

92-96 Victoria Avenue, Chatswood Urban Design Report - Revision 03



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92-96 Victoria Avenue, Chatswood

Urban Design Report

Revision	Date	Description	By	Chk	App
01	08/10/2020	Draft Urban Design Report	DA/DW	WW	RN
02	03/11/2020	Final Urban Design Report	DW	WW	WW
03	24/09/2021	Urban Design Report Rev 01	WW	WW	WW
04	28/09/2021	Urban Design Report Rev 02	WW	WW	WW
05	15/09/2022	Urban Design Report Rev 03	DW	RN	RN

Prepared for: Networked Urban Solutions Pty Ltd

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Historic Photo of Chatswood Railway Station (Source: Willoughby City Local Strategic Planning Statement)

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Existing streetscape along Victoria Avenue looking east

1.0 Introduction

CM⁺ is engaged by Networked Urban Solutions Pty Ltd to conduct an Urban Design study, including a Concept Plan, to prepare a compelling vision and a clear case to support townhouse development on a consolidated site located in Chatswood, within the Willoughby City Local Government Area (LGA).

The site consolidates three properties with a total area of approximately 2,500m²:

- 92 Victoria Avenue, Chatswood; Lot 7, DP 809
- 94 Victoria Avenue, Chatswood; Lot 6, DP 809
- 96 Victoria Avenue, Chatswood; Lot 5, DP 809

The Planning Proposal (by SJB Town Planning) and the associated Urban Design Study (by CM⁺) was lodged to Willoughby City Council for endorsement in 2021. Council endorsed the Planning Proposal with some provisions in early 2022, following that, the Planning Proposal was submitted to Department of Planning and Environment (DPE) for the Gateway Determination.

Written feedback was received from both Gateway Determination and Willoughby Local Planning Panel (WLPP) asking the project team to undertake additional design work to support the Planning Proposal prior to its formal exhibition. Subsequently, the project team reviewed the comments, developed an alternative solution and issued revised plans to Council officers in August 2022. Council approved the revised scheme with a written approval in September 2022.

This Urban Design report is prepared in support of the revised Planning Proposal Application prepared by SJB Town Planning, which seeks to amend the LEP controls that currently apply to the site. This study examines the site and its surrounding context, and define an Urban Design Framework to guide the future development.

This study also considers the Willoughby Local Strategic Planning Statement (LSPS), other strategies applicable to the site, WLLP's advice, and Gateway Determination written feedback dated 12 July 2022 against the initial Planning Proposal.

The revised proposal carefully examines the feedback received and provides an improved urban design outcome for the site and the surrounding areas, and would contribute positively to the housing diversity of the locality.



Figure 1: Aerial photo of site in context

2.0 Planning Context

2.1 Strategic Context

Greater Sydney Commission (GSC) A Metropolis of Three Cities + North District Plan

- The site is in close proximity to Chatswood Strategic Centre (1.5km).
- Future metro line from Chatswood to the Sydney CBD will further strengthen the site's connectivity and accessibility to the Sydney CBD, and adjacent strategic and local centres.

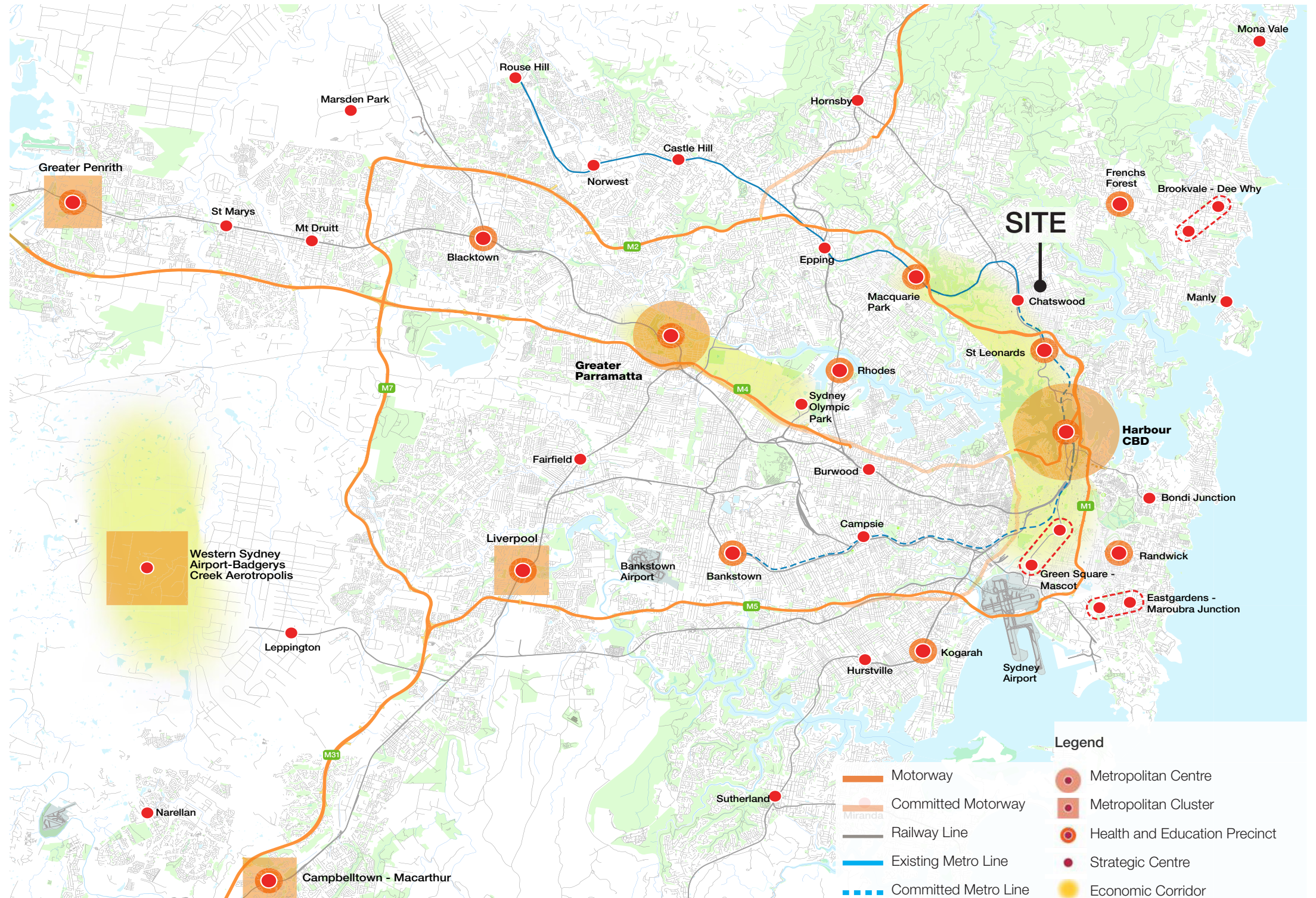


Figure 2: The Site in the Strategic Context



Figure 3: North District Plan by Greater Sydney Commission

2.0 Planning Context

2.2 Willoughby City Local Strategic Planning Statement and Relevant Strategic Studies

2.2.1 Willoughby City LSPS

- The site is adjacent to North Willoughby Local Centre.
- The site is well connected to the Chatswood CBD through Victoria Avenue. The site's connectivity will be further strengthened by the proposed eastern public transport route.
- The River to Harbour Green Corridor together with North-South Link will improve the site's accessibility to the surrounding District and Regional open spaces / recreational facilities.

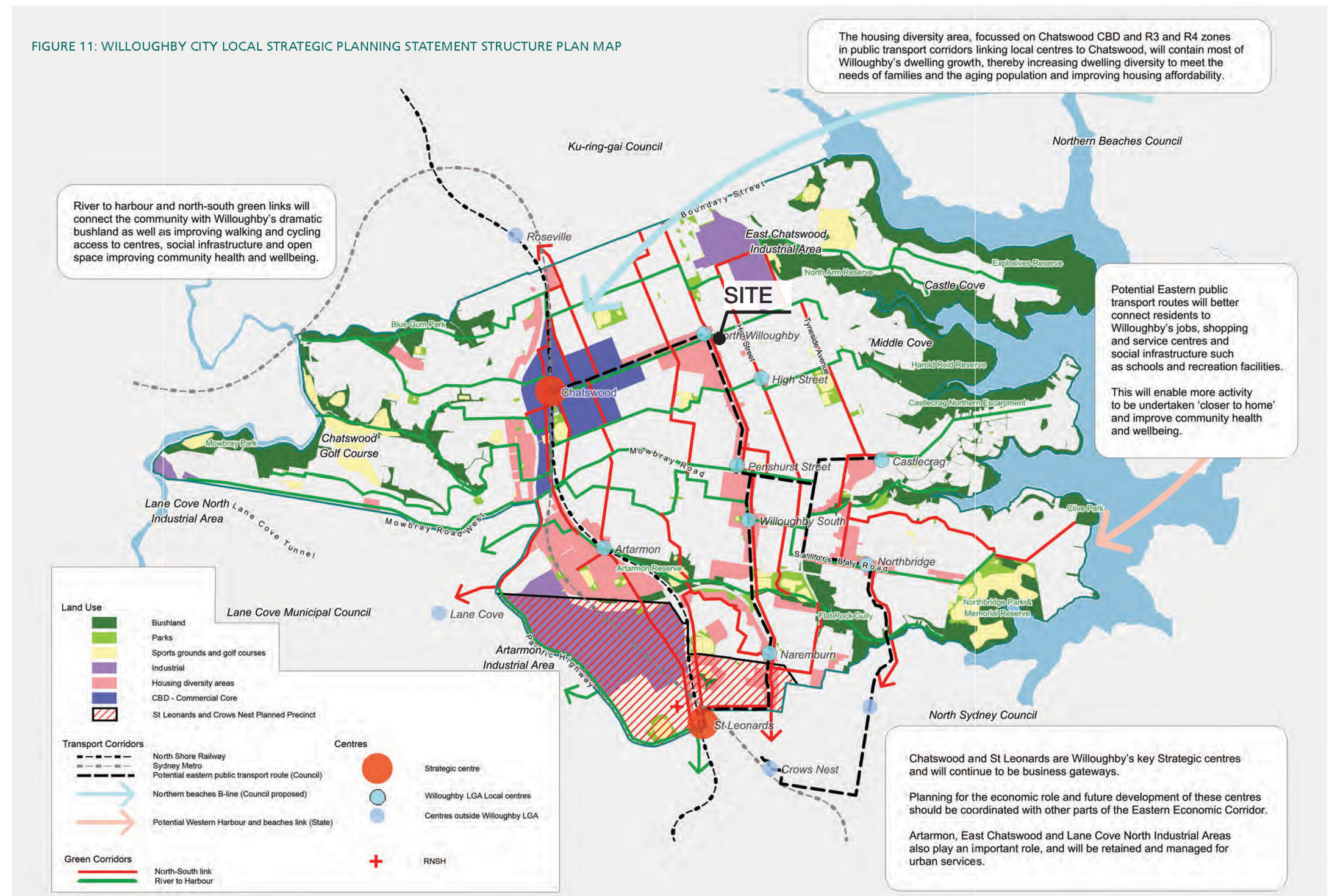


Figure 4: Willoughby City LSPS Structure Plan (Source: Willoughby City LSPS)

2.0 Planning Context

2.2.2 Draft Willoughby Housing Strategy 2036

Three focus areas are identified in the strategy to guide future residential development:

- **Focus area 1:** to be on existing medium and high density zones, (R3 and R4) that have not as yet been developed to the full potential of the zone.
- **Focus area 2:** to be on the proposed B4 Mixed Use zone which surround the B3 Commercial Core of the Central Business District as identified in The Chatswood CBD Planning and Urban Design Strategy to 2036.
- **Focus area 3:** in the local centres identified in Draft Local Centres Strategy as per the zoning changes proposed for Artarmon, Northbridge, East Chatswood, Penshurst Street, Castlecrag, Naremburn, and Willoughby South.

The site is adjacent to Focus Area 3.

2.2.3 Willoughby Local Centres Strategy 2036 (WLCS 2036)

The following Local Centres are identified in the strategy:

1. Artarmon
2. Castlecrag
3. North Willoughby
4. High Street
5. Naremburn
6. Northbridge
7. Penshurst Street
8. Willoughby South

The site is situated within North Willoughby Local Centre. The vision for North Willoughby:

North Willoughby village is a thriving, pleasant, accessible place. It has a leafy streetscape and attractive communal open spaces. It remains a distinct local centre separate from the Chatswood CBD, with a lower scale of development compared to the major commercial and shopping buildings of the CBD.

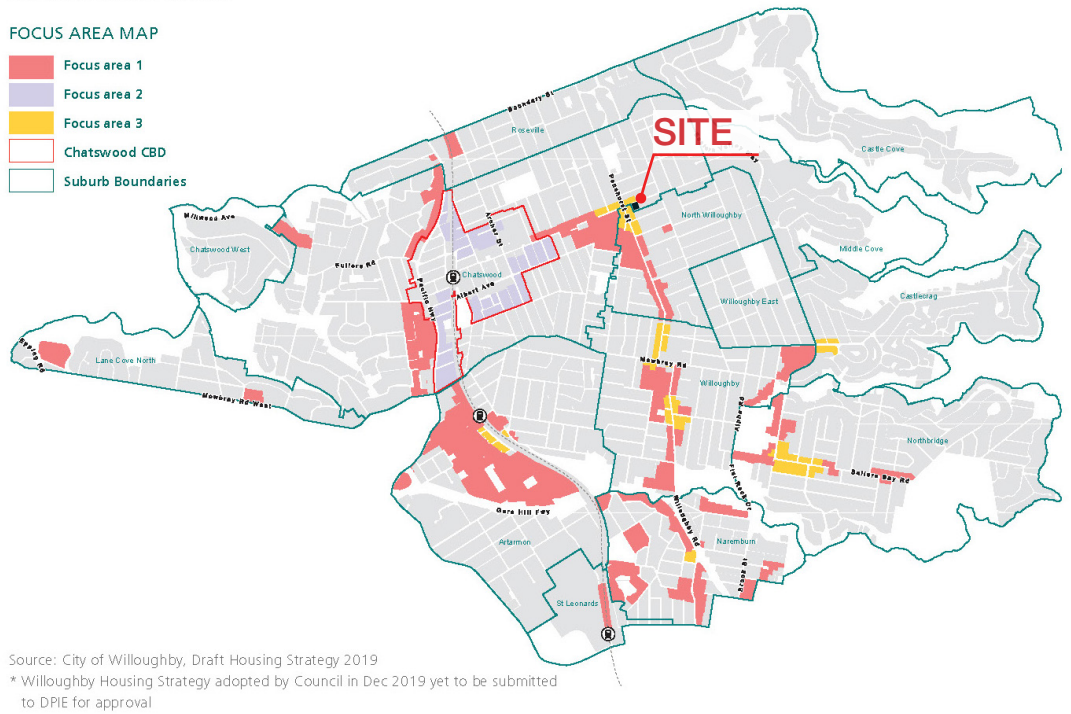


Figure 5: Draft Willoughby Housing Strategy (Courtesy of Willoughby City Council)

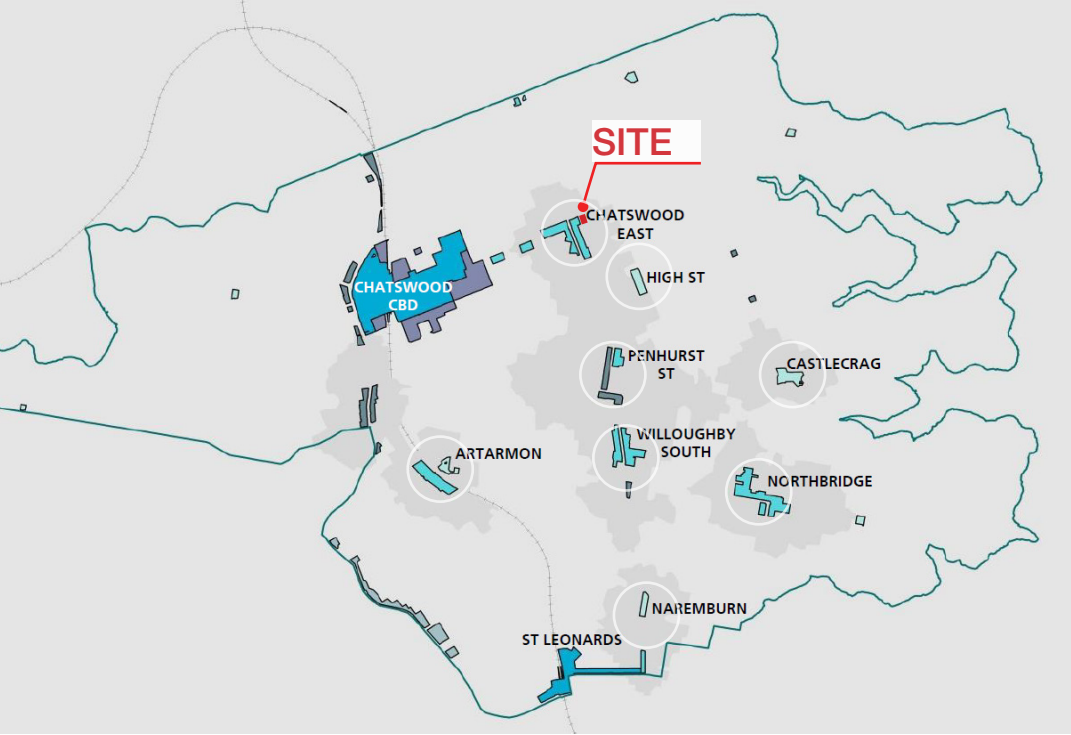


Figure 6: Identified Centres within a walkable distance of 400m from a bus stop (Adapted from draft Willoughby Housing Strategy)



Key features

1. A new high quality public space (pedestrianised or traffic calmed) at the corner of Penshurst and Sydney Streets.
2. Increased density and heights up to 5 storeys with active ground floor frontages.
3. New through site pedestrian links to laneway network.
4. Improved pedestrian amenity/crossings and public domain at the intersection of MacMahon and Penshurst Streets.
5. Increased building heights around intersection up to 6 storeys.
6. Kerb blisters to improve pedestrian amenity.
7. A new public open space at the corner of Royal St and Victoria Avenue. Existing parking to be relocated to the basement.
8. Up to 5 storeys with shop top housing.
9. Up to 8 storeys with shop top housing.
10. Lots immediately adjacent to the Willoughby Hotel should not exceed the current eave height of the heritage item.

Figure 7: Indicative Master Plan for North Willoughby (Source: Local Centres Strategy to 2036)

2.0 Planning Context

WLCS 2036 - Key Recommendations (LEP)

The preferred master plan for North Willoughby Local Centre has identified the following initiatives (please note the numbers below correlate to the numbers in Figure 8):

1. Increase heights up to 5 storeys and increase FSR up to 2:1 for amalgamated lots directly incorporating a new public open space.
2. Rezone land fronting Sydney St (within the study area) to B2 local centre with a maximum height limit of 5 storey.
3. Increase heights up to 6 storeys and FSR up to 2.8:1 for amalgamated sites at the intersection of Victoria and Penshurst Streets.
4. Increase heights up to 8 storeys and an FSR up to 2.1:1 to facilitate lot amalgamation and delivery of new public open space/plaza.

Key Recommendations (DCP)

5. Minimum 3m upper level setback above 2 storeys.
6. Public domain improvements at the intersection of Sydney and Penshurst Streets.
7. Public domain and pedestrian improvements at the intersection of McMahon and Penshurst Streets.
8. Provide through site pedestrian links to laneways.
9. Maintain and improve laneway access from Victoria Ave.
10. New public open space to be provided at the corner of Royal St and Victoria Ave (minimum dimensions of 15m x 30m)



Figure 8: Indicative Master Plan Layout of North Willoughby (Source: Willoughby Local Centres Strategy 2036)

2.0 Planning Context

2.3 Willoughby Local Environmental Plan 2012

The Willoughby LEP 2012 applies to the site. The Zoning, FSR, HOB, Heritage and Minimum Lot Size controls are summarised below.

Land Zoning

- The site is zoned R2 Low Density Residential.
- B2 Local Centre zone is to the north and west of the site.
- R3 Medium Density Residential zone is to the west and south of the B2 zone.

Height of Buildings (HOB)

- The height limit of the site is 8.5m.
- The height limit in the R2 zone varies between 8m and 8.5m.
- The height limit in the R3 zone varies between 9m and 12m.
- The height limit in the B2 zone varies between 14m and 15.5m.

Floor Space Ratio (FSR)

- The site and lands zoned B2 have a maximum FSR of 0.4:1.
- Land in the R3 zone - FSR of 0.7:1 or 0.9:1.
- Land in the B2 zone - FSR of 2:1 or 1.5:1.

Heritage

- No heritage item or Heritage Conservation Area is within or immediately adjoining the site.

Minimum Lot Size

- Minimum lot size applied to the R2 zone is 550m².

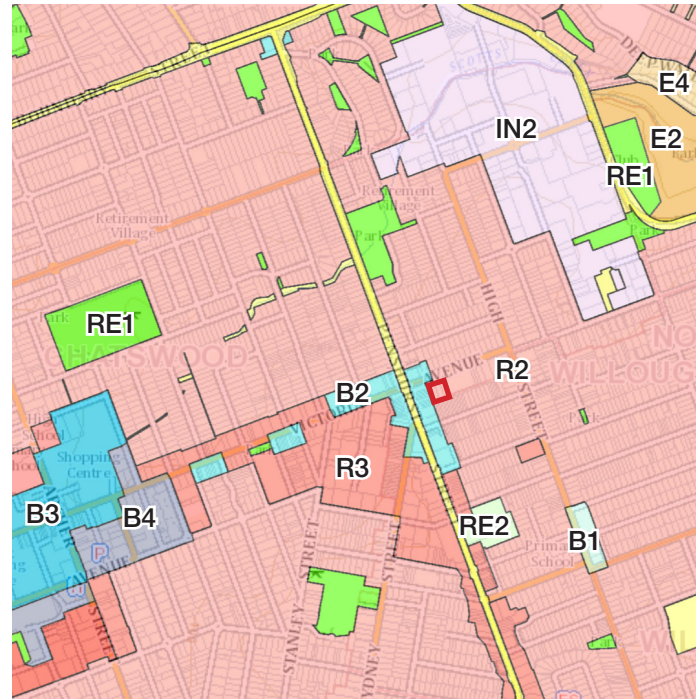


Figure 9: Zoning Map (Source: Willoughby LEP 2012)

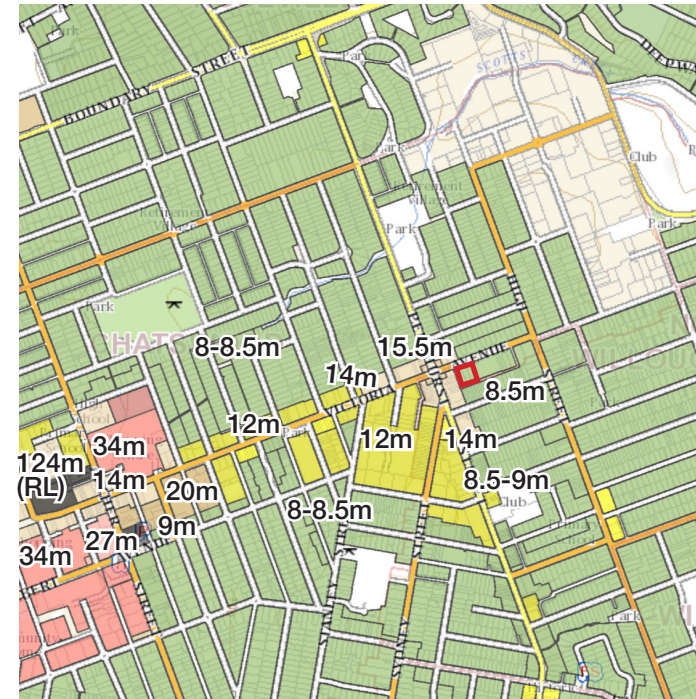


Figure 11: HOB Map (Source: Willoughby LEP 2012)

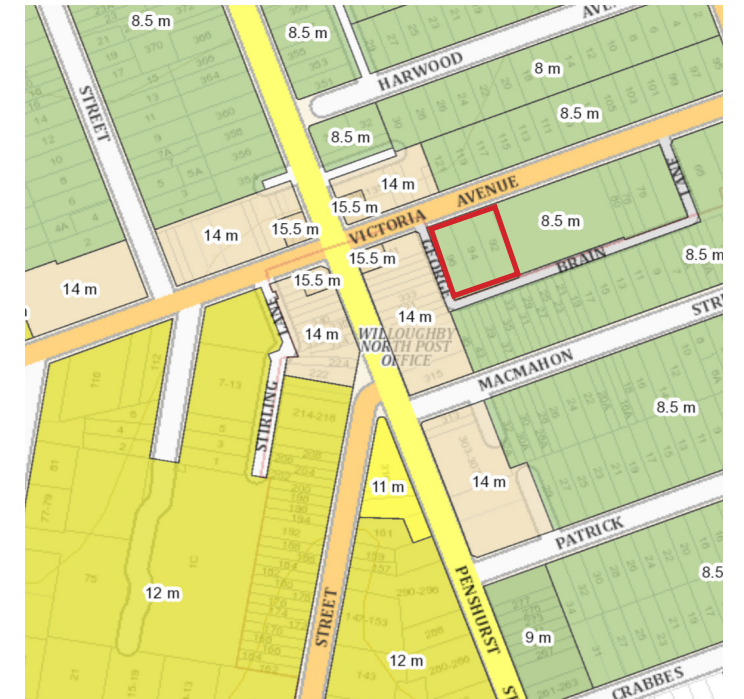


Figure 10: HOB Detailed Map (Source: Willoughby LEP 2012)

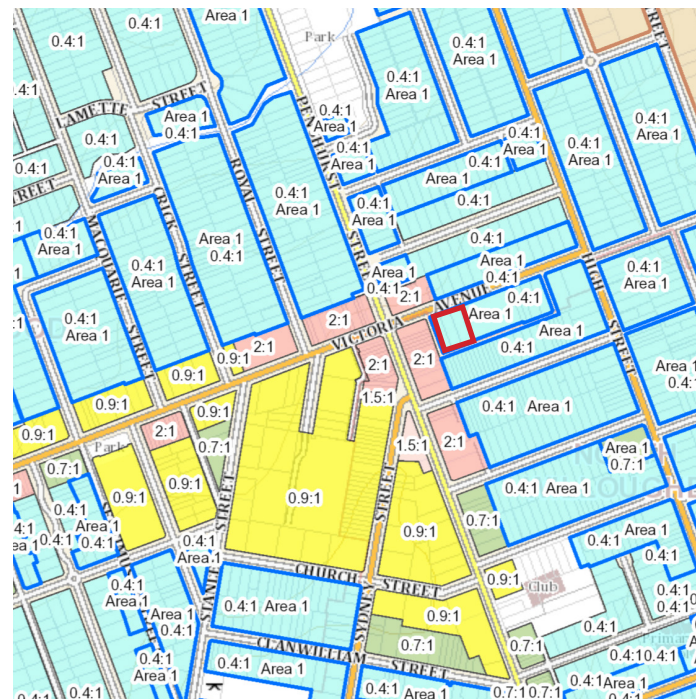


Figure 14: FSR Map (Source: Willoughby LEP 2012)

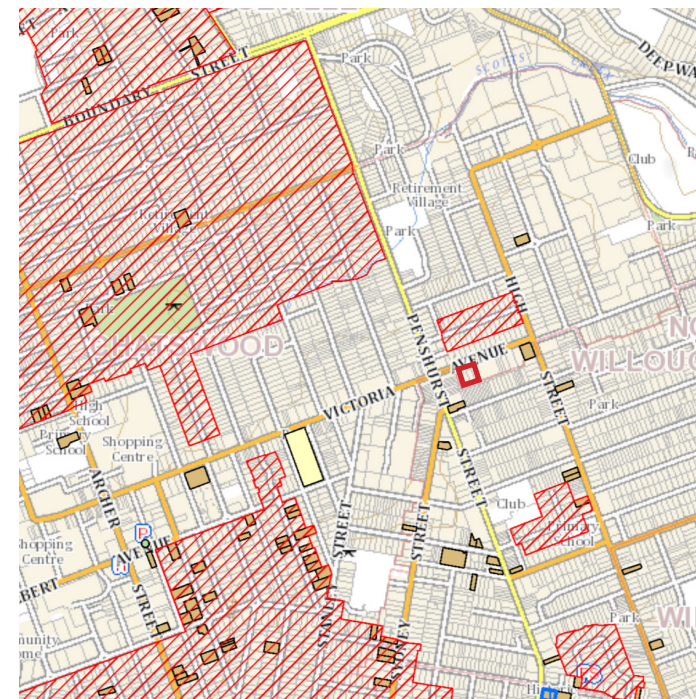


Figure 12: Heritage Map (Source: Willoughby LEP 2012)

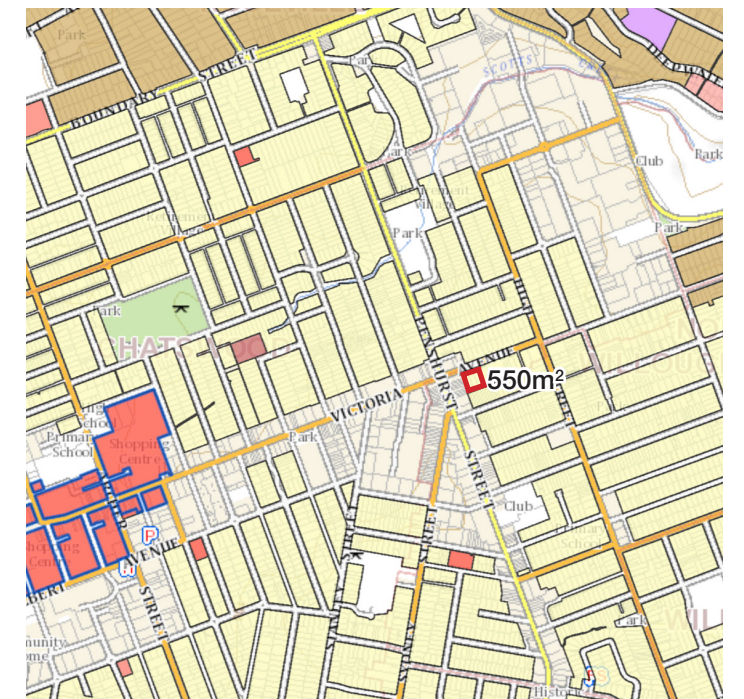


Figure 13: Minimum Lot Size Map (Source: Willoughby LEP 2012)

3.0 Local Context

3.1 Local Context

The site is at the edge of the North Willoughby Local Centre. The Chatswood CBD, a Strategic Centre identified in the North District Plan, is approximately 1.5km to the west (about 5-minute drive or 20-minute walk).

The site is well serviced by public transport. Two bus stops are approximately 100m to the west of the site along Victoria Avenue, which provide frequent services to Chatswood Bus, Train and Metro Interchange, surrounding centres and Sydney CBD.



Figure 15: Local Context

Legend

- The Site
- Chatswood CBD
- Local Centres
- Chatswood Strategic Centre
- Willoughby City Local Centres

3.0 Local Context

3.2 Street Character

- **Built Form Character:**
 - Traditional streetscape in the Town Centre, is defined by two-storey street frontages.
 - A seniors living development is to the east of the site providing 2-3 storey built forms.
- **Streetscape:** well established street tree planting, particularly along Victoria Avenue.
- **Access:** George Brain Lane is a narrow laneway providing vehicular access to the residential properties along Victoria Avenue and Macmahon Street.
- **Key Corner sites:** buildings define key corners, such as the heritage listed Willoughby Hotel at the corner of Penshurst Street and Macmahon Street, and the mixed-use building at the junction of Victoria Avenue and Penshurst Street.



Figure 16: Site Photos

4.0 Site Analysis

4.1 Land Use Assessment

- The North Willoughby Local Centre is under transformation. Retail / commercial uses together with shop-top housing coexist in the local centre.
- The area outside the local centre is characterised with low to medium density residential dwellings.
- The site is adjacent to the local centre and plays an important role transitioning the local centre character to residential living.
- Potential for more urban land uses and character in the west part of the site and along the laneway frontage, such as SOHO type development.

Legend

- The Site
- Retail/Commercial
- Community Facility
- Light Industrial
- Medium Density Residential
- Low Density Residential
- Transition Edge
- Potential Rezone to B2
- Potential New Public Space

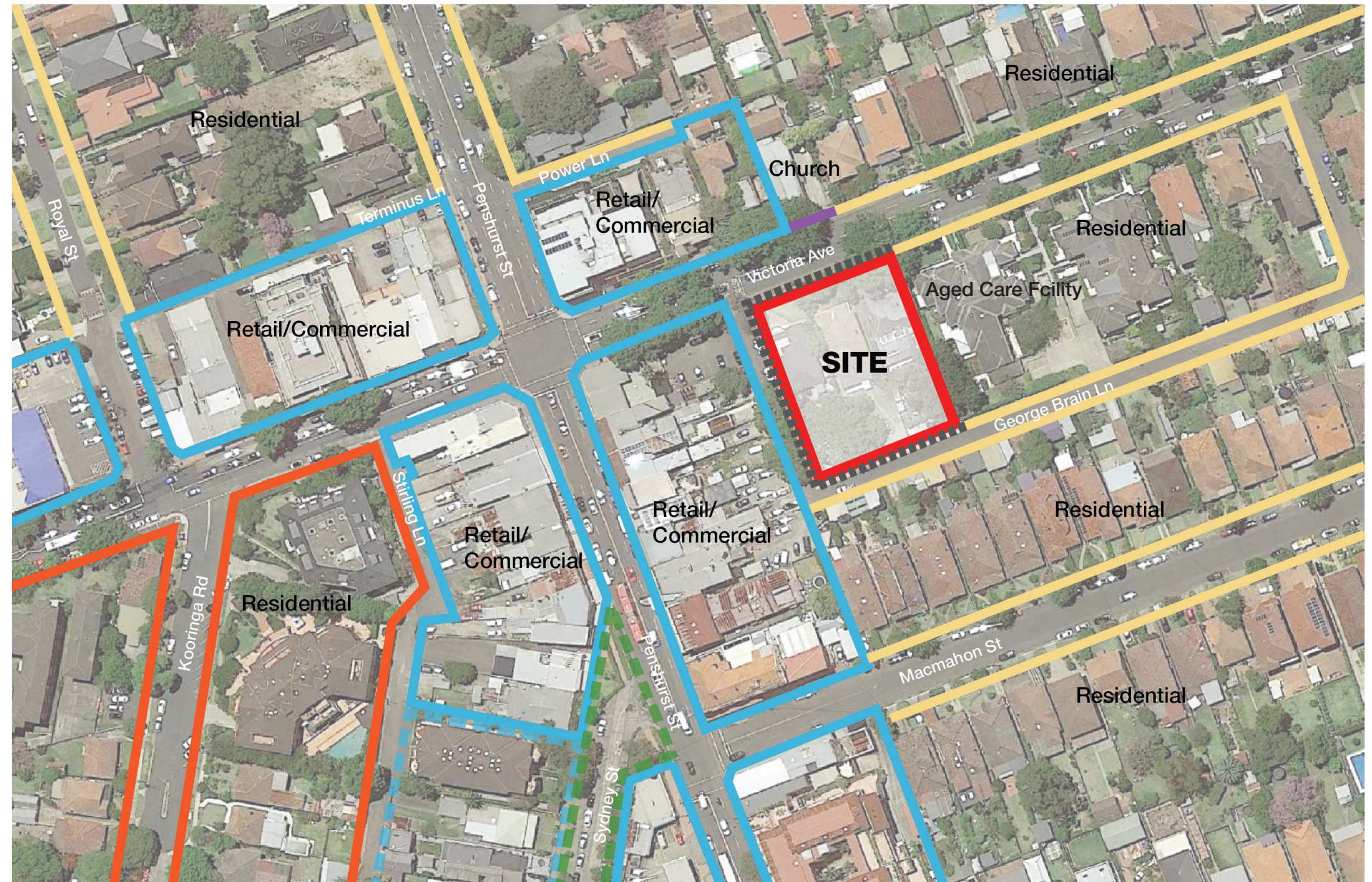


Figure 17: Land Use Assessment

4.0 Site Analysis

4.2 Site Access

- The site is in close proximity to the proposed City Serving public transport corridor and bus routes.
- The site is currently well served by Victoria Avenue, a main connector road, which provides easy access to the Chatswood CBD and the region.
- Future laneway upgrades (including George Brain Lane) will improve the site's accessibility for pedestrians and provides ready vehicular access to parking areas.
- The North Willoughby Local Centre Master Plan includes a new east-west pedestrian link connecting Penshurst Street and George Brain Lane.
- The pedestrian permeability of the site for residents should be considered to extend the network of pedestrian walkways within the local centre.

Legend

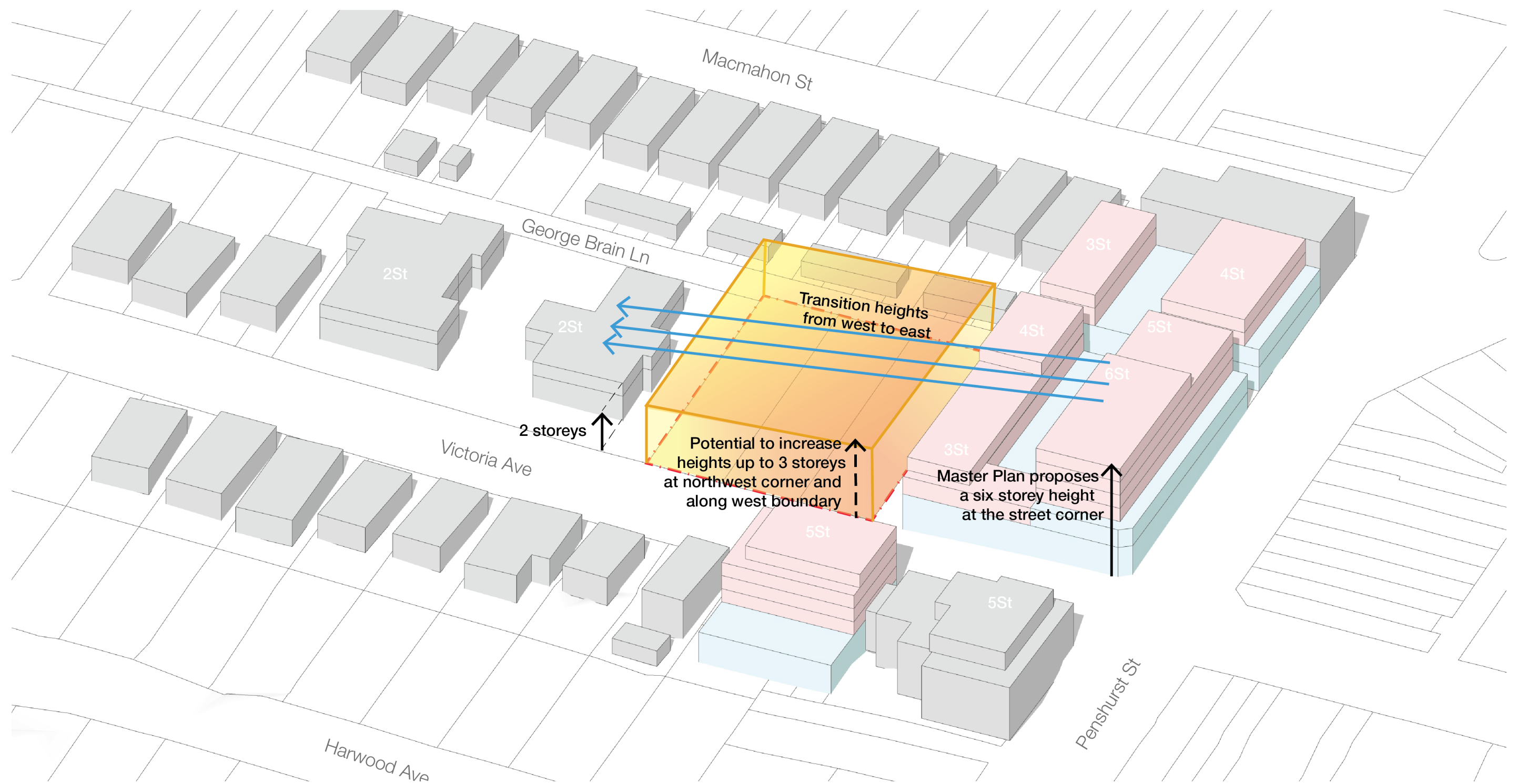
- The Site
- Major Road
- Local Street
- Proposed Laneway Upgrade
- Proposed Through Site Pedestrian Link
- City Serving Corridor
- Low Density Residential
- Bus Stop
- ▨ Car Park
- Vehicular Access
- Pedestrian Access



Figure 18: Site Access

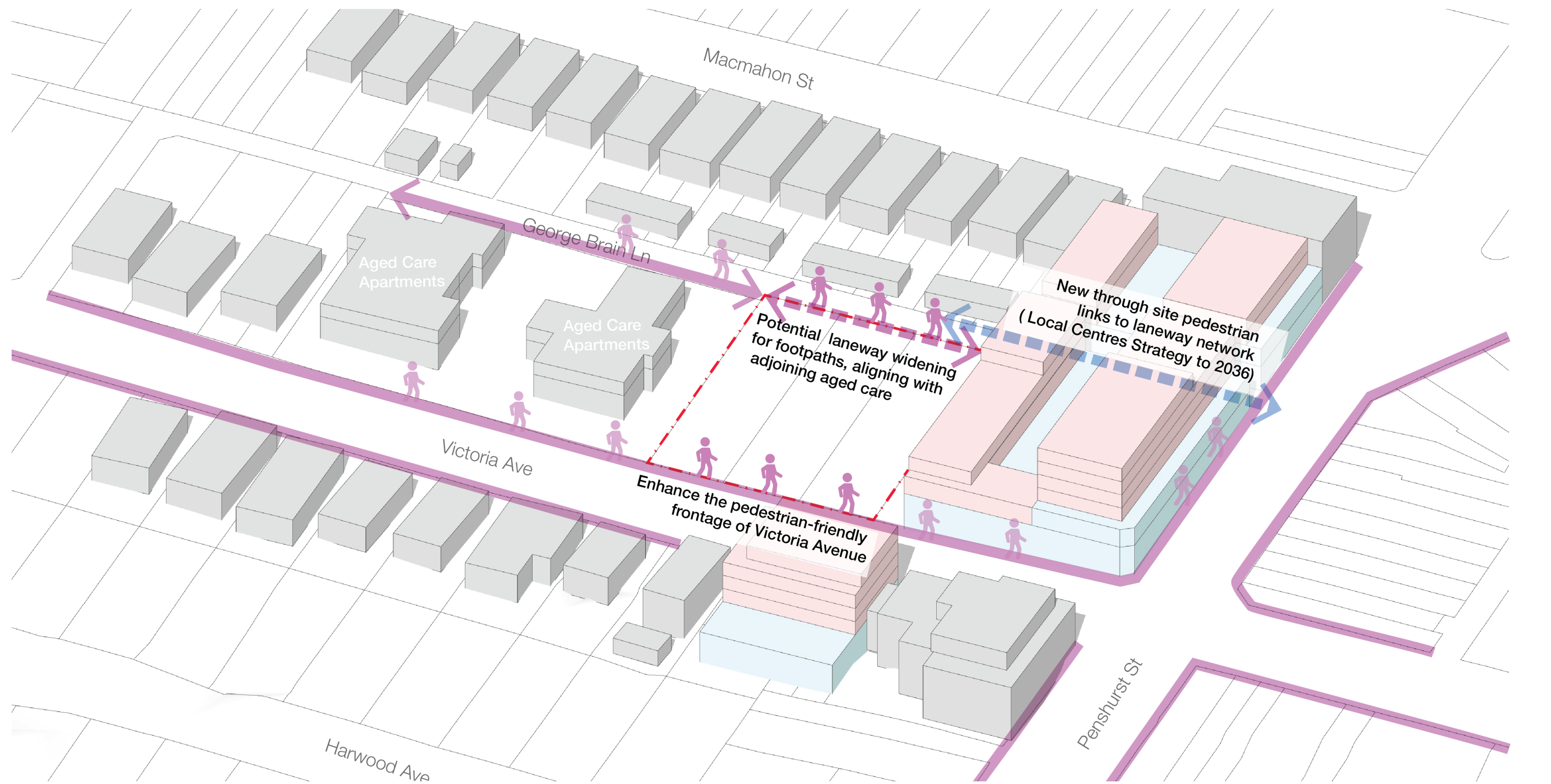
4.0 Site Analysis

4.3 Relationship - Height Transition



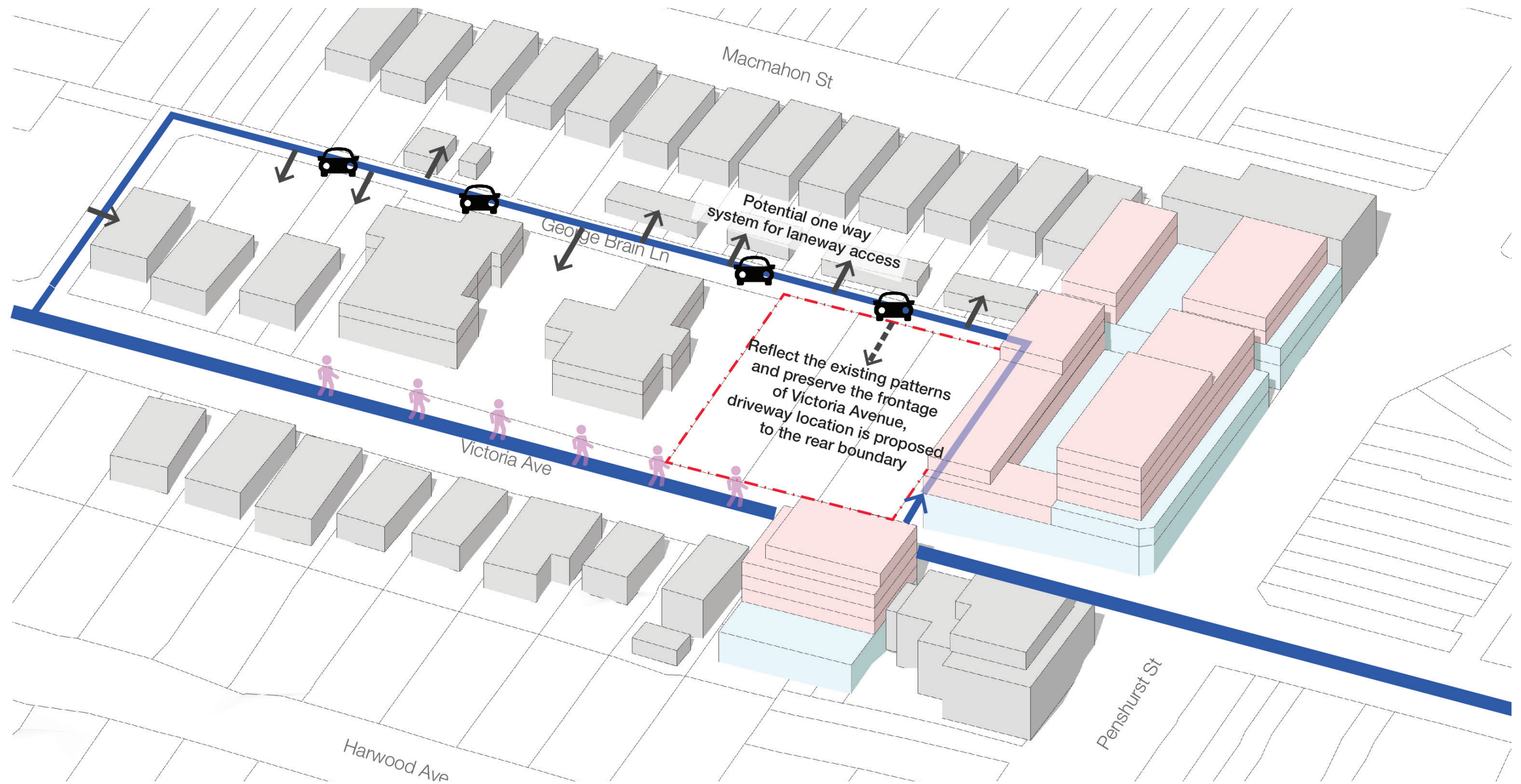
4.0 Site Analysis

4.4 Relationship - Amenity



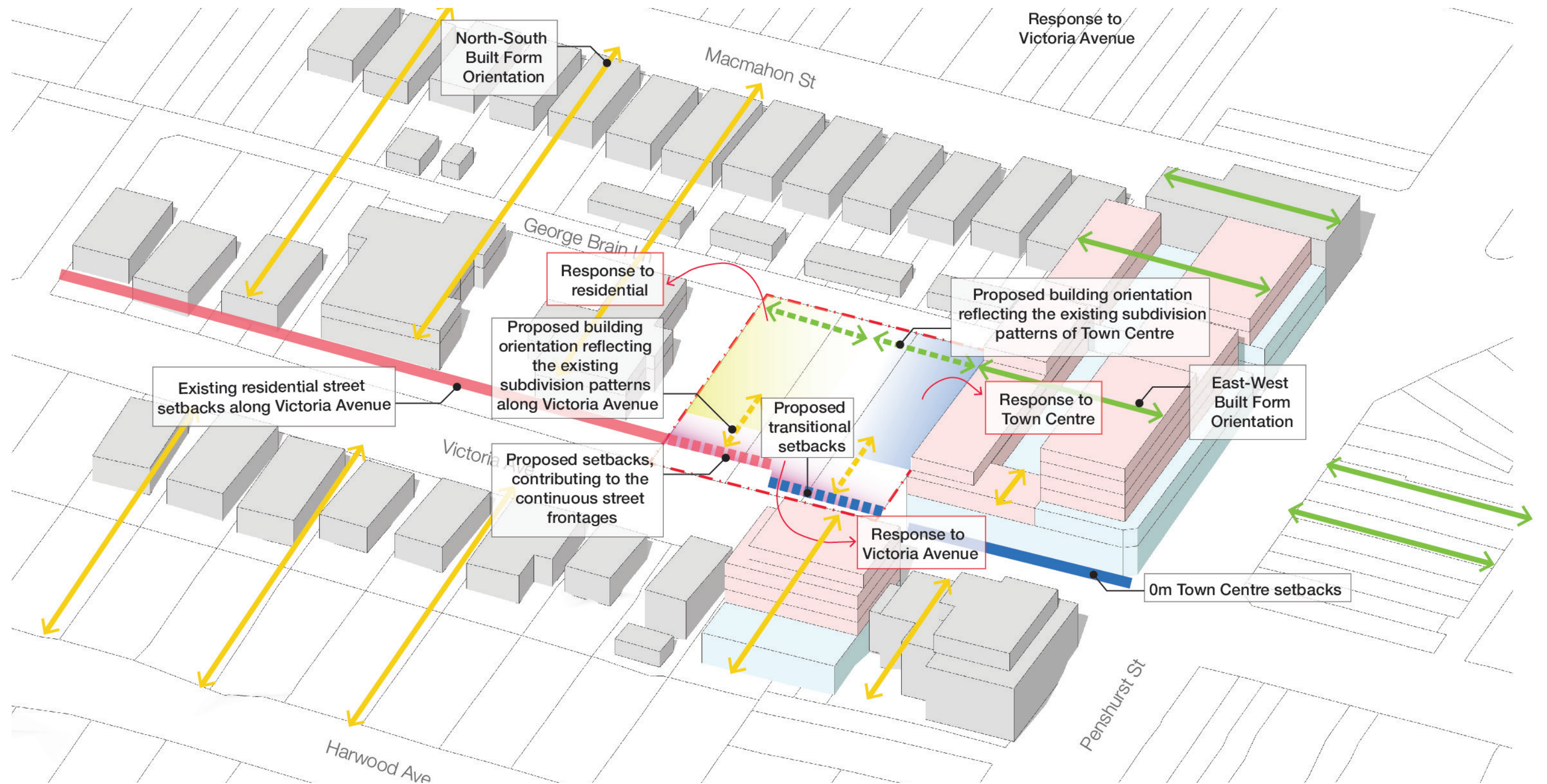
4.0 Site Analysis

4.5 Relationship - Driveway Location



4.0 Site Analysis

4.6 Relationship - Orientation



5.0 Design Proposal

5.1 Site Plan

Built Form

- The proposed four discrete residential rows of terrace houses (TH) are of different lengths, heights and relation to each other, providing a composition of built form and interstitial spaces that provide variety and interest:
 - TH 1-9 facing Victoria Avenue, enhance the streetscape and provide a transition from the zero lot line of the local centre to the setback Aged Care facility to the east;
 - TH 1-5 with 3 storeys, provide a transition between the Local Centre and the R2 low density residential neighbourhood to the east of the site;
 - TH 10-16 with a mews style facing George Brain Lane, activate the laneway frontage and provide a better interaction to the adjoining Local Centre.
 - TH 17-22 with 2 storeys are well scaled to blend with the surrounding small scale neighbourhood.

Access

- Provide vehicular access to the rear lane, to access the basement car park.
- Provide an opportunity for laneway widening at the rear of the site, contributing to the new through site pedestrian links, proposed in the North Willoughby Local Centre Master Plan.
- Three points of pedestrian access are proposed, to maximise site permeability and to align with the future through-site pedestrian link in the town centre to the west.

Open Space

- Each TH has a courtyard private open space (POS), and TH 1-16 have upper level POS balcony/deck, to maximum the recreational space.
- Communal open space (COS) is provided collocated with the through site link, forming a meeting place to socialise with neighbours.

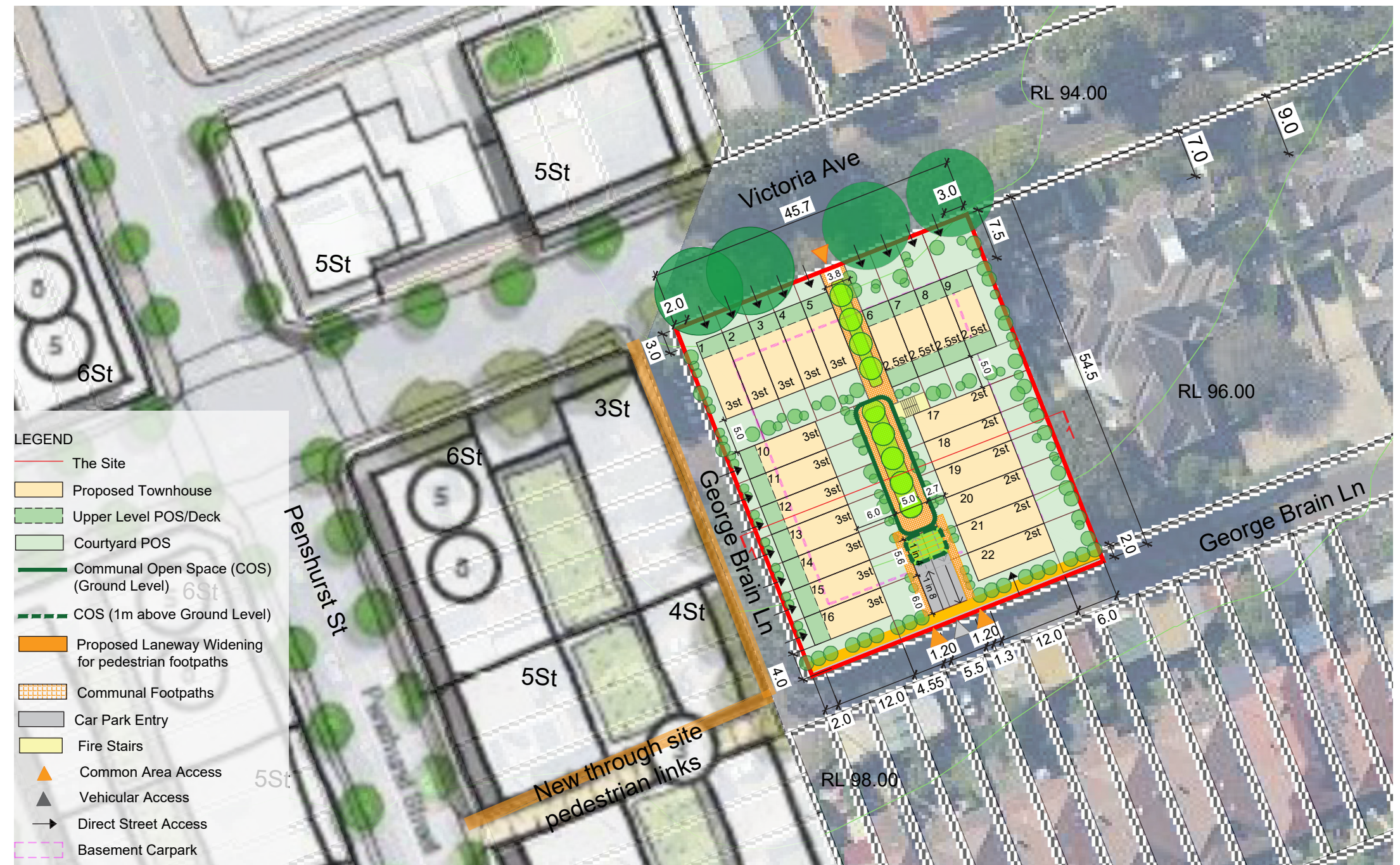
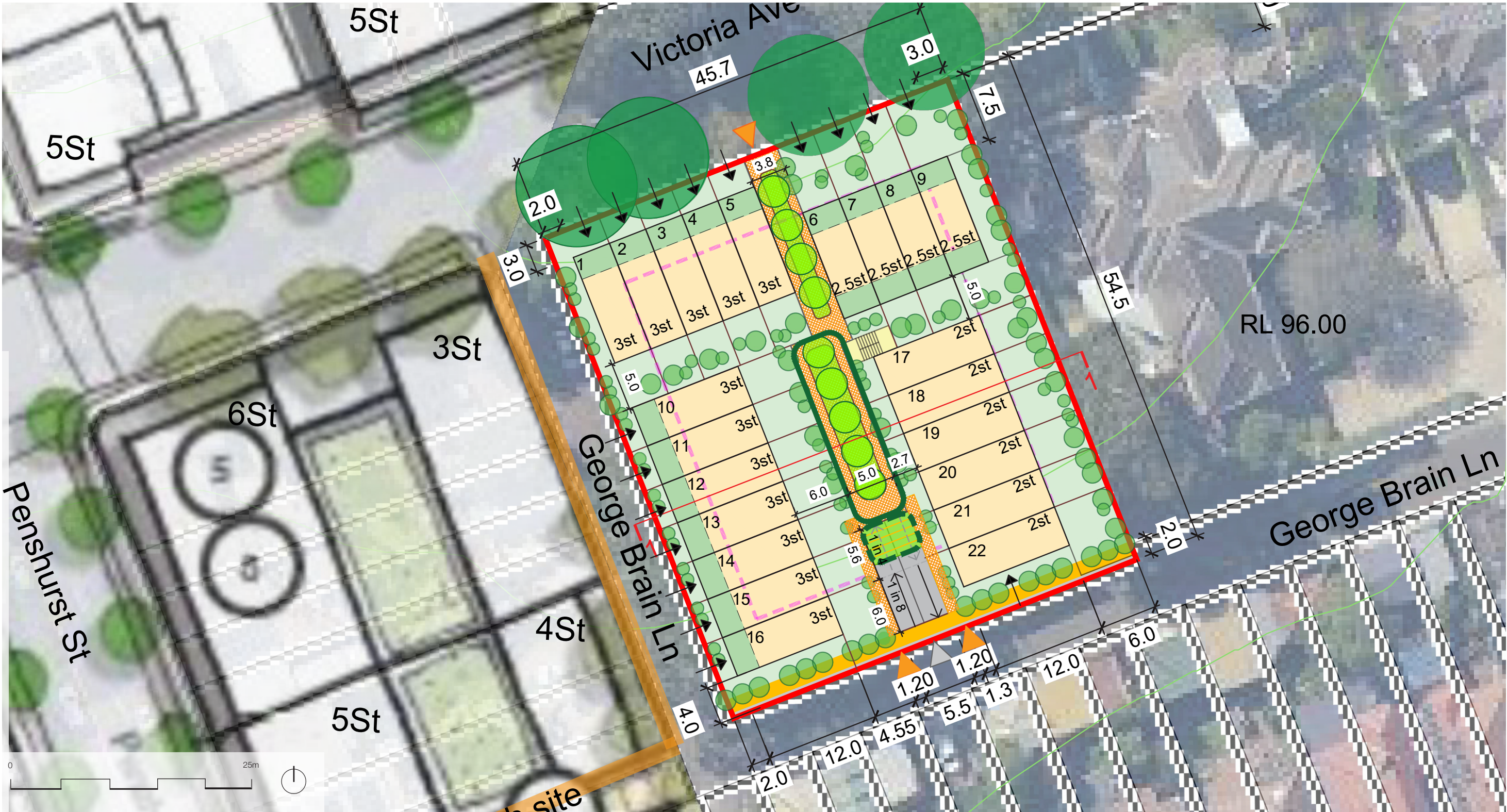


Figure 19: Site Plan

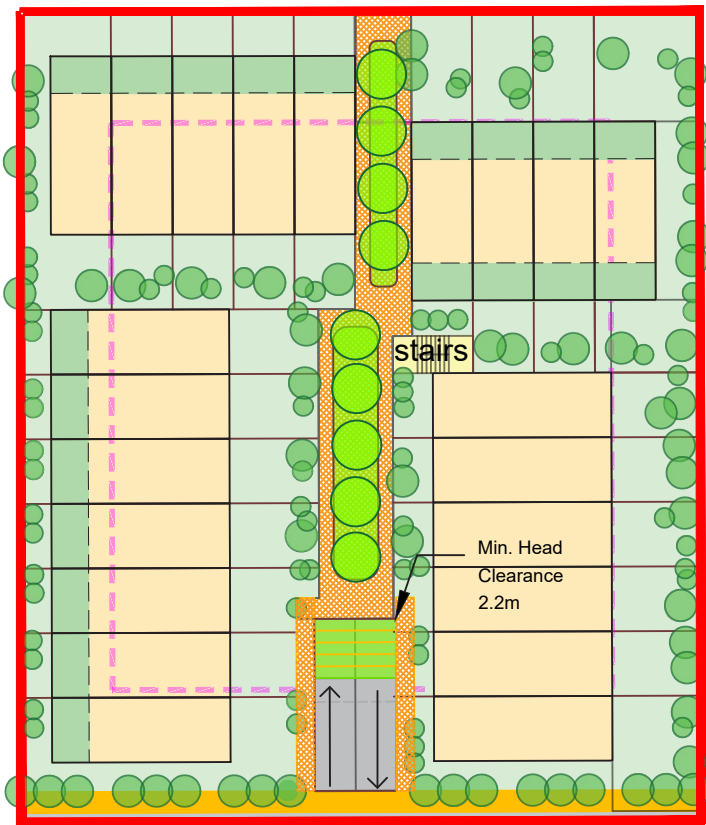


5.0 Design Proposal

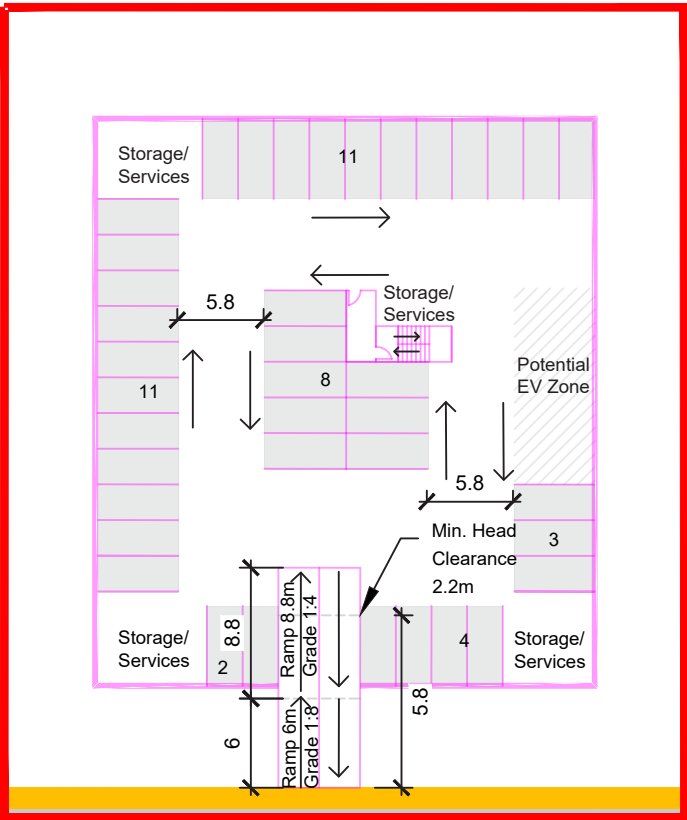


5.0 Design Proposal

5.2 Indicative Basement Car Park Plan



Site Plan



Basement Car Park Plan



	Proposed Car Park Spaces	DCP Requirement
Car Parking Spaces	Car parking rates : 1.5spaces / dwellings Visitor spaces - 1 per 4 dwellings 33 spaces 6 visitor spaces TOTAL: 39 spaces	Car parking rates (multi dwelling housing)* : Studio / 1 bedroom - 1 space 2 bedroom - 1.2 spaces 3 bedroom - 1.5 spaces Visitor spaces - 1 per 4 dwellings 33 spaces 6 visitor spaces TOTAL: 39 spaces
	Storage Areas TOTAL: 210sqm (Inc. general storage, bicycle/motorcycle/EV parking and service facility)	DCP Requirement: 3sqm/dwellings TOTAL: 66sqm

Note: * The parking requirements specified in the WDCP are neither maximum nor minimum rates, but are the rates to be satisfied in any application. Applicants must demonstrate the justification for any departure from parking rates in a Statement of Environmental Effects or Traffic Study.

5.0 Design Proposal

5.3 Deep Soil and Open Spaces

The proposal carefully considers the location and the size of the basement to maximise the deep soil areas. Ground floor private open spaces are also provided to all the townhouses to encourage landscaping and comply with the relevant requirements.

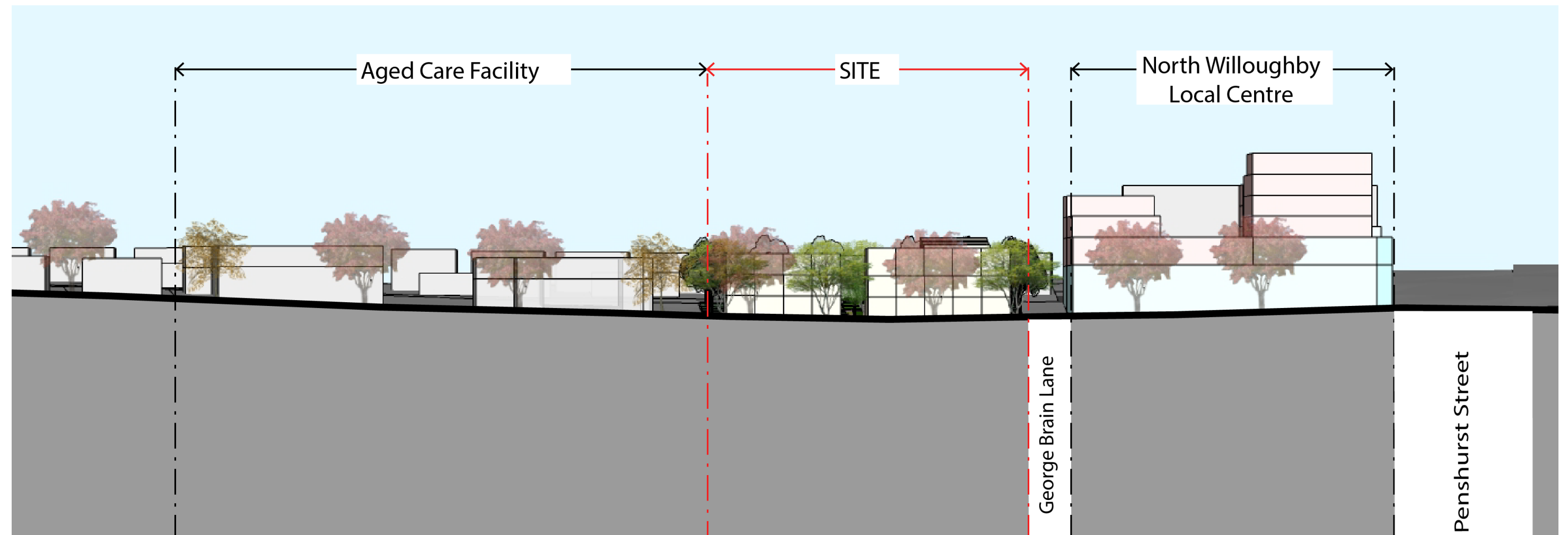
The proposed ADG compliant deep soil areas, which have 6m minimum dimensions, are about 16% of the site area. A greater deep soil area is proposed. The overall deep soil areas proposed is about 656m² of the site area (26% of the site area), including the ones having less than 6m dimension.



5.0 Design Proposal

5.4 Victoria Avenue Elevation

The north street elevation/section along Victoria Avenue identifies a dip in the street where the site is located. A transition in building height is proposed from the six and four storey buildings proposed for the North Willoughby Local Centre (to the west), to the Aged Care Facility (to the east of the site). It is also noted that there are mature street trees in the nature strip along this section of Victoria Avenue that have canopies that reach to three or more storeys in height.



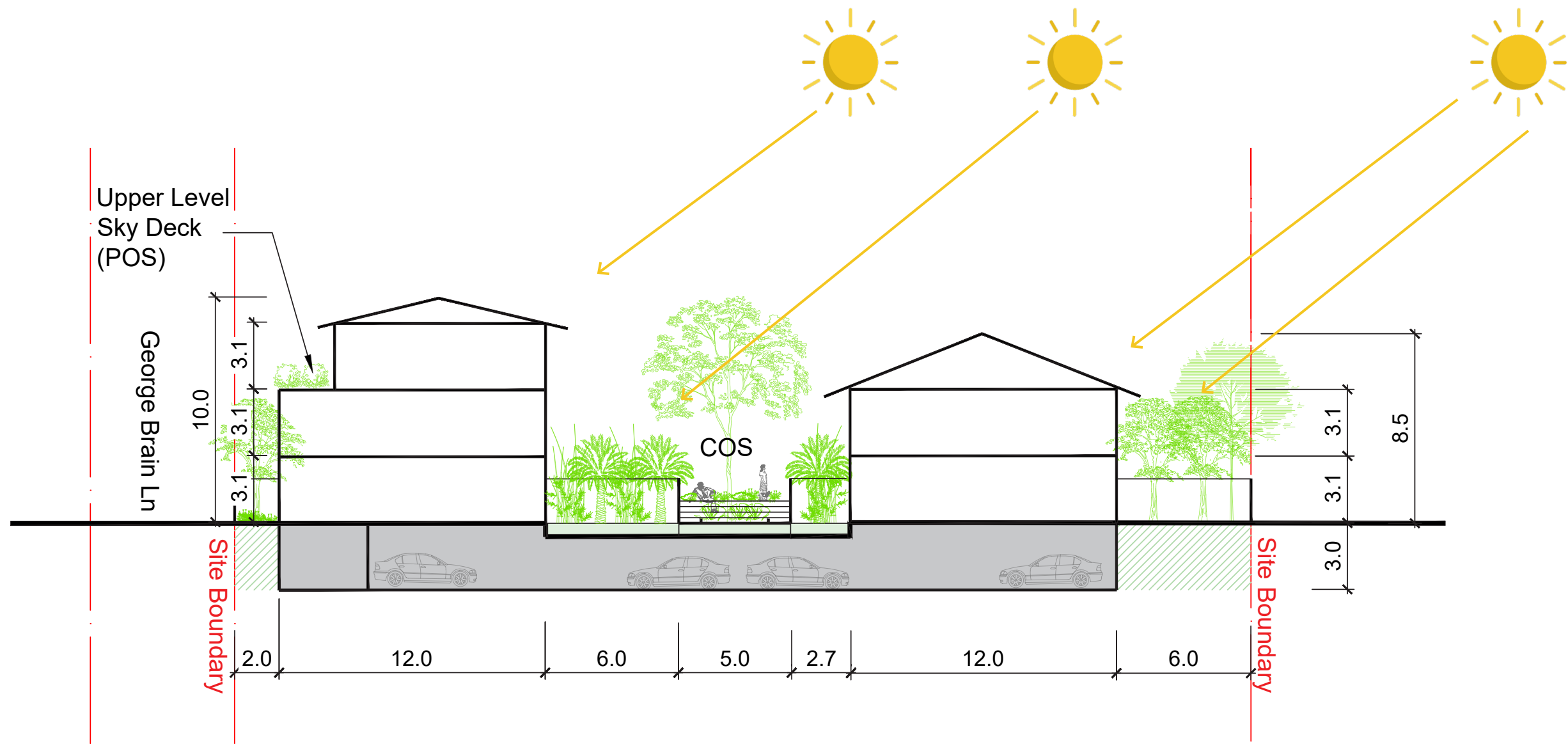
NOTE:

This diagram is indicative only showing the proposal's relationship with its immediate context . No detailed survey is available.

The terrain is generated based on the contour information from SixMaps. The future built forms in the North Willoughby Local Centre are extracted from the *Local Centres Strategy 2036*.

5.0 Design Proposal

5.5 Site Cross Section



- LEGEND
- Deep Soil Zone
 - Basement Car Park

5.0 Design Proposal

5.6 3D Views

View 1 - Looking West



5.0 Design Proposal

View 2 - Looking Northwest



5.0 Design Proposal

View 3 - Looking Northeast

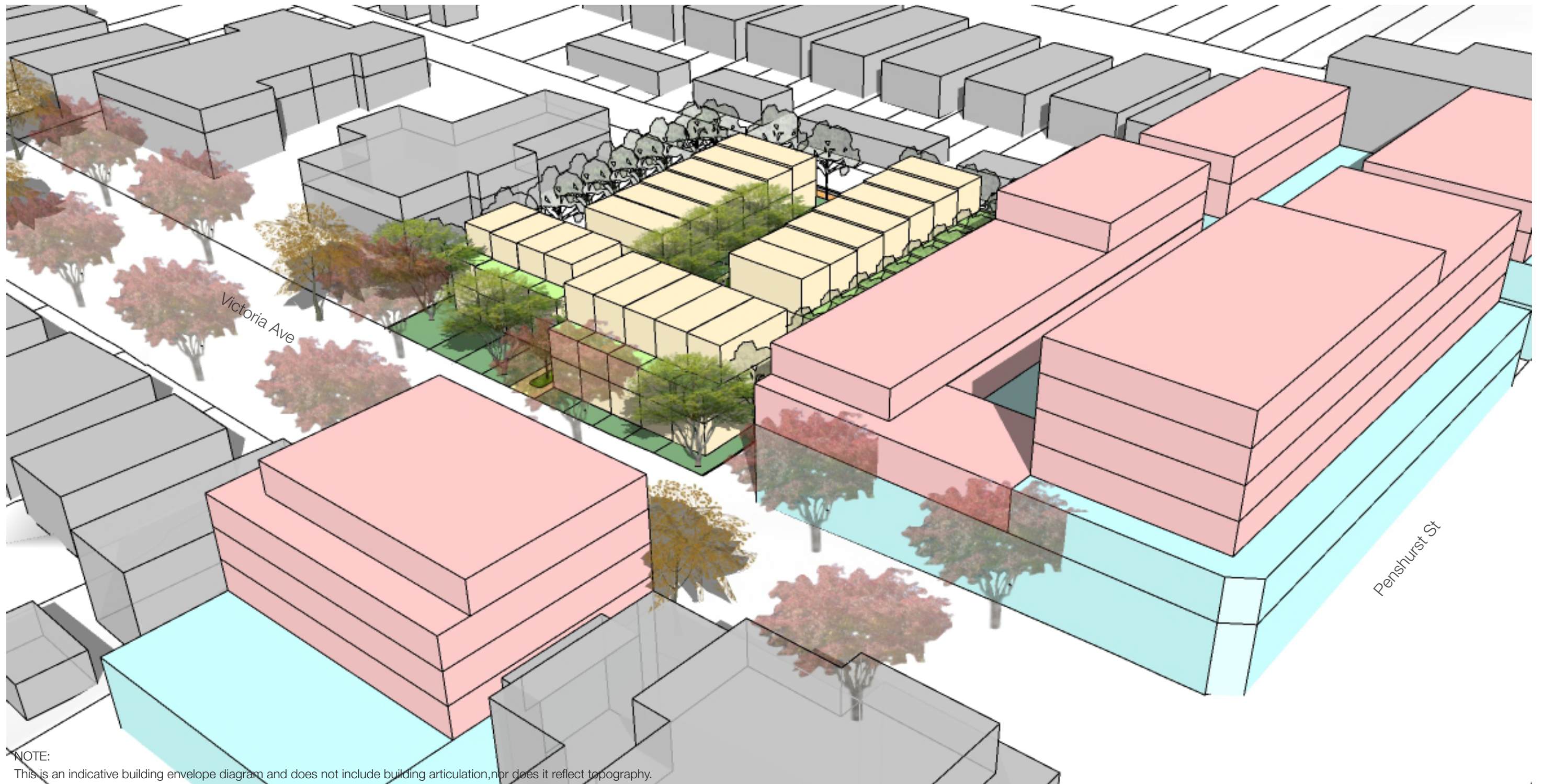


NOTE:

This is an indicative building envelope diagram and does not include building articulation nor does it reflect topography.

5.0 Design Proposal

View 4 - Looking Southeast



5.0 Design Proposal

5.7 Yield Calculation

Terrace House Typology

	GF (sqm)	1F (sqm)	2F (sqm)	GBA (sqm)	Efficiency Rate	GFA (sqm)	Courtyard POS (sqm)	Balconies POS (sqm)	Total POS (sqm)
TH1 (4.1*12)	49	49	39	137	90%	124	73	10	83
TH2 (4.1*12)	49	49	39	137	90%	124	33	10	43
TH3 (4.1*12)	49	49	39	137	90%	124	33	10	43
TH4 (4.1*12)	49	49	39	137	90%	124	33	10	43
TH5 (4.1*12)	49	49	39	137	90%	124	33	10	43
TH6 (4.1*12)	49	49	29	127	90%	115	41	20	61
TH7 (4.1*12)	49	49	29	127	90%	115	51	20	71
TH8 (4.1*12)	49	49	29	127	90%	115	51	20	71
TH9 (4.1*12)	49	49	29	127	90%	115	125	20	145
TH10 (4.3*12)	52	52	41	145	90%	131	35	11	46
TH11 (4.3*12)	52	52	41	145	90%	131	35	11	46
TH12 (4.3*12)	52	52	41	145	90%	131	35	11	46
TH13 (4.3*12)	52	52	41	145	90%	131	35	11	46
TH14 (4.3*12)	52	52	41	145	90%	131	31	11	42
TH15 (4.3*12)	52	52	41	145	90%	131	28	11	39
TH16 (4.3*12)	52	52	41	145	90%	131	65	11	76
TH17 (4.3*12)	52	52		104	90%	94	38		38
TH18 (4.3*12)	52	52		104	90%	94	38		38
TH19 (4.3*12)	52	52		104	90%	94	38		38
TH20 (4.3*12)	52	52		104	90%	94	35		35
TH21 (4.3*12)	52	52		104	90%	94	32		32
TH22 (4.3*12)	52	52		104	90%	94	70		70

Overall Development Parameters

No. of Townhouse	22
Overall Building Footprints (sqm)	1,121
Overall GFA	2,556
Communal OS (sqm)	143
Private OS (sqm)	1,194
Overall Recreational Area (sqm)	1,336

Site Area (sqm)	2,491	
FSR	1.03	*
Recreational Area	54%	
Site Coverage	45%	
Deep soil	411	
	16%	**

Notes:

* The building envelopes proposed result in an FSR of about 1.03:1. However, 1:1 FSR is proposed in this Planning Proposal to align with the standard LEP controls. The difference can be mitigated through detailed design, i.e. combining the top level on some of the townhouses with roof structure to form attic spaces etc.

** This includes the ADG compliant deep soil areas only. The overall deep soil areas proposed is about 656m² of the site area (26% of the site area), including the ones having less than 6m dimension.



Paddington Terraces with Small Front Yard

6.0 Precedent

6.1 Terrace Townhouse Precedents



Dulwich Hill Terrace

Architect: Redshift Architecture & Art Pty Ltd

Client: Kane Developments

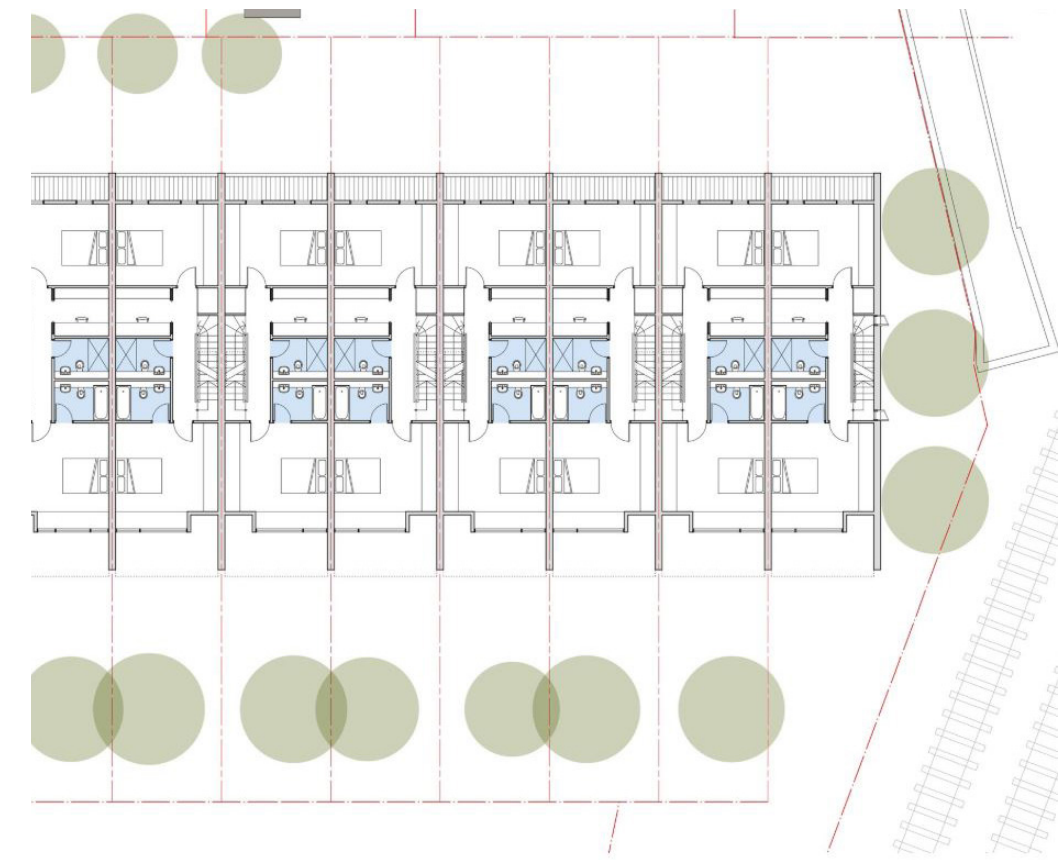
Dates: Construction Completed August 2013

Photography: © Brett Boardman

Shortlisted NSW Architecture Awards 2014: Multiple Housing Category



Site Plan

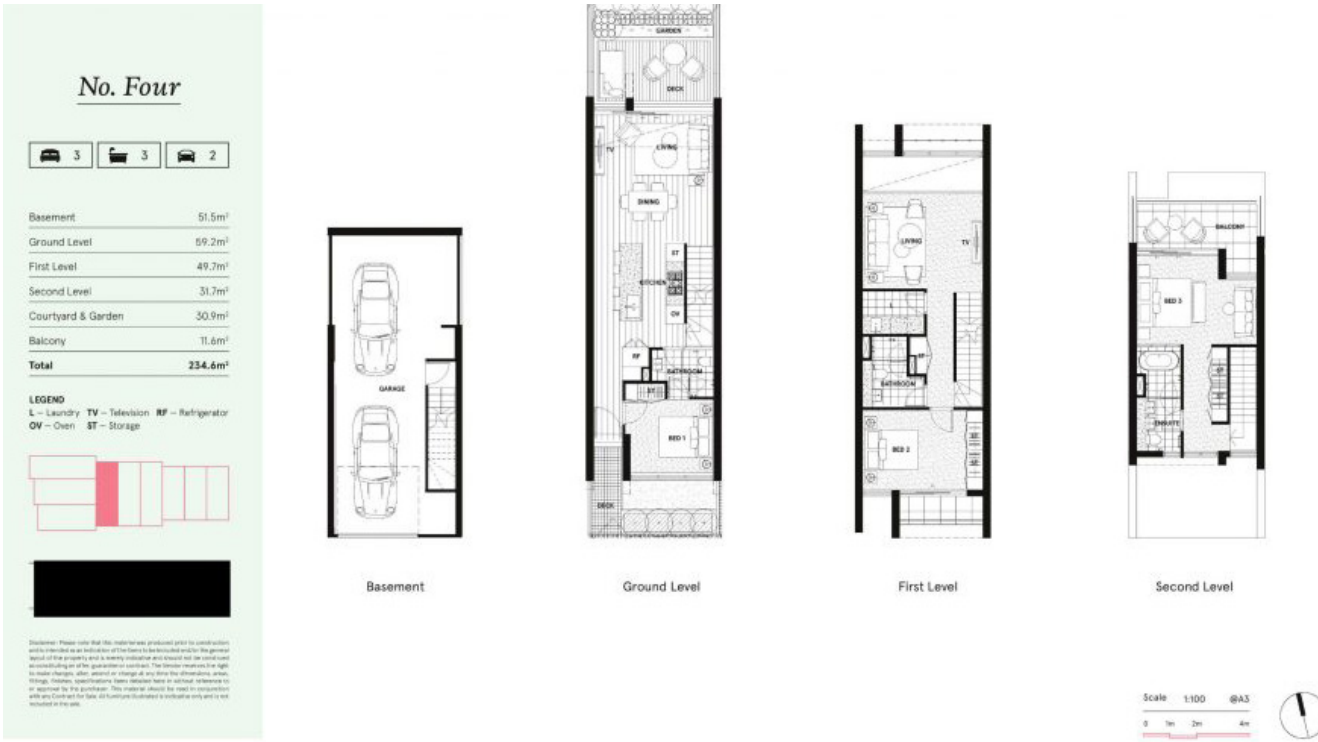


First Floor Plan

6.0 Precedent

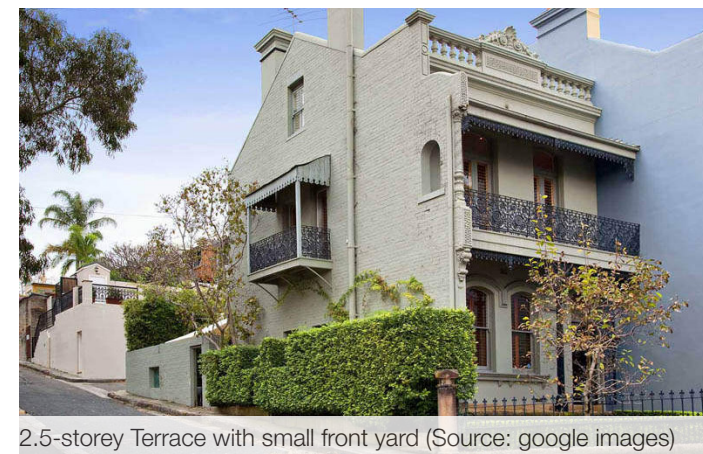
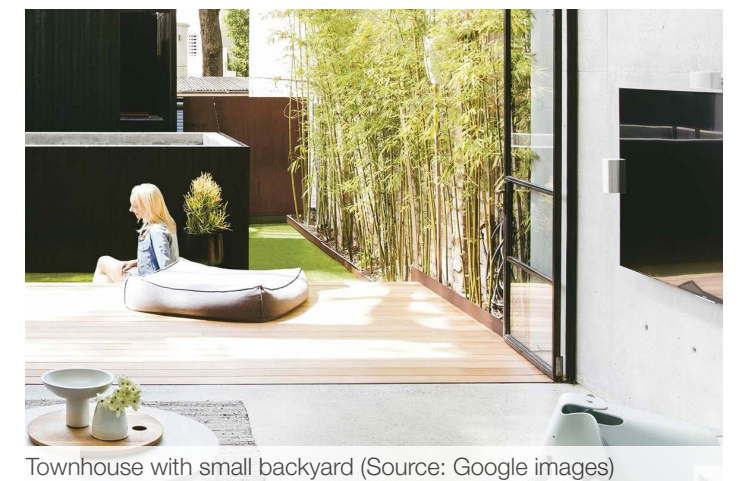
‘The Nines’ 155 Willoughby Rd, Naremburn

(Images courtesy of Enrich Real Group)



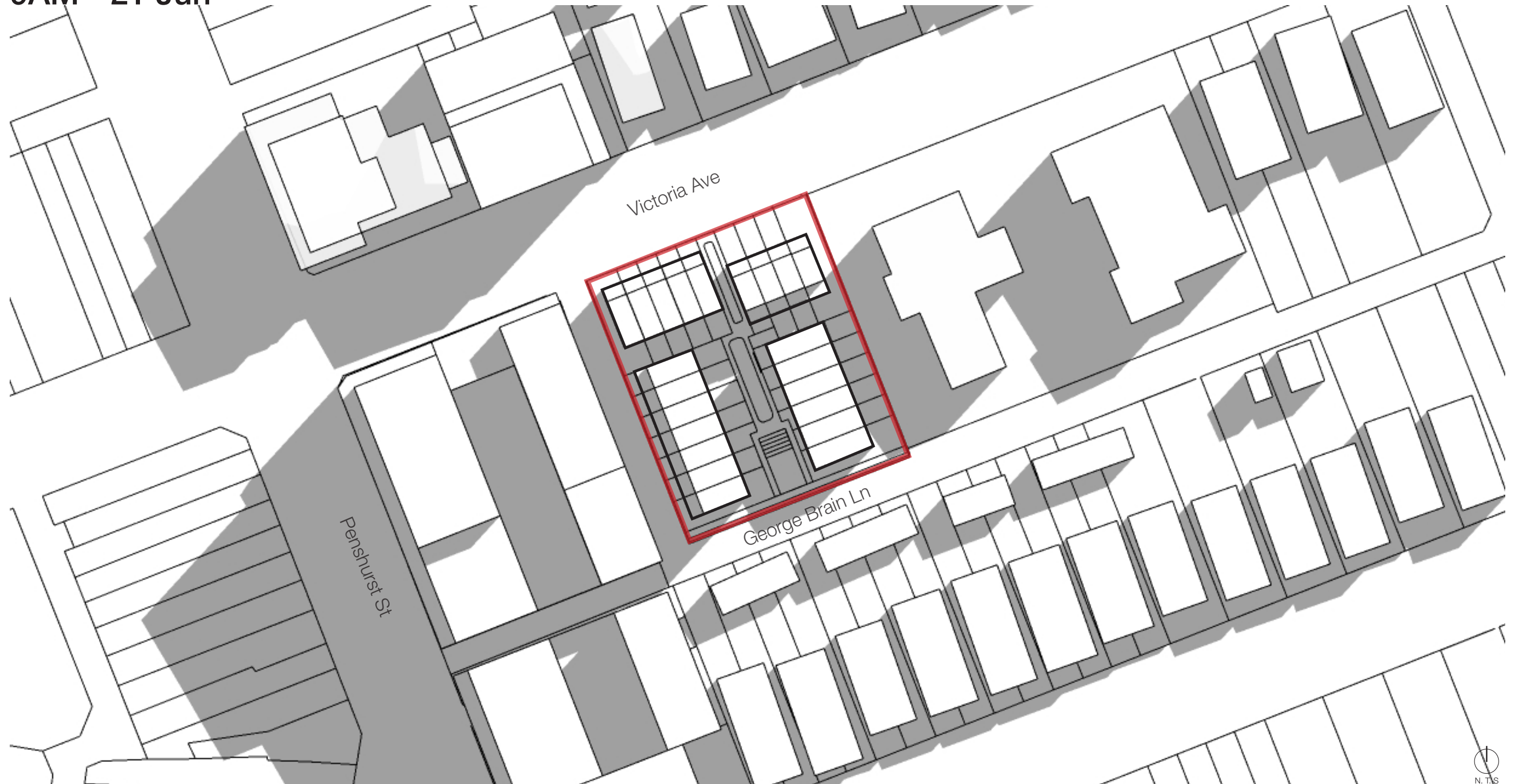
6.0 Precedent

6.2 Terrace House Gardens



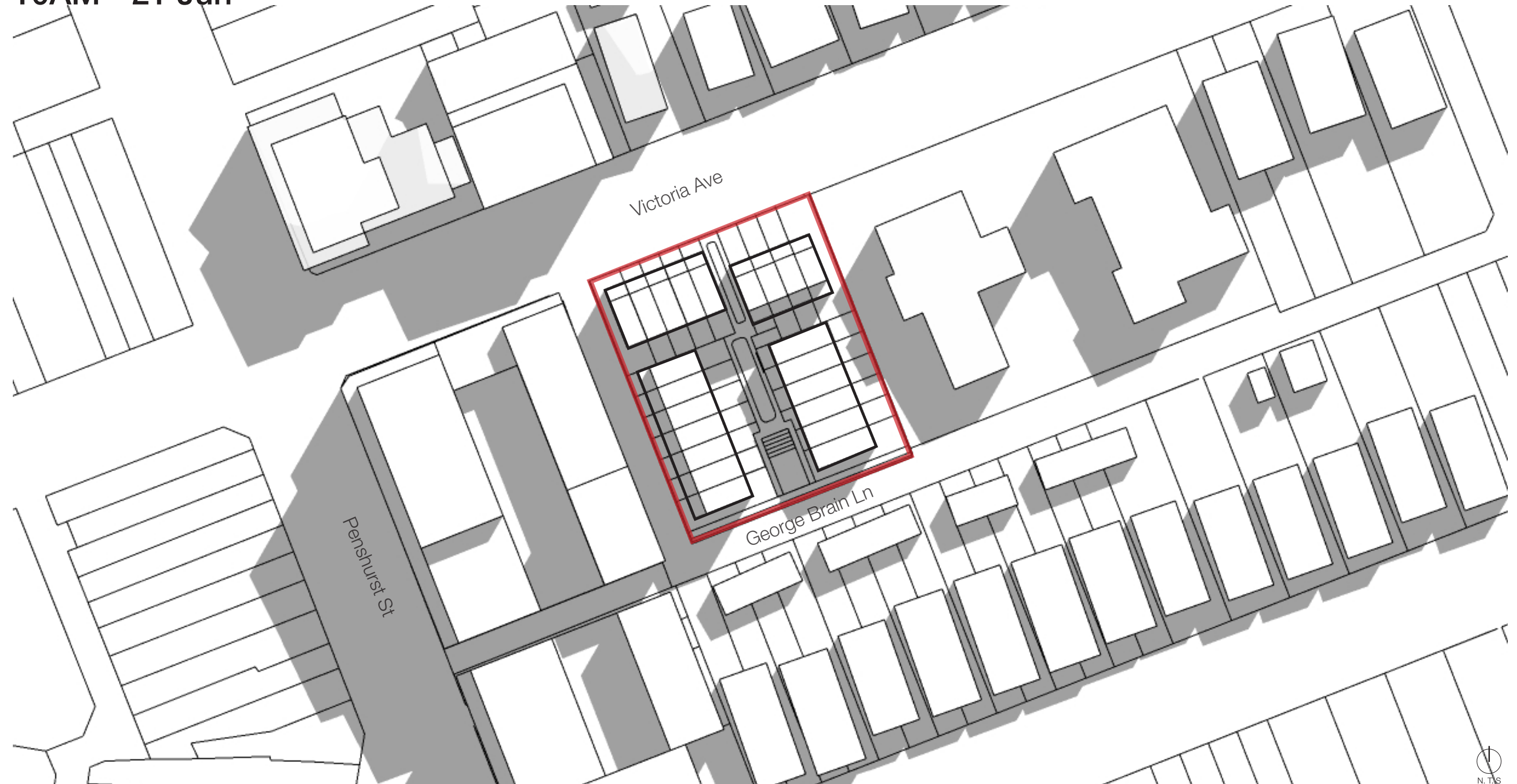
Appendix 1 - Shadow Analysis

9AM - 21 Jun



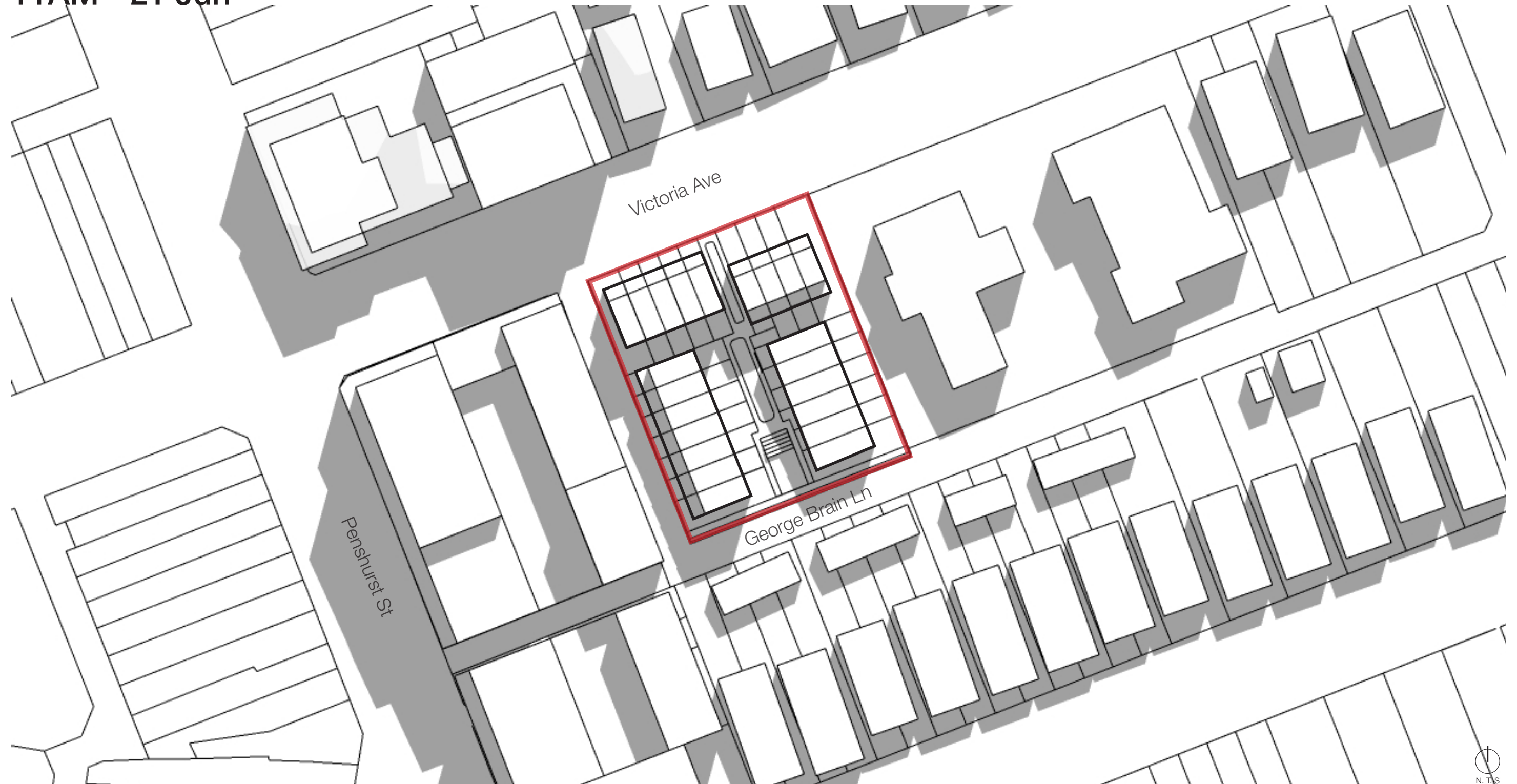
Appendix 1 - Shadow Analysis

10AM - 21 Jun



Appendix 1 - Shadow Analysis

11AM - 21 Jun



Appendix 1 - Shadow Analysis

12PM - 21 Jun



Appendix 1 - Shadow Analysis

1PM - 21 Jun



Appendix 1 - Shadow Analysis

2PM - 21 Jun



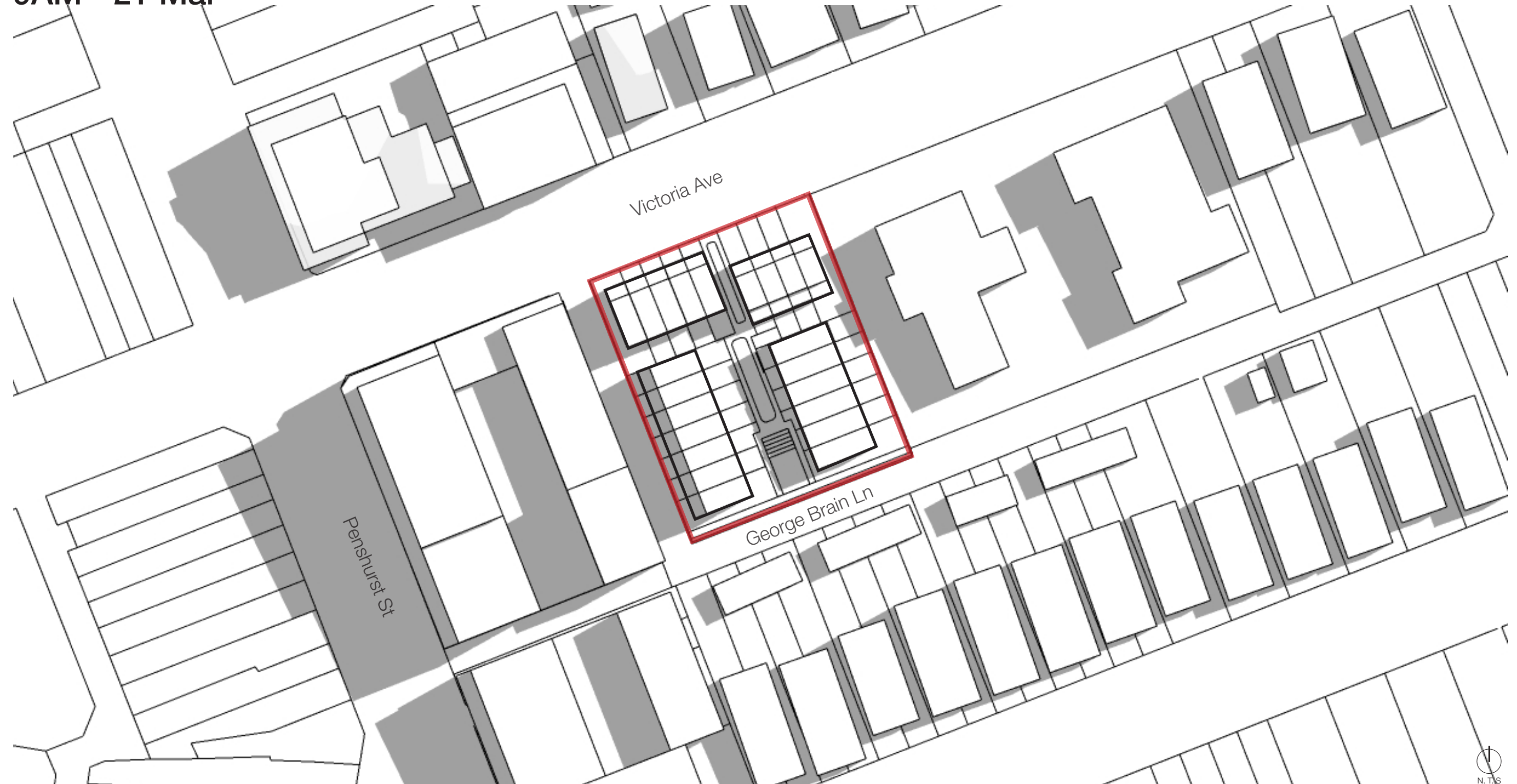
Appendix 1 - Shadow Analysis

3PM - 21 Jun



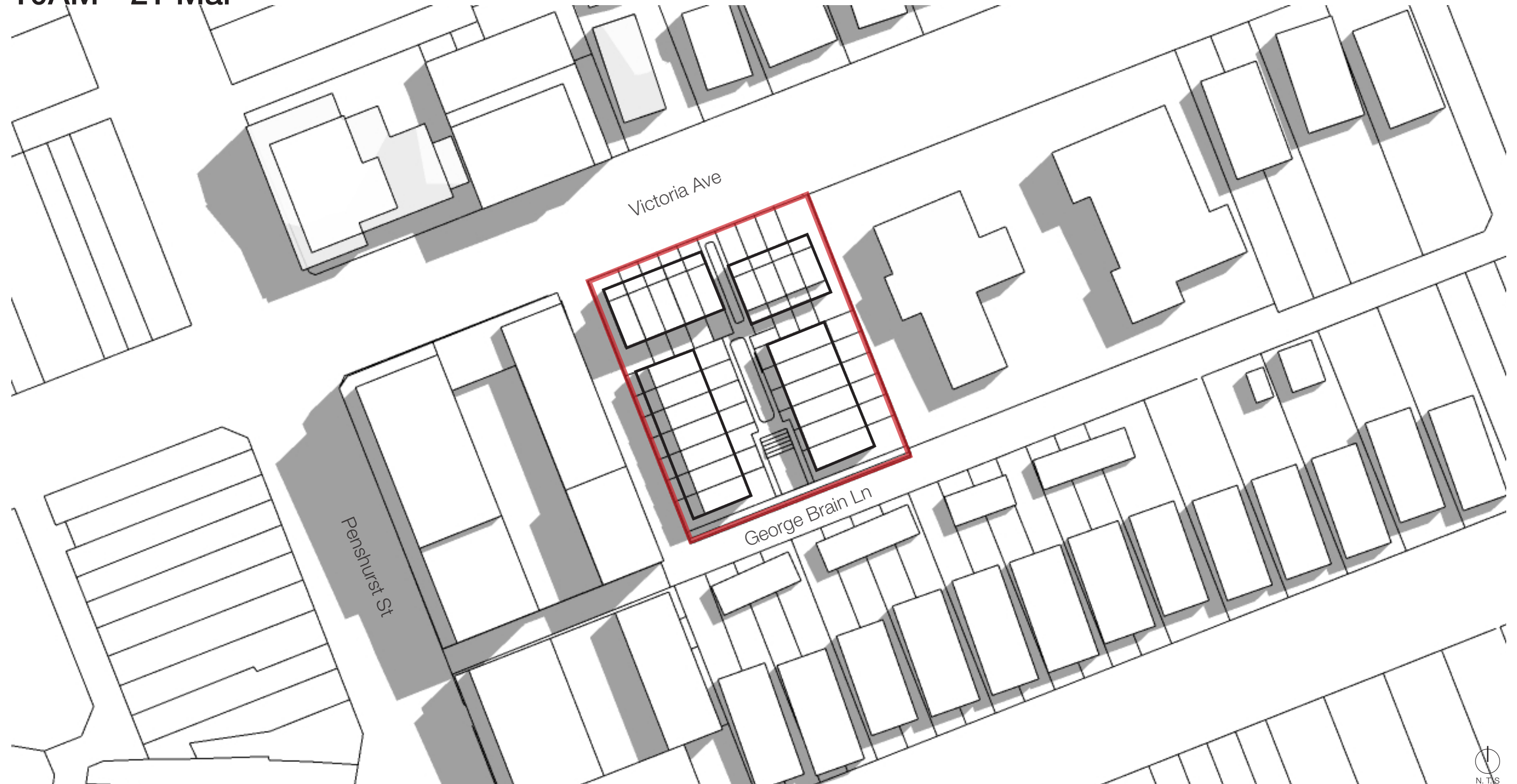
Appendix 1 - Shadow Analysis

9AM - 21 Mar



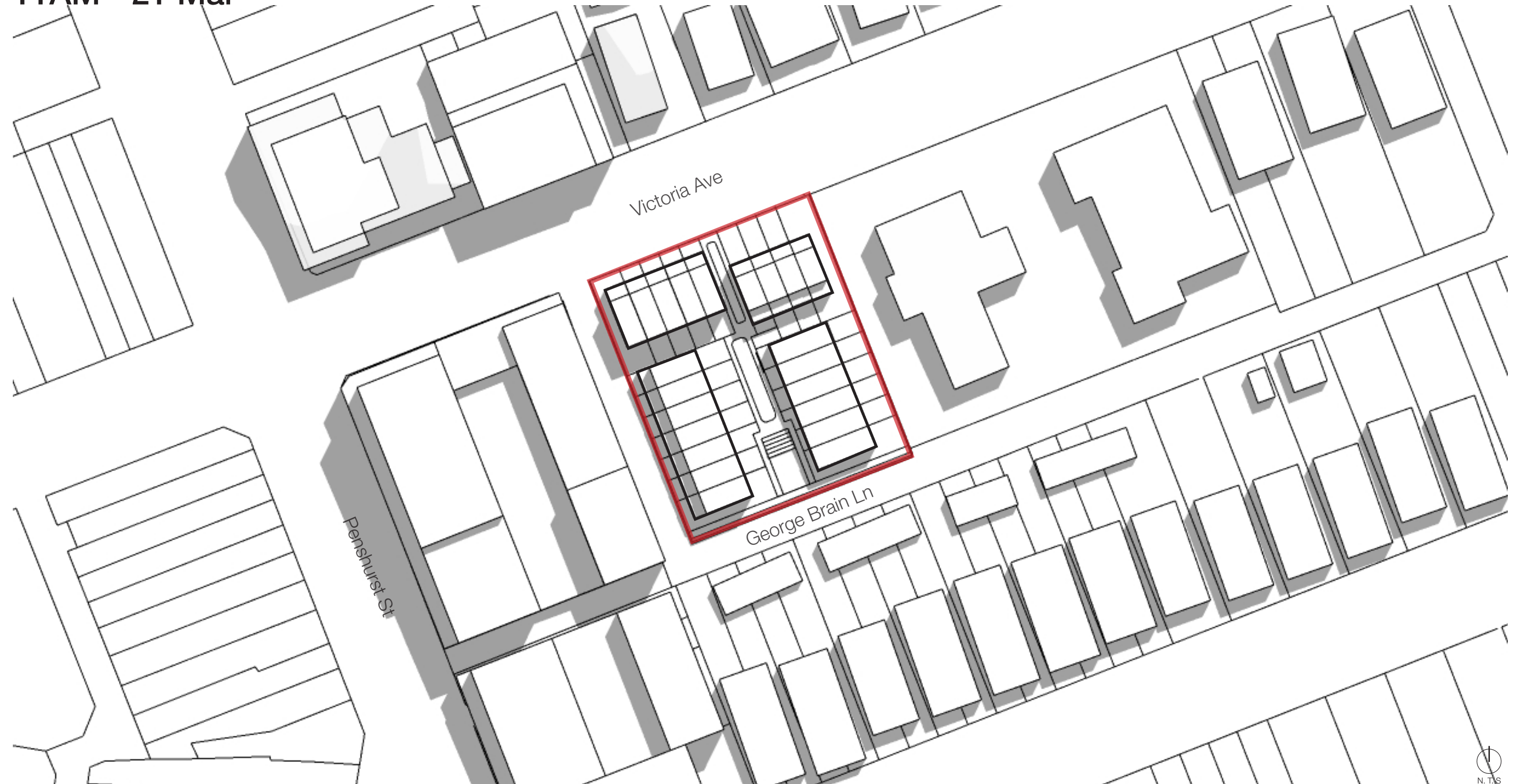
Appendix 1 - Shadow Analysis

10AM - 21 Mar



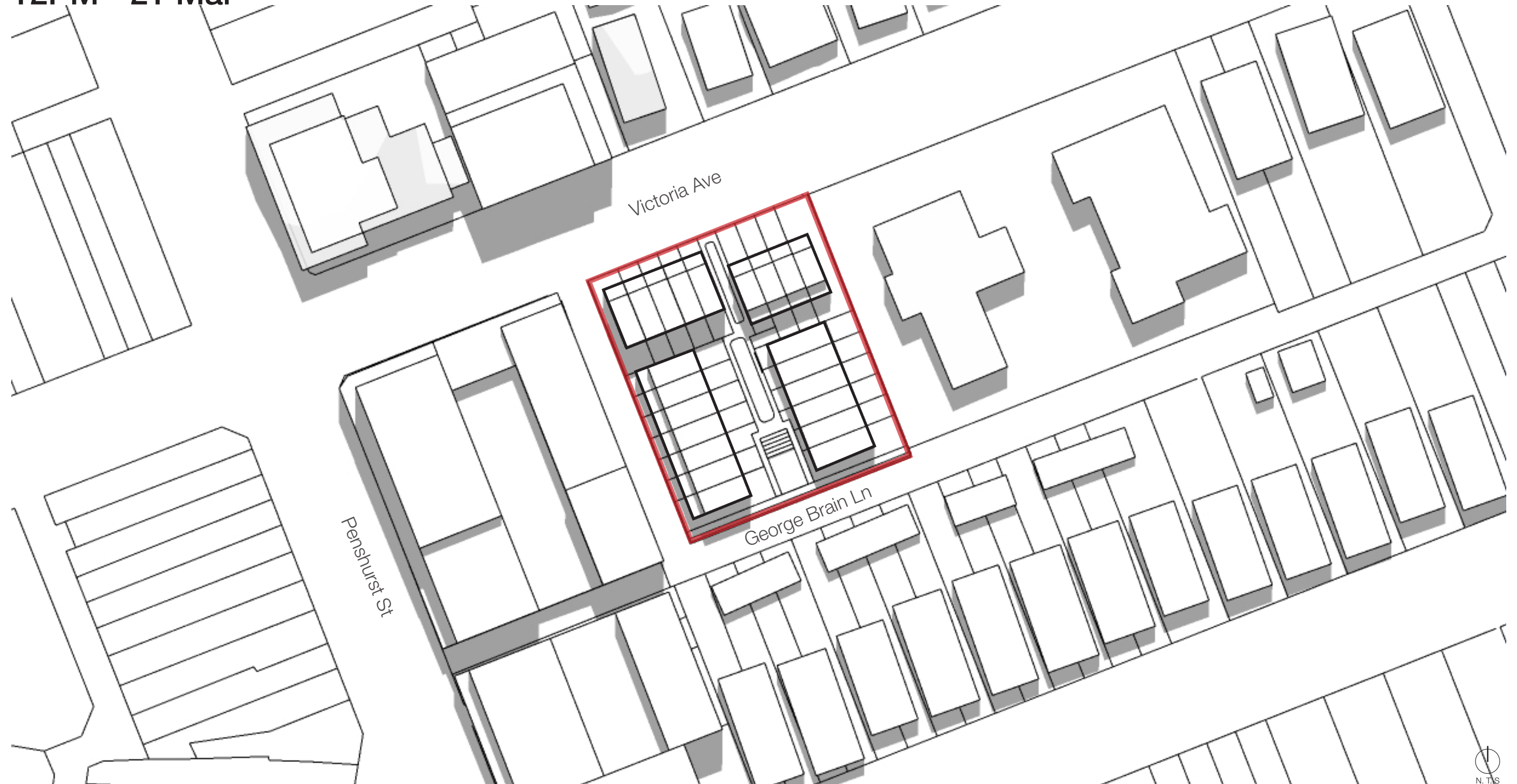
Appendix 1 - Shadow Analysis

11AM - 21 Mar



Appendix 1 - Shadow Analysis

12PM - 21 Mar



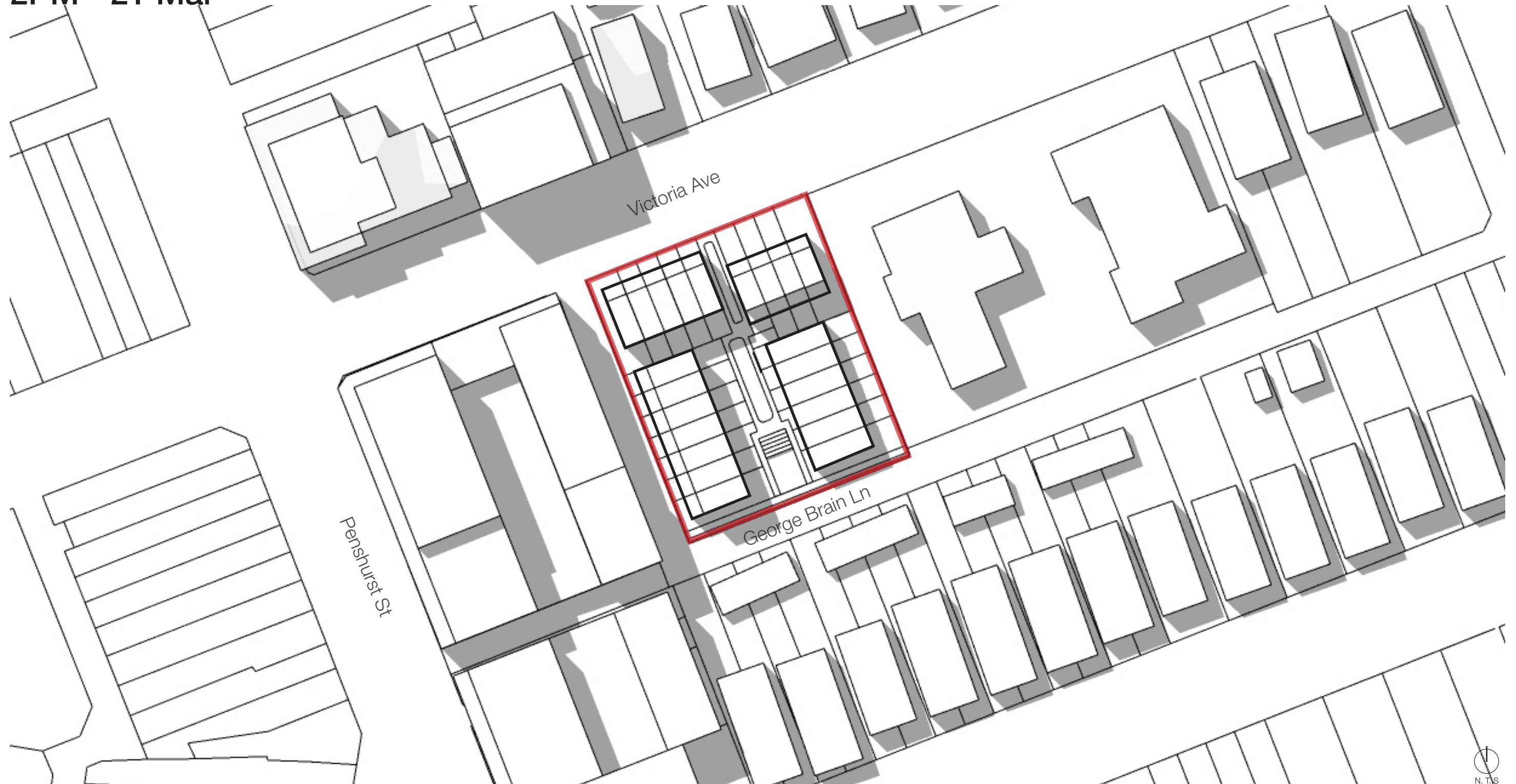
Appendix 1 - Shadow Analysis

1PM - 21 Mar



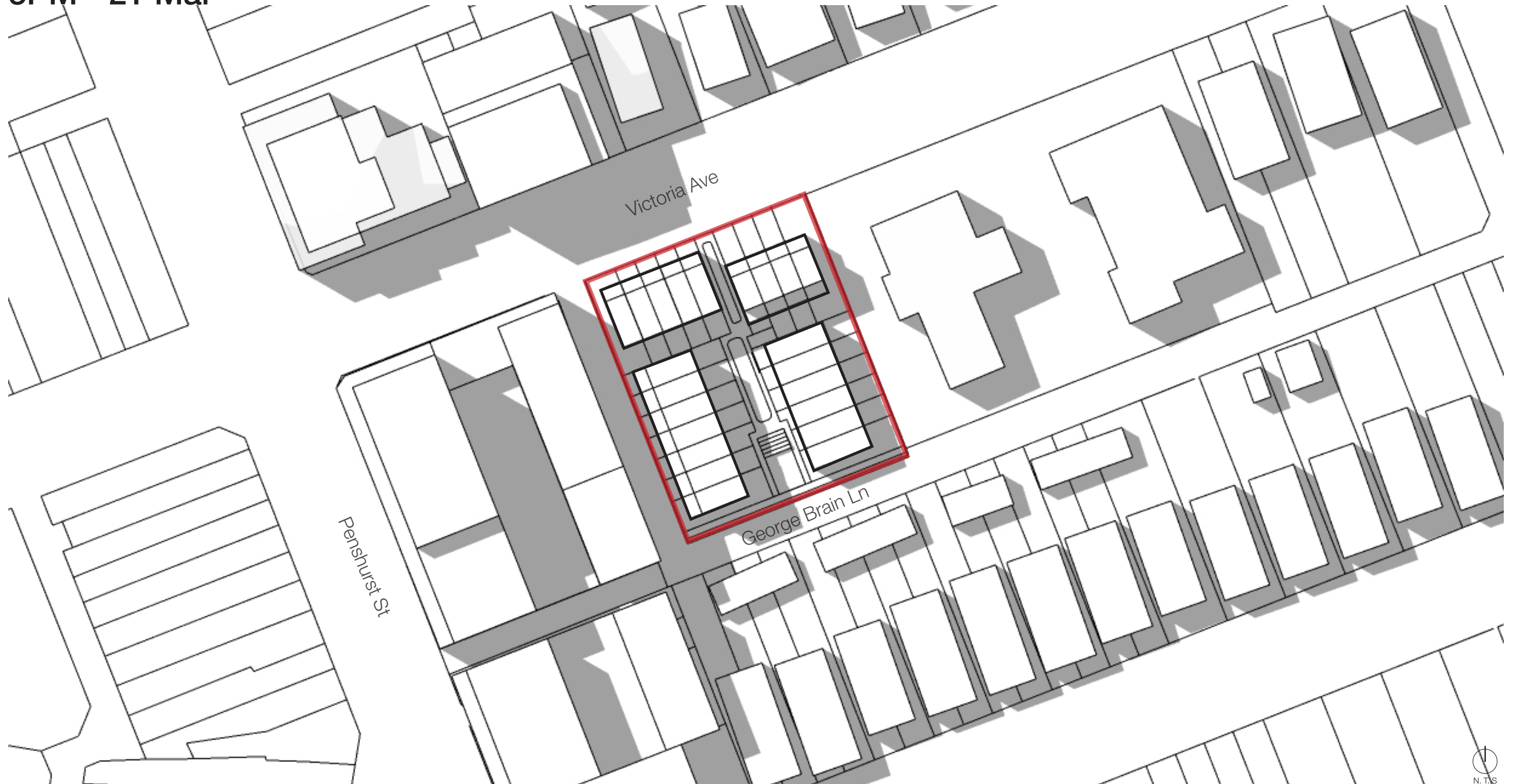
Appendix 1 - Shadow Analysis

2PM - 21 Mar



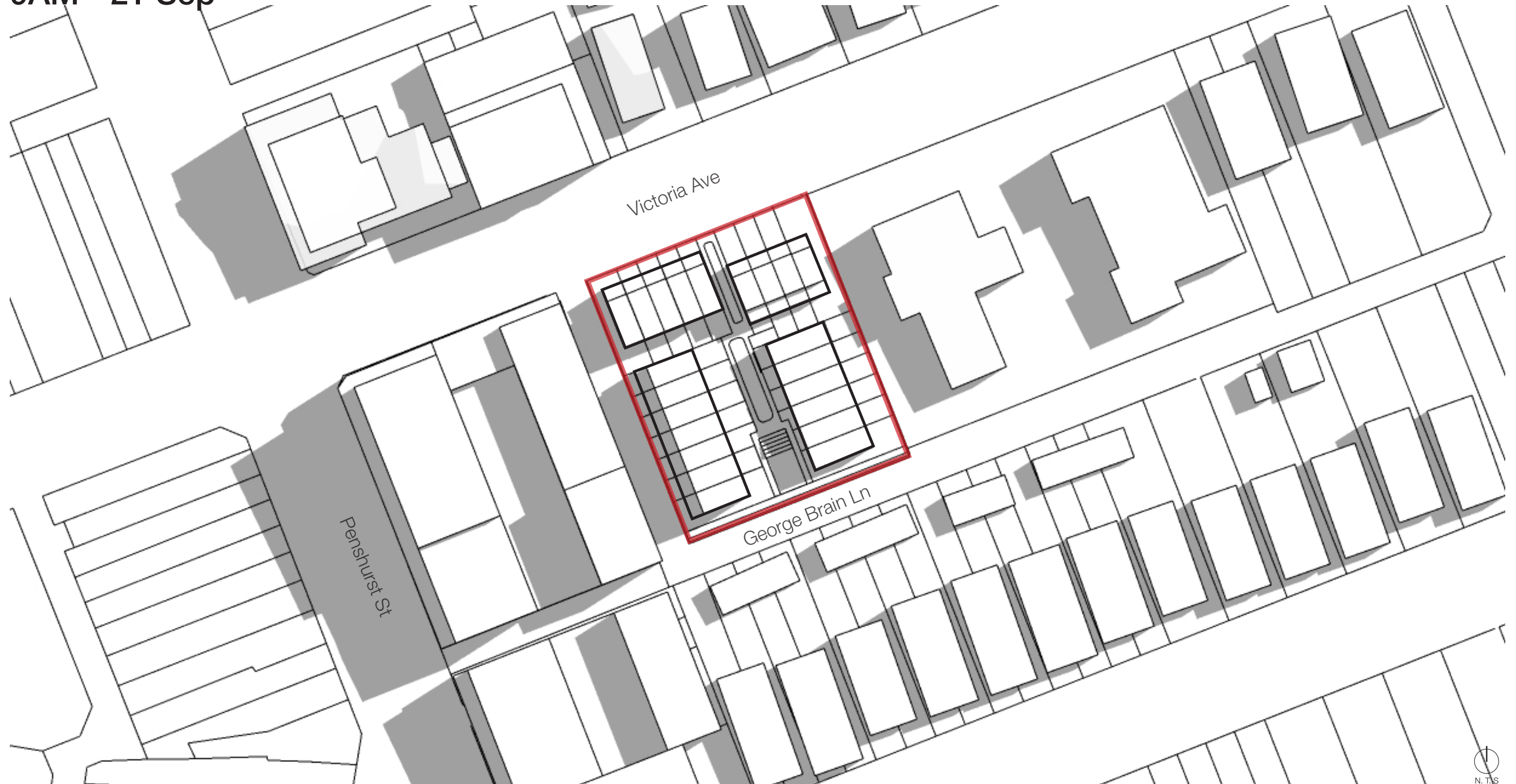
Appendix 1 - Shadow Analysis

3PM - 21 Mar



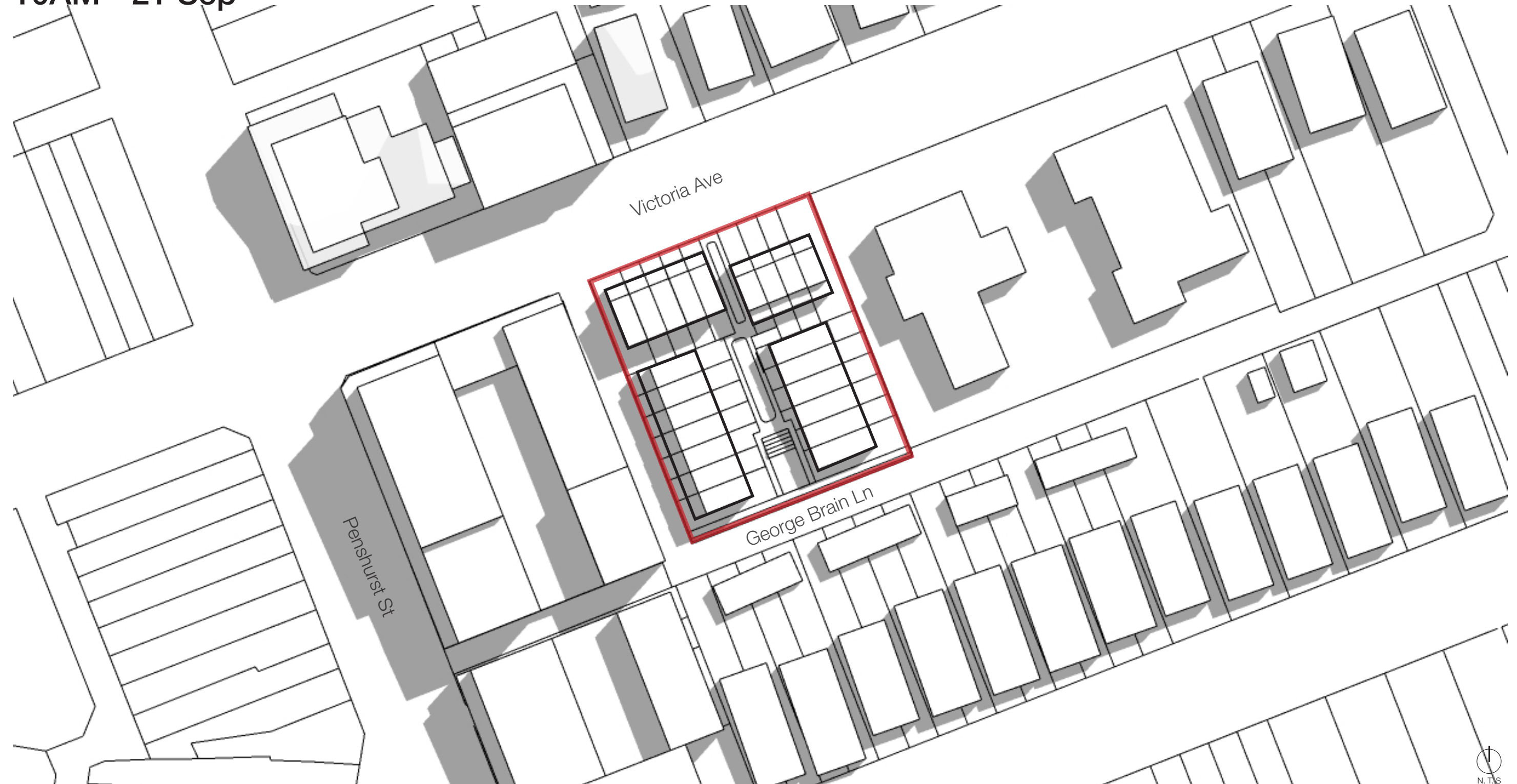
Appendix 1 - Shadow Analysis

9AM - 21 Sep



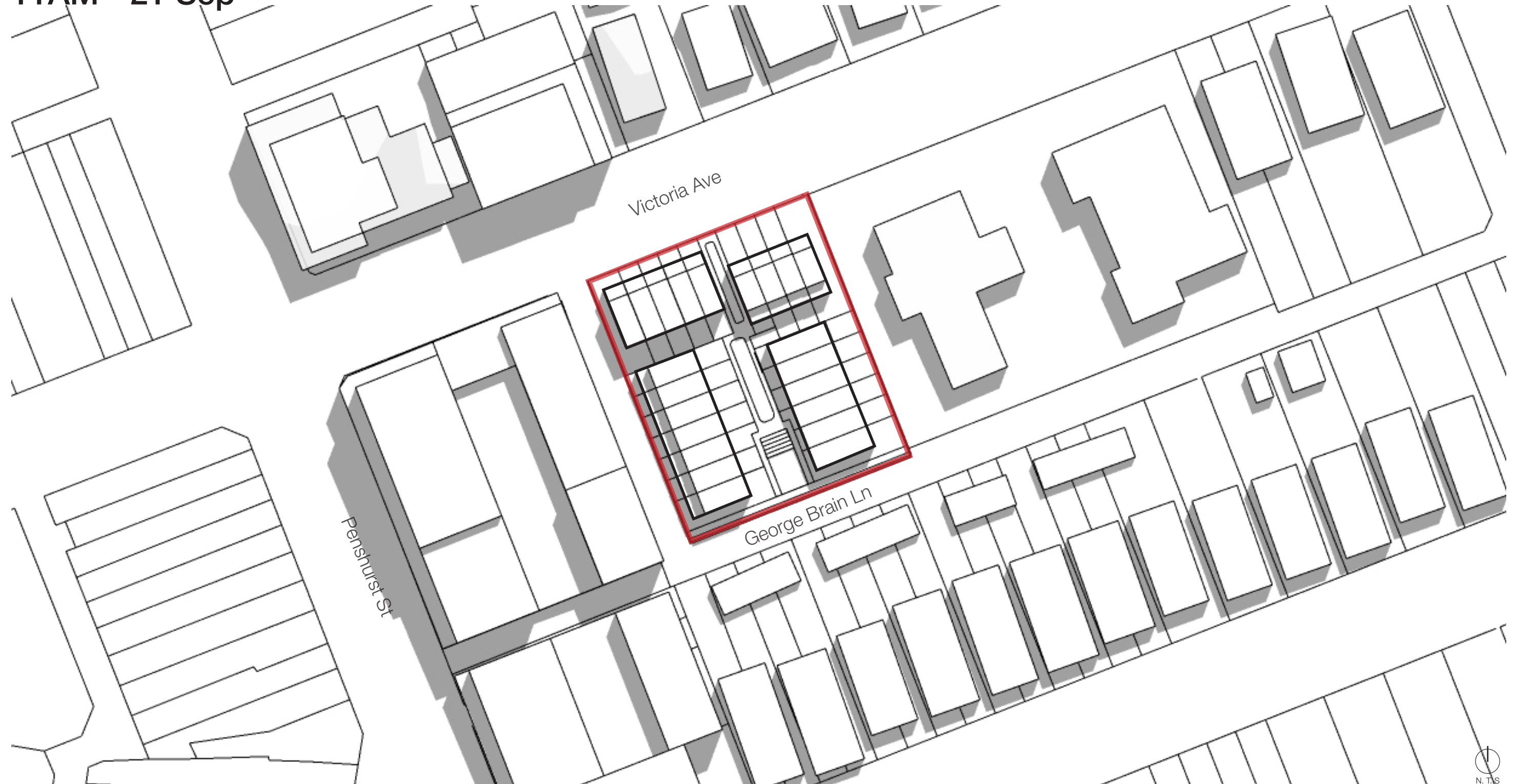
Appendix 1 - Shadow Analysis

10AM - 21 Sep



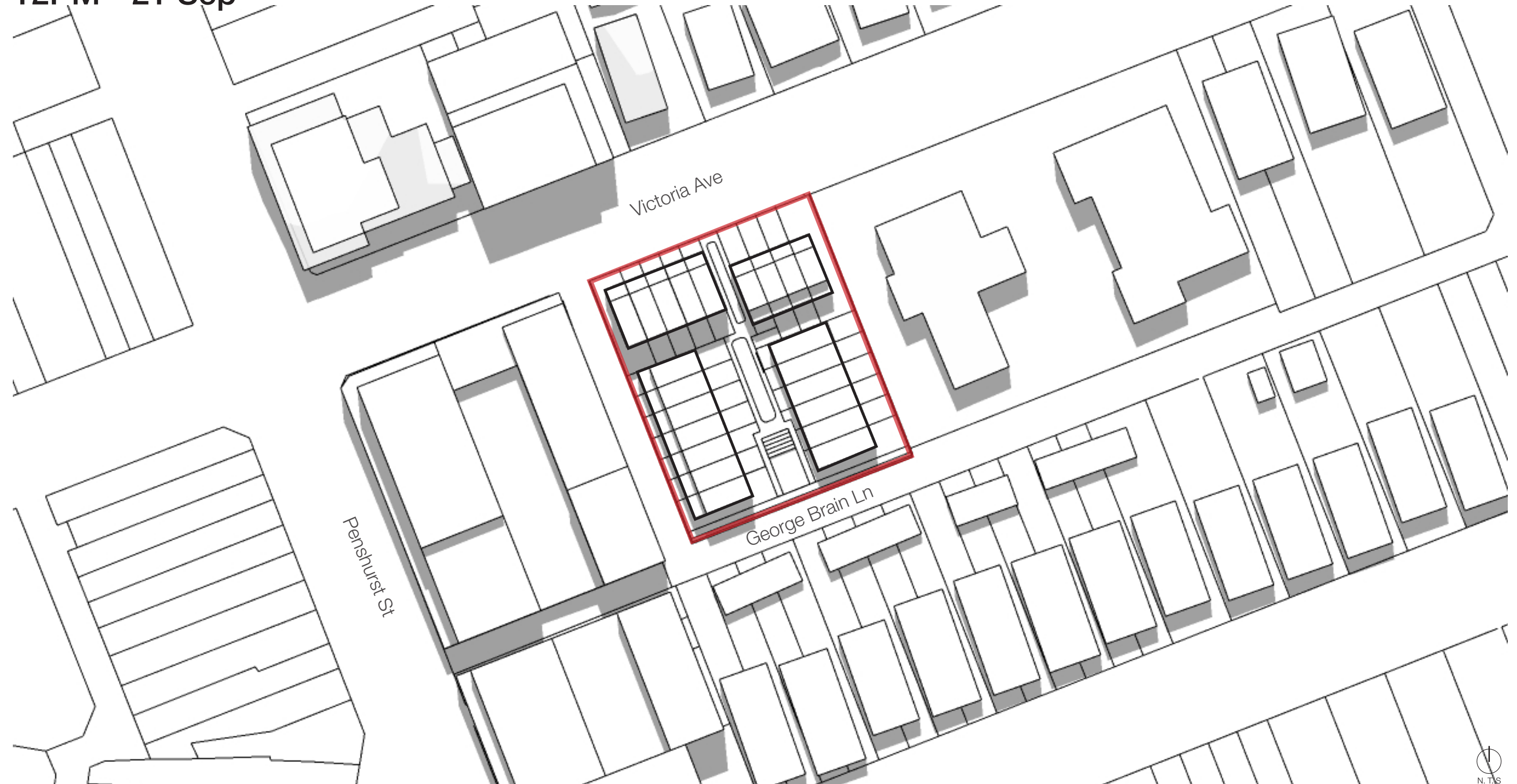
Appendix 1 - Shadow Analysis

11AM - 21 Sep



Appendix 1 - Shadow Analysis

12PM - 21 Sep



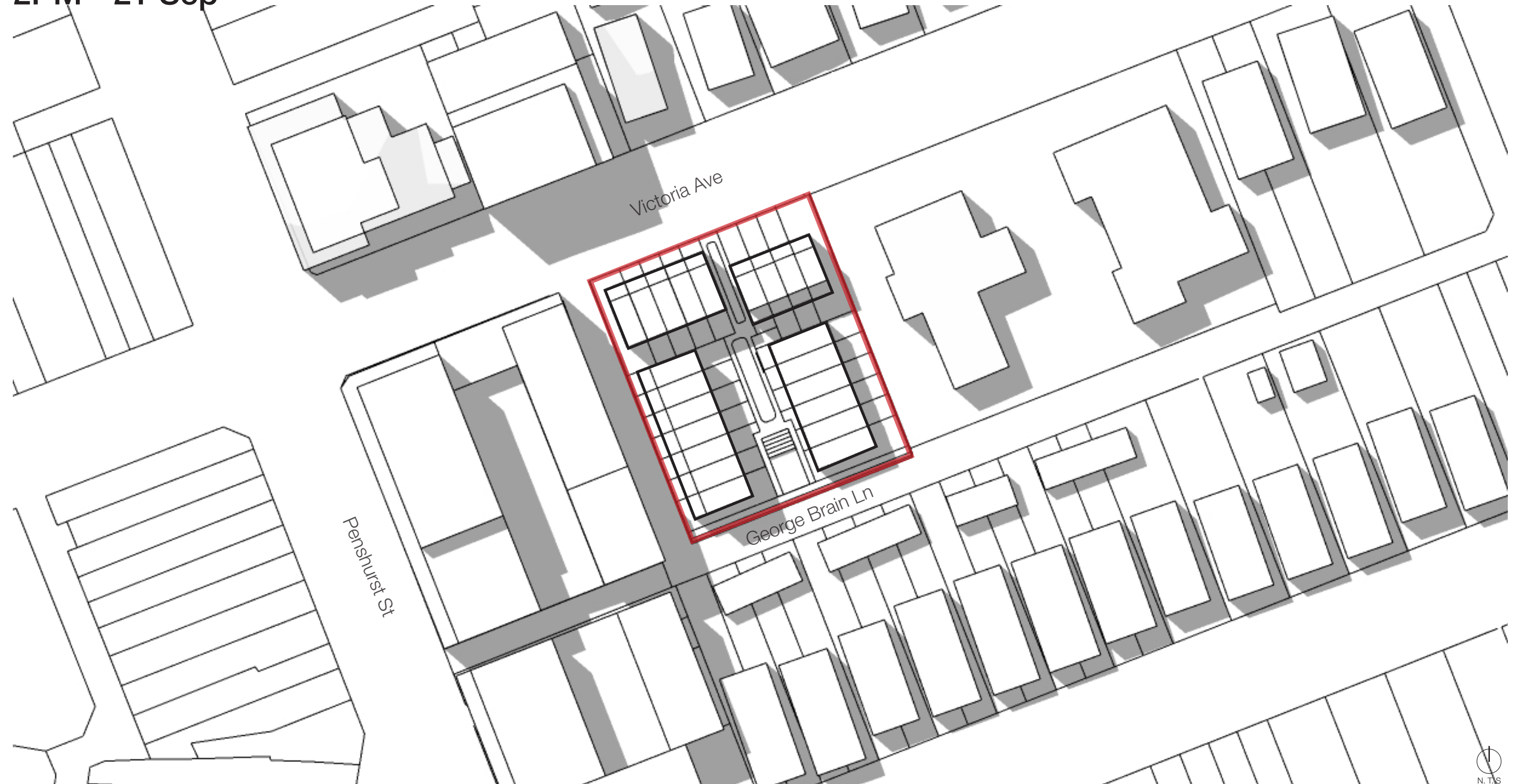
Appendix 1 - Shadow Analysis

1PM - 21 Sep



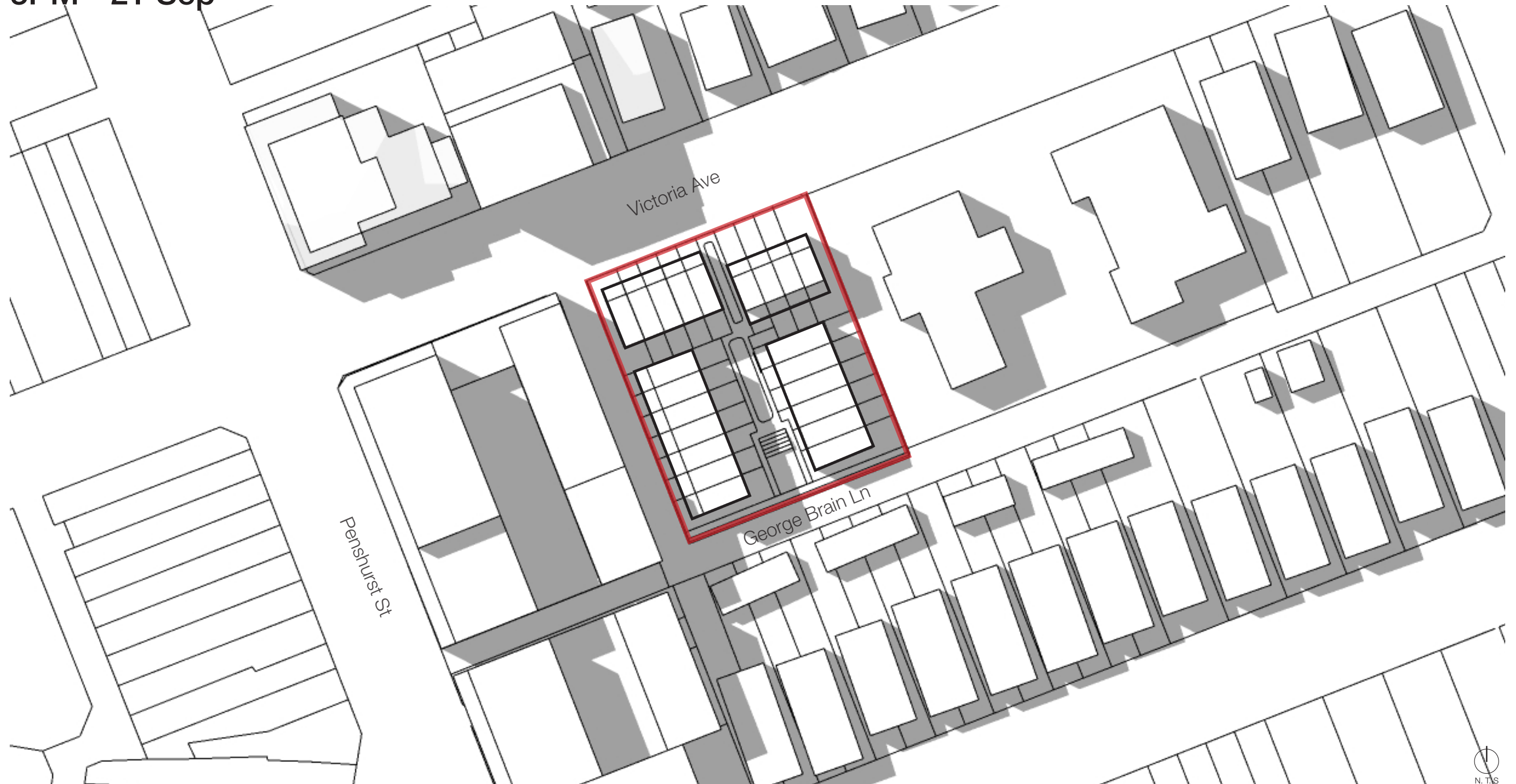
Appendix 1 - Shadow Analysis

2PM - 21 Sep



Appendix 1 - Shadow Analysis

3PM - 21 Sep



Appendix 2 – WDCP Compliance Table_Rev 03

Willoughby Development Control Plan (WDCP) Compliance Table		
Part D2 – Attached Dwellings, Multi-dwelling housing and residential flat dwellings		Comments
<i>Element</i>	<i>Control</i>	
Density and Height (Clause D.2.5)	<i>Residential R3 zone (9m height limit)</i> <ul style="list-style-type: none"> FSR < 0.7:1 (or as specified in the LEP) 2 storey + 3rd storey setback and no greater than 60% of areas of floor below 	The Planning Proposal is seeking to increase FSR and building height. The proposed FSR is 1.0:1 and the maximum building height is 10m.
	<i>Residential R3 zone (12 height limit)</i> <ul style="list-style-type: none"> FSR < 0.9:1 (or as specified in the LEP) 3 storey + 4th storey setback and no greater than 60% of areas of floor below 	
Site Coverage (Clause D.2.6.7)	<i>Storeys</i>	The proposed site coverage is 45%.
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8+	
Setbacks (Clause D.2.8)	<i>Front / street setback</i>	A 3m-7.5m setback to Victoria Avenue is proposed.
	<ul style="list-style-type: none"> In established areas, new developments should reinforce the streetscape character by ensuring the front setback is generally consistent with those of adjoining development, though not necessarily identical. 	
	<ul style="list-style-type: none"> 7.5m (min) from front /street boundary 	
	<ul style="list-style-type: none"> 3m (min) fronting internal communal streets 	
	<i>Side and rear setback</i>	Comply A 3m-6m setback to the eastern boundary is proposed.
	<ul style="list-style-type: none"> 1.5m (min) – walls single storey and <5m in height 	
	<ul style="list-style-type: none"> 3m (min) – walls 2 storeys and < 8m in height 	
	<ul style="list-style-type: none"> 3m (min) - 3m for ground floor level and additional 1.2m for each storey above ground level 	
	<i>Corner Allotments</i>	A 4m setback to the southern boundary along George Brain Lane is proposed. The proposed built forms have a 2m setback from the western boundary along George Brain Lane to form a mews style.
	<ul style="list-style-type: none"> 3 (min) – secondary street boundary 	
	Distance between buildings	

Open Space (Clause D.2.9)	<p><i>Recreational Area</i> (includes private open spaces and communal areas)</p> <table><tr><td><u>Storeys</u></td><td><u>Min %</u></td></tr><tr><td>1</td><td>40%</td></tr><tr><td>2</td><td>50%</td></tr><tr><td>3</td><td>52%</td></tr><tr><td>4</td><td>54%</td></tr><tr><td>5</td><td>56%</td></tr><tr><td>6</td><td>58%</td></tr><tr><td>7</td><td>60%</td></tr><tr><td>8</td><td>62%</td></tr><tr><td>9</td><td>64%</td></tr><tr><td>10</td><td>66%</td></tr><tr><td>11</td><td>68%</td></tr><tr><td>12</td><td>70%</td></tr></table> <ul style="list-style-type: none">• Where a development has a mixed number of storeys, the minimum recreational area is to be calculated on a pro rata basis.• A minimum of 80% of the required recreational area is to be provided in the form of outdoor open space (open space areas at ground level, 1st level or rooftops and uncovered balconies). <p><i>Private Open Space</i> <u>Multi-Unit Residential</u></p> <table><tr><td>Studio & 1-bedroom dwelling</td><td><ul style="list-style-type: none">• 35m² – courtyards at ground level• 10m² – Balconies or terraces</td></tr><tr><td>2-bedroom dwelling</td><td><ul style="list-style-type: none">• 50m² – courtyards at ground level• 10m² – Balconies or terraces</td></tr><tr><td>3+ bedroom dwelling</td><td><ul style="list-style-type: none">• 60m² – courtyards at ground level• 10m² – Balconies or terraces</td></tr></table>	<u>Storeys</u>	<u>Min %</u>	1	40%	2	50%	3	52%	4	54%	5	56%	6	58%	7	60%	8	62%	9	64%	10	66%	11	68%	12	70%	Studio & 1-bedroom dwelling	<ul style="list-style-type: none">• 35m² – courtyards at ground level• 10m² – Balconies or terraces	2-bedroom dwelling	<ul style="list-style-type: none">• 50m² – courtyards at ground level• 10m² – Balconies or terraces	3+ bedroom dwelling	<ul style="list-style-type: none">• 60m² – courtyards at ground level• 10m² – Balconies or terraces	<p>Comply</p> <p>The proposed recreational area is about 1,336sqm, which equivalents to 54% of the site area.</p> <p>Detailed architectural plans will be provided at the DA stage for further assessment.</p>
<u>Storeys</u>	<u>Min %</u>																																	
1	40%																																	
2	50%																																	
3	52%																																	
4	54%																																	
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	<p>Courtyards at ground level</p> <ul style="list-style-type: none"> • 20m² (min) area • 4m (min) dimension • 1:20 (max) gradient • Accessible from main living area <p>Balconies or terraces</p> <ul style="list-style-type: none"> • 10m² (min) area • 2.4m (min) dimension • Cannot be enclosed • Accessible from main living area <p><i>Communal Areas</i></p> <ul style="list-style-type: none"> • 30m² (max) – total private open space provided as balconies • 50m² (min) area • 5m (min) dimension • 3hrs (min) sunlight between 9am and 3pm on June 22 to principle portion of communal open space <p><i>Children's Play Areas</i></p> <ul style="list-style-type: none"> • For developments of over 10 dwellings, a children's play area in addition to the communal open space requirement is to be provided: <ul style="list-style-type: none"> – with a minimum area of 30m²; – with a minimum dimension of 5m; and – 1:20 (max) gradient. 	<p>Comply</p> <p>All the proposed courtyards have a minimum 4m dimension.</p> <p>Comply</p> <p>All the proposed balconies have a minimum 2.5m dimension.</p> <p>Comply</p> <p>The proposed Communal Open Space (COS) has an area of 143sqm with a minimum dimension of 5m.</p> <p>Comply</p> <p>The children's play area can be accommodated within the proposed COS. However, its exact location is to be further defined in the DA stage.</p>
<p>Landscaping (Clause D.2.10)</p>	<ul style="list-style-type: none"> • Soft landscaping must comprise the minimum of 35% of the site area. • Recreational open space (both private and communal) used by the occupants of the development must constitute the minimum of 50% of the natural/soft landscape requirements of this Plan. <p><i>Streetscape Landscaping</i></p> <ul style="list-style-type: none"> • Canopy trees should be planted in the front setback area. New trees should be semi-mature when planted and be compatible with existing dominant street trees or predominant trees in the area. <p><i>Location of site landscaping</i></p>	<p>Detailed plans showing the percentage of soft and hard landscaping will be provided at the DA stage.</p>

	<ul style="list-style-type: none"> Landscaping should be provided on site in the following locations: <ul style="list-style-type: none"> The entire street frontage except the area for vehicular entry/exit and pedestrian entry pathway in multiple dwelling developments. Within side and rear boundary setback areas. Where a driveway is provided along a side boundary, provide a continuous planting strip of minimum 1m along that side boundary. The area between the boundary and any recreational structures such as swimming pool, tennis courts etc. to provide privacy and reduce the impact of these structures on adjacent residents. <p><i>Landscaping in the streetscape</i></p> <ul style="list-style-type: none"> Landscape treatment at street frontage should: <ul style="list-style-type: none"> be of an appropriate scale relative to both the building setback, the bulk of the proposed buildings and the function of the street; to soften the visual effect of buildings when viewed from the street; incorporate existing significant vegetation wherever possible; and integrate the new development into the street by using similar height and species type. The siting and species of new trees should minimise impact on views and sunlight enjoyed by adjoining properties and sited to not interfere with services or utilities 	
Solar Access and Overshadowing (Clause D.2.13)	<ul style="list-style-type: none"> Shadow diagrams must be submitted to illustrate compliance with the controls. New developments are to be designed to maximise the entry of winter sun and minimise the entry of summer sun to most of the habitable rooms and private open spaces of the dwelling units by the siting and orientation of the buildings and the use of appropriate landscaping and sun screening methods. 	<p>Comply.</p> <p>Please refer to Appendix 1 – Shadow Analysis</p>

CM⁺

