

Boundary Street, Paddington Built Form & Urban Study

190-200 Boundary Street, Paddington

SJB Architects



Project

Boundary Street, Paddington, Built Form & Urban Study
190-200 Boundary Street,
Paddington NSW 2021

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Executive Summary

SJB have been appointed by St Vincent's Private Hospital Sydney to undertake a built form and urban study of 190-200 Boundary Street, Paddington, located opposite St Vincent's Hospital. The aim of the study is to demonstrate the site's capacity to deliver an office building for the hospital within the existing DCP controls which contributes to the broader character of the area. This report supports a planning proposal for a change to the Woollahra Local Environment Plan 2014 (WLEP 2014) to allow the site to be used for the purpose of an office premises associated with the hospital.

We have analysed the site, its immediate and broader urban context, focusing specifically on the site's integration with the surrounding heritage conservation built form character and urban grain. Key features of the site include its sloping topography, location opposite St Vincent's Hospital adjoining residential properties and proximity to Oxford Street.

The design study has been prepared to investigate the potential built form while adhering to the existing residential Woollahra Development Control Plan 2015 controls and the WLEP 2014 maximum building height development standard. The study has tested built form, scale, orientation, overshadowing and amenity, to understand scale relationships and potential impacts in the immediate and broader context.

Introduction

Overview of the regional, urban and local context to provide an initial understanding of the site.

Introduction

1.1 Regional Context

The subject site is located at 190-200 Boundary Street, Paddington opposite St Vincent's Hospital. Boundary Street forms the western boundary between Woollahra Council and the City of Sydney.

Located east of Sydney's CBD, the site is well serviced by public transport with access to King's Cross train station and buses on Oxford Street which provide access to the CBD, inner west and eastern suburbs.

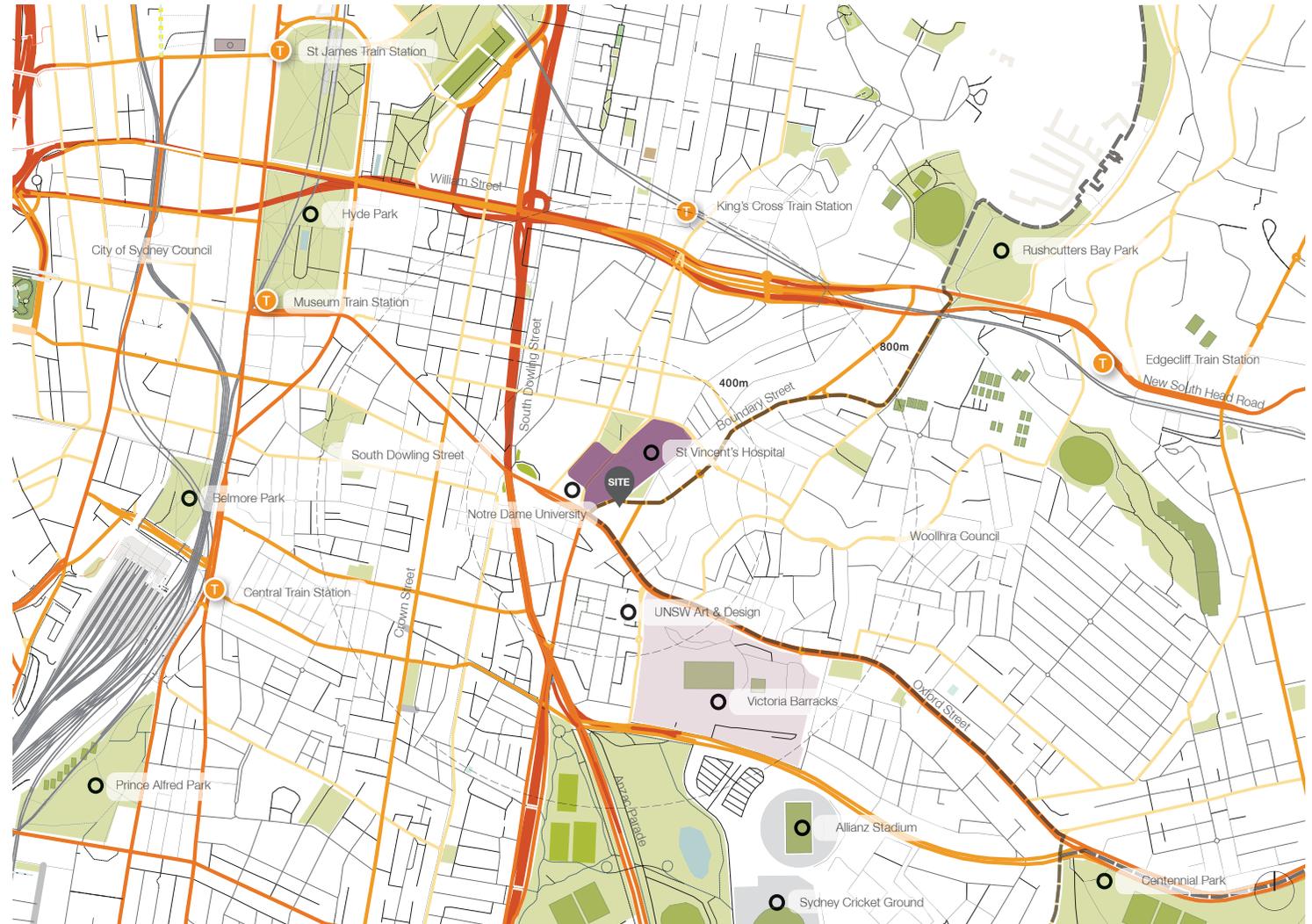


Figure 01. Regional Context

- Key**
- Train Station
 - Park
 - Sports Facilities
 - St Vincent's Hospital
 - Military
 - Major Street
 - Secondary Street
 - Suburban Street
 - Local Street
 - LGA Boundary

Introduction

1.2 Local Context

The subject site is located at 190-200 Boundary Street, Paddington opposite St Vincent's Private Hospital, north of Oxford Street and 2.3km east of Sydney CBD. The site is located within the Paddington Heritage Conservation Area, as identified in the WLEP 2014.

To the west of the site is St Vincent's Private Hospital, with the Oxford Street retail corridor along the southern boundary of the site extending to the Sydney CBD. Barcom Avenue Park and a St Vincents Medical Research building is located to the north of the site, with residential development focused to the east.

The nearest train station to the subject site is Kings Cross Train Station, located 800m away. Local facilities positioned within close proximity to the site include; St Vincent's Private Hospital, National Art School, UNSW Art & Design, Oxford Street retail corridor and Moore Park.

The subject site has a total area of approximately 851.8 m² and is made up of 4 lots with frontage to Boundary Street.

Access to the site is provided off Boundary Street. The existing road and footpath infrastructure requires maintenance and upgrades at a pedestrian level.

The site sight slopes approximately 3m from the south west to the north east, and has no existing vegetation.

There are no heritage listed items within close proximity however the site is located in the Paddington Heritage Conservation Area.



Figure 02. Local Context

- Key**
- Subject Site
 - St Vincent's Public Hospital
 - St Vincent's Private Hospital and Clinic
 - Woollahra LGA

Introduction

1.3 Site Context



View of West and Boundary Street intersections



Northern facade of subject site along Boundary Street



Outlook of West and Boundary Street junction from Barcom Avenue Park



Loading zone and movement junction at Boundary Street and Barcom Avenue



View of site from Barcome Avenue Park in context with surrounding built form



View along Barcom Avenue towards Barcom Avenue Park



Access laneway along Barcom Avenue servicing rear of Oxford Street retail



Condition of Barcom Avenue, Oxford Street and South Dowling Street junction



Residential terraces along West Street



View of West and Boundary Street intersection towards St Vincent's Hospital



View of Barcom Avenue Park and St Vincent's Hospital from Ice Street



Westerly aspect along Boundary Street towards St Vincent's Hospital

1.3 Woollahra Local Environmental Plan 2014 (WLEP 2014)



Figure 03. Height of Buildings

01 Height of Buildings Map

The subject site has a height control of 9.5m, as outlined in the Woollahra LEP 2014. There are no specific height controls to the north applying to the hospital site as outlined in the City of Sydney LEP 2012 (SLEP 2012)

Key

| | | | |
|----|------|----|------|
| C | 5 | N3 | 14.1 |
| E | 6 | N4 | 14.5 |
| F | 6.5 | N5 | 14.7 |
| G | 7 | O1 | 15 |
| H | 7.5 | O2 | 16.5 |
| I | 8 | P1 | 17.5 |
| J | 8.2 | P2 | 18 |
| J1 | 9 | P3 | 18.1 |
| J2 | 9.5 | Q1 | 19 |
| K | 10.5 | Q2 | 19.5 |
| L1 | 11 | Q3 | 20.5 |
| L2 | 11.5 | R1 | 21.5 |
| M | 12 | R2 | 22.5 |
| N1 | 13 | T | 26 |
| N2 | 13.5 | U | 34 |

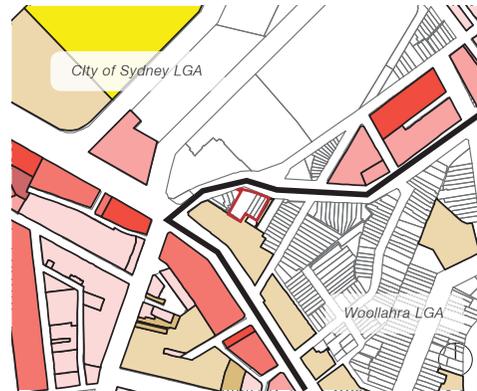


Figure 04. Floor Space Ratio

02 Floor Space Ratio Map

There is no FSR control placed on the subject site.

Key

| | | | |
|----|------|----|------|
| A1 | 0.21 | N1 | 1 |
| A2 | 0.37 | N2 | 1.04 |
| B1 | 0.4 | O | 1.1 |
| B2 | 0.43 | P | 1.25 |
| C | 0.46 | Q | 1.3 |
| D1 | 0.5 | R1 | 1.4 |
| D2 | 0.52 | R2 | 1.42 |
| D3 | 0.53 | S1 | 1.5 |
| F1 | 0.6 | S2 | 1.55 |
| F2 | 0.63 | S3 | 1.68 |
| G1 | 0.65 | S4 | 1.7 |
| G2 | 0.68 | T | 2 |
| H | 0.73 | U | 2.5 |
| I | 0.75 | V | 3 |
| I2 | 0.77 | X | 4 |

Source: Woollahra Local Environmental Plan 2014 - Floor Space Ratio Map - Sheet FSR - 001

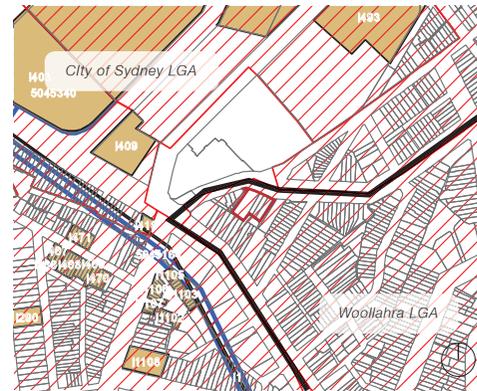


Figure 05. Heritage

03 Heritage Map

There are no heritage items within or adjacent to the subject site, however it is located in the Paddington Heritage Conservation Area

Key

| | |
|-------------------|-----------------------------|
| [Red Hatched Box] | Conservation Area - General |
| [Brown Box] | Item - General |
| [Yellow Box] | Item - Archaeological |

Source: Woollahra Local Environmental Plan 2014 - Heritage Map - Sheet HER - 001

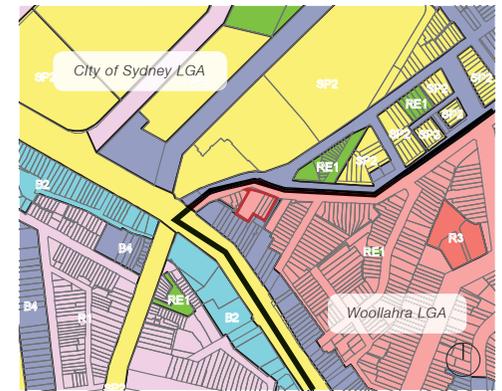


Figure 06. Land Zoning

04 Land Zoning Map

The subject site is zoned R2 Low Density Residential. To the north of the site the area is zoned SP2 Infrastructure as outlined in SLEP 2012.

Key

| | |
|-----|------------------------------------|
| B1 | Neighbourhood Centre |
| B2 | Local Centre |
| B4 | Mixed Use |
| E1 | National Parks and Nature Reserves |
| E2 | Environmental Conservation |
| R2 | Low Density Residential |
| R3 | Medium Density Residential |
| RE1 | Public Recreation |
| RE2 | Private Recreation |
| SP2 | Infrastructure |
| SP3 | Tourist |

Source: Woollahra Local Environmental Plan 2014 - Land Zoning Map - Sheet LZN - 001

1.4 Woollahra Development Control Plan 2015 (WDCP 2015)

The WDCP 2015 controls that affect the site in terms of building envelope are:

Chapter C1

The site falls into the Paddington Conservation Area and development at the site therefore is required to meet the controls set out within chapter C1. The relevant controls are:

Exterior Controls

- C1 – retention of significant external elements of the principal building are to be retained
- C2 – reconstruction or reinstatement of missing elements may be required by Council and is encouraged (other elements exist in relation to the maintenance of the front facades but do not have an impact on building envelope)

Side Elevations

- C8 – additions shall respect the existing setbacks

Rear Additions

- C1 – height must be below the gutter line of the existing building
- C6 – scale controls – largely say rear extension may complement host and surrounding buildings

Bulk Height, Scale and Form

- C1 – height of buildings on street frontages must not be increased
- C3 – scale of infill development must be consistent with predominant bulk and height of surrounding/adjoining buildings

- C4 – infill development, alterations and alterations must be designed and sited so that sunlight is provided to at least 50% or 35m² with minimum dimensions of 2.5m whichever is the lesser of the main ground level private open space for a minimum of 2 hours between 0900 and 1500 on 21st June.
- C5 – where sunlight exists to northern windows to habitable rooms this is not to be reduced to less than 3 hours between 0900 and 1500 on 21st June.
- C7 - storey heights must conform to those of the appropriate adjacent buildings.

Site Coverage and Setback

- C1 – proportion of building footprint to be consistent with similar properties in the vicinity
- C2 – existing setbacks on street frontages are to be maintained
- C7 – new development to be consistent with existing first and ground floor levels.

Private Open Space

- Mixed use development
 - 8% of the site area where site less than 180m²
 - 12% of site area where site area at least 180m²



Site Analysis

A study into the existing urban context and site conditions.

2.1 Site Analysis

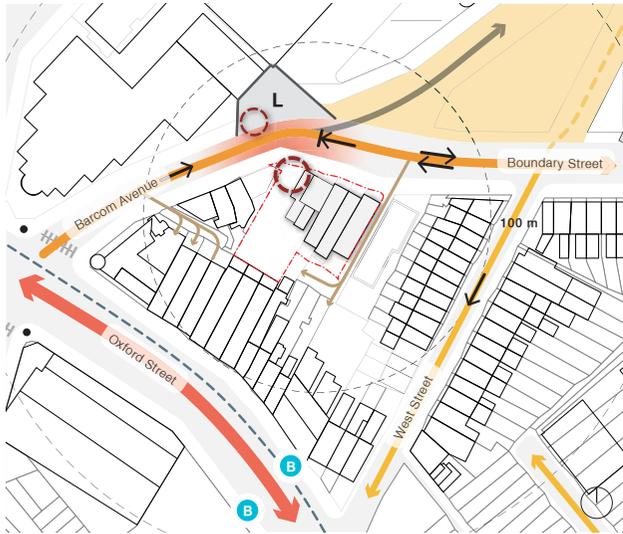


Figure 07. Access + Movement

Access + Movement

Key pedestrian and vehicular access to the site is along Boundary Street, with movement in a primarily east-west direction. There is a series of differing road conditions affecting local routes, with congestion and traffic arising at the intersection of Barcom, Boundary Street and the access to St Vincent's Hospital loading dock. Sydney Buses service Oxford Street, providing connections to Sydney CBD and the Eastern Suburbs.

Key

- - - Site Boundary
- Primary Route
- Secondary Route
- Local Route
- Private Access Lane
- St Vincents Access Road
- B Bus Stop
- Bus Route
- Pedestrian Route
- Pedestrian Interface
- L** Loading Dock
- One Way Street
- ↔ Two Way Street
- A Access
- Pedestrian Crossing
- Traffic Light



Figure 08. Landform

Landform

Barcom Avenue Park is located to the north of the site, creating a pedestrian link from Boundary Street to Ice Street. There are a number of significant and established trees located within the area, however none are positioned on the subject site. The site slopes approximately 3 m from the south west to the north east, and the site is classified as Class 5 Acid Sulfate within both the Woollahra LEP 2014 and the City of Sydney LEP 2012.

Key

- - - Site Boundary
- Public Open Space
- Existing Trees
- Contours



Figure 09. Edges + Interfaces

Edges + Interfaces

The site interfaces with a variety of land uses at varying scales of development. These include:

- Northern Boundary: Medical facility and open space (2-7 storeys)
- Eastern Boundary: Residential apartment building (4 storeys)
- Southern Boundary: Back of Oxford Street retail and shop-top housing (Two storeys)
- Western Boundary: Residential Terraces (2 storeys)

Each edge condition presents a unique characteristic that future development will need to consider, taking into consideration the existing conditions and the future desired character of the area.

Key

- - - Site Boundary
- Medical
- Residential
- Retail Back of House
- Retail Frontage

2.1 Site Analysis



Figure 10. Built Form

Built Form and Character

The subject site is listed as 'Conservation Area - General' within the WLEP 2014. There are no heritage items in close proximity of the site.

The majority of the buildings in the immediate context are two-storey terraces on narrow blocks. The predominant width of these terraces, not located on corners ranges from 3.1-5.9 metres

Height within the area is restricted to 9.5m to properties subject to the WLEP 2014.

Key

- - - Site Boundary
- Building Storeys
- Residential
- Commercial



Figure 11. Character

1. **Institutional:** St Vincent's Private Hospital 8 storey building defines the northern edge of Barcom Avenue opposite the site. It is large in scale (6 storeys) with the loading bay, servicing and car parking focused along Barcom Avenue.
2. **Residential:** Two storey terraces adjoin the property to the west along Barcom Avenue and Boundary Street. Two-storey terrace typologies line West and Boundary Streets.
3. **Retail:** Oxford Street traffic corridor is at the rear of subject site, extending to both Sydney CBD and Woollahra
4. **Open Space:** Barcom Avenue Park provides space for passive recreation

Key

- - - Site Boundary
- Commercial
- Residential
- Retail
- Pocket Park



St Vincent's Hospital Loading Bay / BOH



View of St Vincent's Hospital from Boundary St



Terraces along West Street



Terraces along Barcom Avenue



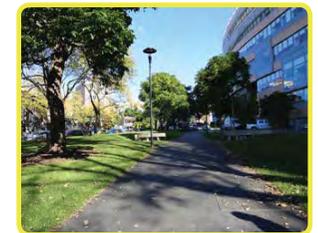
Oxford Street retail and streetscape condition



Retail interface along Oxford Street



View of Barcom Avenue Park from Ice Street



St Vincent's Private Road adjacent to park

2.2 Constraints

1. **Movement + Access:** Circulation in and around the subject site is constrained and limited due to high flow of traffic and one/two-way road directions, with pedestrian circulation being secondary to vehicular
2. **Topography:** Site slope and relative levels to adjoining properties causes potential overlooking issues from buildings to the south of the site to the subject site.
3. **Heritage and Conservation:** Consistency with existing conservation built form limits scale and articulation of new development
4. **Height Limitations:** WLEP limits building height at the site to 9.5m
5. **Urban Grain:** Fine urban grain limits built form options
6. **Overshadowing:** Future development may overshadow neighbouring residential properties
7. **Interfaces:** Alignment of windows/living spaces of adjacent residential buildings may affect built form
8. **Dilapidated Buildings:** Two contributory buildings on-site would need significant refurbishment if retained

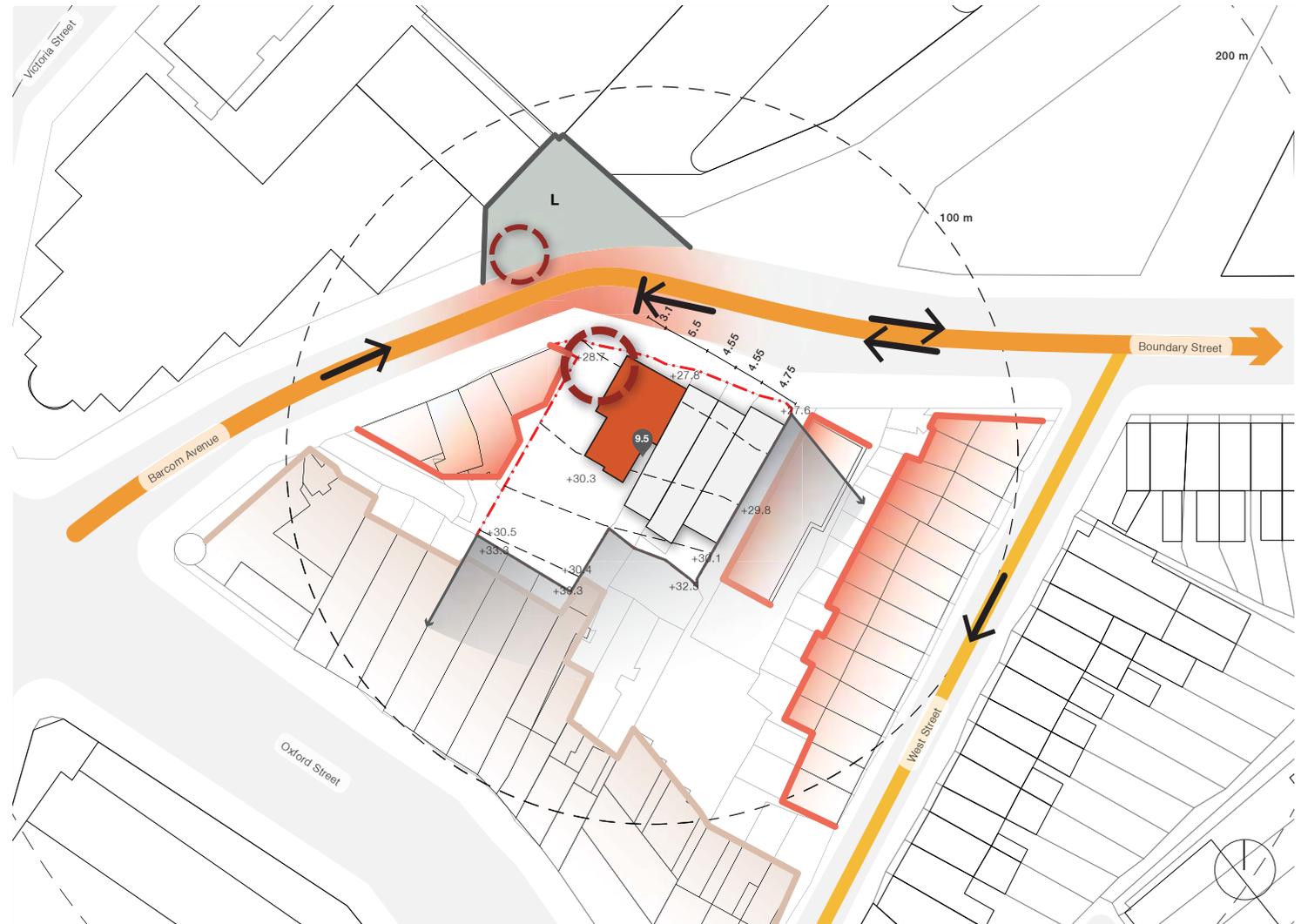


Figure 12. Constraints

Site and Context Analysis

2.3 Opportunities

1. **Large Site Area:** Subject site has a total area of 889m²
2. **Open Space Buffer:** Vacant space at rear of site to act as noise and privacy buffer
3. **Movement:** Potential addition of private vehicular access off roundabout at Barcom Avenue, Boundary Street and St Vincent Hospital access road junction.
4. **Public Transport:** Sydney Buses services along Oxford Street to CBD and Eastern Suburbs
5. **Solar Access:** Northerly orientation allows for solar access
6. **Existing Vegetation:** Existence of native trees along Barcom Avenue
7. **Local Park:** Barcom Avenue Park adjacent to site
8. **Topography:** Fall of topography allows for additional and/or stepped height
9. **Non-residential Amenity:** St Vincent Hospital's medical facilities and Oxford Street retail corridor within close proximity
10. **Character:** Continuation of fine urban grain and 'terrace' typology
11. **Adaptive reuse:** Existing terraces located on site may be adaptively reused to maintain consistent streetscape
12. **Existing Road Infrastructure:** Existing roundabout provides opportunity for easier access to potential underground carpark

Key

- - - Site Boundary
- Primary Route
- Private Access Lane
- ⓑ Bus Stop
- Bus Route
- Existing Trees
- Contours
- ▭ Pedestrian Interface
- ⊕ Access
- ☀ Solar Access
- ▭ Adaptive Reuse

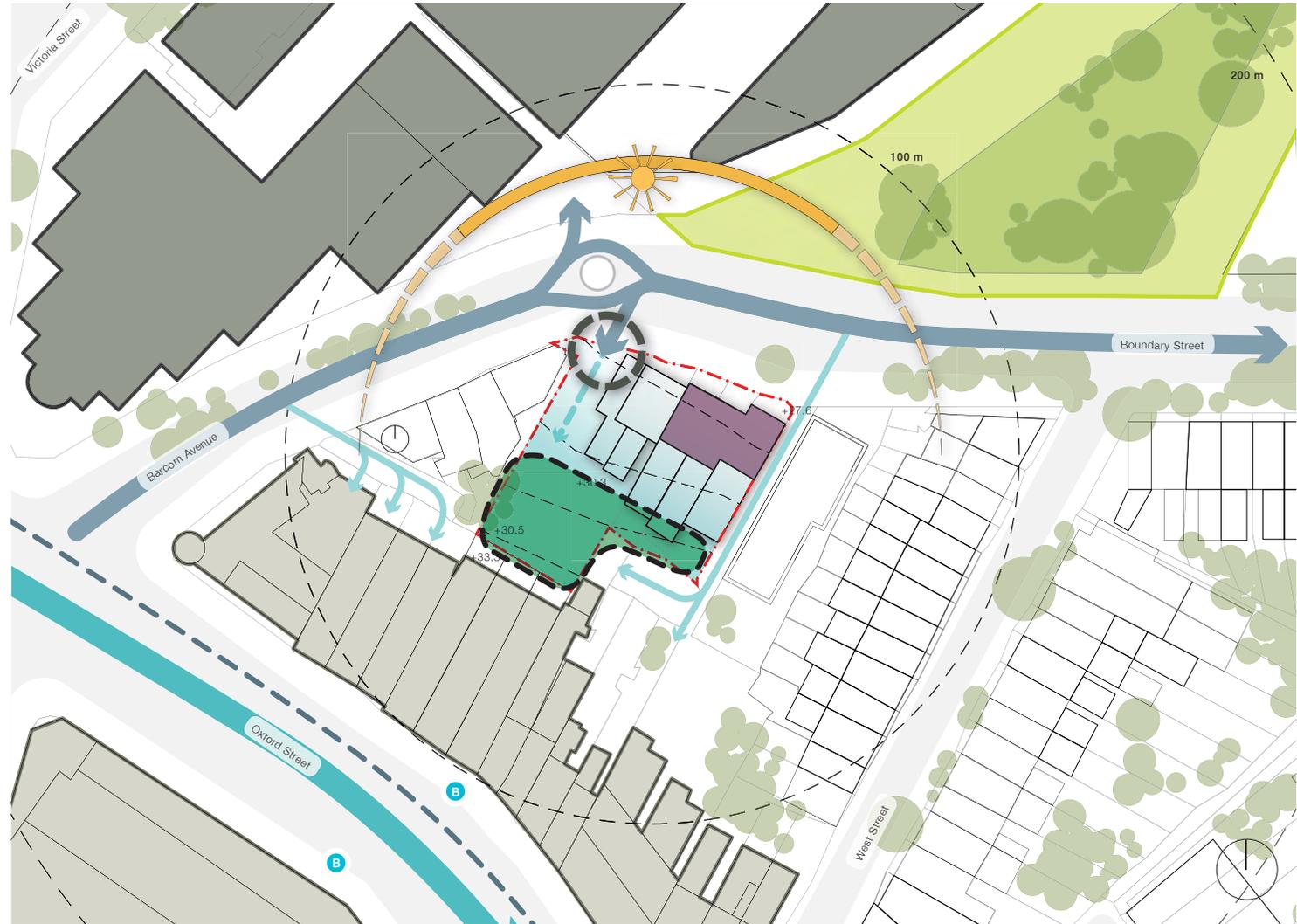


Figure 13. Opportunities



Design Principles

Design principles and concepts that respond to the site's unique characteristics and opportunities.

3.1 Urban Design Principles



Character

Paddington is an inner city suburb with strong heritage significance and its conservation should be of high importance. The unique relationship between the landscaped streets and predominantly residential buildings contribute to the character of the area.

It is an example of 19th century inner city urbanisation and clearly features the development of imported terrace models into the distinct Australian Victorian era terraces.



Urban Grain

Paddington has a fine urban grain built up in the late 1800s and includes narrow lot widths, parapets, traditional shop fronts, distinct corner buildings and upper level verandahs. This pattern along side the undulating topography of the suburb provides a fine urban grain.



Movement + Access

Pedestrian and disabled access is a key priority for the site and future development should facilitate movement especially with the integration of existing buildings.

Vehicular access should be provided from the intersection between Barcom Ave and Boundary Street.



Built Form

This area of Paddington has a predominant built form and scale which reflects the history of the area and should be considered in relation to the streetscape and experience of pedestrians.

Predominantly at one to two storeys the narrow densely packed built forms line the streets with minimal setback to the street.

The medical node of St Vincent's Private and Public Hospitals have contemporary buildings with a greater scale up to 8 storeys.

3.2 Built Form Parameters



Figure 14. Setbacks

Setbacks

As outlined in WDCP 2015, “Infill development is to respect the design of neighbouring buildings and the character of the conservation area in regards to setbacks - new buildings must maintain and reflect the existing setbacks to front and side boundaries.”

Located on the western side of Paddington, the site is in an area originally known as the Paddington Village (WDCP 2015), which features dense rows of terrace housing with zero setbacks to side boundaries and small setbacks to the street. Often referred to as the “street front zone” these lots feature stepped setbacks to compensate for the curvature of the road and provides an important setting for the buildings.

Predominant existing rear setbacks are to be retained.

Key

- - - Site Boundary
- - - 0m setback
- - - Stepped front setback
- - - Rear setback



Figure 15. Urban Grain

Urban Grain

Sitting within the Paddington Heritage Conservation Area, proposed developments must retain and reflect the established rhythm and pattern in the street arising from the original subdivision pattern. The Boundary Street streetscape features dense rows of terrace buildings with nil side setbacks.

Any proposed development would be consistent with the narrow facades of existing buildings.



Figure 16. Height

Access

Existing buildings on-site are currently accessed on foot from Boundary Street. Adaptive re-use of buildings on-site will need to consider alternative routes of access to provide disabled access to existing floor levels which sit above existing footpath levels and are currently only accessible via stairs.

Similar to many terraces in Paddington, there is no existing vehicular access or on-site parking. There is a termination of west-bound traffic at the corner of Barcom Avenue and Boundary Street. Due to the topography of the site, access through the lane adjacent to the site to the east is not possible.

Key

- - - Site Boundary
- ↔ Pedestrian access
- ↔ Potential pedestrian access
- ↔ Potential vehicular access
- X No access available



Built Form Options

A built form option for the site that responds to the design principles.

4.1 Options Summary

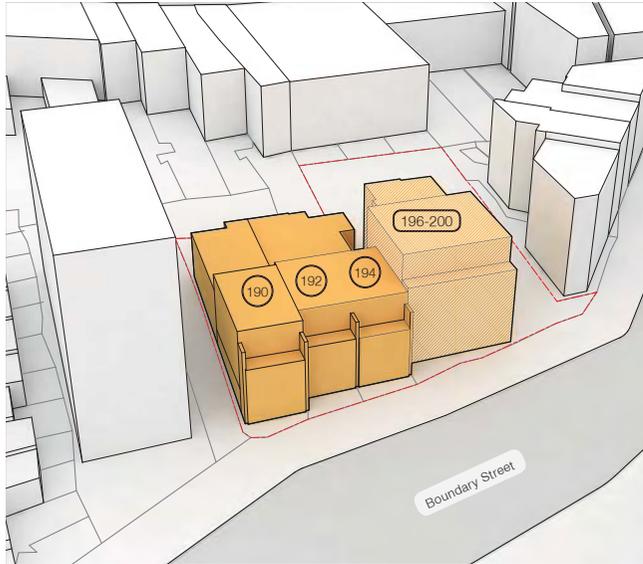


Figure 17. Existing Massing

Existing

Existing buildings on-site include single storey terraces to the south at 190,192 and 194 Boundary Street and a dual set of double storey terraces at 196-200 Boundary Street.

190,192 and 194 Boundary Street are currently residential in land-use while the double storey terraces at 196-200 Boundary Street have not been occupied for some time and are currently in a dilapidated state.

A heritage statement has been included in the appendix for reference.

Key

- - - Site Boundary
- Existing buildings
- Existing dilapidated buildings

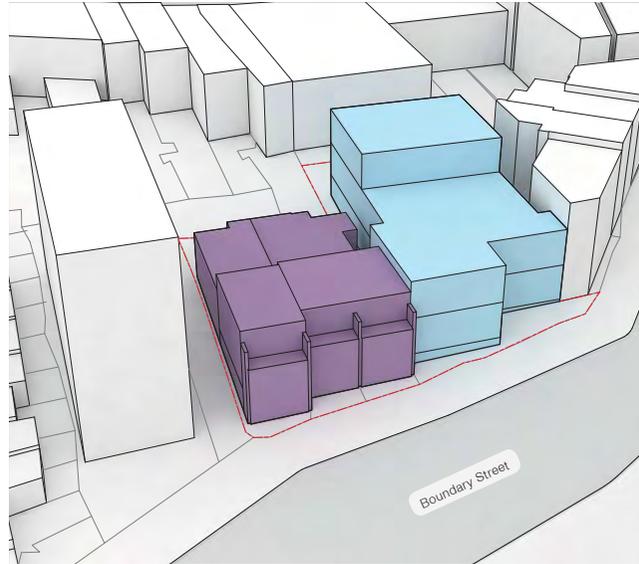


Figure 18. Option 1 Massing

Option 1

This option proposes:

- the demolition of existing dilapidated terraces at 196-200 Boundary Street
- a new office infill building at 196-200 Boundary Street
- the adaptive reuse of terraces located on 190,192 and 194 Boundary Street.

Key

- - - Site Boundary
- New office building
- Commercial adaptive re-use

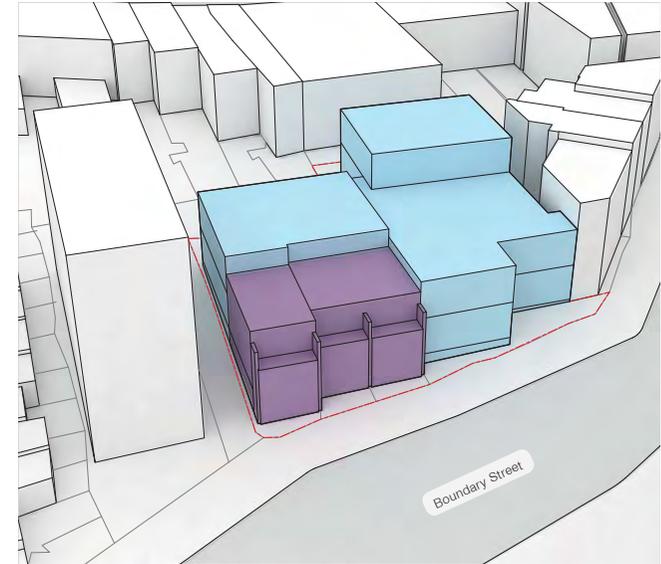


Figure 19. Option 2 Massing

Option 2

This option proposes

- the demolition of dilapidated terraces at 196-200 Boundary Street and rear extensions at 190,192 and 194 Boundary Street
- a new infill office building at 196-200 Boundary Street
- the adaptive reuse of the front portion of existing terraces at 190,192 and 194 Boundary Street with new office infill extension at the rear.

Key

- - - Site Boundary
- New office building
- Commercial adaptive re-use

Built Form Options

4.2 Option 1

This option proposes:

- the demolition of existing dilapidated terraces at 196-200 Boundary Street
- a new office infill building at 196-200 Boundary Street
- the office adaptive reuse of terraces located on 190,192 and 194 Boundary Street.

The eastern portion of the facade aligns with the location of the demolished terrace and the western portion aligns with the facades of 178 Barcom Ave. This stepped facade mimics the pattern of setbacks along Boundary Street and the existing terraces on-site.



Key

- Site Boundary
- New office building
- Adaptive re-use



Figure 20. Option 1 Site Plan

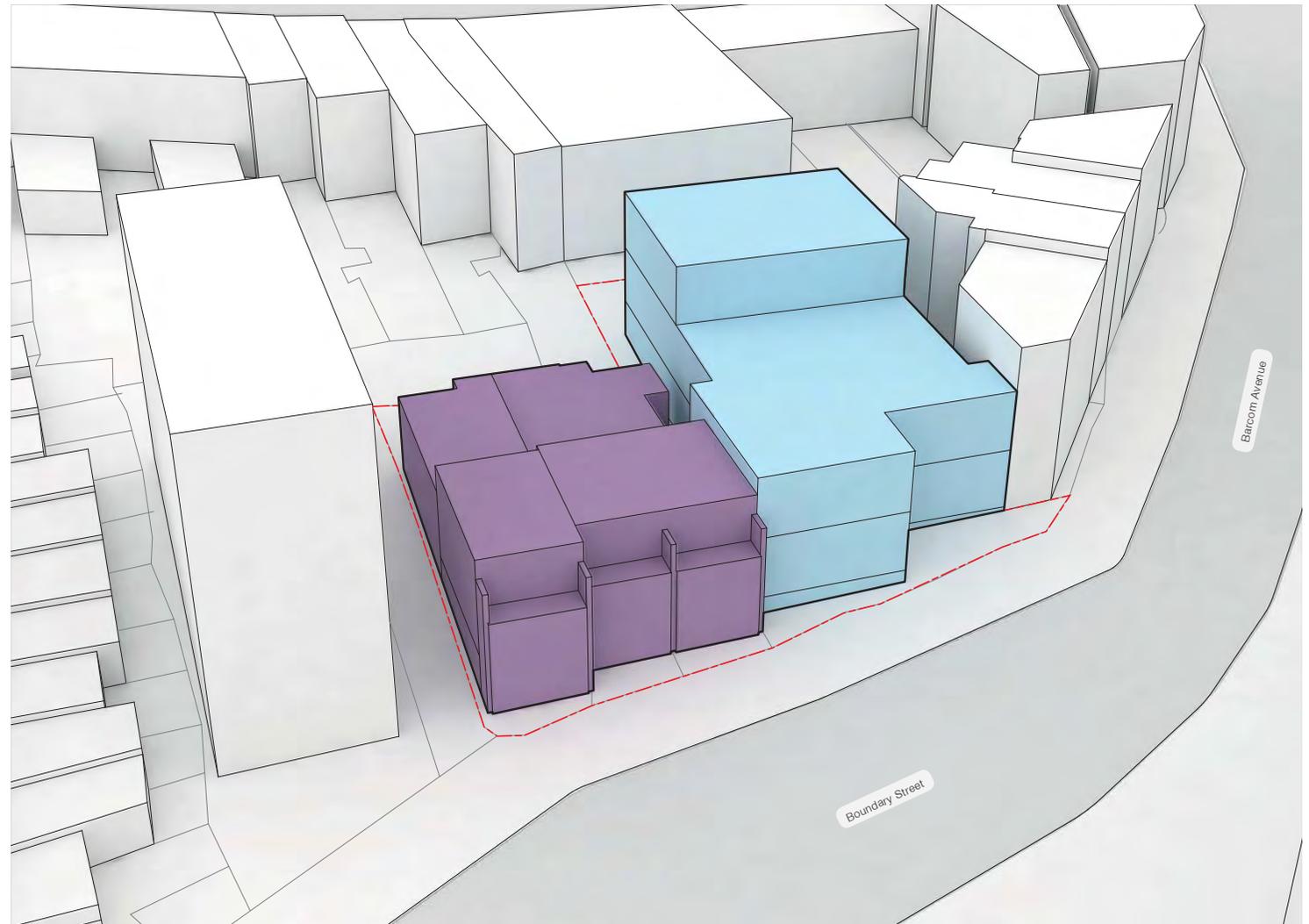


Figure 21. Option 1 Massing

Built Form Options

4.3 Option 1 - Indicative Floor Plans



Figure 22. Option 1 - Ground Floor Plan

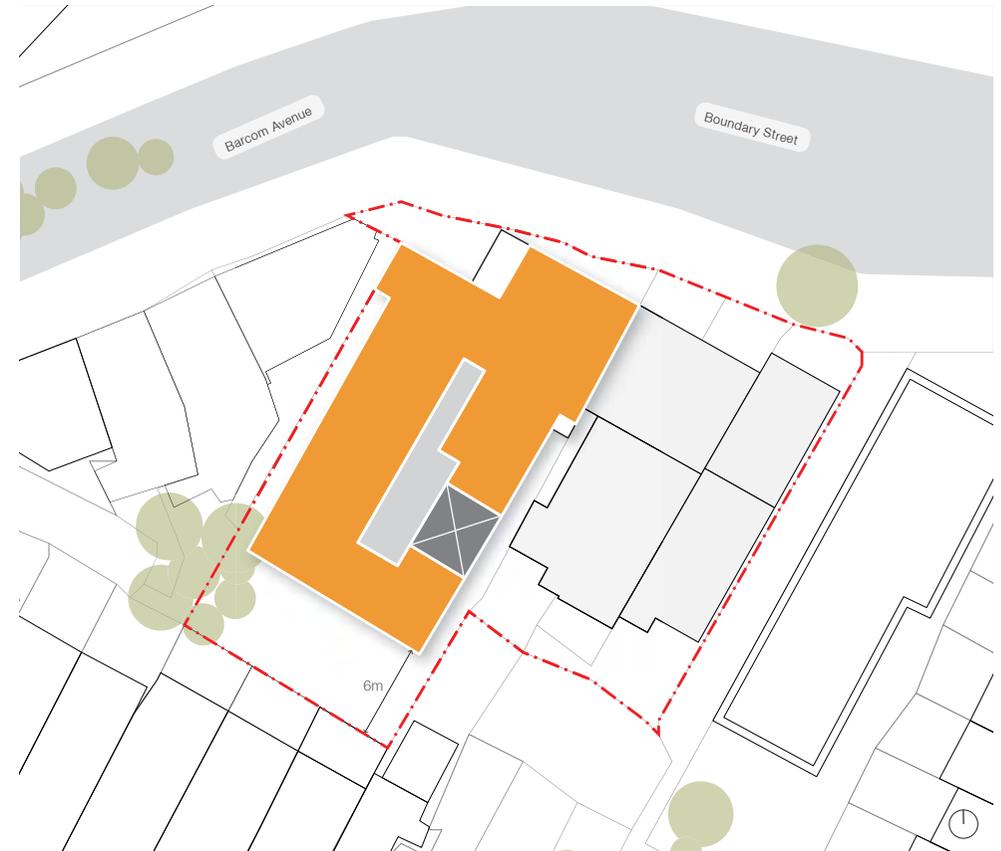


Figure 23. Option 1 - First Floor Plan

Key

- - - Site Boundary
- General Administration
- Adaptive Reuse
- Circulation
- Services Core

Built Form Options

4.4 Option 1 - Indicative Floor Plans



Figure 24. Option 1 - Second Floor Plan

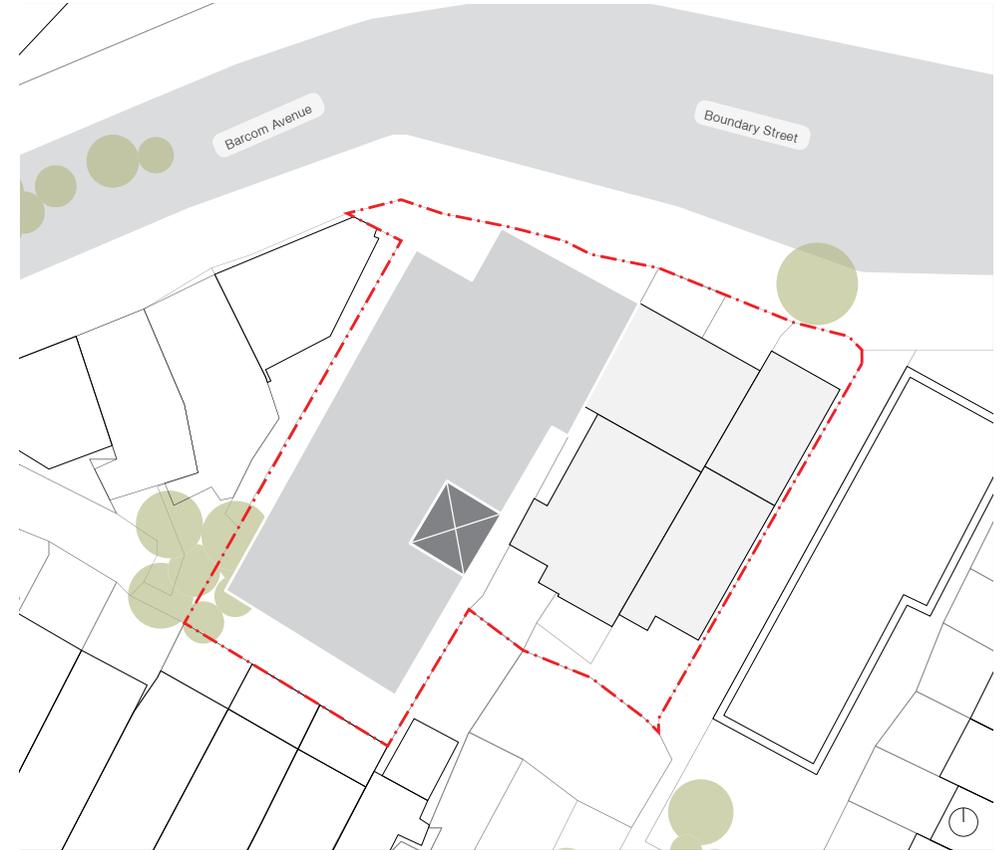


Figure 25. Option 1 - Basement Plan

Key

- Site Boundary
- General Administration
- Adaptive Reuse
- Circulation
- Services Core

Built Form Options

4.5 Option 1 - Section

Key

- - - Site Boundary
- General Administration
- ▨ Adaptive Reuse
- Circulation
- Services Core

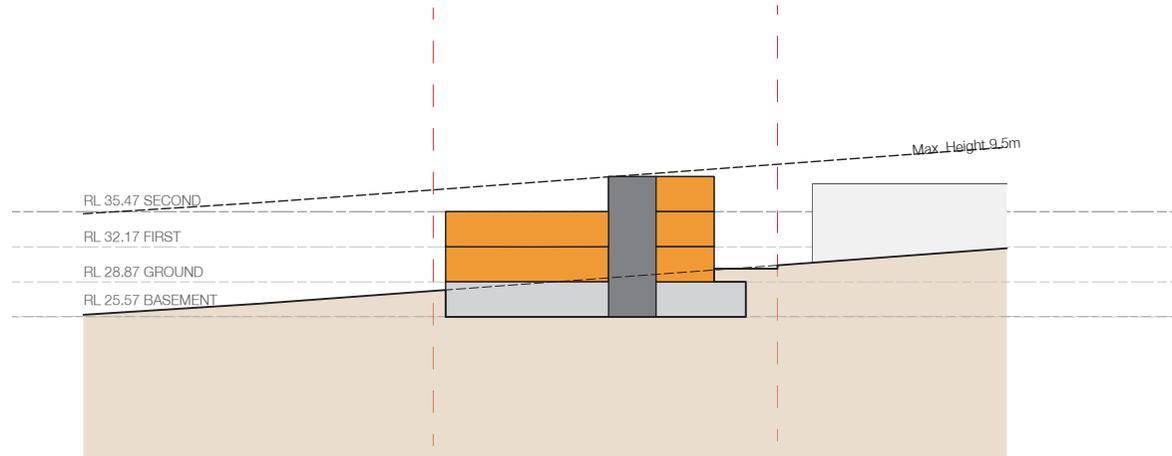
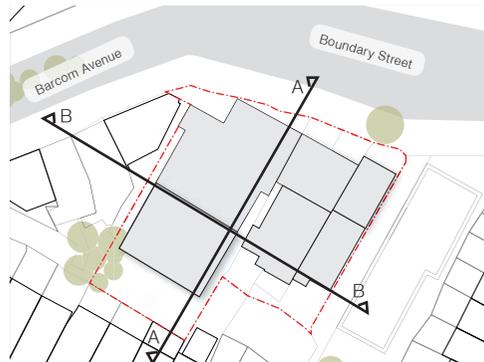


Figure 26. Option 1 -Section A-A'

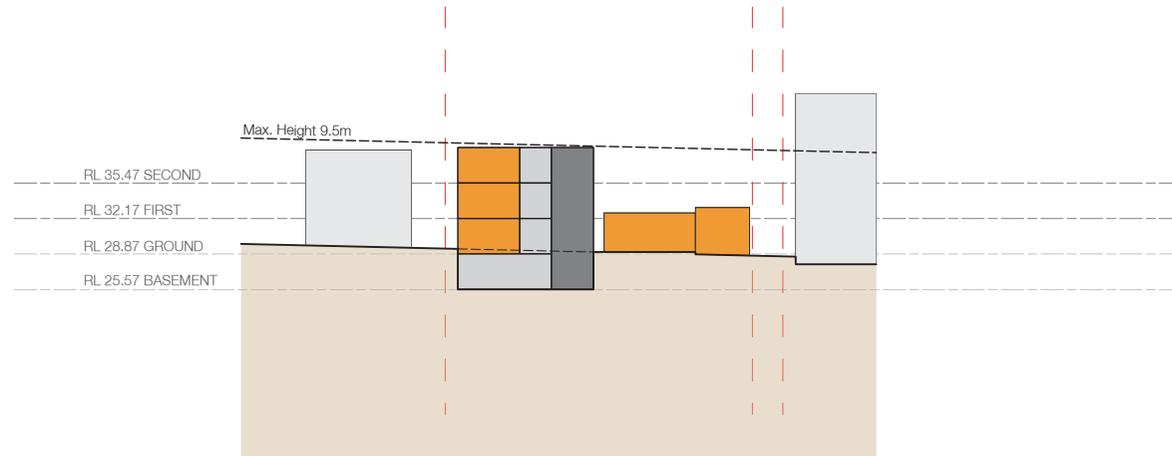


Figure 27. Option 1 -Section B-B'

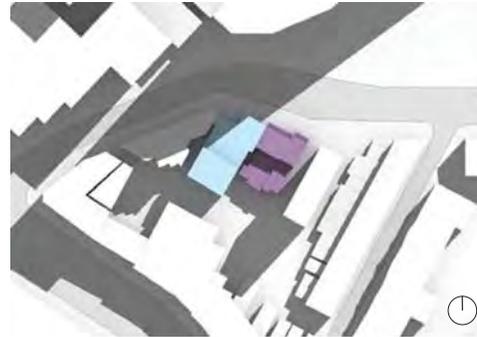
Built Form Options

4.6 Shadow Analysis

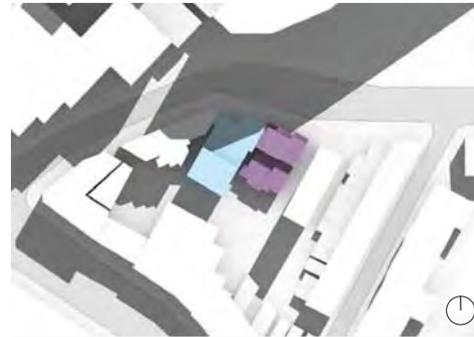
The following diagrams show the extent of shadow cast by the proposed massing. The built form will cast shadows that move west to east. The neighbour directly to the west currently overshadows their own private open space located to the south of the lot. That property receives the bulk of its solar access on the northern facade which is not incumbered by the proposed massing.

The existing buildings at the the east of the site produce some overshadowing to the lower levels of the building directly to the east. The proposal will not change that.

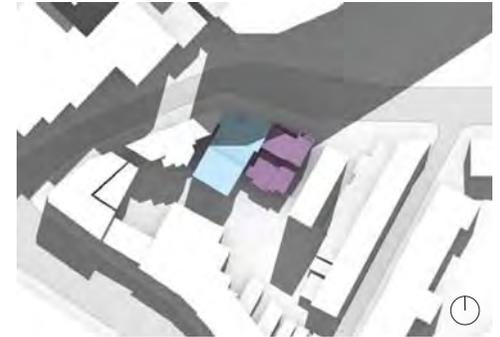
The orientation, heights and setbacks of the proposed buildings allow for the living rooms and private open spaces of most adjacent dwellings (including 70% of apartments within the residential flat building to the east), to receive a minimum of 3 hours direct sunlight between 9am and 3pm during mid winter.



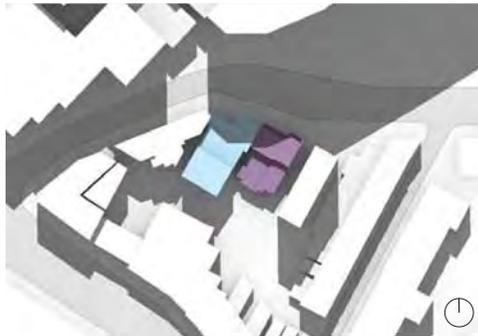
21st June - 9am



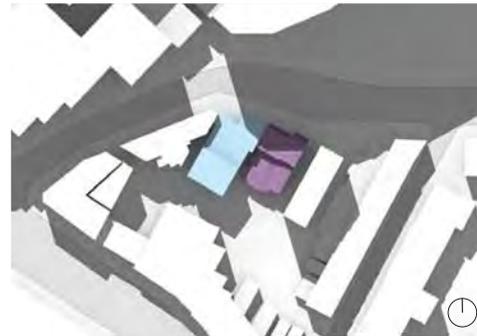
21st June - 10am



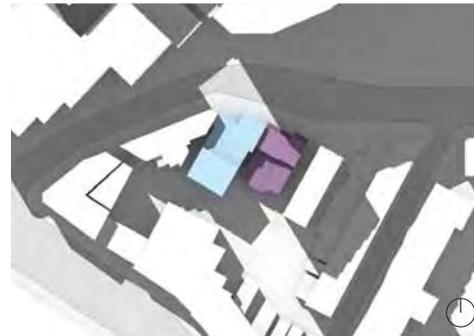
21st June - 11am



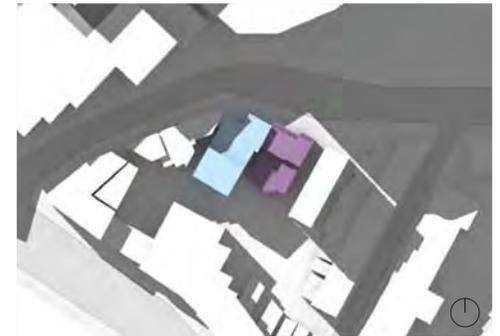
21st June - 12pm



21st June - 1pm



21st June - 2pm



21st June - 3pm

Built Form Options

4.7 Solar



Figure 28. View from north-west

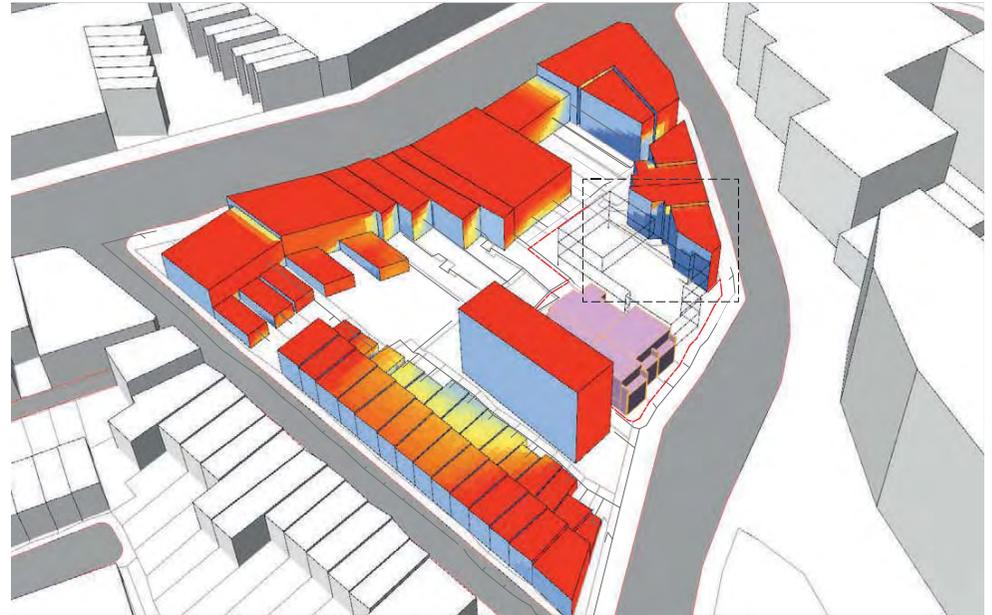


Figure 29. View from north-east

The diagrams above show the extent of daylight access that adjacent buildings will receive on the 21st of June. The range of colours represent the hours of the day in which they will receive solar access with the warmer colours illustrating greater amounts of sunlight.

The solar access diagrams above show limited impact to adjacent buildings from the proposed built form.

The only notable new overshadowing is to the south-east wall of the neighbouring property at 278-284 Barcom Avenue. The proposed built form provides a setback from this window however it will experience some minor overshadowing mainly due to its position on the boundary. Solar insolation diagrams of the existing and proposed massings impact on the neighbour are shown in detail in Fig 28 and 29 above.

Legend

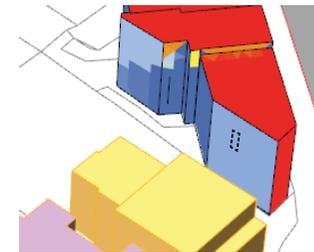
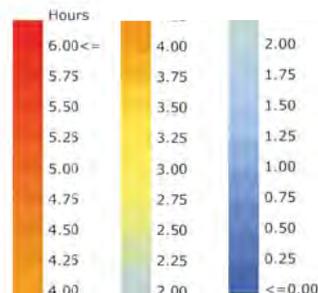


Figure 30. Existing solar access to 278-284 Barcom Avenue

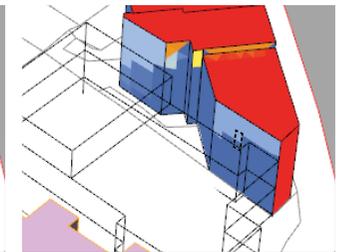


Figure 31. Proposed solar access to 278-284 Barcom Avenue

---- Indicative location of existing window

Built Form Options

4.8 Option 2

This option proposes

- the demolition of dilapidated terraces at 196-200 Boundary Street and rear extensions at 190,192 and 194 Boundary Street
- a new infill office building at 196-200 Boundary Street
- the adaptive reuse of the front portion of existing terraces at 190,192 and 194 Boundary Street and rear infill commercial addition.

The eastern portion of the facade aligns with the location of the demolished terrace and the western portion aligns with the facade of 178 Barcom Ave. This stepped facade mimics the pattern of setbacks down Boundary Street and the existing terraces on-site.

The rear addition to existing terraces align with existing floor levels at ground and sit 730mm above the ground floor level of the new infill building to the west.



Key

- - - Site Boundary
- New office building
- Adaptive re-use



Figure 32. Option 2 Site Plan

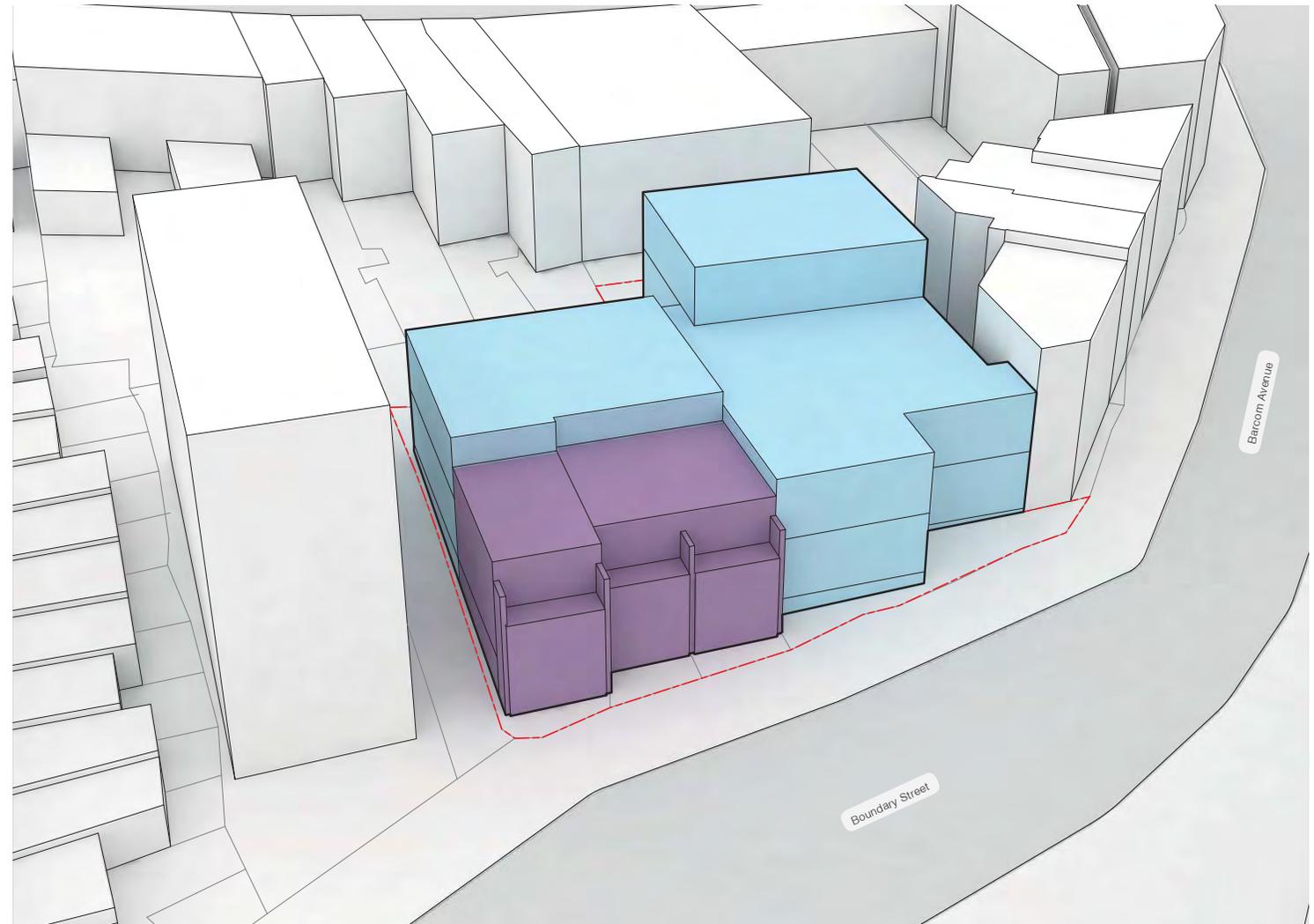


Figure 33. Option 2 Massing

Built Form Options

4.9 Option 2 - Indicative Floor Plans



Figure 34. Option 2 - Ground Floor Plan



Figure 35. Option 2 - First Floor Plan

Key

- Site Boundary
- General Administration
- ▨ Adaptive Reuse
- Circulation
- Services Core

Built Form Options

4.10 Option 2 - Indicative Floor Plans



Figure 36. Option 2 - Second Floor Plan



Figure 37. Option 2 - Basement Plan

Key

- Site Boundary
- General Administration
- Adaptive Reuse
- Circulation
- Services Core

Built Form Options

4.11 Option 2 - Section

Key

- - - Site Boundary
- General Administration
- ▨ Adaptive Reuse
- Circulation
- Services Core

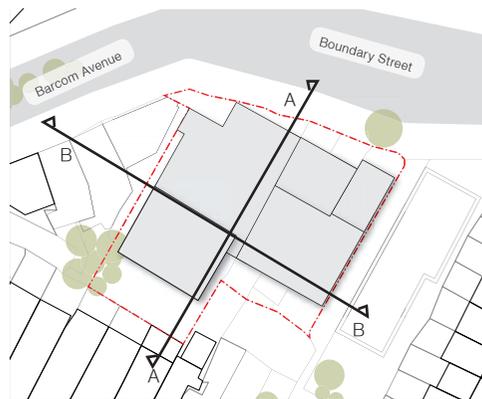


Figure 38. Option 2 Site Plan

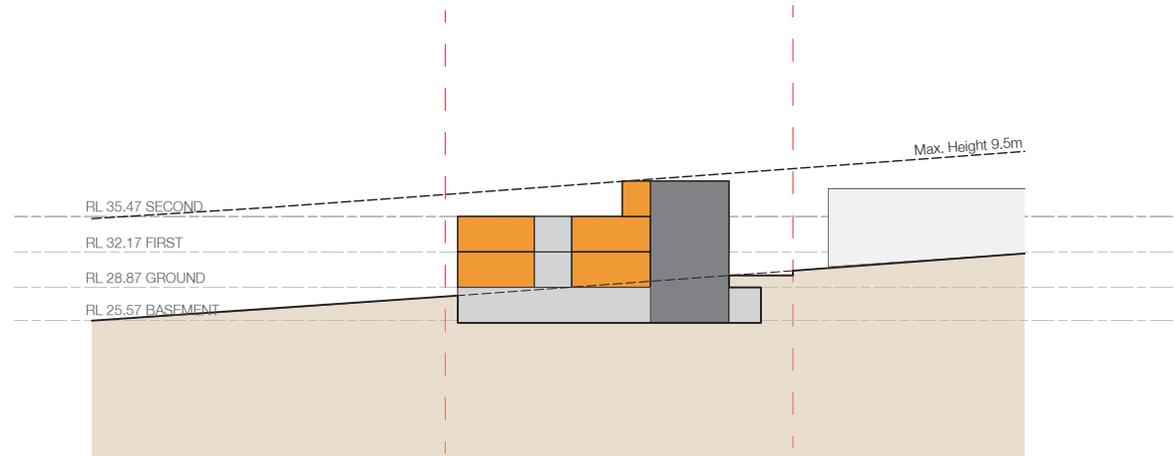


Figure 39. Option 2 -Section A-A'

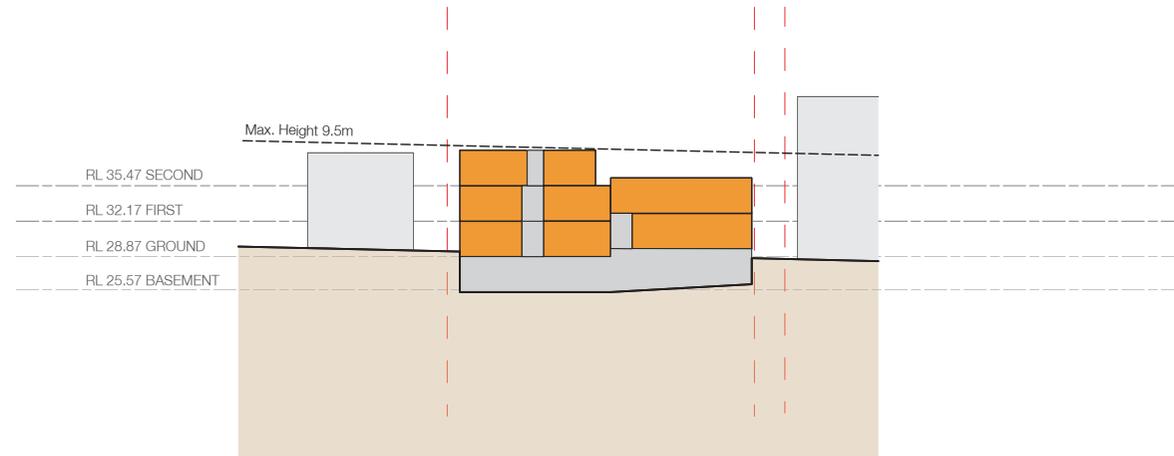
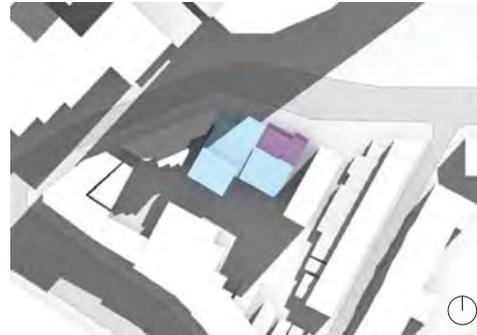


Figure 40. Option 2 -Section B-B'

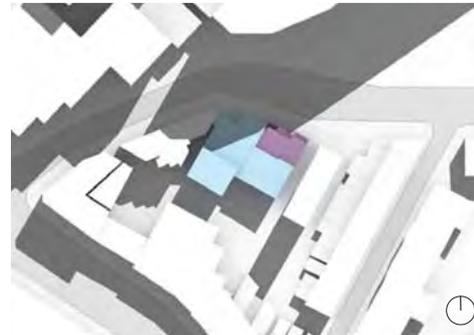
4.12 Shadow Analysis

The following diagrams show the extent of shadow cast by the proposed massing. The built form will cast shadows that move west to east.

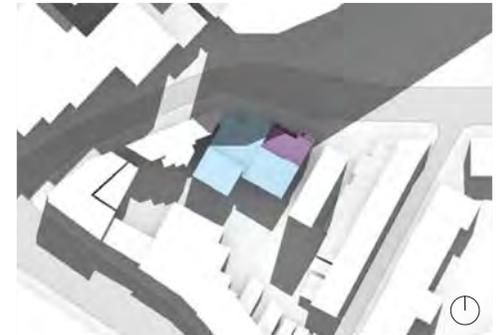
The orientation, heights and setbacks of the proposed buildings allow for the living rooms and private open spaces of most adjacent dwellings (including 70% of apartments within the residential flat building to the east), to receive a minimum of 3 hours direct sunlight between 9am and 3pm during mid winter.



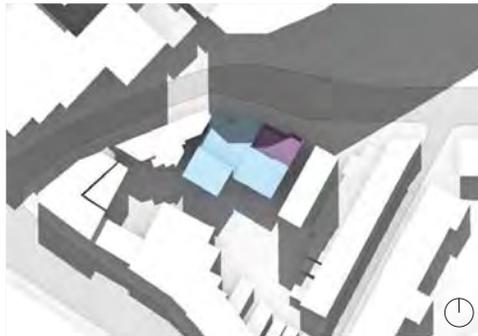
21st June - 9am



21st June - 10am



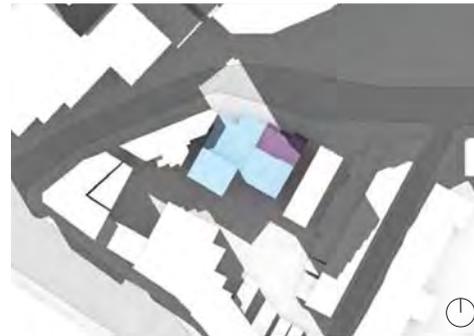
21st June - 11am



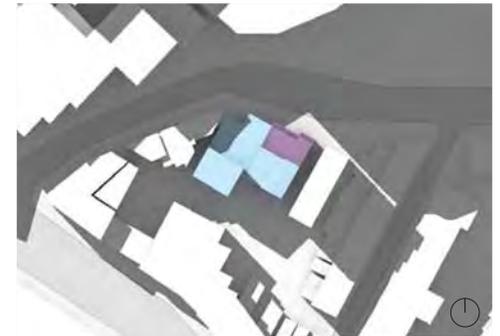
21st June - 12pm



21st June - 1pm



21st June - 2pm



21st June - 3pm

Built Form Options

4.13 Solar

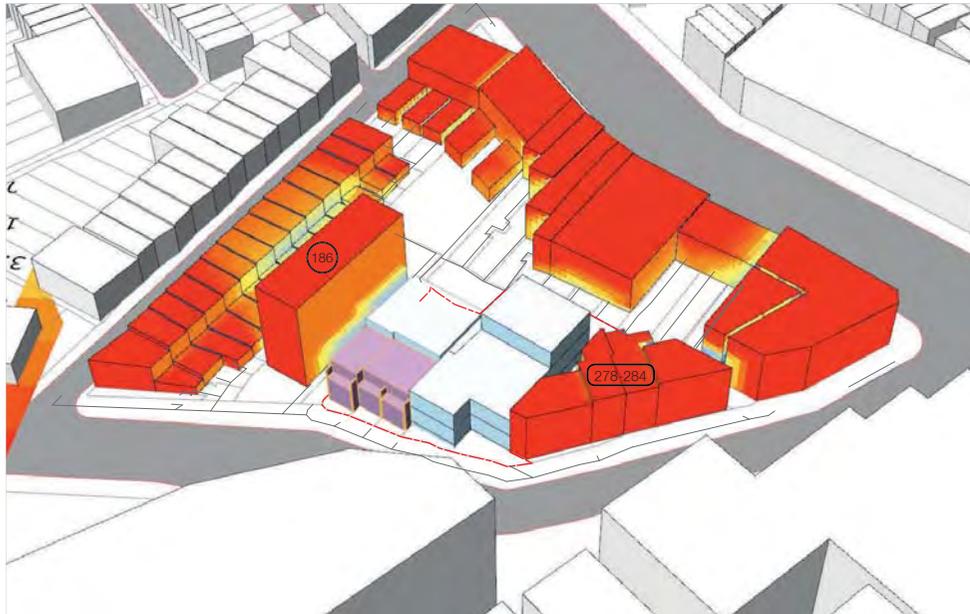


Figure 41. View from north-west

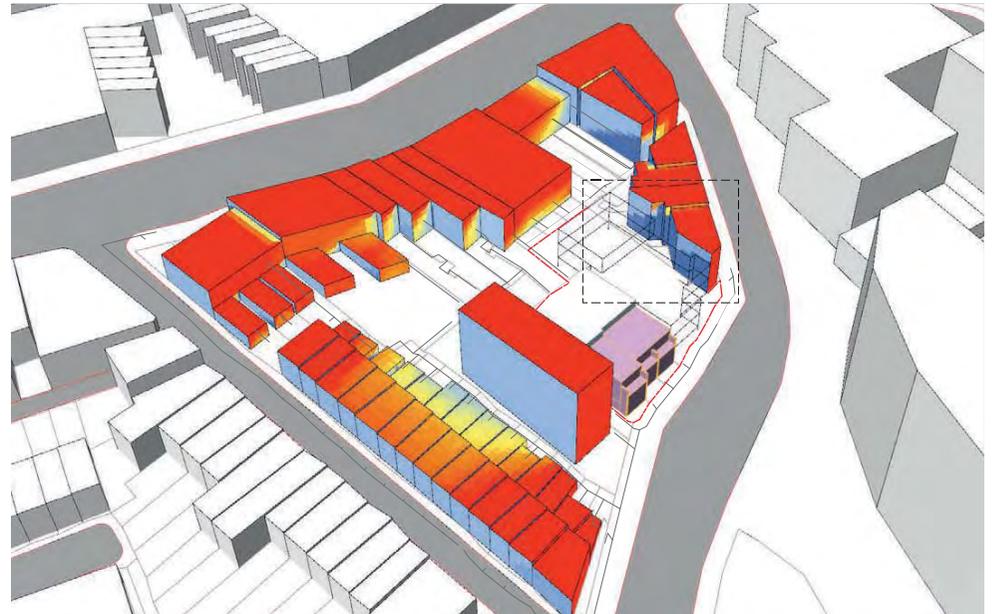


Figure 42. View from north-east

The diagrams above show the extent of daylight access that adjacent buildings will receive on the 21st of June. The range of colours represent the hours of the day in which they will receive solar access with the warmer colours illustrating greater amounts of sunlight.

The solar access diagrams above show limited impact to adjacent buildings from the proposed built form. Some additional overshadowing is created to ground floor windows at 186 Boundary Street by the proposal but it is noted that any compliant development at the site would be likely to create an equivalent amount of overshadowing to the ground floor windows of that property.

Additional overshadowing to the south-east wall of the neighbouring property at 278-284 Barcom Avenue is also created. The proposed built form provides a setback from this window however it will experience some minor overshadowing mainly due to its position on the boundary. Solar insolation diagrams of the existing and proposed massings impact on the neighbour are shown in detail in Fig 41 and 42 above.

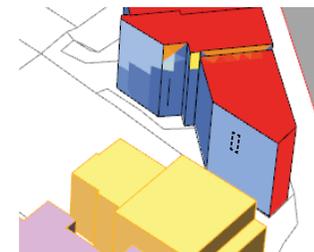
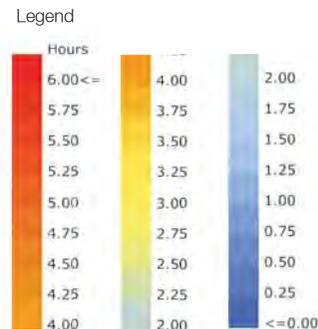


Figure 43. Existing solar access to 278-284 Barcom Avenue

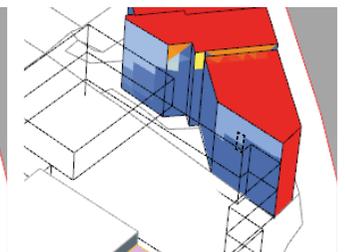


Figure 44. Proposed solar access to 278-284 Barcom Avenue

---- Indicative location of existing window



Conclusion

5.1 Conclusion

Located on Boundary Street, along the north western edge of Paddington, the subject site is located in the Paddington Heritage Conservation Area in the Woollahra LGA. Currently accommodating residential uses and two vacant dilapidated terraces, the site is located directly opposite St Vincent's Private Hospital and within walking distance of public transport accessible on Oxford Street.

In response to this condition, we have undertaken two built form studies with a view to identifying the capability of the site to accommodate a commercial building use (for the purpose of office premises). In conjunction with heritage advice provided by Cracknell & Lonergan, studies tested the potential of the demolition of existing dilapidated terraces and rear additions, replacement with a new office infill building and adaptive re-use of existing residential terraces. Additionally, indicative floor plans tested office premises uses within the floorplates created.

We believe Option 2, the demolition of existing dilapidated terraces and rear additions, adaptive re-use of existing terraces and new office infill building will provide an appropriate built form outcome. The option provides more GFA on-site than currently available without unacceptable adverse solar impact on neighbouring dwellings as well as an integration of disabled access to existing terraces on-site. Maintenance of some terraces on-site will allow for the conservation of the existing street character and better integration of commercial uses into the predominantly residential fabric.

Within the residential land use zone, an office premises building use can be accommodated compliant with the existing

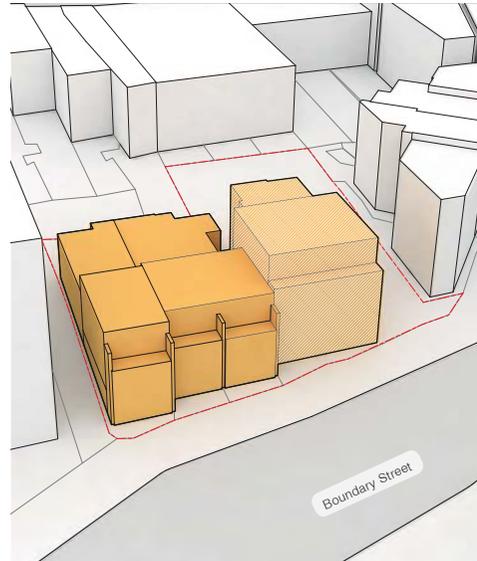


Figure 45. Existing Massing

Existing

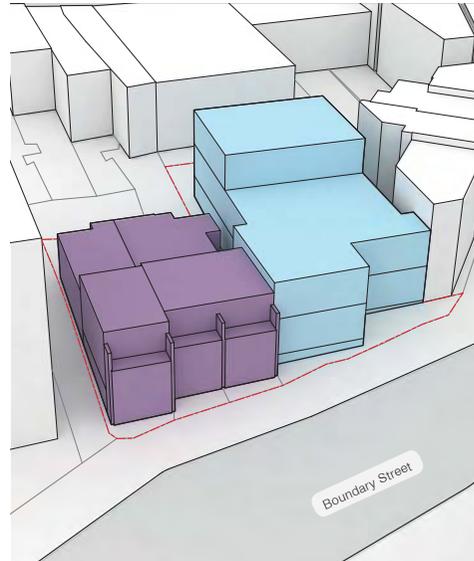


Figure 46. Option 1 Massing

Option 1

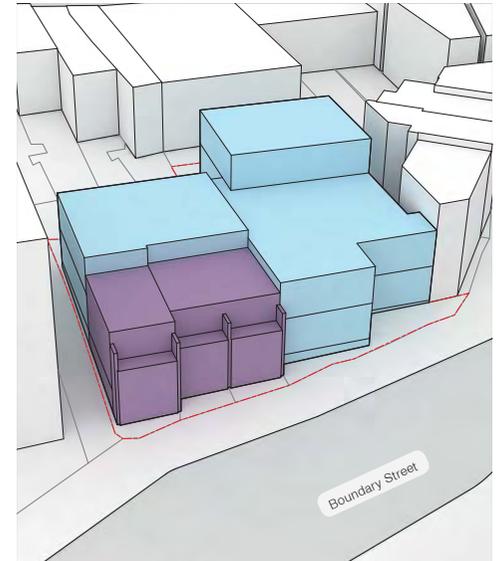


Figure 47. Option 2 Massing

Option 2

Key

- Site Boundary
- Existing buildings
- Existing dilapidated buildings
- New commercial building
- Commercial adaptive re-use

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