Under	the Resource Management Act 1991
In the matter of	hearings of submissions and further submissions on the Proposed Wellington City District Plan
By	**The Trustees of the Eldin Family Trust** Submitter

STATEMENT OF EVIDENCE OF BENJAMIN LAMASON

16 MARCH 2023

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INTRODUCTION

1. My full name is Benjamin Robert Lamason.

Qualifications and Experience

2. I am a landscape and architectural visualiser, and the director and manager of Matter Visuals Ltd. My business trades as Matter Visualisation Studio and is based in Wellington.

3. I have a Bachelor of Design in Landscape Architecture from Victoria University of Wellington, completed in 2008.

4. I have worked as a landscape architect and 3D visualisation specialist for various firms in New Zealand, Australia and the United Kingdom.

5. As a landscape architect for Gillespies UK in 2011–2012, I undertook construction documentation and concept design services on a number of high profile projects, including:

    (a) The Sky Garden at 20 Fenchurch Street, London;

    (b) The Crossrail Place Roof Gardens, Canary Wharf, London;

    (c) A new campus for the University of Reading at Iskandar, Malaysia.

6. As the head of the visualisation team at Tract Consultants, Melbourne, Australia (2013–2018), I regularly undertook visual assessment work for use as expert evidence in the Victorian Civil and Administrative Tribunal (VCAT). The scope of my work for VCAT hearings included greenfield residential subdivisions, mining and infrastructure projects, and large buildings in Melbourne City. In this role, I would undertake onsite surveying and photography and preparation of 3D models for presentation to the tribunal.

7. The projects I worked on at Tract Consultants included:

    (a) The Northern Connector Highway, South Australia;

    (b) RACV Cape Schanck Resort, Victoria;

    (c) Waterlea Estate, Queensland.

8. In March 2018 I founded Matter Visualisation Studio in Wellington. My studio specialises in creating photorealistic imagery and film for marketing and sales of architectural projects in New Zealand and Australia, as well as photography services. Some examples of our recent work include a visual assessment for a master planned community in Napier, and marketing imagery and film for Hunua Views, a residential development near Drury, Auckland.

Scope of Evidence

9. I have been engaged by the Trustees of the Eldin Family Trust to provide a visual simulation of the addition of six and nine storey building envelopes in Selwyn Terrace, Thorndon, from the perspective of Viewshaft 1 (VS1) and Viewshaft 4 (VS4) in the Wellington City Proposed District Plan.

10. I have been provided a copy of Schedule 4 of the Proposed District Plan, which describes VS1 and VS4. I have used the descriptions of those viewshafts in preparing my report.

Code of Conduct

11. I have read the Code of Conduct for expert witnesses in the Environment Court Practice Note 2023 and I have complied with it when preparing this evidence. My evidence is a visual simulation and within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the content of my evidence.

12. My area of expertise is visual simulation. Accordingly, my evidence is confined to a visual simulation of six- and nine-storey buildings in Selwyn Terrace from VS1 and VS4, rather than a comment on the nature and significance of the visual and landscape effects of such development.

My evidence

13. My visual simulation report for the addition of six and nine storey building envelopes in Selwyn Terrace is **attached** to this statement.

14. My report starts with a statement of my methodology, including the software used in preparing my simulation, the data sources for my 3D model, and the type of camera used.

15. I took a photograph from VS1 towards Parliament and Tinakori Hill on 13 December 2022. This photograph is on page 2 of my report.

16. I then cropped that photograph to match up with the margins and base of VS1 in the Proposed District Plan. This crop is shown by the dotted lines on page 2 of my report.

17. I used a software model to overlay six-storey (21 m high) and nine-storey (27 m high) buildings in Selwyn Terrace onto my photograph of VS1. The position of my camera was calibrated into the 3D model using the site features SP1, SP2 and SP3 as shown on pages 12–15 of my report.

18. The cropped photograph of VS1 with the addition of six-storey and nine-storey buildings is shown on pages 4 and 6 of my report.

19. I then used a software model to carry out an equivalent exercise from VS4, based on an image of this viewshaft obtained from Google Maps. Pages 29 and 30 in my report show the addition of six-storey and nine-story buildings in Selwyn Terrace from VS4.

20. Finally, pages 31 to 34 of my report show mass models of six and nine-storey buildings in Selwyn Terrace from a bird's eye view above Thorndon.

21. I consider that the visual materials in my report provide an accurate simulation of the views from VS1 and VS4 if there were six- or nine-storey buildings in Selwyn Terrace.

BENJAMIN LAMASON
16 MARCH 2023

SELWYN TERRACE

Visual Simulations

Douglas White

16/12/2022

Statement of Methodology

The 3d model was prepared in 3D Studio Max 2022 using data downloaded from https://koordinates.com/

- 1m contours
- Geo referenced aerial imagery
- Vector building footprints

A 3d terrain file was created from the 1m contours which was then draped with the georeferenced aerial image and vector building footprints. The 3d terrain was used as a reference point for the location of where the VS1 Photo was taken.

In the digital space a point was located that represents the base of the physical tripod and camera. At 1500mm above this point a 3D camera was created with the same lens information as the real camera.

3d building information was downloaded from https://data-wcc.opendata.arcgis.com/

The 3d building model was aligned to the vector building footprint in the terrain model and the elevation was set using the reference points on the Beehive Plint and the location at the base of the tripod using elevation data from https://wcc.maps.arcgis.com/.

Using the elevation point at the base of the tripod; Ground levels (GL) were taken from four locations near Selwyn Terrace.

- Selwyn Terrace +39.54m
- Upper Hill St +29.59m
- Lower Hill St +27.37m
- Mercy Conference Centre +36.60m

At each of the Ground Levels, two sets of mass models were created based on the vector footprints of the existing buildings. These mass models represent potential future building envelopes.

- 6 storeys @ 21m
- 9 storeys @ 27m

The photo *DSCF3016.jpg* was then applied to the software background for the purpose of aligning the virtual camera with the photograph. The virtual camera was then rotated so the 3d buildings were correctly aligned with the photo.

During photography, physical site features in the foreground were measured. In the 3d model measuring staffs were aligned with the location of the physical site features. This was undertaken for the purpose of checking that physical and digital measurements were correct.

Once the digital model was set up, CGI images or 'Renders' were exported at the same ratio and size as the photograph. These were then overlaid onto the photo in Photoshop without any scaling or distortion. A foreground mask of trees and traffic lights was created so that the 3d mass model would sit behind foreground elements in the photo simulation.

Software used

- 3DS Max
- Photoshop

Statement of Methodology

Data sources for 3d model

- Wellington City 1m Contours (2009)

  1m contours for urban Wellington including Makara Beach and Makara Village. Based on a DTM created from 2006 LiDAR and updated using 2009 photogrammetry masspoints and breaklines where significant changes in the terrain were detected. WCC generalised the contours by up to 0.2m in order to reduce the number of vertices in the dataset. Contours generated from LiDAR and photogrammetry should not be used for detailed engineering design.
  https://koordinates.com/layer/8584-wellington-city-1m-contours-2009/

- Wellington 0.3 Rural Aerial Photos (2021)

  Orthophotography within the Wellington Region taken in February 2021.
  Imagery was captured for Greater Wellington Regional Council by AAM NZ Limited, 6 Ossian St, Napier, New Zealand.
  The supplied imagery is in terms of New Zealand Transverse Mercator (NZTM) map projection. Please refer to the supplied tile layout shape file for specific details, naming conventions, etc.
  Imagery supplied as 30cm pixel resolution (0.3m GSD), 3-band (RGB) uncompressed GeoTIFF. The final spatial accuracy is ± 2.0 m @ 90% confidence level.
  https://data.linz.govt.nz/layer/105727-wellington-03m-rural-aerial-photos-2021/

- Wellington City Building Footprints

  Vector Multipolygon, Wellington City Region
  Imported on Feb. 23, 2016 in NZGD2000 / New Zealand Transverse Mercator 2000.
  https://koordinates.com/layer/8586-wellington-city-building-footprints/

- 3D Wellington: WCC and AAM NZ Ltd's 3D Data Viewer

  3D Buildings in Wellington, New Zealand, covering the area from Kaiwharawhara in the north, to Melrose in the South, and extending from Kelburn to Rongotai. Captured 5th May 2017.
  https://wcc.maps.arcgis.com/apps/webappviewer3d/index.html?id=535397a9276d4f56abeddbf22a189581

  https://data-wcc.opendata.arcgis.com/maps/d-pipitea-south/about

- Camera

  Fujifilm X-S10 Lens 18-55MM

  Leveled and mounted on tripod at 1500mm

* Please copy URL links directly into browser if loading incorrectly

1 **Wellington View Shafts**

2 **VS1: Photograph - DSCF3016.jpg**

3 **VS1: Simulation - 6 Storeys**

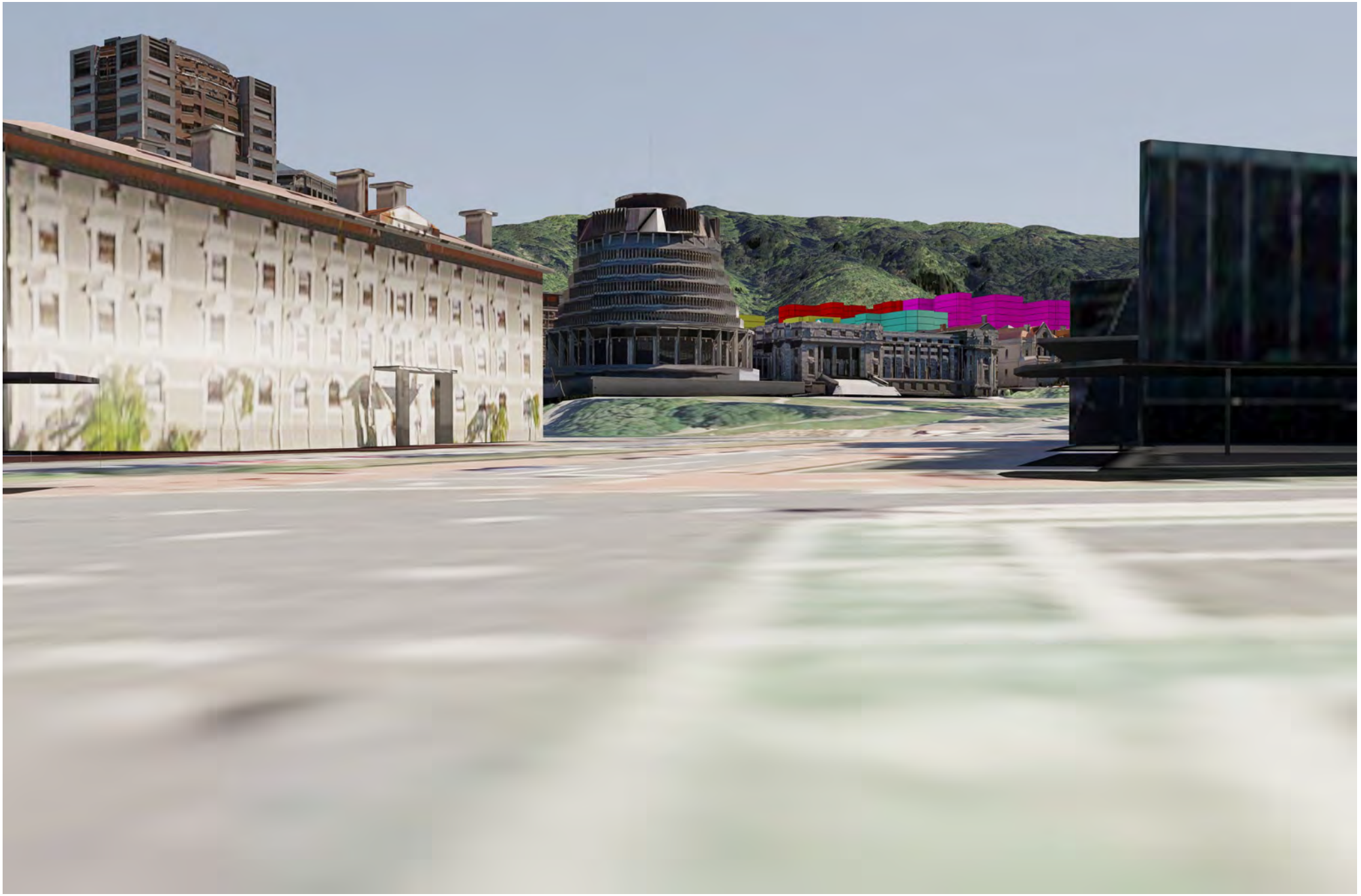
4 **VS1: CROP - Simulation - 6 Storeys**

5 **VS1: Simulation - 9 Storeys**

6 **VS1: CROP - Simulation - 9 Storeys**

7 **VS1: 3d model - Existing Conditions**

8 **VS1: 3d model - 6 storeys**



9 **VS1: 3d model - 9 storeys**

10 **VS1: Simulation - Existing Conditions - Red line overlay**

11 VS1: Photograph - Red line overlay from simulation

VS1: Simulation - Staff measurements overlay

 3D Model: Staff locations in model

SP 1 1860 mm

SP 2 580 mm

SP 3 1250mm

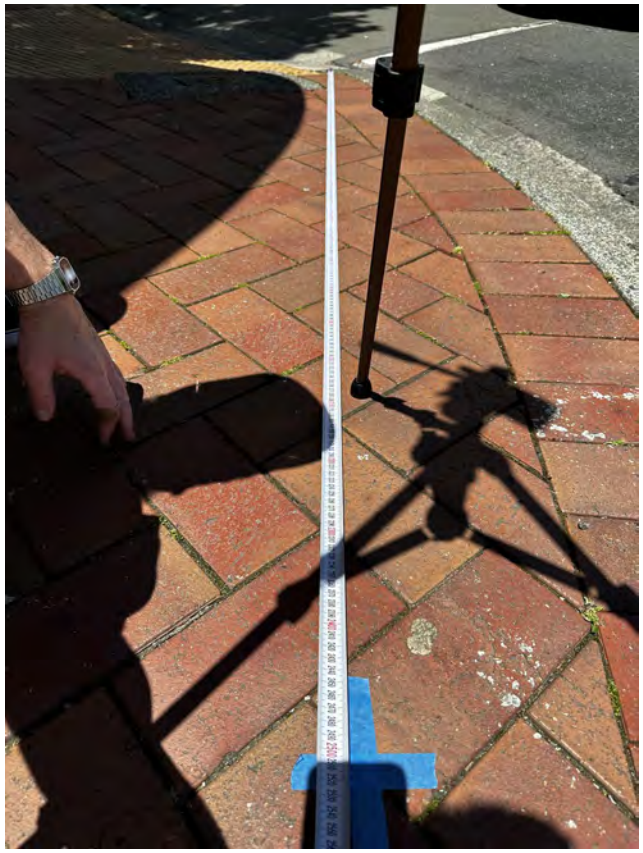
15 **Detail view of SP 1**

Tripod location

Camera height 1500 mm

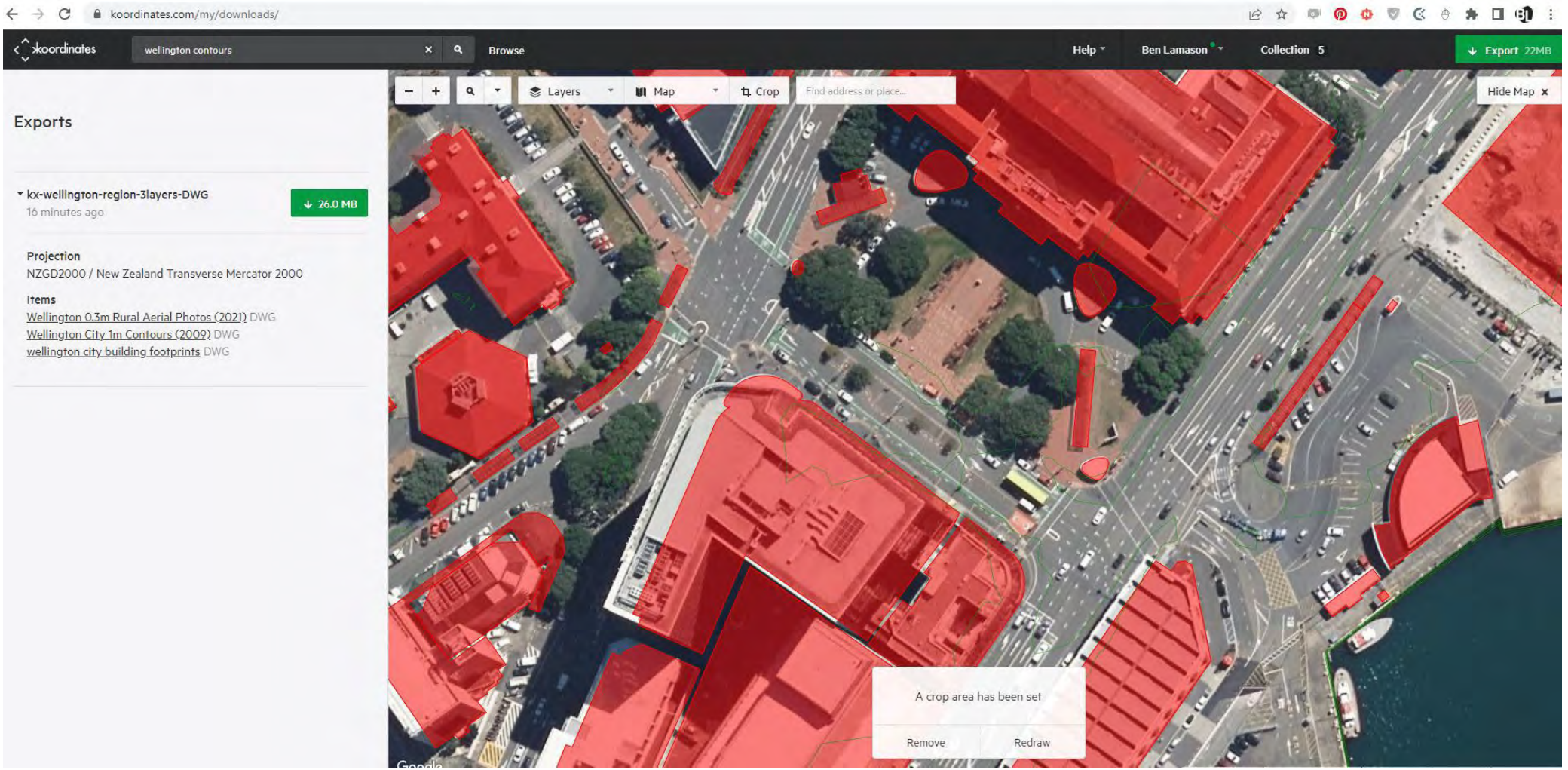
Camera settings

Tripod distance to features



Tripod distance to features

Tripod distance to features


koordinates.com/my/downloads/
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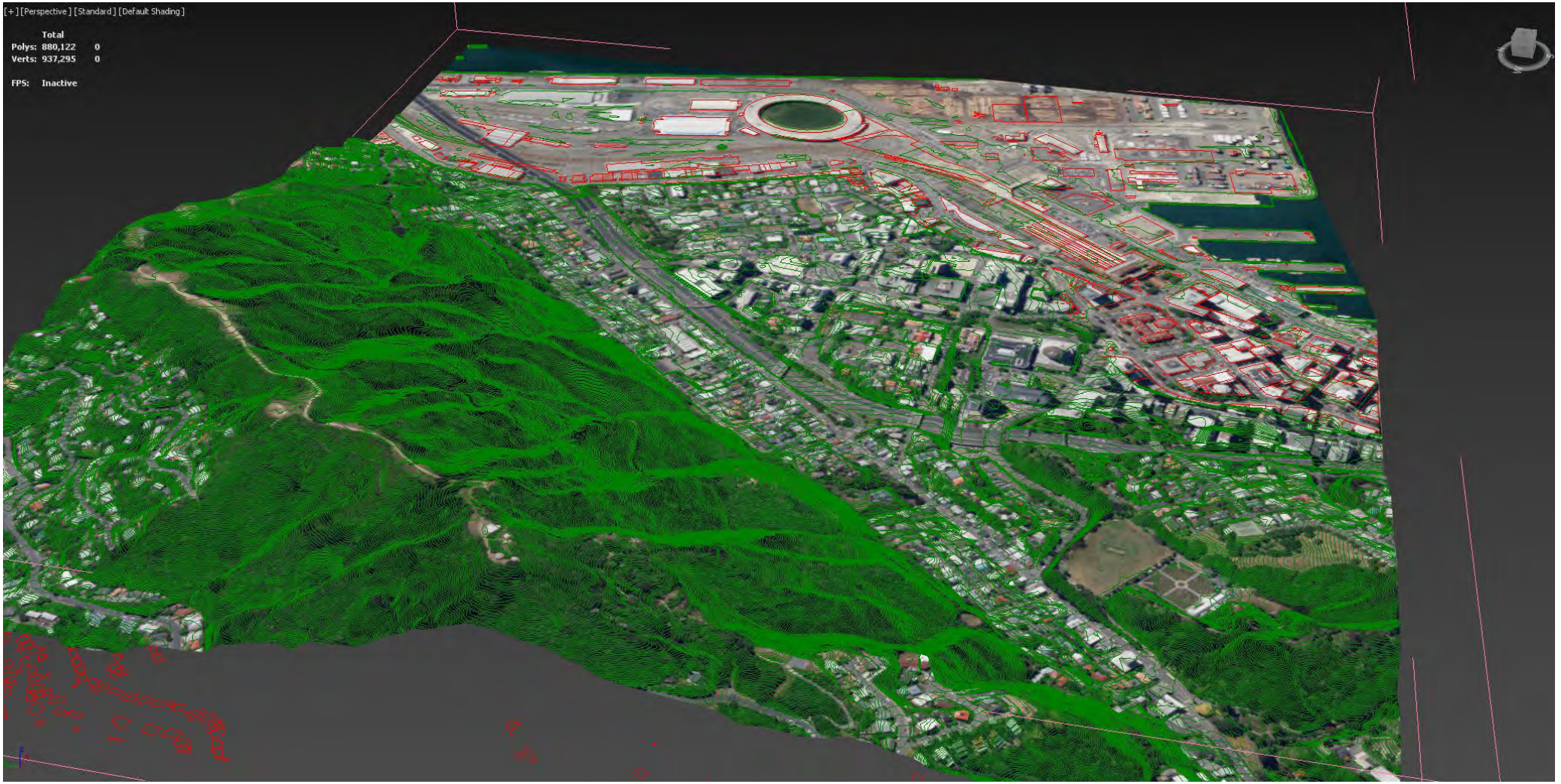
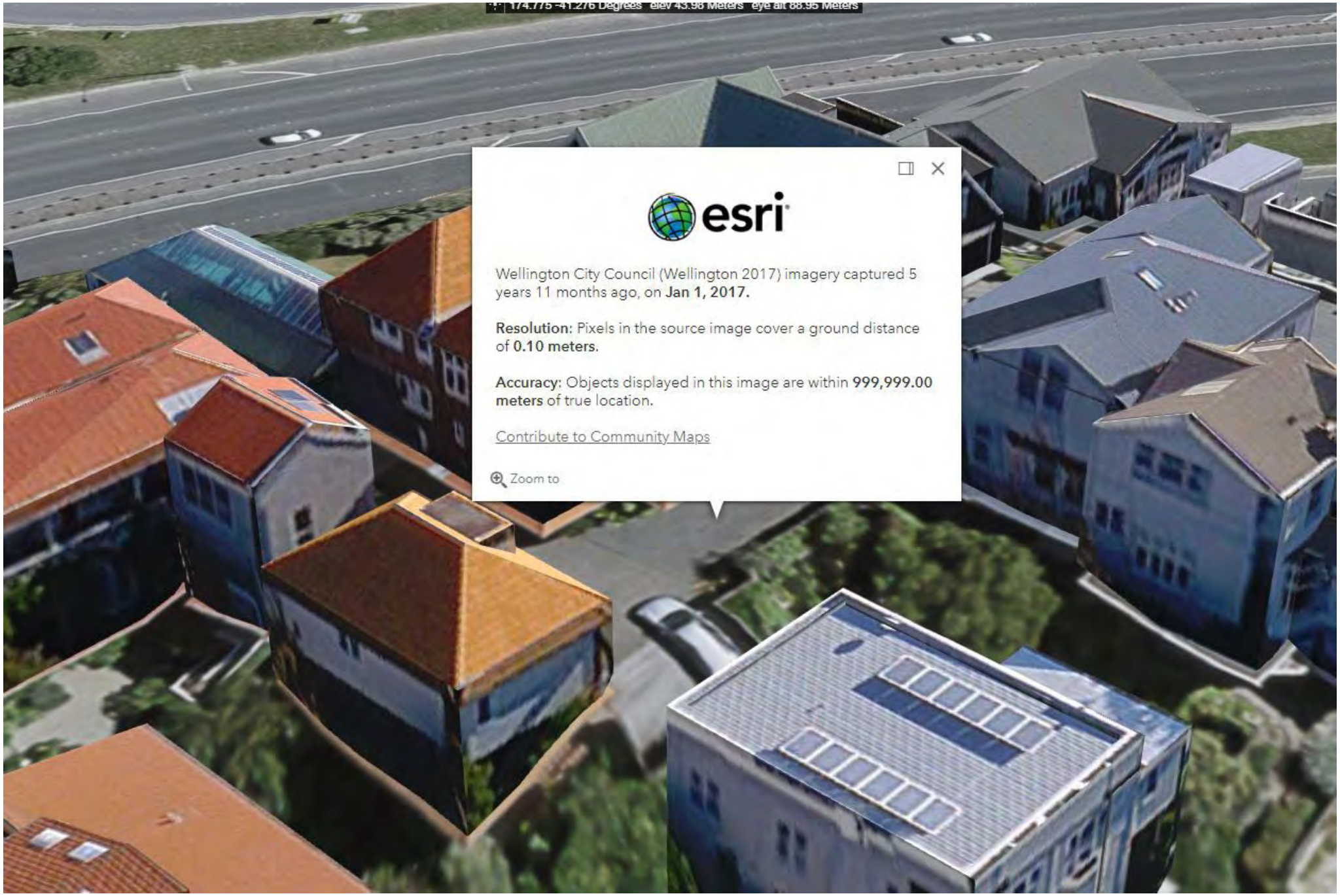
wellington contours
Browse
Help
Ben Lamason
Collection 5
Export 22MB
Exports
kx-wellington-region-3layers-DWG
16 minutes ago
26.0 MB
Projection
NZGD2000 / New Zealand Transverse Mercator 2000
Items
Wellington 0.3m Rural Aerial Photos (2021) DWG
Wellington City 1m Contours (2009) DWG
wellington city building footprints DWG
Layers
Map
Crop
Find address or place...
Hide Map
A crop area has been set
Remove
Redraw

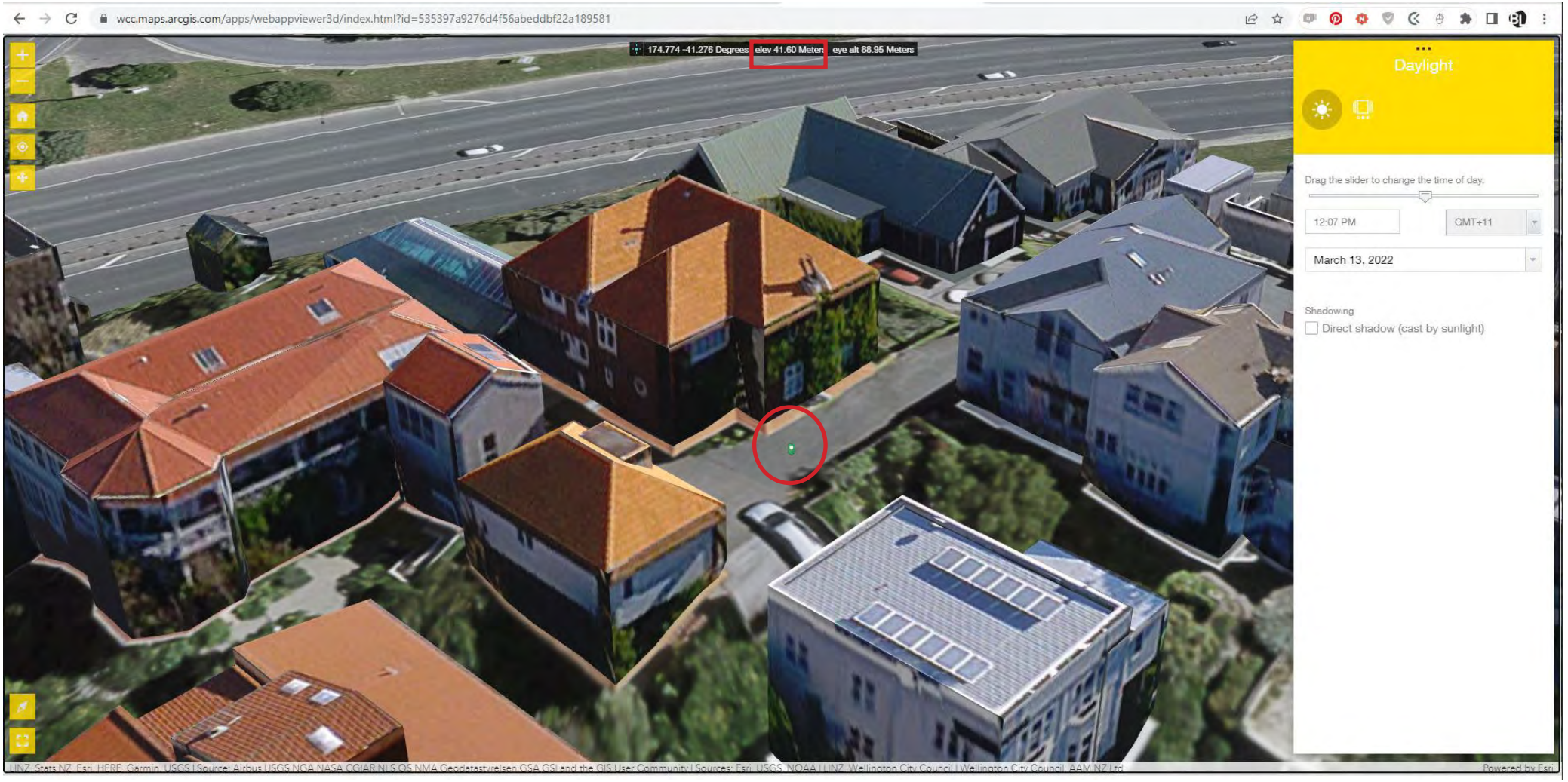


 3d Model: Extent of 3d model

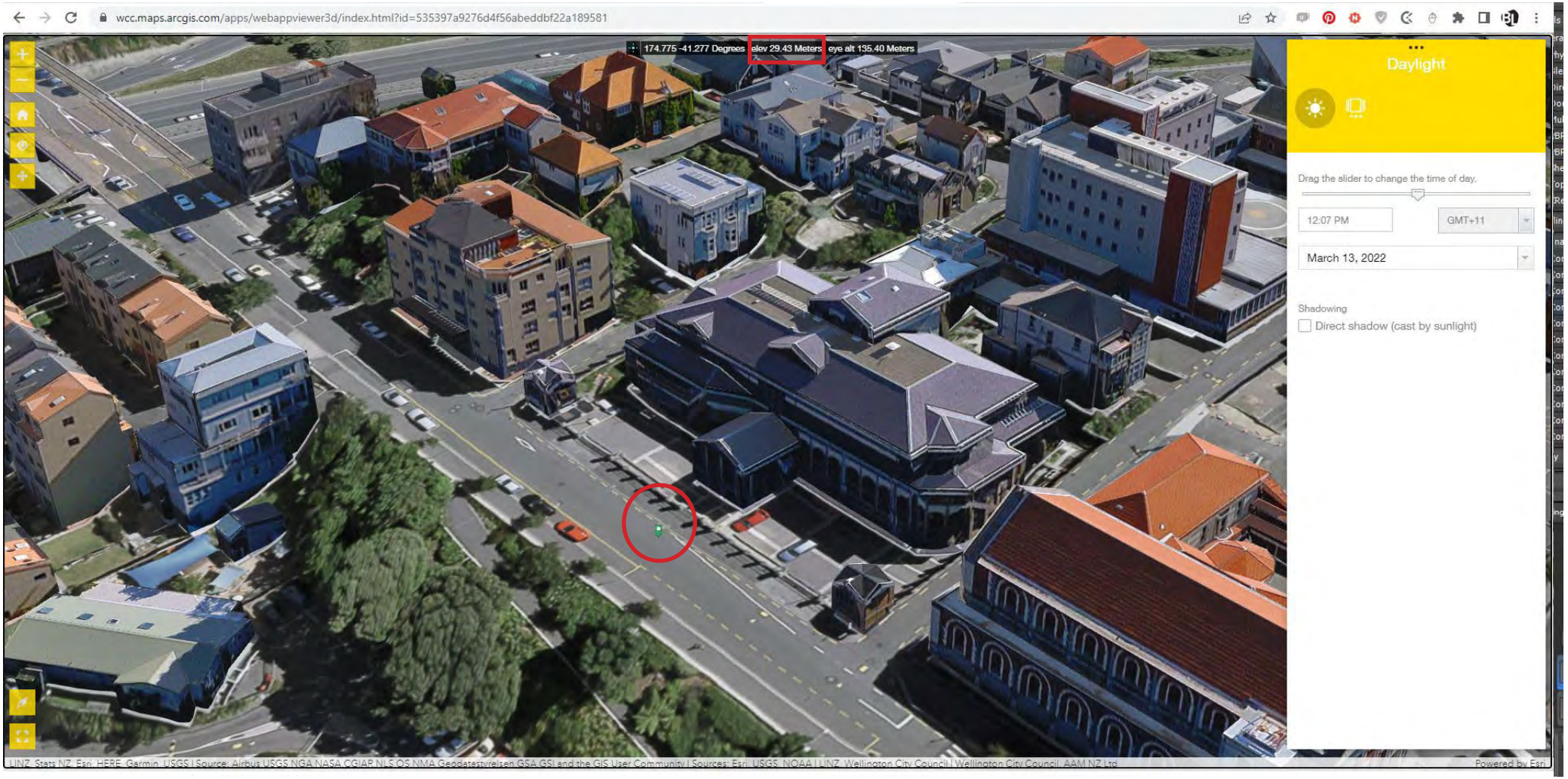
wcc.maps.arcgis.com/apps/webappviewer3d/index.html?id=535397a9276d4f56abeddbf22a189581
174.766 -41.241 Degrees elev 204.87 Meters eye alt 283.31 Meters
Wellington City 3D Viewer
LINZ, Stats NZ, Esri, HERE, Garmin, USGS | Source: Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community | Sources: Esri, USGS, NOAA | LINZ | Wellington City Council, AAM NZ Ltd
Powered by Esri


174.775 -41.276 Degrees elev 43.98 Meters eye alt 88.95 Meters
esri
Wellington City Council (Wellington 2017) imagery captured 5 years 11 months ago, on Jan 1, 2017.
Resolution: Pixels in the source image cover a ground distance of 0.10 meters.
Accuracy: Objects displayed in this image are within 999,999.00 meters of true location.
Contribute to Community Maps
Zoom to

 3d Model: Camera location - ground elevation



23 **3d Model: Selwyn Terrace - ground elevation**



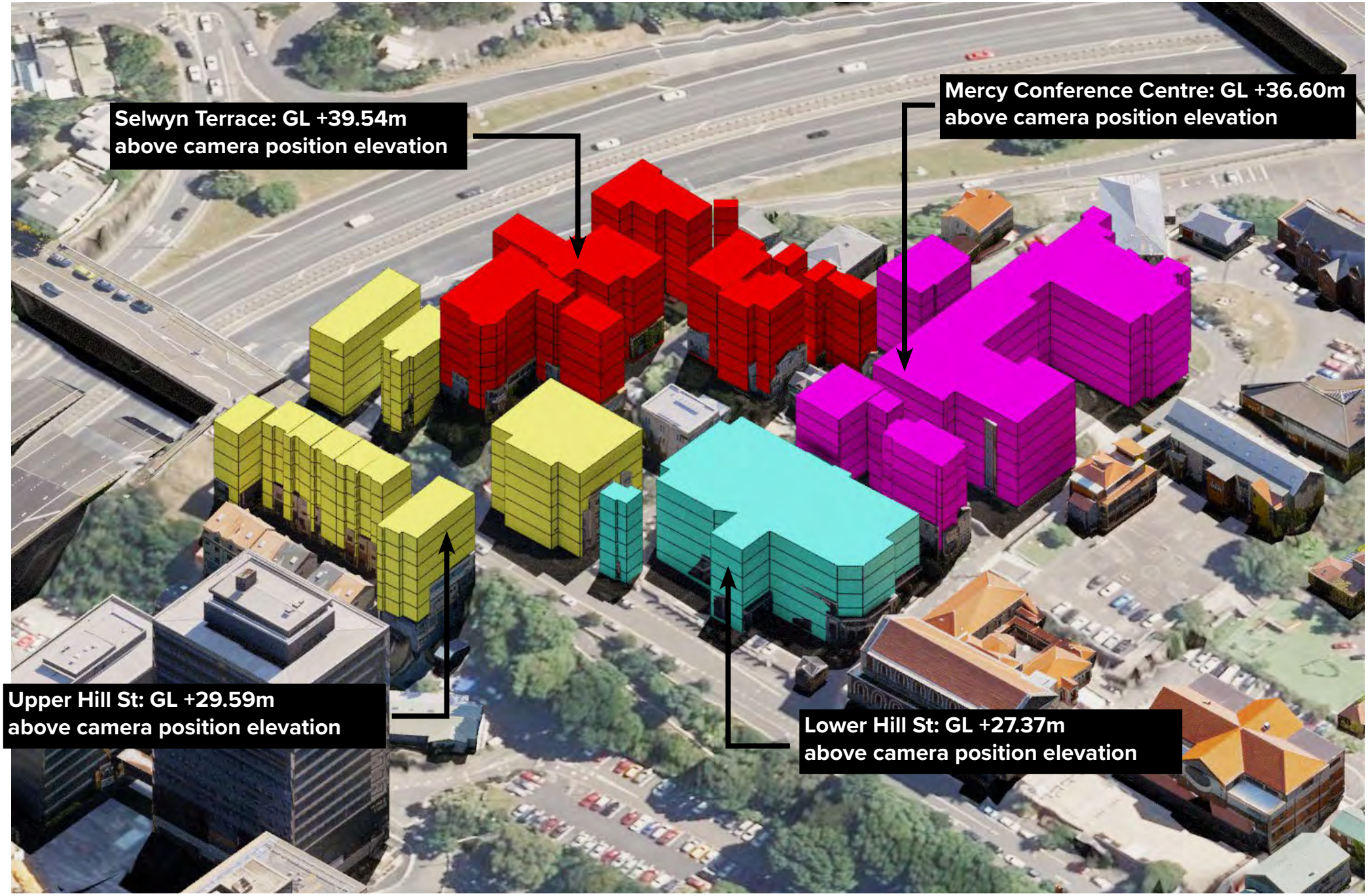
24 **3d Model: Lower Hill St - ground elevation**

25 **3d Model: Mercy conference centre - ground elevation**

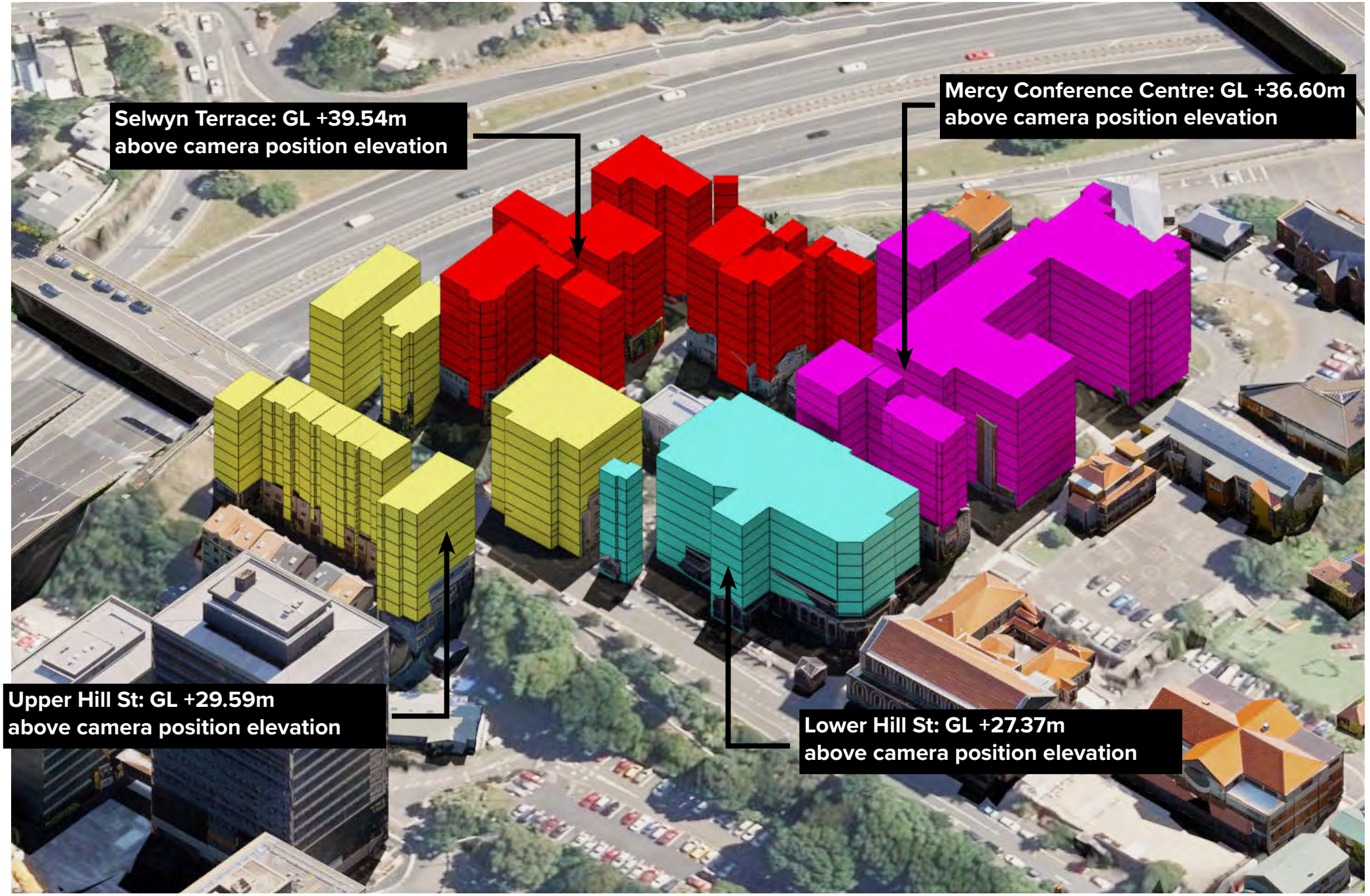
 3d Model: Beehive plinth elevation

 VS4 The Beehive and The Cenotaph – Whitmore Street - Google Maps

 VS4: Render - 6 Storeys - 50mm lens



3d Model: Mass model 6 storeys



 3d Model: Mass model 9 storeys

33 **3d Model: Mass model 6 storeys**

34 **3d Model: Mass model 9 storeys**