

5.0 DEVELOPMENT STUDIES

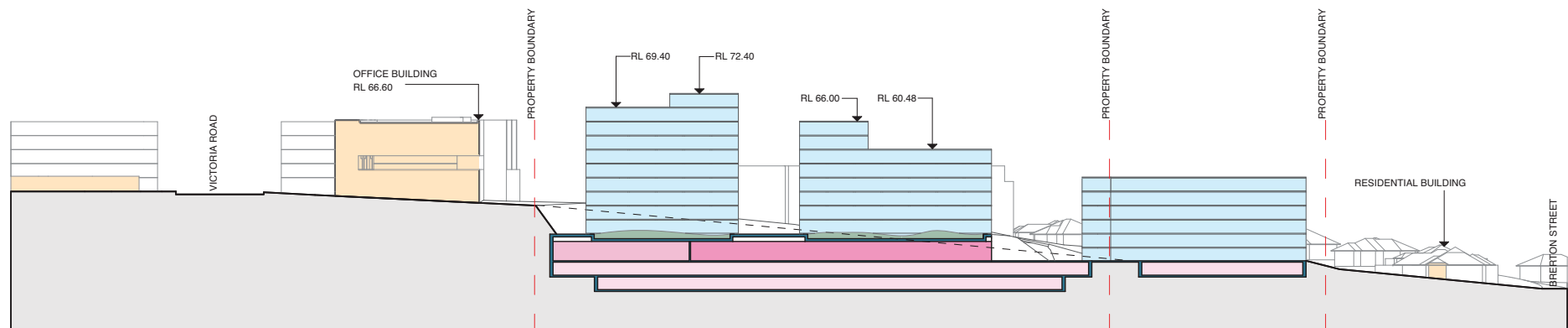
5.1 DESIGN STRATEGY 1

2-12 TENNYSON ROAD FSR = 2:1
14 TENNYSON ROAD FSR = 1.5:1

- Buildings are arranged in a regular arrangement parallel to Tennyson Road.
- Individual buildings are separated by a series of small common and private outdoor spaces.
- A loop road runs through the site

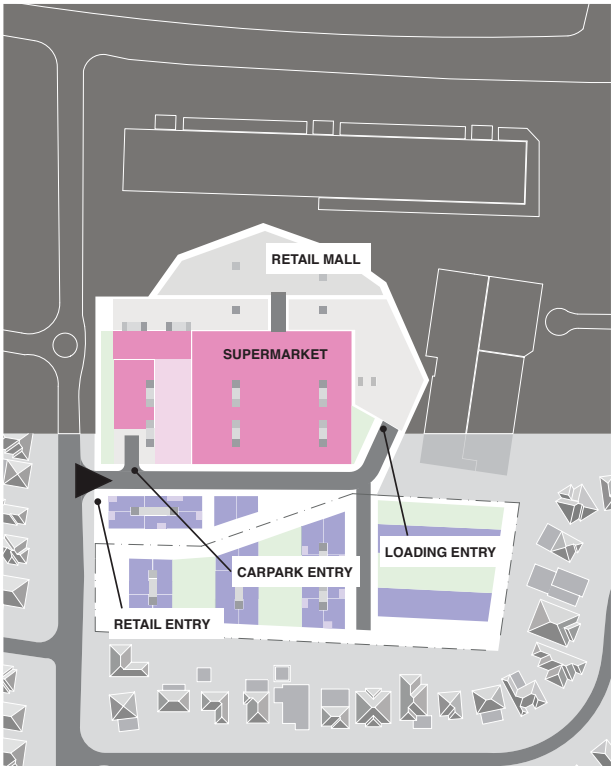
2-12 TENNYSON ROAD

- ✓ Loop road through site provides connectivity
- ✓ Potential for through site link to Victoria Road
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living
- ✗ Loop road through site cuts through site and limits retail space and mixed use opportunities
- ✗ Open space is divided into many small parks that are often overshadowed.
- ✗ Building form conventional and does not respond to the form of the quarry
- ✗ In order to achieve FSR setbacks are impinged on and deep soil area limited

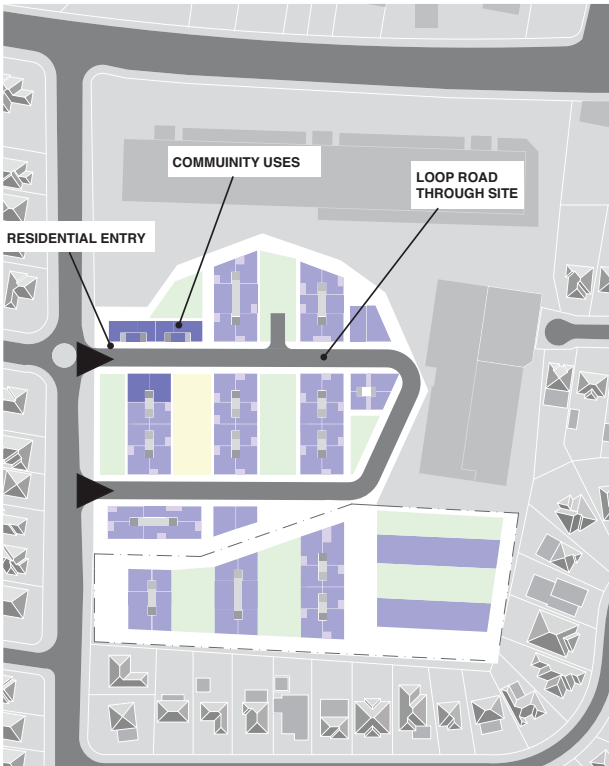


Design Iteration 01 North South Section

5.1 DESIGN STRATEGY 1: REGULAR ARRANGEMENT



LOWER TENNYSON ROAD GROUND LEVEL



UPPER TENNYSON ROAD GROUND LEVEL



TYPICAL APARTMENT LEVEL

5.2 DESIGN STRATEGY 2: QUARRY EDGE AND POCKET PARKS

2-12 TENNYSON ROAD FSR = 2:1
14 TENNYSON ROAD FSR = 1.5:1

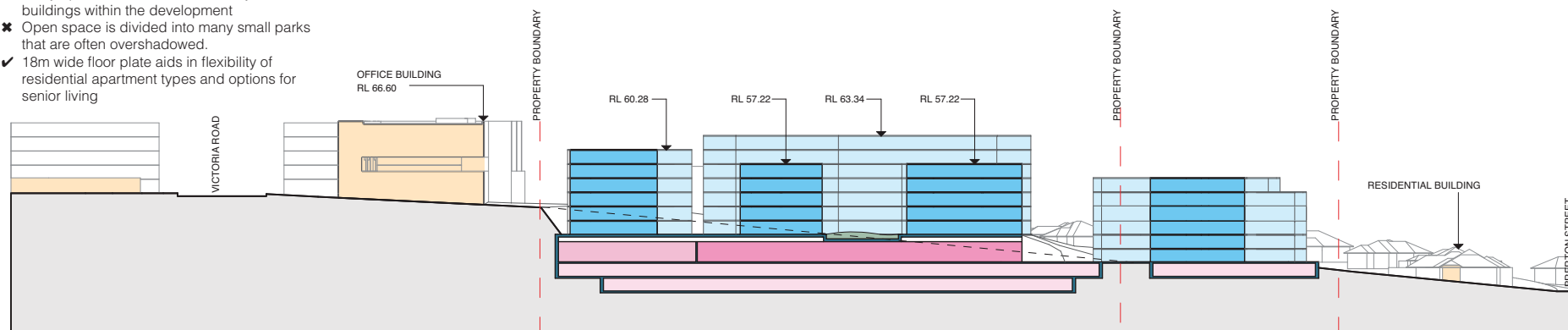
- Perimeter blocks define the edge of the former quarry
- Smaller footprint buildings are located centrally in the site and cluster around a series of communal and private pocket parks
- Entry to the residential areas is from the upper end of Tennyson Road and entry to the non-residential areas is from the lower end

2-12 TENNYSON ROAD

- ✓ Perimeter blocks follow the line of the quarry
- ✓ The scale of buildings decreases from Victoria Road to Brereton Street
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living
- ✗ Many apartments overshadowed by other buildings within the development
- ✗ Open space is divided into many small parks that are often overshadowed.

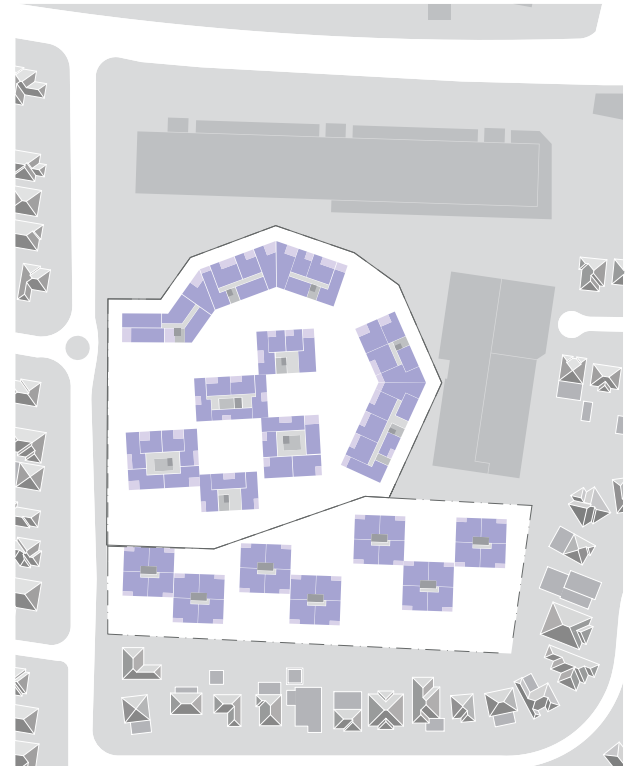
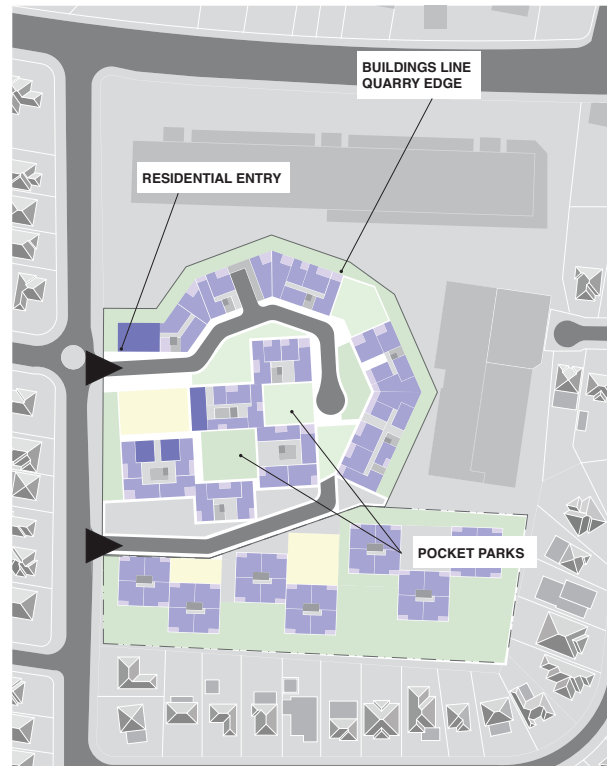
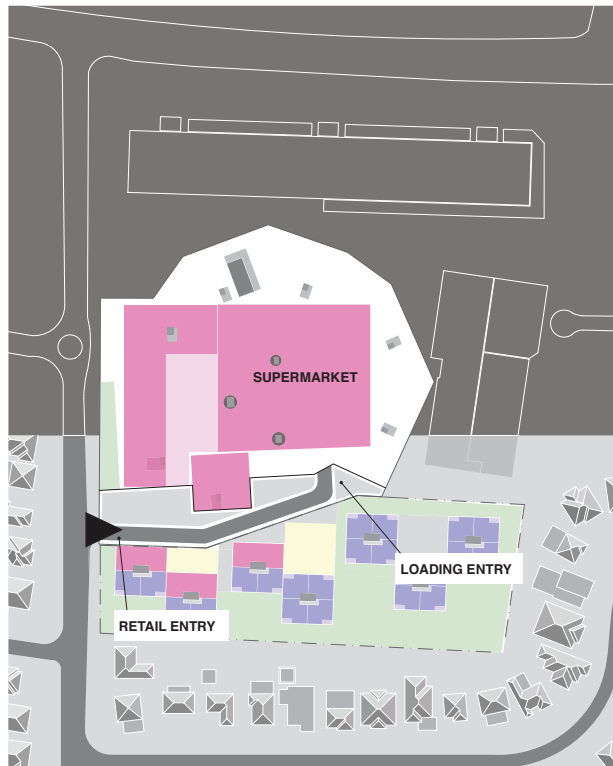
14 TENNYSON ROAD

- ✗ Many apartments overshadowed by other buildings within the development
- ✗ Open space is divided into many small parks that are often overshadowed.
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living



Design Iteration 02 North South Section

5.2 DESIGN STRATEGY 2: QUARRY EDGE AND POCKET PARKS



5.3 DESIGN STRATEGY 3: CONSOLIDATED OPEN SPACE

2-12 TENNYSON ROAD FSR = 2:1
14 TENNYSON ROAD FSR = 1.5:1

- Ring form follows the line of the former quarry
- A large, consolidated communal open space is formed at the centre of the site
- Community uses are located along Tennyson Road with dedicated outdoor space provisions if required
- A retail forecourt is located at the southern entry off Tennyson Road
- The building form steps down to the south

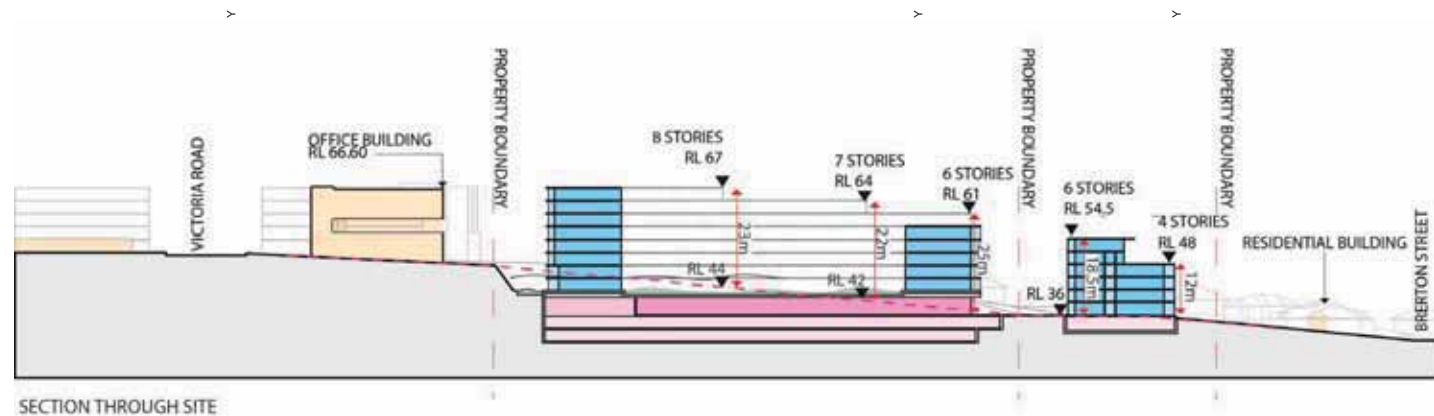
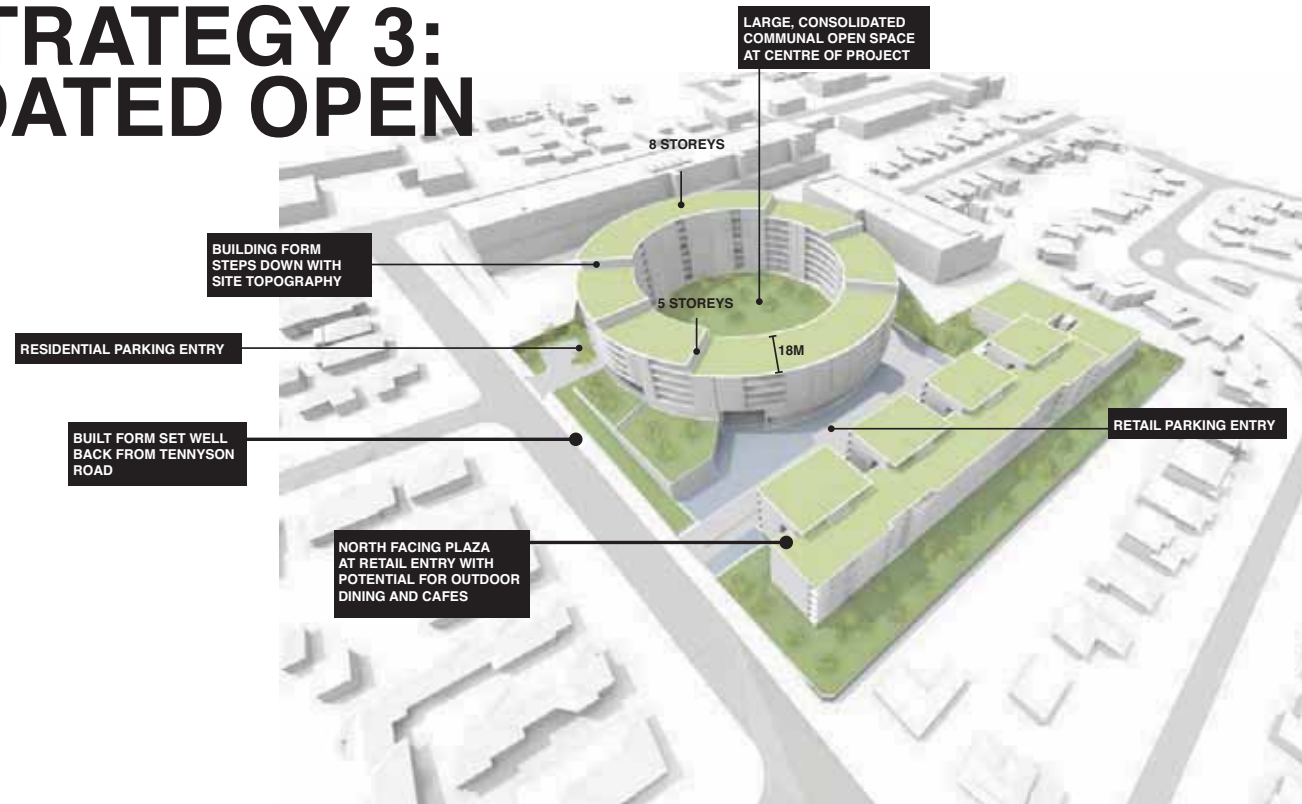
2-12 TENNYSON ROAD

- ✓ Built form references the site history of a quarry
- ✓ Large public open space at the centre of the development
- ✓ Generous setback to Tennyson Road reduces the impact on the streetscape
- ✓ Consolidated building form gives consistent form to development
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living
- ✓ Retail forecourt setback from street

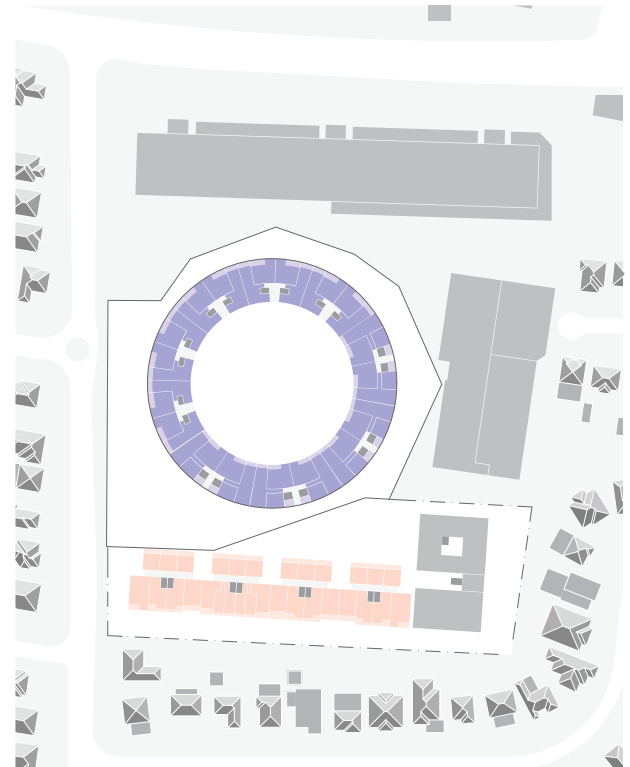
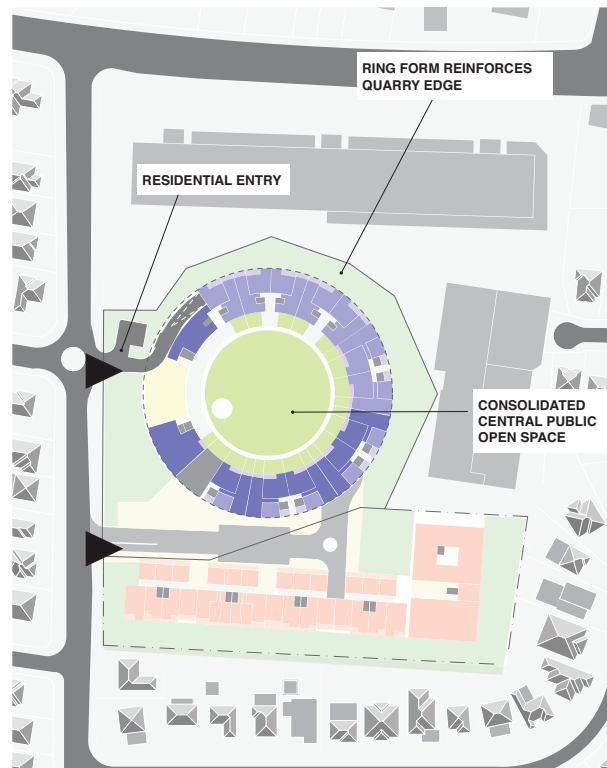
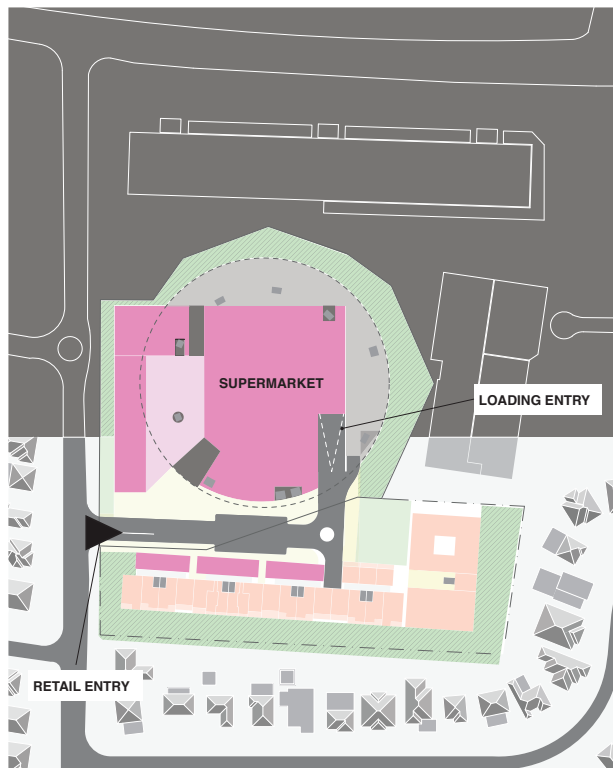
- ✗ Consolidated building form limits developer pool

14 TENNYSON ROAD

- ✓ Consolidated building form allows for large areas of open space
- ✓ Building height weighted to rear of site to limit overshadowing of neighbours



5.3 DESIGN STRATEGY 3: CONSOLIDATED OPEN SPACE



5.4 OPTIONS REVIEW



DESIGN STRATEGY 1

- Buildings are arranged in a regular arrangement parallel to Tennyson Road.
- Individual buildings are separated by a series of small common and private outdoor spaces.
- A loop road runs through the site

2-12 TENNYSON ROAD

- ✓ Loop road through site provides connectivity
- ✓ Potential for through site link to Victoria Road
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living

- ✗ Loop road through site cuts through site and limits retail space and mixed use opportunities
- ✗ Open space is divided into many small parks that are often overshadowed.
- ✗ Building form conventional and does not respond to the form of the quarry
- ✗ In order to achieve FSR setbacks are impinged on and deep soil area limited
- ✗

14 TENNYSON ROAD

- ✗ Many apartments overshadowed by other buildings within the development
- ✗ Open space is divided into many small parks that are often overshadowed.
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living



DESIGN STRATEGY 2

- Perimeter blocks define the edge of the former quarry
- Smaller footprint buildings are located centrally in the site and cluster around a series of communal and private pocket parks
- Entry to the residential areas is from the upper end of Tennyson Road and entry to the non-residential areas is from the lower end

2-12 TENNYSON ROAD

- ✓ Perimeter blocks follow the line of the quarry
- ✓ The scale of buildings decreases from Victoria Road to Brereton Street
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living

- ✗ Many apartments overshadowed by other buildings within the development
- ✗ Open space is divided into many small parks that are often overshadowed.

14 TENNYSON ROAD

- ✗ Many apartments overshadowed by other buildings within the development
- ✗ Open space is divided into many small parks that are often overshadowed.
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living



DESIGN STRATEGY 3

- Ring form follows the line of the former quarry
- A large, consolidated communal open space is formed at the centre of the site
- Community uses are located along Tennyson Road with dedicated outdoor space provisions if required
- A retail forecourt is located at the southern entry off Tennyson Road
- The building form steps down to the south

2-12 TENNYSON ROAD

- ✓ Built form references the site history of a quarry
- ✓ Large public open space at the centre of the development
- ✓ Generous setback to Tennyson Road reduces the impact on the streetscape
- ✓ Consolidated building form gives consistent form to development
- ✓ 18m wide floor plate aids in flexibility of residential apartment types and options for senior living
- ✓ Retail forecourt setback from street

- ✗ Consolidated building form limits developer pool

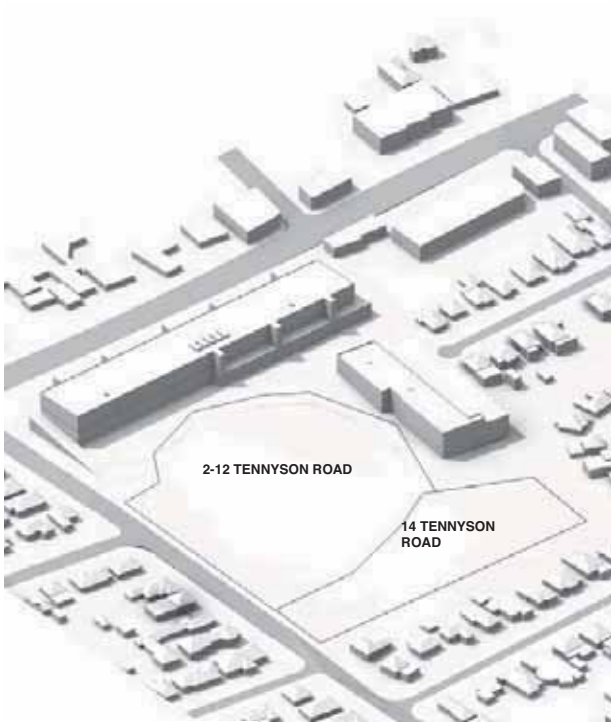
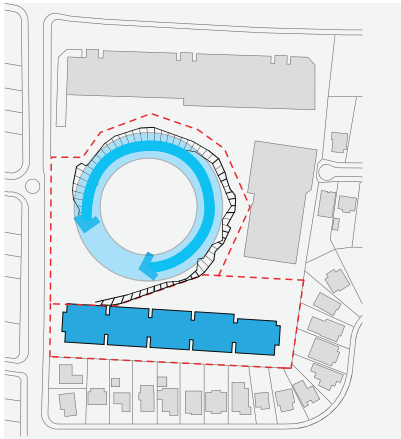
14 TENNYSON ROAD

- ✓ Consolidated building form allows for large areas of open space
- ✓ Building height weighted to rear of site to limit overshadowing of neighbours

6.0 APPLYING THE SITE PRINCIPLES

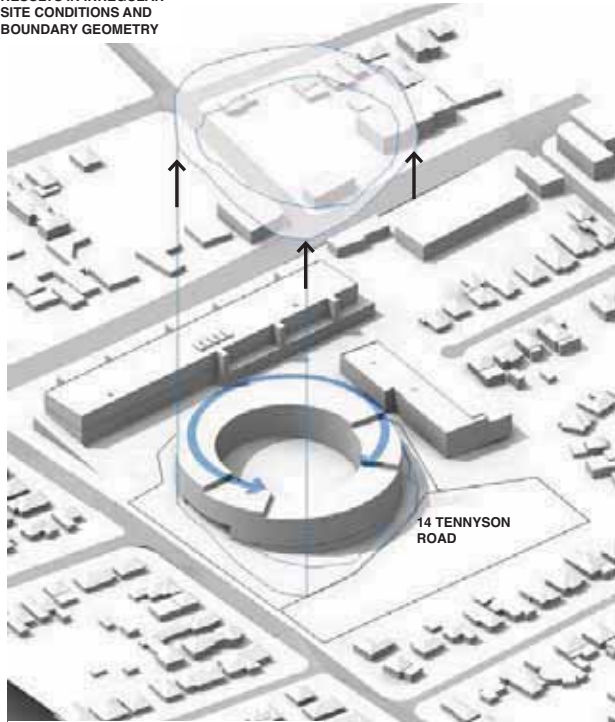
6.1 QUARRY

The proposed envelope uses the topography of the former quarry to inform a response that acknowledges the history of the site and utilises the unusual site outline to create a large communal space at its centre.



NATURAL TOPOGRAPHY OF SITE

QUARRY EXCAVATION RESULTS IN IRREGULAR SITE CONDITIONS AND BOUNDARY GEOMETRY



THE EXCAVATED VOLUME OF THE QUARRY



PHOTO OF QUARRY EDGE LOOKING EAST



PHOTO OF QUARRY EDGE LOOKING NORTHEAST

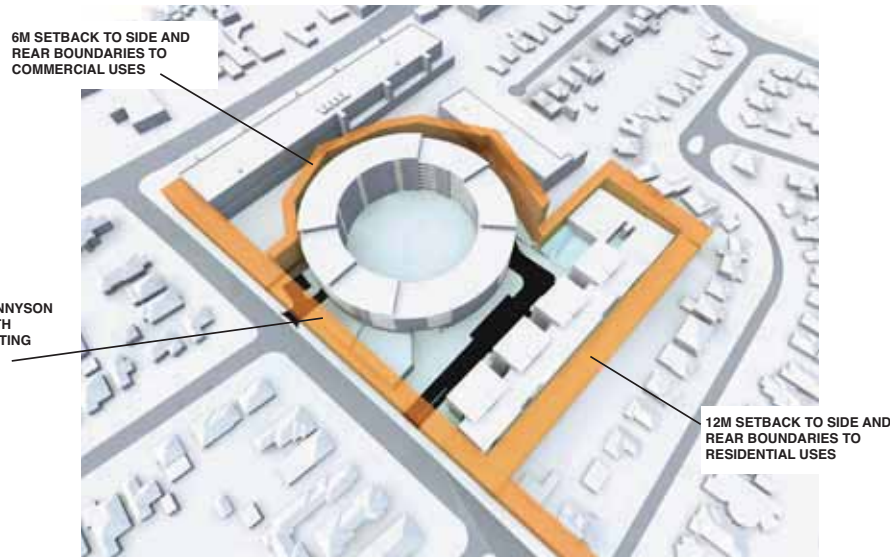
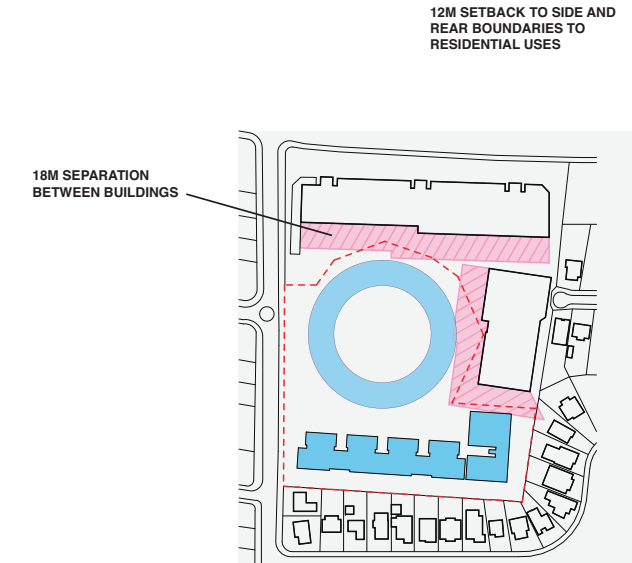
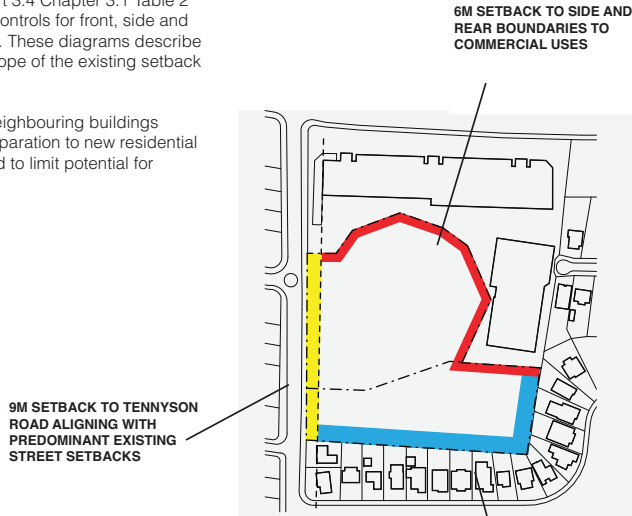


PHOTO OF QUARRY EDGE LOOKING EAST

6.2 SITE SETBACKS

The Ryde DCP 2010 Part 3.4 Chapter 3.1 Table 2 describes the setback controls for front, side and rear boundary setbacks. These diagrams describe the 3-dimensional envelope of the existing setback controls.

An 18m setback from neighbouring buildings provides appropriate separation to new residential buildings for privacy and to limit potential for overlooking.



6.3 SCALE

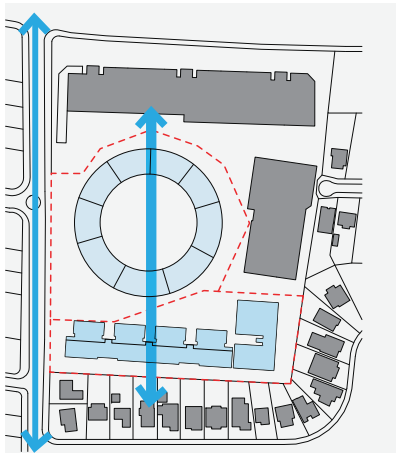
The site is located between two contrasting urban conditions; large floorplate commercial buildings to the north and east and detached residential buildings to the south east, west, and south.

Built form in this location should mediate between these two scales.



LARGE FOOTPRINT
BUILDINGS AT VICTORIA
ROAD END OF SITE

SMALL FOOTPRINT
BUILDINGS AT BRETETON
STREET END OF SITE



6.5 ACCESS

Tennyson Road falls steeply from Victoria Road in the north to Brereton Road in the south. The topography allows for two entrances to separate residential and non-residential traffic. Loading facilities should be accessed from the rear of the site to keep these facilities away from the public realm.

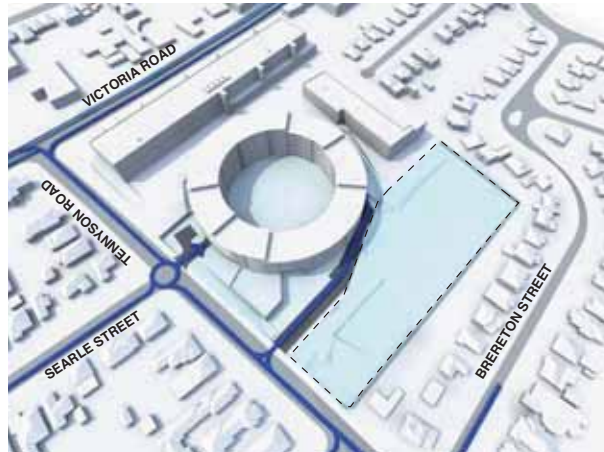


2-12 AND 14 TENNYSON ROAD DEVELOPED TOGETHER.

Residential vehicular access for 2-12 from upper end of tennyson Road.

Non Residential uses and loading from lower end of Tennyson Road.

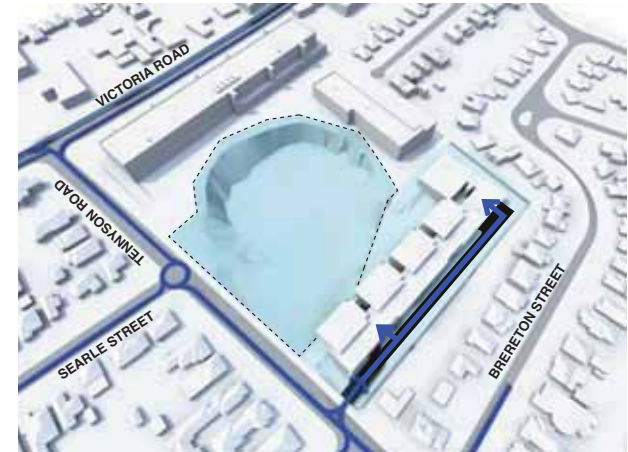
Entry to 14 Tennyson Road off lower entry away form corner of Potts Street.



2-12 TENNYSON ROAD DEVELOPED FIRST.

Residential Vehicular access from upper end of tennyson Road.

Non Residential Uses and loading from lower end of Tennyson Road.



14 TENNYSON ROAD DEVELOPED FIRST.

Residential, non residential, and loading access from upper end of tennyson Road.

Entry within close proximity of corner of Potts Street.

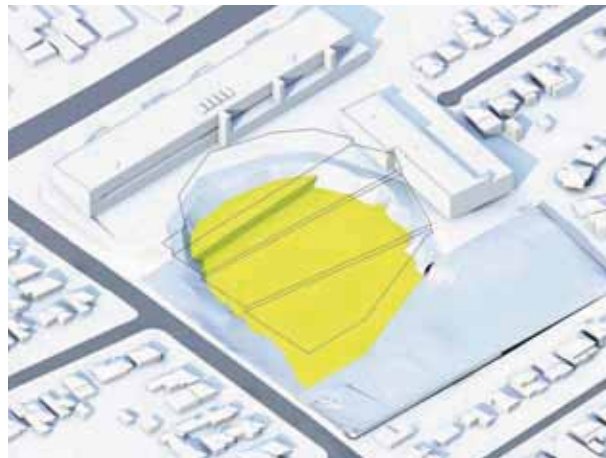
6.6 HEIGHT

Height profile follows the natural fall of the site.

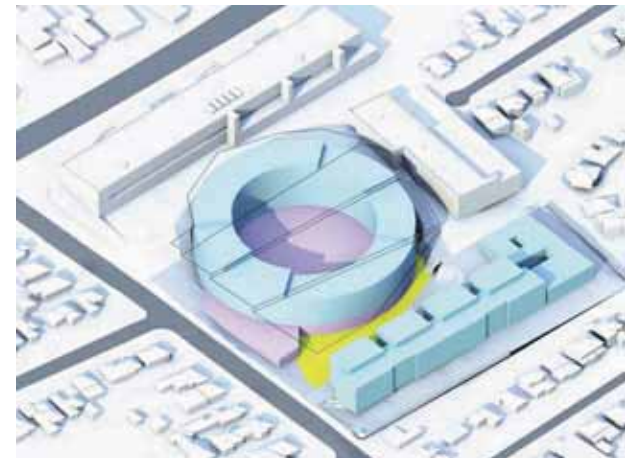
A stepping profile breaks down the scale from commercial scale at Victoria Road to Residential scale at Breteton Street



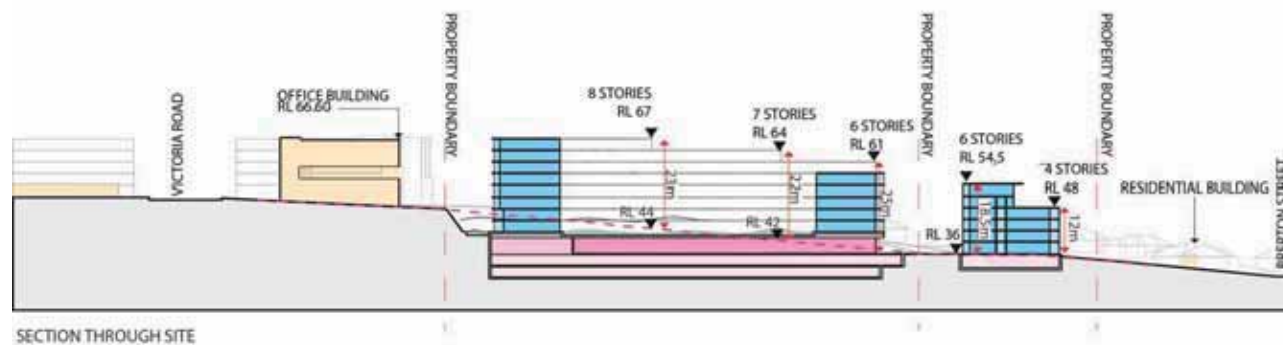
EXISTING QUARRY LANDFORM



ESTABLISHING A NEW NATURAL GROUND LINE AND STEPPING HEIGHT PLANE



MASSING WITHIN STEPPING HEIGHT PLANE

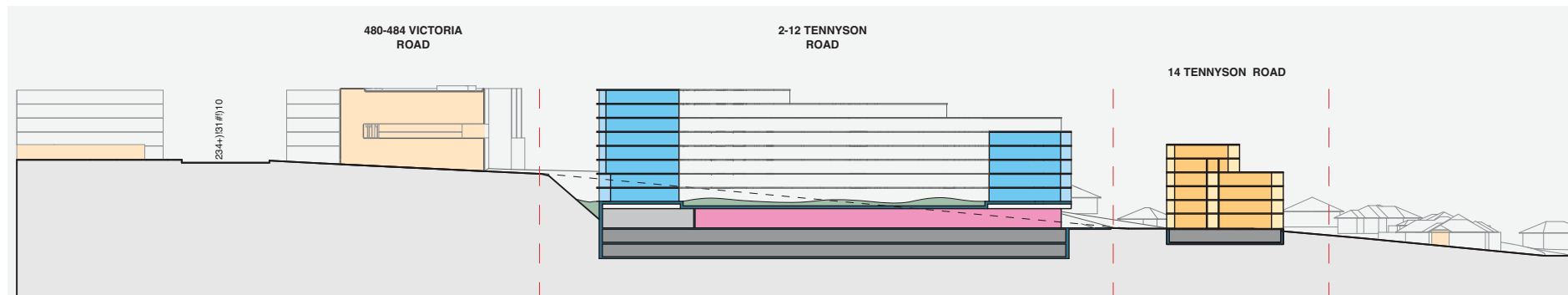
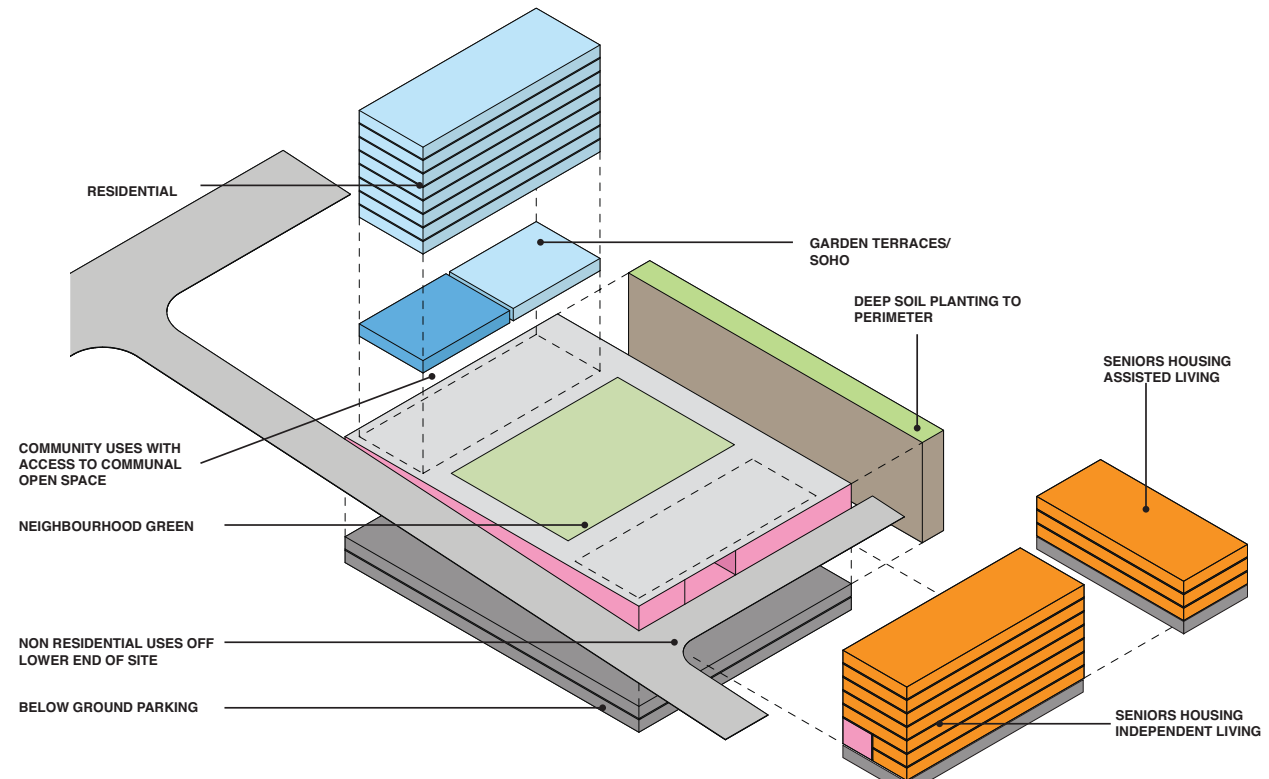


SECTION THROUGH SITE

6.7 MIXED USE

MIXED USE PROGRAM DISTRIBUTION

- Locate retail at grade at entry off Tennyson Road
- Locate parking at base of quarry, with minimum excavation
- Locate residential over retail.



6.8 SOLAR ACCESS

Solar Access is impacted by the topography of the site and its orientation to North. The site falls away to the south and as such built form is prone to overshadowing adjacent buildings.

The proposal achieves over 70% of apartments with at least 3 hours of sunlight between 9am and 3pm on June 21st.

Total number of apartments: 272
Number that meet solar access guidelines: 199
Percentage that meet solar access guidelines: 73%

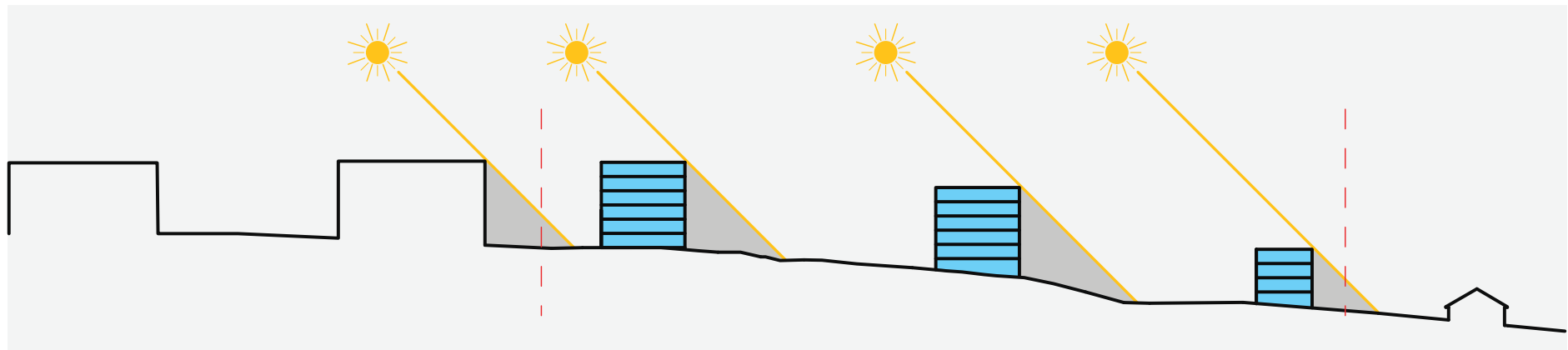
A detailed analysis of the solar access of the building is contained in



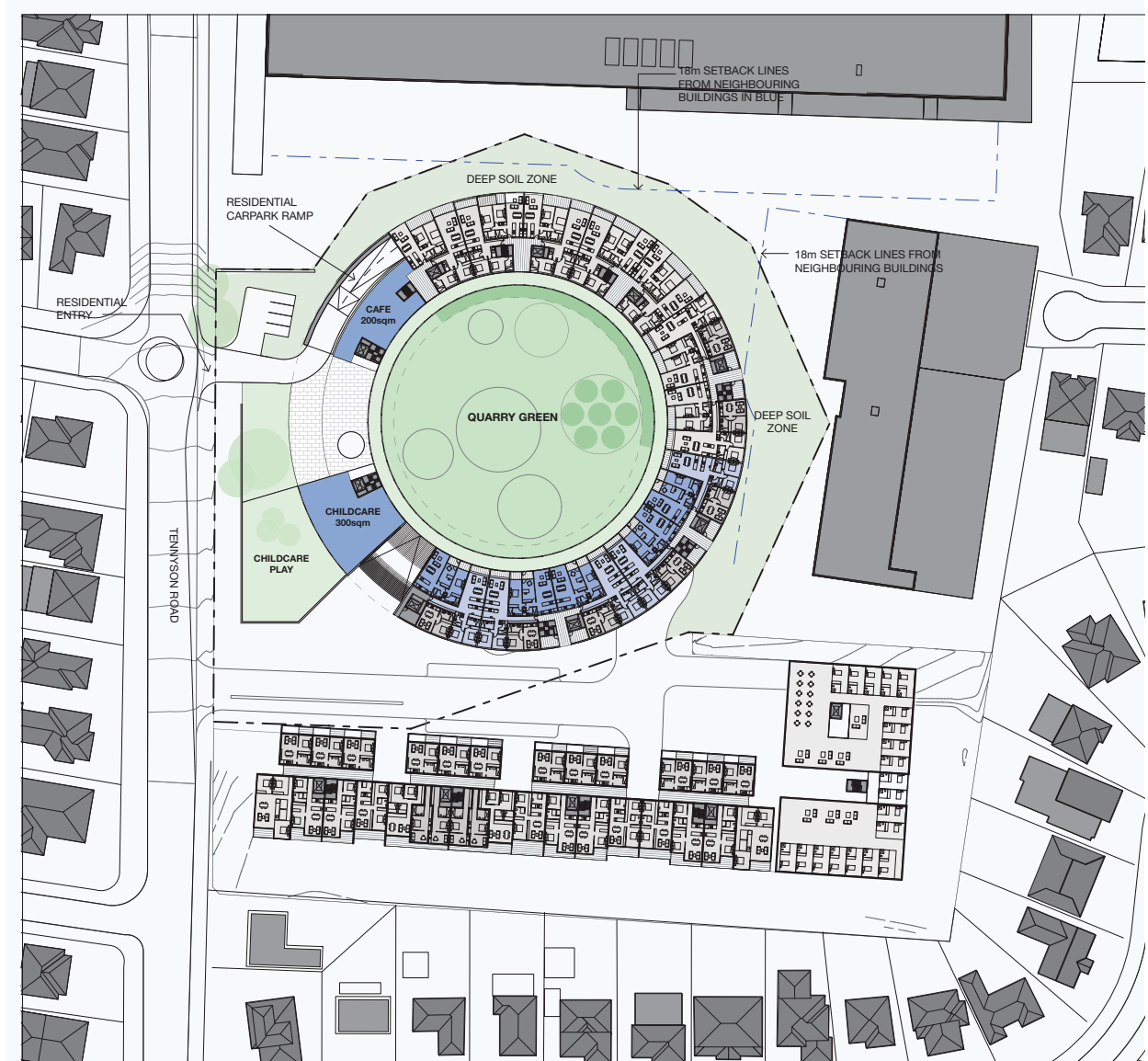
SOLAR SHADOWS JUNE 21 12PM



SOLAR SHADOWS JUNE 21 12PM

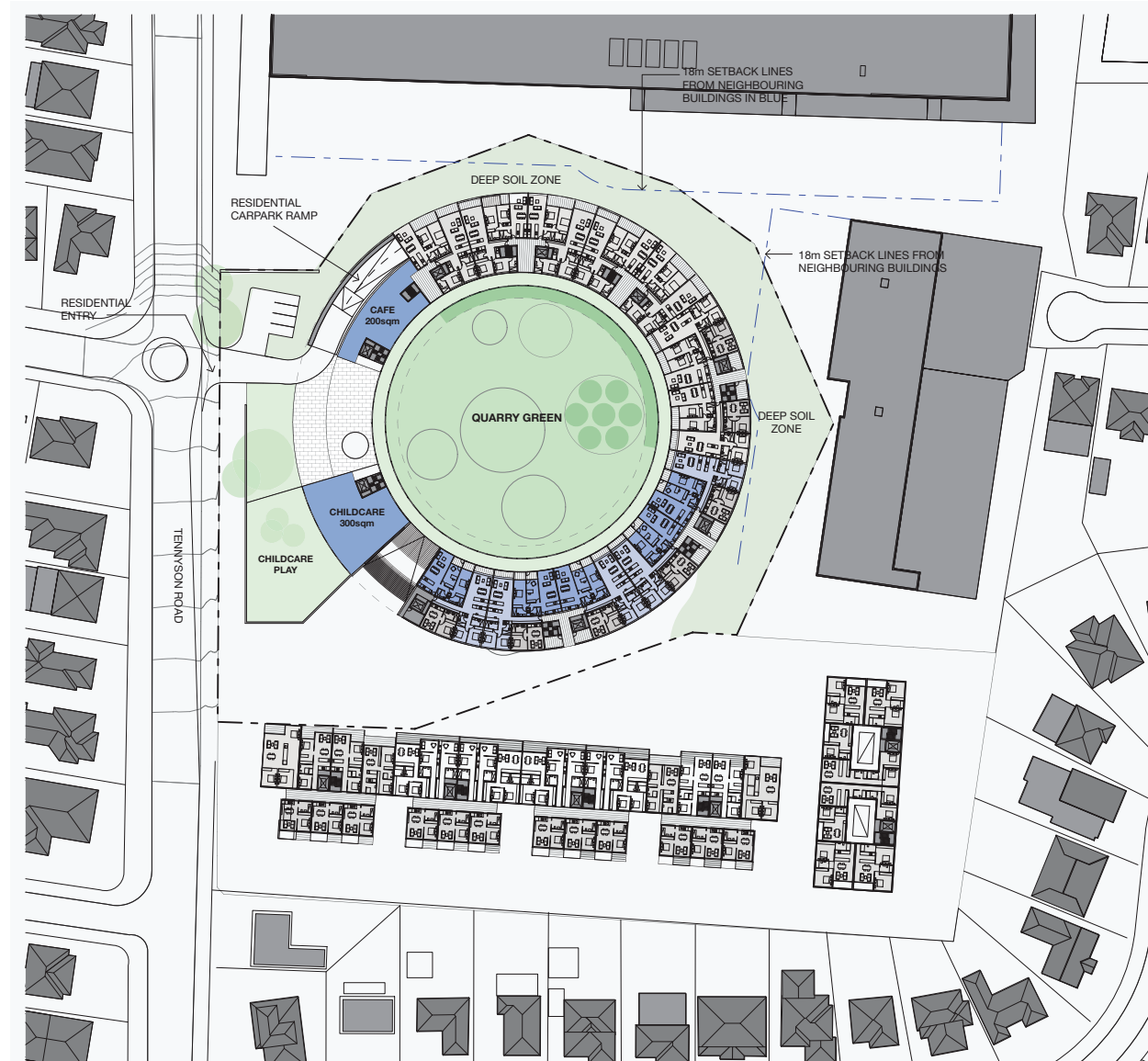


6.9 GROUND PLANE



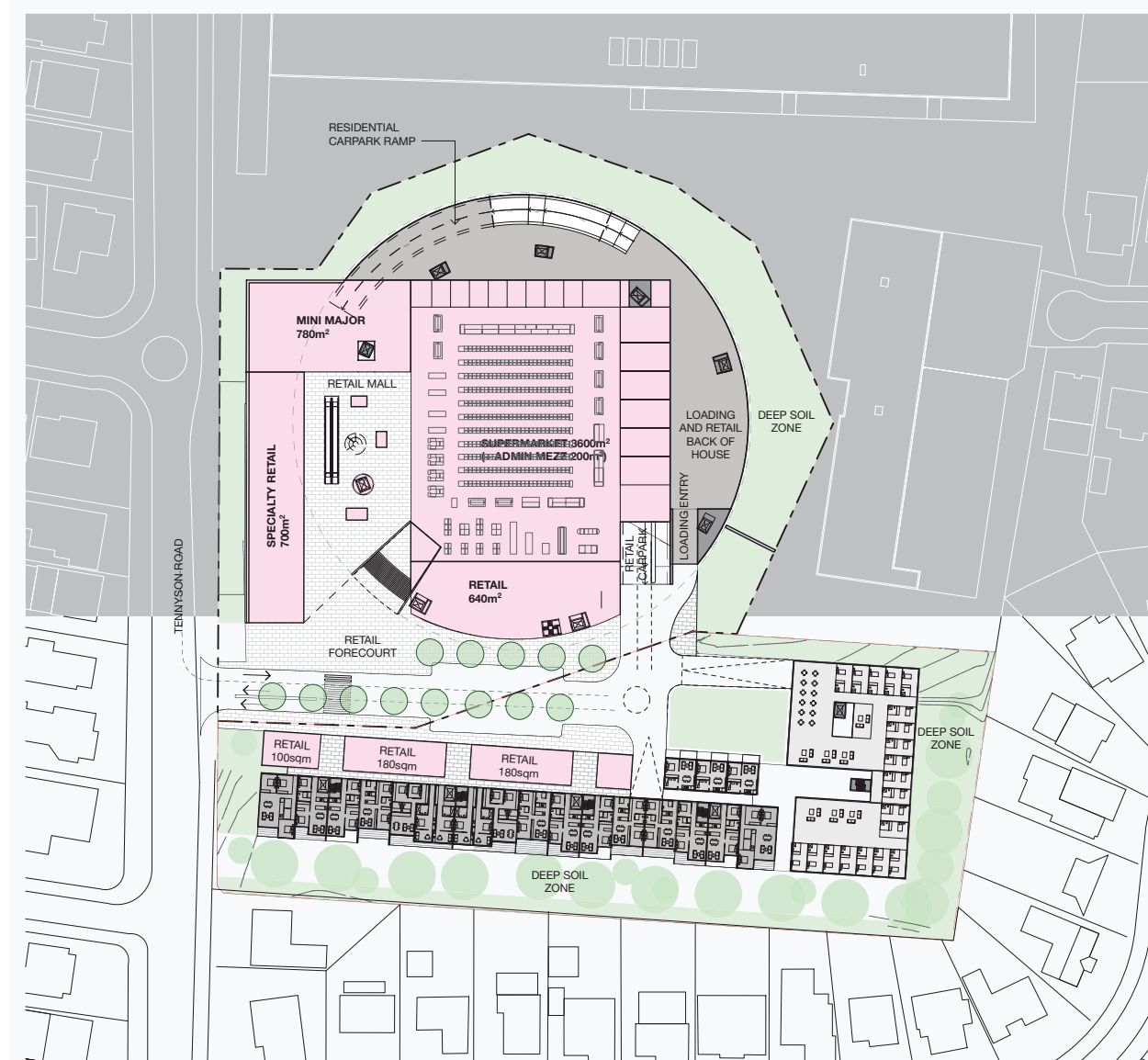
6.9 GROUND PLANE

14 Tennyson Road as Residential Uses only



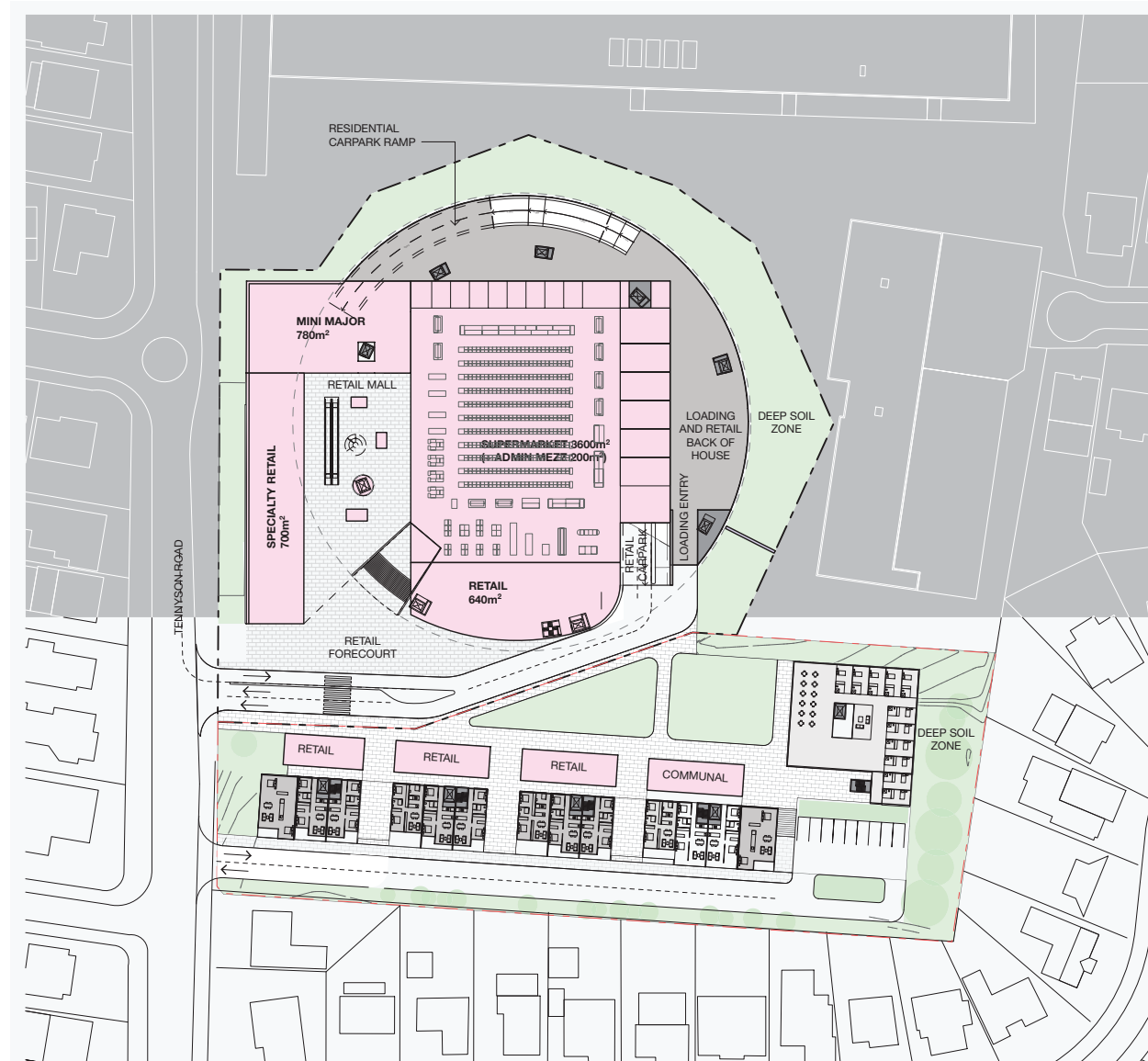
6.10 RETAIL

Scenario A
Combined Access for 2-12 and 14 Tennyson Road



6.10 RETAIL

Scenario B
Seperate Access for 2-12 and 14 Tennyson Road



2-12 Tennyson Road - Scenario A (8 Stories)

Site Area 14,351
FSR 2.13

2-12 Tennyson Road													
Level	GBA	Retail/ Commercial GLAR	Childcare/ Community	Retail Parking Spaces	Residential Parking Spaces	Apartment Type					Common Lobby Area (GFA)	Total GFA	GBA/GFA Efficiency
						1 (2 Bed)	2 (2 Bed)	3 (2 Bed)	4 (2 Bed)	5 (1 Bed)			
Parking L2	8,750				240								
Parking L1	12,950			245	80								
Retail	11,250	5,800										5,800.00	
Lower Ground	785											0.00	0%
Ground	4,370	200	300			5	5	7	7	7	195	3,216.00	74%
1	4,370					8	8	8	8	8	260	3,548.00	81%
2	4,860					10	10	8	8	8	295	3,939.00	81%
3	4,860					10	10	8	8	8	295	3,939.00	81%
4	4,860					10	10	8	8	8	295	3,939.00	81%
5	3,650					10	10	4	4	4	235	2,947.00	81%
6	2,550					8	8	2	2	2	170	2,060.00	81%
7	1,460					6	6				105	1,173.00	80%
Subtotals	64,715	6,000	300	245	320	67	67	45	45	45		30,561.00	
Total Apartments										269			
Area Totals												30,561.00	

Apartment Types			
Apartment Type	No Beds	GFA (m2)	Deck Area
1	2	95	11
2	2	83	15
3	2	100	6
4	2	90	9
5	1	43	12

Retail Breakdown	
Retail Type	GFA (m2)
Supermarket	4000
Mini Major	900
Specialty Retail	750
Cafe	150
	5800

2-12 Tennyson Road - Scenario B (7 Stories)

Site Area 14,351
FSR 1.87

2-12 Tennyson Road-1													
Level	GBA	Retail/ Commercial GLAR	Childcare/ Community	Retail Parking Spaces	Residential Parking Spaces	Apartment Type					Common Lobby Area (GFA)	Total GFA	GBA/GFA Efficiency
						1 (2 Bed)	2 (2 Bed)	3 (2 Bed)	4 (2 Bed)	5 (1 Bed)			
Parking L2	8,750				240								
Parking L1	12,950			245	80								
Retail	11,250	5,800										5,800.00	
Lower Ground	785											0.00	0%
Ground	4,370	200	300			5	5	7	7	7	195	3,216.00	74%
1	4,370					8	8	8	8	8	260	3,548.00	81%
2	4,860					10	10	8	8	8	295	3,939.00	81%
3	4,860					10	10	8	8	8	295	3,939.00	81%
4	4,860					10	10	4	4	4	295	3,007.00	62%
5	3,650					8	8	2	2	2	235	2,125.00	58%
6	2,550					6	6				170	1,238.00	49%
7	1,460											0.00	0%
Subtotals	64,715	6,000	300	245	320	57	57	37	37	37		26,812.00	
Total Apartments										225			
Area Totals												26,812.00	

Apartment Types-1			
Apartment Type	No Beds	GFA (m2)	Deck Area
1	2	95	11
2	2	83	15
3	2	100	6
4	2	90	9
5	1	43	12

Retail Breakdown-1	
Retail Type	GFA (m2)
Supermarket	4000
Mini Major	900
Specialty Retail	750
Cafe	150
	5800

14 Tennyson Road - Scenario A - Shared Road between 2-12 and 14 Tennyson Road

Site Area	9,360
FSR	1.51

14 Tennyson Road-1												
					Independent Living Apartments							
Level	GBA	Retail/ Commercial GLAR	Retail Parking Spaces	Residential Parking Spaces	Studio	1 Bed	2 Bed	3 Bed	Common Lobby Area (m2 GFA)	Assisted Living (m2 GFA)	Total GFA	Efficiency
Parking L1				123								
Ground	3,900	400			4	3	12	2	180	1100	3,185.00	82%
1	3,900				4	12	12	2	180	1100	3,280.00	84%
2	3,900				4	12	12	2	180	1100	3,280.00	84%
3	2,650				4	12	12	2	180		2,180.00	82%
4	1,240					8	8		48		1,088.00	88%
5	1,240							8	48		1,088.00	88%
6												
7												
Subtotals	16,830	400	0	123	16	47	56	16		3,300	14,101	
Total Apartments							135					
Area Totals											14,101	

Seniors Living Apartment Types-1			
Independent Living Apartment Type	No Beds	GFA (m2)	Deck Area
Studio	1	45	11
1 Bed	1	55	11
2 Bed	2	75	6.8
3 Bed	3	130	

14 Tennyson Road - Scenario B - Road on 14 Tennyson Road

Site Area	9,360
FSR	1.45

14 Tennyson Road												
					Independent Living Apartments							
Level	GBA	Retail/ Commercial GLAR	Retail Parking Spaces	Residential Parking Spaces	Studio	1 Bed	2 Bed	3 Bed	Common Lobby Area (m2 GFA)	Assisted Living (m2 GFA)	Total GFA	Efficiency
Parking L1				123								
Ground	3,900	400			3	3	9	2	180	880	2,695.00	69%
1	3,900				4	12	12	2	180	1100	3,280.00	84%
2	3,900				4	12	12	2	180	1100	3,280.00	84%
3	2,650				4	12	12	2	180		2,180.00	82%
4	1,240					8	8		48		1,088.00	88%
5	1,240							8	48		1,088.00	88%
6												
7												
Subtotals	16,830	400	0	123	15	47	53	16		3,080	13,611	
Total Apartments							131					
Area Totals											13,611	

Seniors Living Apartment Types			
Independent Living Apartment Type	No Beds	GFA (m2)	Deck Area
Studio	1	45	11
1 Bed	1	55	11
2 Bed	2	75	6.8
3 Bed	3	130	

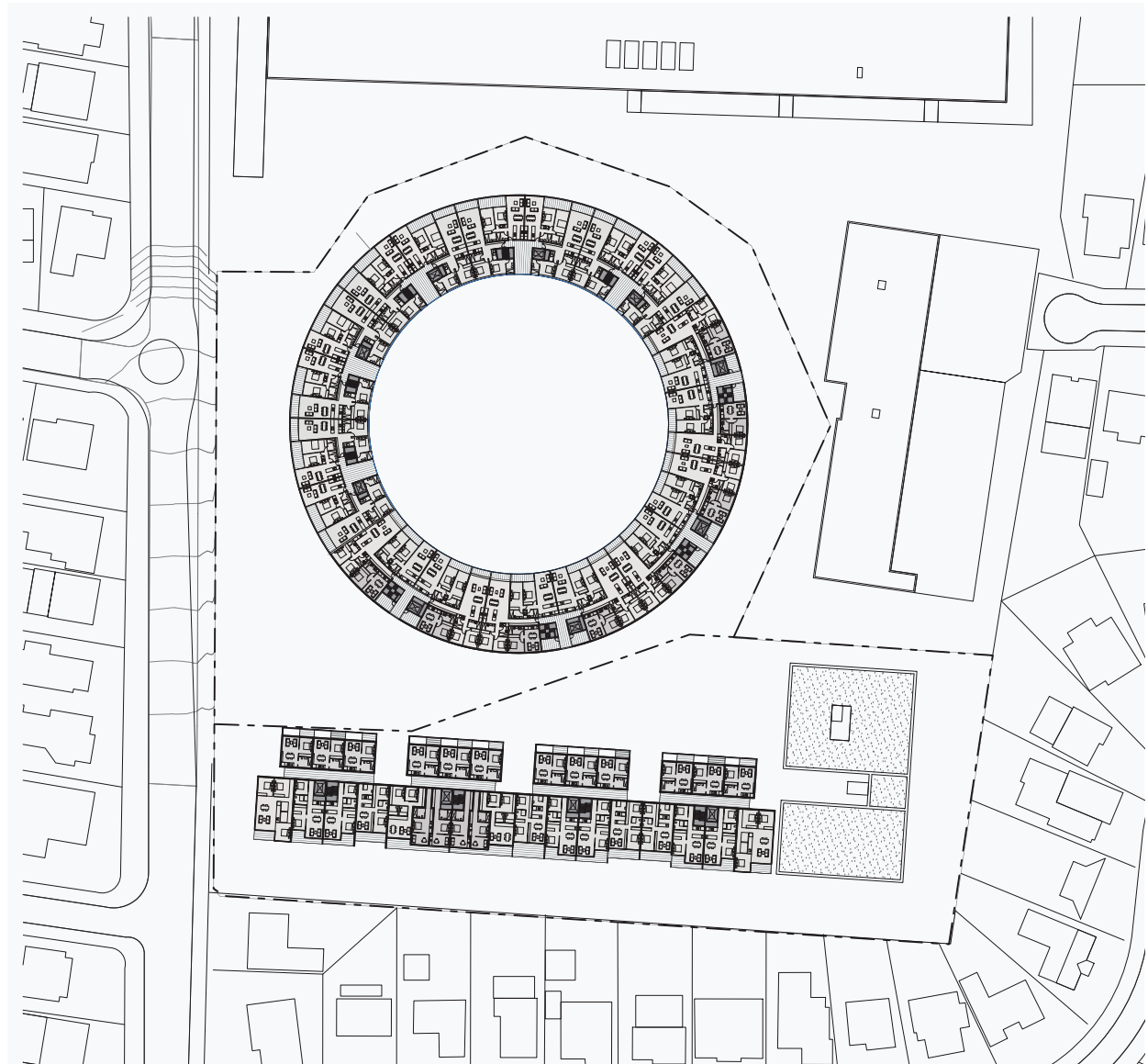
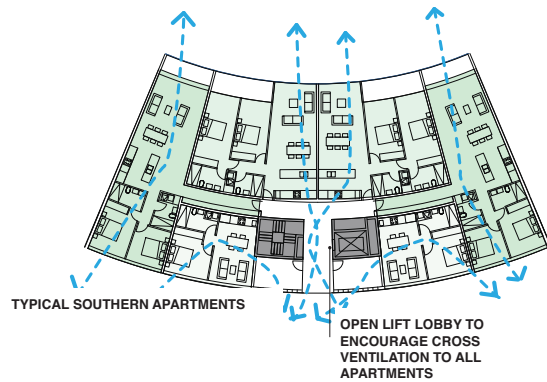
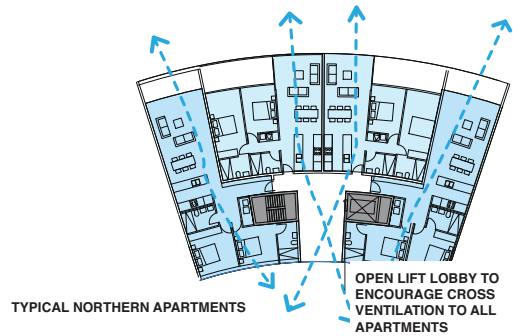
14 Tennyson Road - Scenario C - Residential Uses

Site Area	9,360
FSR	1.49

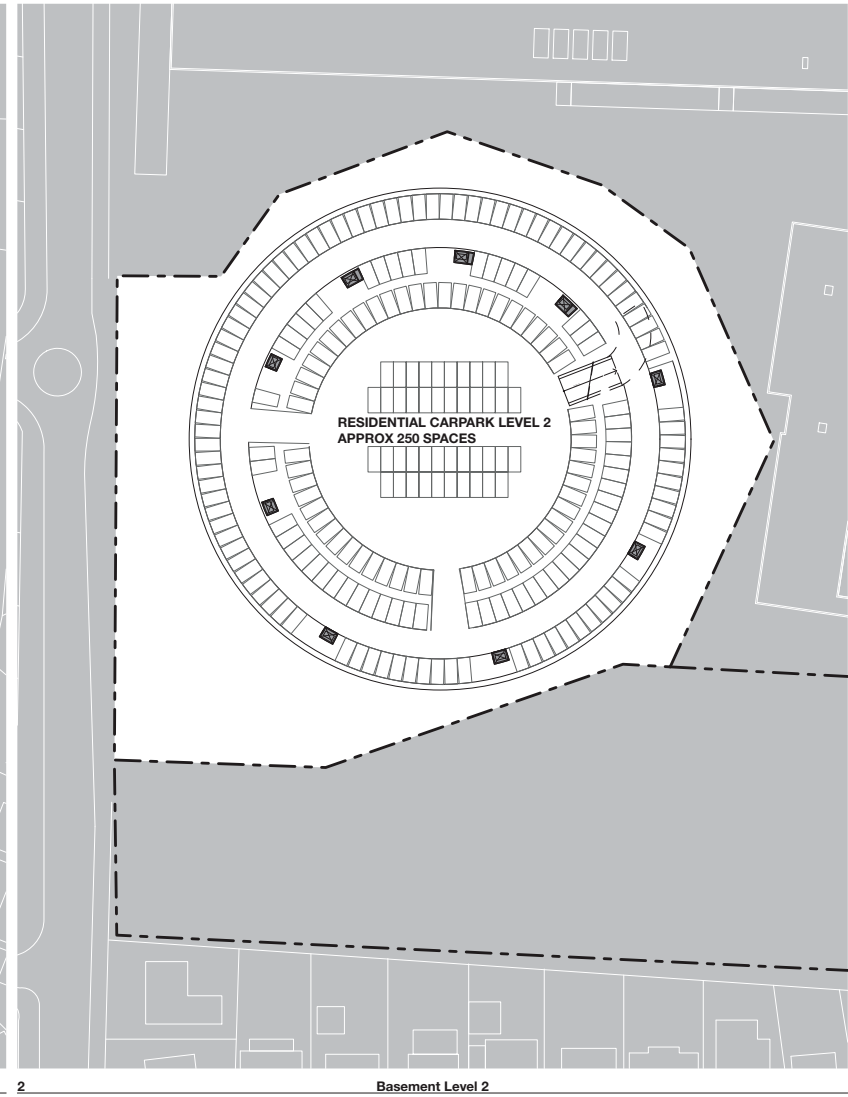
14 Tennyson Road-1															
Level	GBA	Retail/ Commercial GLAR	Retail Parking Spaces	Residential Parking Spaces	Studio	1 Bed Type 1	1 Bed Type 2	2 Bed Type 1	2 Bed Type 2	2 Bed Type 3	3 Bed	Common Lobby Area (m2 GFA)		Total GFA	Efficiency
Parking L1				123											
Ground	3,500	800				14	2	4	4	2		300		2,764.00	79%
1	3,500				4	12	2	12	4	2	2	220		2,814.00	80%
2	3,500				4	12	2	12	4	2	2	220		2,814.00	80%
3	3,100				4	12	1	12	2	1	2	220		2,517.00	81%
4	1,890				4			12			2	180		1,520.00	80%
5	1,890				4			12			2	180		1,520.00	80%
6															
7															
Subtotals	17,380	800	0	123	20	50		64			10			13,949	
Total Apartments								144							
Area Totals														13,949	

Seniors Living Apartment Types-1			
Apartment Type	No Beds	GFA (m2)	Deck Area
Studio	1	45	11
1 Bed Type 1	1	55	11
1 Bed Type 2	1	48	5
2 Bed Type 1	2	75	6.8
2 Bed Type 2	2	82	7
2 Bed Type 3	2	85	5
3 Bed	3	130	

6.11 TYPICAL FLOOR



6.12 CARPARKING



6.13 FORM AND MATERIAL



6.13 FORM AND MATERIAL



6.13 FORM AND MATERIAL



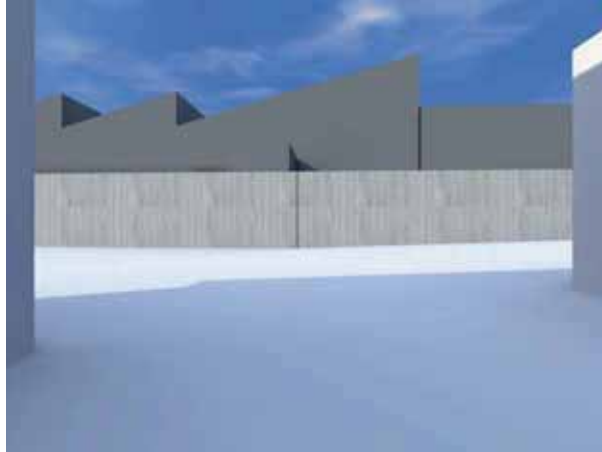
VIEW FROM CORNER OF VICTORIA ROAD AND TENNYSON ROAD



6.13 FORM AND MATERIAL



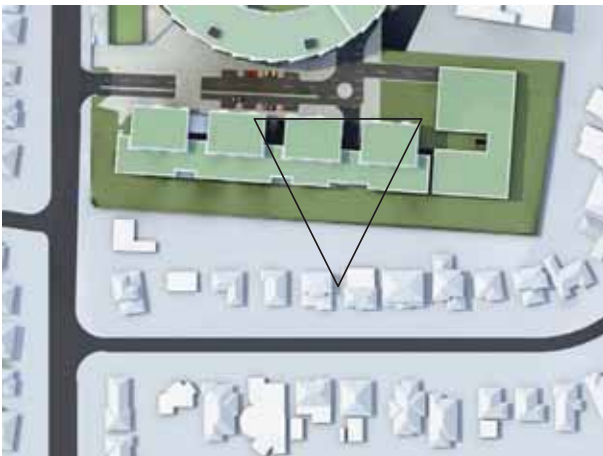
VIEW FROM 1 AND 3 BRERETON ROAD



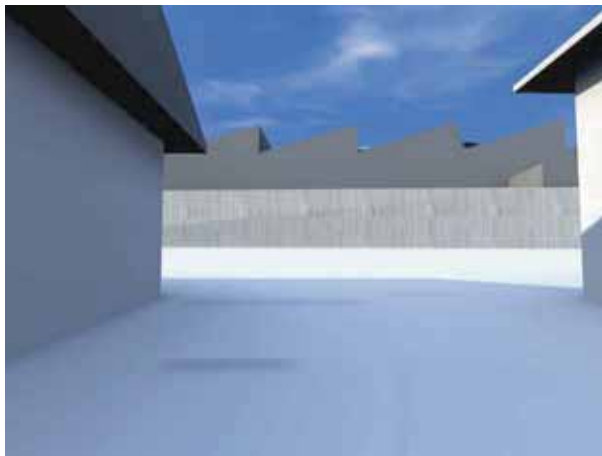
EXISTING VIEW



PROPOSED VIEW



VIEW FROM 7 AND 9 BRERETON ROAD



EXISTING VIEW

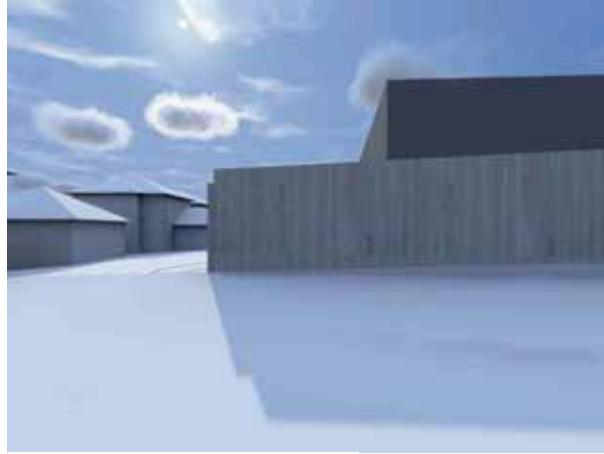


PROPOSED VIEW

6.13 FORM AND MATERIAL



VIEW FROM 7 AND 9 BRERETON ROAD



EXISTING VIEW



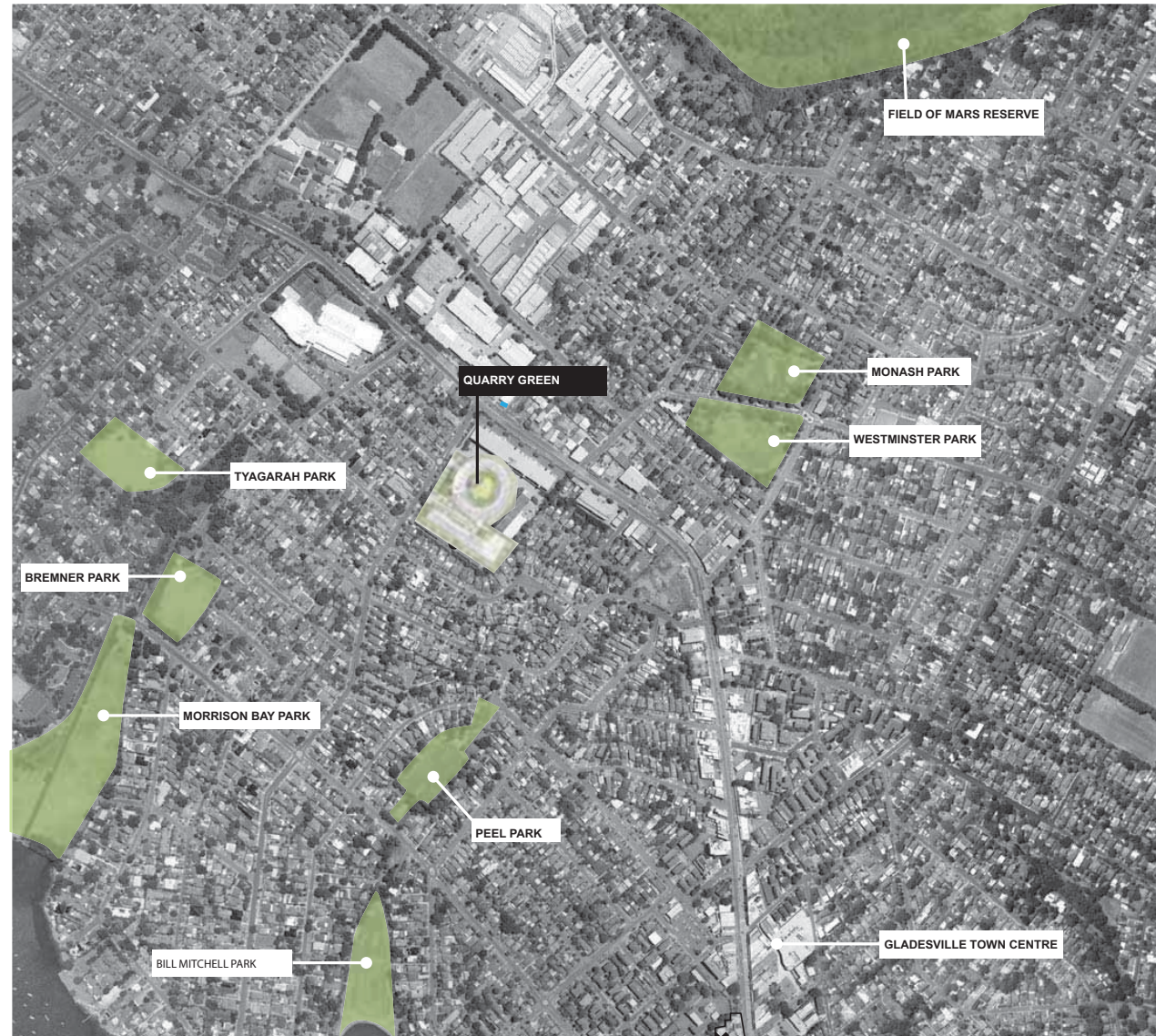
PROPOSED VIEW

6.14 PUBLIC SPACE - QUARRY GREEN

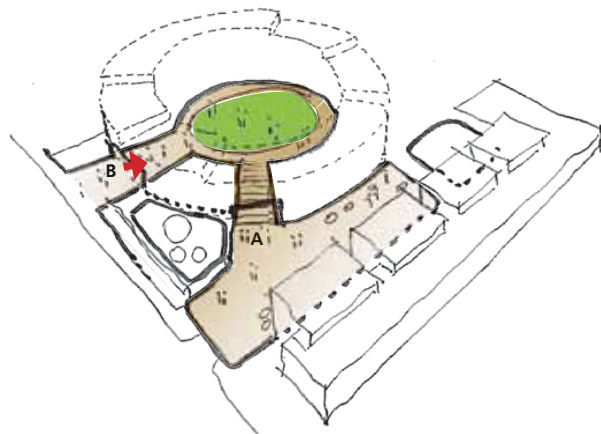
Quarry Green: A New Typology of Public Space in Gladesville

In the local precinct the nature of open spaces is peripheral. These green spaces tend to be of a large scale. Roads surround and residences back onto many of these parks deactivating the edges.

Quarry Green offers a new type of public space, one that is of a scale and form that feels a safe and sheltered, a sanctuary for the whole neighbourhood to enjoy. In contrast the vast open spaces in the surrounding area Quarry Green offers a finer grain public space where people work, live and play. A microcosm and of intensified use within a limitless suburban landscape.



6.14 PUBLIC SPACE - QUARRY GREEN



Creating Place : Slowing down the pace

The configuration of Quarry Green is not one of exclusivity. It represents integrated communities, centred around a common space, that is programmed for activities that suit the demographics of its users and is an amenity for the residents of the wider community.

It provides a landscaped interconnected public realm; an internal ecology. This unique place Quarry Green, will be legacy for residents and the wider community. In contrast to the busy retail forecourt Quarry Green offers a sheltered quiet space. The circular form becomes a structure for the distribution of community activities on the site, Cafes, childcare and SOHO live work spaces open out onto the green.

This parkland is conceived as a place of generosity of open space, with an active perimeter supporting a variety of uses on site.

Access

Access to Quarry green should be intuitive, through openings in the building's circular form glimpses of the space beyond can be seen from Tennyson road and the Retail forecourt. Visually these openings invite the user into the space, however additional signage may need to be provided to identify the space as being a public space.



A. Access to Quarry Green from retail forecourt

From the retail forecourt a generous stair invites the user up to Quarry Green. The Childcare facility can be seen on the left hand side which denotes public use.



B. Access to Quarry Green Tennyson Road

From Tennyson Road the Green space is clearly visible through a large opening in the building's form. The 'Gateway' to the space is activated by a Childcare Centre and Cafes.

6.14 PUBLIC SPACE - QUARRY GREEN

Activation of Space

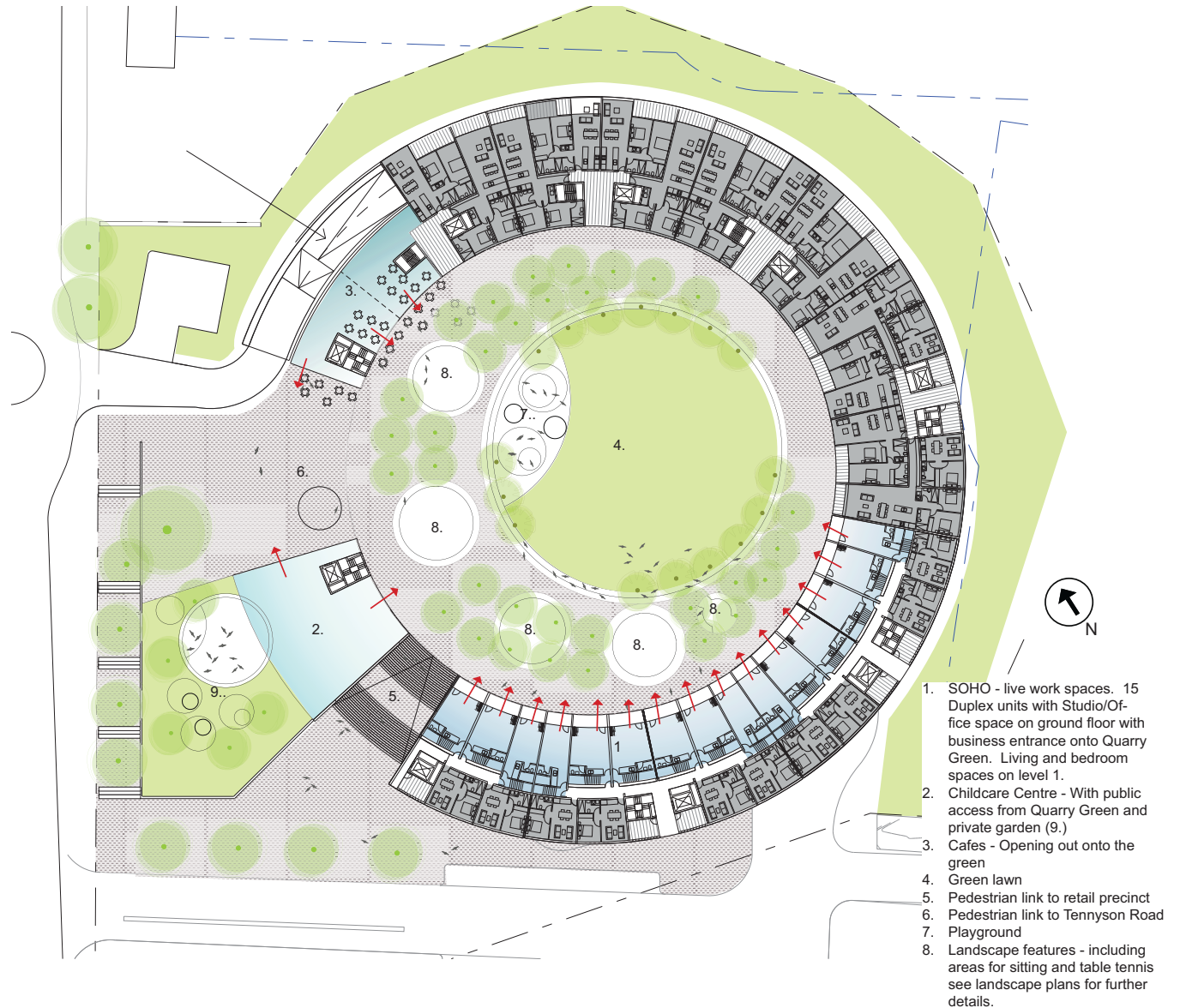
Quarry Green is conceived as a vibrant public space with community and workspaces activating the perimeter. 15 office/Studio spaces open out onto the south side of the green. The Childcare center could be entered from the space at the 'Gateway' to Quarry Green and has its own private garden to the west of the building. It also has an opportunity to open out onto the green.

Cafes occupy the western side of the green with seating spilling onto the public space.

The landscape of the green is carefully programmed to allow a generosity of open space whilst providing activity hubs at the perimeter to encourage a variety of uses of the space. See Landscape plans overleaf for further details.



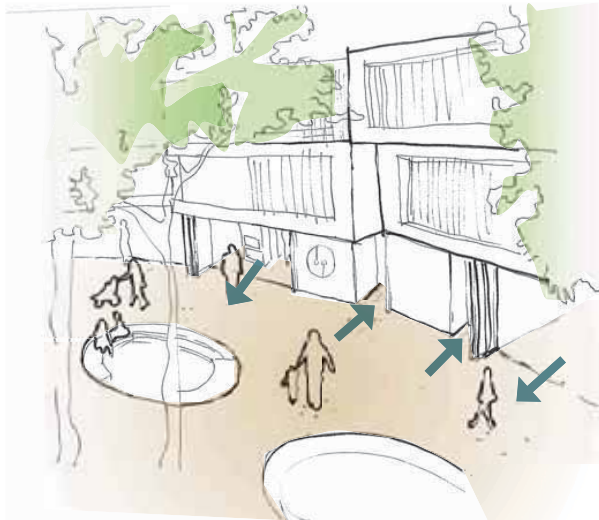
Tietgen Student Accommodation, Copenhagen



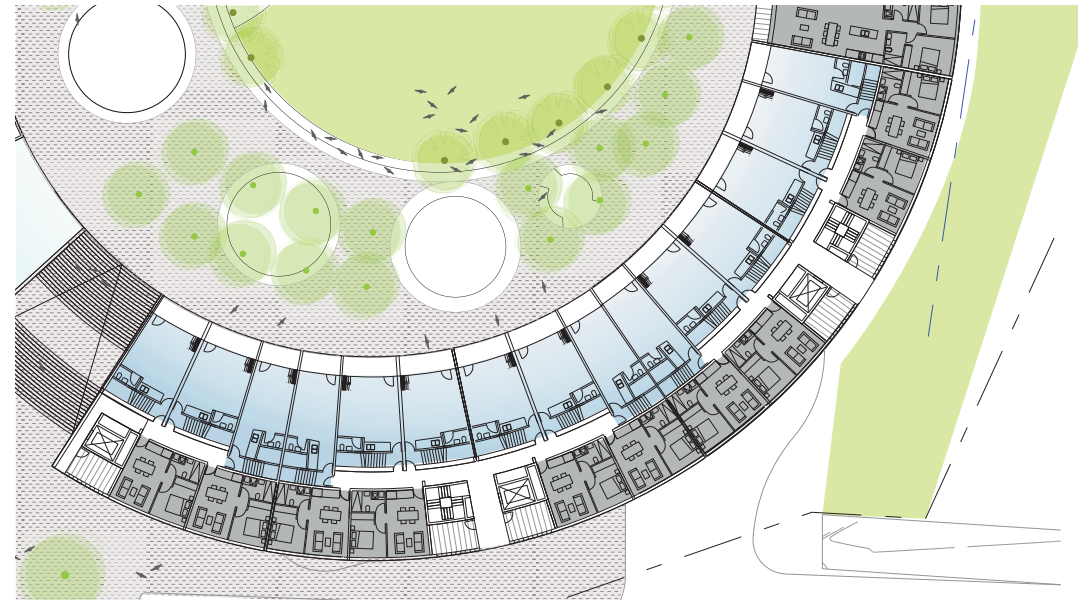
6.14 PUBLIC SPACE - QUARRY GREEN

SOHO - Live Work Spaces

The perimeter of on the north facing side of the building will be an industrious and active edge of the building. The SOHO - live work spaces all have their own front door and frontage onto the green. These SOHO live work spaces allow small commercial operations to enjoy the benefits of working from home, the amenity of opening onto a parkland, whilst having prominence and frontage onto an active pedestrian realm.



The frontages of the SOHO spaces can be adapted to the specific nature of each workspace. They could be studios who's walls completely open out onto the quarry green, shop fronts or more discreet doors as entries to more private office spaces



Permeable edge - Studios and Workspaces open out onto Public Space

6.14 PUBLIC SPACE - QUARRY GREEN

Landscape Plan



Landscape Precedents



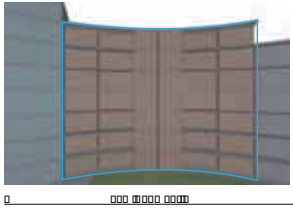
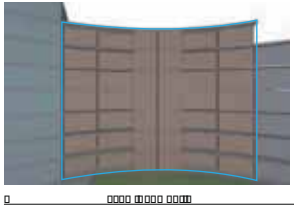
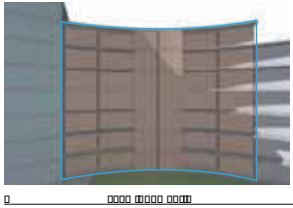
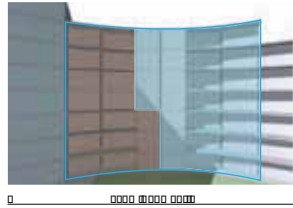
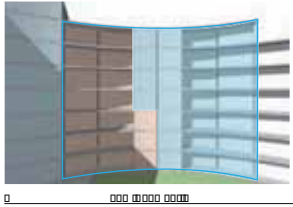
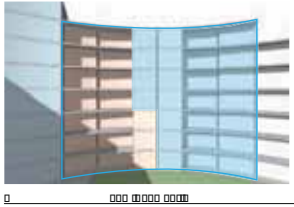
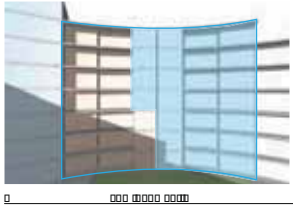
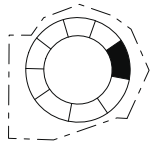
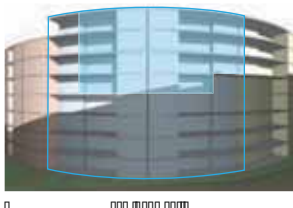

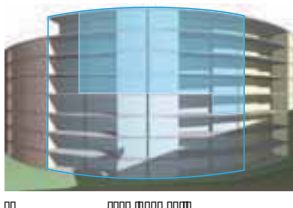
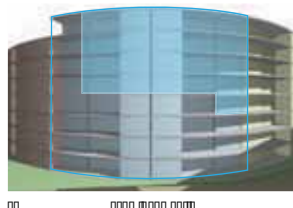
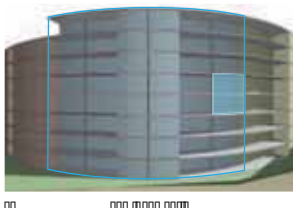


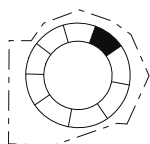
6.14 PUBLIC SPACE - QUARRY GREEN



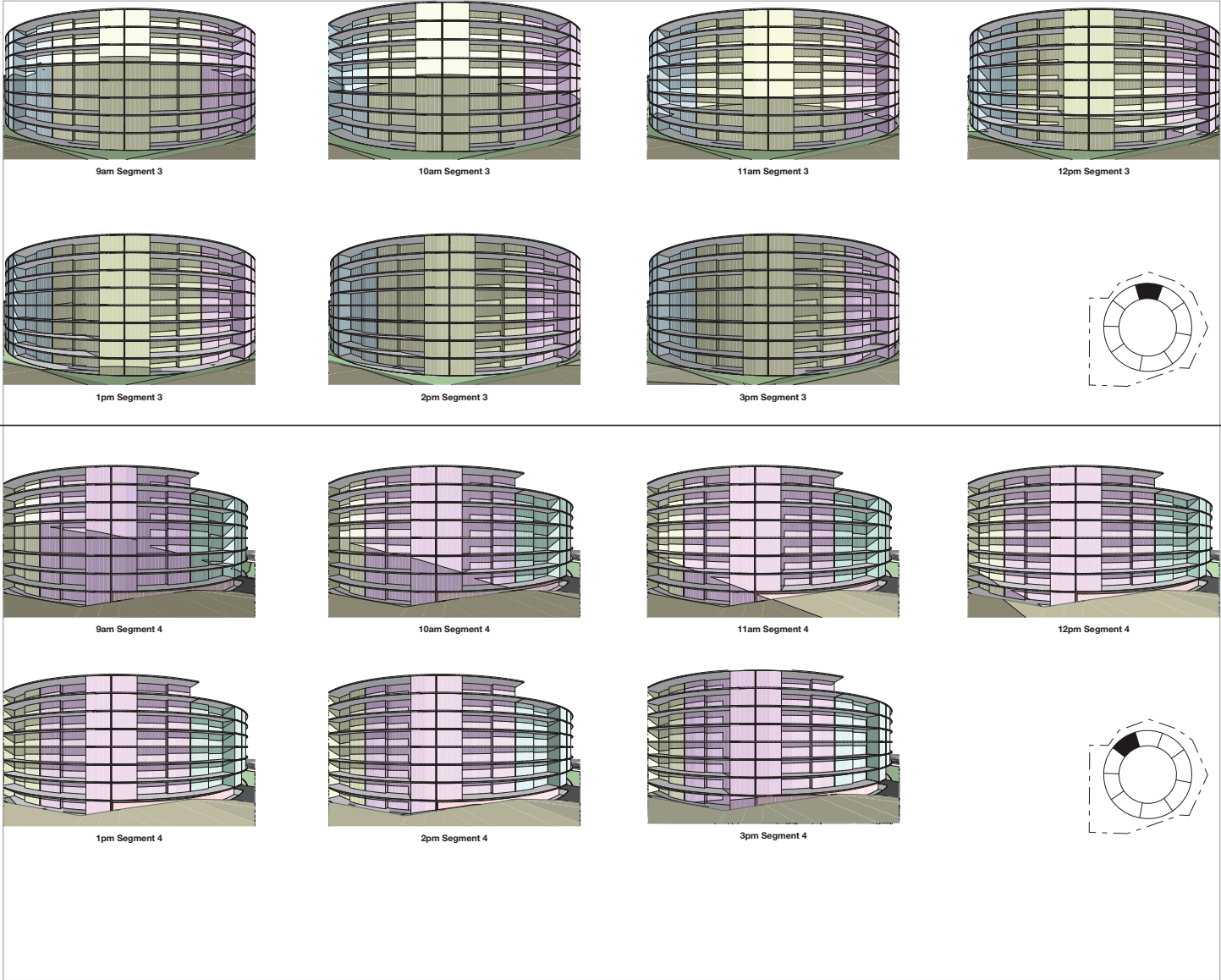
Case Study: Tietgen Student Accommodation, Copenhagen

- The central space is activated by Cafes and communal facilities at ground level. The enclosed space protects against wind whilst the Southern edges are activated during the day by people sitting out enjoying the sun.
- A formal hard edge around the perimeter provides the primary circulation and the central space becomes a lush landscaped zone.

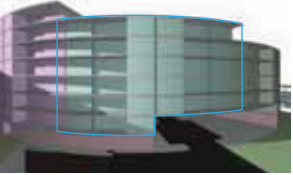

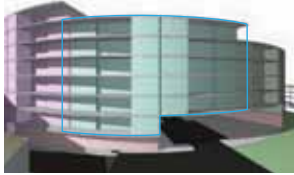
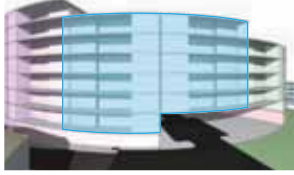
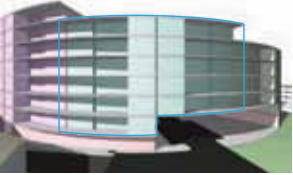


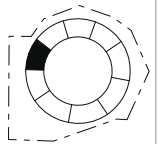
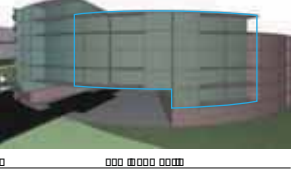
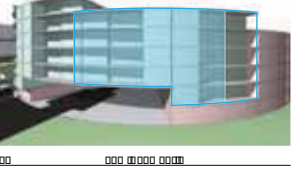
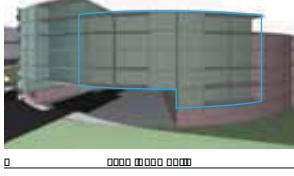
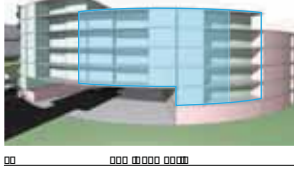
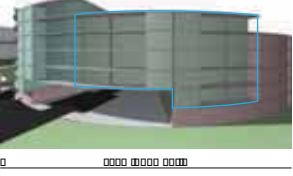
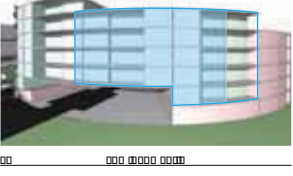
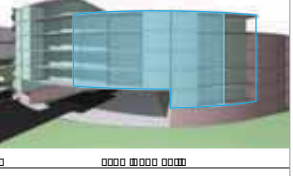
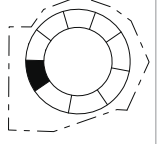
6.15 SOLAR ACCESS

   				   				<p>SECTOR 1</p> <p>NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21</p> <p>TOTAL APARTMENTS: 42</p> <p>SOLAR ACCESS COMPLIANT: 18</p>
   				   				<p>SECTOR 2</p> <p>NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21</p> <p>TOTAL APARTMENTS: 32</p> <p>SOLAR ACCESS COMPLIANT: 13</p>

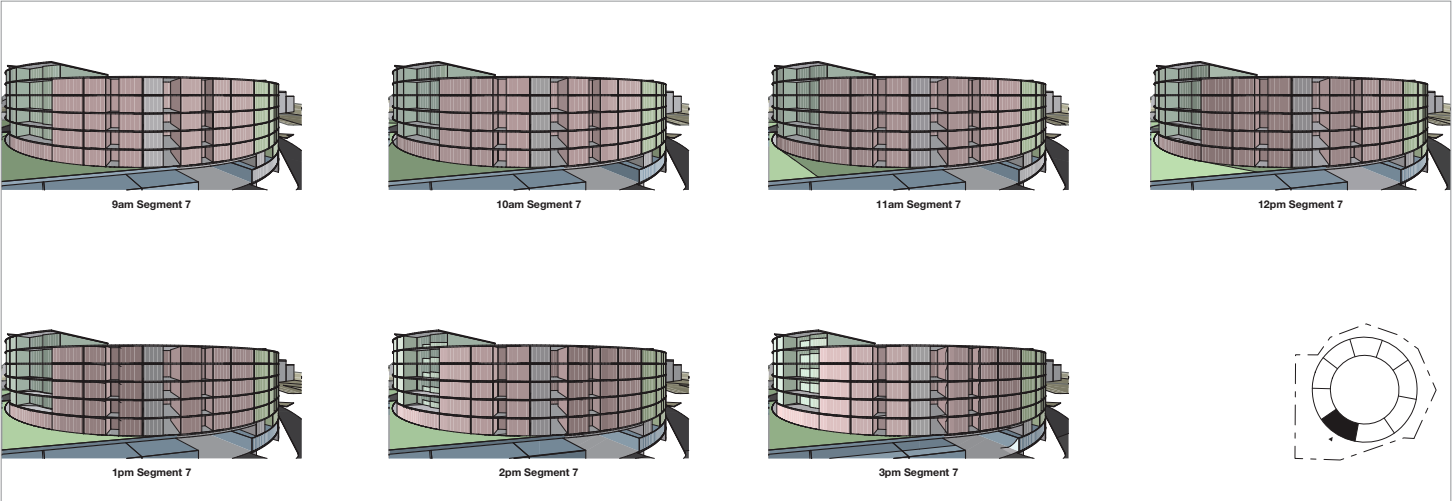
6.15 SOLAR ACCESS



6.15 SOLAR ACCESS

       				<p>SECTOR 5</p> <p>NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21</p> <p>TOTAL APARTMENTS: 22</p> <p>SOLAR ACCESS COMPLIANT: 22</p>
       				<p>SECTOR 6</p> <p>NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21</p> <p>TOTAL APARTMENTS: 18</p> <p>SOLAR ACCESS COMPLIANT: 13</p>

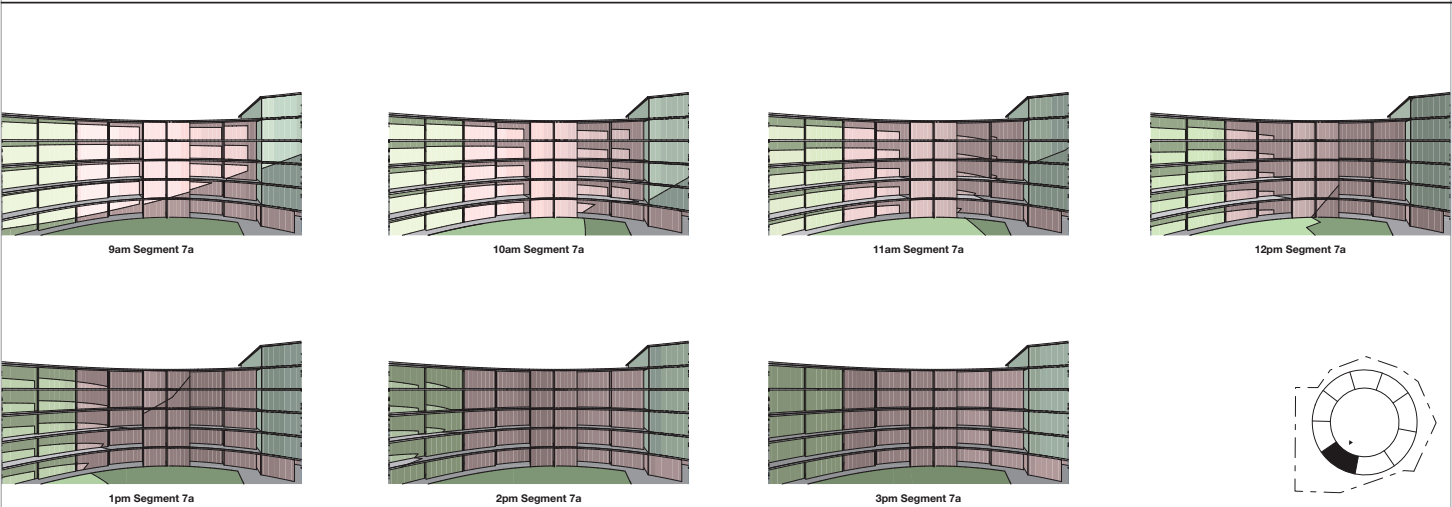
6.15 SOLAR ACCESS



SECTOR 7 OUTER FACING

NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21

SOLAR ACCESS COMPLIANT: 5



SECTOR 7 INNER FACING

NUMBER OF APARTMENTS WITH AT LEAST 3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON JUNE 21

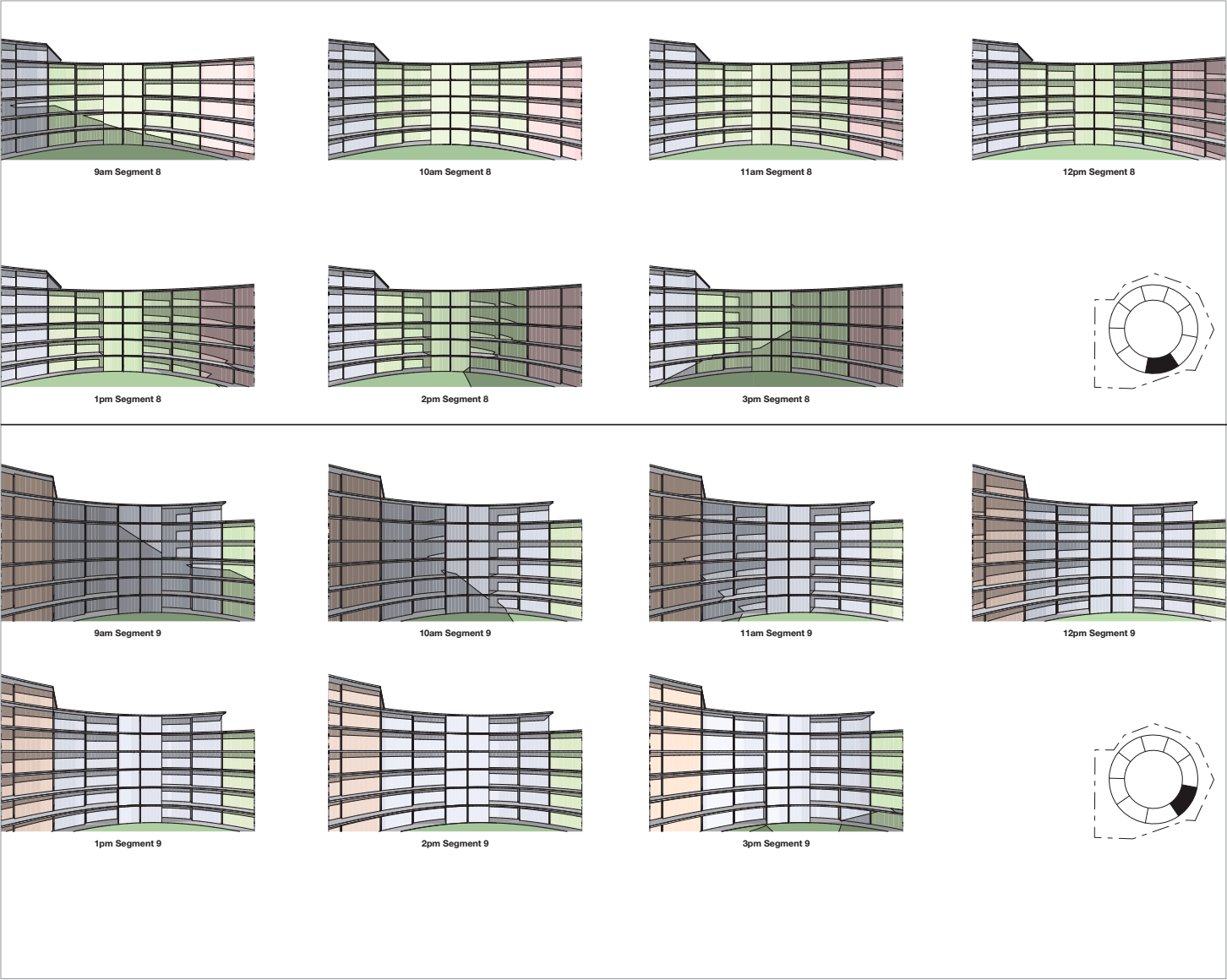
SOLAR ACCESS COMPLIANT: 14

SECTOR 7

TOTAL APARTMENTS: 30

TOTAL SOLAR ACCESS COMPLIANT: 19

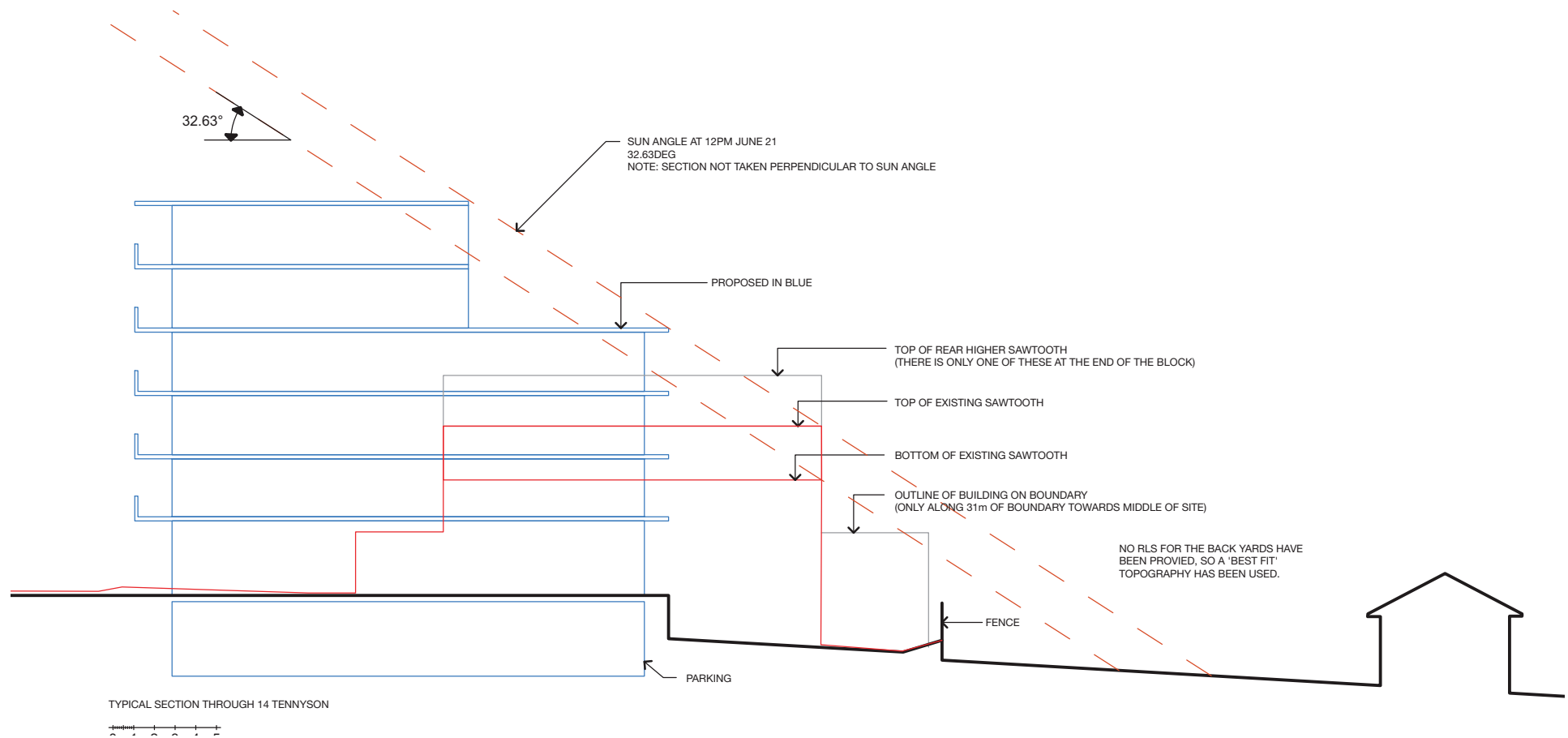
6.15 SOLAR ACCESS



SECTOR 8
NUMBER OF APARTMENTS WITH AT LEAST
3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON
JUNE 21
TOTAL APARTMENTS: 30
SOLAR ACCESS COMPLIANT: 20

SECTOR 2
NUMBER OF APARTMENTS WITH AT LEAST
3HRS SUNLIGHT BETWEEN 9AM AND 3PM ON
JUNE 21
TOTAL APARTMENTS: 35
SOLAR ACCESS COMPLIANT: 28

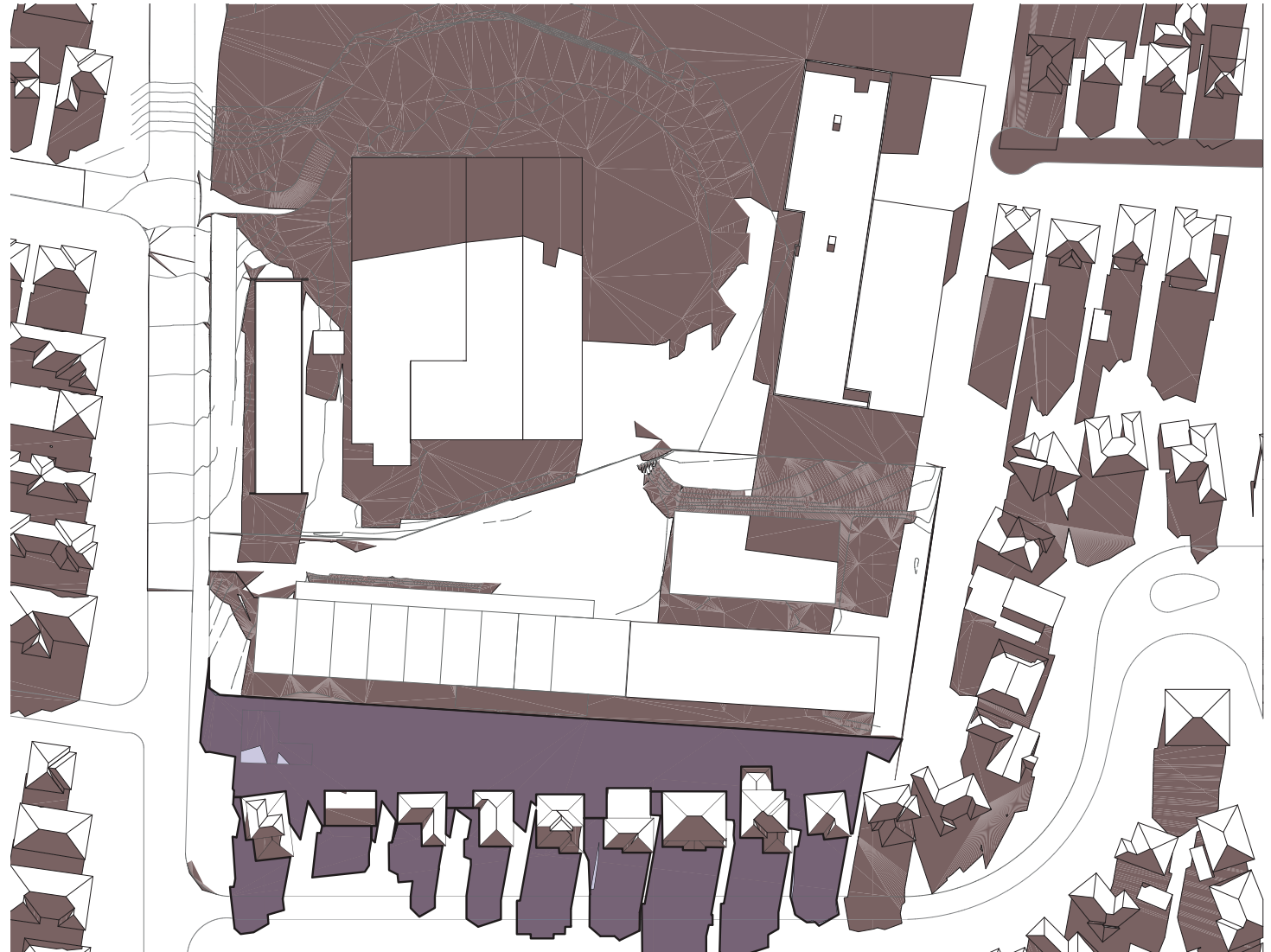
6.16 SUN STUDIES



6.16 SUN STUDIES

JUNE 21 9AM
EXISTING SHADOWS

AREA OF EXISTING
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 9AM
PROPOSED SHADOWS

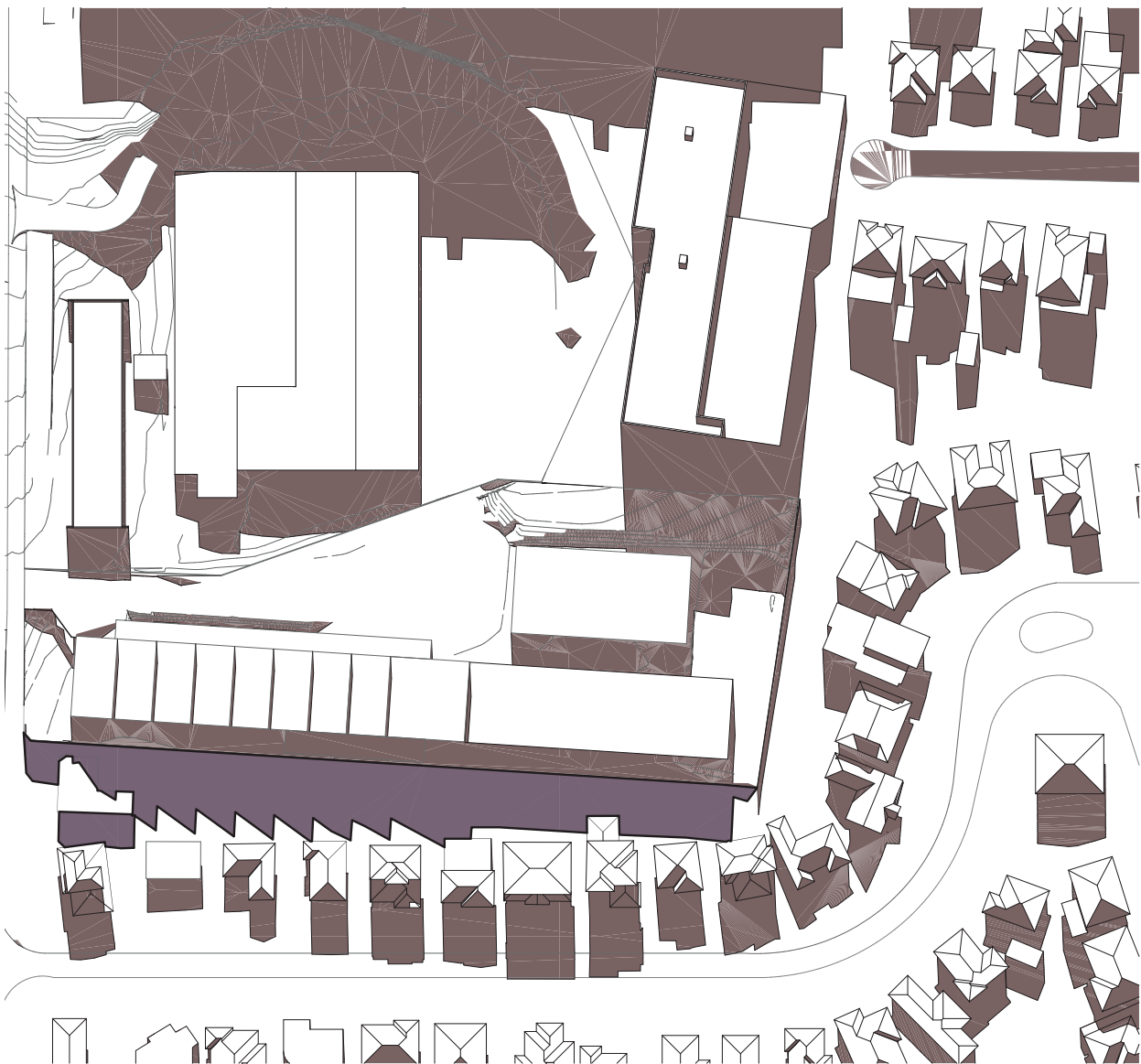
- AREA OF EXISTING OVERSHADOWING
- AREA OF REDUCED OVERSHADOWING
- AREA OF INCREASED OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 10AM
PROPOSED SHADOWS

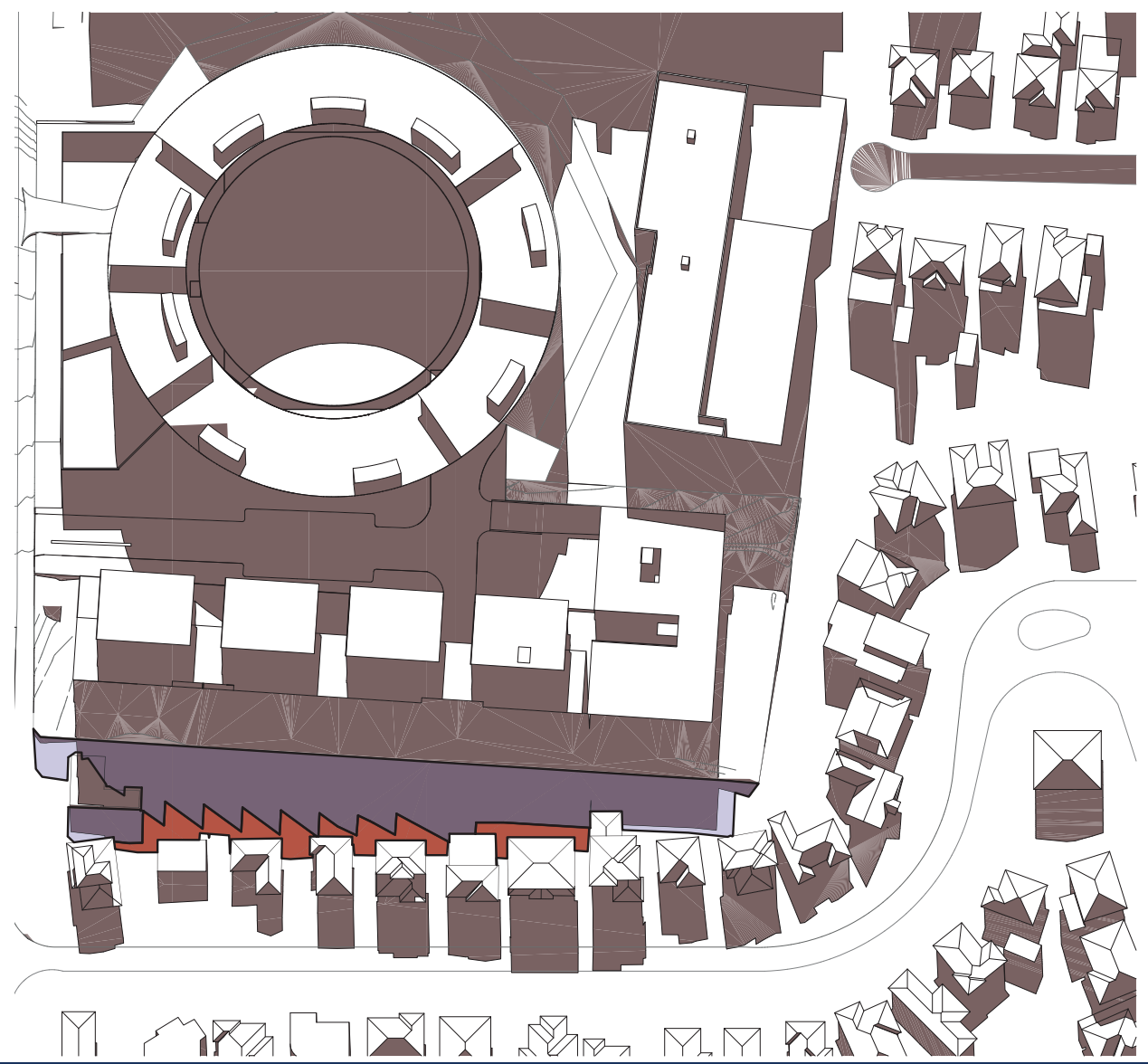
AREA OF EXISTING
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 10AM
PROPOSED SHADOWS

- AREA OF EXISTING OVERSHADOWING
- AREA OF REDUCED OVERSHADOWING
- AREA OF INCREASED OVERSHADOWING

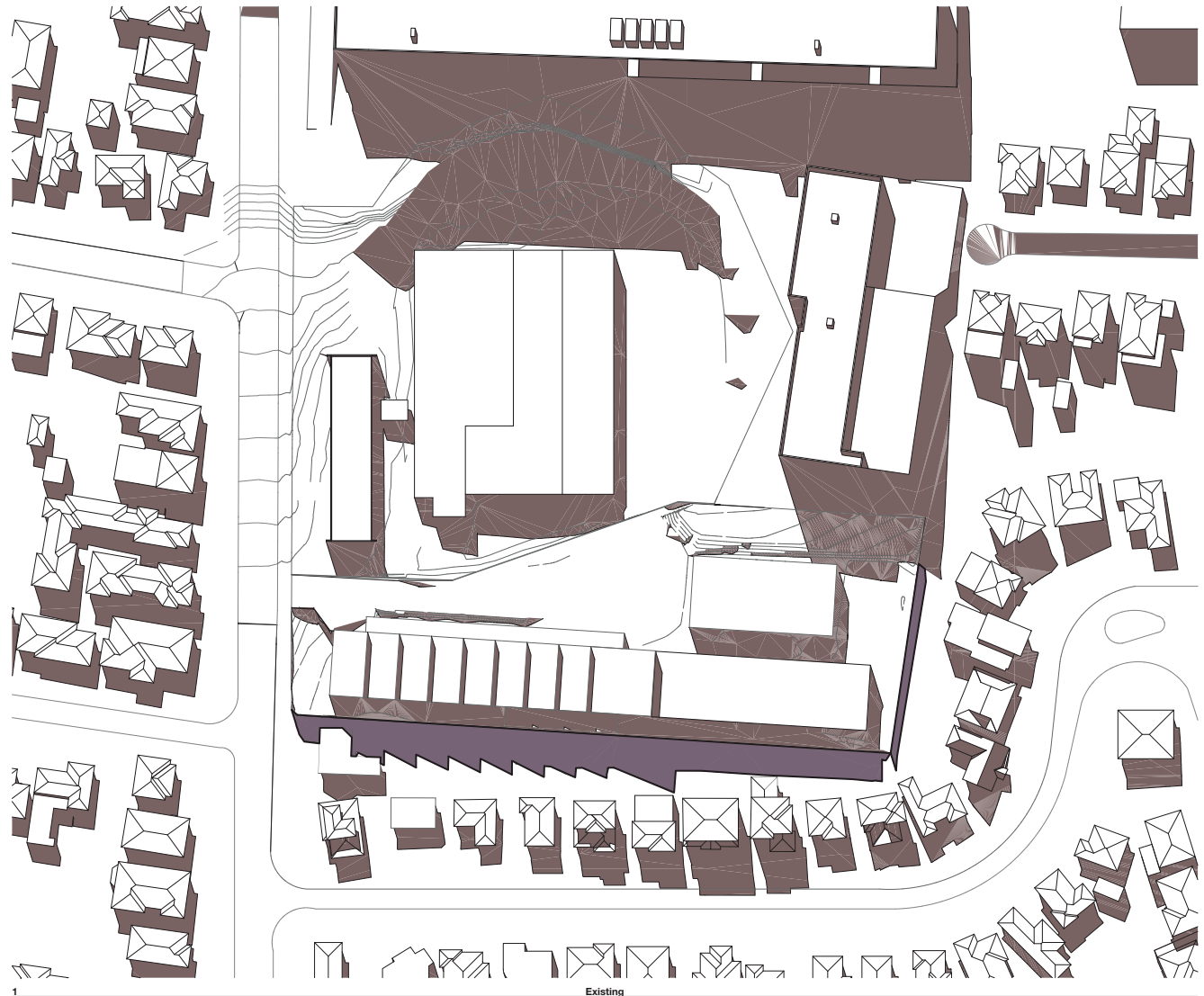


6.16 SUN STUDIES

JUNE 21 11AM
EXISTING OVERSHADOWING

AREA OF REDUCED
OVERSHADOWING

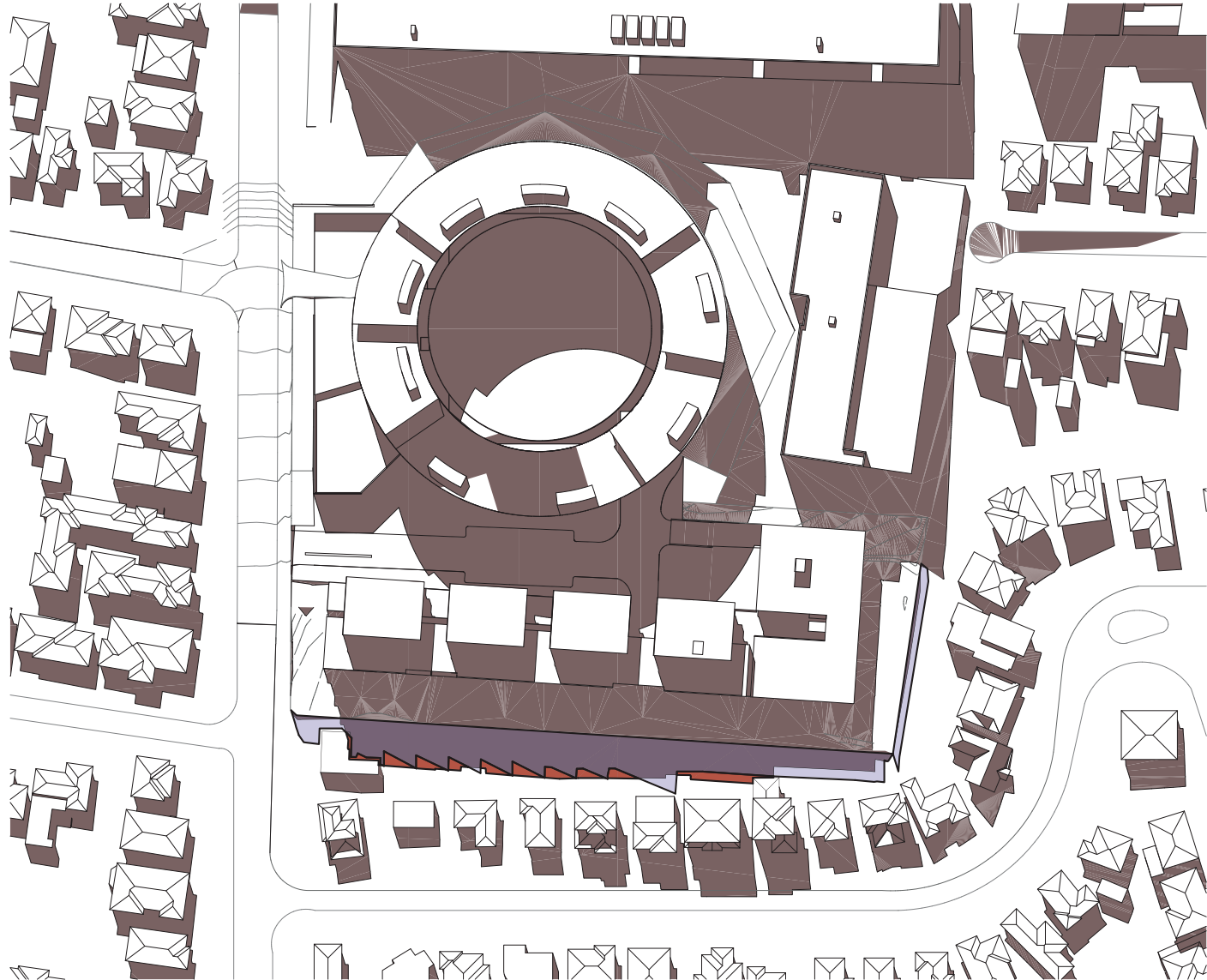
AREA OF EXISTING
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 11AM
PROPOSED OVERSHADOWING

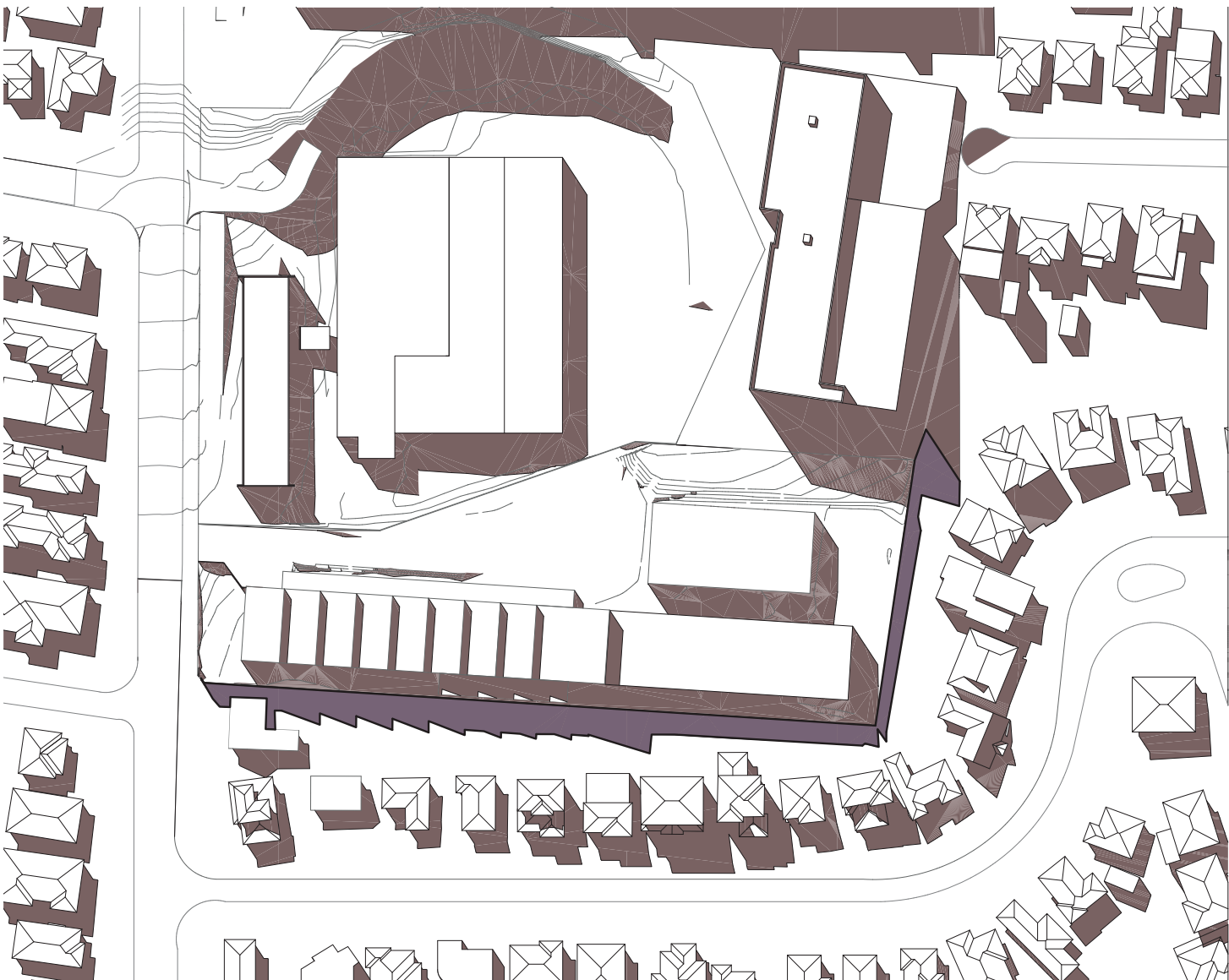
- AREA OF REDUCED OVERSHADOWING
- AREA OF EXISTING OVERSHADOWING
- AREA OF ADDITIONAL OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 12PM
EXISTING SHADOWS

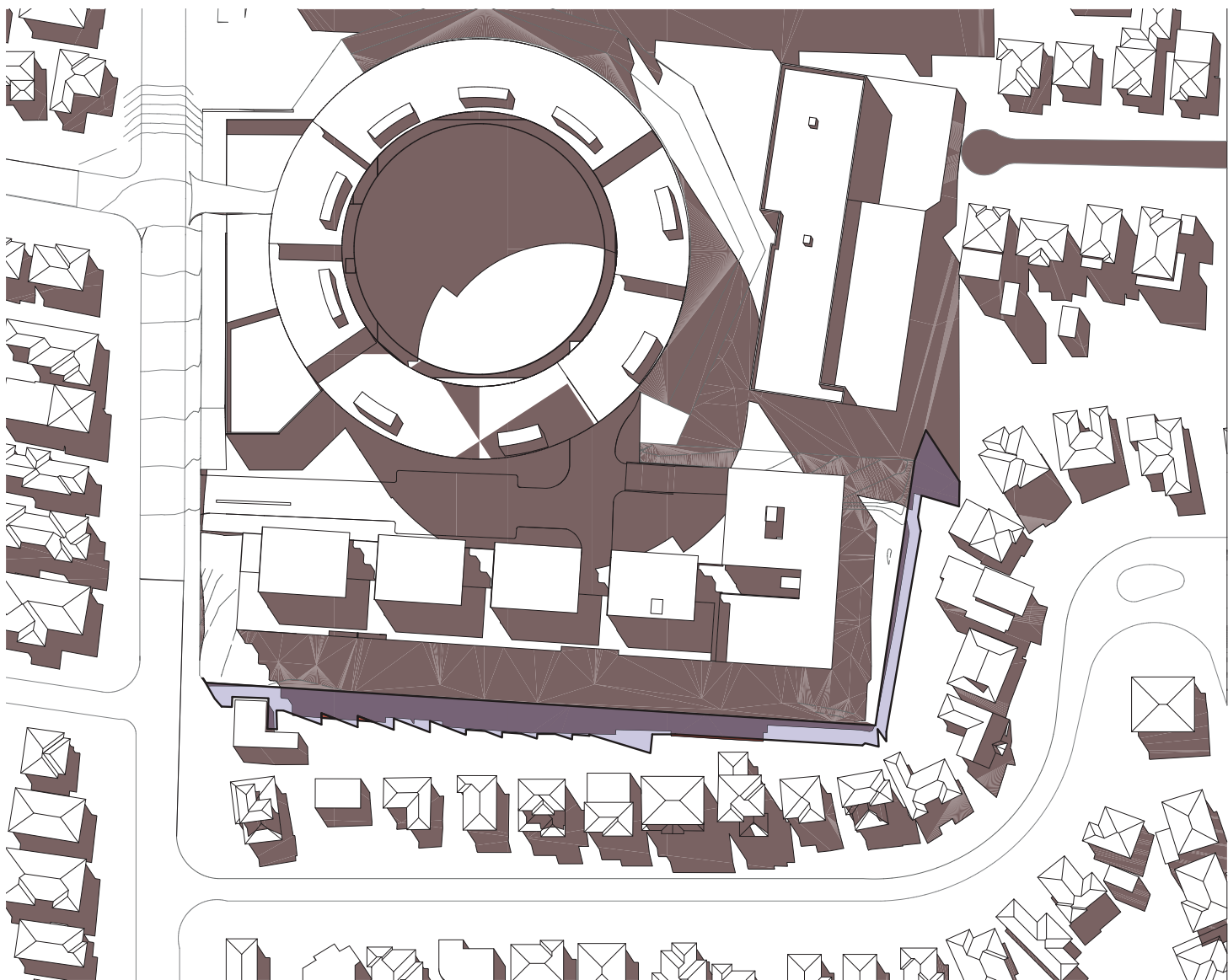
AREA OF EXISTING
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 12PM
PROPOSED SHADOWS

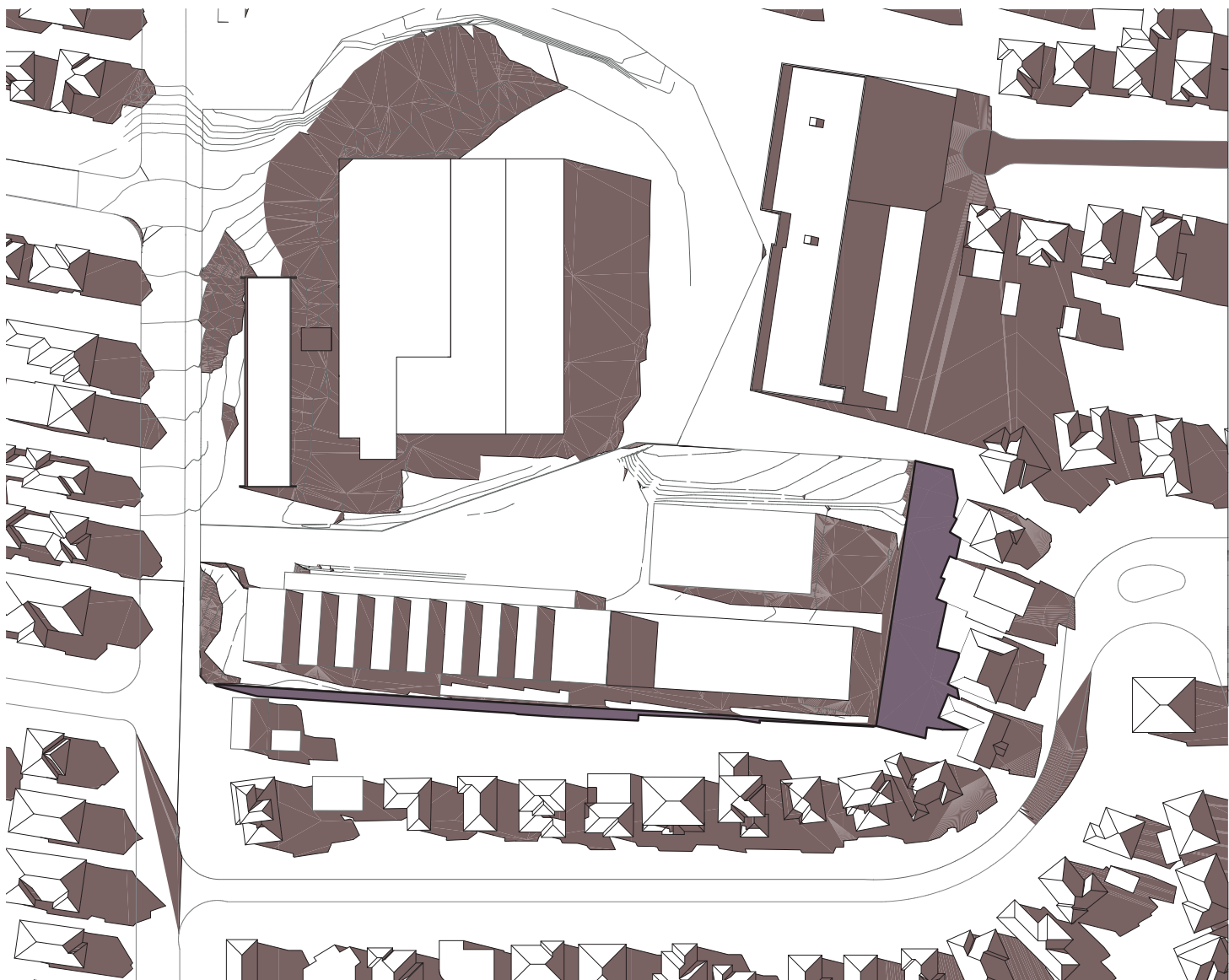
- AREA OF EXISTING
OVERSHADOWING
- AREA OF REDUCED
OVERSHADOWING
- AREA OF INCREASED
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 3PM
EXISTING SHADOWS

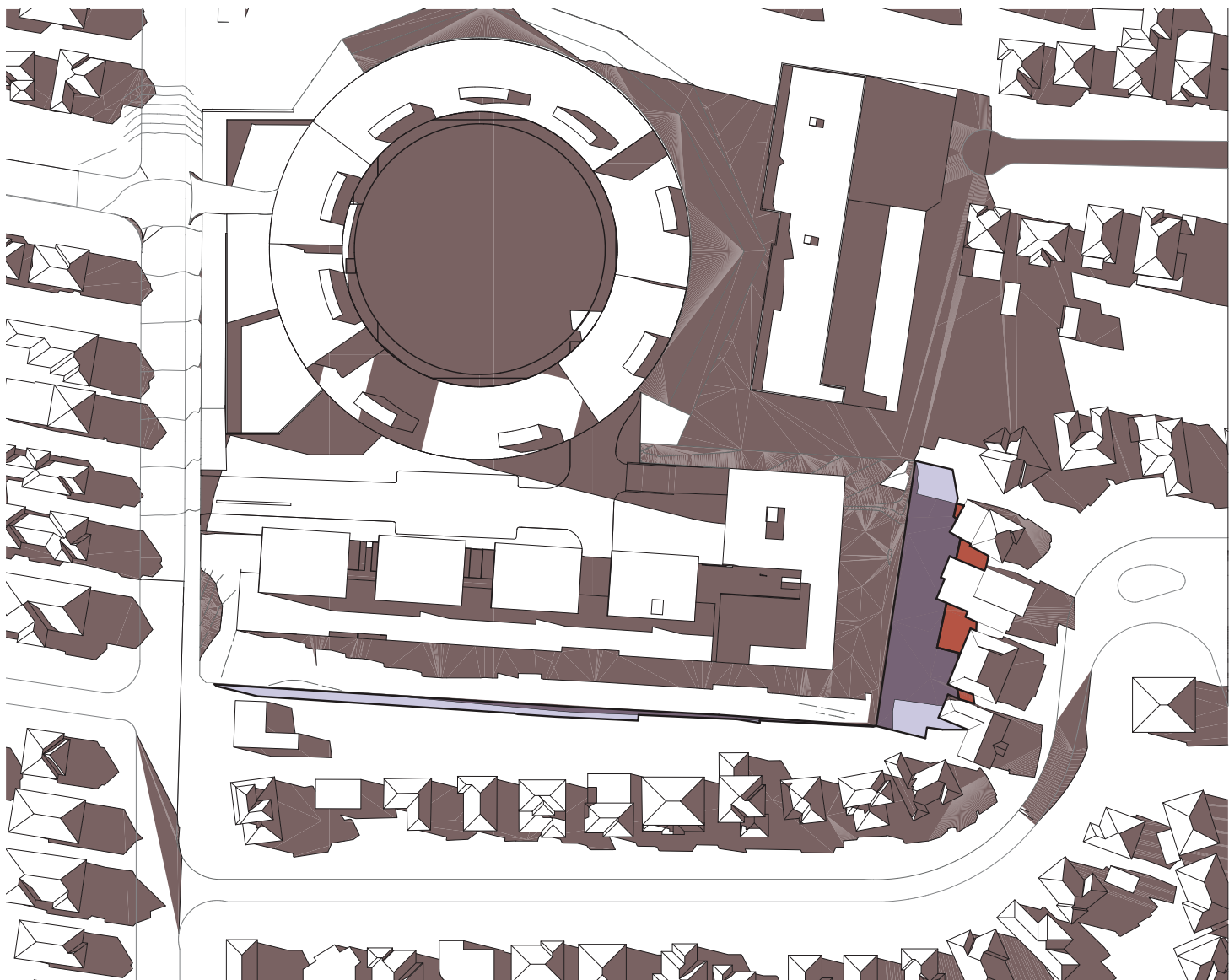
AREA OF EXISTING
OVERSHADOWING



6.16 SUN STUDIES

JUNE 21 3PM
PROPOSED SHADOWS

- AREA OF EXISTING OVERSHADOWING
- AREA OF REDUCED OVERSHADOWING
- AREA OF INCREASED OVERSHADOWING



APPENDIX A

LANDSCAPE DESIGN STATEMENT

2-12 & 14 TENNYSON ROAD, GLADESVILLE

LANDSCAPE STATEMENT

CLIENT: GRIMSHAW
DOCUMENT: 13015 _ LS-01
DATE: 17052013
ISSUE: A



LANDSCAPE OVERVIEW & CONTEXT

This statement should be read in conjunction with ASPECT Studios Landscape Master Plans; MP01-MP06 Rev A (17 May 2013)

ASPECT Studios were commissioned by Meccone to prepare a Master Plan for 2-12 & 14 Tennyson Road, Gladesville. The Master Plan scope consists of the approximately 2.4 hectare site bound by Tennyson Road to the west and is located to the south west of the Gladesville Town Centre

The landscape master plan also reflects the planning and design controls of Ryde Council, in particular Part 3.4, Part 3.5 and Part 4.6 of the City of Ryde Development Control Plan, 2010.

Previously heavily excavated as a shale quarry, the site is currently occupied by commercial and industrial buildings. It is surrounded by light industrial and commercial buildings to the north and west with low density housing the dominant typology of the immediate area.

The site grades steeply from Victoria Road continues south with significant level changes from the streetscape into the site reflecting the significant excavations of the quarry. There is minimal vegetation of significance on site with weed species bounding the quarry walls. The streetscape provides little amenity and due to the set down the existing built form there is a lack of activation of Tennyson Road.

DESIGN STATEMENT

The Landscape Master Plan for 2-12 & 14 Tennyson Road provides vibrant and diverse spaces for both the local residents and wider public to utilised and enjoy. A new public park, retail forecourt, streetscape upgrades and improved public domain quality will invigorate the area, increasing activation and creating a community focal point for the area.

DESIGN PRINCIPLES

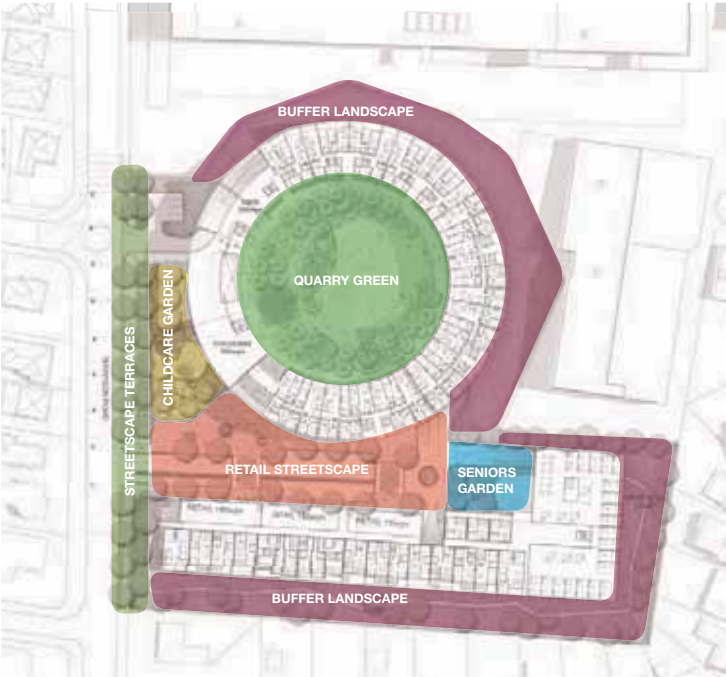
A set of design principles were established to guide and shape the Master Plan. These principles include:

- Activation and Community Engagement**
 - Encourage social interactions both incidental and formalised to foster a sense of community
 - Create a responsive relationship between the built form and the landscape spaces
 - Encourage a variety of uses and extend internal activation into the landscape spaces
- Access and Legibility**
 - Provide safe, accessible and inviting spaces to encourage the use of the spaces by the wider community
 - Provide legibility and connectivity throughout the site and ensure sightlines are clear and unobstructed
- Sustainability**
 - Provide a holistic approach to stormwater management and WSUD in the greater Parramatta River Catchment
 - Develop a robust materials palette that includes sustainably-sourced and recycled materials
 - Apply water sensitive urban design principles such as drainage swales and the use of permeable paving where possible

LANDSCAPE AREAS

The proposed landscape master plan has been developed to include the following landscape precincts:

- Quarry Green:** A new public park and community hub for the new residences and wider community
- Childcare Garden:** An engaging playspace to service the adjacent childcare facilities
- Streetscape Terraces:** Extending the usable streetscape area and providing shared pedestrian and cycle path
- New Street & Retail Forecourt:** An active, pedestrianised streetscape environment
- Senior's Garden:** A lush and inviting private space
- Buffer Landscape:** A heavily planted, private zone



QUARRY GREEN

This new open space provides an important local hub for community uses and well as a significant asset for the new residential building, creating an active 'green heart' increasing social interaction whilst providing a green outlook for surrounding apartments. Bound by the new residential building, it has a unique condition as a communal space whilst also catering for locals as a significant pocket park typology.

The space consists of a number of smaller rooms within, providing a variety of both active and passive uses as well as catering for a variety of groups sizes, providing opportunities for organised community activities as well as individual relaxation. The geometry of these reflects the circular form of the surrounding building, creating a consistent language.

At its heart an open turf area set down 300mm from surrounding surfaces provides an unprogrammed environment for all to enjoy. This is accessed by terraced seating steps and is bound by a low, lush planted edge with feature deciduous trees, providing a sense of privacy whilst allowing for view lines to be maintained.

Within this space, a children's playground will offer a variety of play experiences whilst also increasing incidental social interactions, helping to build the social infrastructure of the place. The playground will consist of play equipment, softfall ground surfaces, sand pit and water source, shade structures and understorey planting. Nature play opportunities including rocks and balancing logs are also proposed.

Surrounding the central heart, smaller circular rooms provide both active and passive recreational opportunities in a lush, shaded environment. These include a table tennis room and a terraced deck room with integrated furniture including chess tables, both with a planted arbour structure above. The largest of these rooms includes a copse of feature flowing trees above. Additional to these, smaller planted mounds provide edge seating creating quiet spaces and assisting in the greening of the space.

CHILDCARE GARDEN

This space is directly accessed through the childcare facility, so provides a private, secure space for children and staff to use on a daily basis. The concept of 'rooms' has been continued through this space with primary and secondary zones dotted through the play spaces.

A circular artificial turf area provides the primary space for play, allowing for organised daily activities to occur. Within this area a sand play space and adjacent seating edge provides formalised play spaces. Leading off this central hub, smaller play spaces within low planting provide explorative play opportunities, whilst maintaining clear sightlines.

STREETSCAPE TERRACES

To Tennyson Road the usable space has been maximised through terraced podiums with integrated seating and a double row of large feature trees providing increased streetscape amenity and activation. This also assists in softening the retaining wall to the retail area adjacent, with low level planting and creepers creating a green facade to the significant structure.

Within the streetscape scope a turf verge and a 3m wide footpath also allows for the future provision of a shared path, to enhance the local cycle network and the greater City of Ryde network.

NEW STREET AND RETAIL FORECOURT

This new street consists of road treatments such as raised pedestrian crossings which act to slow vehicle speeds and ensure pedestrian priority, creating an active, safe streetscape environment.

Within the road, a planted median provides stormwater capture and treatment before it enters the Parramatta River system. Planted tree pits to street trees also increases the amount of permeable surfaces in the streetscape, decreasing the volume of stormwater runoff.

To the retail forecourt, circular planters with seating edges provide increased amenity whilst also assist in softening the hardstand. The provision for public art in this area should also be considered in this location

SENIOR'S GARDEN

This private garden space consisting of an ornamental planting palette provides amenity and green outlook for the residents of 14 Tennyson Road. Feature flowering tree plantings provide a buffer to the streetscape environment and seasonal interest and variation for the residents, whilst an open turf area with seating edges provides an active, communal space, adjacent to the internal common area.

BUFFER LANDSCAPE

Surrounding the proposed built form a heavily planted zone provides a soft buffer to and from adjacent properties, with a native planting palette assisting in highlighting local endemic vegetation communities and remnant vegetation reserves.

Between the proposed built form of 2-12 Tennyson Road and the shale quarry walls a low height, shade tolerant planting palette ensures the existing rock excavation is retained as a feature, whilst also ensuring a green outlook for apartment residents.

To the south of 14 Tennyson Road a pedestrian path meanders through a low planted zone with screen planting directed towards the existing residences to ensure a sufficient divide between the two building typologies whilst ensuring clear sightlines are maintained.

LANDSCAPE MASTER PLAN

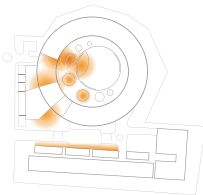
DESIGN STATEMENT & PRINCIPLES

The Landscape Master Plan for 2-12 & 14 Tennyson Road provides vibrant and diverse spaces for both the local residents and wider public to utilised and enjoy. A new public park, retail forecourt, streetscape upgrades and improved public domain quality will invogorate the area, increasing activation and creating a community focal point for the area.

A set of design principles were established to guide and shape the Master Plan. These principles include:

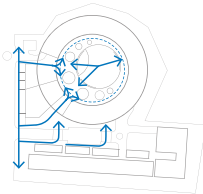
ACTIVATION & COMMUNITY ENGAGEMENT

- Encourage social interactions both incidental and formalised to foster a sense of community
- Create a responsive relationship between the built form and landscape spaces
- Encourage a variety of uses from retail to public and extend internal activation into the landscape spaces



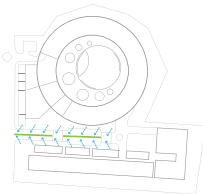
ACCESS & LEGIBILITY

- Provide safe, accessible and connected spaces through a holistic approach to wayfinding and identity
- Provide legibility and connectivity throughout the site and ensure sightlines are clear and unobstructed



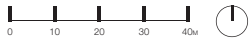
SUSTAINABILITY

- Implement sustainability initiatives to reduce the site's impact on the environment
- Provide a holistic approach to stormwater management and WSUD in the greater landscape context
- Develop robust materials palette that includes recycled materials



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™



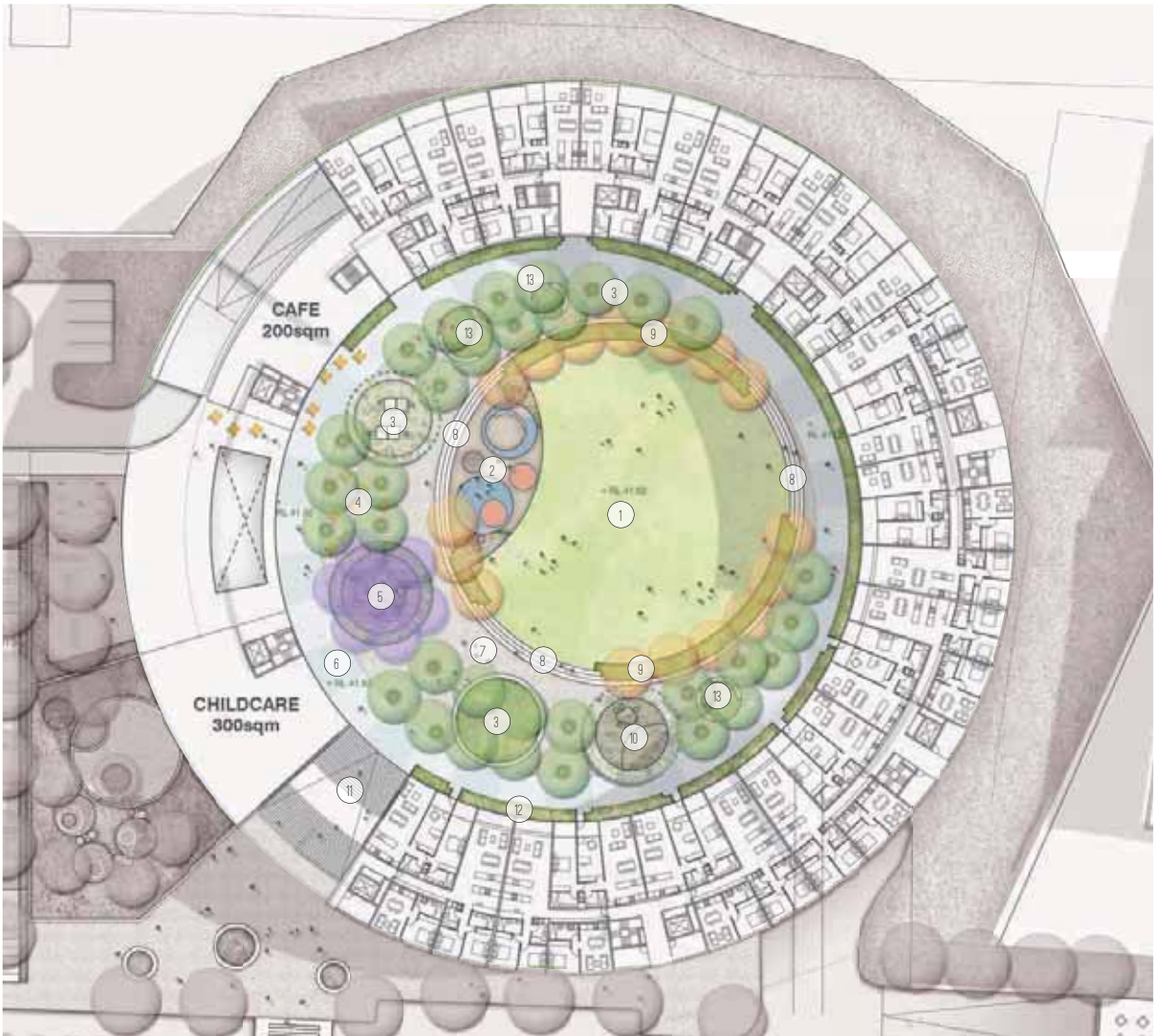
Scale: 1:500 @ A1
Drawn: AW
Checked: SC

Dwg No.: 13015_MP-01
Date: 17.05.2013
Rev: A

DETAIL PLAN | QUARRY GREEN

LEGEND

- 1. Open turf area set down 300mm from surrounding surfaces
- 2. Children's playground with softfall ground surfaces, sand pit, climbing frame and informal play elements within a circular geometry
- 3. Table tennis tables with planted arbour above
- 4. Double row of evergreen trees within planted tree pits
- 5. Enclosed deck with integrated furniture and planted edge within feature flowering tree cospe
- 6. Circulation path with radial paving
- 7. Stone paving setts
- 8. Seating steps to turf edge
- 9. Planted edge to turf with a feature deciduous tree planting
- 10. Raised deck tier with integrated furniture elements and planted arbour above
- 11. Stair access from retail forecourt
- 12. Planted buffer to ground floor residences
- 13. Planted mounds with seating edges



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™



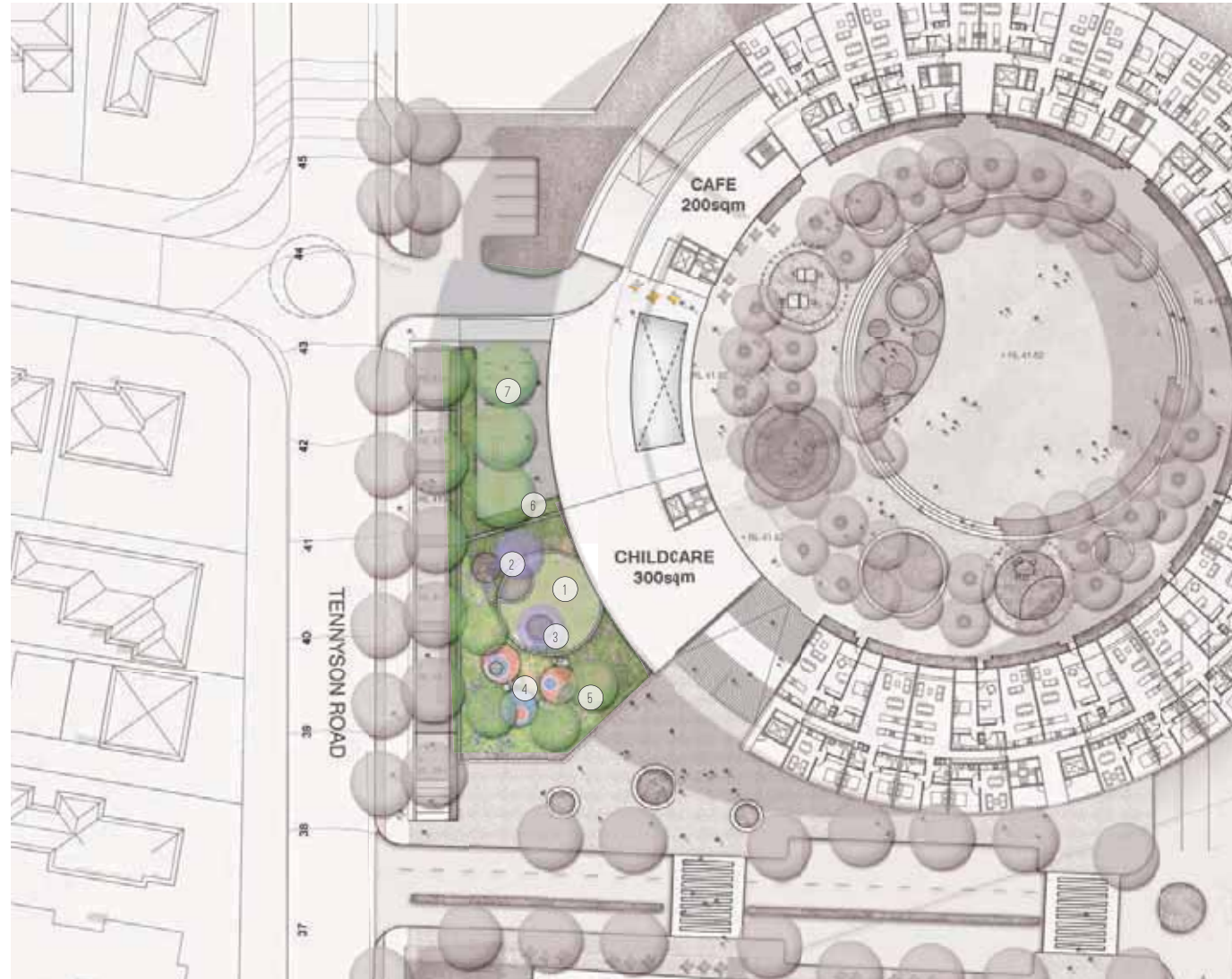
Scale: 1:500 @ A1
Drawn: AW
Checked: SC

Dwg No.: 13015_MP-02
Date: 17.05.2013
Rev: A

DETAIL PLAN | CHILDCARE GARDEN

LEGEND

1. Open turf area
2. Sandplay area with edge seating, shade cover, and water outlet
3. Planted mound with seating edge
4. Secondary play areas with coloured soft fall surfaces
5. Buffer planting to retail edge
6. Security fence to boundary
7. Bike parking facilities in paved plaza to encourage cycling



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™

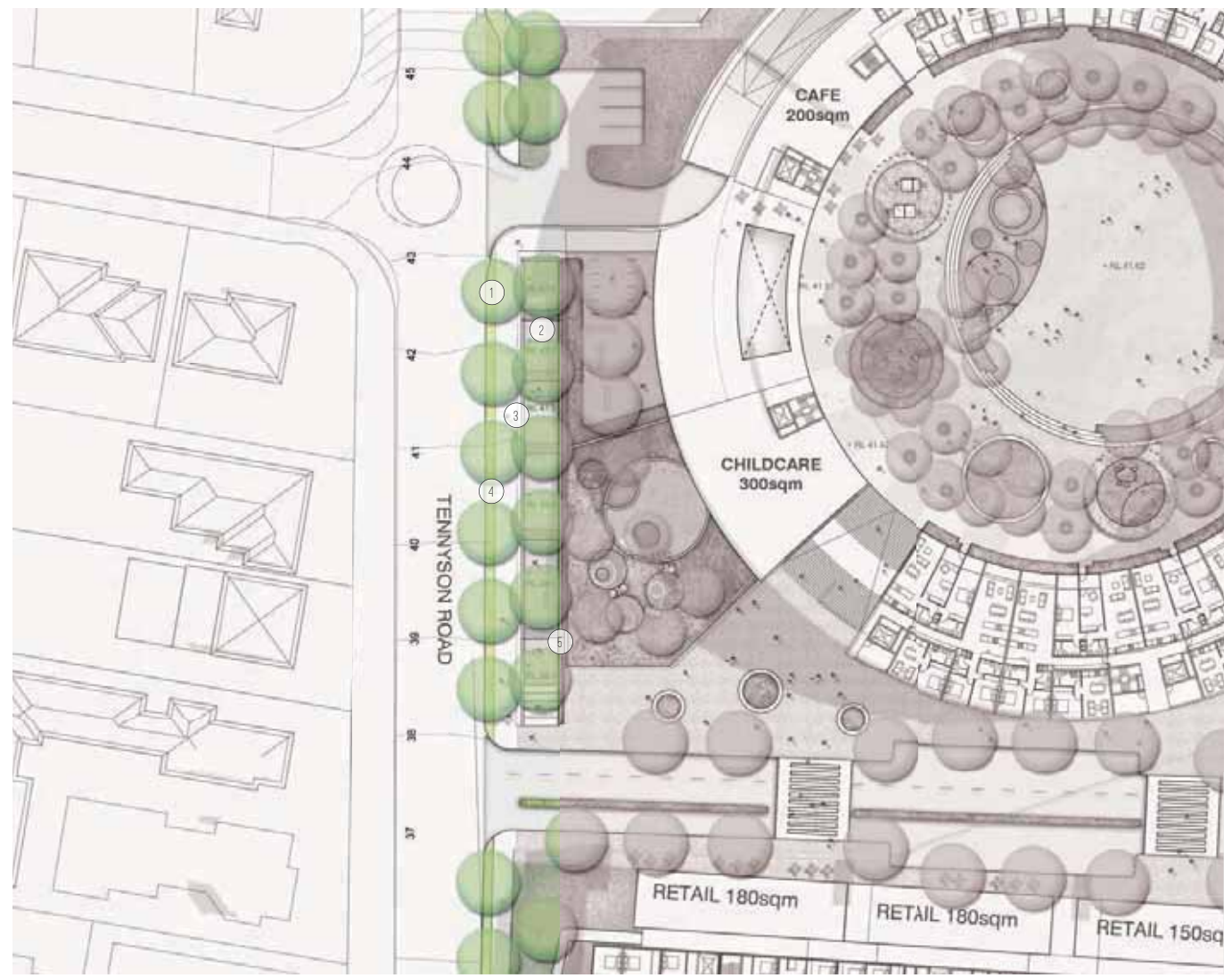


Scale: 1:500 @ A1
 Drawn: AW
 Checked: SC

Dwg No.: 13015_MP-03
 Date: 17.05.2013
 Rev: A

DETAIL PLAN | TERRACED STREETScape

- LEGEND
- 1. Double row of large street trees
 - 2. Terraces podiums providing extened usable space in the streetscape. Includes planted edge seating and paved surface
 - 3. 3m wide footpath providing provision for a future shared path
 - 4. 1200mm wide turf verge
 - 5. Retaining wall with planted face



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™

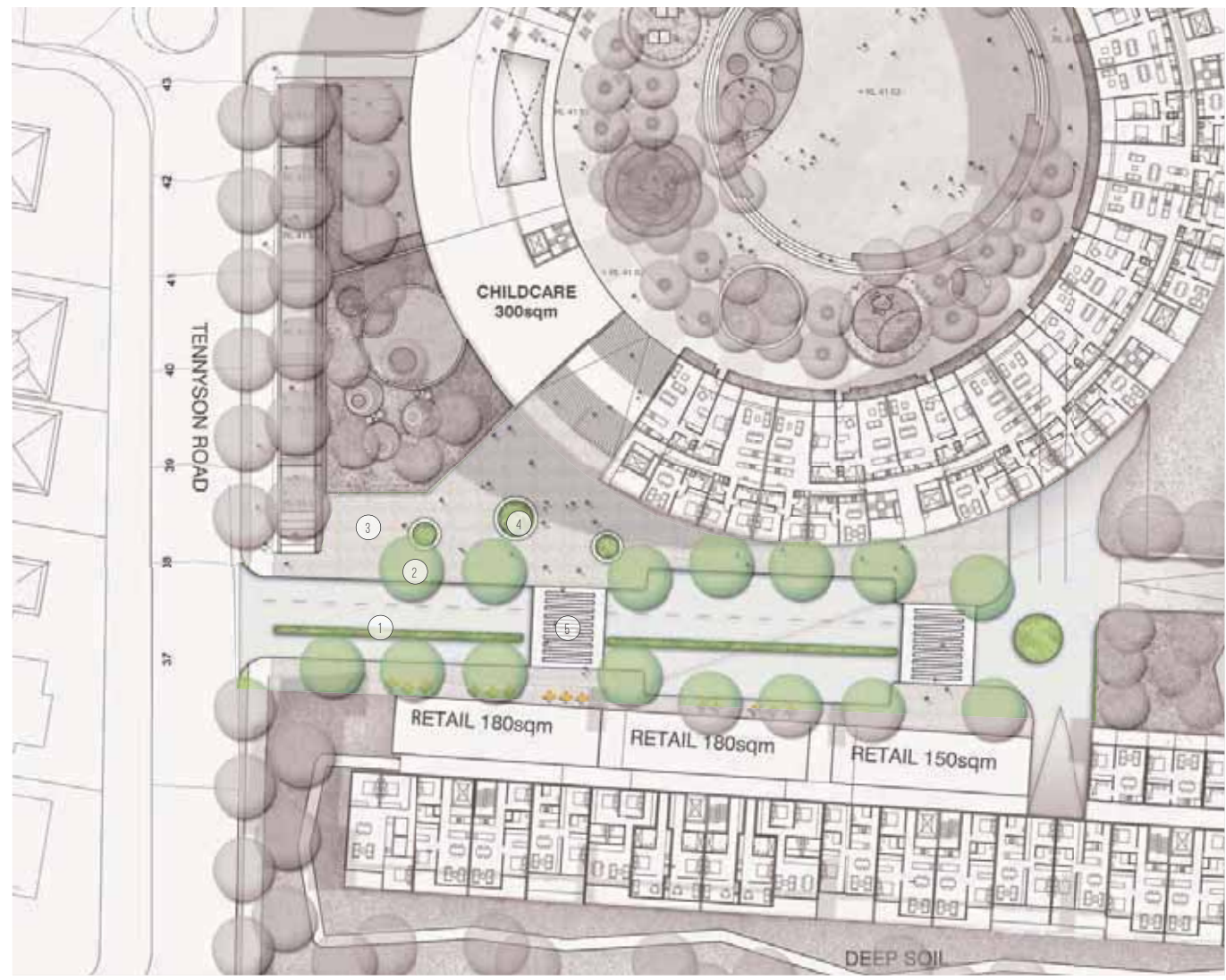


Scale: 1:500 @ A1
Drawn: AW
Checked: SC
Dwg No.: 13015_MP-04
Date: 17.05.2013
Rev: A

DETAIL PLAN | THE NEW STREET

LEGEND

- 1. Planted central median
- 2. Street trees with planted tree pits
- 3. High quality paving with fine grain overlay
- 4. Planters with seating edge



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™



Scale: 1:500 @ A1
Drawn: AW
Checked: SC
Dwg No.: 13015_MP-05
Date: 17.05.2013
Rev: A

INDICATIVE PLANTING PALETTE



Feature deciduous trees

QUARRY GREEN



Lush, shade tolerant species



Hardy native grasses in playground



Buffer planting to residential units



TERRACED STREETSCAPE



Ornamental natives, low water-use perennials and flowering shrubs

SENIOR'S GARDEN



Textural shrubs and groundcovers

CHILDCARE GARDEN



native grasses to median planting

NEW STREET & RETAIL FORECOURT

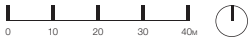


BUFFER LANDSCAPE



2-12 & 14 TENNYSON ROAD, GLADESVILLE | LANDSCAPE MASTER PLAN

ASPECT Studios™



Scale: 1:500 @ A1
Drawn: AW
Checked: SC

Dwg No.: 13015_MP-06
Date: 17.05.2013
Rev: A

GRIMSHAW

57 Clerkenwell Road
London
EC1M 5NG
UK

T +44 (0) 20 7291 4141

637 W 27 St
New York
NY 10001
USA

T +1 212 791 2501

21 Bouverie Street
Melbourne
Vic 3053
Australia

T +61 (0) 3 9321 2600

Level 3
24 Hickson Rd
Walsh Bay
Sydney
NSW 2000
Australia

T +61 (0) 2 9253 0200

Commercialbank Plaza Floor 15
West Bay
PO Box 27111
Doha
Qatar

T +97444528962

info@grimshaw-architects.com
www.grimshaw-architects.com
© Grimshaw Architects LLP 2012