9 | PATERSON STREET LOOKING TO WESTERN PORTAL OF MT VICTORIA TUNNEL | VISUAL SIMULATION OF PROPOSED VIEW

VP 9

PATERSON STREET LOOKING TO WESTERN PORTAL
OF MT VICTORIA TUNNEL



VP9 | PATERSON STREET LOOKING TO WESTERN PORTAL OF MT VICTORIA TUNNEL | VISUAL SIMULATION OF PROPOSED VIEW



VP9 | PATERSON STREET LOOKING TO WESTERN PORTAL OF MT VICTORIA TUNNEL | DEVELOPMENT ENVELOPE

VP10

TAURIMA STREET LOOKING TO EASTERN PORTAL
OF MT VICTORIA TUNNEL



VP10 | TAURIMA STREET LOOKING TO EASTERN PORTAL OF MT VICTORIA TUNNEL | EXISTING VIEW



VP10 | TAURIMA STREET LOOKING TO EASTERN PORTAL OF MT VICTORIA TUNNEL | VISUAL SIMULATION OF PROPOSED VIEW

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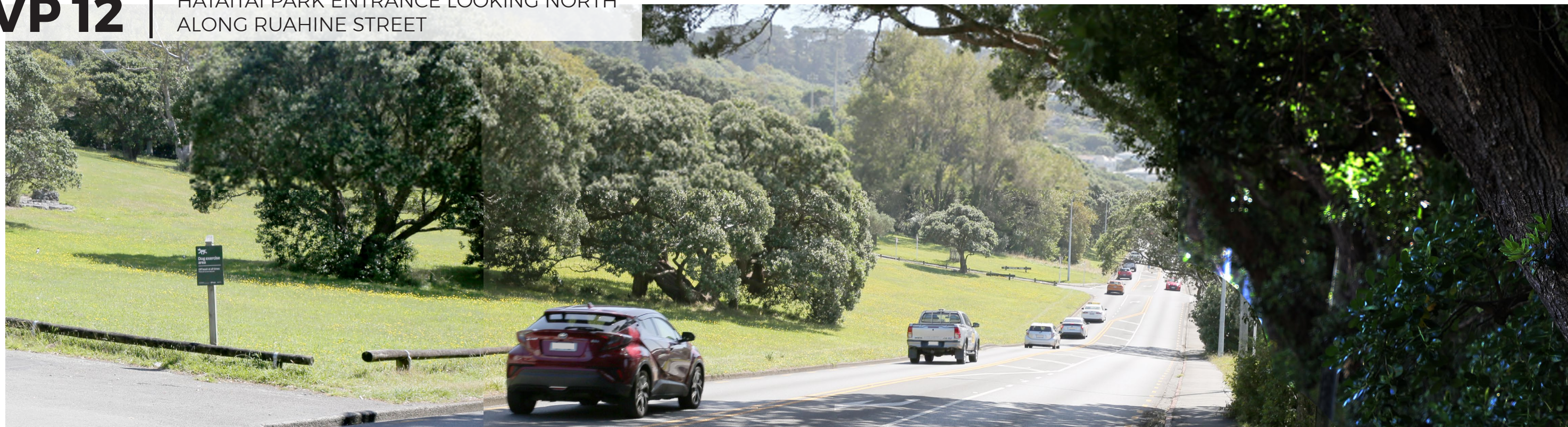
VP11 | RUAHINE STREET LOOKING NORTH | EXISTING VIEW



VP11 | RUAHINE STREET LOOKING NORTH | VISUAL SIMULATION OF PROPOSED VIEW

VP 12

HATAITAI PARK ENTRANCE LOOKING NORTH
ALONG RUAHINE STREET



VP12 | HATAITAI PARK ENTRANCE LOOKING NORTH ALONG RUAHINE STREET | **EXISTING VIEW**



VP12 | HATAITAI PARK ENTRANCE LOOKING NORTH ALONG RUAHINE STREET | **VISUAL SIMULATION OF PROPOSED VIEW**

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VP 13

WELLINGTON & HAMILTON ROAD
INTERSECTION LOOKING SOUTHWEST



VP13 | WELLINGTON & HAMILTON ROAD INTERSECTION LOOKING SOUTHWEST | **EXISTING VIEW**



VP13 | WELLINGTON & HAMILTON ROAD INTERSECTION LOOKING SOUTHWEST | **VISUAL SIMULATION OF PROPOSED VIEW**

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VP14 | WELLINGTON & HAMILTON ROAD INTERSECTION LOOKING KILBIRNIE PARK | **EXISTING VIEW**



VP14 | WELLINGTON & HAMILTON ROAD INTERSECTION LOOKING KILBIRNIE PARK | **VISUAL SIMULATION OF PROPOSED VIEW**

APPENDIX A: METHODOLOGY FOR VISUAL SIMULATIONS



Figure 1: Viewpoint 1 - Existing imagery

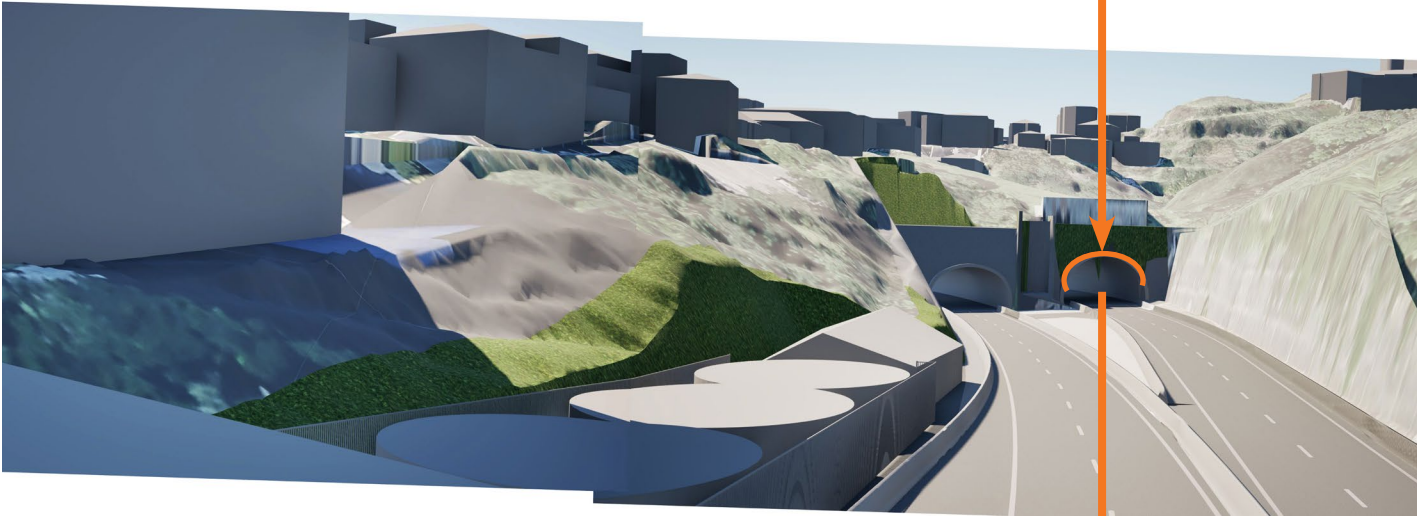


Figure 2: Viewpoint 1 - Model of proposed design

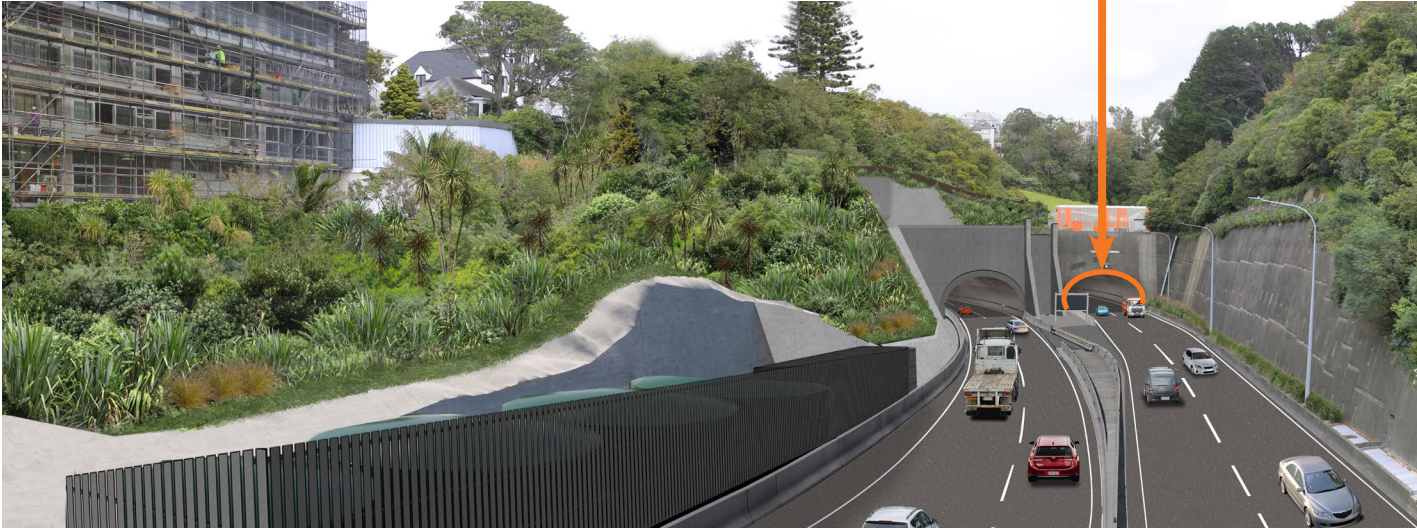


Figure 3: Viewpoint 1 - Simulation of proposed design

All Viewpoints

1. Viewpoint locations were selected using the following criteria:

A) The viewpoint represents a pedestrian view from the location for both the existing view and the proposed visual simulation. Pedestrian views are considered more sensitive and subject to higher degree of change.

B) The proposed visual simulation view was 'scoped' within the digital model to ensure that this view would represent the resulting environment in that location

2. All viewpoint images taken on Full frame DSLR cameras with 50mm focal length (Canon EOS 5d MkIII). Camera was secured on a tripod at 1.6m height to represent eye height. Photos by Braydon Narbey in February and March 2026.

3. Existing viewpoint images requiring photo stitching taken in landscape mode were stitched in photoshop on manual modes with distortion avoided. Extent of individual frames as an example is represented in Figure 1.

4. GPS coordinates were collected on-site from the location of viewpoint photography. Coordinates were used to position the digital model camera to align the output from the model (Fig. 2) to the location of the viewpoint photography.

5. Existing elements and ground truthing elements were used to verify the location of the digital model outputs when overlaid on the viewpoint photography. As seen in Figure 1, 2 and 3 the orange line shows, the Terrace Tunnel portal in Figure 1 was used to align the model output to ensure the correct location of the visual simulation.

6. Proposal and surrounding wider context modelled in Revit, Infraworks and Twinmotion is georeferenced with correct coordinates to align with the location of the viewpoint photography. Outputs from the digital model are set to 50mm focal length (digital equivalent) to best align with the viewpoint photography.

7. In all viewpoints the materiality, textures, vegetation species, geometric design, roading and linework are taken from the design documentation. Please refer to the SH1 design documentation for full details.

8. Where existing elements such as buildings that are visible in the existing imagery are being retained, the proposed visual simulation uses the underlying existing imagery as a default. Where existing elements are revealed because of removal of foreground elements in the existing imagery, indicative built form massing (depicted as grey boxes), vegetation cover and underlying topography that is modelled in the Infraworks context model has been used to represent the existing elements that will be retained. In circumstances where an existing element is further revealed in the proposed design (Fig. 3) the existing imagery is used to simulate what would be revealed.

9. Image panoramas are 3:1 (H:V) ratio except for the following Viewpoints which required additional height to capture existing context and are therefore 3:2 (H:V) ratio: Viewpoint 2, 7, 9, 10, and 12.

10. The estimated viewing distance for the proposed views to be viewed from the viewpoint location is approximately 500mm from the eye.

11. Built form massing of indicative development envelopes on residual land created by the project has been depicted in accordance with assumptions set out in SH1WI-DES-00-UDL-MEM-00001, and the additional simulation methodology detailed on the following page.

12. Viewpoint 7 specifically shows indicative massing of the consented One Tasman development and has used provided drawings of the development to be modelled on the site within the digital model. The massing is shown as a 'grey box' with indicative levels to indicate the overall size of the development without assuming materiality or overall look.

APPENDIX B: METHODOLOGY: DEVELOPMENT ENVELOPES

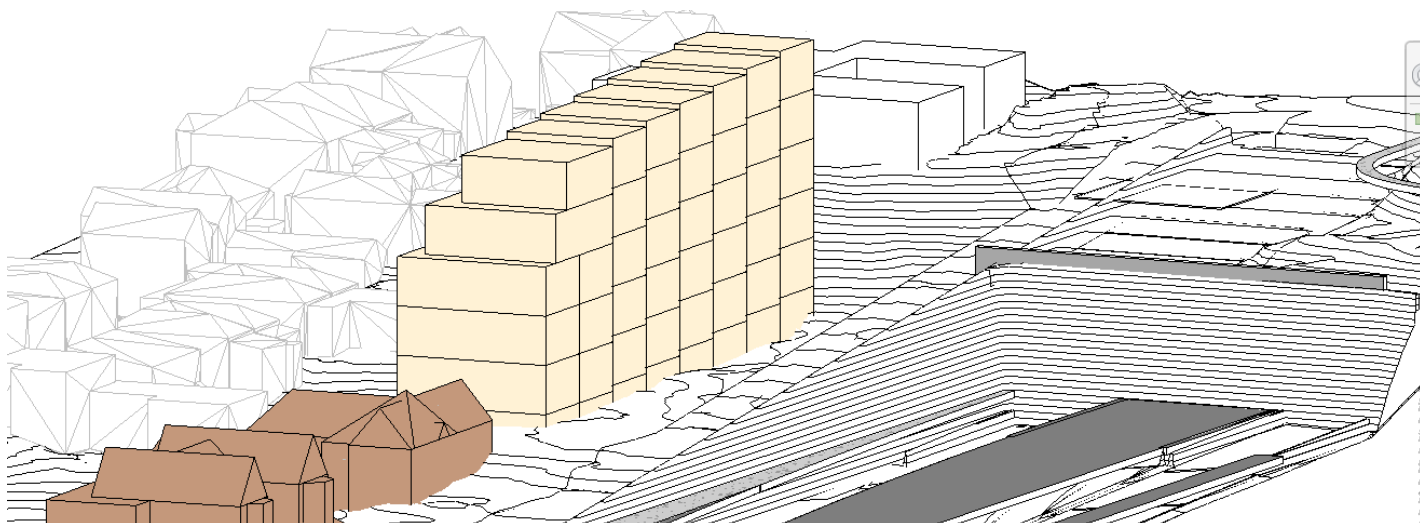


Figure 4: Viewpoint 9 - Revit model of development (Refer to SH1WI-DES-00-UDL-MEM-00001)

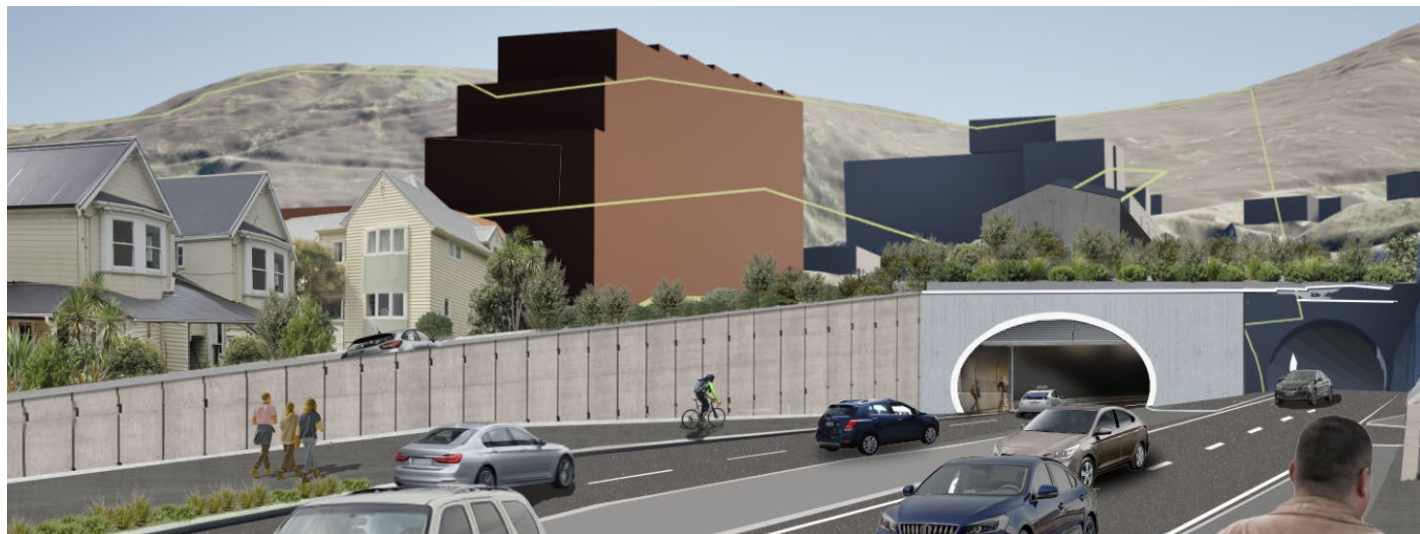


Figure 5: Viewpoint 9 - Revit model overlay on proposed visual simulation view



Figure 6: Viewpoint 9 - White box treatment of maximum development envelope mass

Development Envelope Viewpoints

2. The extent of the development masses are based on maximum allowance from the Wellington District Plan for each specific location of the available residual land. Refer to SH1WI-DES-00-UDL-MEM-00001 for District Plan review and visualisation assumptions.
3. All development envelopes are shown consistently across the Visual Simulation package as a 'white box' massing with indicative floor levels.
4. The development masses are modelled in Revit and geolocated to be positioned in the wider site model. The masses are then overlaid into the proposed design visual simulation and treated with the 'white box' appearance as an indication of the maximum envelope.
5. Perspective gridlines were created as a double check overlay on the proposed visual simulation and used to check the perspective of the development mass. The perspective gridlines were also used to indicate the floor level lines on the masses.