

Gwynneville Precinct

Addendum Urban Design Report

Prepared for Homes NSW

24 February 2025



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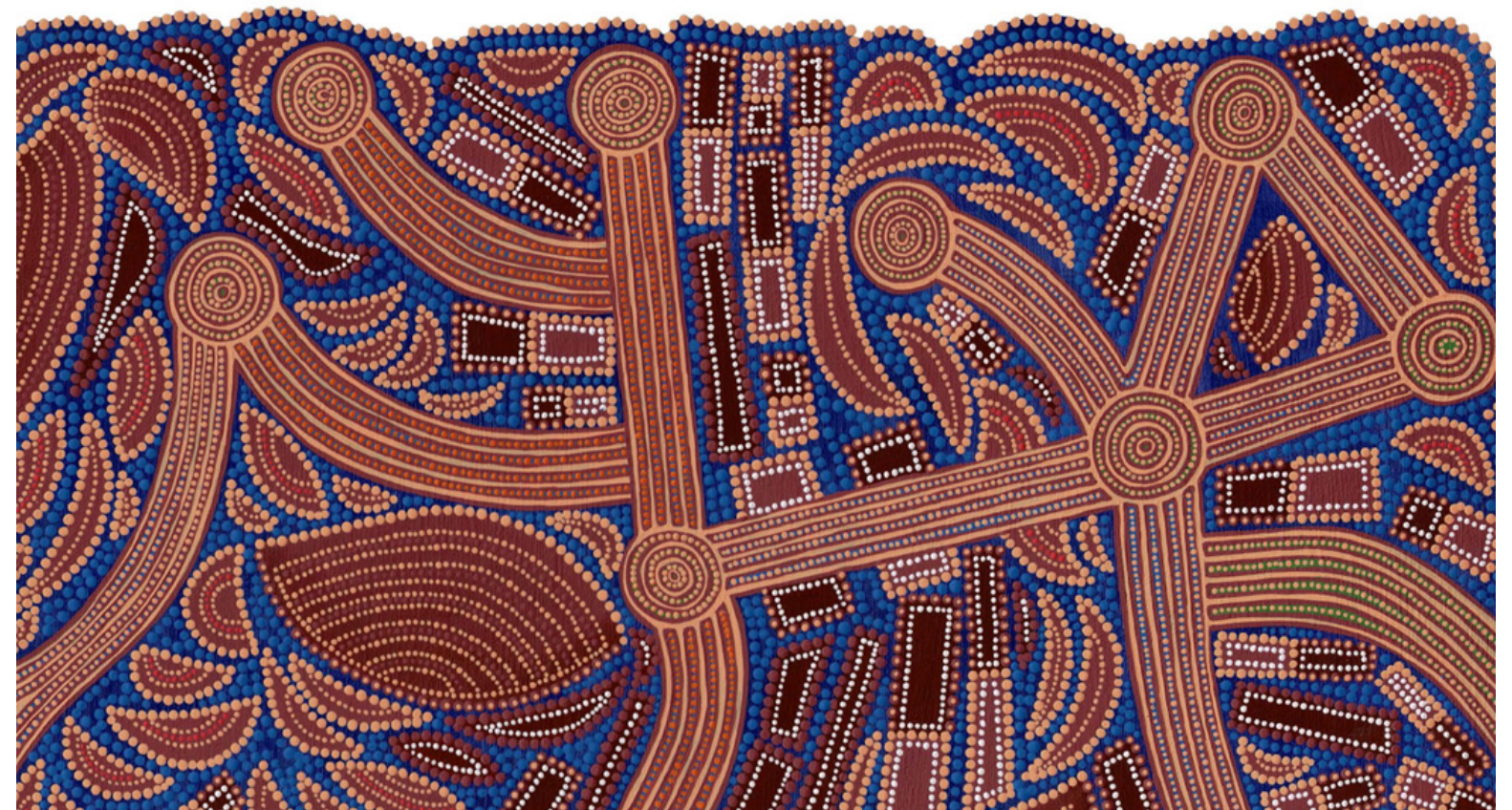
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Acknowledgment of Country

Gyde Consulting acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples past, present and future Traditional Custodians and Elders of this nation and the cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander people. We recognise the deep and ongoing connections to Country – the land, water and sky – and the memories, knowledge and diverse values of past and contemporary Aboriginal and Torres Strait communities.

Gyde is committed to learning from Aboriginal and Torres Strait Islander people in the work we do across the country.



Towards Harmony by Aboriginal Artist Adam Laws

1 Introduction

A Planning Proposal (PP-2024/3) was submitted to Wollongong Council (Council) in July 2024 on behalf of Homes NSW.

The Planning Proposal underwent preliminary notification in August 2024.

This report outlines the evolution of the built form outcomes delivered by the updated master plan to accommodate feedback from Council and local stakeholders.

This report was prepared by Gyde Consulting (Gyde) on behalf of Homes NSW (the Proponent).

Gyde was appointed to undertake design investigations in relation to the area bounded by Madoline Street (north), Murphys Avenue (south), Irvine Street (east) and the Wollongong Botanic Gardens (west). The area is henceforth referred to as the “Gwynneville Precinct” or “the Site”.

NSW Government owns a large number of land parcels within the Site. To expedite delivery of social and affordable housing, Gyde was engaged to examine site suitability and identify the potential for renewal and uplift to current planning controls.

During the early stages of the project, Gyde undertook urban design analysis and built form investigations to identify key constraints and opportunities applying to the Site and surrounding areas. This analysis informed the precinct vision and the final massing strategy adopted for the built form study.

Recent adjustments to the design are summarised in this document however, the findings and reasons outlined in this report build on the comprehensive body of urban design analysis outlined in the original urban design analysis undertaken for the site in 2023–2024.

Following the preliminary notification of the Gwynneville Planning Proposal, a supplementary Response to Preliminary Notification package was issued to Council in November 2024 (Appendix C).

The package included a comprehensive comparative analysis accounting for the design adjustments to strengthen the proposal in direct response to issues raised in consultation with Council and feedback received from the preliminary notification.

On the basis of the updated design responses, this report demonstrates the capacity of the master plan, to deliver appropriate built form outcomes for the Site and its setting.

This report must be read in conjunction with the original Urban Design Report issued July 2024 (Planning Proposal, Appendix B), the Response to Preliminary Notification package issued November 2024 (Planning Proposal, Appendix C), the updated Planning Proposal report recent technical reports.



Figure 1. Aerial Photographs indicating the location of the site (Source: Google Maps).

2 Project Background

2.1 Project history

The Gwynneville Planning Proposal (the proposal) was submitted to Council in **July 2024**. The proposal underwent preliminary notification for a 28-day period until **30 August 2024**. Documents placed on non-statutory notification included the draft Planning Proposal and supporting technical documents

The purpose of the preliminary notification was to assist Council in the initial assessment of the Planning Proposal. Further, the intended outcome was to identify key matters and concerns to be addressed prior to the proposal being reported to Council with a request to present the proposal to the Department of Planning Housing and Infrastructure (DPHI) for a Gateway determination.

Throughout the notification period, Council received several submissions from state agencies, internal referrals and the local community. Subsequently, the Proponent attended two (2) meetings with Council including one (1) workshop session. The primary focus of the workshop was on delivery of dwellings, the number of key sites, key sites boundaries, infrastructure and open space provision.

On 28 October 2024, Homes NSW presented the proposal to the Wollongong Local Planning Panel (the Panel). In the Statement of Advice and Reasons, the Panel expressed its support for the progression to rezone the Gwynneville Precinct, acknowledging that the proposal has both strategic and site-specific merit.

The Panel provided recommendations with respect to further matters to address including:

- The feasibility of the proposed key development sites and mix of housing tenure (50% market and 50% social/affordable) should be explored in further detail.
- Further consideration should be provided to the traffic arrangements and parking provision due to the limited public transport options currently available in the area.

- Development studies of a typical early development block be provided to present the physical nature and character of the built form and landscape treatment was encouraged.
- A comprehensive Community Engagement Strategy to be prepared.
- Sustainability and ESD approach to the whole development and individual built forms be further considered in line with Council’s policy.

The recommendations have informed the updated scheme as outlined in this, and other reports accompanying the updated Planning Proposal.

Following the Panel presentation, Council staff prepared an assessment of the Planning Proposal. Council’s assessment found that:

- The Planning Proposal request displays strategic and site specific merit.
- The Planning Proposal request will contribute to addressing the increased demand for additional social and affordable rental housing.
- The Planning Proposal request will contribute to increasing housing supply to address the increased housing demand.
- The precinct is generally suitable for increased housing density.
- The narrow road reserves and pavement widths will limit on-street parking, and measures to reduce parking demand will be required, including improve public transport and active transport.
- Infrastructure upgrades will be required to support the future development, including water supply augmentation, electricity supply augmentation, road intersection improvements.

Chapter 9.2 (Development Control Plan) of Council’s assessment report nominates the following amendments to be made to the precinct specific chapter of Wollongong Development Control Plan

(WDCP) (Chapter D22):

- The street hierarchy should be defined in accordance with Transport for NSW Design of Roads and Streets Guide.
- Street cross-section diagrams should be amended to reflect the actual narrow road widths.
- References to on-street parking for residents should be removed, in recognition that the existing 2 hour timed parking will be retained to maintain for vehicle movement.
- Include as an objective and control to maintain views to Djeera (Mt Keira) from key locations.
- Remove the character sub-precincts which complicates the guidance.
- Include landscape controls for the proposed deep soil zone / setback to the Wollongong Botanic Garden for the Paulsgrove Avenue properties.
- Clarify the intent of the ‘communal open space areas’ within the rear setbacks of the apartments.
- Provide guidance and requirements for apartment size (number of bedrooms) and percentage mix
- ‘Quiet House Design Principles’ – include a reference or refer to the relevant acoustic guidance from TfNSW for properties close to the M1.
- Include acoustic requirements for properties adjacent to the Wollongong Botanic Garden in recognition of the events that occur in the Garden.

The assessment report proceeds to recommend that Council resolve to support the Planning Proposal.

On 25 November 2024, Council resolved unanimously that the Gwynneville Precinct Planning Proposal be referred to DPHI for a Gateway determination and the preparation of an amendment to the LEP.

Further the Council Resolution noted the following:

- Homes NSW be requested to prepare a Traffic Management Plan, Active Transport Plan, Flood Impact and Risk Assessment (FIRA) and a comprehensive Community Engagement Strategy.
- Following the Gateway determination, the Planning Proposal and supporting documentation be exhibited for a minimum period of six weeks (excluding the Christmas – New Year period).
- Following the exhibition period, a report on submissions be prepared for Council’s consideration.
- DPHI be advised that Council wishes to use its delegations to finalise the Planning Proposal.
- Homes NSW be invited to work with Council officers to prepare a revised draft DCP Chapter D22 Gwynneville Precinct to reflect the revised concept plan and other issues raised in this report, and be reported to Council for endorsement prior to exhibition.

On 10 January 2025, DPHI issued a successful Gateway Determination for the Gwynneville Planning Proposal. The Determination includes gateway conditions as follows:

- Prior to exhibition, the planning proposal is to be updated in response to the following studies which are to be completed and placed on exhibition with the planning proposal:
 - Flood Impact and Risk Assessment
 - Traffic Management Plan
 - Active Transport Plan

The outcome marks a significant milestone in confirming the strategic merits of Homes NSW’s intention to facilitate the amalgamation and renewal of existing social and market housing in the Wollongong area.

A detailed account of the project history is summarised in the Planning Proposal Report prepared by Gyde.

3 Context Analysis



Figure 2. Context Map. The Site is outlined in red (source Nearmap).



Figure 3. Mount Keira and the Illawarra Escarpment are visually prominent from numerous locations within and around the precinct (source: Nearmap).



Sydney CBD (91km)

3.1 Context

The Site is located in Gwynneville within the Wollongong Local Government Area (LGA).

The area is located approximately 1 km north west of Wollongong North Railway Station and approximately 2 km north of Wollongong CBD.

Neighbouring suburbs include North Wollongong (east) and Mount Keira (west). The locality is characterised by residential neighbourhoods in suburban settings, in proximity to the Wollongong city centre with easy access to spectacular beaches and bushland areas.

The locality benefits from a large educational facility, local schools and medical facilities and the site itself is within walking distance of the North Wollongong Train Station (approximately 800m).

The study area is a land parcel of approximately 9 hectares interfacing the University of Wollongong Campus to the north, and the Wollongong Botanic Garden to the west.

Context and urban fabric investigations were undertaken as part of the original urban design study. The study examined the existing urban setting including the regional, local and immediate urban context. Analysis explored the local street and development pattern, landscape character features and the topographical framework of the Site including the implications a sloping terrain, to local character and the visual exposure of the Site.

The urban design analysis and technical studies considered access to local community infrastructure, recreational destinations and open space amenity to identify the Site's suitability for intensification of residential uses. Other considerations included transport and connectivity, environmental constraints, the visual environment as well as the relationship with surrounding development.

A comprehensive summary of Gyde's urban design analysis is provided in the original Urban Design Report dated 18 July 2024 (Appendix B).



Figure 4. Graphic analysis of existing Street networks, development scale, prominent landscape features, landscape and built form containment, flood affectation and existing front setback conditions.



3.2 Visual Setting

The topographical framework forms an important part of the regional landscape character.

Views of the coastline and undulating hilltops at the foot slopes of the Illawarra Escarpment, defines the scenic setting of Wollongong.

Local vistas and outlook to scenic and cultural landmarks form part of the local identity why the Proponent team undertook preliminary scenic view and site visibility investigations to inform the massing investigations undertaken for the site. The intent of the investigations was to identify, and better understand site visibility and in particular, determine the magnitude of the visual bulk implications of redevelopment along with any interference to the scenic quality of the area.

As part of the original master plan investigations, a visual setting analysis was undertaken to assist Council in the assessment of any potential impacts as part of the broader considerations for site suitability in the context of the proposal.

The limitations of block form envelopes include the lack of built form refinement, architectural detail and landscape treatment which is a level of detail design applied to Development Applications.

While the updated master plan includes minor variations to the location and geometry building footprints, the preliminary analysis of building envelope forms is considered a valuable tool in determining the extent of visibility, and the level of visual bulk exposure to surrounding areas.

As the amended master plan adheres to the original height strategy, the visual bulk findings continue to apply.

The role of the reference scheme is to establish maximum building envelopes representing the likely future bulk and scale outcomes however, future Development Applications will include design solutions to achieve compatibility with the desired visual character and minimised view loss, subject to detailed building and landscape design.

In consultation with Council, nine (9) long and medium range view were nominated for the preliminary visual bulk analysis.

In preparing the visual bulk investigations, Gyde attended an all-day site visit, documenting existing views from each of the nine (9) long and medium range viewing location, accompanied by a professional Photographer.

All public domain were captured at pedestrian eye level (1.6m above the footpath) with a horizontal alignment, representing views available to the common observer.

The digital 3D massing model was presented to the Perspective Artist who subsequently extracted pertinent survey data to the project datum to ensure precise alignment with the photographs producing accurate 'before' and 'after' images. .

Based on the visual analysis prepared by a Perspective Artist, Gyde assessed bulk impacts, summarising considerations and observations for each of the nine (9) long and medium range views.

The analysis is summarised the original Urban Design Report (Planning Proposal, Appendix B).

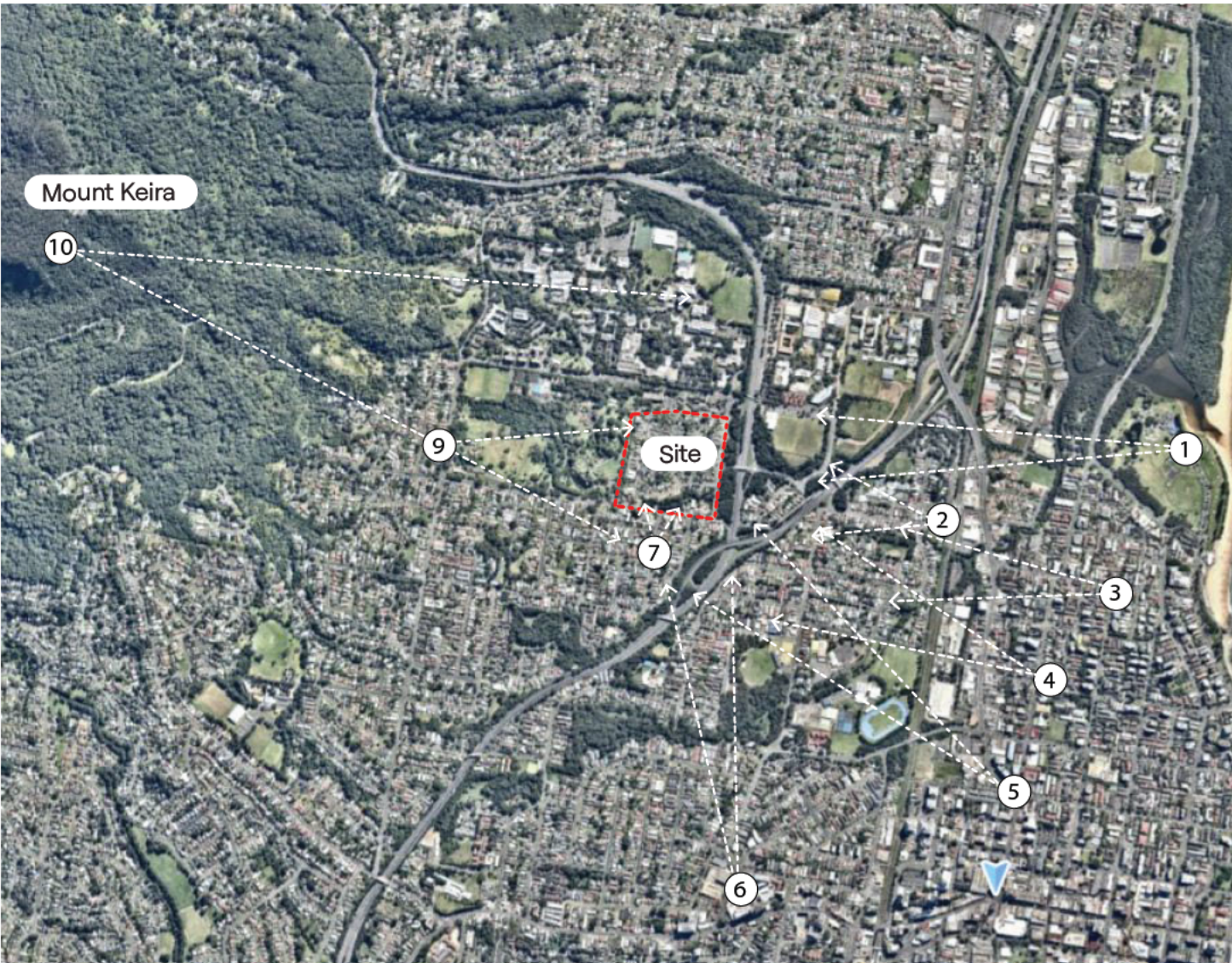


Figure 6. Location map (Source: NearMap).



Figure 7. Graphic examples of geospatial survey data points superimposed (in colour) onto an existing photographs to ensure the 3D model view is accurately 'matched' to the photograph (Source: Modata).

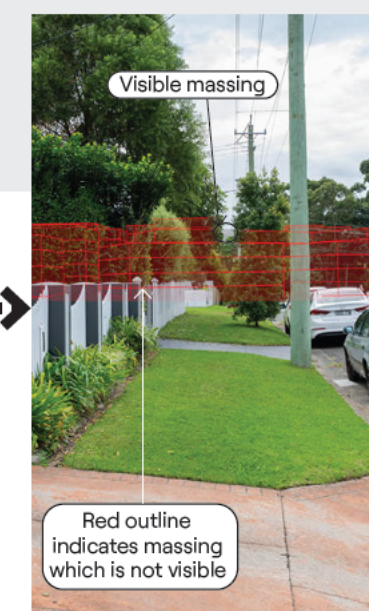
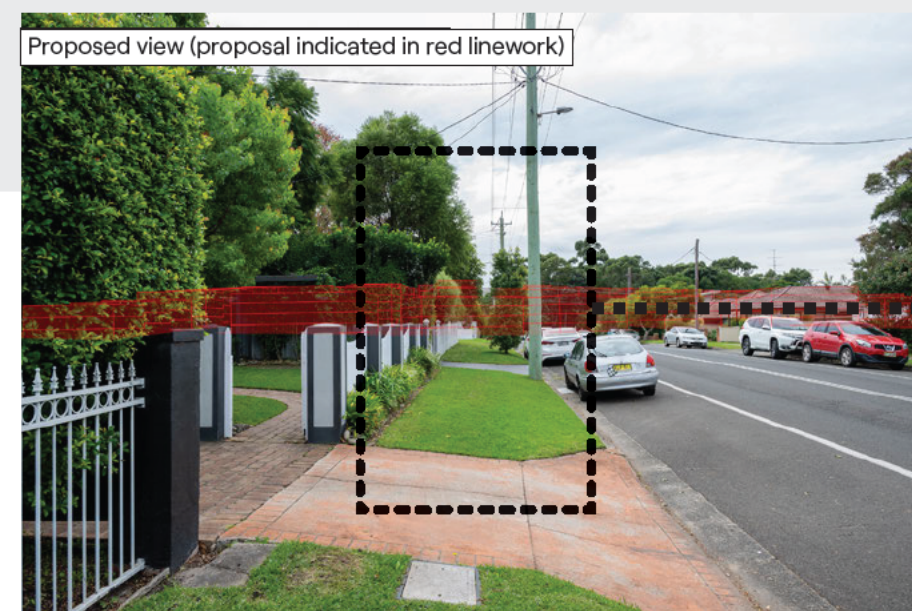
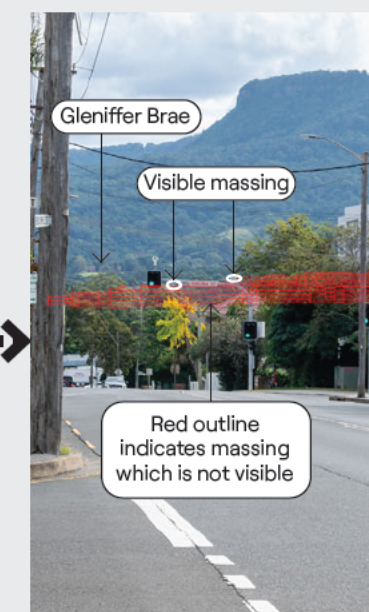
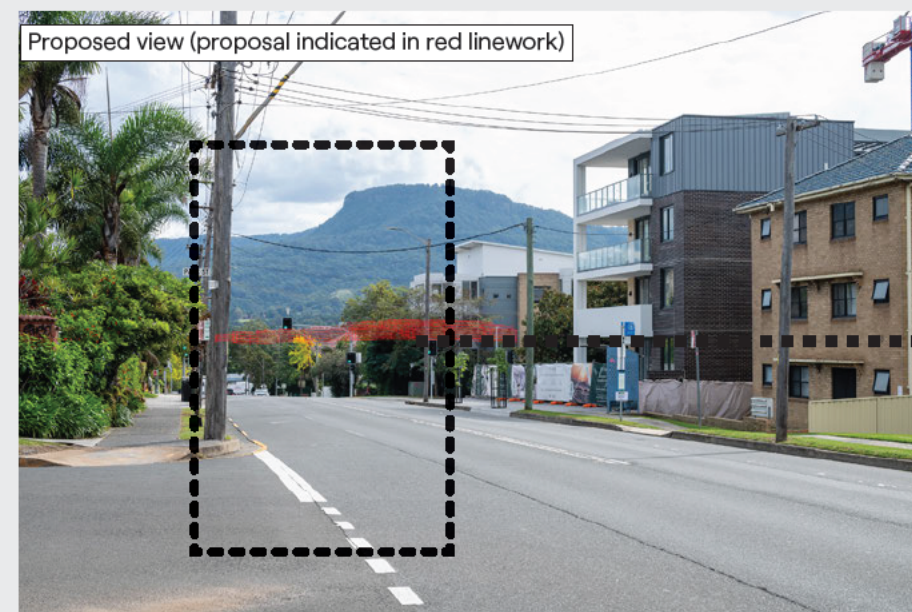
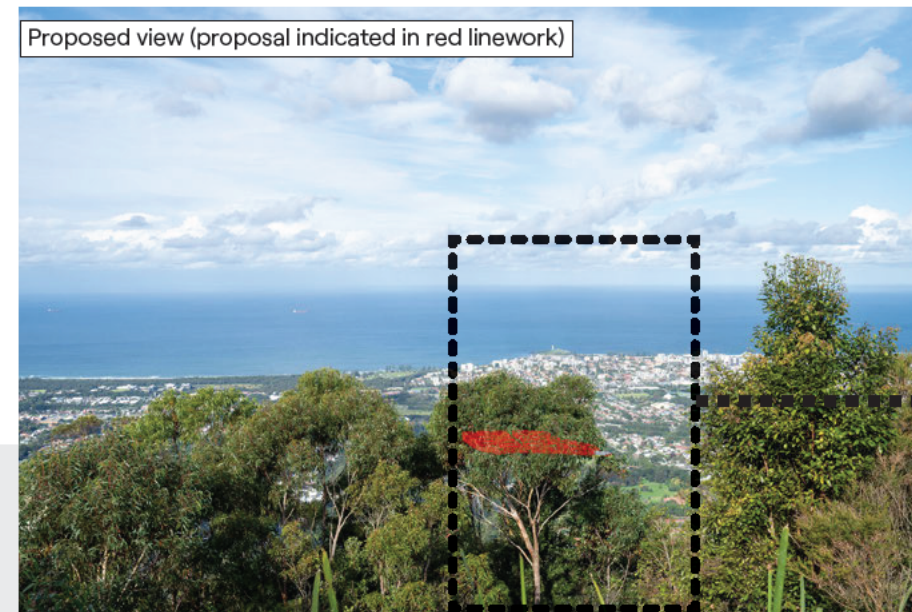


Figure 8. Accurate montages from public domain vantage points were prepared to ensure visual exposure to surrounding areas is minimised.

3.3 Local view lines and scenic vistas

Local vistas to Mount Keira are available within and around the subject site. Linear vistas and occasional glimpses to Mount Keira appear and disappear, as one moves through and around the subject site. The visual connectivity to local scenic landmarks contribute to the character of the locality.

The initial site investigations of existing view corridors to Mount Keira found:

- There will be no adverse impact to the broader scenic quality of the area and no significant impact to the landscape character of long distance views to Glenniffer Brae, Mount Keira and the Illawarra Escarpment.
- While the proposal may result in some localised interference with partial views to Mount Keira, the visual connection with the characteristic profile and key vistas will generally be maintained from streets and public domain areas within the Site.



Figure 10. View location map (Source: Nearmap).

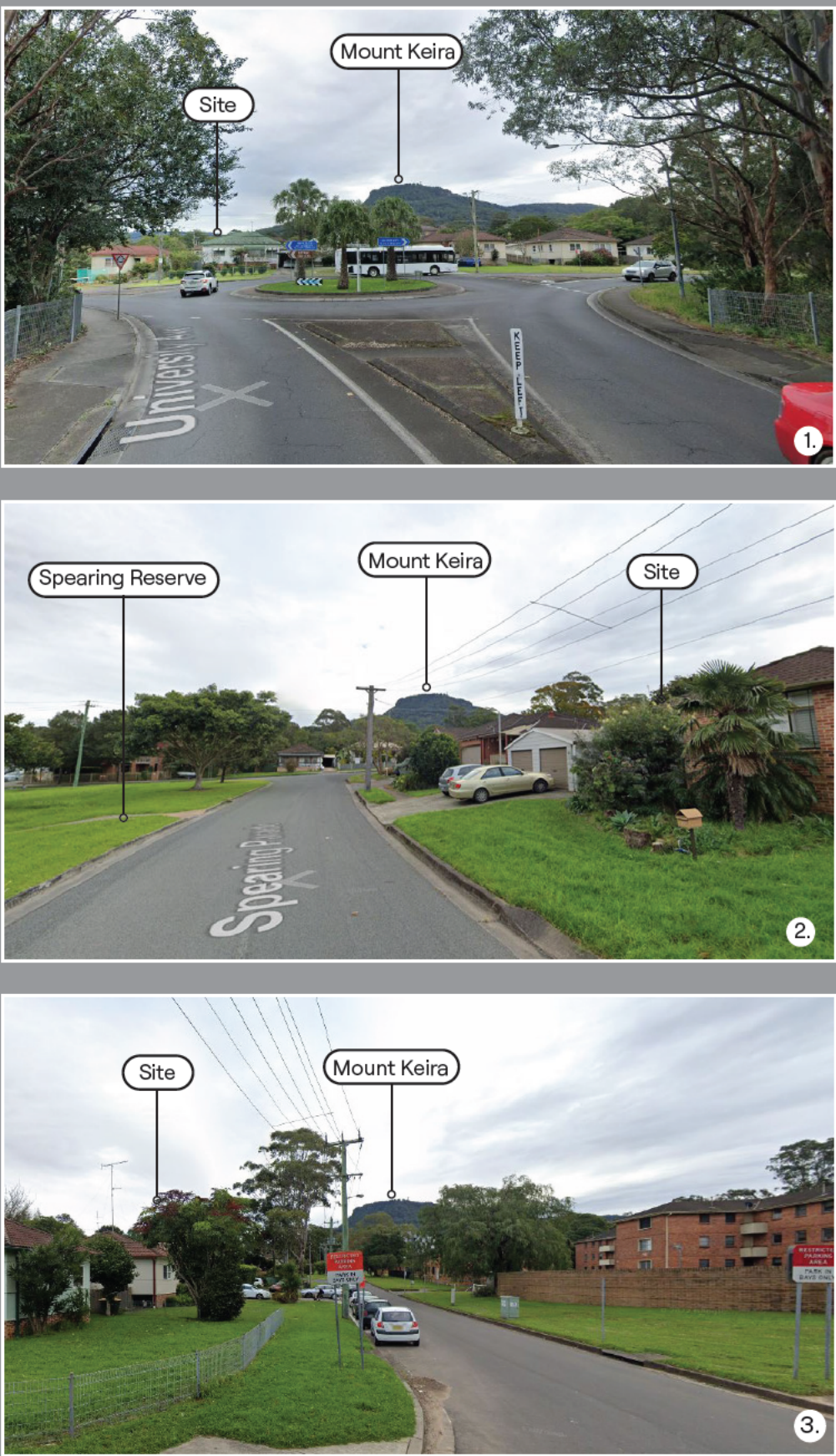


Figure 11. Photographic examples of local glimpses and partial vistas to Mount Keira from areas within and around the Site (Source: Google).



3.4 Landscape Screening

The visual catchment of the Site is limited due to the presence of dense vegetation along the southern, eastern and western site perimeters. Mature landscape components visually screens views to the Site from surrounding areas.

The following observations were made with regard to existing landscape screening:

- Future redevelopment of the precinct is considered an opportunity to strengthen the landscape screening along the southern and western site edges.
- Dense vegetation defines the interface to the Princes Motorway, providing visual screening and a sense of containment to, and separation from, the motorway.
- Prominent clusters of trees are scattered throughout the University Campus and the subject site, contributing to the suburban character of the existing neighbourhood.
- Westbound streets terminate in 'green' outlook and canopy views and glimpses of the Botanic Garden between existing dwellings.
- The Spearing Park Reserve fronts Murphys Avenue,. Mature trees within the reserve visually screens the precinct from the residential areas further south.
- Spearing Park Reserve is visible from Paulsgrove Street and the southern end of Sydney Street.



Figure 12. Site visibility is limited due to dense landscape screening (Source: Google).

3.5 Subject Site

The proposal applies to a land parcel in Gwynneville consisting of 134 lots (including 4 strata lots).

The Site is accessed from the local street network. The site entries are located near the north eastern corner of the Site (Madoline Street), along the eastern precinct edge (University Avenue), and near the south western corner (Murphys Avenue).

University Avenue provides a direct connection across the Princes Motorway to areas further east.

University Avenue and Gipps Road located approximately 600m further south provide access from the residential areas located south and south west of the Site, to Wollongong CBD, North Wollongong and coastal areas.

In proximity to the Site, the topography generally descends from the north west to the south and south east, with a fall of approximately 22m across the Site, as indicated in Figure 13.

Key site observations include:

- Currently, the precinct is occupied by residential dwellings in a garden setting.
- The predominant typology is a free-standing dwelling and the development scale is generally 1-2 storeys with a isolated examples of 2-3 forms.
- Lot widths typically range from approximately 17m to 21m (according to SixMaps) with narrower lots fronting Murphys Avenue.
- Street blocks have dual street frontages with the exception of the fronting the eastern side of Paulsgrove Street. Block depths range from approximately 45m to 93m with landscaped corridors at the centre of each block.
- The western block is located adjacent to the Wollongong Botanic Garden, where lawns and garden sheds present along the shared boundary.
- Existing dwellings present with traditional tiled roofs and brick or weatherboard façades. The undulating street pattern responds to the sloping topography whereby buildings are orientated in a staggered alignment relative to the street.
- The existing street reserves range from approximately 15m to 17m in width, with vegetated verges and a limited number of street trees.
- Front setbacks generally present as open lawns or as fenced gardens with diverse landscaping.
- A concrete footpath is located along Paulsgrove Avenue, providing the main pedestrian connection from the residential areas of Gwynneville to the University however, most streets currently fail to provide footpaths.
- Development located north of Madoline Street ranges from 3-7 storey in scale. The buildings present with larger building footprints than the residential dwellings further south.
- A variety of uses are located north of Madoline Street with a mix of faculty buildings and student accommodation.

- Exposed at grade car park areas are located north of Madoline Street and the entry to Wollongong Botanic Garden terminates the western end of the street where a gate currently restricts access after hours.

Some streets including Leahy Crescent, present with a typical 'high side/low side' arrangement where properties fronting the southern side of the street are below street level whereas the northern lots are located above the level of the street.

Site analysis provided in the original Urban Design Report examined existing conditions such as street and pedestrian networks, landscape character, environmental constraints, development grain and built form characteristics, prominent view lines and visually sensitive areas.

Refer to the Urban Design Report in Appendix B.

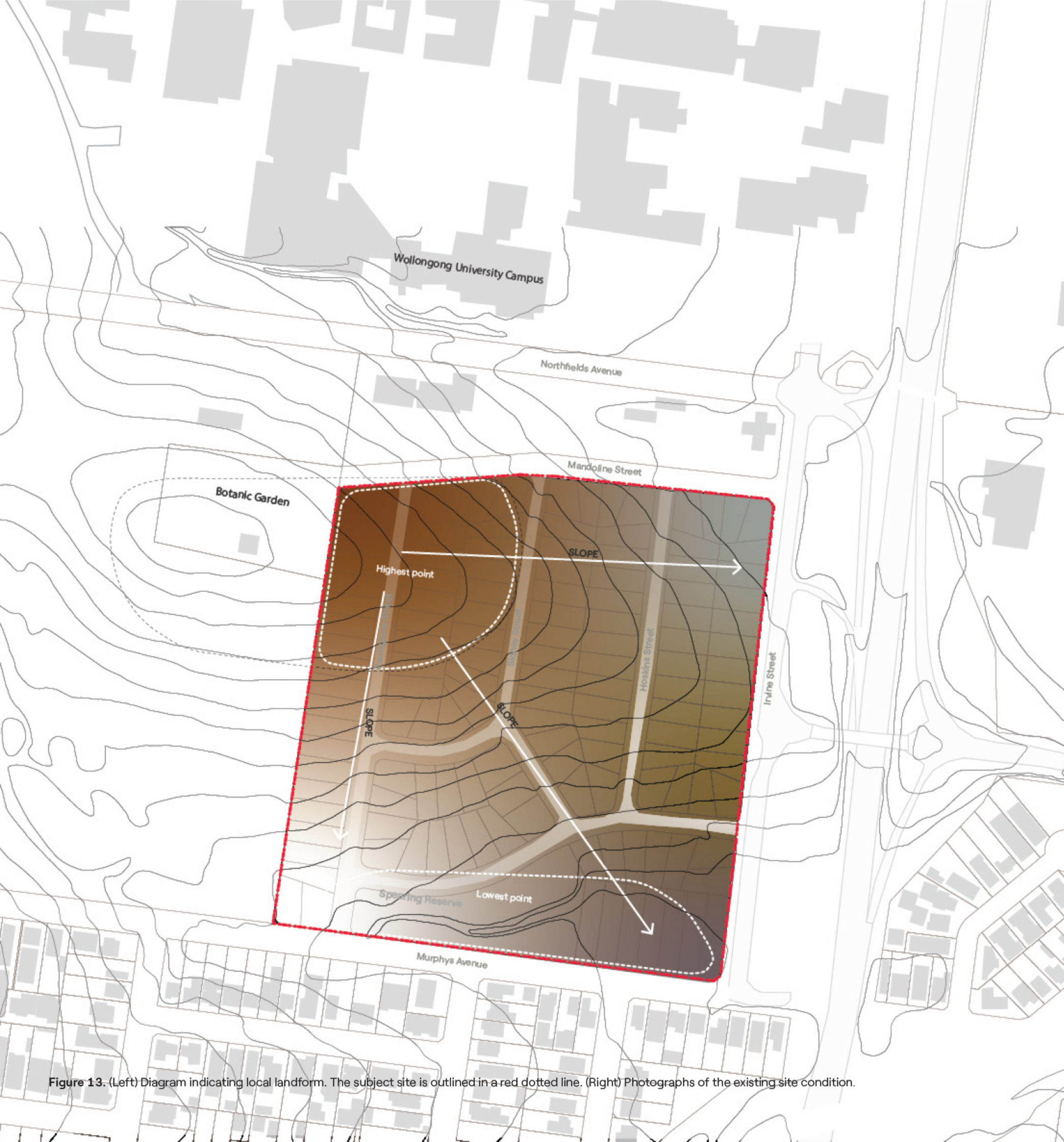


Figure 13. (Left) Diagram indicating local landform. The subject site is outlined in a red dotted line. (Right) Photographs of the existing site condition.

4 Future-proofing The Master Plan

4.1 Opportunity sites

Based on consultations with Council, Homes NSW has investigated a delivery model that responds to the existing land ownership patterns, with a view to establishing development sites that are wholly-owned by the NSW Government.

The aim is to enable immediate to short term development sites as an early focus of Homes NSW-led projects as catalysis for renewal across the precinct.

In addition to considerations for short term housing delivery, concerns were raised by Council about the intended tenure of the central open space component anticipated by the original master plan and original key site arrangement.

To strengthen the proposal’s implementation response, the Proponent team proceeded to tailor the reference master plan and key site layout in response to existing and potential future land ownership boundaries to identify potential ‘opportunity sites’ within the precinct.

The original master plan has been interrogated as part of this process, to facilitate a finer grain in the arrangement of key sites. The intention was to enable the NSW Government owned land parcels to be developed independently in the short to mid term, as catalyst sites to achieve the precinct vision and promote the renewal of the area.

Further built form testing was undertaken including modest amendments to the proportions and orientation of envelope footprints to establish a clearly defined framework of key sites.

The amended implementation framework includes key sites which are currently wholly within the ownership of the NSW Government versus key sites which rely on acquisition of additional lots to assemble the site.

These key sites were nominated as “Primary” and “Secondary” opportunity sites. Remnant land parcels held primarily under private ownership, are identified as “Private” opportunity sites.

The original approach to establish a framework through which the desired intensification may be achieved via bonus incentives and a Key Sites mechanism has been maintained. The intent is to support amalgamation and improved public domain outcomes remains the key objective and continues to apply to the updated Planning Proposal.

Following the preliminary notification, the number of key sites was increased from seventeen (17) to twenty-seven (27) key sites.

Homes NSW have divided the development sites the following three (3) categories:



Figure 14. Existing landownership.



Figure 15. Opportunity sites examined.



Figure 16. Opportunity sites and updated key site layout.



Figure 17. Key site overlay on landownership diagram.

Primary – Six (6) sites where all lots are owned by NSW Government. Homes NSW intend to develop these sites for social and affordable housing.

Secondary – Six (6) sites where greater than 60% of the lots are owned by NSW Government. Homes NSW intend to develop these sites for social and affordable housing, once the private lots are acquired or in partnership with owners.

Private – Fifteen (15) sites where NSW Government own 50% or less of the lots. Homes NSW indicates that these sites will be developed by private developers. Homes NSW may be a partner in some of the sites where the NSW Government owns lots.

4.2 Built form testing

Informed by updated built form testing, the master plan was adjusted to facilitate redevelopment of key sites owned by the NSW Government without burdening the redevelopment of neighbouring sites and/or compromising the ability for the wider precinct to achieve the precinct vision as supported by Council.

Alternative options for built form distribution were explored to ensure the development grain and scale remained largely consistent with the outcomes and principles established as part of the original precinct vision.

As part of the process, Gyde tested building envelope footprints in scaled vector drawings (CADD) and digital 3D models to define an indicative building envelope footprint within each of the key sites.

An updated master plan layout created in response to a digital terrain model of the precinct, to determine the appropriate distribution of building heights and urban form outcomes. The envelope testing was prepared on the basis of publicly available geospatial data, noting future Development Application will rely of detailed site survey information and detailed design solutions

Pending the details of future development applications and detailed survey information, all building envelopes have the capacity to meet key Design Criteria of the Apartment Design Guide (ADG) as demonstrated in later chapters of this report.

Importantly, the updated master plan seeks to maintain a future development character of predominantly 4-6 storey pavillion building typologies separated by landscaped areas and open space amenity.

In consultation with Council, the central open space has been reduced in size but proposed upgrades to public amenity and expansion of local parks continue to form part of the amended master plan as key structural elements of the site layout.



Figure 18. Updated building footprint arrangement and landownership.



Figure 19. Open space areas.



Figure 20. Key site layout and land dedication.

5 Site Planning Principles

Based on the constraints and opportunities analysis undertaken for the site, Gyde prepared a suite urban design principles to guide the site layout and structural basis of the master plan.

The site planning principles applied to are largely consistent with the design principles established in the original master plan.

Consultations with Council led to minor adjustments to the layout such as amendments to the central open space and retention of existing stock within the south eastern corner of the site fronting Murphys Avenue.

5.1 Land Use

Informed by strategic and place-based investigations along with technical advice, the principles applied for land use are:

- Provide a robust urban form that is capable of affordable, social and diverse housing catering for broad range of community needs as well as community housing.
- To provide new opportunities for the community to meet and recreate in well configured and accessible open space.



5.2 Built Form Distribution

The principles underpinning the distribution of built form seek to provide:

- Pavillion building forms in a garden setting.
- A nuanced distribution of building heights to respond to topography and minimise visual bulk impact.
- Distribute bulk and scale to facilitate a layered urban form profile with building envelopes ranging in height from 3-6 storeys with building heights distributed in response to the sloping topography.
- Building envelope footprints distributed to retain and respond to the existing street network.
- Concentrate taller forms along the northern site edge in response to the scale envisaged by the Campus Master Plan.
- Stepped building envelopes to ensure adequate capacity to minimise the need for cut and fill across the site, and where relevant, incorporate flood mitigation measures.
- The key site arrangement responding to existing and likely future landownership.
- Allow for a centrally located landscaped area to service the future community.



5.3 Public Domain Interface

The design principles underpinning the public interfaces responses seek to ensure:

- Expand and improve landscape screening along Murphys Avenue.
- Generous capacity for improved landscape screening along the (eastern) site edge adjoining Wollongong Botanic Garden.
- A residential address to a public street, enhancing the sense of neighbourhood and maximised passive surveillance.
- Allow for future connections to the University of Wollongong (UoW) Campus to complement the Campus Master Plan (2016).
- Building envelopes oriented and positioned to maximise passive surveillance of public open space.
- Taller built forms that are tailored to minimise the impacts of visual bulk with upper levels recessed to minimise exposure to public domain edges.
- Retain key corridors to Mount Keira from public streets.
- A site layout to allow for basement parking and consolidated basement entries, minimising interruptions to the pedestrian environment.



5.4 Development grain

The design principles for development grain seek to ensure:

- Built form relief at the centre of the urban blocks to provide landscaped amenity and 'green outlook' between built form.
- Building envelope allowing for generous modulation of elongated forms to minimise visual bulk and scale impacts.
- Building envelopes with capacity to achieve a diverse variety of housing types and tenures, responding to the context and grain of the wider urban fabric.
- Upper level setbacks to enable the provision of well proportioned built forms, reduce the perceived scale of future development.



5.5 Open Space

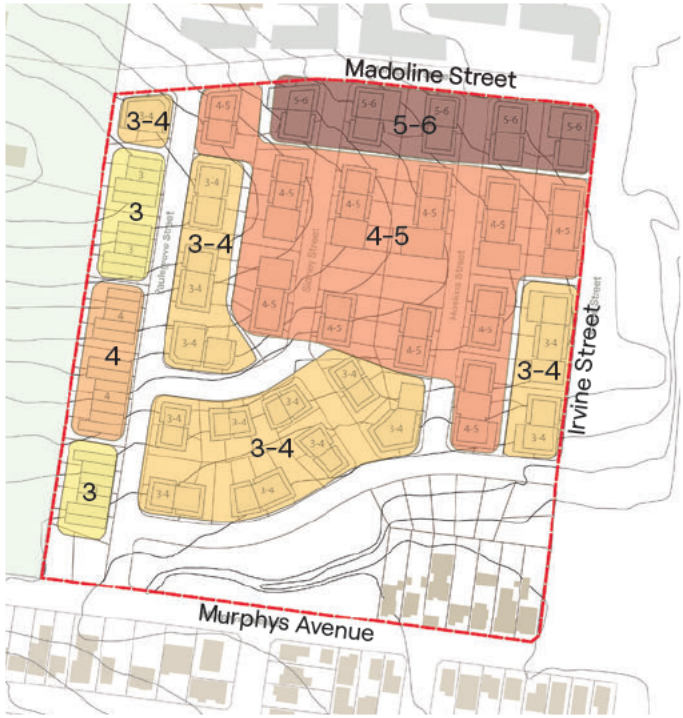
The design principles for development grain seek to maintain a leafy garden character to be supported by:

- Minimum front setbacks to Madoline Street of 3m
- Minimum 4m front setback to all other streets
- Minimum 3m secondary setbacks to Madoline Street

The updated proposal provides for:

- Adequate setbacks to facilitate privacy, ventilation and access to sunlight between buildings and neighbouring sites through minimum building separation stipulated in the ADG.
- Generous communal open spaces distributed across the precinct with capacity to achieve good solar access and maximised passive surveillance.
- Visual links between built forms to promote the visual presence of landscape settings and visual permeability.
- Expansion of the existing reserve fronting Murphys Avenue.
- Provide generous deep soil along the western boundary to ensure adequate capacity for genuine landscape screening to the Wollongong Botanic Garden, minimising any adverse visual impacts.

The constraints and opportunities analysis and design principles are summarised in detail in the original urban design report (Planning Proposal, Appendix B).



Principles for height distribution (indicative number of storeys)

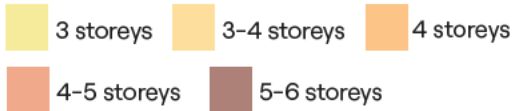
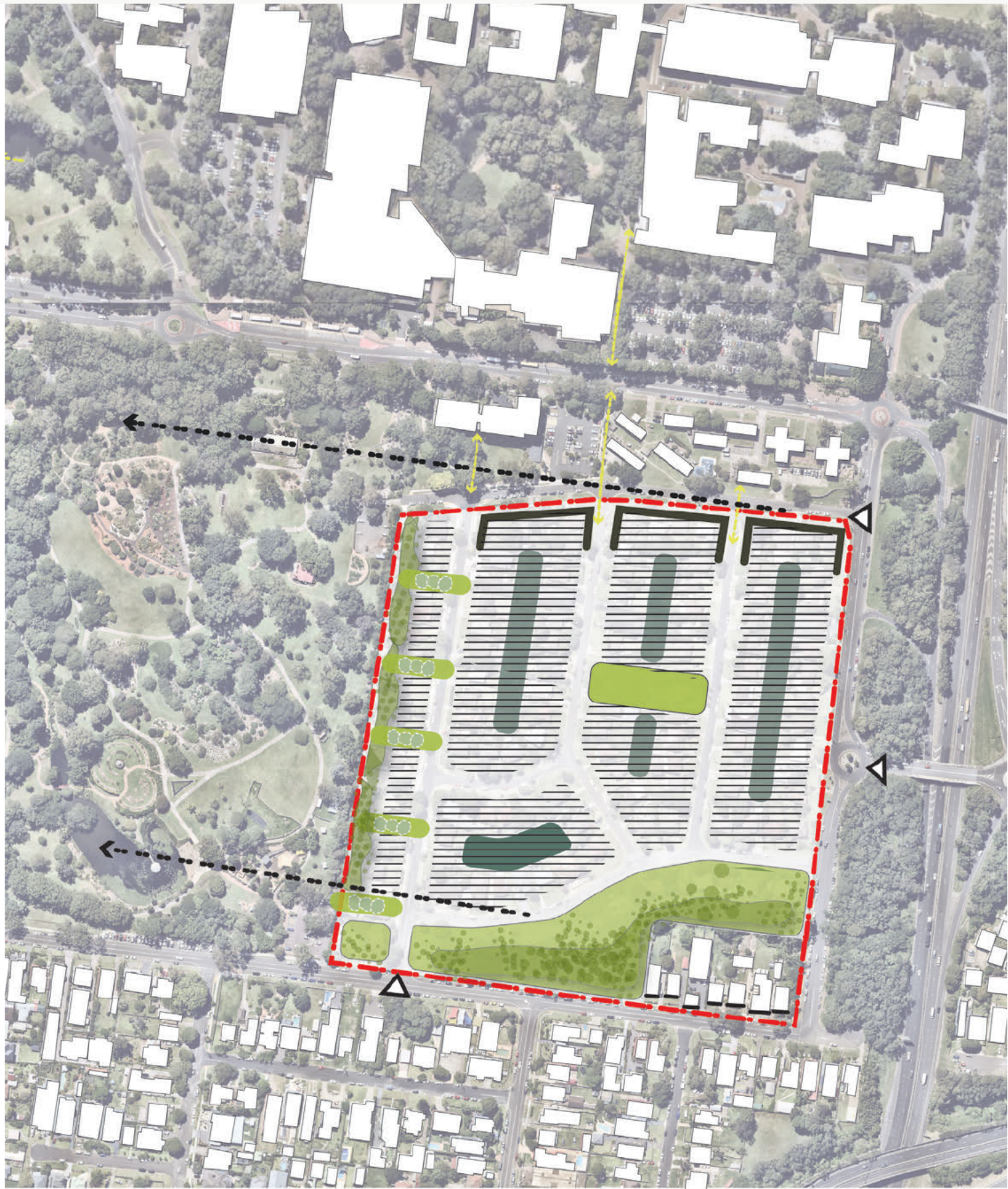


Figure 21. Building height distribution.



Figure 22. Site layout principles.



6 The Master Plan

6.1 Project Vision

Homes NSW is growing and changing its portfolio to better meet the needs of current social housing tenants and those on the priority social housing waitlist.

Concentrated social housing areas like Gwynneville are good opportunities for large-scale renewal of ageing housing stock, delivering a greater diversity and supply of new homes including social homes that better respond to the needs of community.

Located close to train and bus services, the Botanic Gardens and the University of Wollongong the potential renewal of Gwynneville will help meet Wollongong's urgent need for new housing supply, and capitalise on major infrastructure works underway on the new M1 interchange at Mt Ousley Road.

6.2 Precinct Vision

This updated Master Plan continues to build on a holistic vision for social, community and diverse private housing in Gwynneville. It aims to facilitate diverse range of housing typologies which will include additional social and affordable housing, market housing products and seniors housing, as well as opportunities to develop build-to-rent, key worker housing and student accommodation.

The vision is to create a high amenity walkable and accessible residential high-density neighbourhood with an increased choice of affordable and diverse housing options that provide for a broad range of community needs and family types including students, people on low incomes, people with disability and seniors.

The vision is based on sound and robust planning and urban design principles that will facilitate the development of new homes that will work in harmony with sloping topography and established landscape qualities in and around the precinct.

Building envelopes have been tailored to encourage diversity and respond to existing landownership as well articulated forms, oriented to achieve good solar access and a human scale response.

Building scale will be distributed in response to the topography, and supported by landscape setbacks which will provide for pavillion forms in garden setting to complement the neighbourhood character of Gwynneville.

Homes NSW's vision is to facilitate and prioritise delivery of much needed housing in an ideal location where an emerging precinct character can evolve with minimal adverse impacts to surrounding areas.

The proposal sets out to ensure the Gwynneville Precinct will provide for a livable and walkable neighbourhood with a diverse range of high amenity living in proximity to Wollongong CBD, Wollongong railway station, local schools, educational facilities and unique recreational and landscape amenity.



Figure 23. Updated Master Plan with indicative number of storeys.

7 The Proposal

There have been no significant departures from the key urban design principles informing the original massing strategy.

The updated Planning Proposal is for:

- Rezoning of 117 lots from R2 Low Density Residential to R4 High Density Housing, retaining the existing 0.5:1 FSR, 9m Building Height standards and removing the 449sqm minimum lot size standard
- Rezoning of 9 lots from R2 Low Density Residential to RE1 Public Recreation and removing the existing 0.5:1 FSR, 9m Building Height and 449sqm minimum lot size standards from lots adjoining Spearing Reserve
- Identifying Lots 109 and 110 in DP 36218 on the land reservation acquisition map, with Homes NSW identified as the acquiring authority. Note: despite identification of the sites on the LRA Map, it remains Homes NSW intent for any privately owned RE1 land to be purchased by Homes NSW through private market negotiations and transferred to Council, rather than via the compulsory acquisition process.
- No change proposed to the planning controls for 8 lots (2-14) Murphys Avenue, retaining the existing R2 Low Density Residential zoning, 0.5:1 FSR, 9m Building Height and 449sqm minimum lot size standards. Note: the lots fronting Murphys Avenue form part of the study area examined in this report.
- Divide the precinct into 27 development / key sites, within which bonus FSR and building height controls would apply if lots are amalgamated for development, 50% social and affordable housing is provided, and public domain outcomes are delivered for relevant sites. Bonus provisions seek to enable the development of 4-6 storey residential flat buildings.

The master plan layout has been updated to:

- Provide 35 building envelopes distributed across 5 existing street blocks;
- Create a high-amenity, walkable residential neighbourhood with an increased density and choice of affordable and diverse housing options that provide for a broad range of community needs and family types – including students, people on low incomes, people with disability and seniors.
- Enable the delivery of residential flat building typologies on (up to) six (6) key sites owned by the NSW Government, as catalysts for the mid- to long-term redevelopment of the wider precinct.
- Ensure building envelope footprints are generally orientated north south so as to maximise solar access to apartments, while minimising overshadowing impacts to mid-block communal landscaped areas;
- Expand the existing provision of open space across the precinct, to enhance public amenity and strengthen landscape presence along Murphys Avenue;
- Facilitate the distribution of building heights, ranging from three (3) to six (6) storeys across the site, in response to the sloping landform;
- Ensure taller built forms are concentrated within the northern portion of the site, adjacent to the larger footprint buildings located within the university campus.
- Ensure lower scale forms are presented to the southern, eastern and western precinct edges to minimise visual bulk exposure in relation to surrounding areas;
- Distribute three (3) and four (4) storey buildings along Spearing Parade and Paulsgrove Street, within areas which are visible to neighbouring residential areas located south of Murphys Avenue.

- Ensure building envelopes fronting the western side of Paulsgrove Street, adjacent to the Botanic Gardens, have the capacity to deliver ‘fine grain’ building forms which respond to the steep terrain.
- Ensure built forms are orientated to provide a residential address to all public streets and green reserves, to provide a sense of ‘neighbourhood’.
- Provide building footprint depths that are consistent with design guidance provided under the NSW Apartment Design Guide (ADG) with a maximum of 22m in depth, to provide for efficient floor plan layouts and good apartment amenity.
- Enable the provision of building separation consistent with ADG design guidance to maintain privacy and outlook to apartments and deliver landscape relief between buildings when viewed from public streets.
- Provide mid-block built form relief, to facilitate the delivery of well-proportioned and usable communal open space with good solar access and maximised passive surveillance.
- Provide building separation to accommodate the delivery of landscaped corridors between built forms and the provision of canopy trees.
- Ensure that buildings located east of Paulsgrove Street provide recessed upper floor levels, to minimise perceived built form scale to pedestrian areas.
- Provide minimum front setbacks to Madoline Street of 3m and minimum 4m front setback to all other streets of 4m. Where secondary setbacks are provided, these allow for a minimum setback of 3m to accommodate balconies.
- Incorporate partial upper floor levels on some building envelopes, to enable flexibility and the delivery of rooftop open space.
- Ensure elongated built forms are well articulated to reduce perceived bulk.

- Achieve building envelope proportions capable of delivering workable and efficient floor plate layouts with adequate flexibility to provide built form modulation and façade articulation.
- Provide deep soil capacity along the western precinct boundary to strengthen the landscape screening presented to the Wollongong Botanic Garden, to minimise visual bulk exposure.
- Mitigate flooding risk in the southern areas of the site through the expansion of public open space.

Further details of the proposal are provided in the Planning Proposal Report prepared by Gyde.

8 Massing Strategy & Urban Form Response

8.1 Response to the topography

Distribution of bulk and scale adheres to the original principles for height distribution by responding to the sloping landform. The massing strategy continues to locate taller forms within the northern portion of the site where bulk and scale will be less exposed to surrounding low scale residential areas. The scale of built forms fronting Madoline Street is largely consistent with the scale of future built forms envisaged in the UoW Master Plan (2016).

To facilitate an urban form profile that is sympathetic and responsive to the natural terrain, 3 and 4 storey forms have been located along Paulsgrove Street. Lower scale forms are located near Murphys Avenue where view lines to the precinct are available from residential areas.

The distribution of height seeks to achieve balanced streetscape proportions across public streets including for areas adjacent to the university in a location where topography enables the broader visual impact of bulk to be mitigated.

The massing strategy delivers an urban form profile that transitions from the ridge near the north western corner of the site, to the southern site edge. This demonstrably achieves a harmonious, gradual height presentation with upper floor levels recessed to minimise perceived bulk.

Existing dense landscape screening along site edges act as a visual buffer to surrounding areas, further limiting the visual catchment of the site.

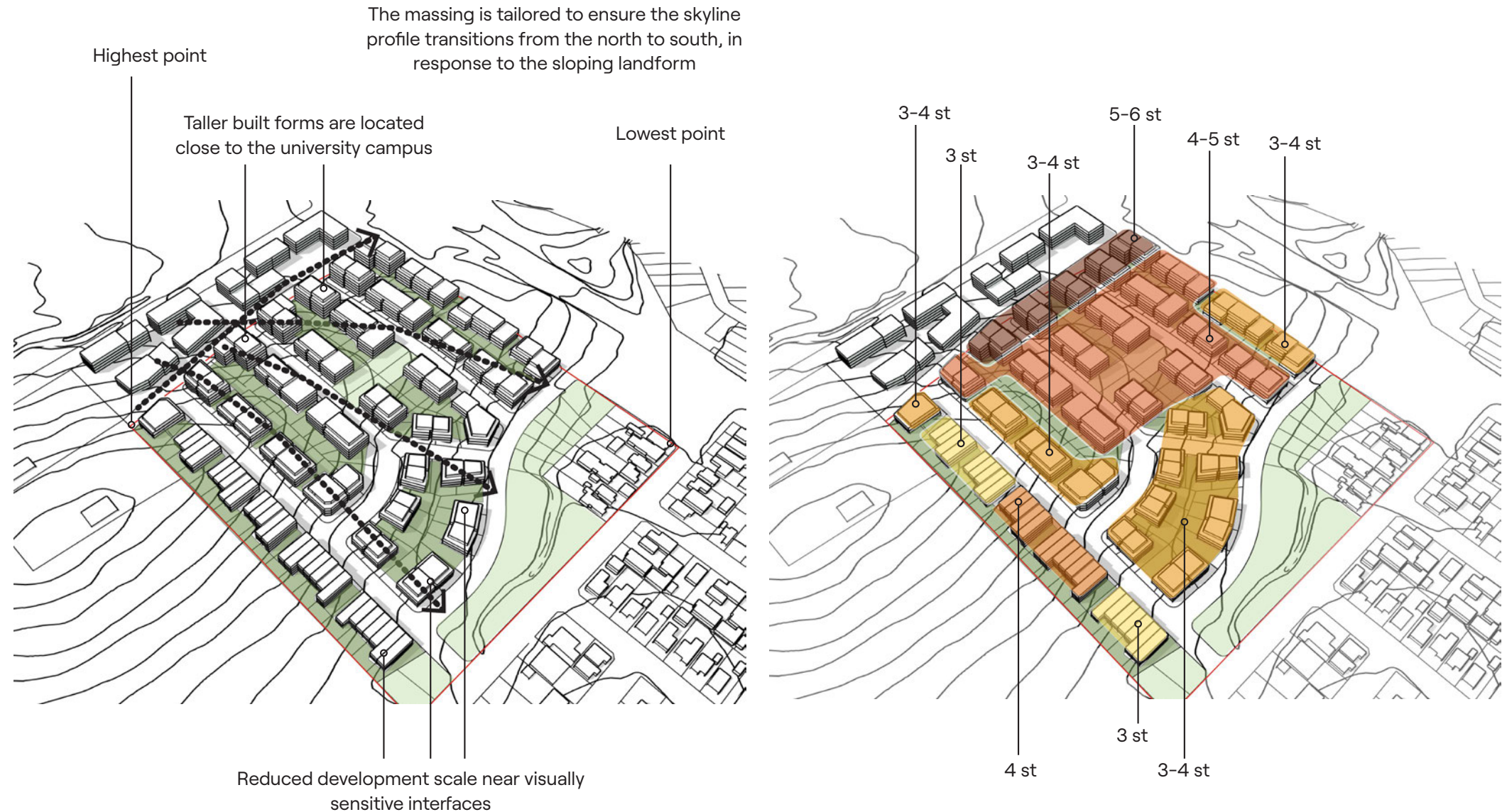
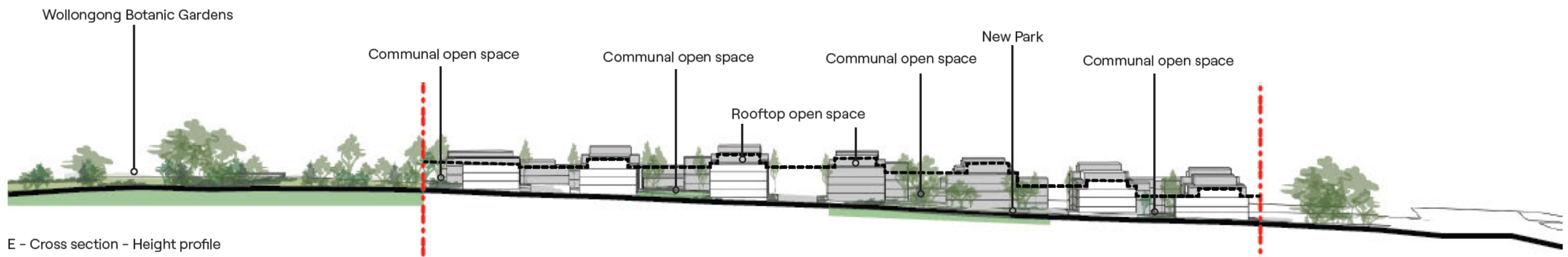


Figure 24. Massing diagrams indicating the distribution of heights across the Site.

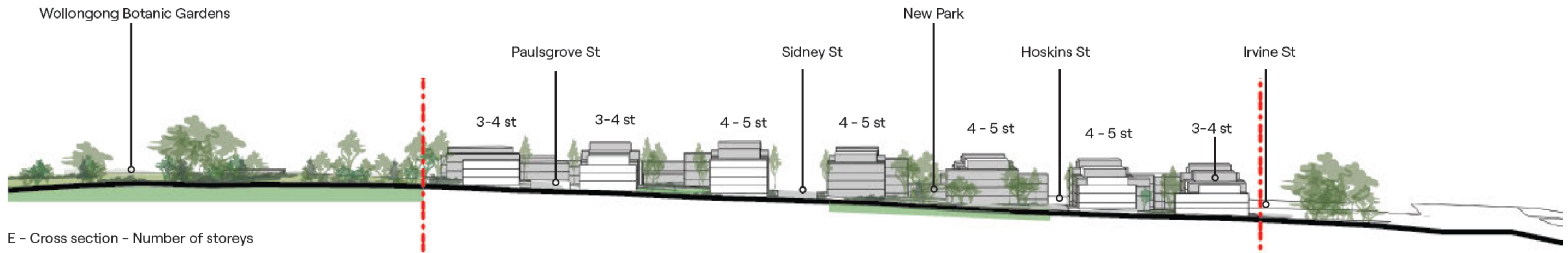


Figure 25. Section Key Plan.



E - Cross section - Height profile

Figure 26. Section E - The stepped height profile is indicated in a black a black dotted line.



E - Cross section - Number of storeys

Figure 27. Section E indicating how the number of storeys respond to the sloping terrain.

9 Typical Street Sections

9.1 Streetscape proportions

The massing strategy delivers building envelope proportions that are responsive to the visual setting and topography of the individual streets as follows:

- The gradient of Paulsgrove Street enables building envelopes to be expressed as stepped forms, descending with the undulating terrain.
- Stepped envelope forms encourage a nuanced streetscape profile with prominent grain and facade structure presented to the street.
- The interval of 'canopy corridors' between the built forms enhance the streetscape rhythm and adds visual interest.
- Streets located east of Paulsgrove Street provide taller forms along the northern site edge, descending further south near Spearing Reserve. Modulated forms and landscaped corridors between the buildings establish a balanced streetscape rhythm which, in combination with a strong landscape presence across the precinct
- Built forms provide a 3-4 storey presentation along the southern site perimeter which is compatible with the scale of lower density areas to the south.
- The scale of the building envelopes presented to the publicly accessible open spaces are proportional to the width and size of the open spaces.
- Upper floor levels are recessed from the primary building alignment to reduce perceived bulk.

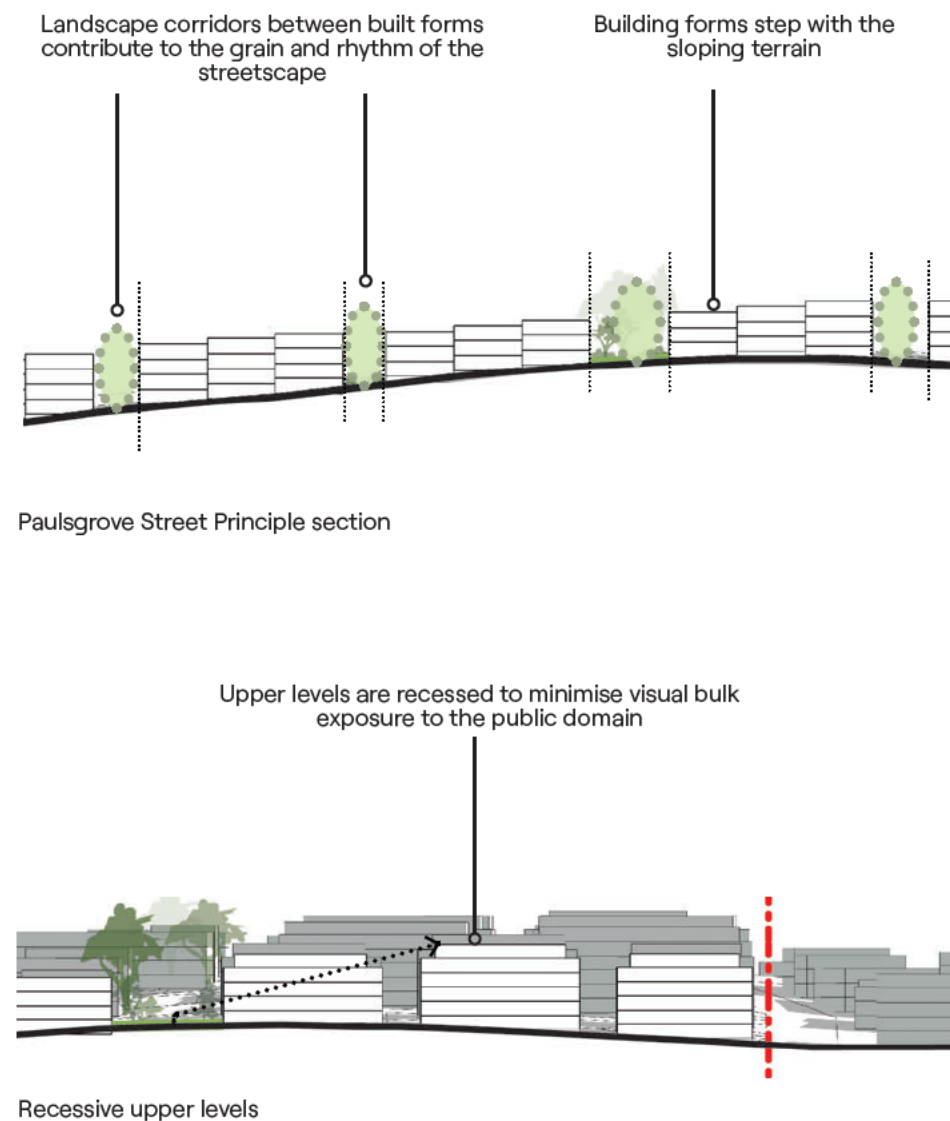


Figure 28. Principle diagrams.



Figure 29. Section Key Plan.

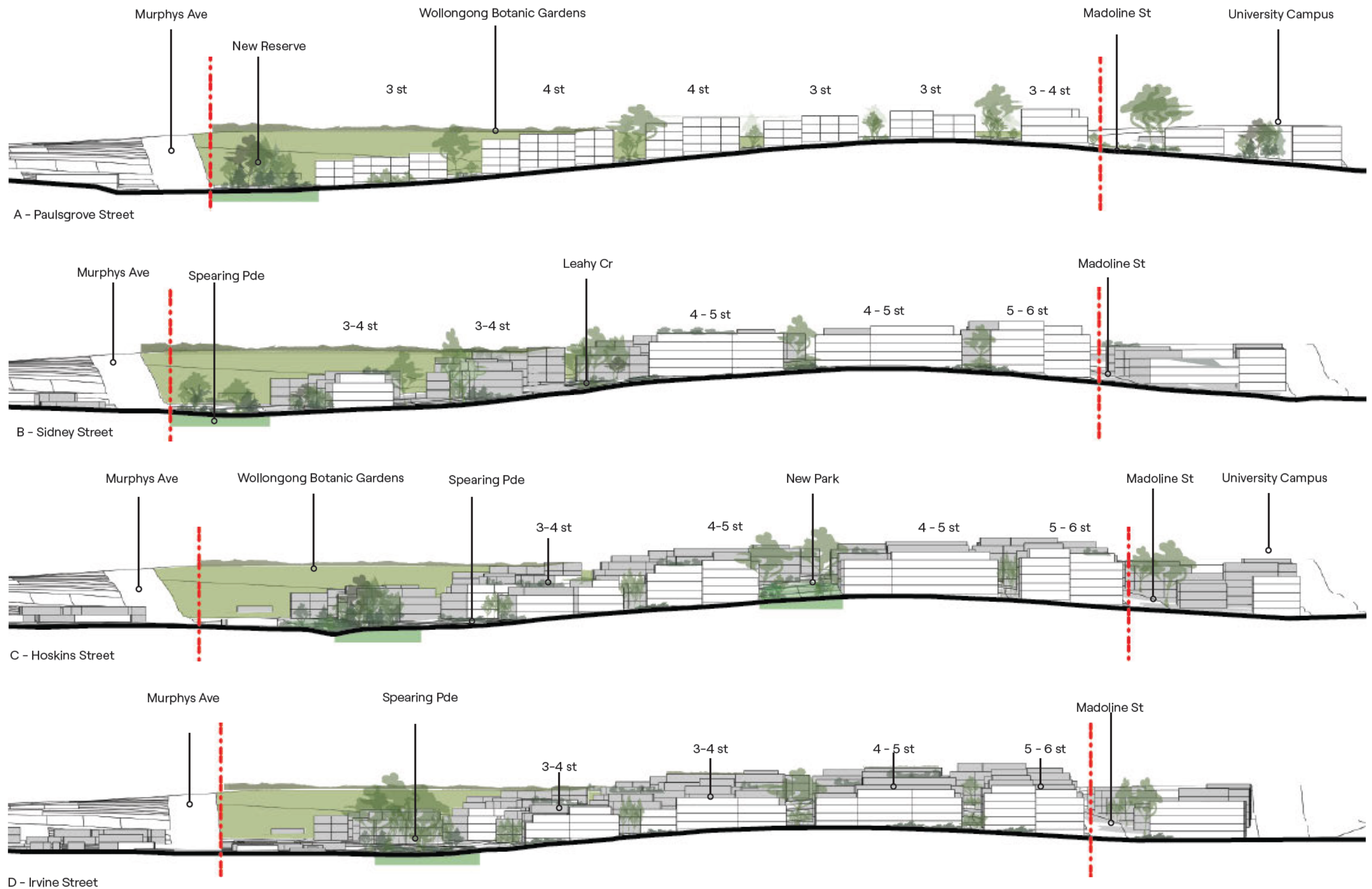


Figure 30. Indicative street sections.

10 Built Form Outcomes

10.1 Envelope proportions

The updated master plan generally maintains similar building footprint proportions as follows:

Building envelope depth of 22m. Footprints are proportioned to allow for efficient and flexible double loaded floor plan layouts with centralised cores.

Building envelopes are limited to 22m to limit the future apartment depths. Deep apartment layouts should be avoided to ensure reasonable access to daylight, ventilation and outlook.

Building envelope footprints are proportioned to maximise opportunities for dual aspect and corner apartments.

The outcome is consistent with Design Guidance provided under part 2E of the ADG.

10.2 Building length

The length of building envelopes generally range from 35-45m for pavillion typologies.

Building lengths are intended to vary across the Precinct. Where envelopes exceed 45m in length, forms are well modulated with vertical indentations to avoid continuous bulk.

The outcome is consistent with Design Guidance provided under Parts 2B and 4M of the ADG.

10.3 Building Setbacks

The updated master plan continues to incorporate the following front setbacks:

Primary building setbacks

- Minimum 3m setback to Madoline Street
- Minimum 4m setback to other streets

Secondary setbacks

- Minimum 3m

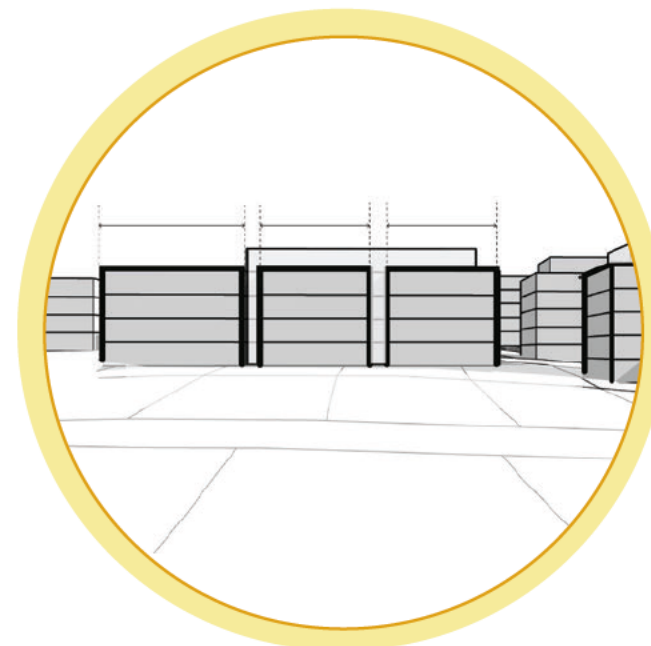
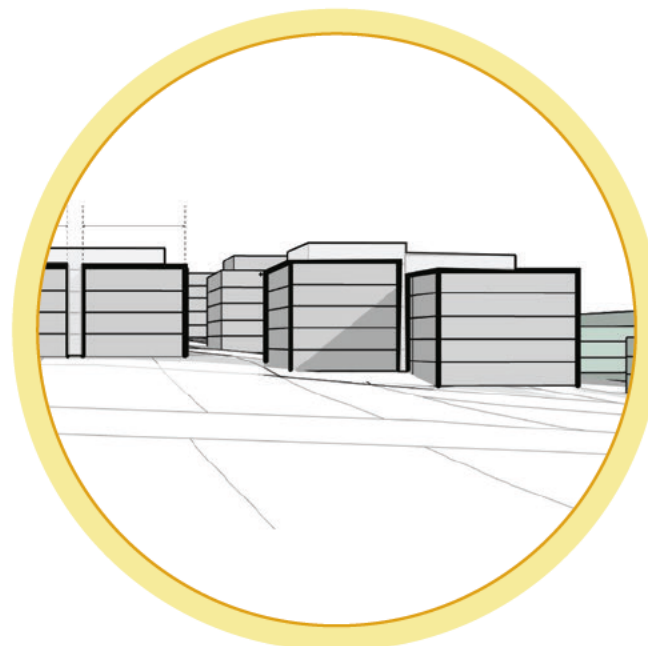
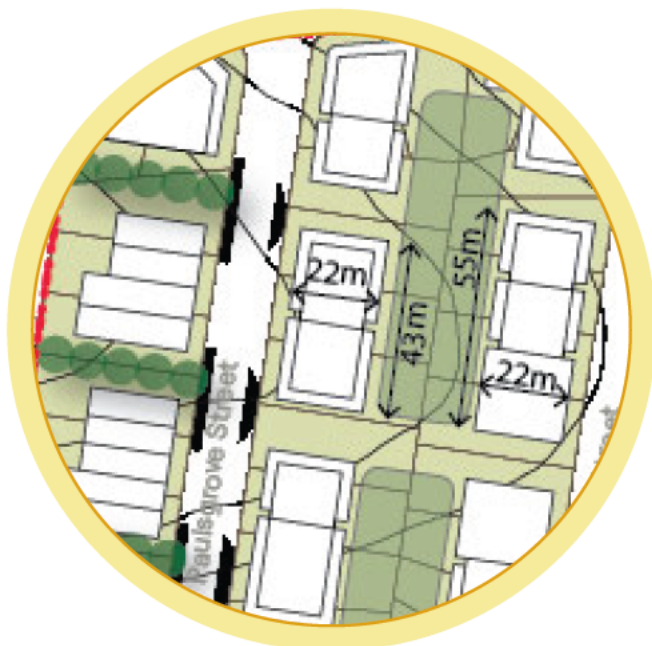
Some building envelopes provide increased secondary setbacks are provided to minimise perceived bulk, achieve the desired 'stepped' urban form profile and allow for capacity to potentially accommodate additional communal open space on roof top levels.

10.4 Development Grain

The updated master plan provides well articulated building envelopes to deliver a sense of grain and encourage a varied and balanced facade composition.

The updated master plan promotes flexibility and diversity in future built form outcomes to support the delivery of a diverse neighbourhood precinct with a strong sense of place.

A floor space efficiency of 75% has been applied to the building envelopes for typical levels to allow for balconies and further facade articulation to be accommodated within the building envelope forms. A floor space efficiency of 60% has been applied to Ground Floor levels. The outcome is consistent with Part 2B of the ADG.



10.5 Building Separation

The updated master plan has been designed to meet the ADG requirements for minimum building separation.

Open space relief between buildings contributes to the neighbourhood grain and the amenity of apartments. Building separation provides opportunity for landscaping, deep soil and other placemaking initiatives to be incorporated within the development. Importantly, building separation determines access to daylight and sun to open spaces areas around and within the development.

As part of future DAs, apartment layouts will be further tailored to achieve good amenity outcomes for residential areas.

The outcome is consistent with Design Guidance provided under Part 4A of the ADG.



Figure 31. Building separation.

11 Amenity Outcomes

11.1 Overshadowing

The updated massing was tested in a geo-located digital 3D model to understand the capacity to meet the solar access requirements nominated under Design Criteria of the ADG.

The testing demonstrates the updated master plan has the capacity to achieve a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter to living areas and private open spaces of at least 70% of residential apartments in accordance with Objective 4A-1 of the ADG.

The distribution of built form and communal open space ensures the capacity to meet the Design Criteria under Objective 3D-1 to achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm during mid winter (21 June).

The proposal results in only very minor increase to overshadowing of Spearing Reserve at 3:00pm but the additional impact is considered negligible.

The outcome is appropriate for the site and consistent with the Design Guidance provided in the ADG.

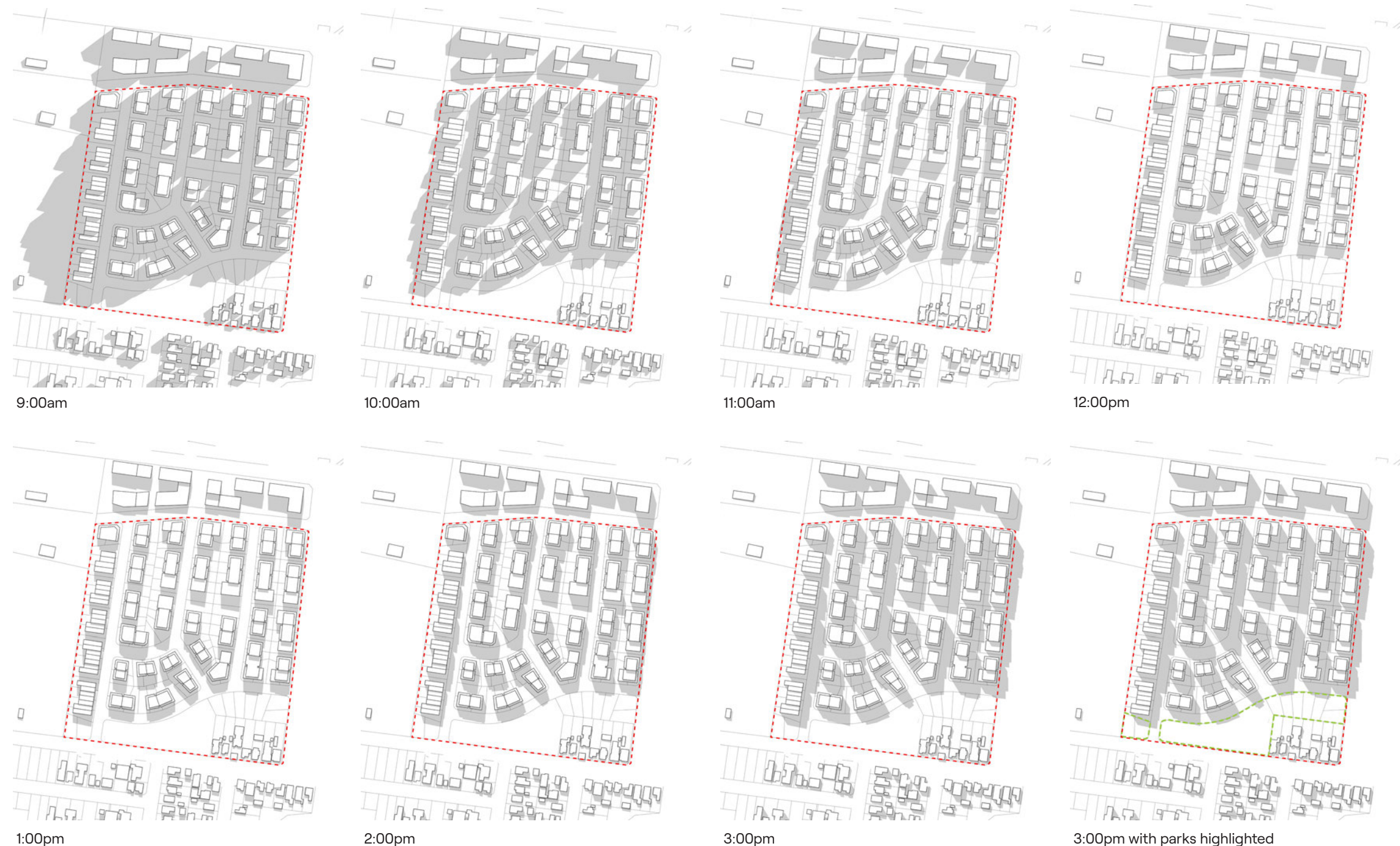


Figure 32. Shadow diagrams indicate the capacity to meet relevant ADG design guidance.

11.3 Communal Open Space

The updated site layout continues to provide built form containment and address to existing streets to promote a sense of neighbourhood and maximised passive surveillance.

Open space is located between building envelopes as indicated in Figure 34. The mid block open space corridors are intended to accommodate communal open space as required by the ADG.

Communal open spaces facilitate valuable 'breathing spaces' between apartment buildings, serving as 'private' common outdoor areas for each new development to supplement private open spaces such as courtyards, gardens and balconies.

Open spaces are proportioned to accommodate integrated landscape and seating arrangements with a diverse range of outdoor spaces for both passive and active uses.

The layout anticipates generous deep soil areas within the open space corridors to deliver landscaped areas around and between buildings.

Future DAs may incorporate communal open space on rooftop areas in suitable locations.

The outcome meets key Design Criteria provided in parts 3C and 3E of the ADG.

11.2 Public Open Spaces

Aside from proximity to spectacular coastal settings, Gwynneville and Wollongong benefit from a range of public open space amenity and recreational amenity including:

- Mount Keira National Park which includes walking tracks, a lookout, camp sites and a camp lodge.
- Mount Kembla and the Illawarra Escarpment State Conservation Area with walking tracks and spectacular fold-created cliffs and plateau-eroded outcrop mountain range west of the coastal plain.
- Wollongong Botanic Garden immediately adjacent to the Site.
- The TAFE NSW Wollongong Sports Fields to the east of the Site.
- Wiseman Park Tennis Club and oval facilities located south east of the site.
- The Beaton Park Leisure Centre to the south east which includes an aquatic centre, a tennis club and playing fields.

A number of local parks and reserves are located in the area including the existing Spearing Park Reserve along the southern site edge. The proposal includes an expansion and embellishment of the existing reserve to enhance the local open space amenity.

A new recreational area is proposed fronting Hoskins Street, introducing additional 'greening' of the area.

The Campus Master Plan area immediately to the north of the site envisages upgrades to, and expansion of, open space areas and recreational facilities intended for public and/or communal use.

Key

- ① Wollongong Botanic Garden
- ② Spearing Reserve

Figure 33. (Right) The site benefits from local open space amenity including the Botanic Garden and Spearing Reserve.



12 Open Space Concept

12.1 Landscape outcomes

The updated landscape strategy is largely consistent with the original master plan. A strong landscape and open space strategy which will strengthen neighbourhood character and support the delivery of a high amenity precinct.

The updated master plan continues to rely on an arrangement of pavilion building forms in garden settings. The updated master plan provides for the following:

1 – A new park

A new recreational area is located at the centre of the precinct providing relief and recreational areas fronting Hoskins Street and Sidney Street. The park is configured as a through-block open space with deep soil plantings and mature canopy trees.

Building envelopes present to the park, providing passive surveillance from elevated floor levels to enhance pedestrian safety and encourage active transport.

2 – Communal open spaces

Communal open spaces are configured to achieve built form relief between buildings and opportunity for group and individual recreation and activities.

Communal areas are proportioned and orientated to maximise solar access to landscaped areas and provide a 'green' outlook to apartment buildings.

The areas are arranged as consolidated mid-block areas acting as solar corridors between buildings.

Well designed communal spaces serve to encourage social interaction between residents.

3 – Expansion of existing parks and reserves

Spearing Reserve fronts Murphys Avenue. The local park forms part of the riparian corridor, currently including public seating and a small playground.

The proposal seeks to substantially expand the park to include areas to the east and west of the existing reserve.

Increased canopy coverage within the park with a native 'bushland' landscape palette, indigenous species and interpretive play ground elements may form part of future works.

The proposed improvements to the park will benefit the visual presentation of the site and encourage intensified use by residents from neighbouring residential areas.

4 – Greening of the streets

Where possible, existing street trees are to be retained and consolidated basement entries will allow for the provision of additional street trees, contributing to the 'greening' of the streets and reduced neighbourhood heat load.

5 – Deep Soil

A generous deep soil zone along the western site boundary will allow for additional landscape screening to the Wollongong Botanic Garden.

6 – Landscaped setbacks

Landscape corridors between built forms will strengthen the streetscape rhythm and contribute to canopy coverage.

A detailed landscape concept will be developed as part of future Development Applications which may include landscape on structure and rooftop landscape treatments.



Figure 34. Landscape Concept Plan.

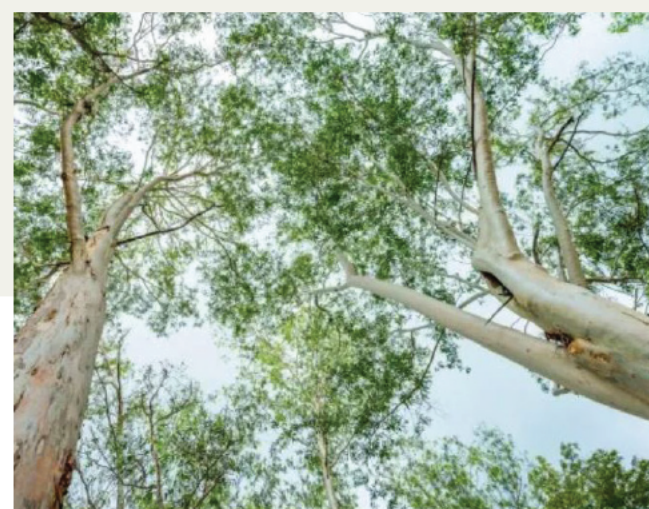
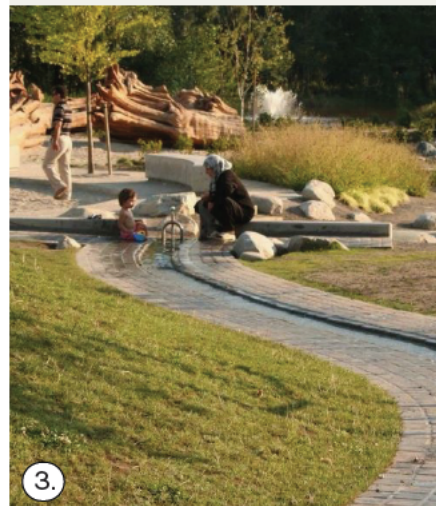
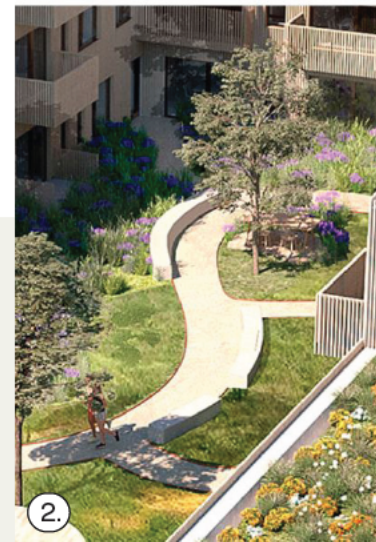


Figure 35. Reference images.

13 Conclusion

13.1 Conclusion

Gyde’s team has undertaken extensive analysis of the precinct to understand the current and potential future opportunities available for the site and the broader precinct.

In collaboration with Council, the Proponent team has been working rigorously to adjust and improve the master plan outcomes for the site, to achieve the project vision.

Based on feedback from Council and stakeholders, the master plan layout has been tailored to further strengthen the capacity to deliver short term development sites as an early focus of Homes NSW-led projects as catalysis for renewal across the precinct. Importantly, the updated master plan maintains the design integrity and grain of the original master plan but with a more target focus of housing delivery.

A detailed description of the matter raised by Council along with tailored design responses are provided in the Response to Preliminary Notification document in Appendix C of the Planning Proposal.

Based on first principles urban design and built form analysis summarised in this report, we are satisfied the indicative master plan scheme demonstrates the capacity to deliver strong amenity outcomes and sympathetic built form responses.

This study demonstrates the proposal’s capacity to:

- Provide a high-amenity, walkable residential neighbourhood with an increased density and choice of affordable and diverse housing options that provide for a broad range of community needs and family types including students, people on low incomes, people with disability and seniors.
- Enable the delivery of residential flat building typologies on (up to) six (6) key sites owned by the NSW Government, as catalysts for the mid- to long-term redevelopment of the wider precinct.
- Provide well articulated built forms to encourage diversity and architectural ‘grain’ throughout the precinct.
- Provide approximately 99,653sqm total GFA distributed across 35 buildings.
- Provide a site layout which maximises solar access to future apartments, while minimising overshadowing impacts to mid-block communal landscaped areas.
- Expand the existing provision of open space across the precinct to strengthen landscape presence along Murphys Avenue.
- Facilitate the distribution of building heights, ranging from three (3) to six (6) storeys across the site, in response to the sloping landform.
- Ensure taller built forms are concentrated within the northern portion of the site.

- Ensure lower scale forms are presented to the southern, eastern and western precinct edges to minimise visual bulk exposure in relation to surrounding areas.
- Distribute three (3) and four (4) storey buildings along Spearing Parade and Paulsgrove Street, within areas which are visible to neighbouring residential areas located south of Murphys Avenue.
- Ensure building envelopes fronting the western side of Paulsgrove Street, adjacent to the Botanic Gardens, have the capacity to deliver ‘fine grain’ building forms which respond to the steep terrain.
- Provide generous deep soil along the western site edge to enhance landscape screening.
- Provide communal open space with good solar access and maximised passive surveillance.
- Provide building separation to accommodate landscaped corridors between built forms and the provision of canopy trees.
- Provide recessed upper floor levels, to minimise perceived built form scale to pedestrian areas.
- Mitigate flooding risk in the southern areas of the site through the expansion of public open space.

13.2 Recommendations

The findings of the study support the proposed amendments to WLEP as outlined in the Planning Proposal Report prepared by Gyde Consulting.



Figure 36. The development grain and character is maintained in the updated master plan in comparison to the original master plan.

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