George Street Precinct

Proposed Private Plan Change: Drawing Set | Rev11 9 April 2020



Prepared For

George Street Precinct

Document Control

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George Street Precinct -Introduction

The proposed George Street Precinct applies to an approximately 7,900m2 site between Parnell and Newmarket, with three street frontages: George Street, Morgan Street and Clayton Street.

Project Vision

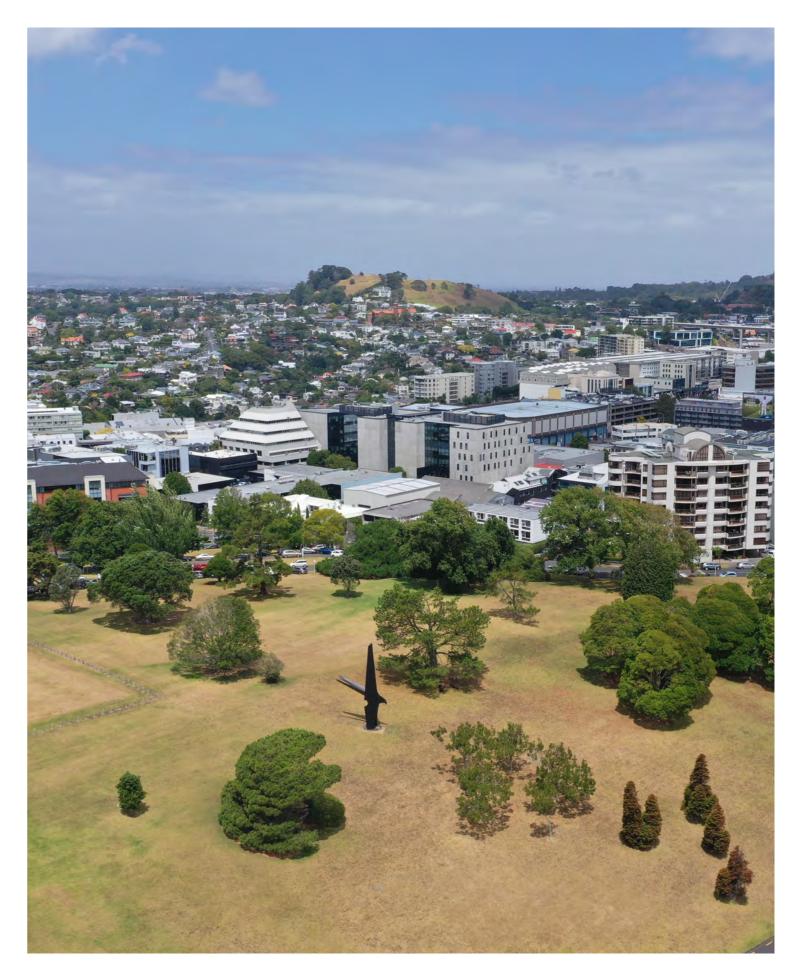
- A comprehensively designed mixed use precinct, with a high quality built form and high amenity, publicly accessible spaces, including a pedestrian link between Clayton Street and George Street and a pedestrian plaza, both edged by retail and commercial units, creating a community focal point for this northern part of Newmarket.
- Buildings of a height that enables increased residential and commercial capacity, responding to the opportunities offered by access to public transport and other amenities, while being of a design quality and form that integrates them into the surrounding urban context.
- Extending the pedestrian focused Newmarket laneways through to Auckland Domain, providing, for the first time, Newmarket with a 'face' to this significant public open space asset.

Document Purpose and Structure

This document is structured in three sections: Section A is an urban design based analysis of the George Street Precinct site and its context. Section B shows a concept design scheme that tests how the Precinct might be developed in a manner which achieves the site's identified opportunities and addresses its constraints. It includes plans and elevations of the concept design, perspective images, and model shots of the concept as placed within the existing and future planned Newmarket and Parnell environments.

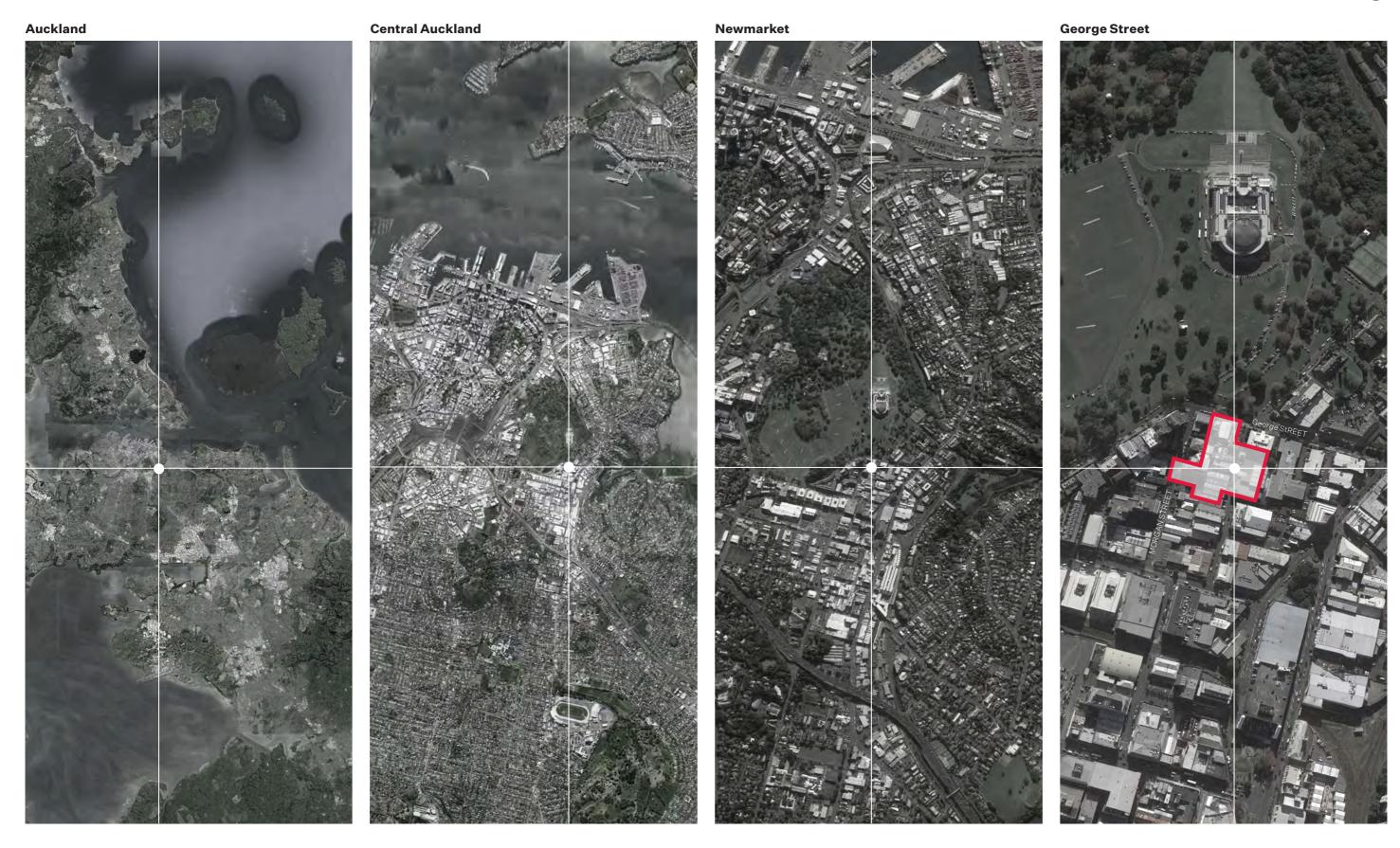
Section C provides a diagrammatic analysis of the key Plan Change standards, with representative cross sections of the proposed Precinct development envelope overlaid over the concept design scheme. It also includes additional analysis such as shading diagrams.

The Drawing Set is part of a suite of documents supporting the George Street Precinct Plan Change. Its purpose is to communicate the key characteristics of the site and wider area and the opportunities for development they provide; to summarise a concept scheme that has been developed to achieve the vision for the Precinct; and to show diagrammatic analysis of key Plan Change provisions that have been developed from the concept scheme.



Site Analysis

Location



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Site Plan

Easements



Zoning and Overlay



Quick Reference / Summary

- The site has Business Mixed Use zoning.
- Adjoining sites have Business Mixed Use zoning.
- Metropolitan Centre zoning applies to Broadway / Khyber Pass to the south.
- Open Space zoning applies to Pukekawa / The Domain.
- A 27m Height Variation Control applies to the site and other Mixed Use zoned sites, with Height Variation Controls also modifying underlying zone height on other THAB and Metropolitan Centre zoned sites.
- The NZ Foundation for the Blind Building (George St) is subject to an Historic Extent of Place Overlay.
- Historic Heritage Place Overlays apply to the Cricket Stand in Pukekawa / The Domain and to The Domain entry gates on Park Road.
- Pukekawa / The Domain is subject to an Outstanding Natural Features Overlay and Historic Heritage Extent of Place Overlay.
- The closest recorded Sites & Places of Significance to Mana Whenua Overlay is within the Auckland Hospital grounds on Park Road. This is Schedule Item 53 Tokiwhatinui - recorded by Ngati Whatua o Orakei. This is described as 'Waahi whakahirahira, a battle site in the grounds of present day Auckland
 - * Refer to following pages for Volcanic Viewshaft overlays

Key

Metropolitan Centre Mixed Use

Terraced Housing & Apartments Mixed Housing Urban Mixed Housing Suburban

Single House Open Space: Sport & Active Recreation Open Space: Informal Recreation

Special Purpose Zone Historic Heritage Overlay Extent of Place

Historic Heritage Overlay Place



Outstanding Natural Features Overlay

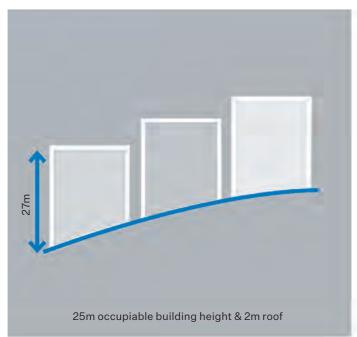


Height Variation Control Area



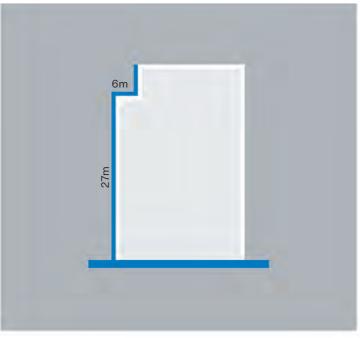
Sites & Places of Significance to Mana Whenua Overlay

Mixed Use Zone: Development Standards

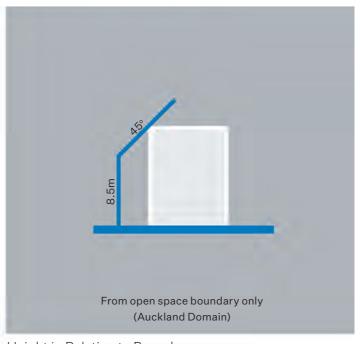


Height Limit

Landscape



Building Setback



Height in Relation to Boundary

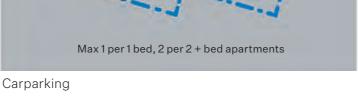
Additional Mixed Use Zone Provisions

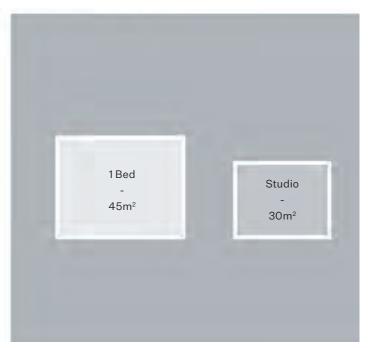
- New Buildings: Restricted Discretionary. Assessment against matters including building design and appearance, passive surveillance, CPTED, avoiding views to blank walls and enhancing pedestrian amenity.
- Maximum dimension of building above 27m must not exceed 55m.
- 6m outlook required from residential dwelling's principal living area and 3m from all other habitable

Note: Boundary simplified for diagrammatic purposes



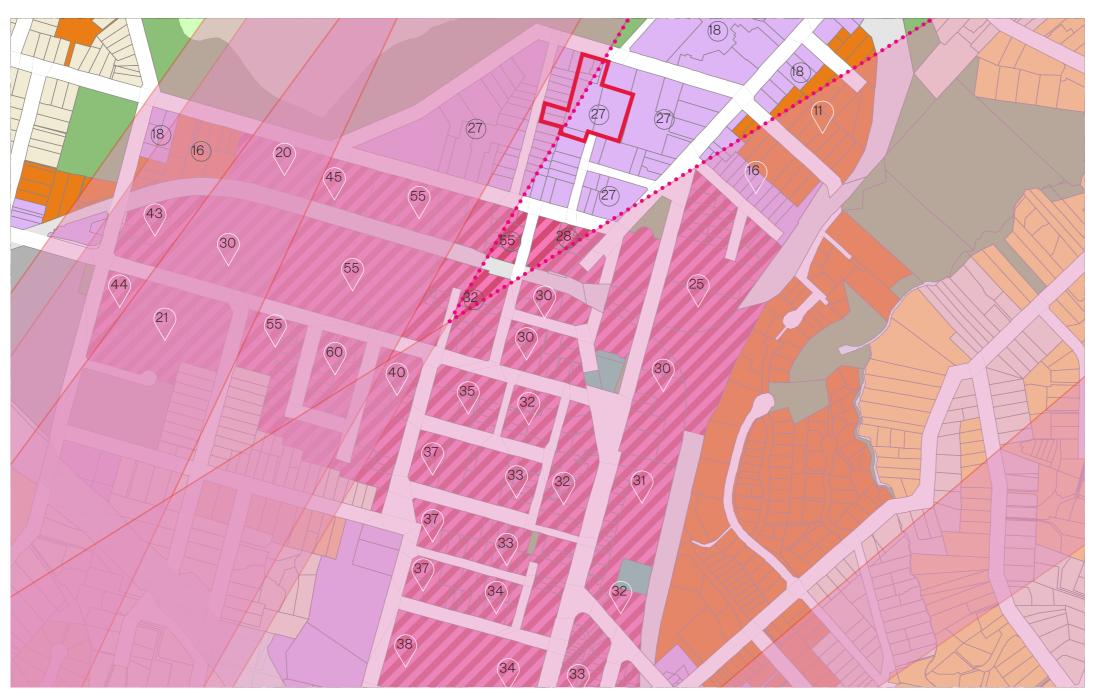
Max 1 per 1 bed, 2 per 2 + bed apartments





Minimum Dwelling Size

Volcanic Viewshafts / Maximum Permitted Heights

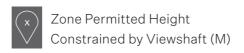


- Volcanic viewshafts pass over the majority of Newmarket, with the exception of a slice of land in the northern part of Newmarket, including part of
- The interplay of the volcanic viewshafts and the Height Variation Controls modifies the underlying zone's permitted height on most sites in the wider Newmarket area.
- For Metropolitan Centre zoned sites, the volanic viewshafts are lower than the zone's 72.5m standard permitted height, reducing maximum permitted heights to a range from 20m - 60m.
- For Mixed Use zoned sites, including the subject site, in the Height Variation Control area (refer plan on previous page), the 27m permitted height is unaffected by the volcanic viewshafts, as these pass over at a higher height.
- The volcanic viewshaft over the subject site's northwestern corner is at approximately 34m and at its south-western corner at approximately 49m.
- While all Metropolitan Centre zoned sites are affected by the volcanic viewshafts, there is a central grouping of sites in the Carlton Gore Road and Khyber Pass Road area, including the University of Auckland campus, where permitted heights range from 45m - 60m, a potential 13 - 18 storeys.

Key

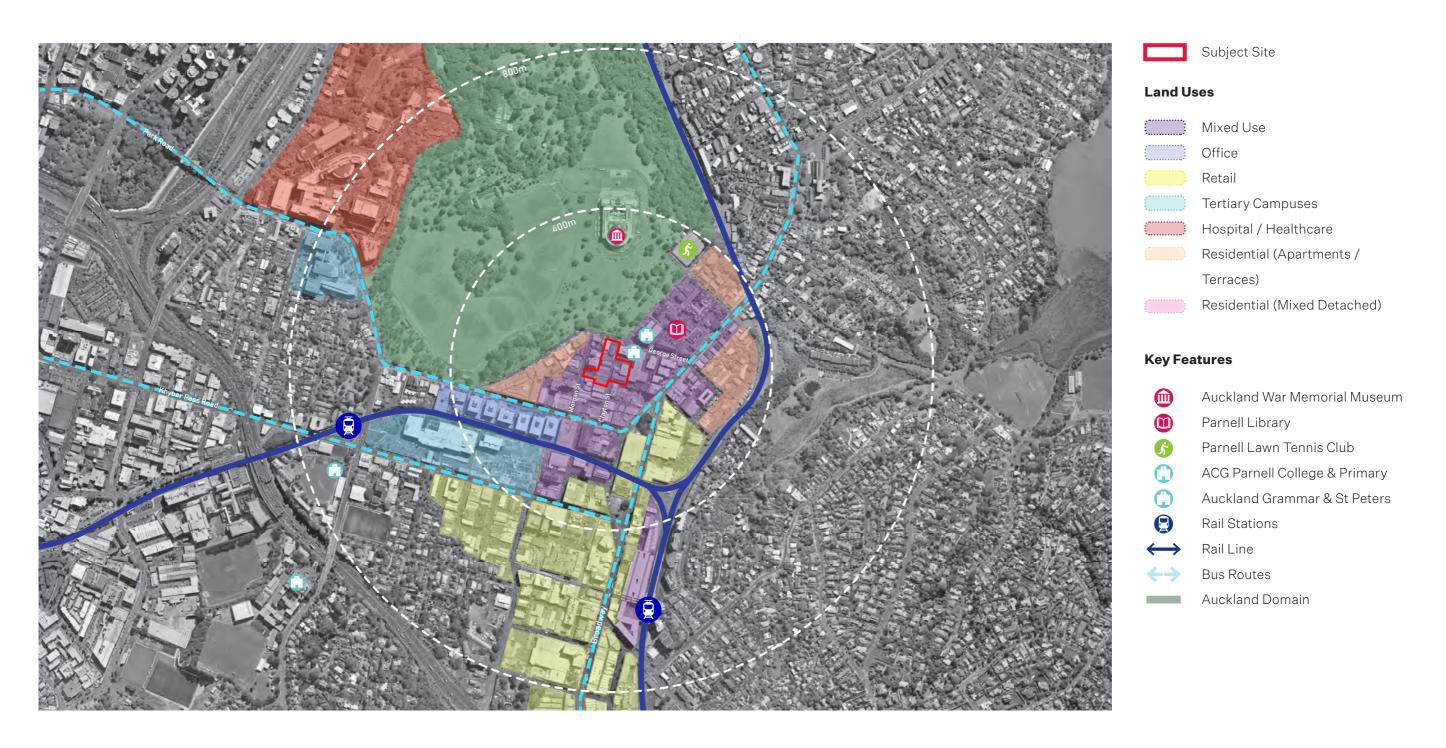






(27) Height Variation Control Area or Zone Standard Height Area Unconstrained by Viewshaft (M)

Neighbourhood Context



Streets and **Connections**





Osbourne Street



Osbourne Street Laneway



Auckland Council Newmarket Laneways Plan

Key







Pedestrian Network



Key

Pedestrian Links



Train Station

Key Development Sites





2 Westfield 277-309 Broadway



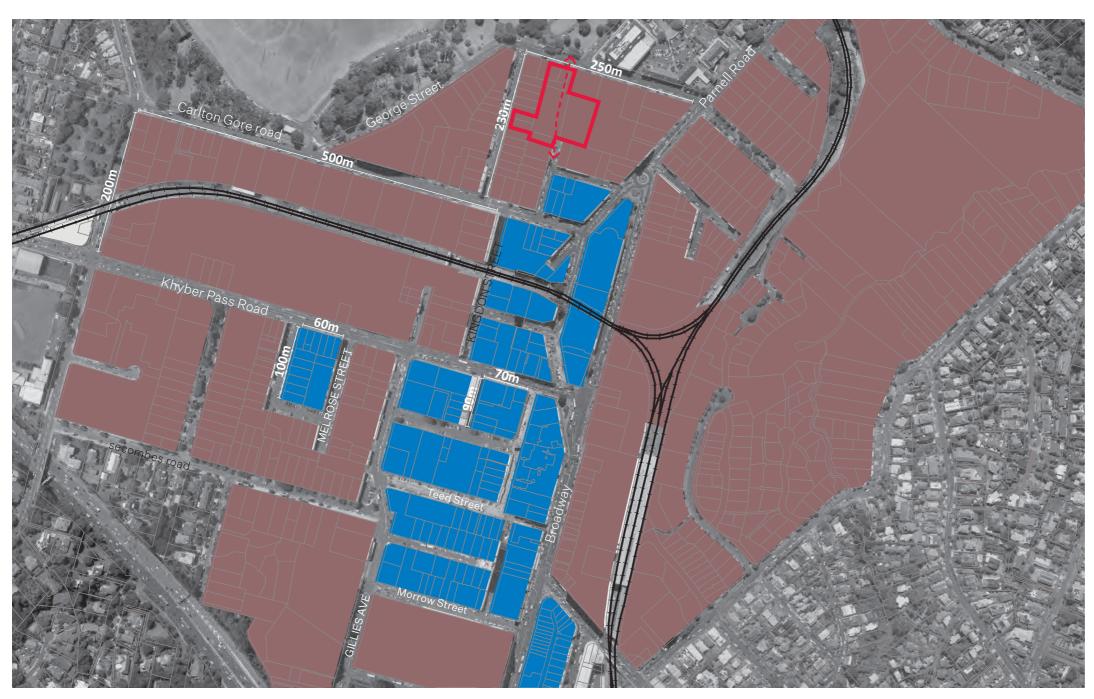
8 Mercury Energy Head Office



Nuffield Residences

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Block Sizes



Newmarket's laneways are edged by small blocks, maximizing pedestrian connectivity and mixed-use opportunities.

The site is on a large block just to the north of the grouping of small blocks. There is poor formal connectivity through the block. However, pedestrians frequent/use the site's existing north-south vehicle link to walk between George Street and Clayton Street, south through into Newmarket.

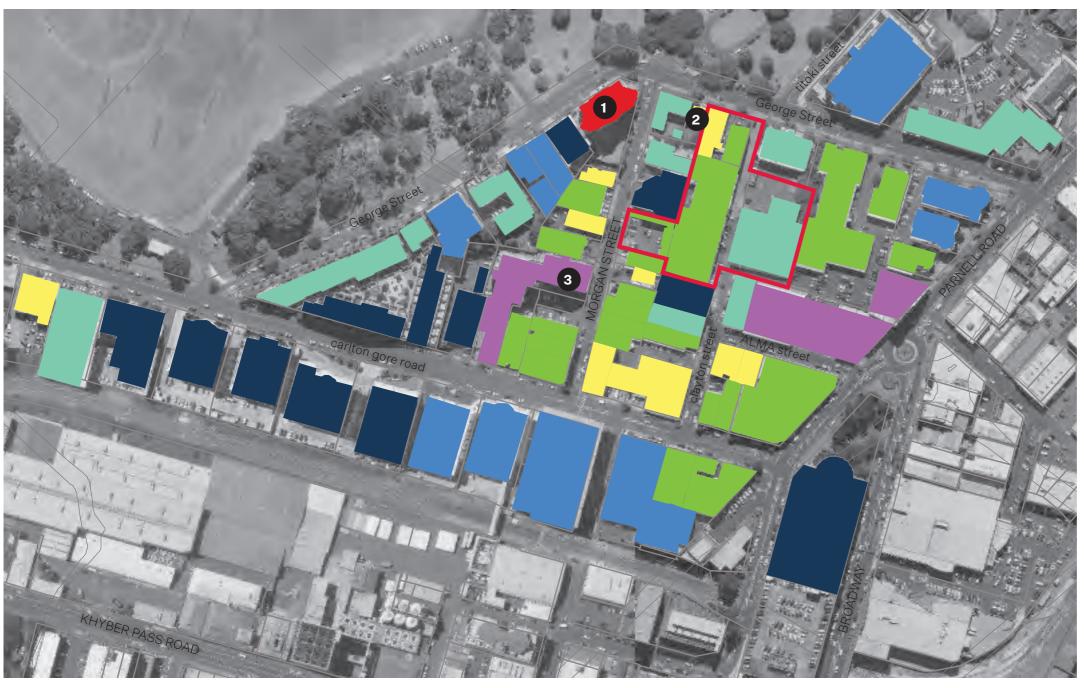
Key

Site

 Large Blocks with Poor Permeability Small Blocks with Good Permeability

<--> Existing Driveway through the Site

Existing Building Heights





1 27 George Street: Parkwood Residences



2 31 George Street



3 10 Morgan Street

Key

Site

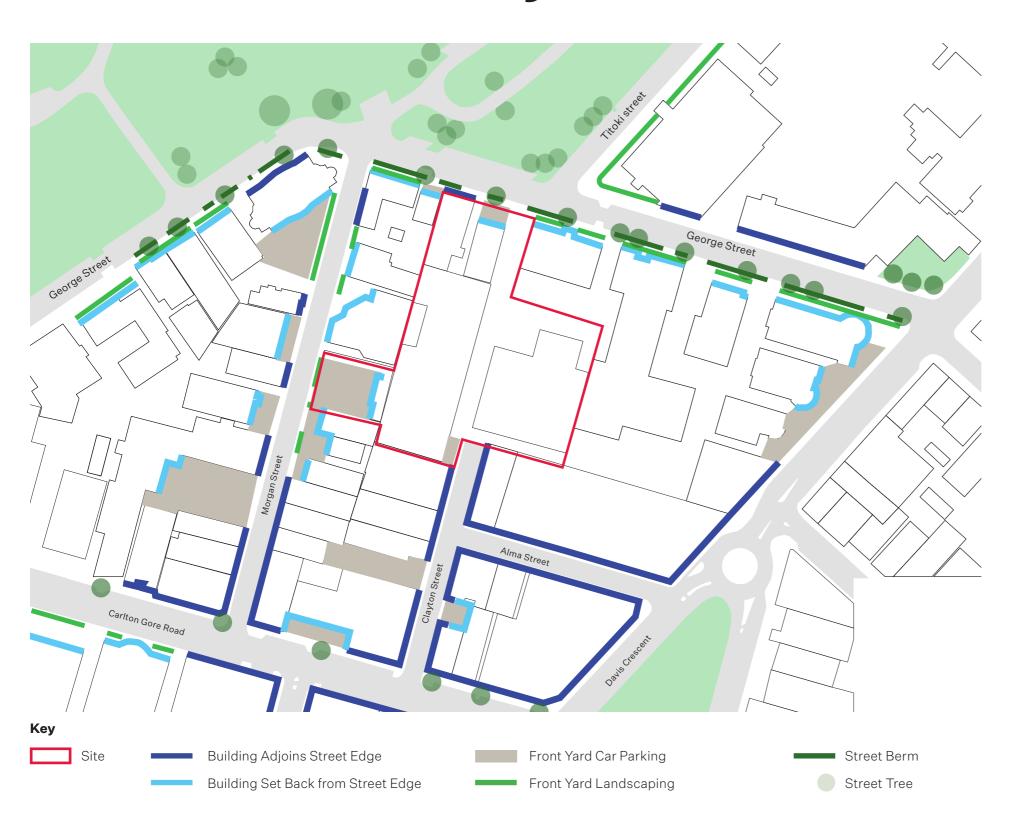
1 Storeys / 5M 2 Storeys / 8M

3 Storeys / 12M 4 Storeys / 16M

5 Storeys / 20M 6 Storeys / 24M

8 Storeys / 27M

Edge Conditions & Pedestrian Amenity



George Street

High landscaped amenity - Opposite the expansive green space of Pukekawa / The Domain. Notable presence of street trees, grass berms, and front yard landscaping (with building setbacks).

Morgan Street

Generally lower pedestrian amenity street, due to prevalence of street edge carparking, number of vehicle crossings, inconsistent built edge (building setbacks) and narrow footpaths. Steep slope, falling to the south.

Clayton Street

Narrow footpaths, but 'hard' urban edge due to buildings directly adjoining footpath.

Carlton Gore Road

A quality, urban pedestrian environment at its eastern end due to street tree planting, buildings adjoining footpath and active ground floor uses. At its western end, an office park of setback buildings behind port cocheres and landscape strips erodes this environment.

Streetscape Character -George Street

• George Street is 20m wide. It has a landscaped, open feel, due to an open interface with Pukekawa / The Domain at its north-western end (opposite the site). There is a good level of street and front yard landscaping, often accompanied by setback of buildings.

Built form and land use: Towards the eastern end of George Street, there

are low-rise office park type buildings and retail in the New Zealand Institute for the Blind buildings. There is an apartment building and terrace precinct, looking out to Pukekawa / The Domain, at the street's western end.



1. The view west along George Street. The site is on the left and Pukekawa / The Domain on the right



2. Facing towards Titoki Street from the site, with ACG Parnell College on the right



3. Looking east down George Street with ACG Primary



4. Looking west up George Street



5. The western half of George Street, with the Parkwood Residences on the left

Streetscape Character -Morgan Street

- 12m wide street. Low quality pedestrian environment due to narrow footpaths, street frontage carparking and the number of vehicle
- Built form and land use: Range of types and forms, from villas repurposed to commercial use, office/warehouse buildings, wholesale
- retail, and 1980s/90s 5-6 storey office blocks. There is a marked change in scale between buildings along the street.
- The Parkwood Residences apartment building overlooks the street.
- Inconsistent character due to range of building setbacks and edge conditions.



1. Looking North up Morgan Street towards the Parkwood Residences.



2. 19 Morgan Street office building, which adjoins the site.



3. 10 Morgan Street office building.



4. 3 Morgan Street car mechanics.



5. Entrance to Parkwood Residences carparking on Morgan Street.



6. 9 Morgan Street.

Streetscape Character -Clayton Street

- 12m wide street: similiar width to Newmarket laneways.
- Low quality existing pedestrian amenity due to narrow footpaths.
- Green canopies of Domain trees are visible to the north, looking through the site along its existing driveway.
- The Mansons TCLM Ltd Mercury Energy head office building on Alma Street is a notable new presence on the street.
- Building form and land use: Retail in re-purposed buildings, warehousing, and some residential.



1. Clayton Street - retail use.



2. The view north along Clayton Street.



3. Clayton Street footpaths.



4. Southern facade of 8 Clayton Street apartment building adjacent to the site.



5. Northern facade of 8 Clayton Street apartment building adjacent to the site.



6. Looking south from the site down Clayton Street.

Existing Character - The Site



1. Looking south to the site from George Street, with the new Mercury Energy head office in the background.



2. Moving south through the site along the existing driveway between George Street and Clayton Street. Carlton Gore Road and Newmarket are visible in the background.



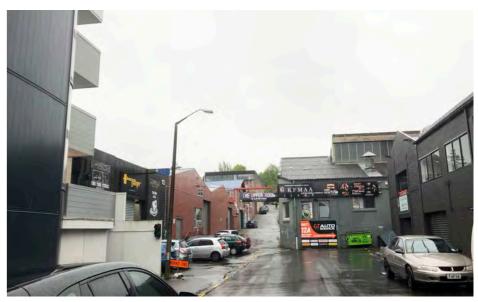
4. The site entrance on Morgan Street. The office building on the left is 19 Morgan Street.



3. The existing Level changes at the northern part of the site. The building at the right of the picture is the ACG Primary School.



5. A gym within a re-used warehouse building at the southern end of the site (10 Clayton Street), with an adjoining apartment building (8 Clayton Street).



6. Looking north up through the driveway through the centre of the site, at the end of Clayton Street.

Existing Character - Mercury Energy Building



1. The front facade of the Mecury Energy building (33 Broadway and 10 Alma Street) on Davis Crescent.



2. The Mecury Energy building at the top right of the photo, as viewed from the southern end of Clayton Street.



3. The Mecury Energy building at the top left of the photo, as viewed looking south along the site's existing driveway.



4. Easement area in favour of 47 George Street, at the southern end of the site, with the Mercury Energy Building on the right.



5. Western and northern elevations of the Mercury Energy Building.



6. Western and northern elevations of the Mercury Building, as viewed from the Morgan Street entrance to the site.

The Site



ACG Parnell College

ACG Parnell Primary

Parkwood Residences

New Mercury Energy Head Office (now constructed)

Key

Overland Flow Paths 3Ha & above

--- Overland Flow Paths 2,000m² to 4,000m²

Overland Flow Paths 4,000m² to 3Ha

Note: The RL values that appear in the plan above are based on the height Datumn 'Auckland 1946' and differ from the RL values shown elsewhere in the document which are based on New Zealand Vertical Datum 2016 (NZVD 2016).

Opportunities and Challenges



Note: The RL values that appear in the plan above are based on the height Datumn 'Auckland 1946' and differ from the RL values shown elsewhere in the document which are based on New Zealand Vertical Datum 2016 (NZVD 2016).

Connections

Creation of a strong north-south, publicly accessible link between George Street and Clayton Street, increasing permeability between Pukekawa / The Domain to Newmarket, with secondary links through to Morgan Street.

Landscape and Sense of Space

Bringing the 'green' of Pukekawa / The Domain into the site and creating a soft, green edge to George Street.

Nodes

Providing an open space focal point within the site and new node of activity / destination within northern Newmarket.

Volcanic Viewshaft

Keeping height under the volcanic viewshaft.

Accommodating Height

Provision of additional height in the south-east corner of the site, where it can be accommodated clear of viewshafts and pulled back from the George Street frontage.

Topography

Addressing the challenge of providing a legible north-south connection over a 10m vertical difference across the site.

Site Climatic Conditions

Responding to the southerly orientation and 'harder edge' of Clayton Street.

Adjoining Development

Acknowleding interface conditions to buildings that look over the site.

Providing for Access Easement

Providing for access easements in favour of adjoining sites.

B. Concept Design and Masterplan

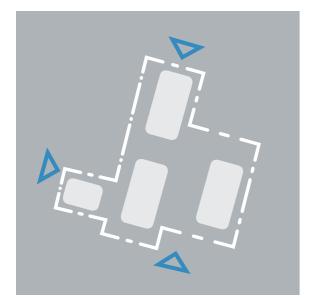


Guiding Principles and Design Strategies

Mātauranga and tikanga have been established as the overarching principles which underpin the engagement, processes, and design outcomes of the Masterplan. Over time it is envisaged these principles will guide eventual implementation. They do not exist in isolation, instead exist as part of a holistic system of values, with universal appeal and wide-ranging relevance, enabling design thinking and outcomes which are authentic and contextual.

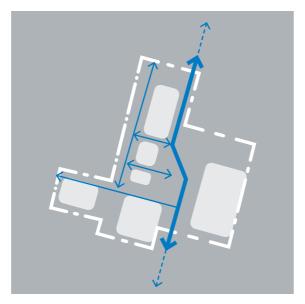
Particular emphasis has been placed on the design strategies which enable the integration of the development into the surrounding environment and an approach which carefully considers how the development will be experienced by the public. The development is conceived as a mixed-use destination that includes residential, retail and commercial components distributed across the site. Multiple blocks, function and activity are defined within a cohesive framework defined by the key design strategies to generate a unified urban solution.

Design Strategies



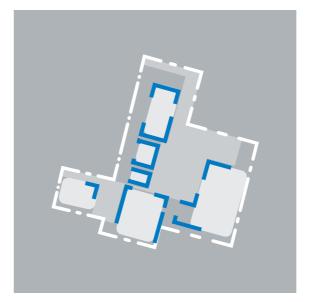
Legibility

Perimeter arrival points into the development are clearly visible from the three main streets bounding the site. They are characterised by a sense of openness, approachability and clarity which combine to provide ease of orientation.



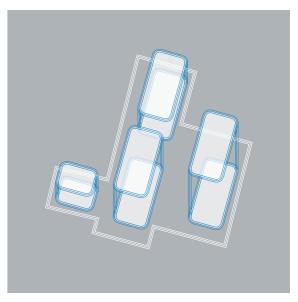
Connectivity & Permeability

A primary nouth-south pedestrian route connects George Street and Parnell with Clayton Street, the wider Newmarket area and the Laneway system beyond. A connection is also achieved to Morgan Street, along with the potential for other on-site pedestrian routes.



Activity

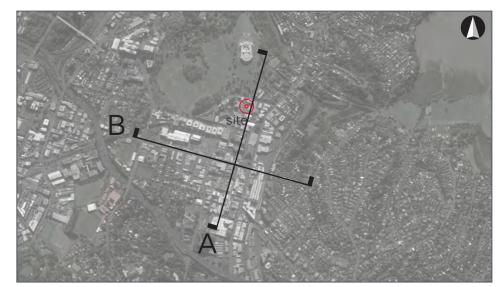
The irregular perimeter geometry of the site maximises the opportunities for activity across the site.



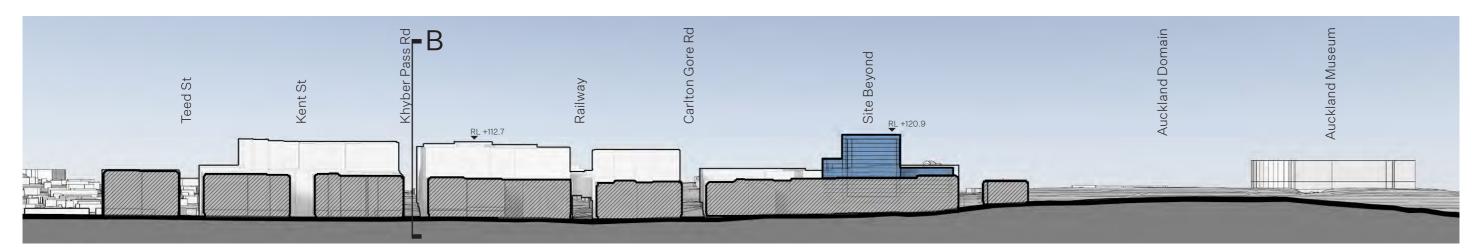
Scale, Mass and Form

The plan form of the three main towers remains consistent but the height is characterised by a cascading effect which provides a variety of scale appropriate to its urban context.

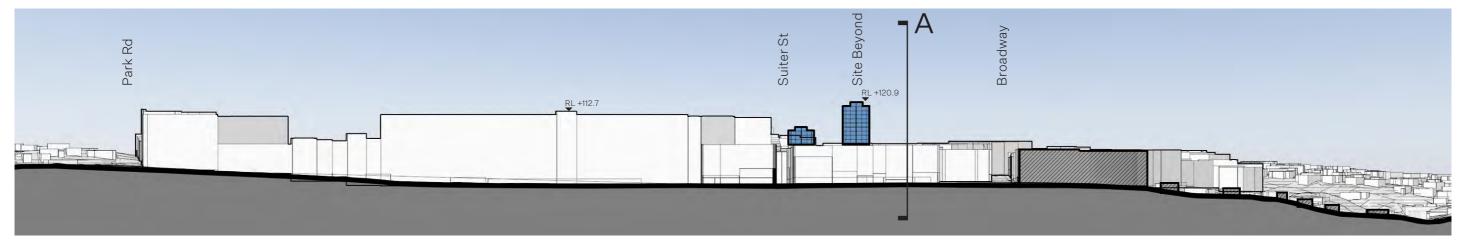
Design Strategies -Height



Location Plan



Concept Design Within Current Maximum Height Limits - Section A



Concept Design Within Current Maximum Height Limits - Section B

Masterplan - Roof Plan

Key

Apartment Towers

(1) Ramp to Basement

Pedestrian Access

3 Vehicle Drop Off

4 Vehicle Entry

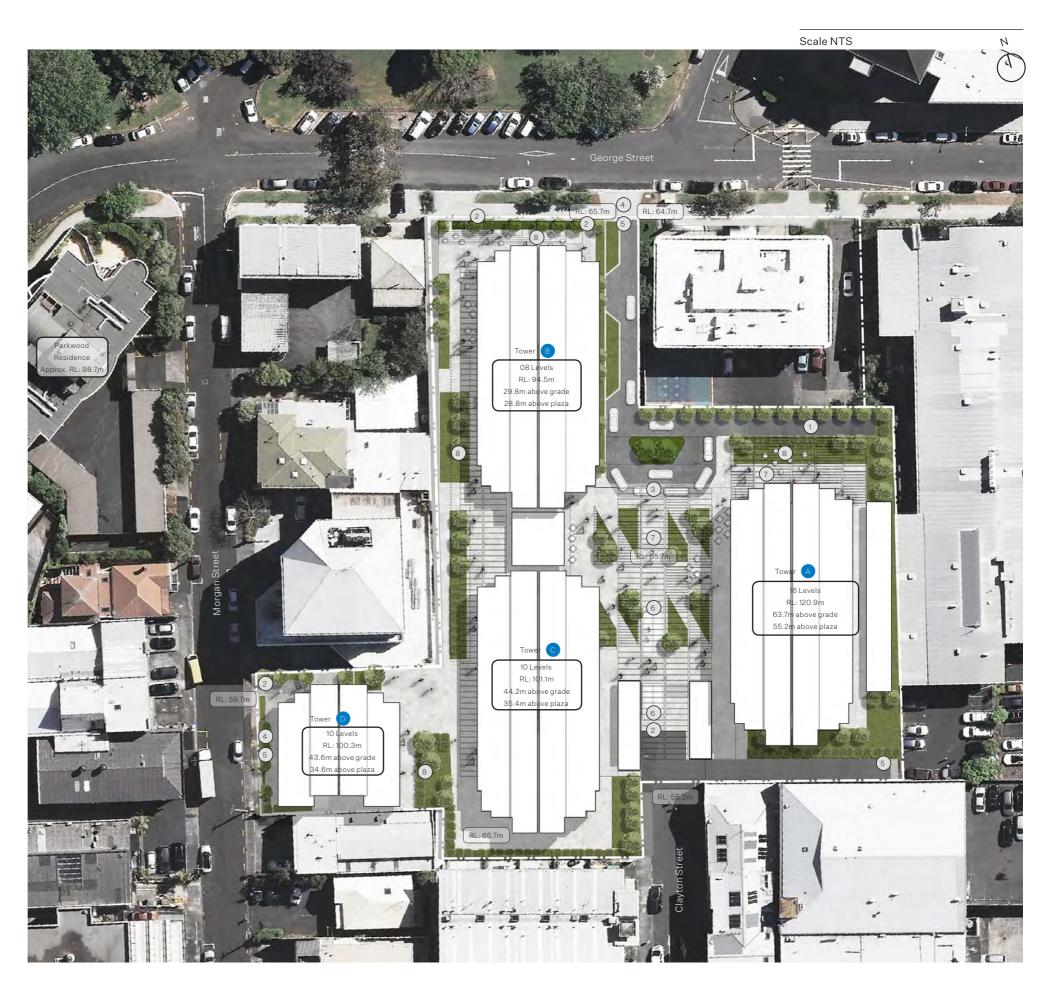
6 Escalator to Plaza

Vehicle Exit

7) Plaza

8 Landscape

Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical Datum 2016 (NZVD 2016)



Masterplan -**Ground Level** Circulation

Key

Apartment Towers

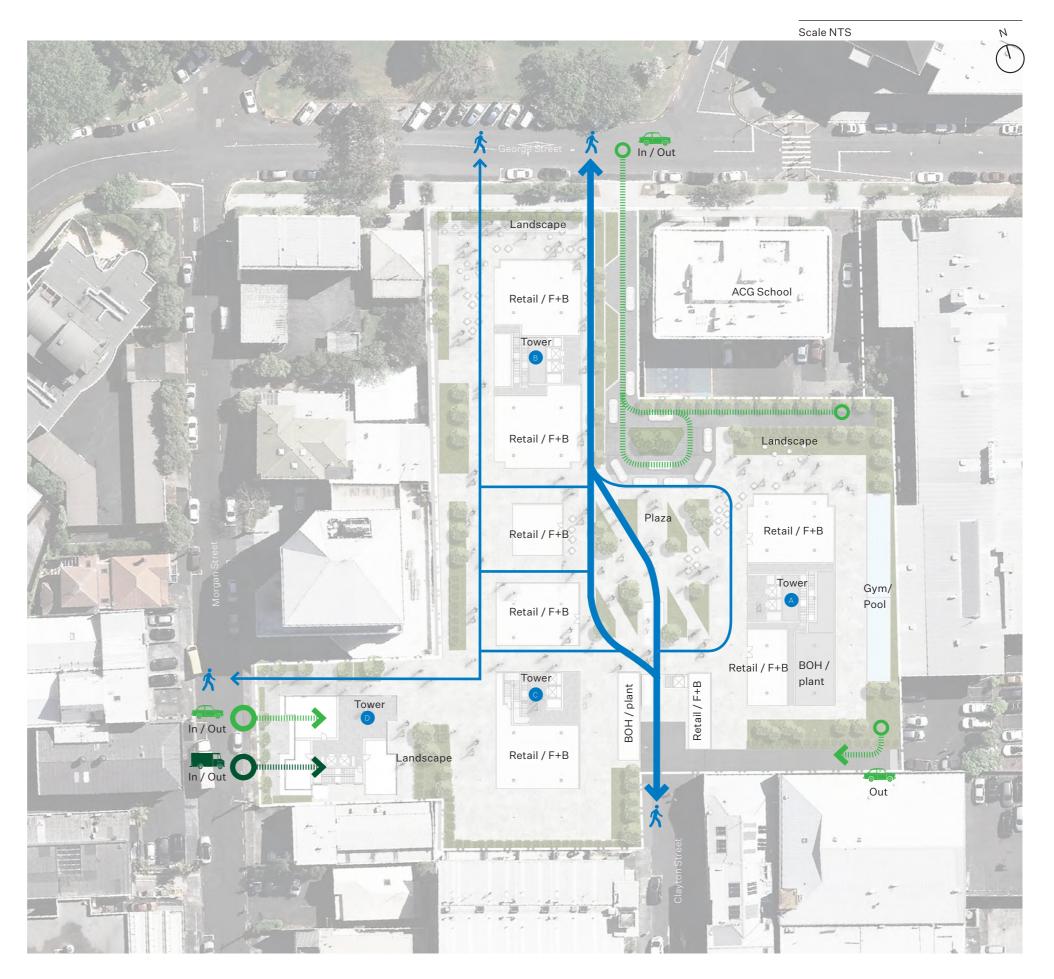
Primary Access for Vehicles

Secondary Access for Vehicles

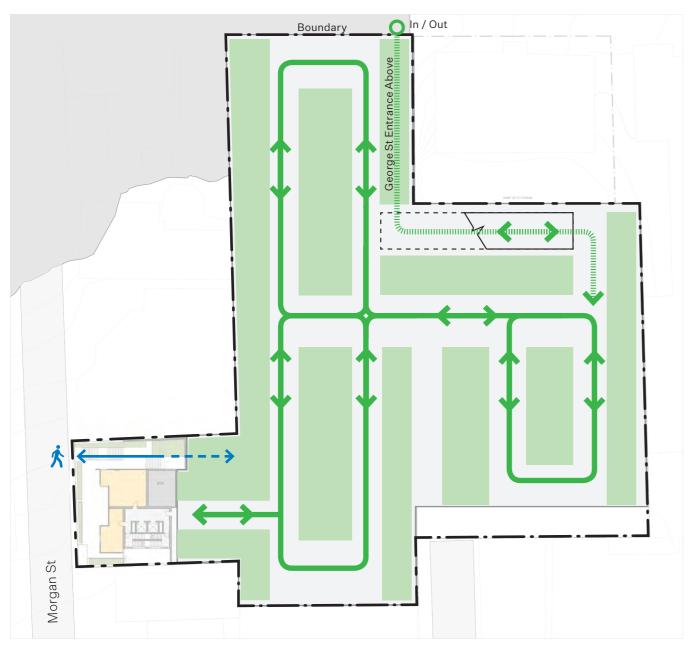
Primary Access for Services Vehicle

Primary Pedestrian Circulation

← Secondary Pedestrian Circulation



Basement Levels Circulation



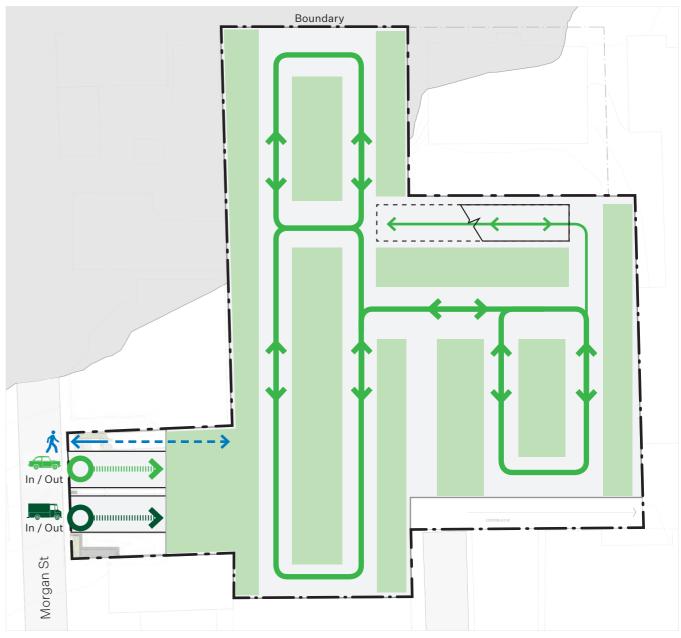
Level B1 Basement Floor Plan (Clayton St)

Primary Access for Vehicles

Secondary Access for Vehicles Primary Access for Services Vehicle

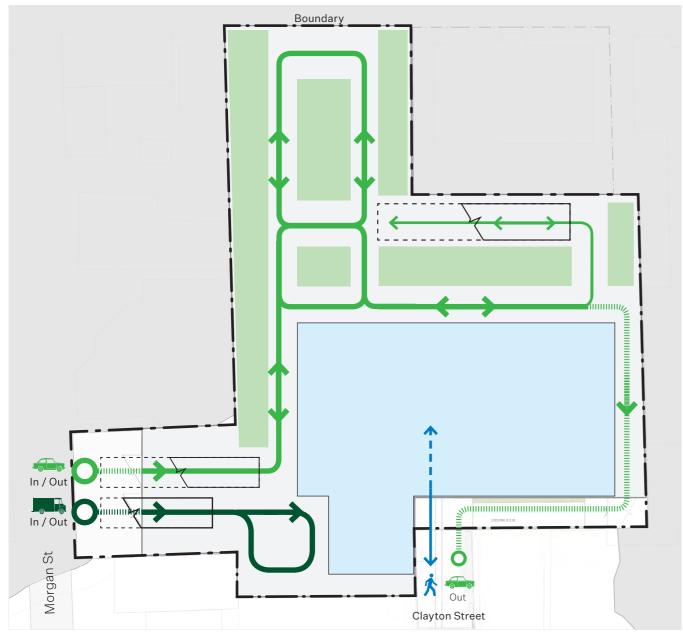
Basement Vehicle Circulation

← Pedestrian Access from Clayton St to Plaza Supermarket BOH/Carparking



Level B2 Basement Floor Plan (Morgan St)

Basement Levels Circulation



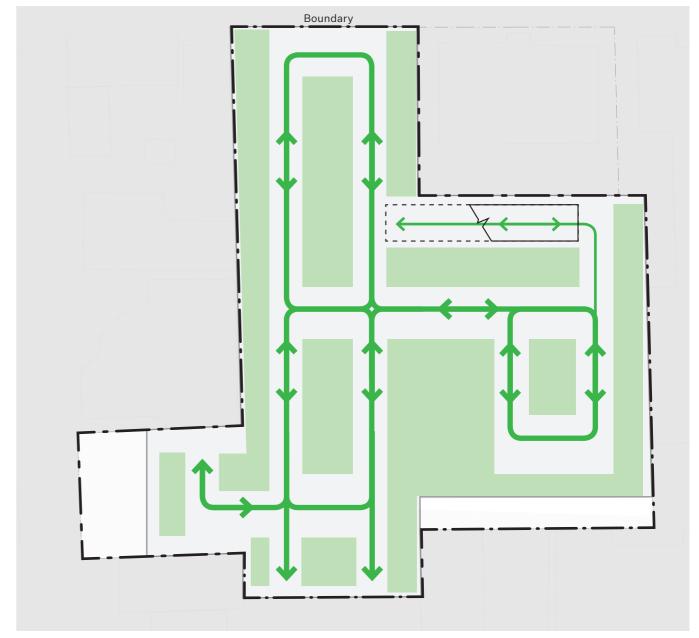
Level B3 Basement Floor Plan (Clayton St)



Primary Access for Services Vehicle Basement Vehicle Circulation



BOH/Carparking



Level B4 Basement Floor Plan

Plan at **Typical Level**

Key

Apartment Towers

Apartments

Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical Datum 2016 (NZVD 2016)



Scale 1:250 @A3

Typical Floor Plan for Tower A, B and C

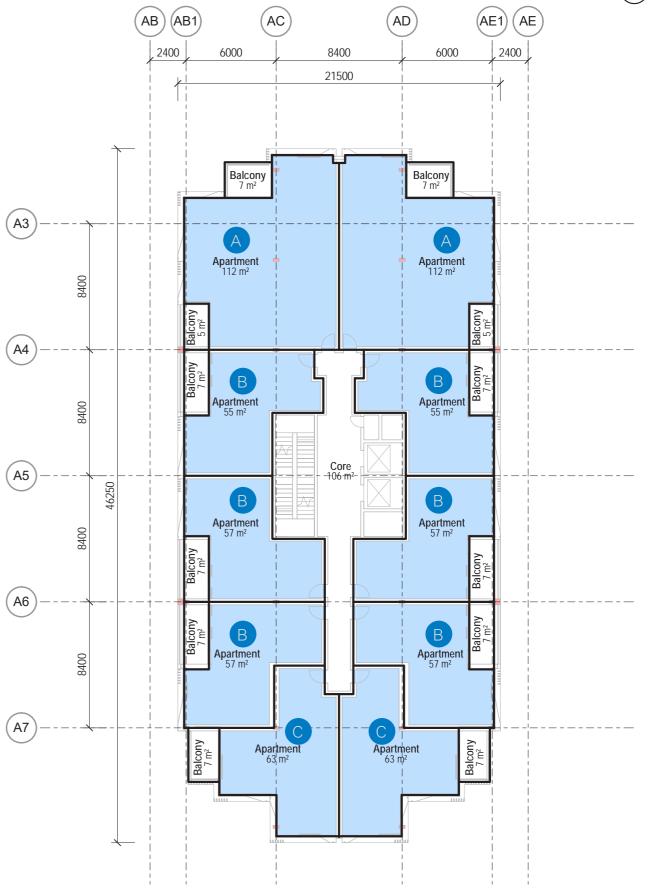
Key



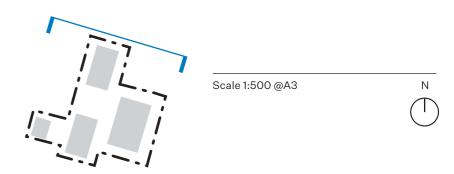
Apartment Type

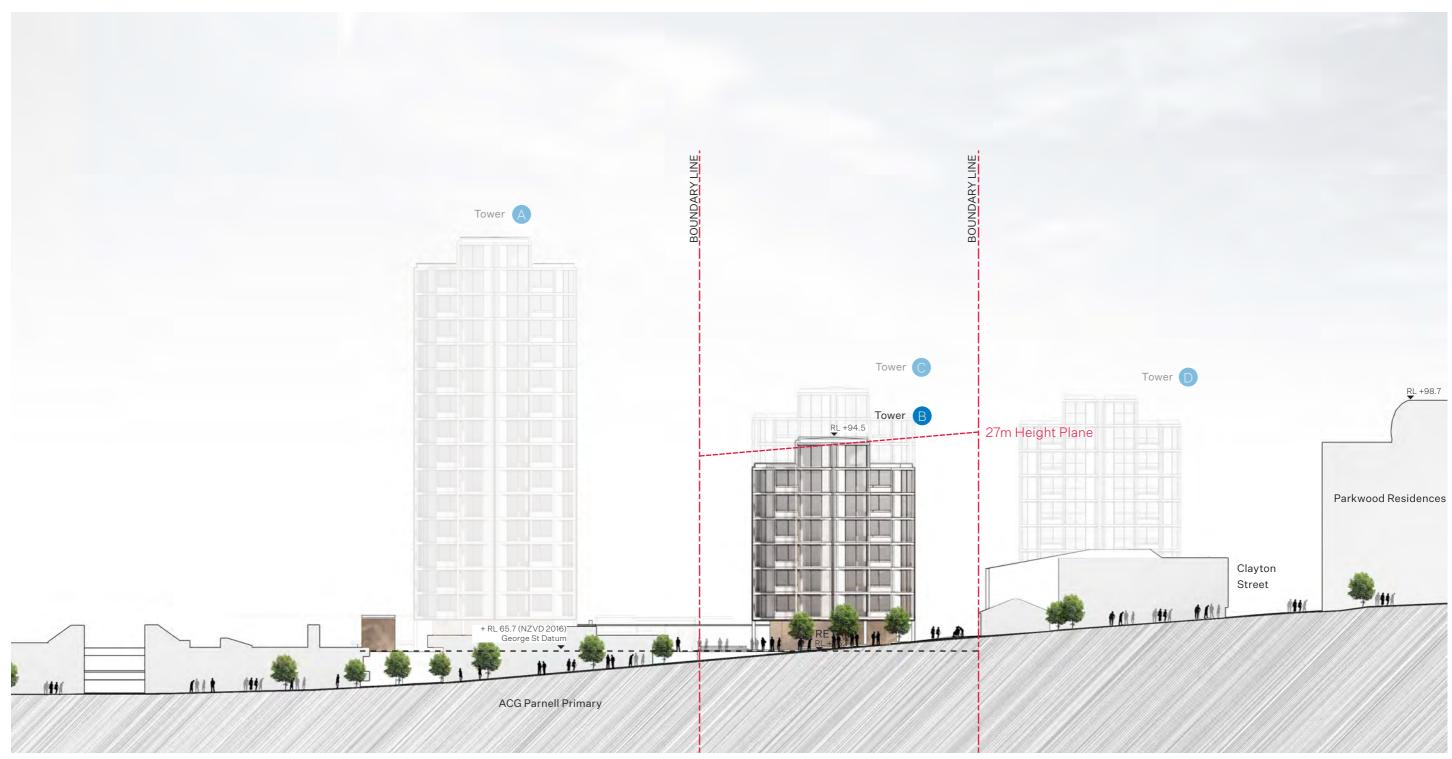
Apartment Metrics - Tower A, B & C

Apartment Types	Bedrooms	Area (m²)	Count
A	3	112	2
B	1	55 - 57	6
<u> </u>	1	63	2
Total	-	-	10



North Elevation -George Street

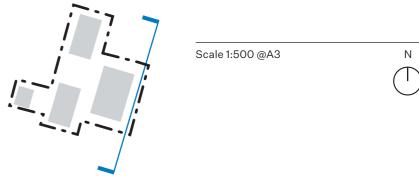


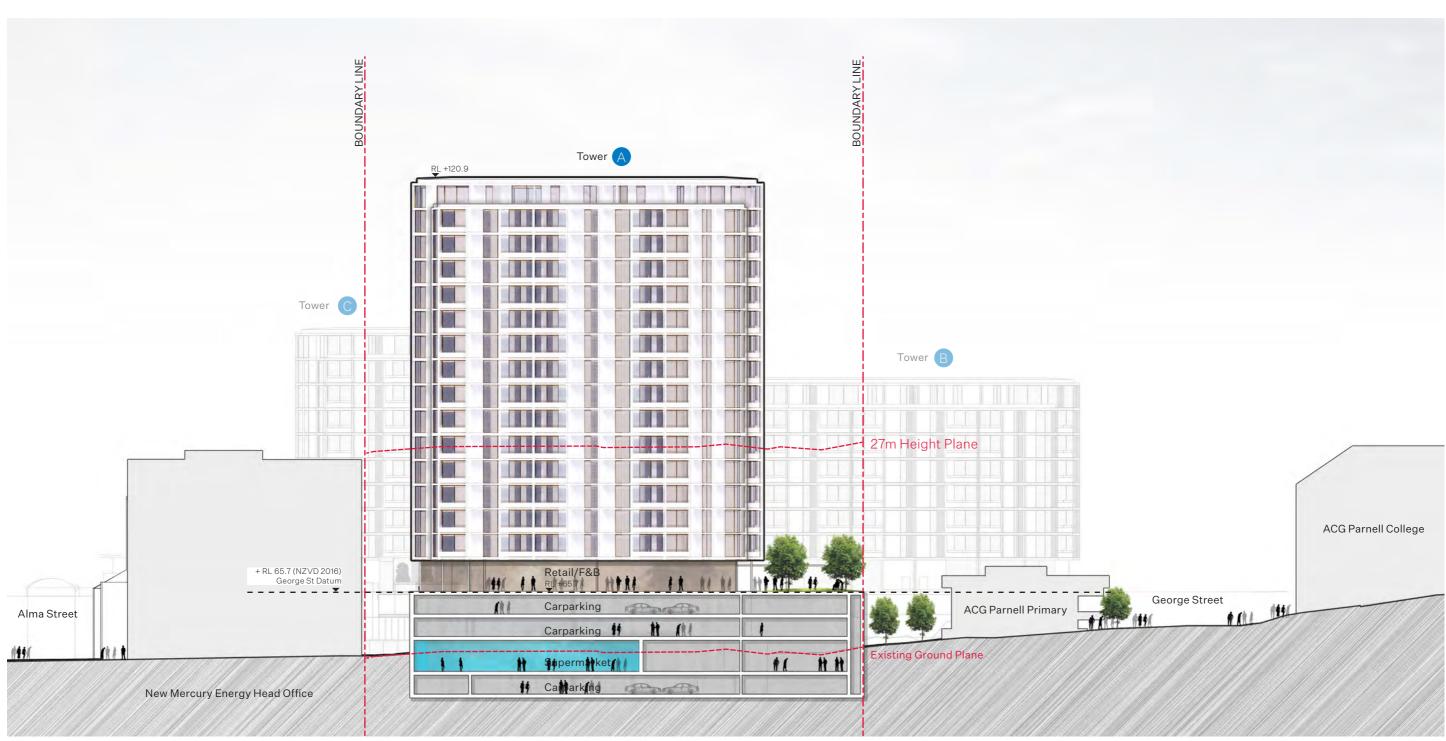


Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical



East Elevation

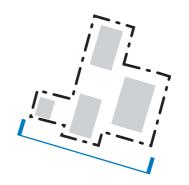




Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical Datum 2016 (NZVD 2016)

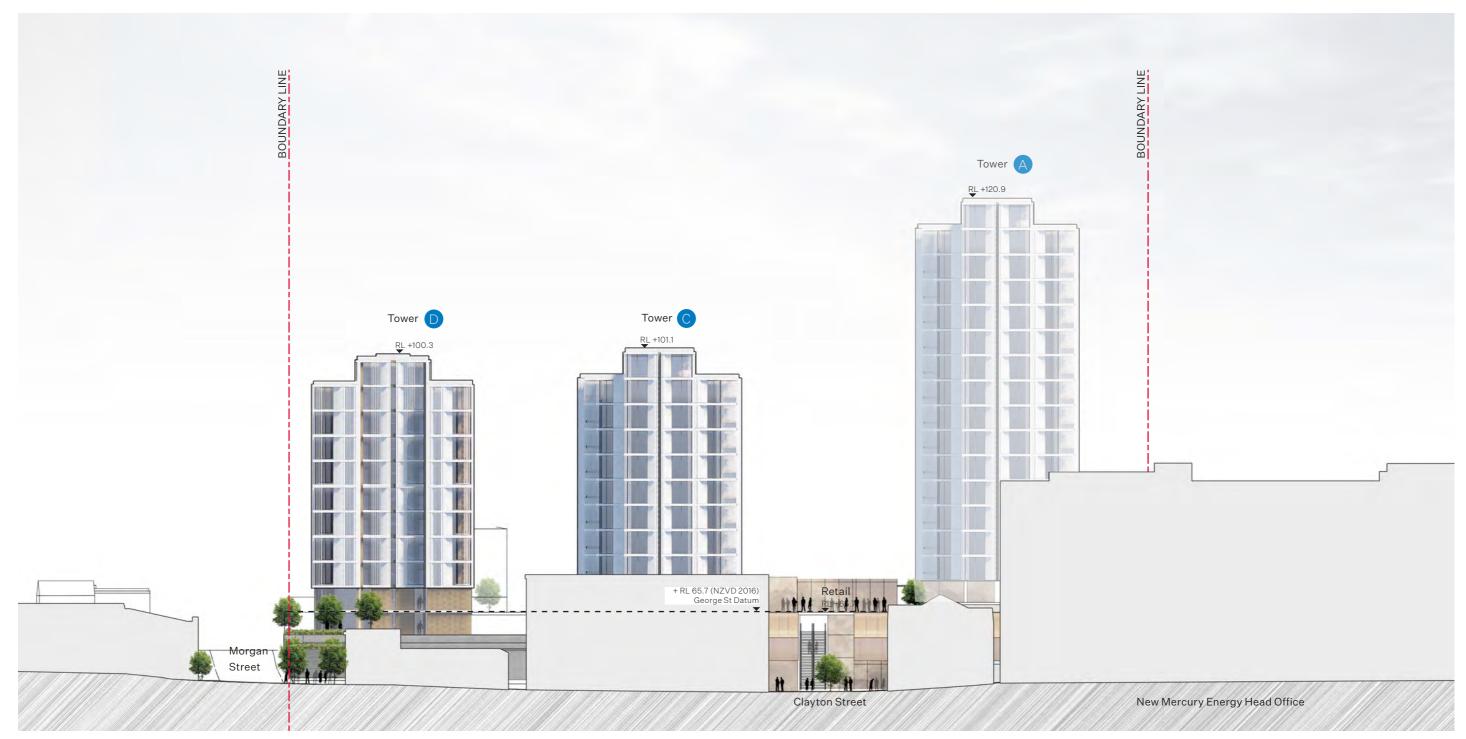


South Elevation -Clayton Street



Scale 1:500 @A3

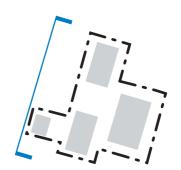




Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical

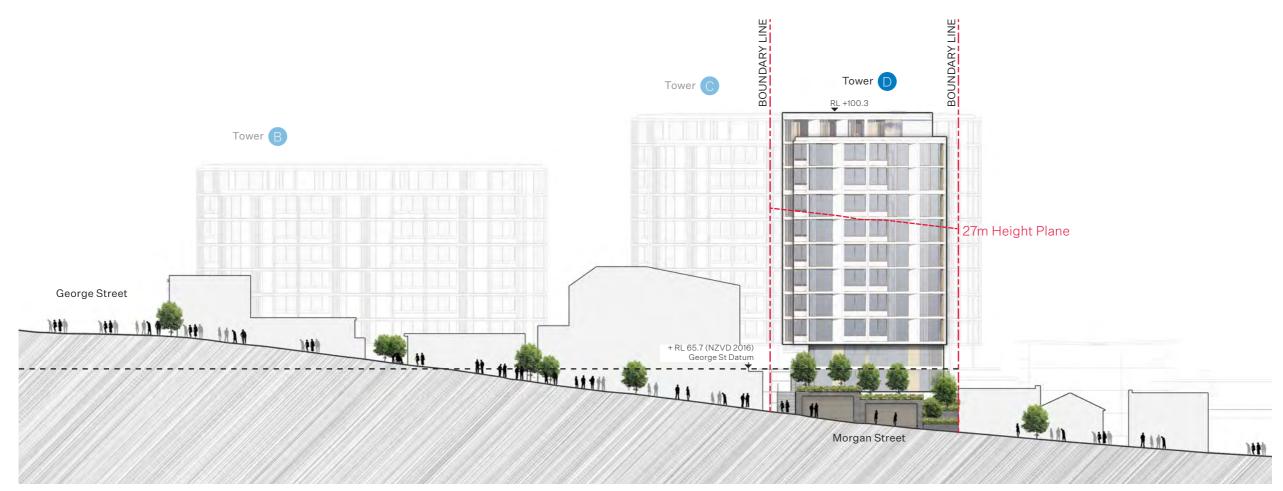


West Elevation - Morgan Street



Scale 1:500 @A3





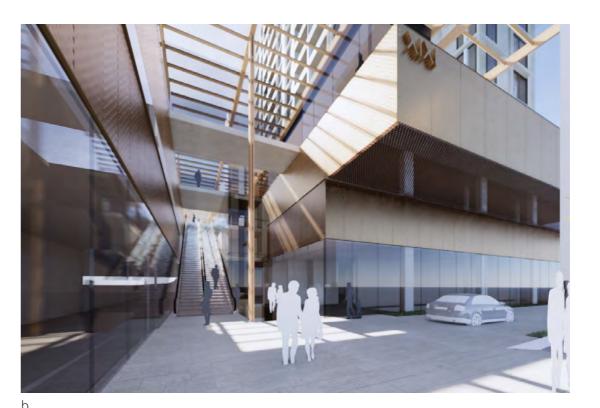
Note: All building heights measured from northern facade. RL datums shown here are based on New Zealand Vertical Datum 2016 (NZVD 2016)



Perspectives -**Clayton Street Entrance**

Concept Design: view from Clayton street entrance







Proposed Private Plan Change: Drawing Set | Rev 11

Perspectives -George Street Entrance

Concept design: view from George Street entrance towards plaza and Tower B







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III WARREN AND MAHONEY B&A

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a b

Perspectives - Plaza

Concept Design: view from George Street entrance towards plaza and Tower A and C









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Perspectives - Morgan Street Entrance

Concept Design: view from Morgan Street towards Tower D







Ⅲ WARREN AND MAHONEY B&A

Proposed Private Plan Change: Drawing Set | Rev 11

April 2020

Concept Development Schedule

Level	Carpark/BOH GFA m²	Retail GFA m²	Supermarket GFA m²	Residential GFA m²	Total GFA m²	Carpark Numbers
B4	6,514	-	-		6,514	110
B3	4,444	-	2,000	-	6,444	50
B2	6,453	-	-	-	6,453	133
B1	6,698	-	-	-	6,698	171
Ground	570	1,297	-	849	2,716	-
L1	-	-	-	2,738	2,738	-
L2	-	-	-	2,738	2,738	-
L3	-	-	-	2,738	2,738	-
L4	-	-	-	2,738	2,738	-
 L5	-	-	-	2,738	2,738	-
L6	-	-	-	2,738	2,738	-
L7	-	-	-	2,344	2,344	-
L8	-	-	-	1,943	1,943	-
L9	-	-	-	1,370	1,370	-
L10	-	-	-	795	795	-
L11	-	-	-	795	795	-
L12	-	-	-	795	795	-
L13	-	-	-	795	795	-
L14	-	-	-	795	795	-
L15		-		401	401	-
Total GFAm ²	24,679	1,297	2,000	27,310	55,286	464

Total GFA

55,286 M²

Site Area

7,873 M²

FAR

7.40

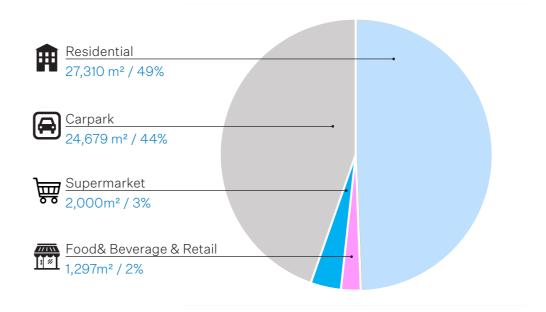
Number of Towers

Number of Apartments

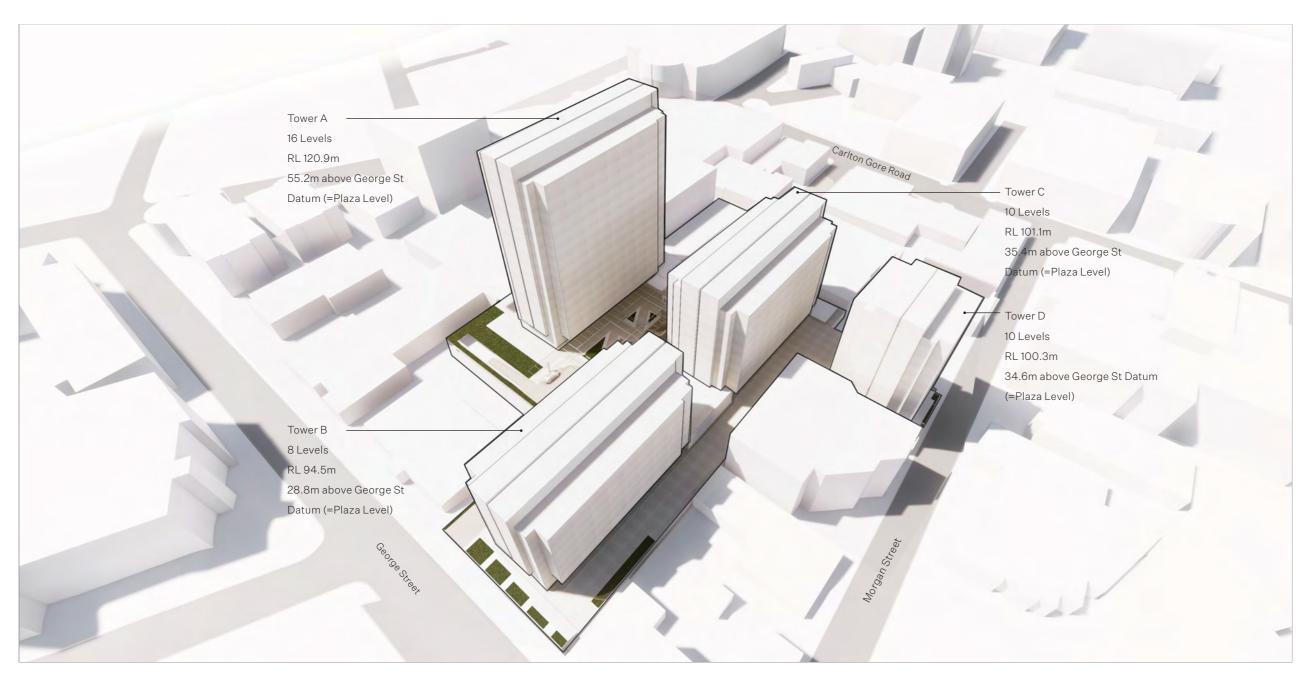
324

Height Above Ground

63.7m Tower A 29.8m Tower B Tower C 44.2m Tower D 43.6m



Concept Design Development Summary



Apartment Towers	Apartment GFA (m²)*	Apartment NFA (m²)*	Average Efficiency**	Apartments	Height above Ground (m)	Height above Plaza (m)
Tower A	11,677	9,966	85.3%	144	63.7	55.2
Tower B	5,298	4,454	84.1%	62	29.8	28.8
Tower C	6,879	5,832	84.8%	82	44.2	35.4
Tower D	3,456	2,590	74.9%	36	43.6	34.6
Total	27,310	22,842	83.6%	324	-	-

Note

Apartment NFA - measured to centre line of exterior wall, structure and centre line inter-tenancy wall.

Areas are measured from Concept Design plans and need to be verified by a qualified cadastral surveyor.

 \pm +/- 5% to 7.5% margin to be assumed on all areas as wall buildups are estimated thicknesses only.

C. Plan Change Standards and Comparative Analysis

Key Plan Change Standards

Development of Plan Change Standards based on Concept Design





Key Plan Change Standards & Height Areas

Key Plan Change Standards overlaid on Concept Scheme

Key

Height Area A (+55m from George St Datum)

Height Area B (+29m from George St Datum)

Height Area C (+35m from George St Datum) Height Area D (Om from George St Datum)

Building Footprints of Concept Scheme

4m setback measured from the George St Datum

6m setback measured 5m above George St Datum

4m setback measured 4m below George St Datum

6m setback from 27m Height Plane

Approximate Plaza Outline (min area = 700m²; min dimension = 20m)



Plan Change Envelope -**Testing of Horizontal Dimension**



Plan View of Plan Change Envelope (Example 1)

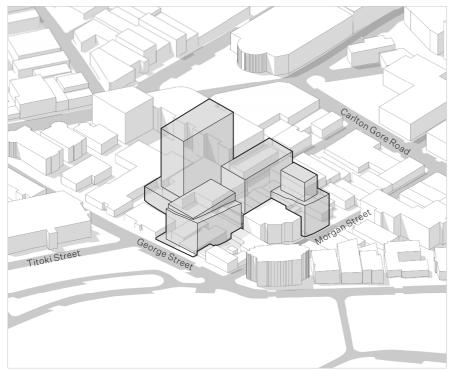
Key

Building horizontal dimensions as measured 5m above George Street Datum

Precinct standard IX.6.7 limits the maximum horizontal dimensions of buildings from 5m above the George Street Datum to 55m. The examples on this and the following page show three variants of building 'envelopes' that comply with this standard and with all other Precinct standards (eg: building setbacks to boundaries, yards and height). Complying with all standards may mean some building 'envelopes' have a horizontal dimension less than 55m.

Examples of Plan Change Envelope

Example 1

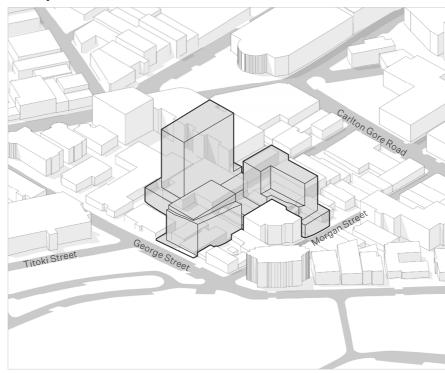


3D View of Plan Change Envelope (Example 1)



Plan View of Plan Change Envelope (Example 1)

Example 2

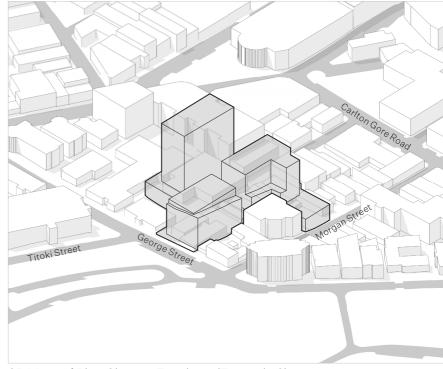


3D View of Plan Change Envelope (Example 2)



Plan View of Plan Change Envelope (Example 2)

Example 3



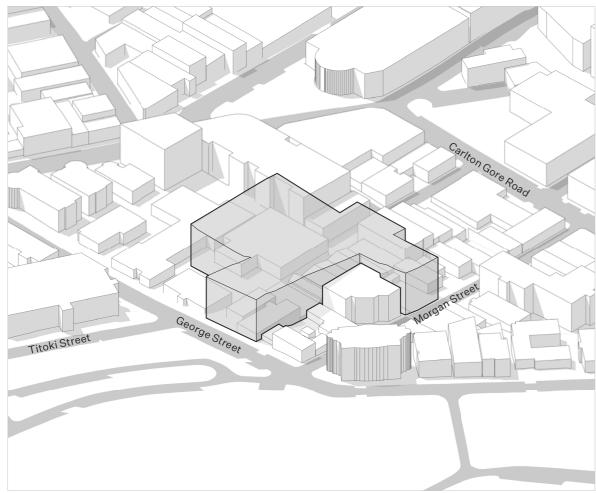
3D View of Plan Change Envelope (Example 3)



Plan View of Plan Change Envelope (Example 3)

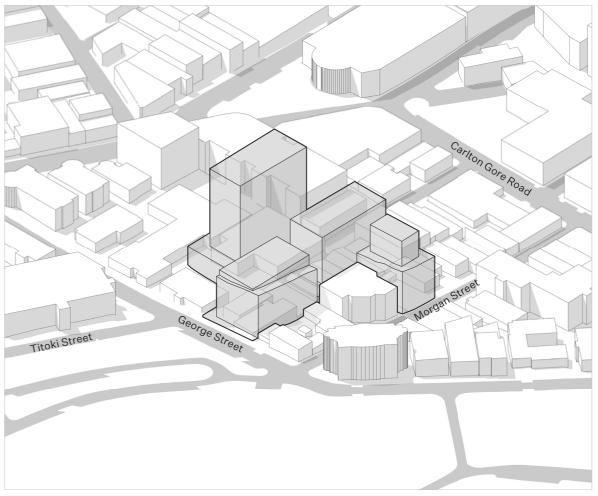
Current Permitted Envelope / Plan Change Envelope

Current Envelope



3D View of Current Permitted Envelope

Example 1

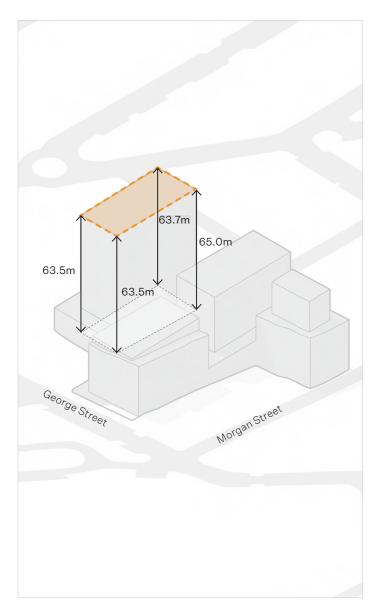


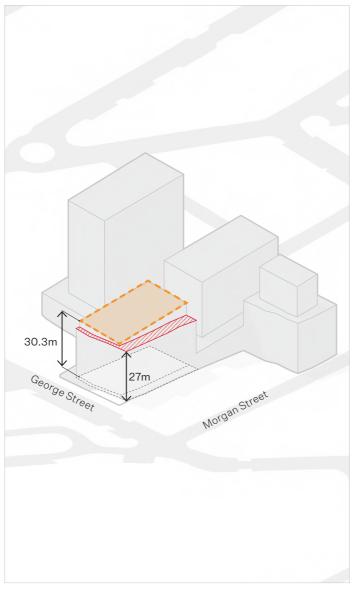
3D View of Plan Change Envelope (Example 1)

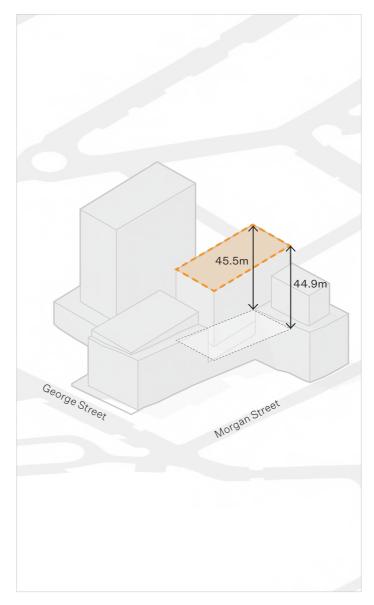
Example 1 of the complying Plan Change envelope is used for the Bulk and Massing Studies and Shadow Study analysis later in this document. It is also used as the basis for the Indicative Montages attached to LA4's Visual Assessment.

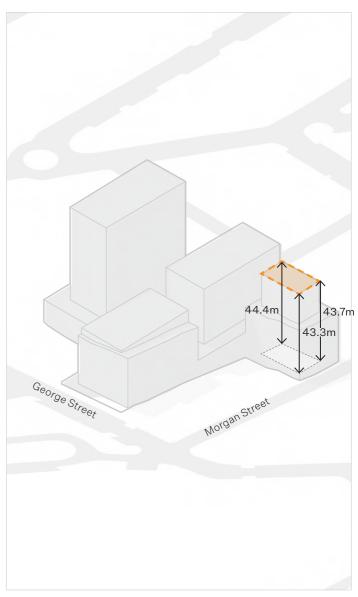
Example 1 has been used for assessment purposes as, of the three examples, it maximises the development envelope (greatest bulk to Morgan Street and minimum 10m distance between buildings in Height Area B and C).

Plan Change Envelope - Vertical Scale above Existing Ground Plane









Key



27m Rolling Height Plane

Existing ground plane (varies)

Dimension between the nominated point on the existing ground plane and proposed Plan Change Height Limit*

*Note: For RL datums of the Plan Change Envelope refer to Elevation and Section drawings (pages 57-70).



Bulk and Massing Study - Wider Context Camera Locations

- View from Auckland Domain
- View from Outhwaite Park
- View from Southern Newmarket Park



Bulk and Massing Study - Wider context view from Auckland Domain



Location Pla







Maximum Envelope for site under existing controls

Bulk and Massing Study -Wider context view from Auckland Domain









Plan Change Envelope plus surrounding sites shown to Maximum Envelope under current controls

Bulk and Massing Study - Wider context view from Outhwaite Park



Location Pla







Maximum Envelope for site under existing controls

Bulk and Massing Study - Wider context view from Outhwaite Park



Location Pla



Plan Change envelope



Plan Change Envelope plus surrounding sites shown to Maximum Envelope under current controls

Bulk and Massing Study - Wider context view from Southern Newmarket Park



Location Pla







Maximum Envelope for site under existing controls

Bulk and Massing Study - Wider context view from Southern Newmarket Park



Location Pla



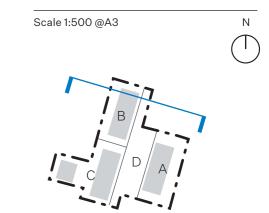




Plan Change Envelope plus surrounding sites shown to Maximum Envelope under existing controls

Existing Mixed Used Zone Plan Change Standards Comparison **Section 1**

Overlay on Concept Design



Key



Plan Change Envelope



Existing Mixed Used Zone Envelope



Area of Concept Design Outside Plan Change Envelope



Minimum 10m required separation between buildings in Height Area B&C



 χ_m Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.

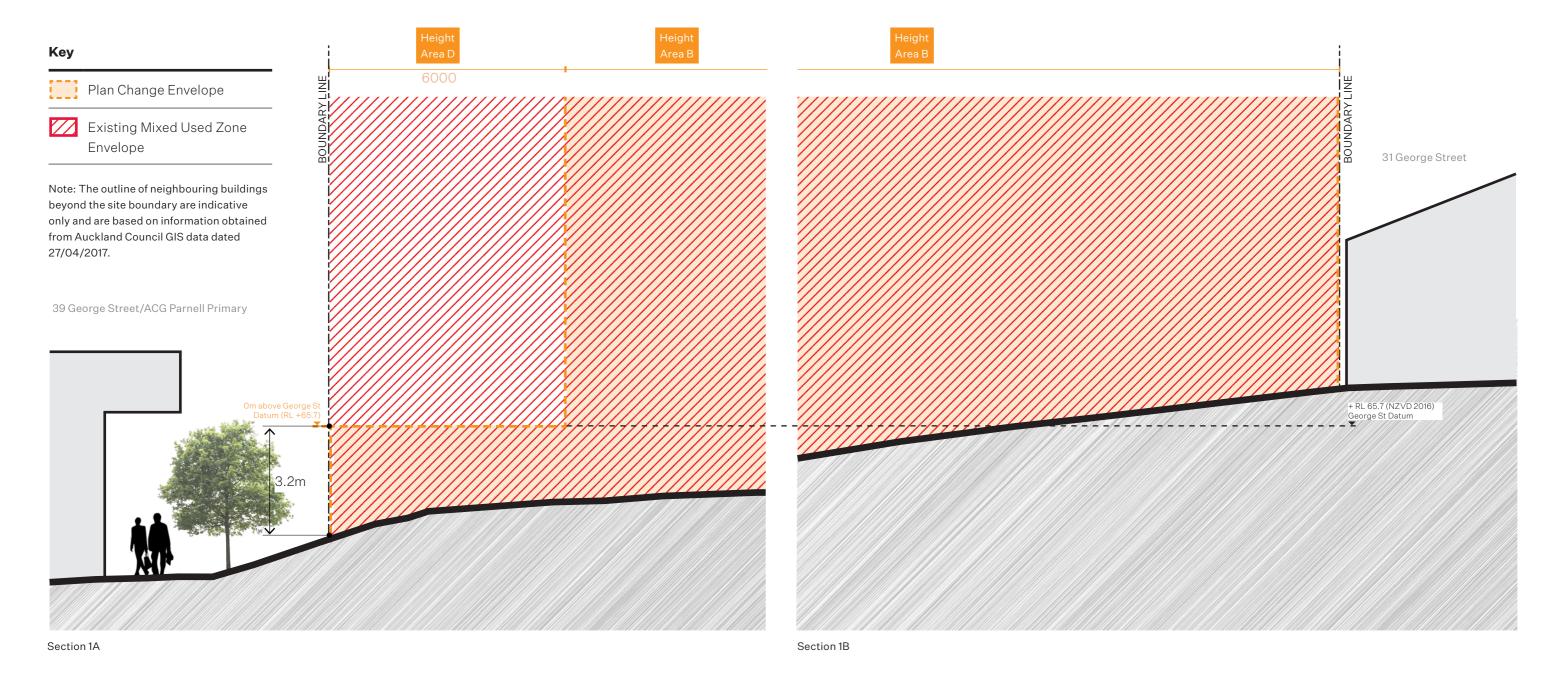


Section 1

Existing Mixed Used Zone | Plan Change Standards Comparison Section 1A & 1B

Scale 1:100 @A3

Overlay on Concept Design



Existing Mixed Used Zone Plan Change Standards Comparison **Section 2**

Overlay on Concept Design





Plan Change Envelope



Existing Mixed Used Zone Envelope



Area of Concept Design Outside Plan Change Envelope

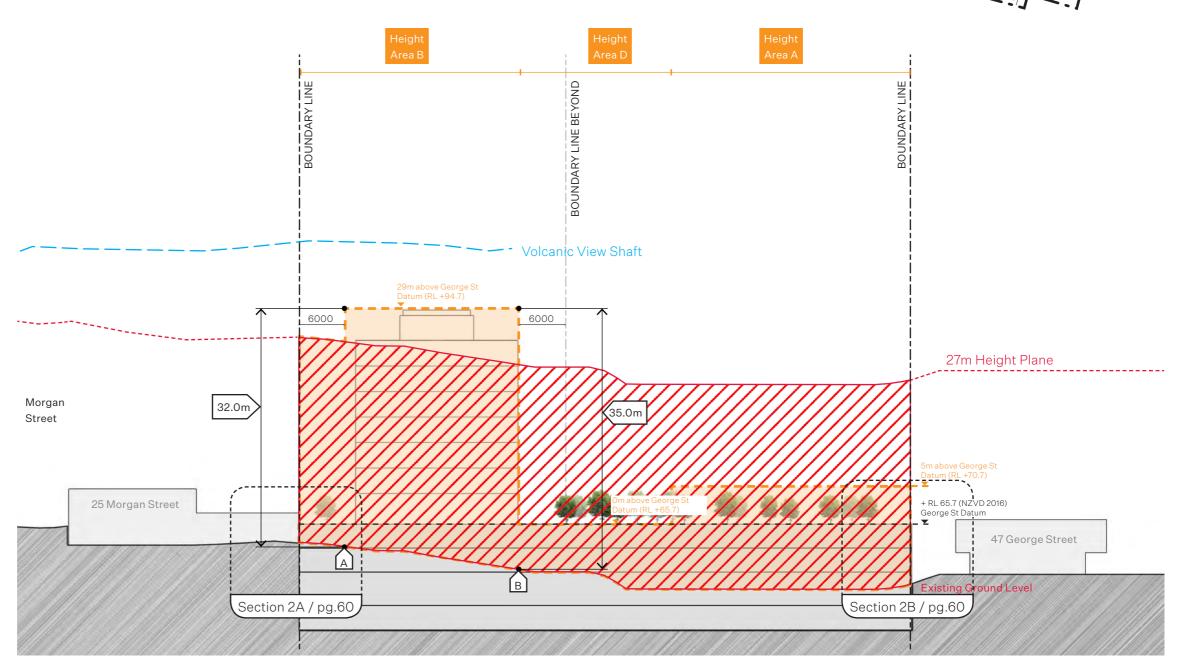


Minimum 10m required separation between buildings in Height Area B&C



Xm> Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.

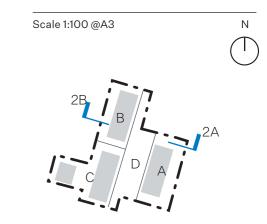


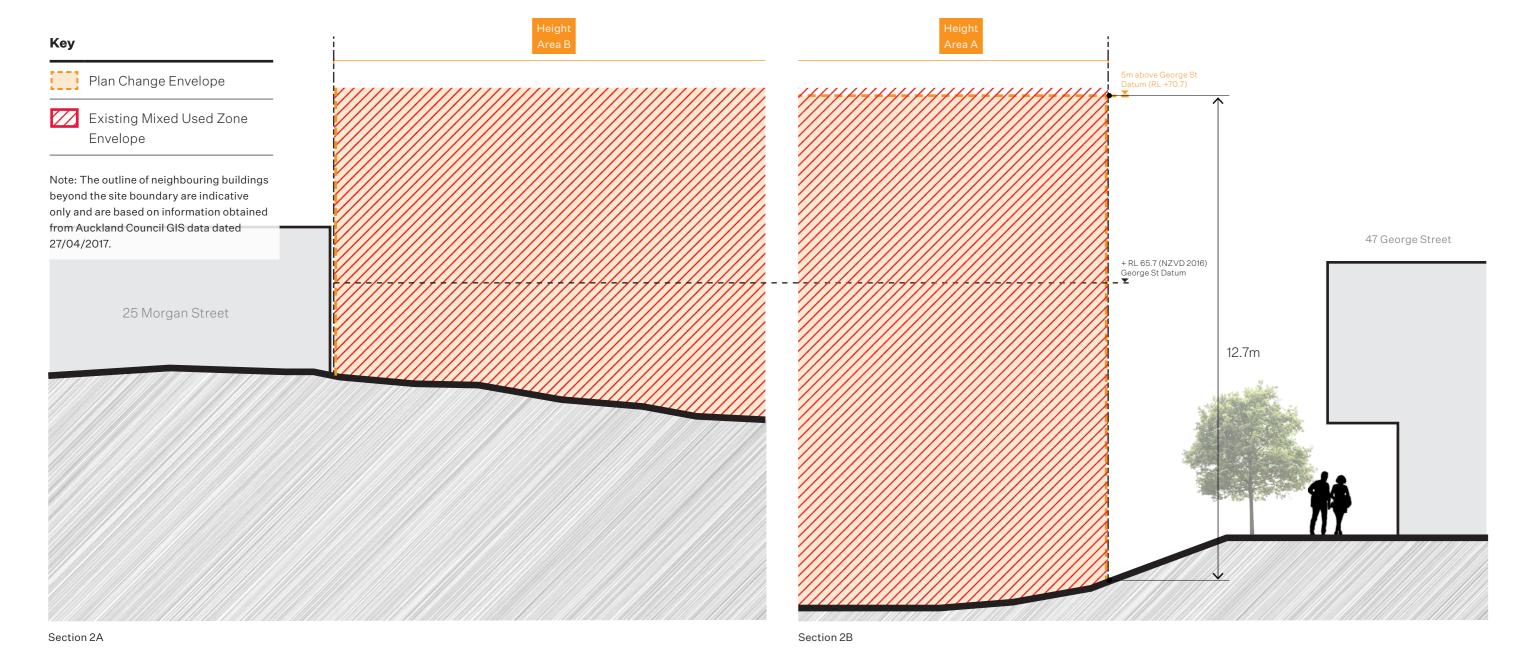
Section 2

Scale 1:500 @A3

Existing Mixed Used Zone | Plan Change Standards Comparison Section 2A & 2B

Overlay on Concept Design





Existing Mixed Used Zone Plan Change Standards Comparison **Section 3**

Overlay on Concept Design

Key



Plan Change Envelope



Existing Mixed Used Zone Envelope



Area of Concept Design Outside Plan Change Envelope

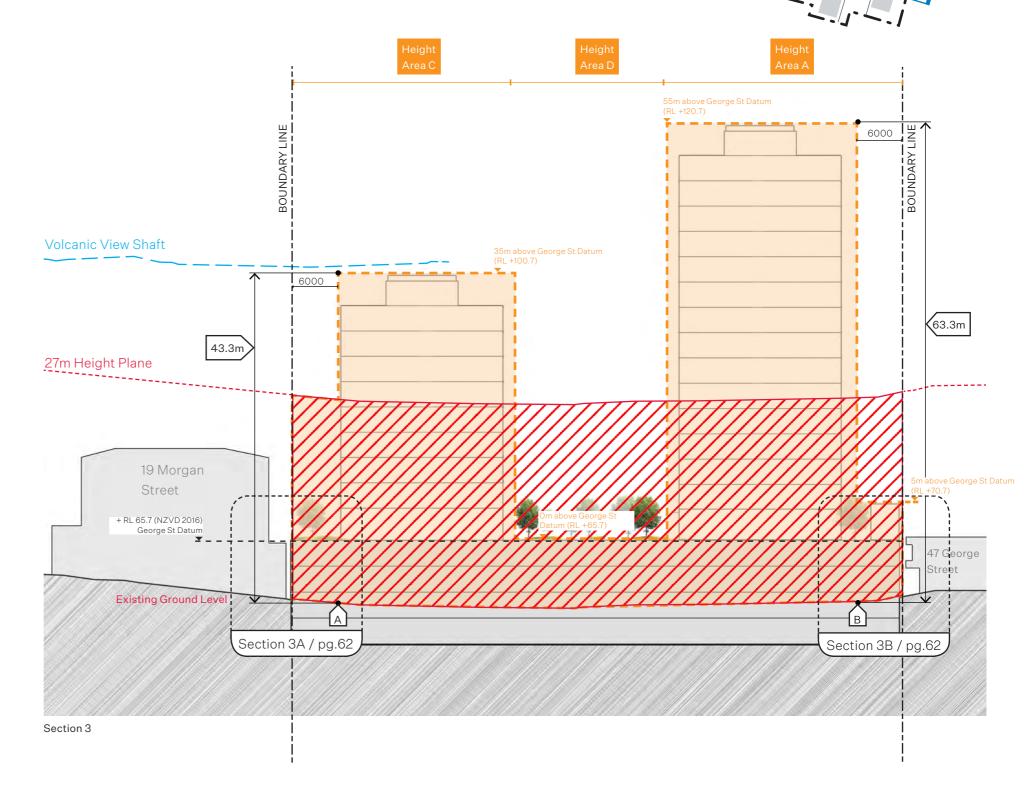


Minimum 10m required separation between buildings in Height Area B&C



Xm> Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

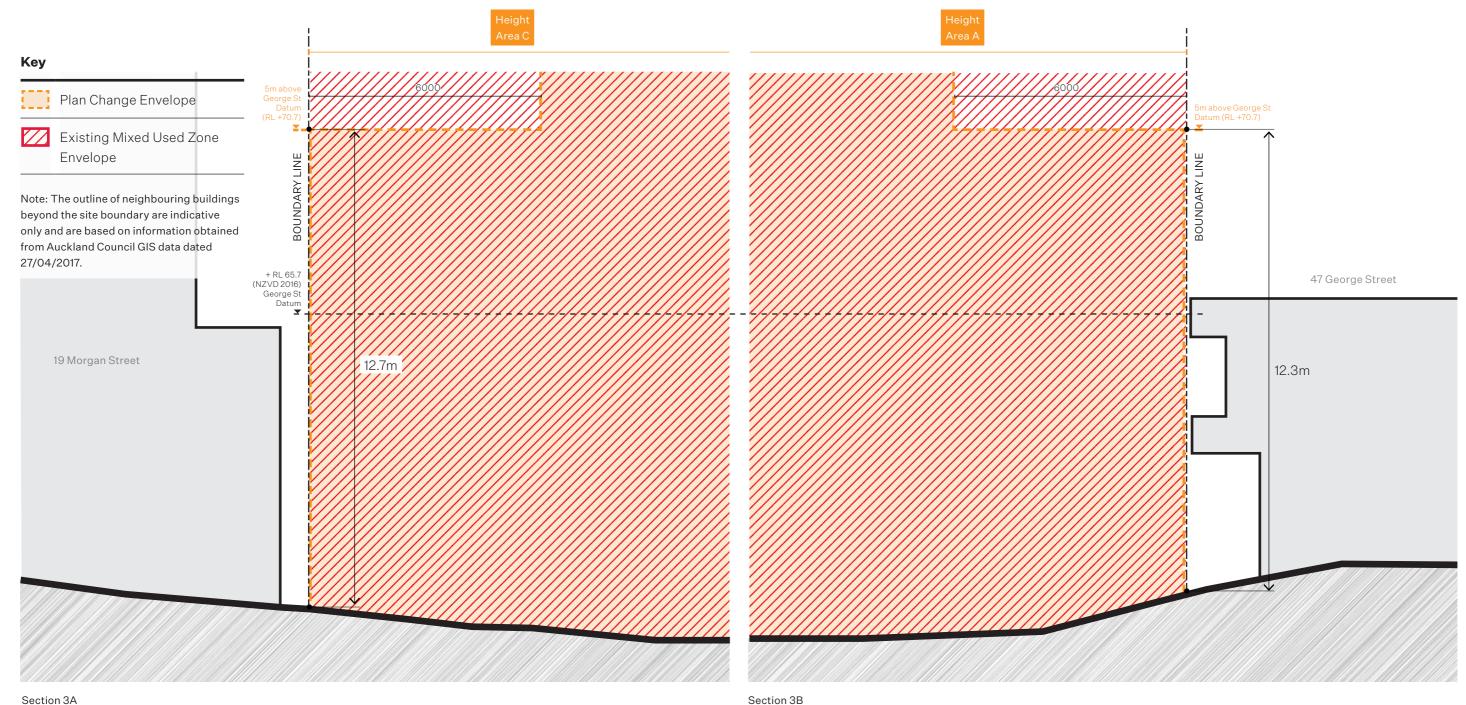
Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.



Scale 1:500 @A3

Existing Mixed Used Zone | Plan Change Standards Comparison Section 3A & 3B

Overlay on Concept Design



Scale 1:100 @A3

Existing Mixed Used Zone Plan Change Standards Comparison **Section 4**

Overlay on Concept Design

Key

Plan Change Envelope



Area of Concept Design Outside Plan Change Envelope

Minimum 10m required separation between buildings in Height Area B&C

Xm> Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.

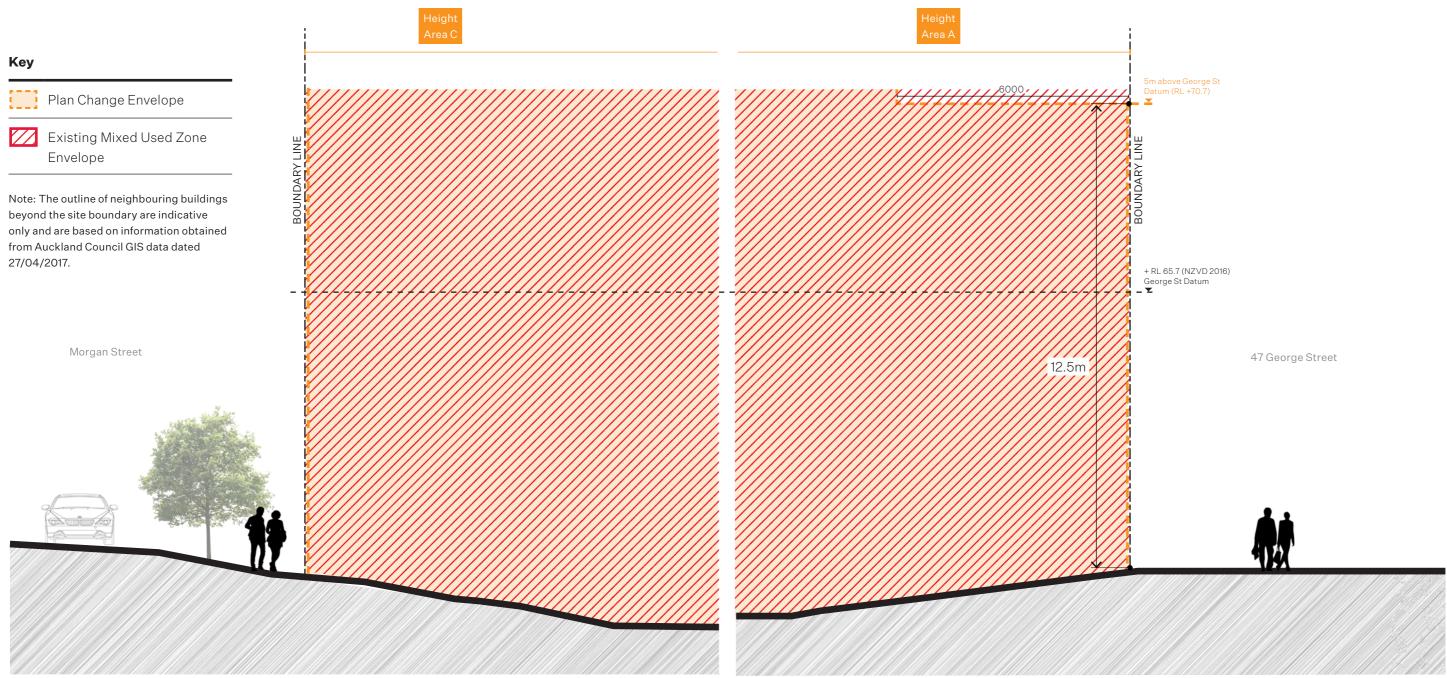


Section 4

Scale 1:500 @A3

Existing Mixed Used Zone Plan Change Standards **Comparison Section 4A & 4B**

Overlay on Concept Design



Section 4A Section 4B Scale 1:100 @A3

Existing Mixed Used Zone Plan Change Standards Comparison **Section A**

Scale 1:500 @A3

Overlay on Concept Design

Key



Plan Change Envelope



Existing Mixed Used Zone Envelope



Area of Concept Design Outside Plan Change Envelope

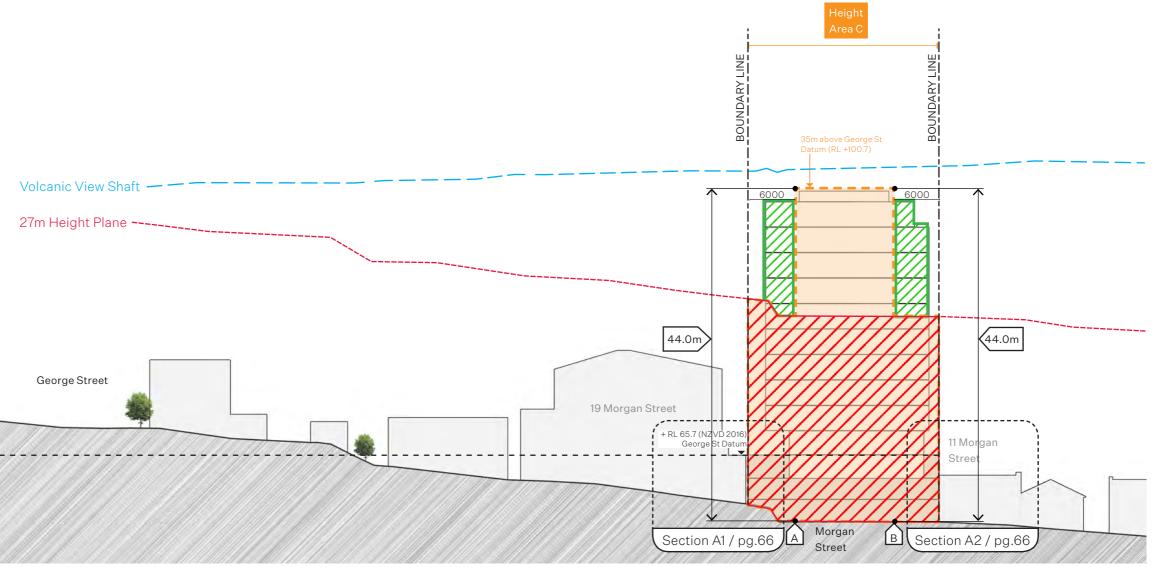


Minimum 10m required separation between buildings in Height Area B&C



Xm> Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

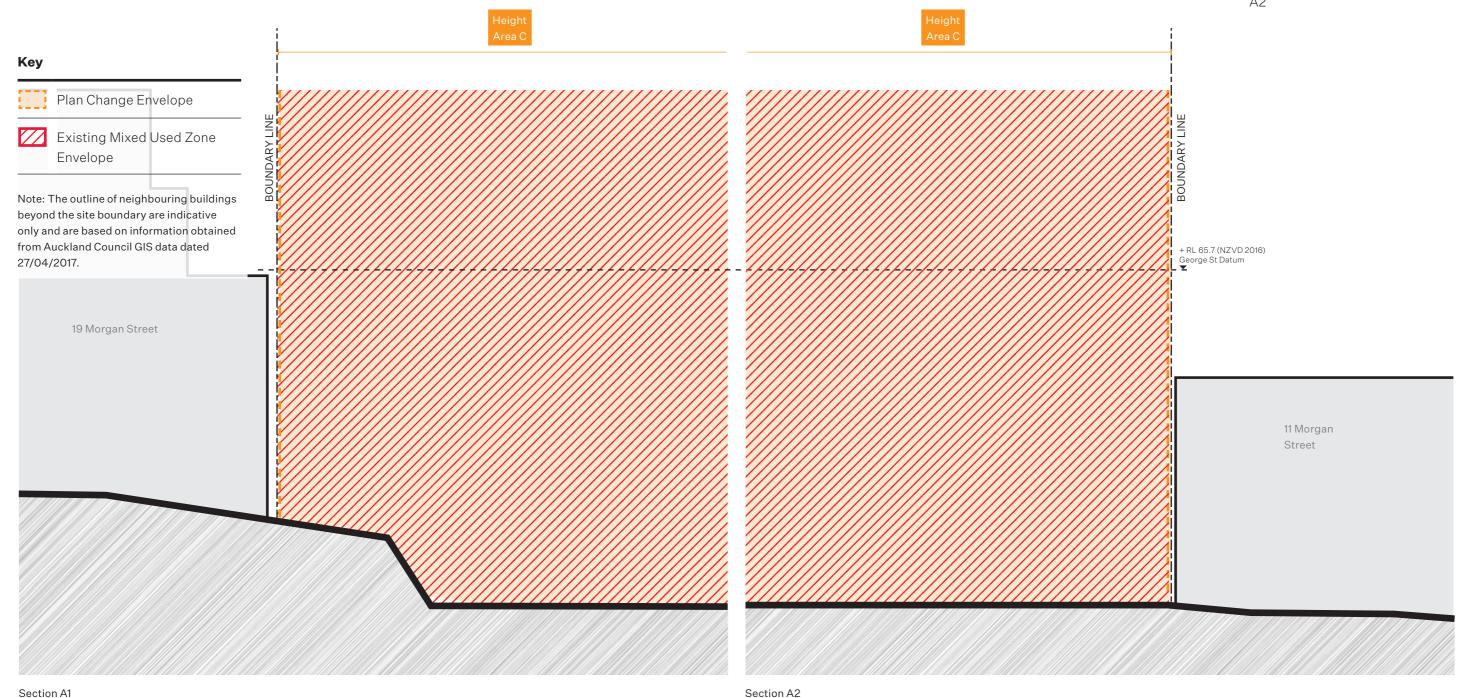
Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.



Section A

Existing Mixed Used Zone | Plan Change Standards Comparison Section A1 & A2

Overlay on Concept Design



Scale 1:100 @A3

Existing Mixed Used Zone Plan Change Standards Comparison **Section B**

Overlay on Concept Design

Key



Plan Change Envelope



Existing Mixed Used Zone Envelope



Area of Concept Design Outside Plan Change Envelope

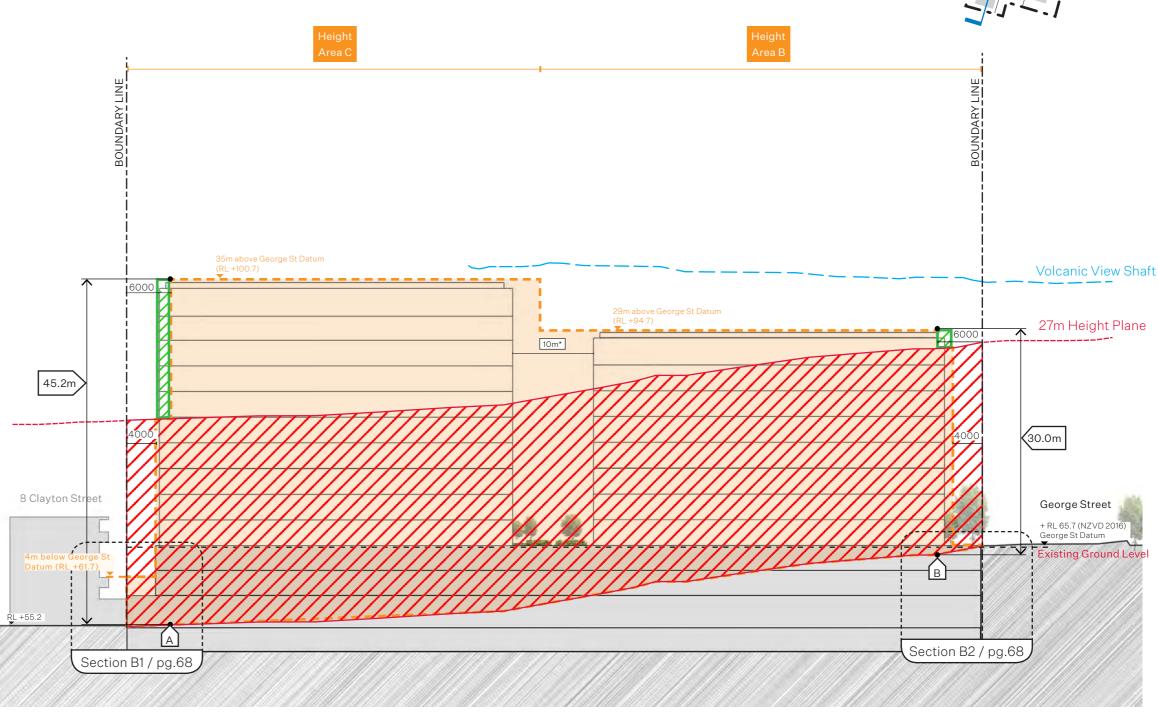


Minimum 10m required separation between buildings in Height Area B&C



Xm> Vertical dimension between a nominated point on Existing Ground plane (which varies) and Plan Change height limit

Note: The outline of neighbouring buildings beyond the site boundary are indicative only and are based on information obtained from Auckland Council GIS data dated 27/04/2017.

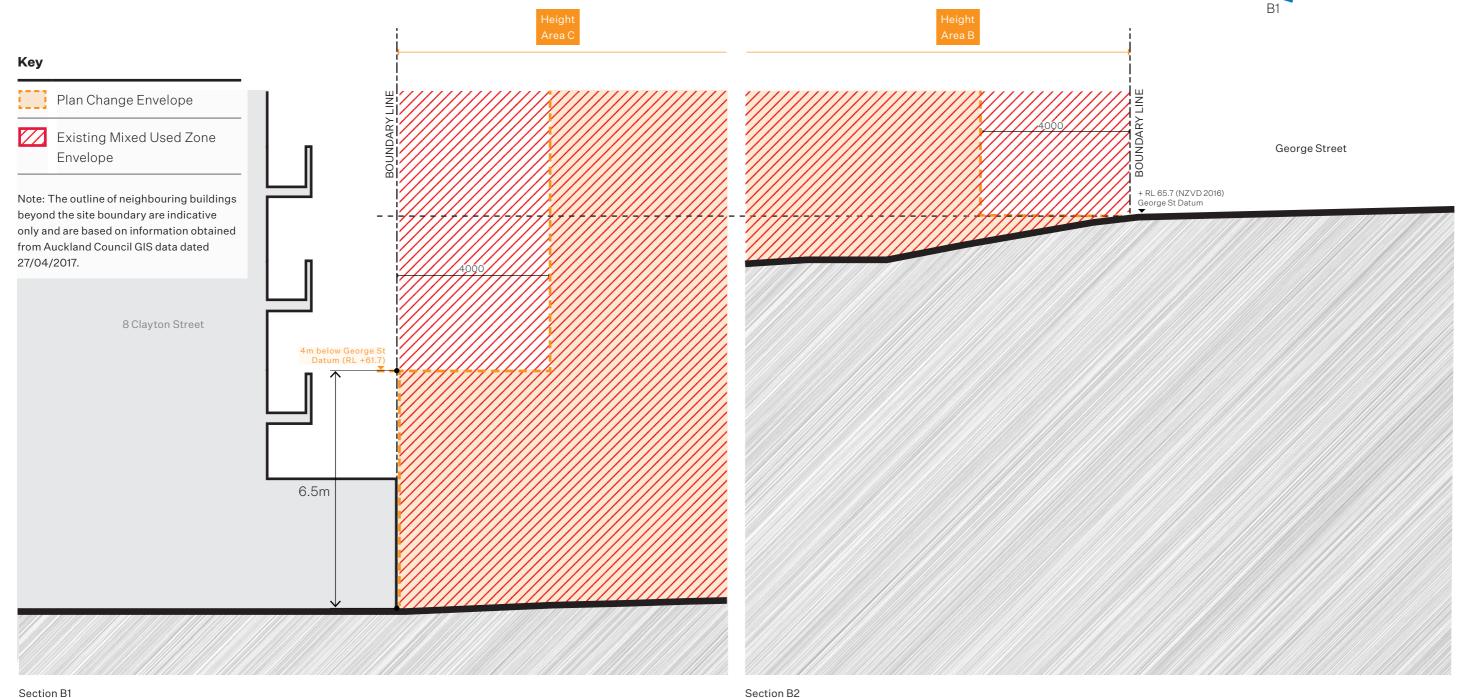


Section B

Scale 1:500 @A3

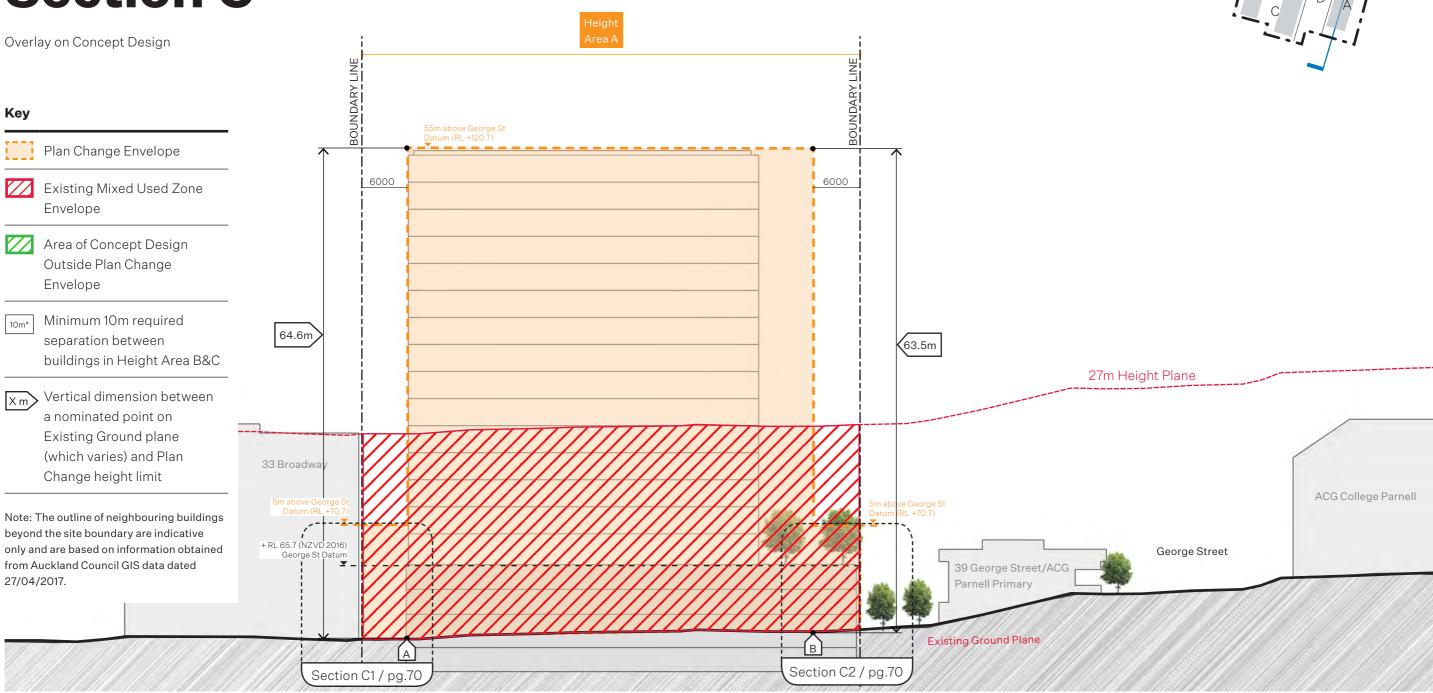
Existing Mixed Used Zone | Plan Change Standards Comparison Section B1 & B2

Overlay on Concept Design



Scale 1:100 @A3

Existing Mixed Used Zone Plan Change Standards Comparison **Section C**

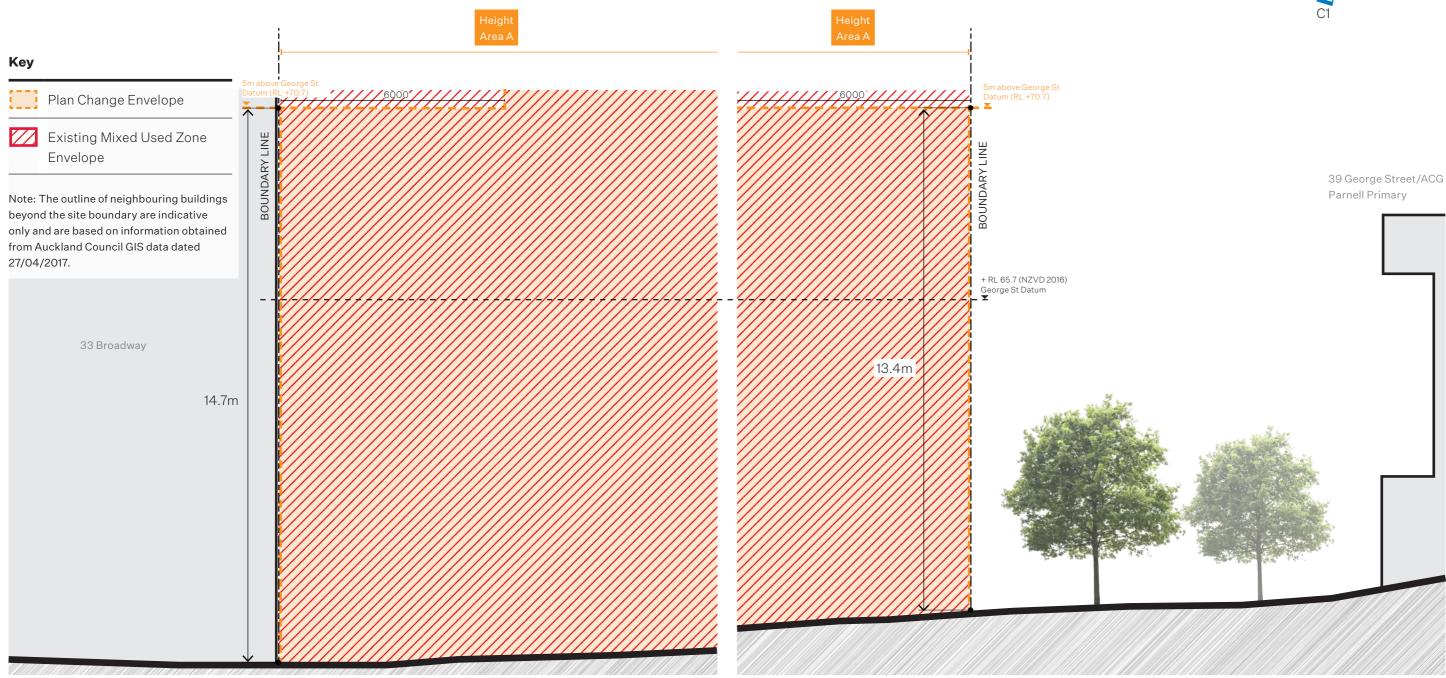


Section C

Scale 1:500 @A3

Existing Mixed Used Zone | Plan Change Standards Comparison Section C1 & C2

Overlay on Concept Design



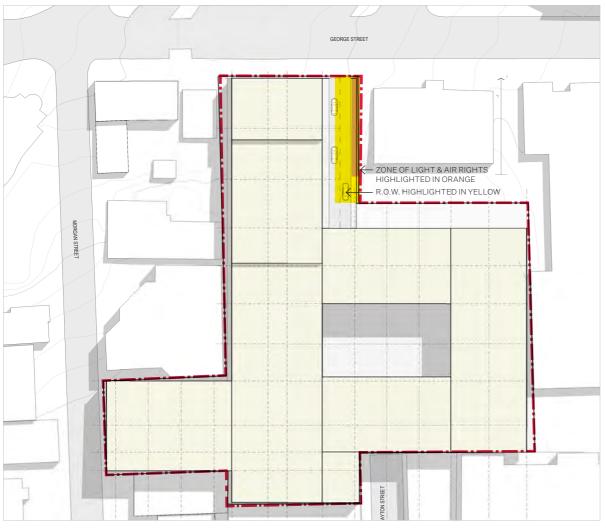
Section C1

Section C2

Scale 1:100 @A3

Commercial Activity Bulk and Massing Study

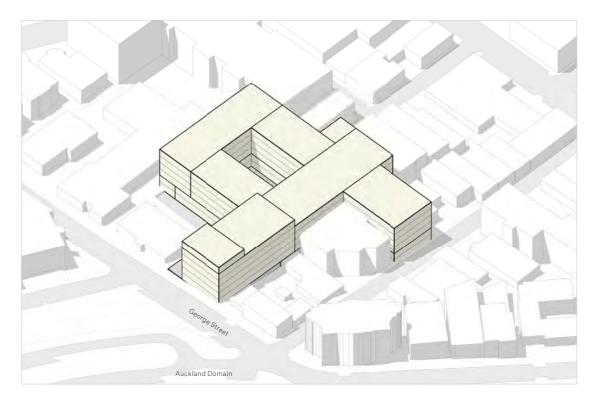
Commercial yield study complying with current Business-Mixed Use zone standards

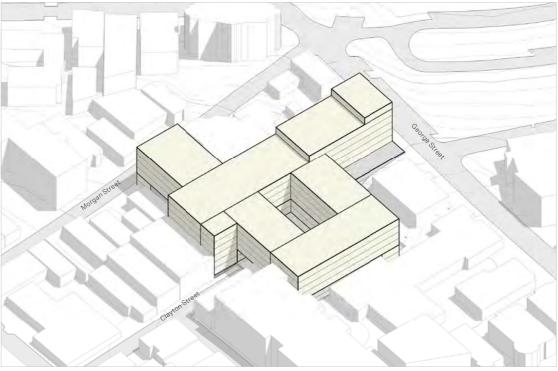


Masterplan Scale 1:1,000 @ a3

	GFA (m²)
Office/Commercial*	31,700
Supermarket	2,000
Total	33,700

^{*} Assumes 4200mm floor to floor.





Commercial Activity Bulk and Massing Study

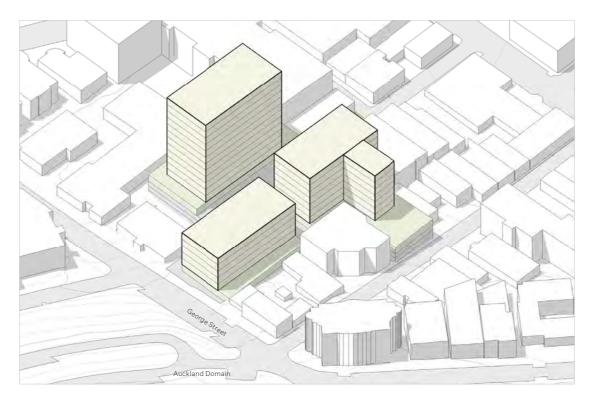
Commercial yield study complying with current Business-Mixed Use zone standards

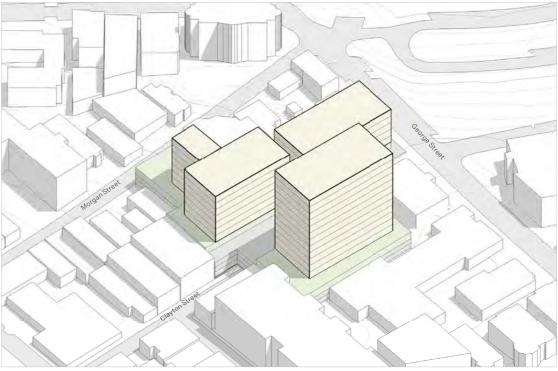


Masterplan Scale 1:1,000 @ a3

	GFA (m²)
Office/ Commercial*	35,100
Supermarket	2,000
Total	37,100

^{*} Assumes 4200mm floor to floor.





Residential Activity Bulk and Massing Study

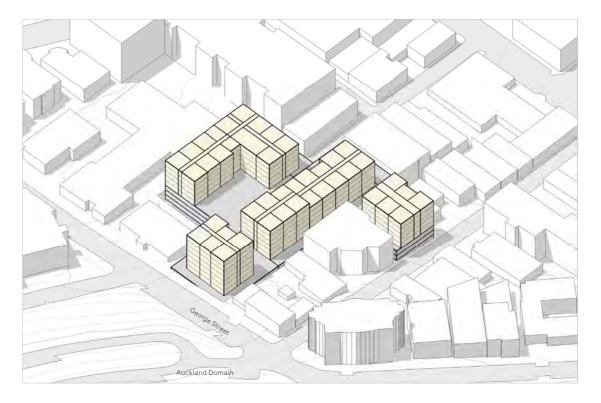
Commercial yield study complying with current Business-Mixed Use zone standards

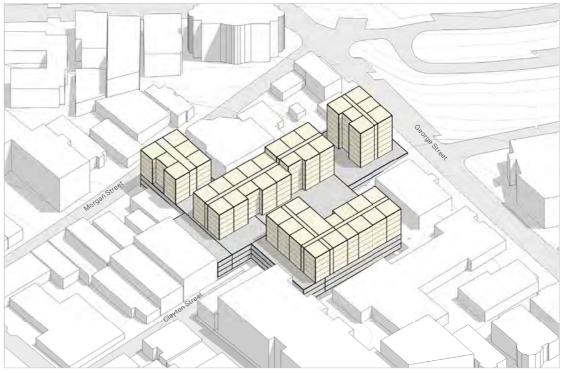


Masterplan Scale 1:1,000 @ a3

	GFA (m²)
Residential*	18,500
Supermarket	2,000
Total	20,500

^{*} Assumes 3200mm floor to floor.





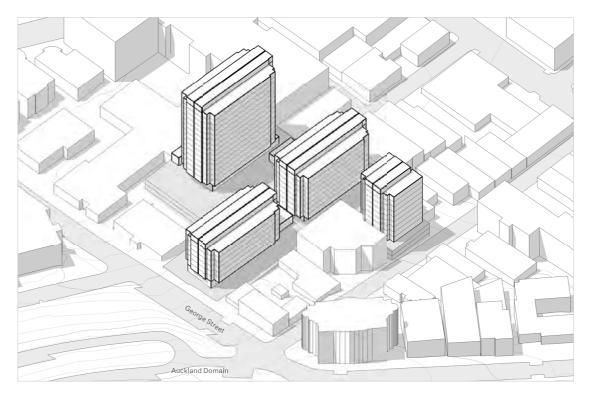
Residential Activity Bulk and Massing Study

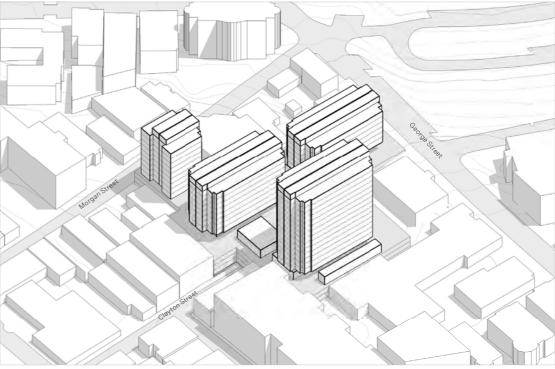
Concept design generally complying with Plan Change standards



Masterplan Scale 1:1,000 @ a3

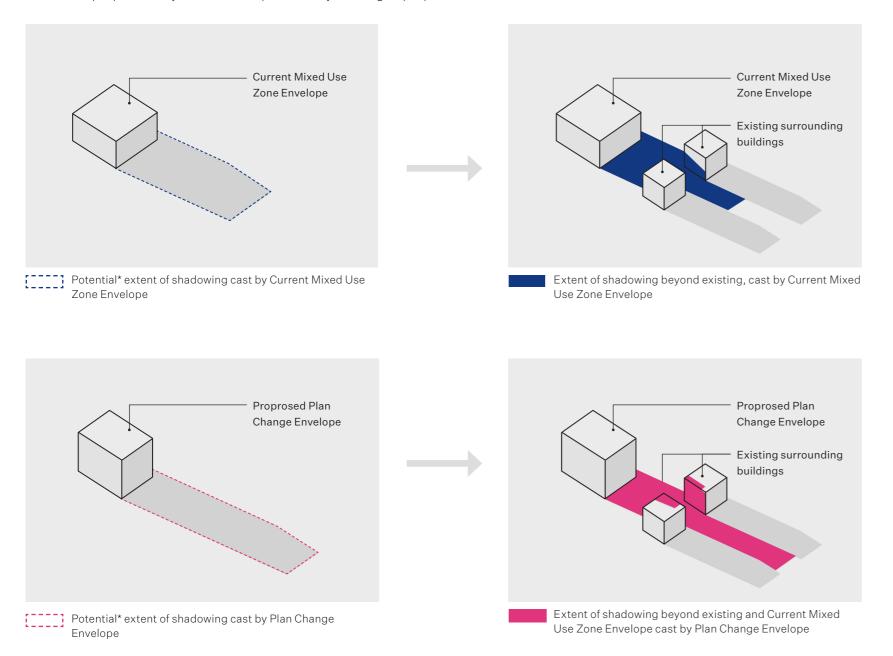
	GFA (m²)
Residential	27,310
Supermarket	2,000
Retail	1,300
Total	30,610

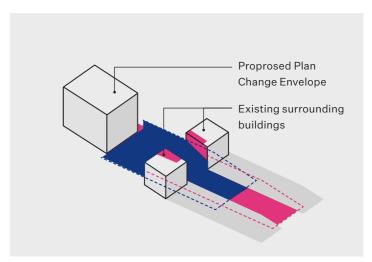




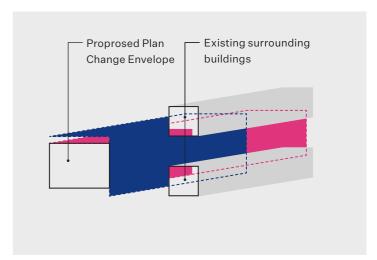
Shadow Studies - Methodology

The purpose of the diagrams below are to convey the graphic meaning of the shadow studies which are shown on the subsequent pages. (The blocks shown below are for illustrative purposes only and do not represent any existing or proposed condition)





Combined Shadow Study Diagrams - 3D



Combined Shadow Study Diagrams - Plan

The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey). Site Boundary Residential Building Potential* extent of shadowing cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Potential* extent of shadowing cast by Plan Change Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)







9.00 am

10.00 am

11.00 am







The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Site Boundary Residential Building Potential* extent of shadowing cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Potential* extent of shadowing cast by Plan Change Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)







3.00 pm

4.00 pm

5.00 pm





7.00 pm

III WARREN AND MAHONEY® B&A



The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Outline of Proposed Plan Change Envelope

Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope

Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

2.00 pm





1.00 pm

The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).





The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Site Boundary Residential Building Potential* extent of shadowing cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Potential* extent of shadowing cast by Plan Change Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)























The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Residential Building

Potential* extent of shadowing cast by Current Mixed Use Zone Envelope

Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope

Potential* extent of shadowing cast by Plan Change Envelope

Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)





3.00 pm 4.00 pm

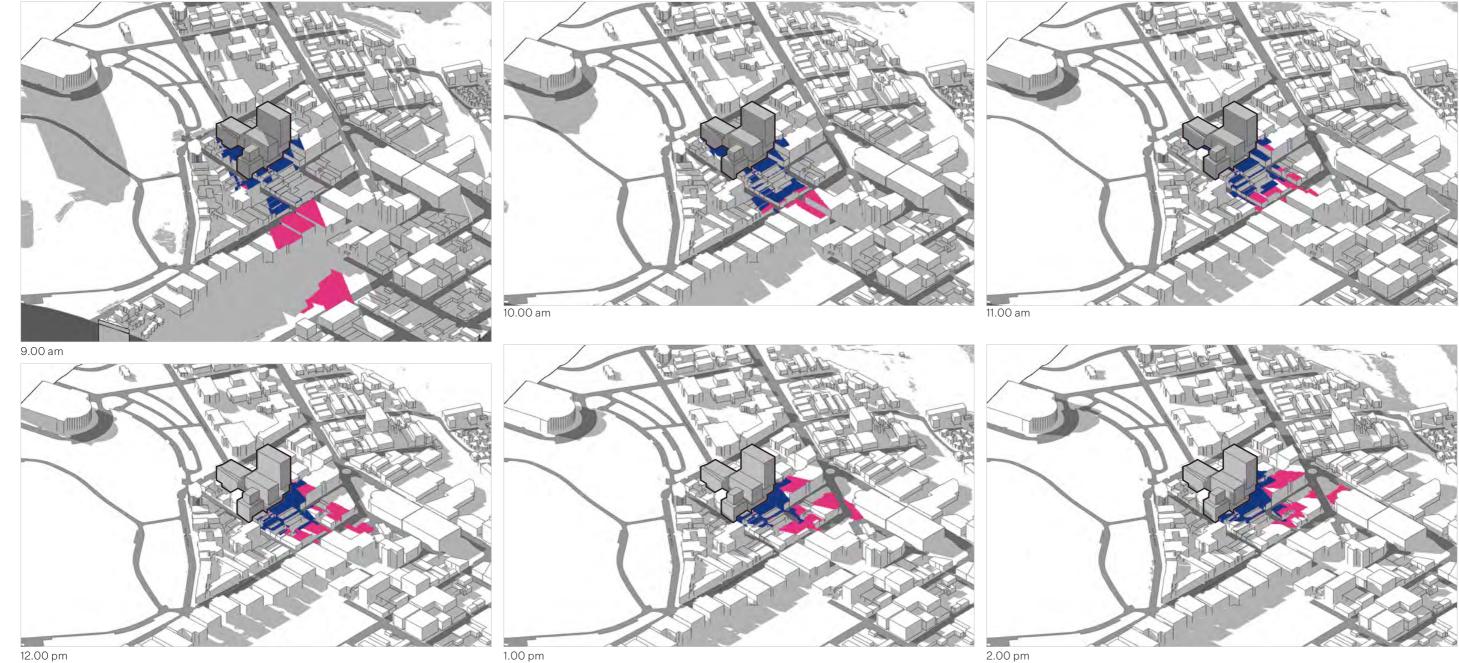


The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Outline of Proposed Plan Change Envelope

Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope

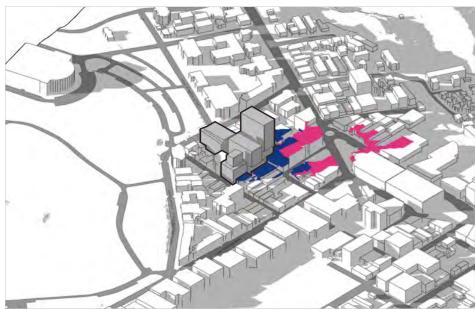
Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

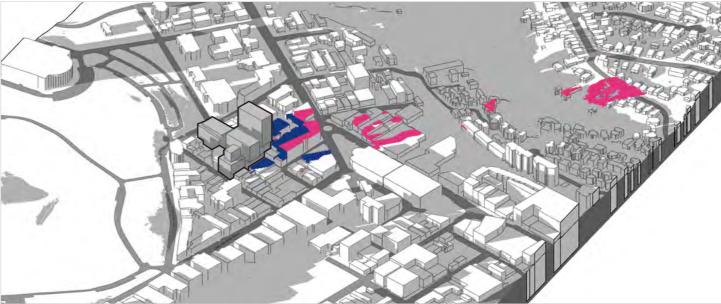




The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Outline of Proposed Plan Change Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope





3.00 pm 4.00 pm

The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Residential Building

Potential* extent of shadowing cast by Current Mixed Use Zone Envelope

Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope

Potential* extent of shadowing cast by Plan Change Envelope

Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)







9.00 am

10.00 am

11.00 am







The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Site Boundary Residential Building Potential* extent of shadowing cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Potential* extent of shadowing cast by Plan Change Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

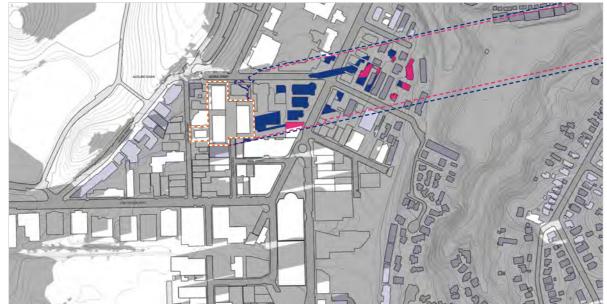
* Extent of shadowing cast upon clear ground plane (before adding existing surrounding buildings)







3.00 pm 4.00 pm 5.00 pm



The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

Outline of Proposed Plan Change Envelope Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

2.00 pm



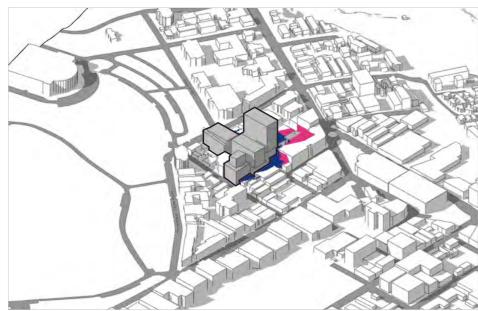
1.00 pm

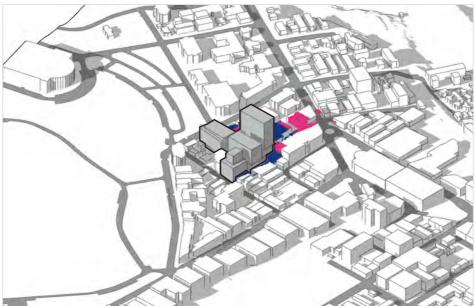
The shading simulations shown below are generated by Autodesk Revit using third party data (sourced from Auckland Council GIS and Google Street view). The pink coloured areas in the diagrams below denote shadows cast by potential massing permitted under the proposed Plan Change controls and are in addition to those cast by existing surrounding buildings (shown in grey).

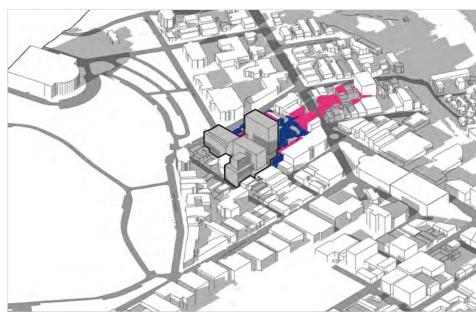
Outline of Proposed Plan Change Envelope

Extent of shadowing beyond existing, cast by Current Mixed Use Zone Envelope

Extent of shadowing beyond existing and Current Mixed Use Zone Envelope cast by Plan Change Envelope

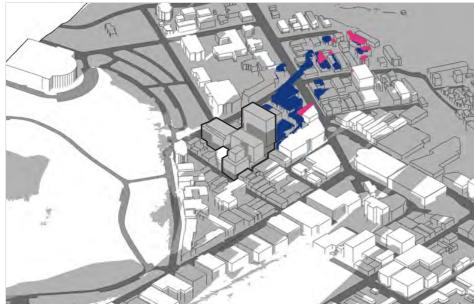






3.00 pm

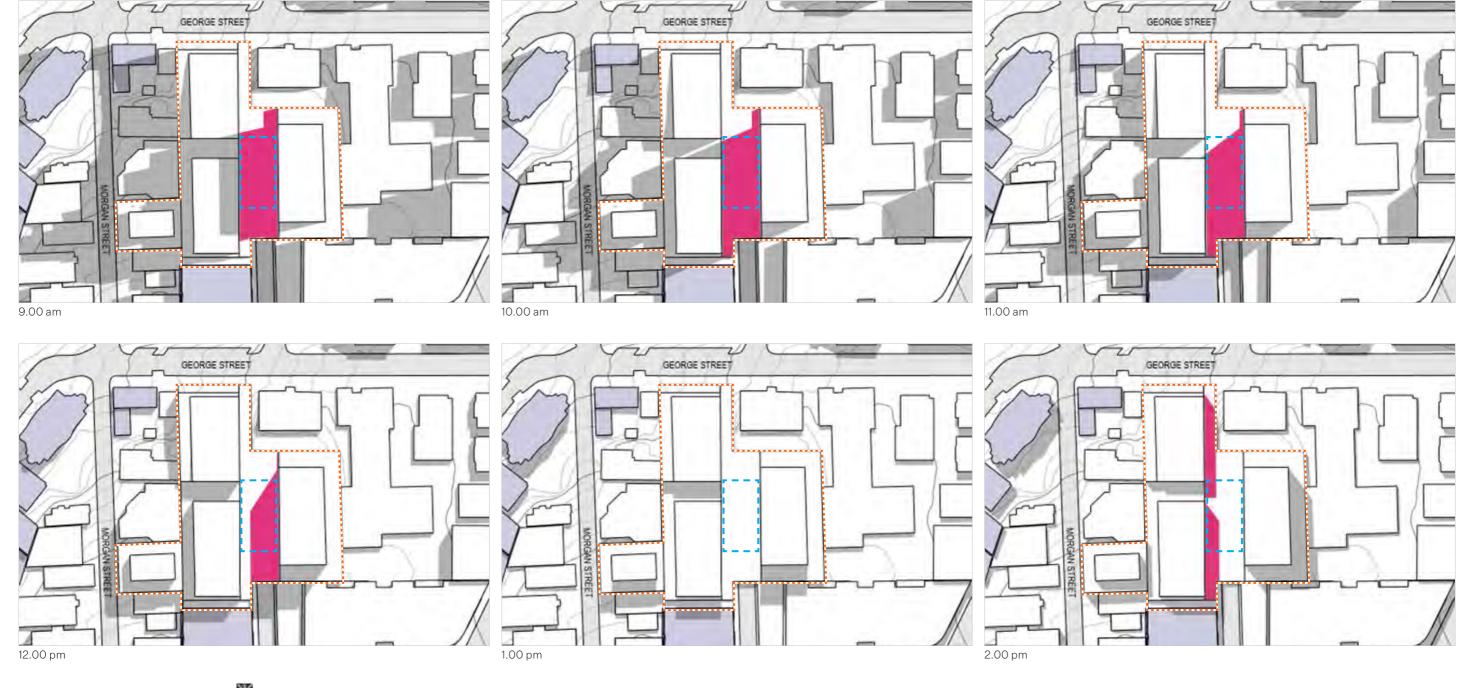
4.00 pm



3.00 nm

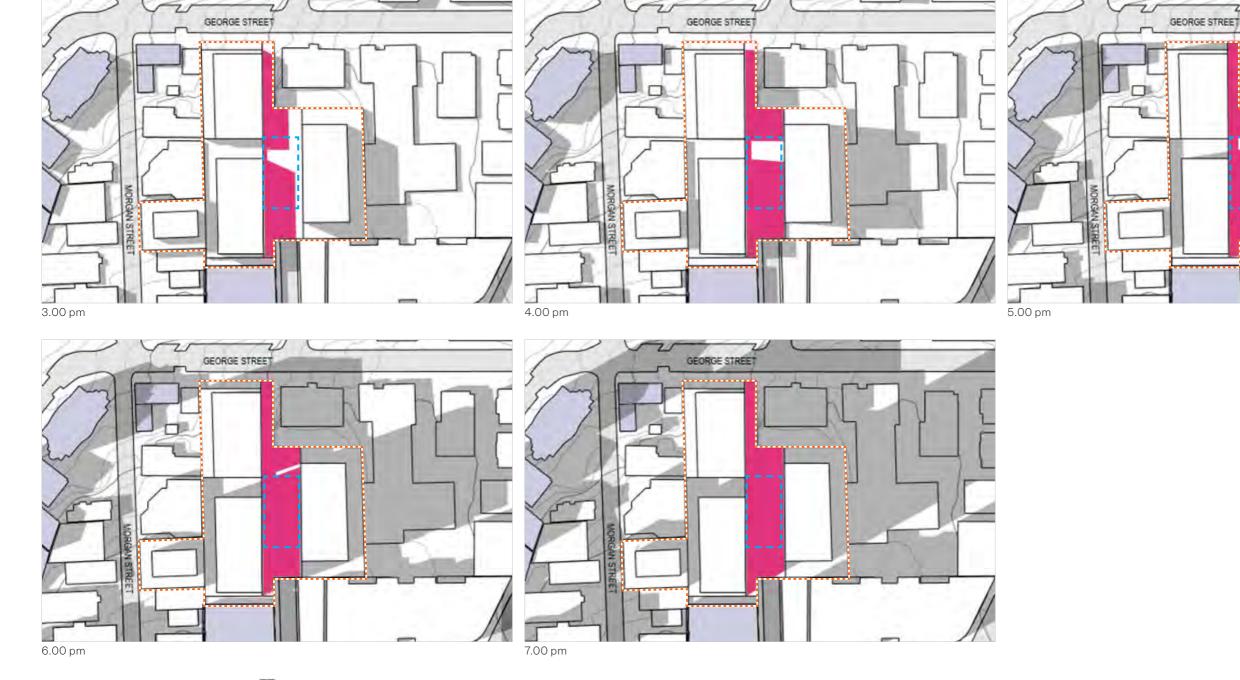
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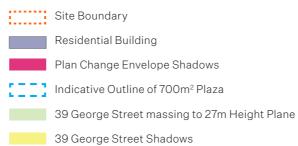


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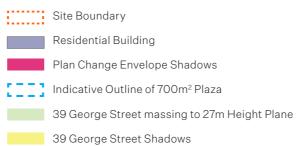


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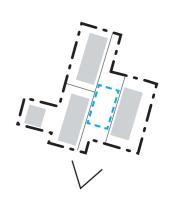


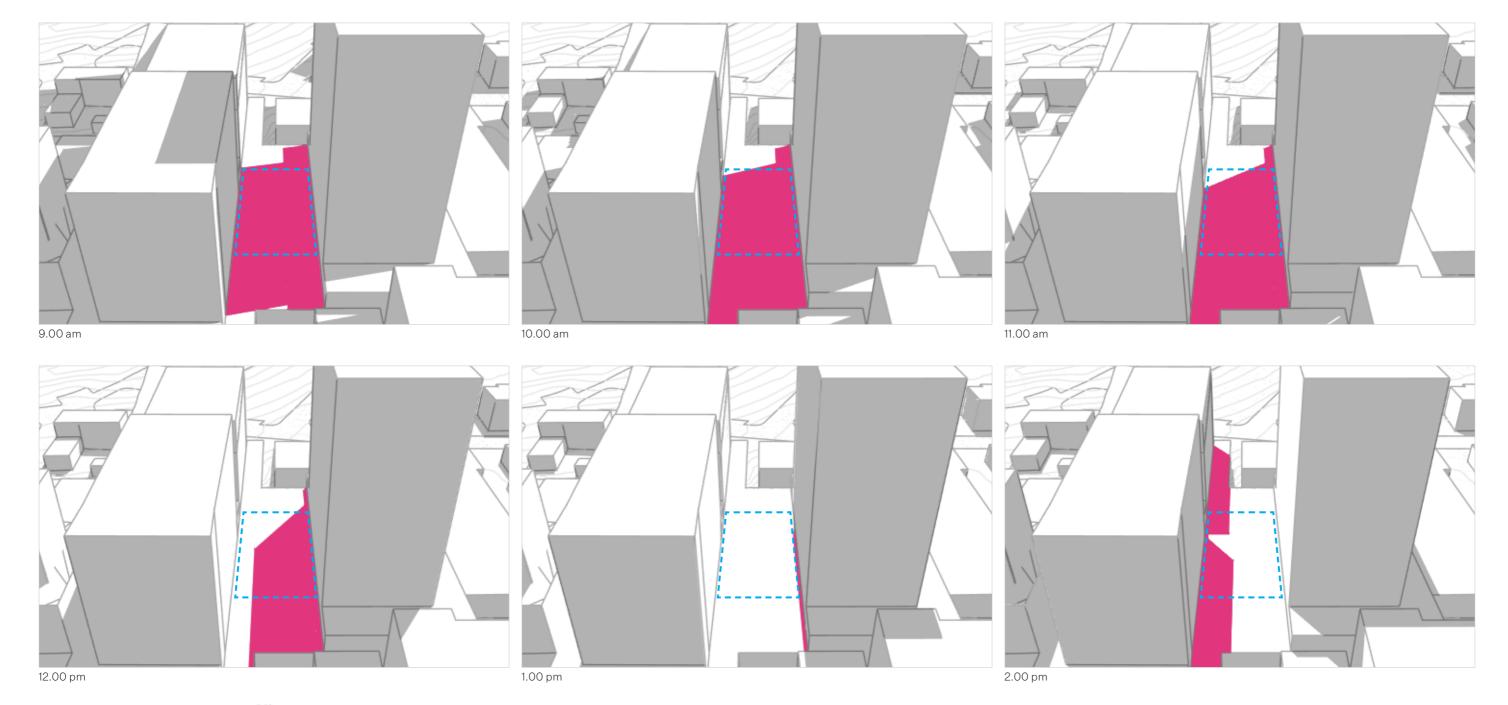




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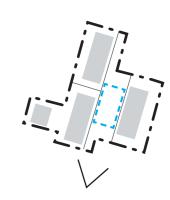


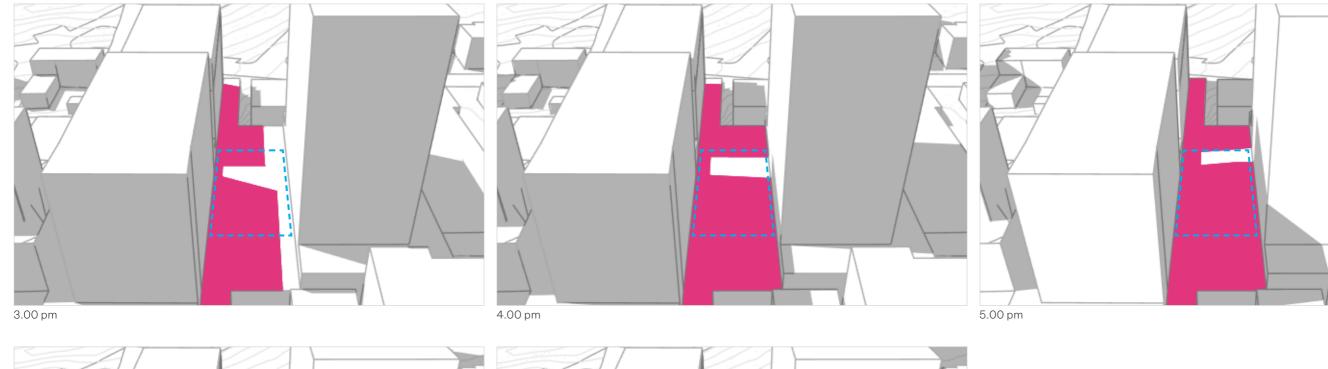


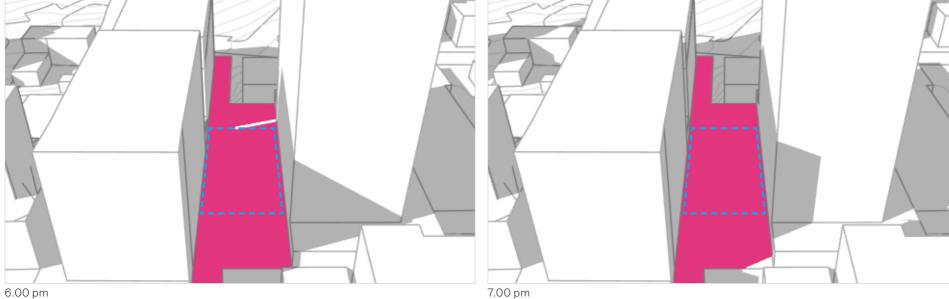


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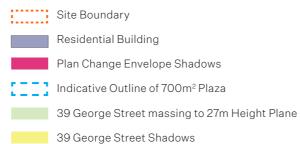


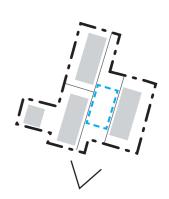


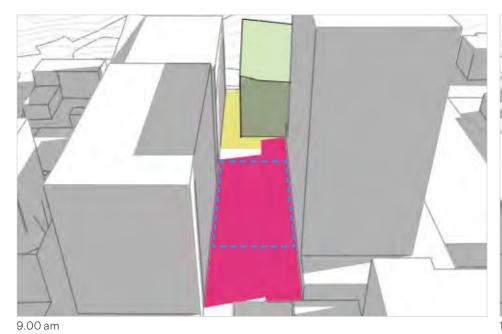


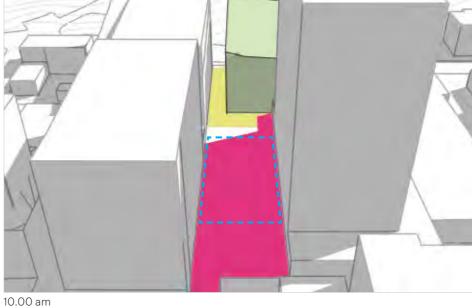
Proposed Private Plan Change: Drawing Set | Rev 11

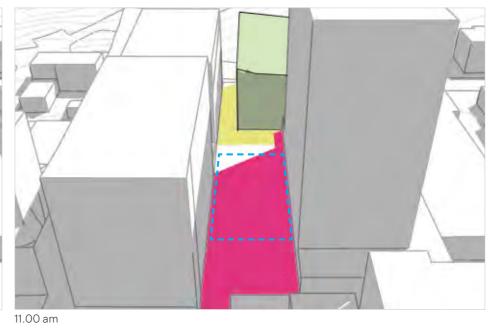
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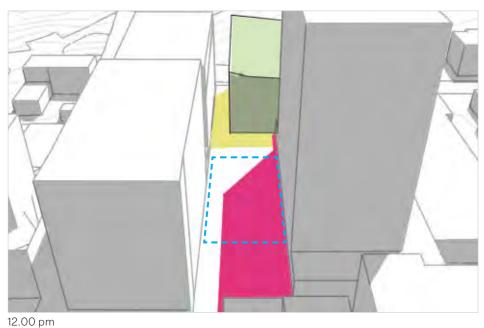


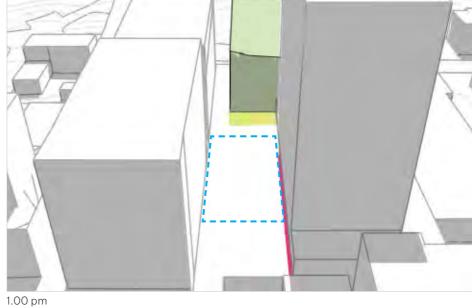


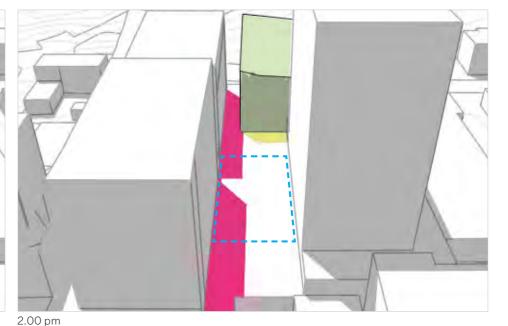








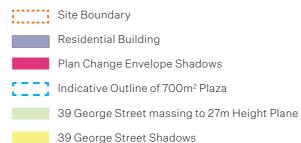


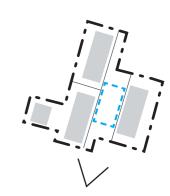


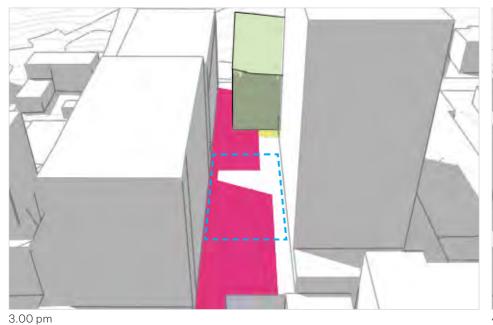


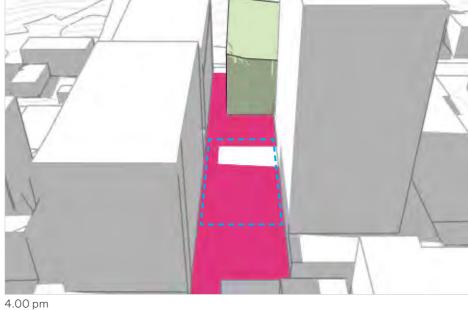
RDT

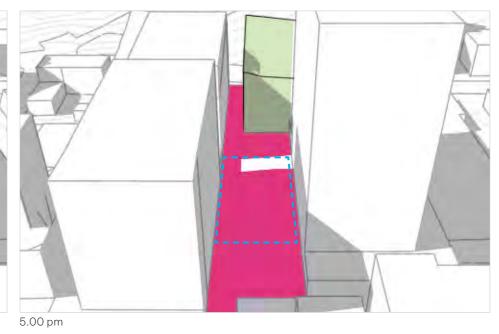
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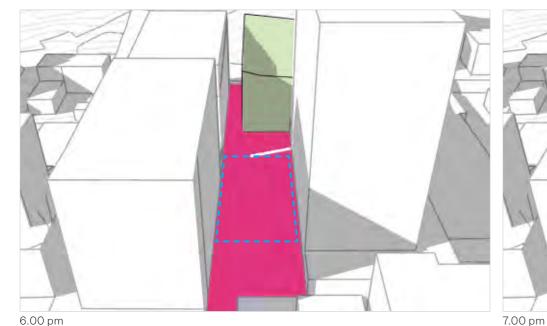


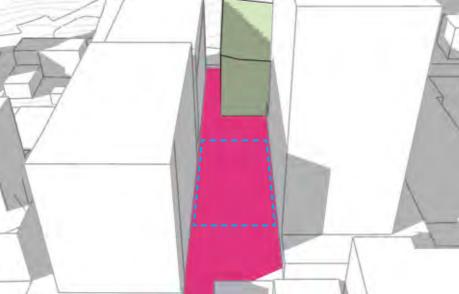












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Site Boundary Residential Building Plan Change Envelope Shadows Indicative Outline of 700m² Plaza















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Site Boundary Residential Building Plan Change Envelope Shadows Indicative Outline of 700m² Plaza 39 George Street massing to 27m Height Plane 39 George Street Shadows







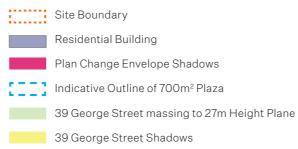








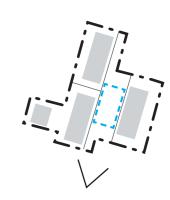
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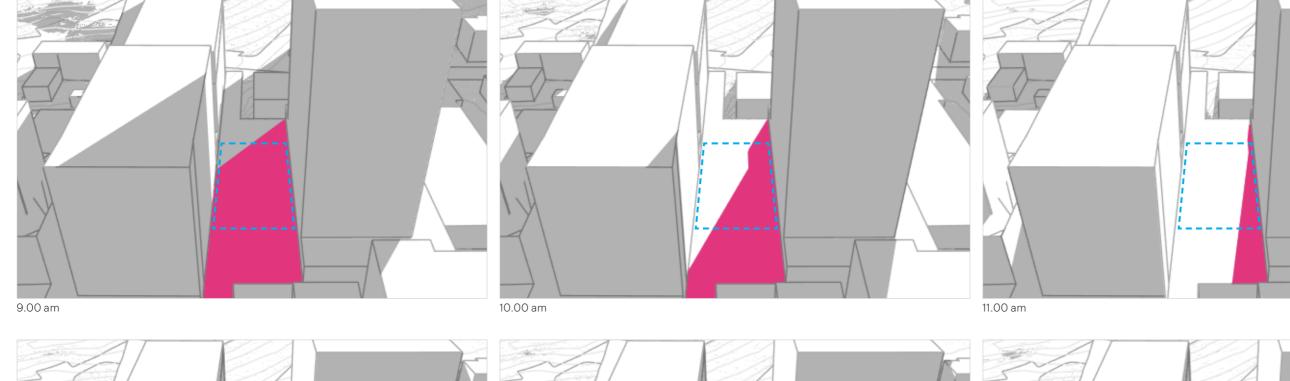


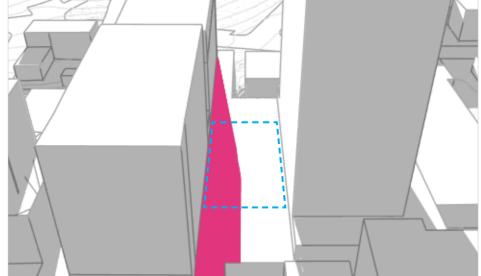


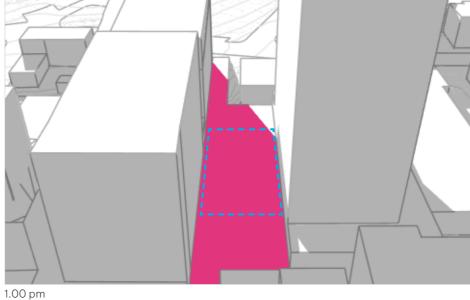
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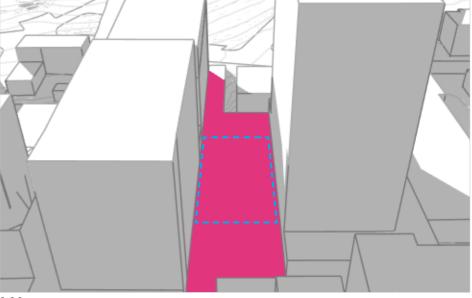










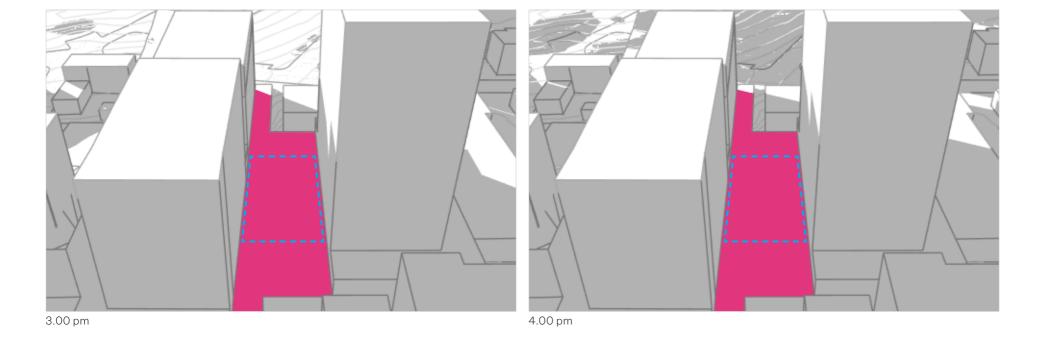


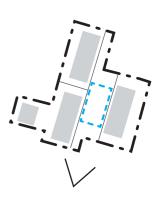




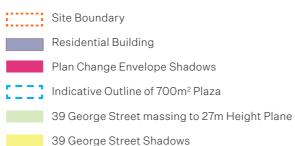
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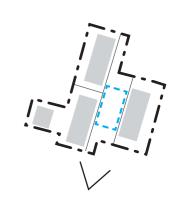


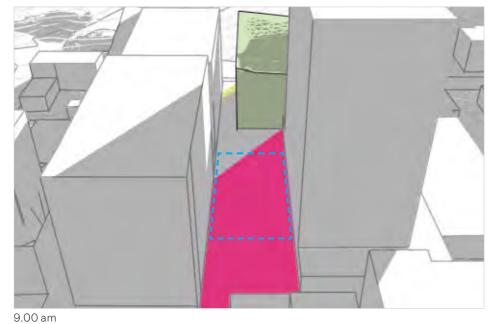


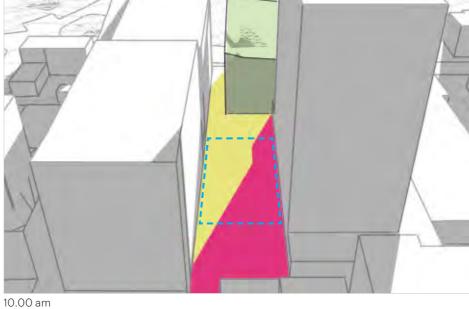


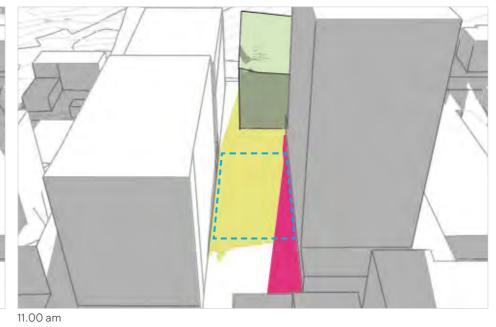
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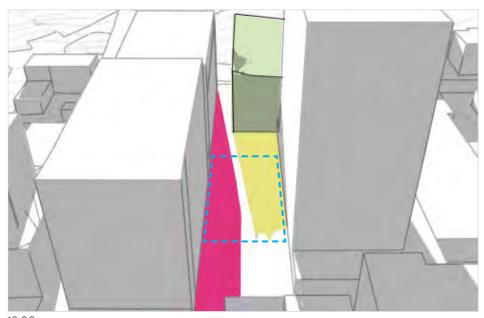


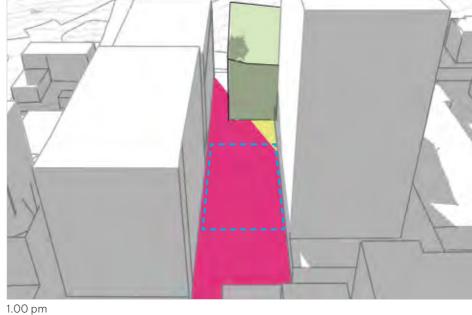


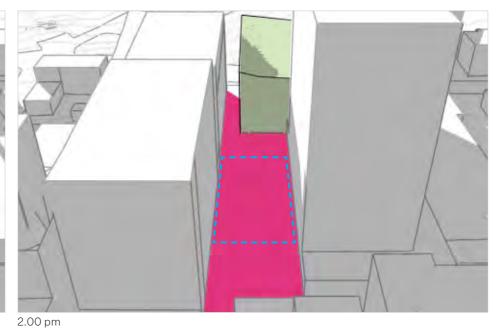








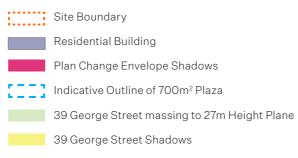


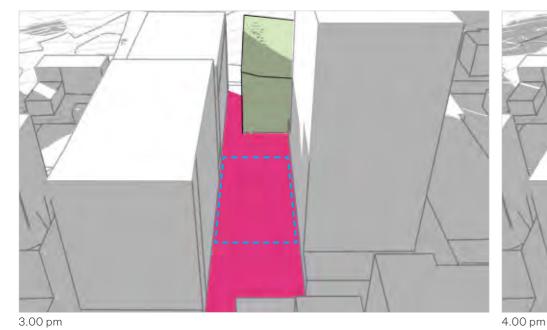


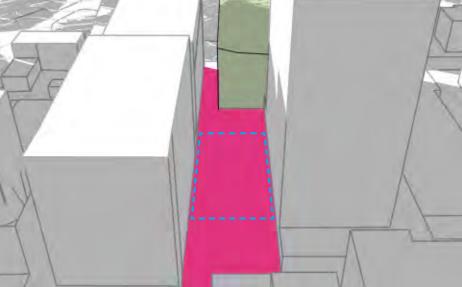
Sun sets at 5.11pm on Winter Solstice (Source: Royal Astronomical Society NZ)

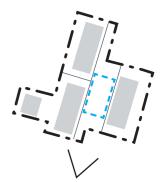
Ⅲ WARREN AND MAHONEY® B&A

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Site Boundary

Residential Building

Plan Change Envelope Shadows

Indicative Outline of 700m² Plaza









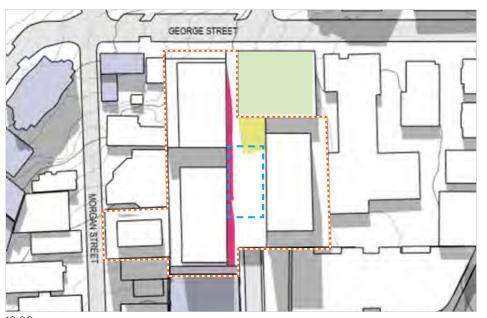
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Residential Building
Plan Change Envelope Shadows
Indicative Outline of 700m² Plaza
39 George Street massing to 27m Height Plane
39 George Street Shadows





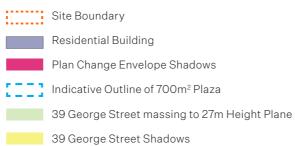








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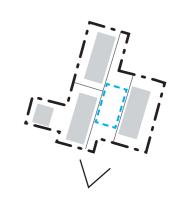


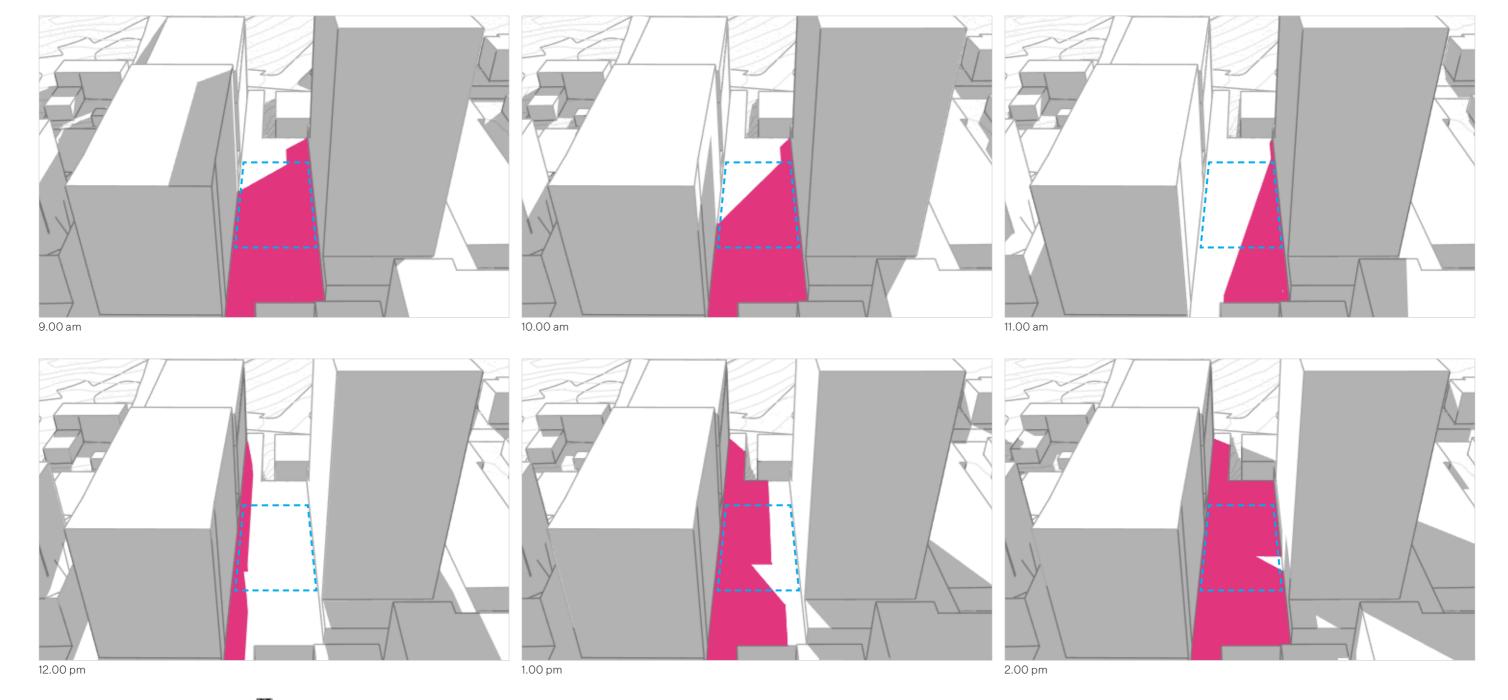




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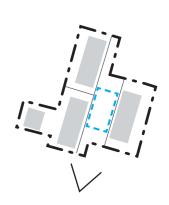


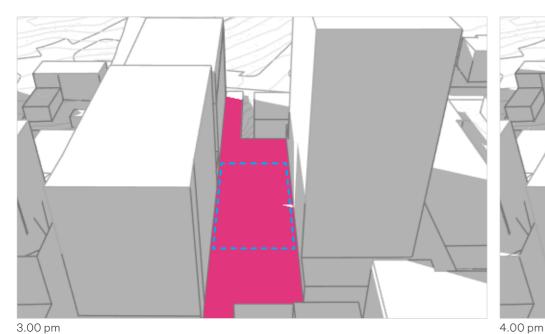


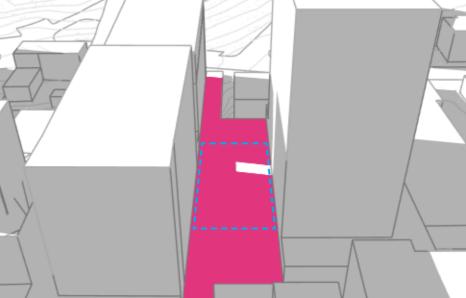


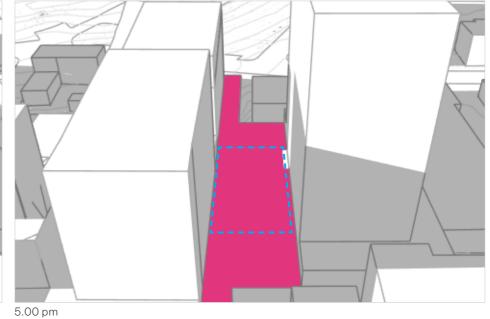
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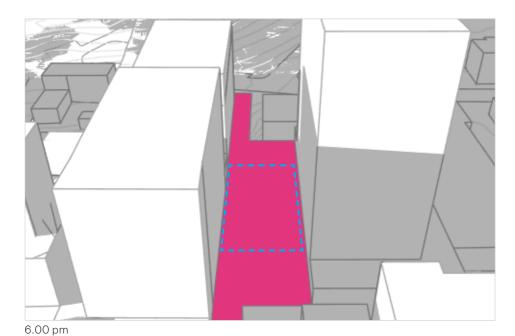








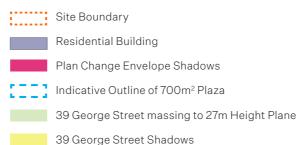


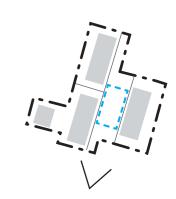


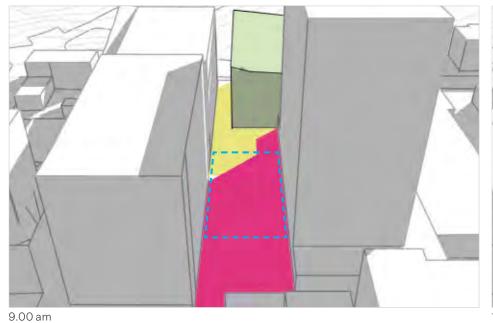
III WARREN AND MAHONEY B&A

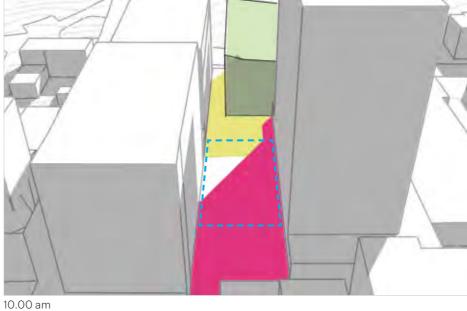


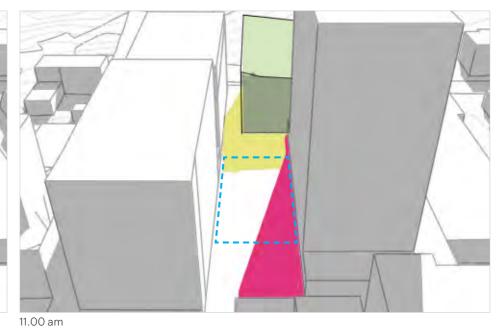
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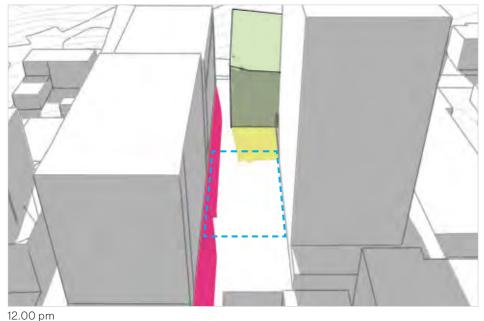


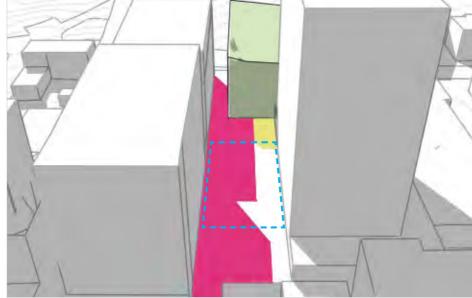


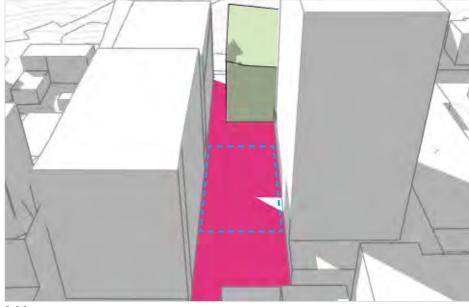












2.00 pm

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