LAND USE

Land Use Plan

The proposed land uses have been strategically located to support a sustainable and active community. The following types of land uses are proposed:

Melrose Park Town Centre (Local Centre)

+ Melrose Park Town Centre will be located in the heart of the Site, bounded by the two main streets and the main east-west connection to the existing community;
+ It will be located within 250m of the Victoria Road Transport Corridor;
+ The Town Centre will contain a mix of uses including retail, employment, commercial, child care, and up to 125 Affordable Housing dwellings.

Mixed Use

+ It is envisioned that 1500+ contemporary jobs will be co-located with the Town Centre, creating a symbiotic relationship as one provides desirability and amenity and the other provides activity and subsequently safety;
+ The remainder of the Mixed Use precinct will be predominately Residential Flat Buildings with 4.5m ground floor to ceiling heights that can facilitate future transitions to retail, commercial or Small-Office-Home-Office (SOHO) uses.

Residential

+ The Masterplan includes approximately 5000 dwellings that will take the form of high quality Residential Flat Buildings;
+ The high density residential area will benefit from the public spaces interspersed throughout, the well designed streets and pedestrian priority Park Boulevard (EWR-6), and from the mixed use and local centre areas land uses.

Public Open Space

+ An integrated network of open spaces has been proposed to provide amenity for the future residents of Melrose Park;
+ The Masterplan allows for the provision of approximately 46,500m² of public open space. All parks will be dedicated to Council in an effort to create 'true' public open spaces that are accessible to the wider community;
+ Each of the parks have been expertly designed, are unique, and are linked together via a network of green and walkable streets.

06 2019 PROPOSAL

PROPOSED OWNERSHIP

The development will be staged and delivered by PAYCE, before being apportioned and sold or dedicated to Council.

Roads, Open Spaces and Infrastructure

PAYCE intend to deliver all roads, open spaces and infrastructure unencumbered and to council standards so that they can be dedicated to the City of Parramatta Council. The design team looks forward to working with the Council to ensure the spaces delivered will be of high quality and will become benchmark assets to Council.

Residential Superlots

Residential superlots will be developed by a range of architects to ensure variation of style through the precinct and on completion will be strata titled. The strata title will include all buildings, basement car parking, communal open space and any through-site links (publicly accessible communal open space).

Melrose Park Town Centre

The Town Centre will be developed by PAYCE, who will retain the ownership and take over running of the Centre and all associated car parking and plazas. The commercial buildings will be leased from PAYCE to a variety of tenants.

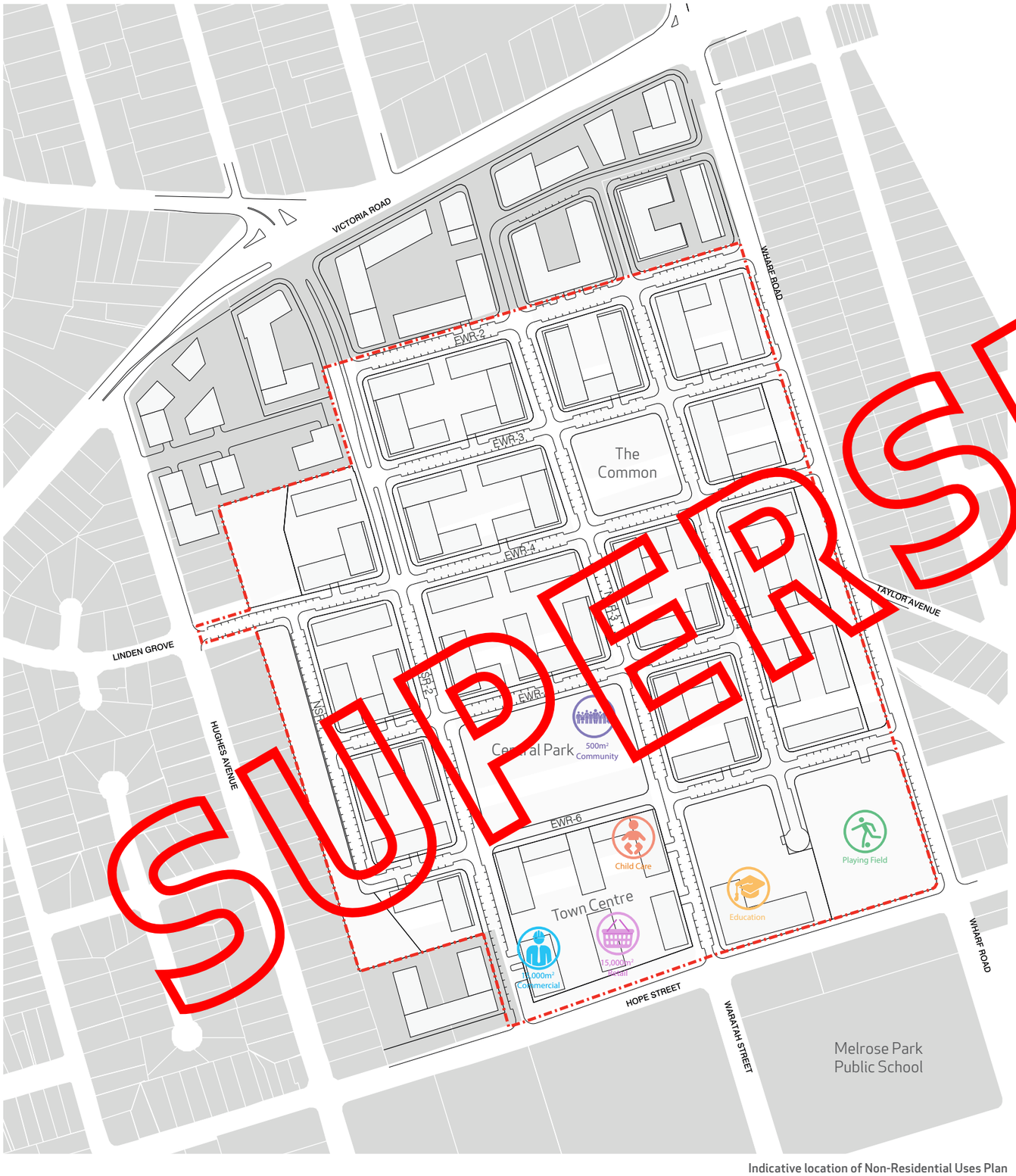
The affordable housing apartments will be retained by PAYCE and managed by a Community Housing Provider (CHP) who will rent them at a discount to market rent for a period of 15 years.

School

The approximately 10,500m² site for the proposed school will be dedicated by PAYCE to the City of Parramatta.

Proposed Ownership Plan

NON-RESIDENTIAL USES



Indicative location of Non-Residential Uses Plan

Legend

- Subject Site Boundary
- Locations Suitable for SOHO
- Child Care
- Community Centre
- Retail
- Commercial
- Education
- Sports Facilities

N 0 25 50 100m

The Proposal envisages a variety of non-residential uses spread throughout the Site. Non-residential uses are concentrated in the Town Centre, but the high density residential areas will also be supported by child care, convenience shopping, cafes and community facilities.

Retail Spaces

The development's retail offering is focused on the Town Centre, with 15,000m² of retail to include a supermarket and supporting shops.

Additional cafés, convenience stores and potentially small grocers may be distributed throughout the Site around parks, at key street junctions or on high traffic areas such as the Park Boulevard.

Commercial Spaces

The Employment Hub in the Town Centre will be the focus of job creation at Melrose Park. At least 15,000m² of varied commercial space will support contemporary sustainable jobs for the Site. Additional jobs will be generated through the retail and child care offering. In this way, the development will encourage a live-work culture in the area.

Education Spaces

Approximately 10,500m² of land will be dedicated for a proposed public school on the eastern side of the Town Centre and adjoining the Playing Field.

Opportunity for SOHO

Small-Office-Home-Office (SOHO) environments are popular for individuals who are self employed. It is a model that is growing in popularity in the digital age, where meetings can occur digitally or off-site. SOHO models are suitable for businesses such as start-ups, mortgage brokers, consultancies, accountants, architects, physiotherapists, dentists, etc.

The development allows for SOHO products in any residential building as generous 4.5m floor to floor dimensions have been allowed for all ground floors, but the figure opposite identifies locations that could be more suitable to SOHO products due to their proposed zoning or their proximity to larger streets, the Town Centre or their proposed zoning.

SOHO uses will further encourage a live-work culture in the area.

06 2019 PROPOSAL

BUILDING HEIGHTS + INDICATIVE ENVELOPES

The following built form outcomes are achieved in the proposal:

Building Height Distribution

+ Building heights range between 4-18 storeys, with tallest buildings located in the core of the Site overlooking either new public open spaces or the Park Boulevard or Main Street;
+ Low rise apartments in the order of 4-8 storeys are proposed in the outer lots of the development to aid with the sensitive transition of the Site to the neighbouring low-rise dwellings.

Built Form Transition

+ To ensure a sensitive transition to existing low density dwellings along Wharf Road, all development along the eastern boundary will be limited to 4-6 storeys;
+ All development along the western boundary will be limited to 6-8 storeys to help transition building heights to the existing dwellings on Hughes Avenue.
+ Both eastern and western boundaries are co-located with open space buffers to assist in the transition of building forms (refer to Public Domain and Open Space on page 47);
+ Taller building form is concentrated at the core of the Site, close to the amenity afforded by large open spaces such as the Central Park and the Common.

Building Orientation

+ Both north-south and east-west building orientations are proposed so that a variety of apartment types are encouraged and so that they address and frame the new roads;

Solar Access and Overshadowing Impacts

+ All buildings over 10 storeys are orientated along a north-south axis to reduce the impacts of overshadowing on residences, open space and adjoining neighbourhoods;
+ Taller residential buildings are proposed to address the Main Street, Park Boulevard or one of the major parks. This allows the width of the roads (22-25m) to absorb part of the bulk and scale of taller building forms and ensures minimal overshadowing of residences;
+ Taller buildings are proposed at the core of the Site to minimise overshadowing impact on neighbours;
+ North-south roads are oriented as close to true north as possible, given connectivity constraints. This orientation ensures that north, east and west facades of buildings can achieve at least 2 hours of direct solar access in mid-winter as per the Apartment Design Guide.

Building Depths

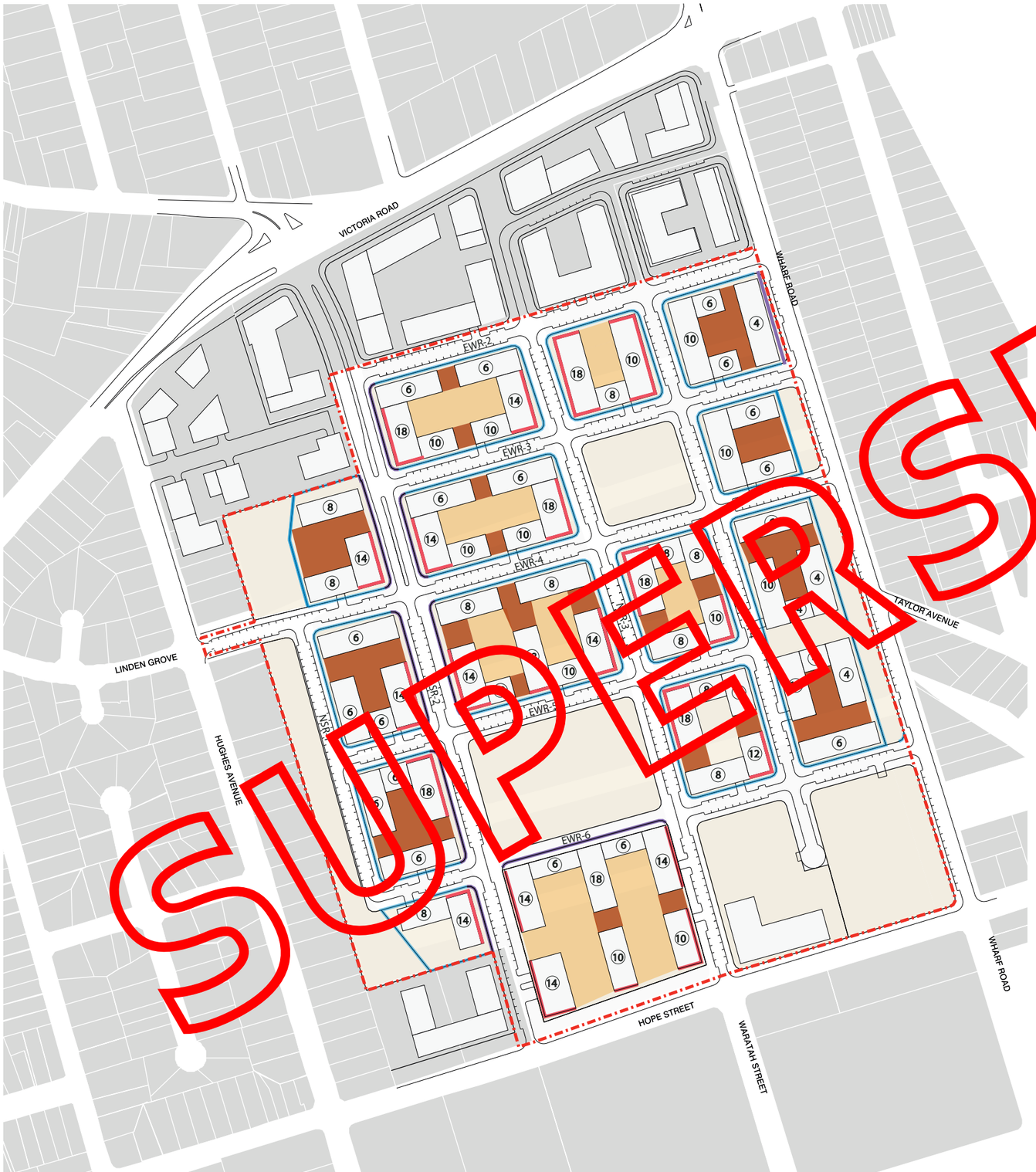
+ 18m for buildings orientated on an east/west axis;
+ 20m for buildings orientated on a north/south axis.

Floor to Floor Heights - Residential

+ Ground Floor - 4.5m;
+ Upper levels of 3.1m;
+ Roof top plant allowance of 2.4m.

Building Heights Plan

BUILDING SETBACKS + BUILDING SEPARATION



Building Setbacks Plan

Building setbacks include setbacks from the street, property boundaries, upper floors of buildings as well as building separation.

Building Setbacks

- All buildings are required to have a 3m setback to NSR-2, Wharf Road and Town Centre EWR-6 frontage;
- Other Town Centre frontages have no minimum setback;
- All other frontages require a 3m front setback to allow for outdoor dining, garden apartments and to create consistent street walls;
- Upper level setbacks are required above 10 storeys and will be further developed as part of the preparation of a site specific Development Control Plan.

Building Separation is as per Section 2F of the Apartment Design Guidelines (ADG)

- For 'facing' buildings (habitable to habitable) up to 8 storeys - min. 18m separation is provided;
  For 'facing' buildings (habitable to habitable) over 9 storeys - min. 24m separation is provided;
- For 'bookend' façades (i.e habitable to non-habitable) up to 4 storeys - minimum 9m separation is provided;
- For 'bookend' façades (i.e habitable to non-habitable) between 5-8 storeys - minimum 12m separation is provided;
- For 'bookend' façades (i.e habitable to non-habitable) over 9 storeys - minimum 18m separation is provided;

It is anticipated that the design team will work closely with Council over the coming months to prepare a site specific Development Control Plan for the Site.

06 2019 PROPOSAL

SITE SECTIONS

The historic benching of the Site has resulted in large, sudden changes in topography. These will have to be graded out in order to integrate the Site with the former Bartlett Park Site, Wharf Road and Hope Street, and to facilitate easy movement through and around the new development. The sections illustrate that significant cut and fill will therefore be required.

Re-grading in parts of the Site will result in the following improved urban design and built form outcomes:

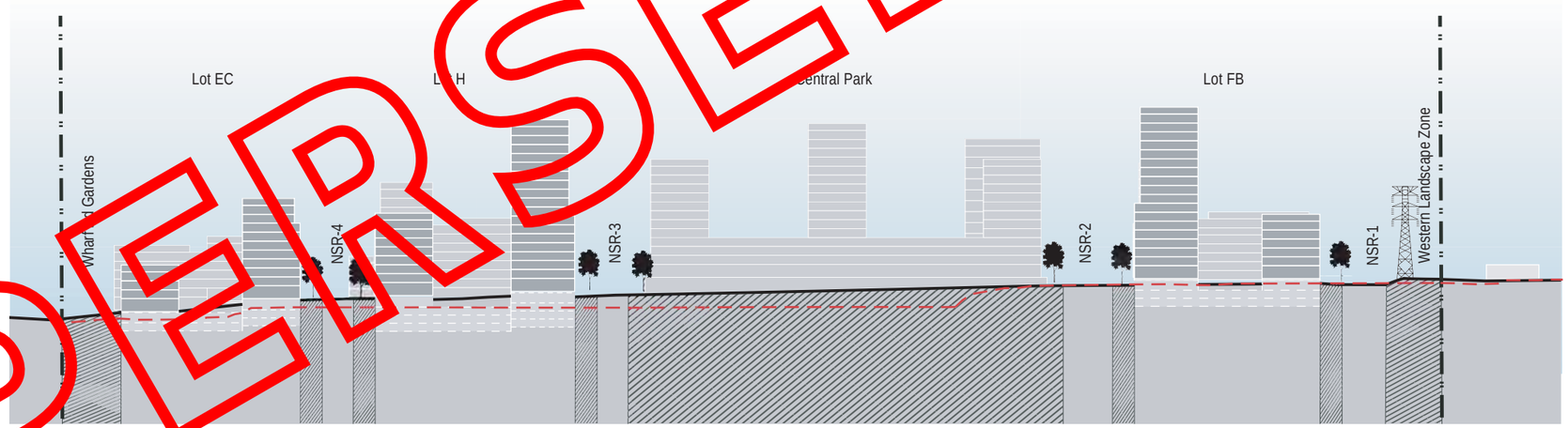
+ Connections between Victoria Road and Hope Street and possible future connections to Parramatta River;
+ Pedestrian permeability and connectivity throughout the Site;
+ Removal of the large retaining walls at the Site boundaries, improving the interface between the Site and its wider suburban context.

The proposed building heights contained within the LEP will be measured from existing ground level (AHD). Any changes in ground plane resulting from grading will have to be factored into the calculation of height. The following standard floor-to-floor heights were used throughout the precinct:

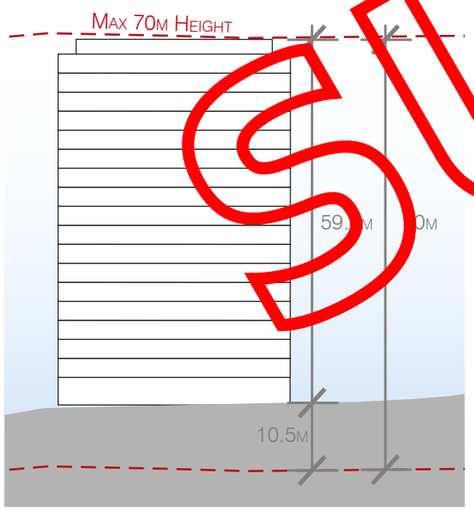
+ 4.5m ground floor,
+ 3.1m typical floor,
+ 2.4m lift overrun.

Indicative site sections have been prepared to communicate the distribution of height across the Site.

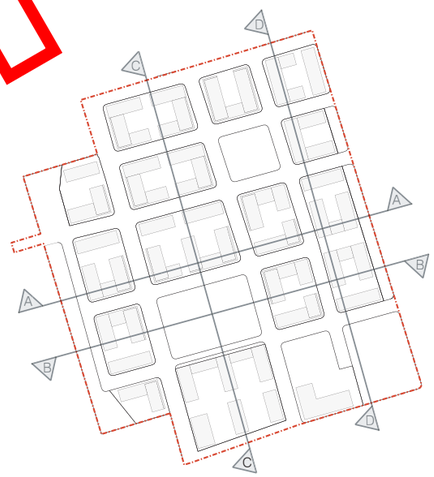
Section AA



Section BB



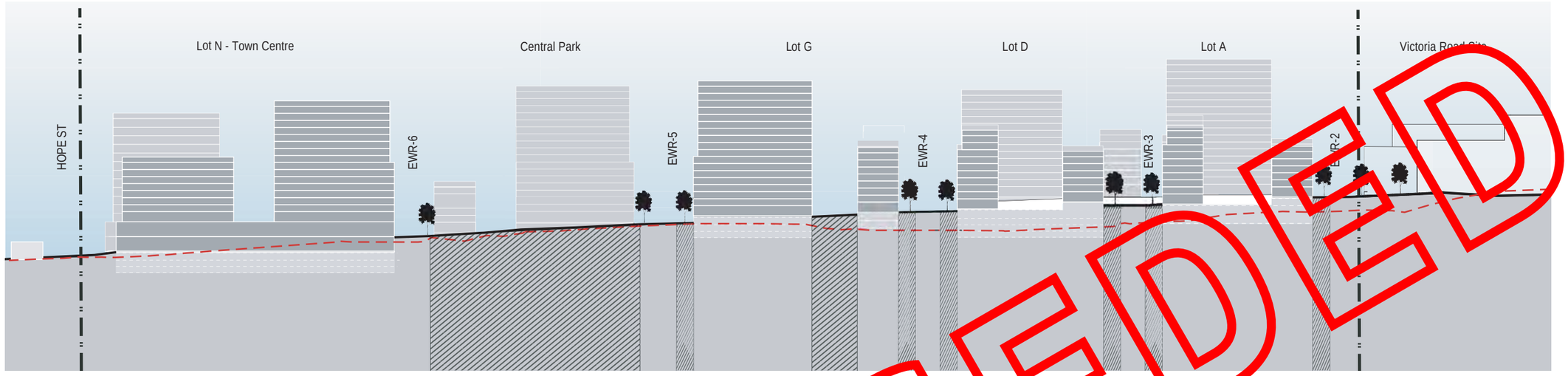
Height of buildings - explanative typical section EE



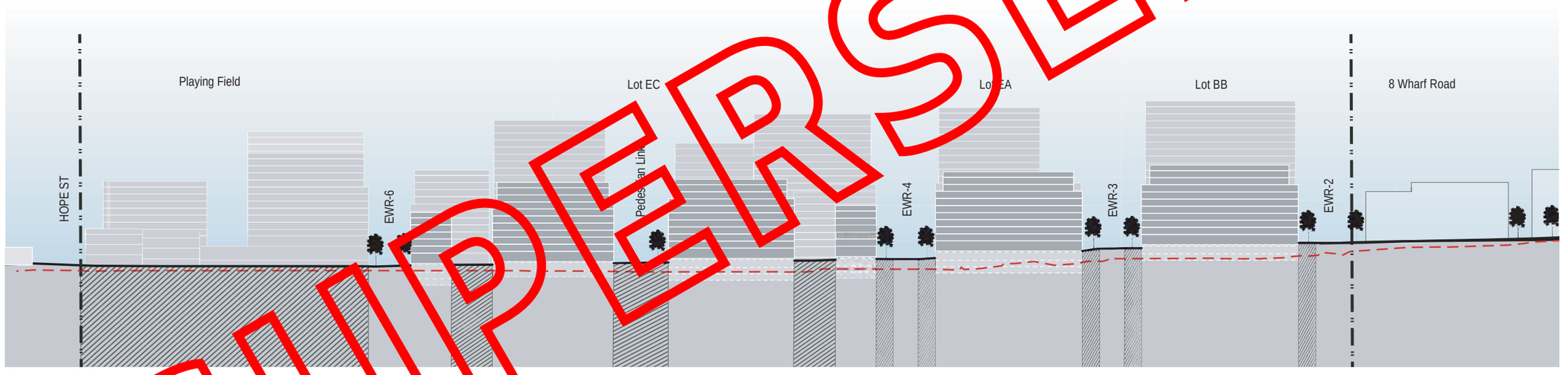
LEGEND

- SITE BOUNDARY
- EXISTING GROUND LEVEL *
- PROPOSED GROUND LEVEL **
- PROPOSED BUILDING
- BASEMENT
- DEEP SOIL ZONE

* Based on Survey by LTS Lockey on 21/01/16.
** Based on concept grading plan provided by Northrop Consulting Engineers.



Section CC

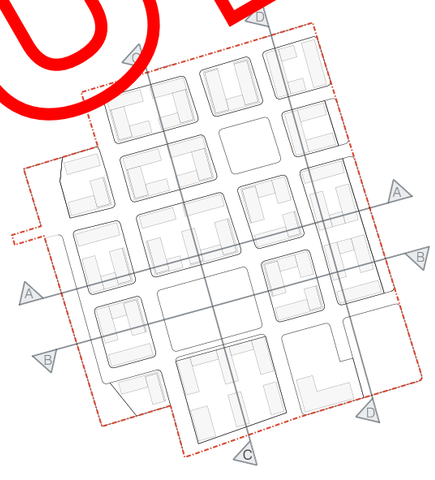


Section DD

LEGEND

- SITE BOUNDARY
- EXISTING GROUND LEVEL *
- PROPOSED GROUND LEVEL **
- PROPOSED BUILDING
- BASEMENT
- DEEP SOIL ZONE

* Based on Survey by LTS Lockey on 21/01/16.
** Based on concept grading plan provided by Northrop Consulting Engineers.



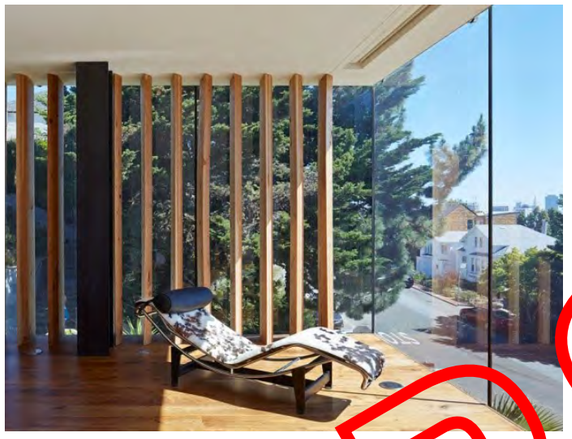
SUSTAINABILITY OBJECTIVES

FRESH AIR AND NATURAL VENTILATION

Natural Ventilation is the movement of sufficient volumes of fresh air through a dwelling to create a comfortable indoor environment.

The following objectives are being developed for the project:

+ All habitable rooms will have the provision for natural ventilation and fresh air,
+ User operability will enable occupants to customise their environment and regulate access,
+ Dwelling design will facilitate effective cross ventilation and the harnessing of prevailing breezes.

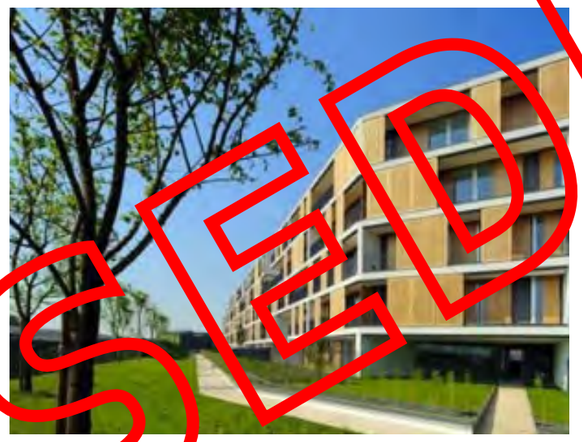


SUNLIGHT AND DAYLIGHT

Access to sunlight and daylight provides residents with pleasant conditions in which to live.

The following objectives are being developed for the project:

+ Provide access to direct sunlight [during winter] and good quality daylight in all habitable spaces,
+ Window to wall ratio of facade design will seek to optimise the provision of quality daylight into habitable spaces whilst minimising the thermal load in the interior space.



ENERGY & CARBON EFFICIENCY

All building and infrastructure designs will seek to minimise their energy demand and carbon emissions footprint.

Specific approaches will include the following:

+ Passive energy efficiency through building orientation and floor planning, facade design and fenestration,
+ Harnessing of prevailing breezes for cooling, winter sun for warming, and thermal mass for comfort,
+ Smart lighting controls, energy sub-metering and controls,
+ On-site renewable energy systems will be investigated and developed in order to provide future residents with access to resilient, low carbon and affordable energy.

IMMERSED IN NATURE

Humans have an innate need to be connected with nature and life-like processes. Environmental elements which facilitate the human-nature relationship can improve occupant experience, mood and well being.

Specific approaches will include the following:

+ Enhance dwellings connection to planting, e.g. landscape, planters, green walls, green roofs or tree canopy,
+ Landscape design will consider the incorporation of water features,
+ The use of natural materials such as wood and stone will be optimised in public spaces.

WASTEWATER ECOLOGY

Wastewater is comprised of stormwater runoff, rainwater and black-water. A project-wide wastewater ecology will be investigated that will optimise the amount of non-potable water available for landscape irrigation and toilet flushing, and will comprise of active waste-water treatment technologies and landscape filtration.

Specific approaches will include the following:

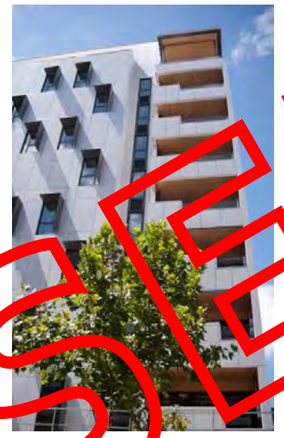
+ Clean stormwater runoff before it enters waterways,
+ Harvest rainwater for reuse on site,
+ Active treatment of site generated wastewater, for re-use in toilet flushing and irrigation,
+ Water polishing embedded in landscape design and features,
+ Low flush and low flow bathroom fixtures in dwellings,
+ Water sensitive landscape planting and irrigation systems.

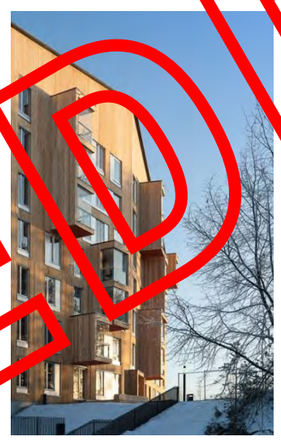
FOOD RESILIENCE

Food security is one of the most critical aspects of climate change yet it is not addressed in current planning or building design policy. Resilience against food security can be considered during site planning through initiatives such as making allowance for community gardens, productive street trees, extended gardens and kitchen gardens to supplement fresh food supply.

Specific approaches will include the following:

+ Incorporate community gardens and edible landscapes into design,
+ Provide space for balcony gardens,
+ Facilitate community education relating to urban agriculture.





SUSTAINABLE CONSTRUCTION

Construction materials and methodologies have the potential for significant environmental impact but also have the possibility of being environmentally restorative.

Specific approaches may include the following:

+ Consideration of off-site fabrication for selected building elements,
+ Optimisation of the use of structural and non-structural timber,
+ Reduction in the use of concrete and Portland Cement
+ Reduction in the use of steel,
+ Selection and procurement of materials with lower embodied energy and environmental impacts.

SOCIAL VALUE

Social return on investment involves measuring and accounting for extra financial value that is not currently reflected in conventional cost-benefit analysis. These values include social issues such as productivity, health, crime reduction, employment, skills development and education.

Approaches under consideration include the following:

+ Achieve social return on investment through community amenities,
+ Place-making and wayfinding through design,
+ Active living, walkability and universal accessibility,
+ Create spaces such as plazas which facilitate markets and gatherings.

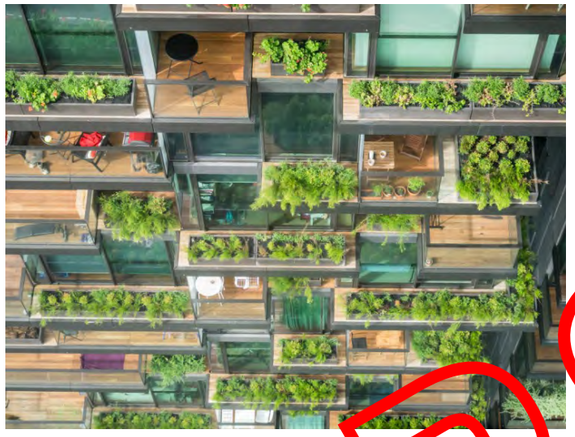
SUSTAINABILITY OBJECTIVES

WASTE AVOIDANCE

The effective management and minimisation of domestic waste from residential developments contributes to the physical and visual amenity of the building as well as limiting potentially harmful impacts on the environment. Minimising waste is relevant to all stages of the development's life cycle, including construction. Waste management also includes the way in which waste is collected and stored in a manner that is safe and convenient, and should be considered early on in the design process.

Specific approaches will include the following:

+ Appropriately reuse or recycle construction materials, and adopt industry best practice waste-diversion targets,
+ Supply organic waste management and reuse facilities for the community,
+ Provide district recycling management facilities on Site,
+ Facilitate programs which encourage up-cycling and exchanging of goods, including a potential exchange centre for residents who wish to on gift or exchange furniture or appliances.



INNOVATION CATALYST

The Proposal will include an 'Innovation Centre of Excellence' which will be dedicated to community education, engagement and the ongoing exploration and development of more sustainable construction and living practices.

Initiatives that are currently under consideration include the following:

+ Trialling new or emerging renewable energy technologies and systems, potentially in partnership with industry and tertiary or research institutions,
+ Trialling new or emerging waste-water treatment and re-use systems,
+ Demonstration of highly energy and water efficient appliances and equipment, for use by residents and tenants throughout the Site and local community,
+ Displays and education relating to the selection and installation of healthy materials and products.

SMART CITY INITIATIVES

City of Parramatta and PAYCE are collaborating with a number of partners(including the University of Technology Sydney (UTS), Esri Australia and Urban Institute), to pilot the use of environmental sensors in the new residential precinct of Melrose Park.

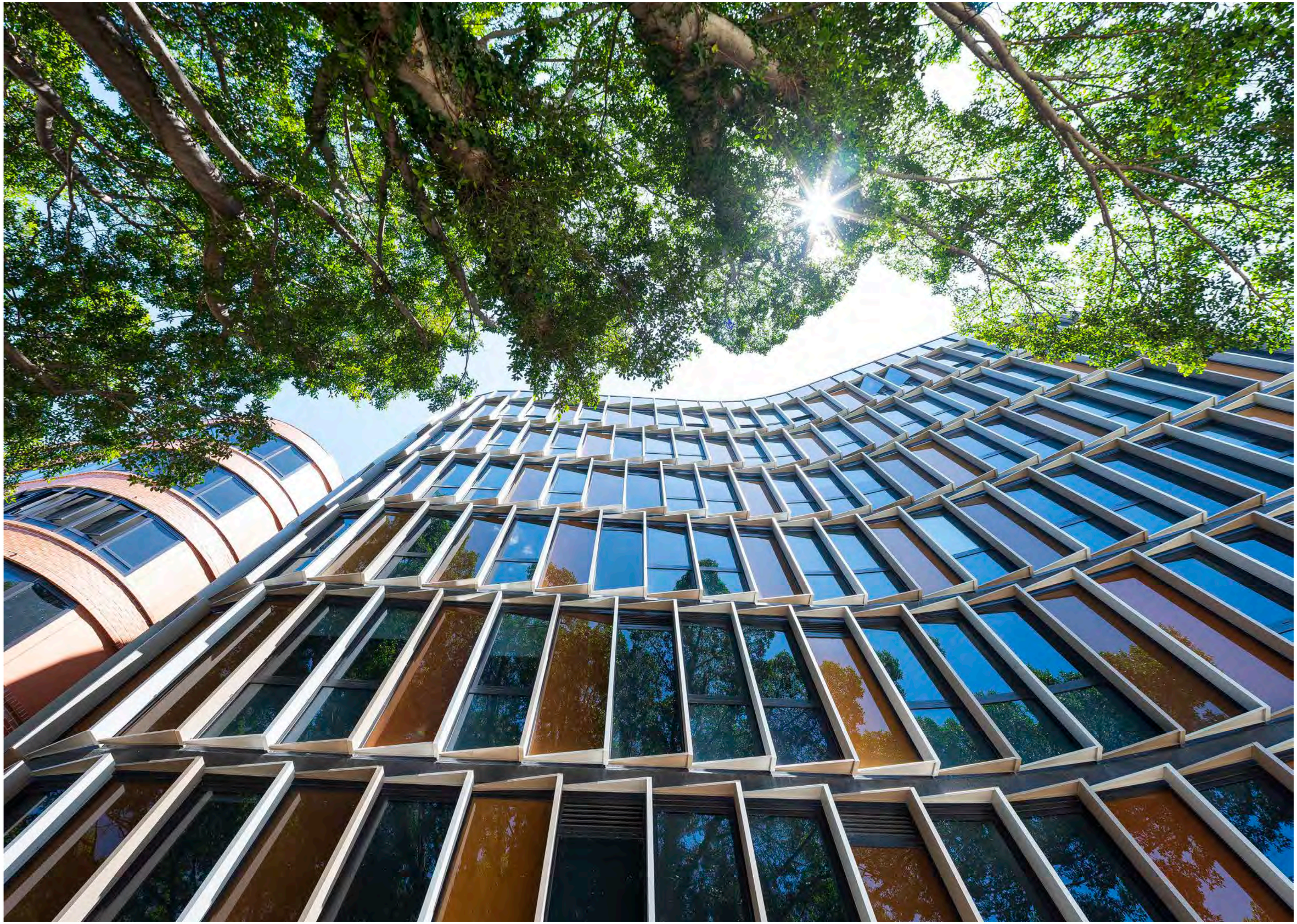
The purpose of this project is to use a smart integrated sensor network to monitor heat, noise, air quality and stormwater run-off at the Melrose Park site and the surrounding area to better understand and repond to local environment changes as the site develops. This network of sensors will be linked to a platform with data input, storage and analytics capabilities, visualised in a 3D GIS format.

The real time data will provide information for improved site monitoring and management. The data collected over time and the lessons learnt form this project will inform a Blueprint for Climate Responsive Neighbourhoods that can be applied at other sites in other locations.

A Climate Responsive Neighbourhood is a term that describes a location where strategies are available to enable the monitoring of and adaption to changes over time. In its broadest sense these can include various social, technological, environmental and political factors that can impact a neigbourhood.

Key project outcomes include:

+ informing the design and delivery of a smart liveable new suburb that is cool, clean, quiet and green.
+ New integrations between a smart city network of distributed environmental sensors and a widely used, advanced GIS system.
+ More focussed and effective Local Government regulations(based on data)
+ A Blueprint for Climate Responsive Neighbourhoods (CRN) for scaling the approach to toher locations and contexts.



07 2019 SUPPORTING STUDIES

SEPP 65 ASSESSMENT

State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development (SEPP 65) sets out the NSW Government's policy direction for residential apartment development in NSW. It aims to improve the design quality of residential flat development and establishes nine design quality principles to be applied to the design and assessment of residential apartment developments.

The following preliminary assessment of the nine principles has been undertaken to demonstrate that the Proposal is consistent with SEPP 65.

Principle 1: Context and Neighbourhood Character

The Site has been an industrial estate grafted into a residential neighbourhood for decades. The Proposal will enhance the residential character of the surrounding neighbourhood while retaining jobs on Site.

Features that positively contribute to the neighbourhood have been retained while undesirable features have been improved wherever possible. For example, heritage items and mature trees along Wharf Road have been retained and enhanced, while the re-grading of the Site aimed to remove retaining walls along existing roads and better integrate the Site into its neighbourhood.

Principle 2: Built Form and Scale

Built form will be set out in a hybrid perimeter block and point tower configuration. This will help define and address the streets and the new open spaces as well as encourage passive surveillance of public open spaces.

Taller built forms are proposed at the centre of the Site while sensitive transitioning occurs on the Site's boundaries to address the existing neighbourhood's scale on Wharf Road, Hope Street and Hughes Avenue.

Principle 3: Density

The development endeavours to become a density done well benchmark in Western Sydney by co-locating jobs with residences and retail, providing new high quality public spaces and parks, upgrading existing infrastructure and augmenting the area's existing public transport.

New jobs are proposed to be created and co-located with 15,000m² of retail. New buses are proposed to link residents to Meadowbank Rail Station and Ferry Wharf. Parramatta Light Rail Stage 2 will connect the site to Parramatta CBD and Sydney Olympic Park.

Principle 4: Sustainability

Water sensitive Urban Design measures are proposed throughout the new development, and deep soil zones will be in excess of the Apartment Design Guide (ADG) minimum requirement. A significant amount of vegetation is proposed in both public and private ownership.

Smart City initiatives are also proposed to help new residents develop sustainable habits and better understand their energy usage.

Principle 5: Landscape

Public open space will be equitably distributed through the development and will benefit the surrounding suburb, enhancing the character of Melrose Park as a whole. Each public space will have its own unique character and uses.

The new road network will deliver a clear road hierarchy with distinctive landscape features for each road type contributing to the character of the new development. For example, use of different tree species such as Cherry Blossom and Jacaranda trees will differentiate the streets aiding way finding and contributing to the new developments unique sense of place.

Western Parklands will run along the entire Western edge of the development, creating a wildlife corridor which will be enhanced by proposed nurseries.

Principle 6: Amenity

The Proposal will contribute to a high level of amenity for existing and future residents, including high quality accessible public spaces and streets, new community spaces , improved public transport access, genuine mixed use Town Centre and a dedicated employment area.

Principle 7: Safety

The development aims to maximise passive overlooking of streets, public spaces and communal open space. A vibrant and active Town Centre will contribute to the activity of the entire precinct. Public open spaces will clearly be differentiated from private open spaces and will have clear, public street addresses.

Principle 8: Housing Diversity and Social Interaction

The Proposal will achieve a mix of apartment types, sizes and orientations.

Ground floors throughout the precinct have been calculated at 4.5m, allowing the ground floor of each building to be adapted to small-office-home-office (SOHO), commercial or retail uses in the future.

Up to 145 affordable/ key worker dwellings are proposed as part of the development.

Principle 9:Aesthetics

The Proposal aims to foster cohesion through the Site using controls such as consistent street setbacks, while allowing for a diversity of character between buildings to create interest and variety. Buildings are envisaged to be designed by a variety of architects ensuring a variety of aesthetic outcomes. The built form will reflect contemporary themes which will add to a pleasant and liveable community environment. To improve design quality of Residential Flat Buildings, SEPP65 is closely linked to the ADG and its objectives.

Precedent - Geelong Waterfront.

Precedent - Hastings Street, Noosa.

SEPP 65 ASSESSMENT

The Masterplan was designed to meet the following additional ADG Objectives:

Objective 3D-1: Communal Open Space

ADG Objective: *Communal open space has a minimum area equal to 25% of the Site.*

Development achieves a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm on 21st June (mid winter).

Communal open space exceeds minimum area requirements in each lot and is provided as a range of ground floor communal gardens, as well as roof and podium gardens.

A computation script was used to measure the amount of sunshine on communal open spaces and the spaces provided and each lot surpassed minimum requirements.

Objective 3E-1: Deep Soil Provision

ADG Objective: *Deep soil zones provide areas on the Site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality. Deep soil zones are to meet the following minimum requirement: site area greater than 1,500m², 6m minimum dimensions and minimum deep soil zone of 7% of Site area.*

On some sites it may be possible to provide larger deep soil zones... 15% of the Site as deep soil on sites greater than 1,500m².

The Masterplan achieves the ADG stretch target of 15%. Further, this has also been achieved on a lot-by-lot basis.

The development also provides deep soil in public open spaces which, when added to the private open space deep soil zones, totals to more than 20% of the Site.

For more information, see the Project Metrics.

Objective 4A-1: Solar Access

ADG Objective: *Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter.*

A computation script was used to measure the amount of sunshine on all the building façades in the Masterplan with living rooms and private open spaces.

More than the minimum 70% of total building façade area achieves over 2 hours of sunlight between 9am and 3pm at mid-winter.

07 2019 SUPPORTING STUDIES

OVERSHADOWING ASSESSMENT - MID-WINTER

OVERSHADOWING ASSESSMENT - MID WINTER

A shadow study and computer analysis of direct sunlight on building facades were undertaken to determine the effects of overshadowing during the middle of winter (June 22nd) between 9am and 3pm. The results indicate the following:

+ The Proposal will create some overshadowing to existing residential properties along Hughes Avenue at 9am. However, after 10am there is no overshadowing of these properties;
+ At 3pm, existing residential properties along Wharf Road will begin to be affected by overshadowing of the Proposal;
+ Properties on the southern side of Hope Street will be overshadowed between 9-3pm in mid-winter, but future development of around 8 storeys height will recieve ≥ 2hrs direct sunlight to 80-90% of northern facades and can meet ADG minimum solar access requirements.
+ The public open spaces achieve at least an average of 50% direct sunlight between 10-2pm in mid-winter.
+ The assessment clearly illustrates that due to the orientation and size of the proposed building envelopes that building shadows will move quickly across the Site between the hours of 9am-3pm.
+ Proposed building envelopes can achieve ADG minimum solar access requirements.

21 June - 9am

21 June - 10am

21 June - 11am

21 June - 12pm

21 June - 1pm

21 June - 2pm

21 June - 3pm

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