



7.0 MASTERPLAN

7.1 PROPOSED MASTERPLAN

THE DEVELOPMENT PLAN IS UNDERPINNED BY THE FOLLOWING KEY DEVELOPMENT PRINCIPLES AND STRATEGIES:

1. Provision of a new network of, laneways, private and public space that integrate the development into the surrounding neighbourhood.
2. Extension of the existing fine urban grain into the development and creation of better east-west connections from Stawell Street to Bendigo Street.
3. Strategic location of lower scale forms at the site interfaces and larger scale forms to the centre of the site, to avoid overshadowing and overlooking.
4. Enhancement of pedestrian amenity through street setbacks, generous footpaths and tree planting.
5. Enhanced connectivity to the heritage building with new community residential facilities, retail and other mixed uses.
6. Enhanced integration of the public realm through a series of attractive and enriching journeys / experiences through the site, that will be universally accessible.
7. A range of sustainability measures that will deliver innovative technology in energy and water efficiency, sustainable drainage, waste reduction, renewable and non-polluting materials, and renewable technology.
8. Improved site permeability through provision of public access via pedestrian and cyclist friendly through routes.
9. Provision of affordable housing dwellings within the site.
10. Visitable access for mobility impaired users within new residential buildings, public open space and footpaths.
11. Celebration of the sites histories creating strong visual and physical connections to the heritage Wertheim Building and courtyard, the civic heart of the development. A key focal point for public activity.
12. Strong focus on upholding the heritage sustainability of the site through the development of a Heritage Interpretation Plan and Conservation Management Plan.
13. Establishment of core design guidelines that address the key components of built form within the masterplan and provide a framework for future detailed design.
14. Community facilities will include a pool/hydrotherapy pool, gymnasium, theatre room, arts and craft room, multiple purpose room and communal open space on the upper level.
15. Access arrangement plans will be developed to provide controlled access to the wider community to some facilities.



PROPOSED MASTERPLAN

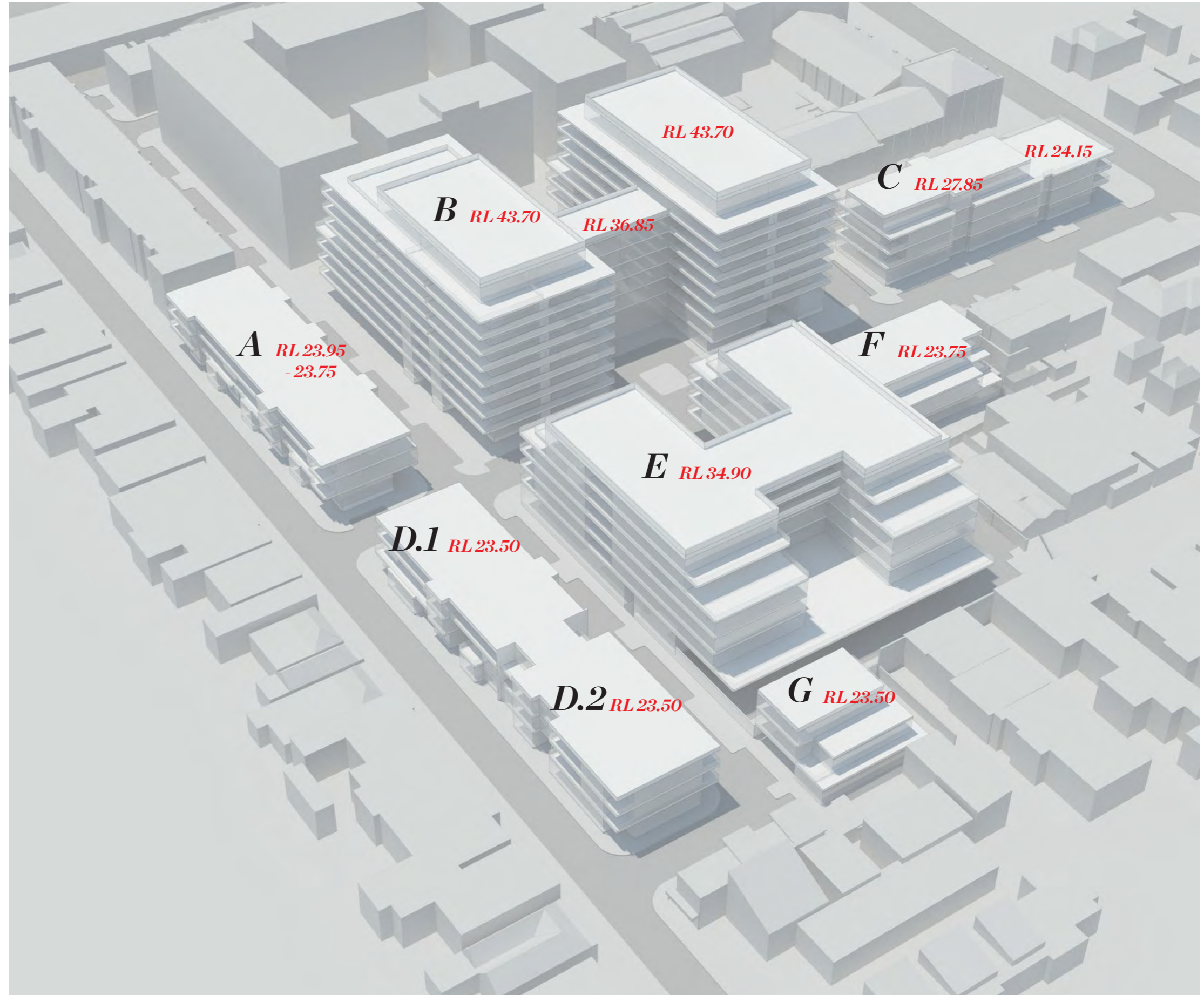


7.2 BUILDING HEIGHTS

The masterplan seeks to reduce the impact of new buildings by placing taller building forms at the centre of the development and adjacent to the existing higher heritage building. Appropriate transition in scale is achieved by placing the lower scale buildings at the edges of the development, at the interface with existing residential dwellings surrounding the site.

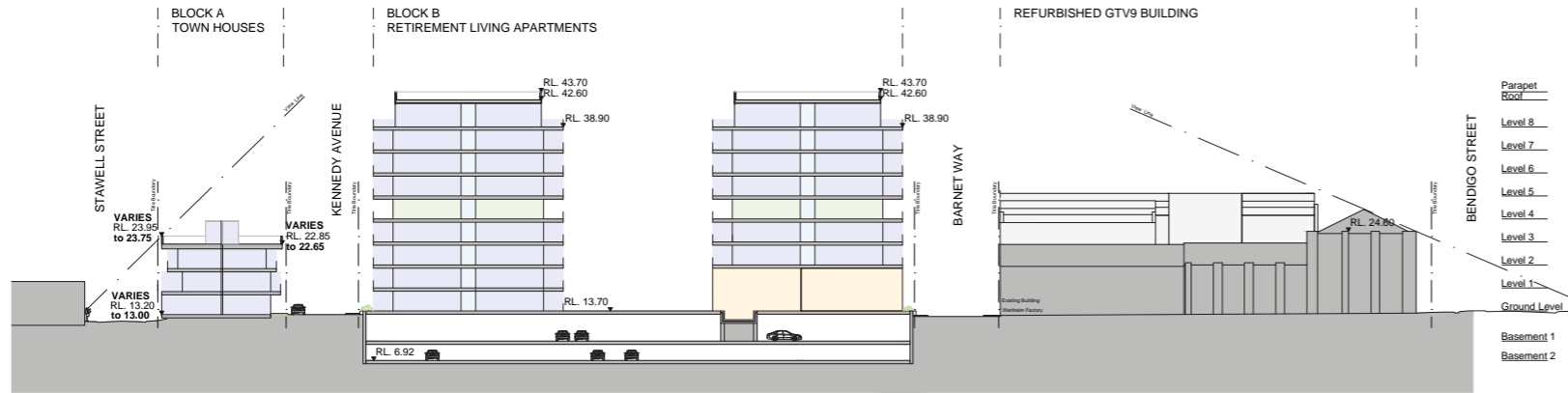
THE SPECIFIC STRATEGIES FOR DISTRIBUTION OF BUILDING HEIGHT IN THE DEVELOPMENT ARE:

1. A maximum proposed apartment building height of 9 storeys (plus the basement level car parking) . The 9th Level is set back from the building form below limiting the visibility of the upper level from the ground plane. The determining reference in relation to building heights is as per the sections provided in Section 7.3.
2. Providing predominantly 3 storey townhouses with roof terraces along the existing Stawell Street to reflect the varying streetscape of existing frontages opposite.
3. Providing a varied setback to townhouses from existing street frontages to reflect setbacks patterns of existing houses opposite and adjacent to the site.
4. A transition in height along Khartoum St with 3 storey buildings and townhouses that interface with existing residential properties at the Eastern end and Western ends of Khartoum St.
5. Creating a separation at Level 4 of the taller buildings to define a base or podium form that relates to the adjacent residential townhouses and finer grain existing residential dwellings. The upper levels of the taller building forms would have a lighter architectural expression



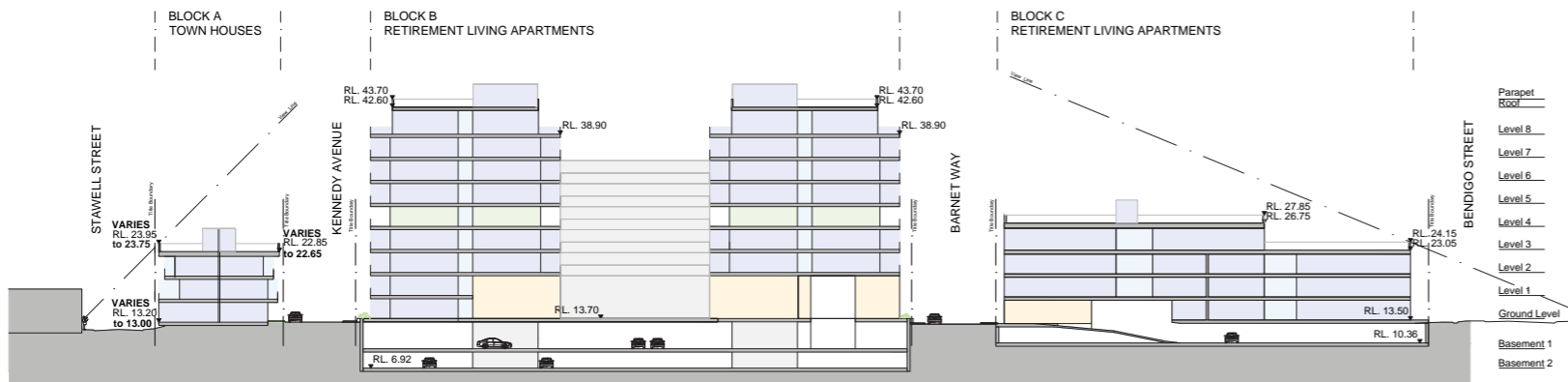
PROPOSED BUILDING HEIGHTS + MASSING

7.3 SECTIONS + ELEVATIONS



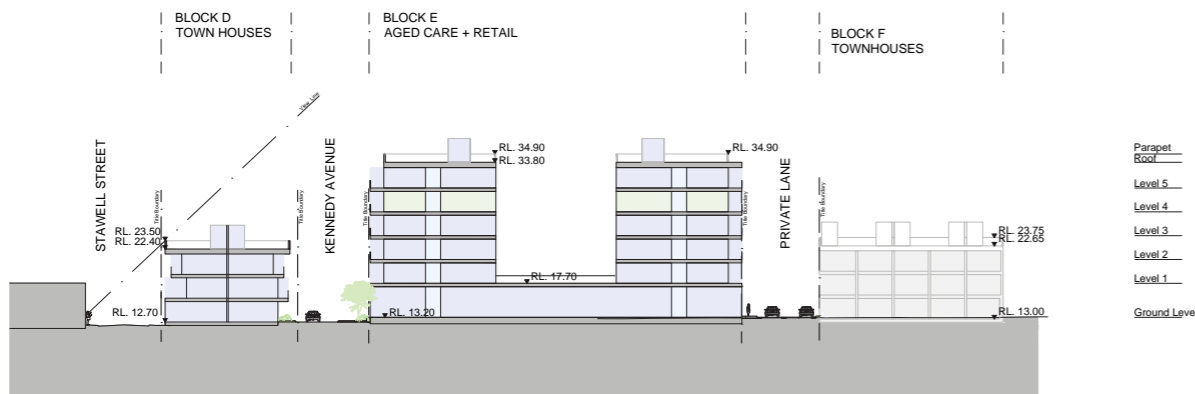
SECTION A East - West Section

Note: All RL's at top of building are to parapet levels and approximate only



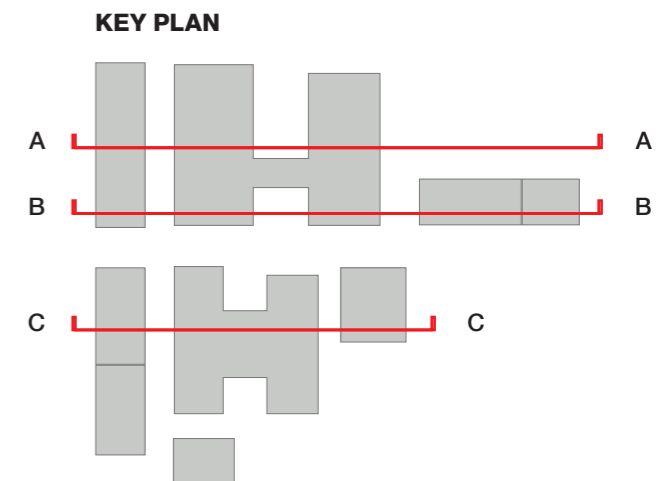
SECTION B East - West Section

Note: All RL's at top of building are to parapet levels and approximate only

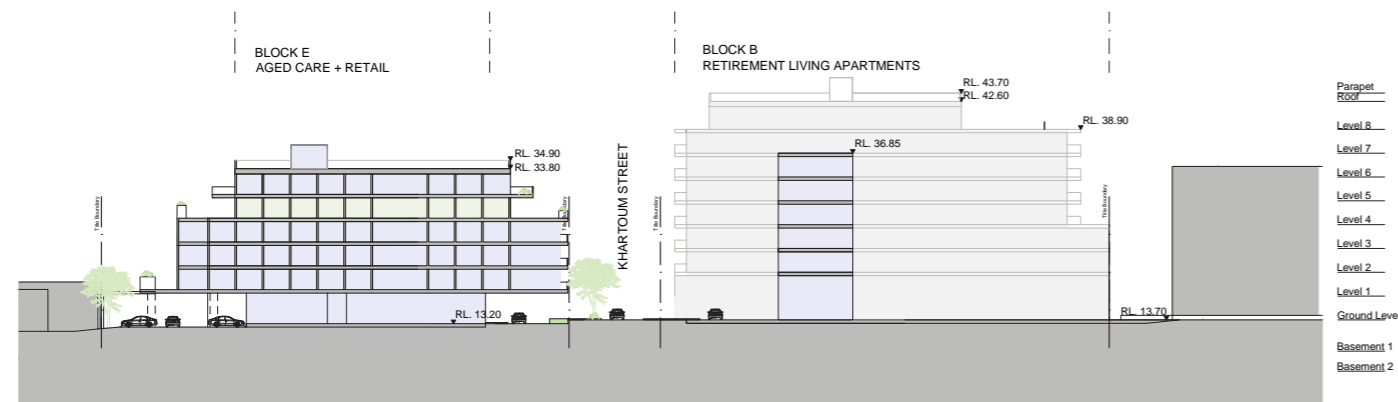


SECTION C East - West Section

Note: All RL's at top of building are to parapet levels and approximate only

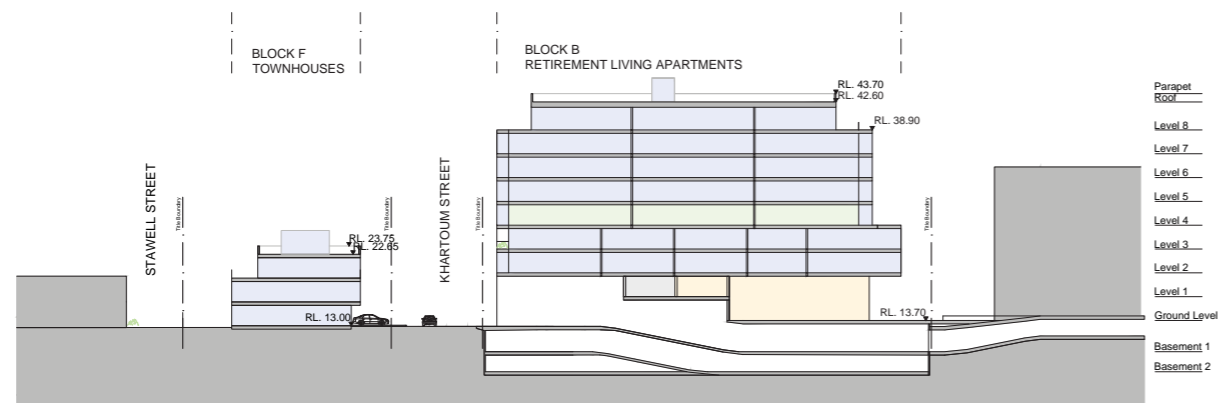


7.4 SECTIONS + ELEVATIONS



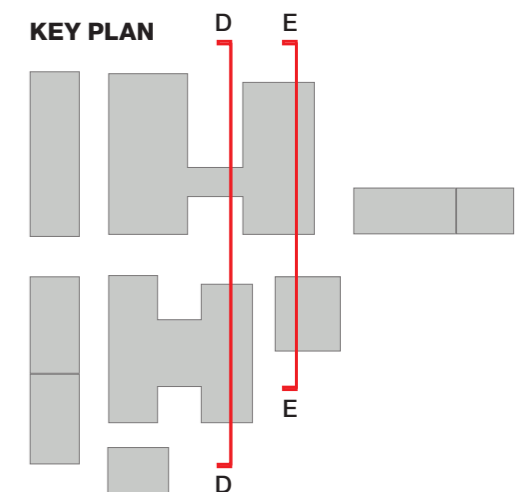
Section D North - South Section

Note: All RL's at top of building are to parapet levels and approximate only

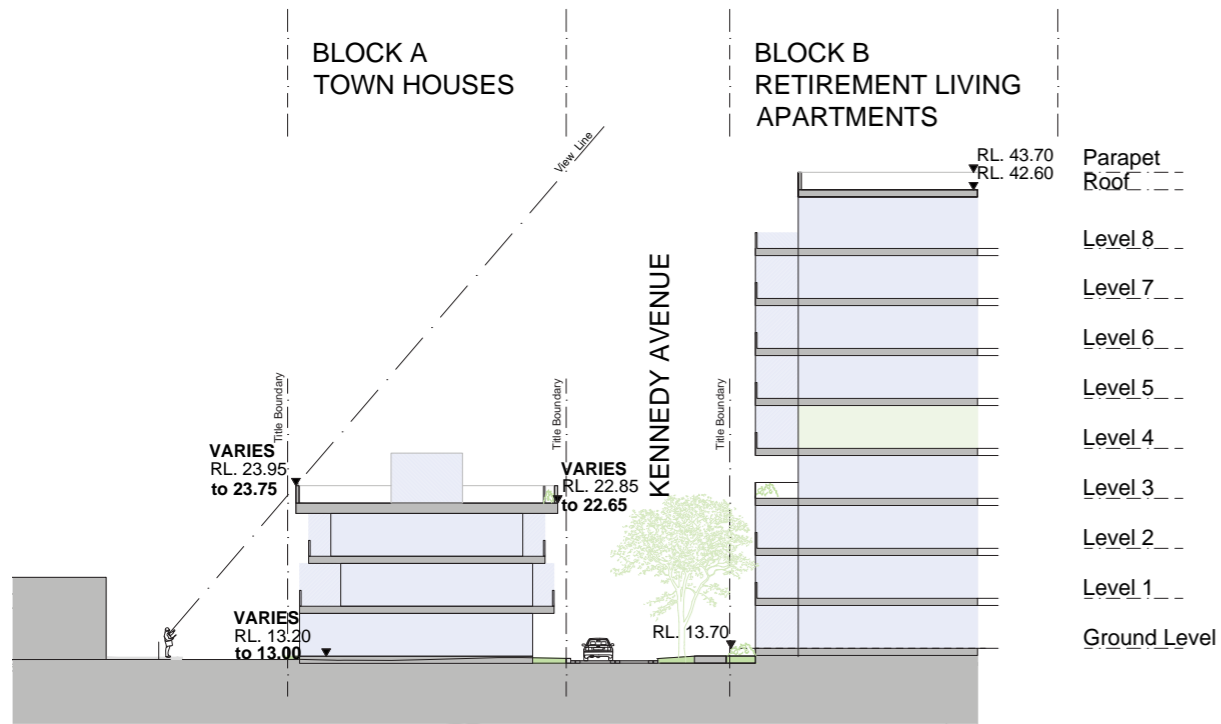


Section E North - South Section

Note: All RL's at top of building are to parapet levels and approximate only

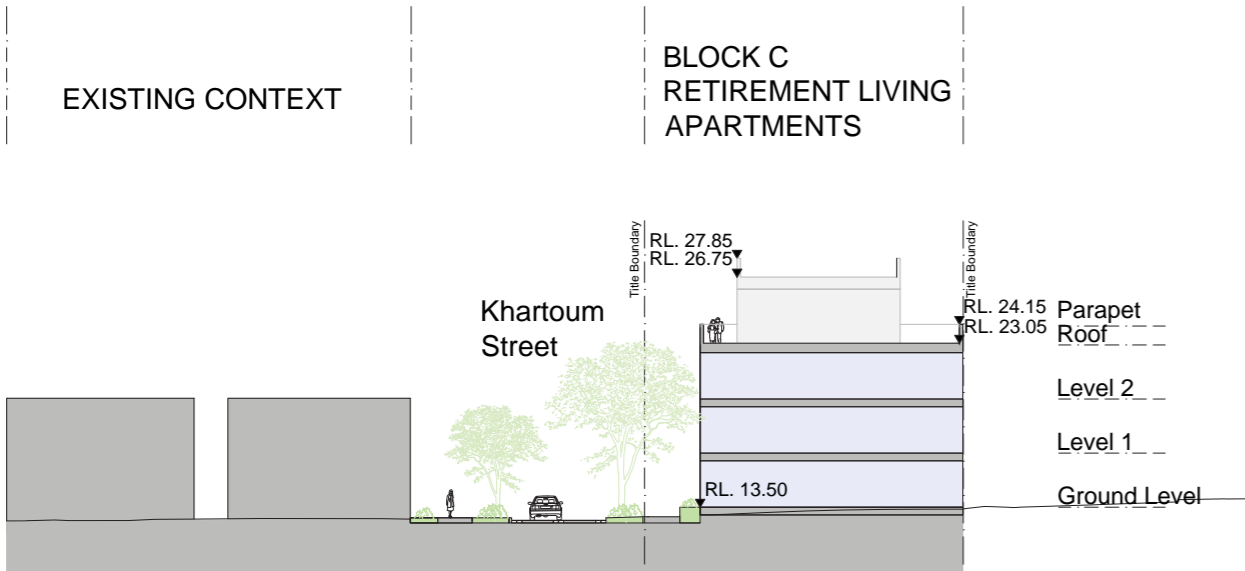


7.5 STREET INTERFACE SECTIONS



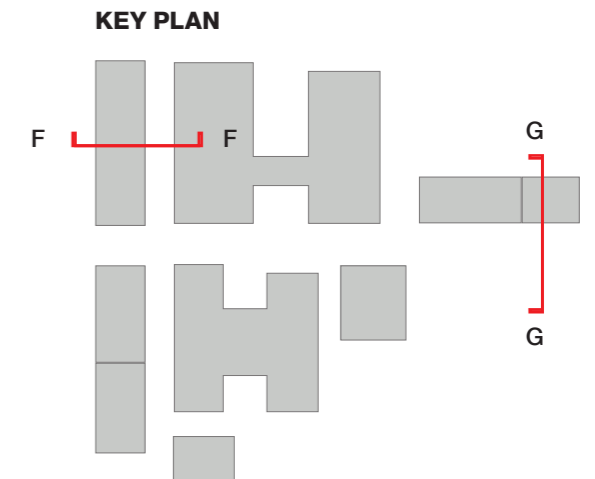
Section F - F East - West Street

Note: All RL's at top of building are to parapet levels and approximate only



Section G - G North - South Street

Note: All RL's at top of building are to parapet levels and approximate only

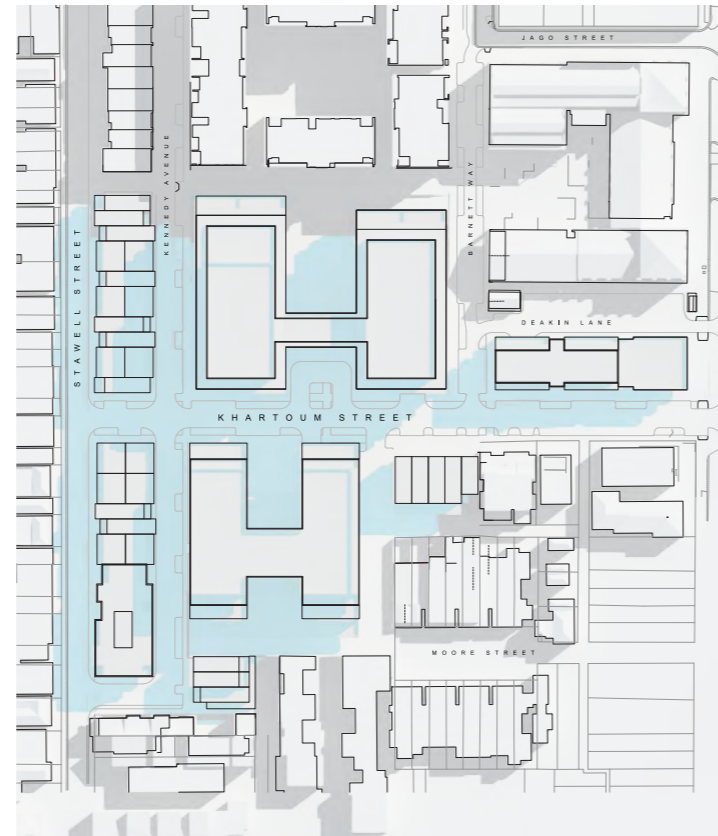


7.5 SHADOW STUDIES

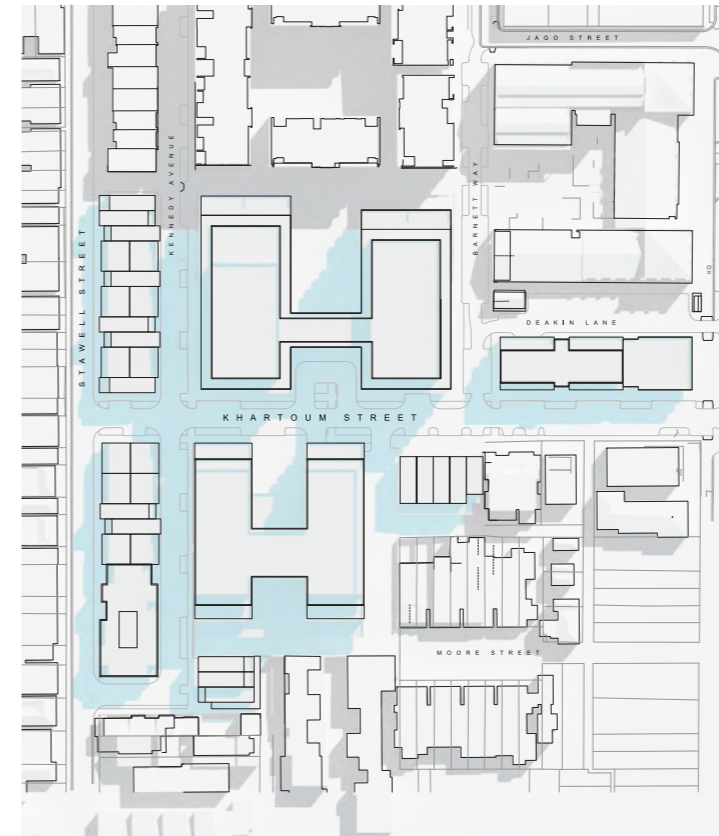
Part of the masterplan strategy for siting of buildings and smaller building footprints, is to mitigate overshadowing to existing neighboring properties.

 Existing Shadow

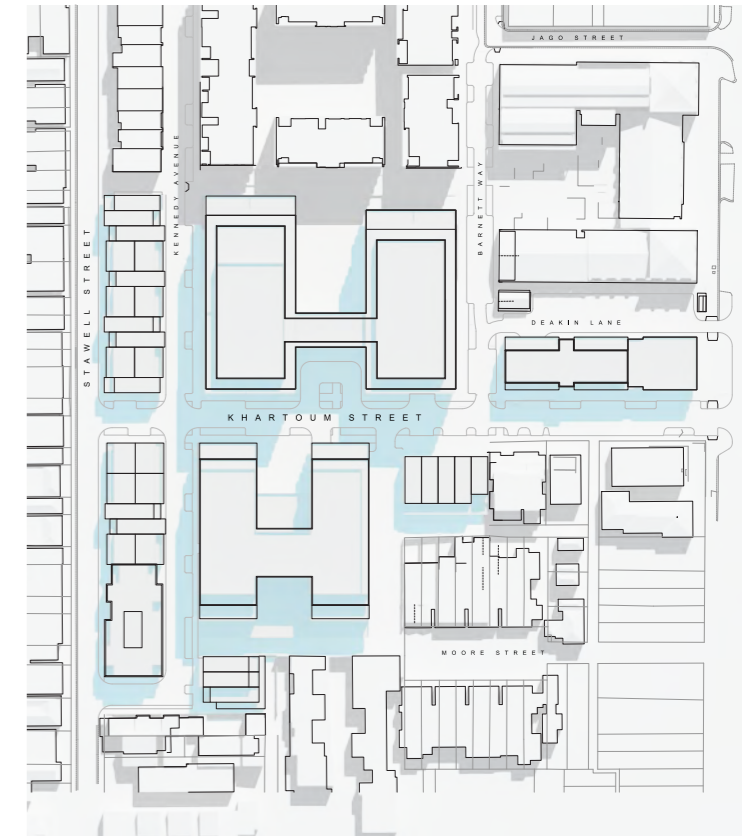
 Additional Shadow



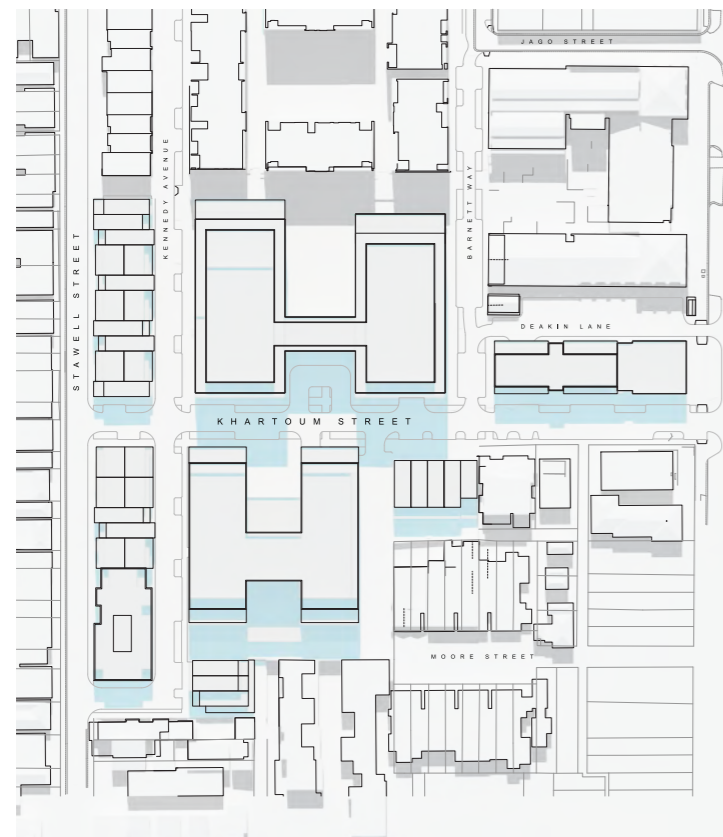
Equinox 22 September - 9am



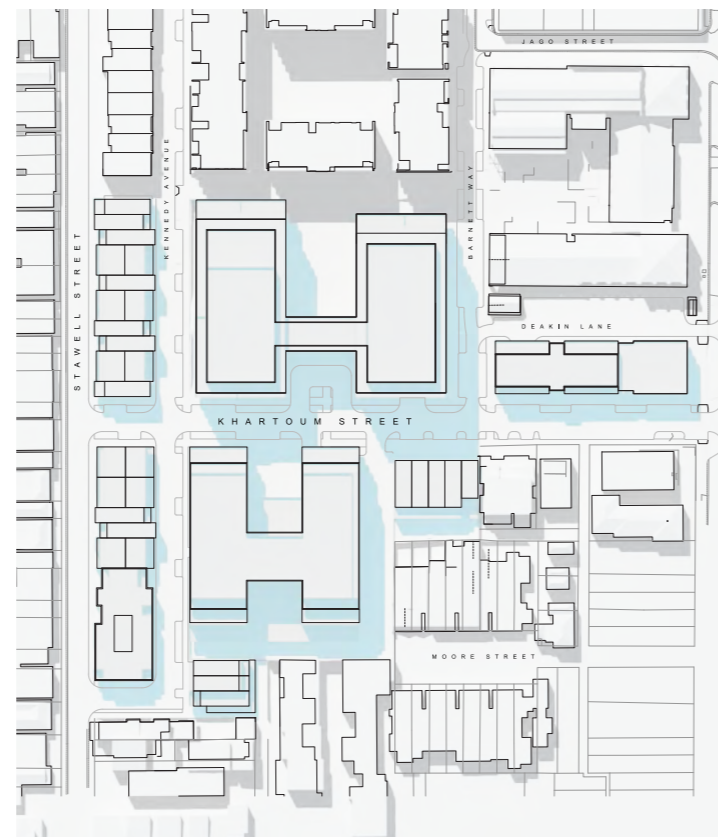
Equinox 22 September - 10am



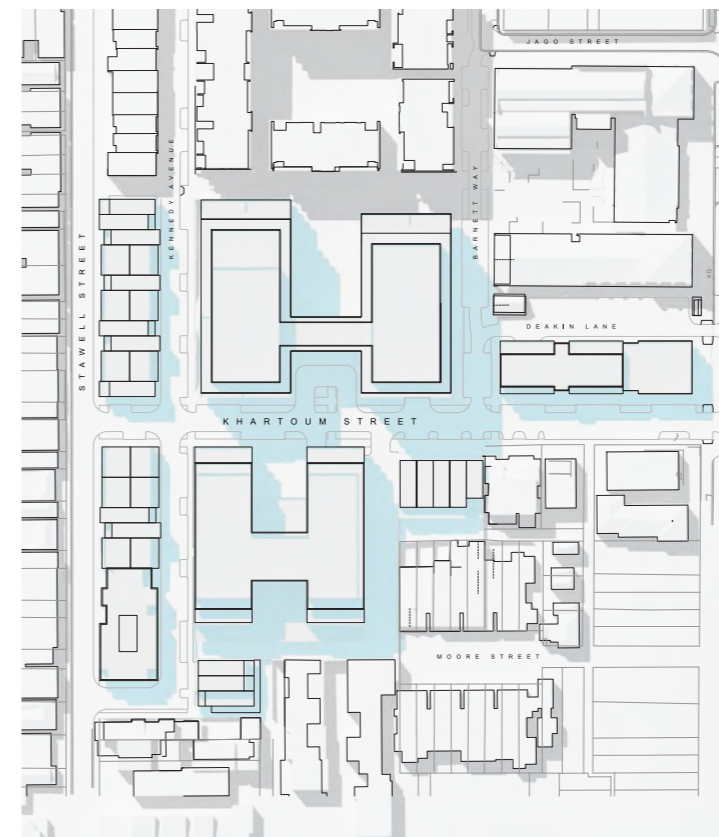
Equinox 22 September - 11am



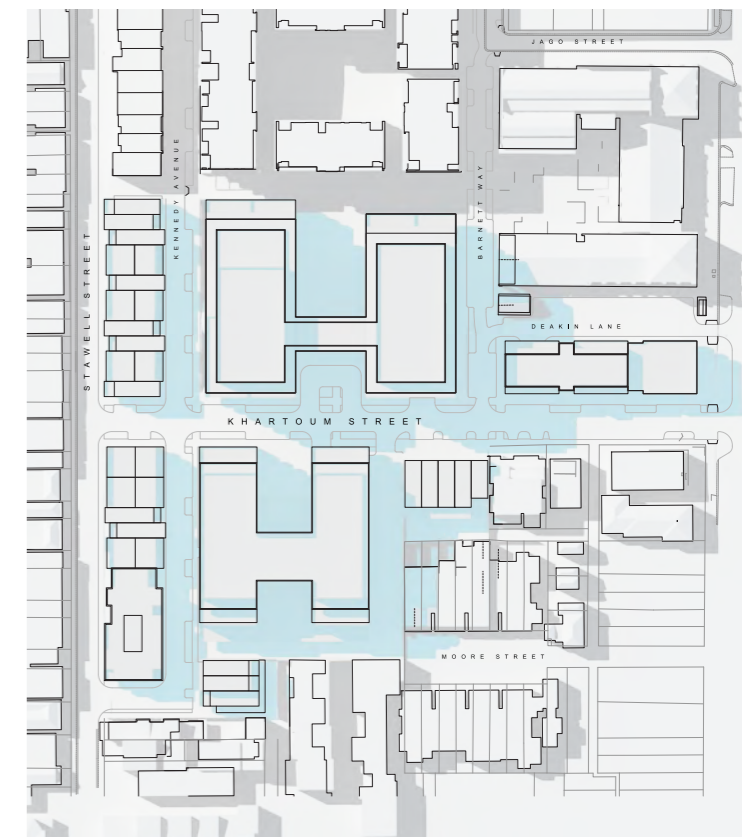
Equinox 22 September - 12pm



Equinox 22 September - 1pm



Equinox 22 September - 2pm



Equinox 22 September - 3pm

NOTE: Site features and levels taken from Cardno survey - V171132 FL 3D. Shadows have been adjusted -1° 13' 13.2" for grid north. Shadow diagrams are indicative and subject to confirmation by an external consultant. Shadow studies taken between 9.am - 3pm on the 22nd September 2017



8.0

**ENVIRONMENTALLY
SUSTAINABLE
DEVELOPMENT**

8.1 SUSTAINABILITY REQUIREMENTS

/ The project will use the Green Building Council of Australia Green Star and As-Built Tool to assess the project's environmental performance. The project is targeting a 5 Star Green Star Rating. Future Planning Permit Applications will be supported by a Sustainable Management Plan as per the City of Yarra's requirements.

/ The table below sets out the key objectives & policies within the Yarra Planning Scheme and details the project's response to meet these criteria.

*Whilst a commitment to a minimum 4 Star Green Star outcome and aspiration for 5 stars will ensure that the ESD objectives of the Yarra Planning Scheme are met, the following table **sets out the range of measures which may be adopted as well as providing some useful examples of the types of technologies that could be employed.***

Energy Performance
<p>Key Objectives and Policies:</p> <ul style="list-style-type: none"> • To improve the efficient use of energy, by ensuring development demonstrates design potential for ESD initiatives at the planning stage. • To reduce energy peak demand through particular design measures (eg. Appropriate building orientation, shading to glazed surfaces, optimise glazing to exposed surfaces, space allocation for solar panels and external heating and cooling systems). • To reduce energy peak demand through particular design measures (eg. Appropriate building orientation, shading to glazed surfaces, optimise glazing to exposed surfaces, space allocation for solar panels and external heating and cooling systems).
<p>Project Response</p> <p>The project proposed to adopt a high level of energy efficiency to minimise environmental impact and reduce operating costs to residents. Refer to section 3.4 for further details regarding proposed initiatives associated with:</p> <ul style="list-style-type: none"> • Thermal performance • Lighting technology and control • Domestic hot water • Ventilation control • Appliances
Water Resources
<p>Key Objectives and Policies:</p> <ul style="list-style-type: none"> • To improve water efficiency. • To reduce total operating potable water use. • To encourage the collection and reuse of stormwater. • To encourage the appropriate use of alternative water sources (eg. greywater).
<p>Project Response</p> <p>The project will be targeting a high level of performance for water efficiency. Whilst potable water use is heavily dependent on occupant behaviour, the project proposed many initiatives to give the greatest potential for reducing water consumption. Please refer to section 3.6 for further details regarding the following:</p> <ul style="list-style-type: none"> • Sanitary fixture efficiency • Rainwater reuse • Heat rejection • Landscape irrigation • Fire system water • Appliances • Swimming pool water efficiency

8.1 SUSTAINABILITY REQUIREMENTS

Indoor Environment Quality (IEQ)

Key Objectives and Policies:

- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, and natural daylight.
- To achieve thermal comfort levels with minimised need for mechanical heating, ventilation and cooling.
- To reduce indoor air pollutants by encouraging use of materials with low toxic chemicals.
- To reduce reliance on mechanical heating, ventilation, cooling and lighting systems.
- To minimise noise levels and noise transfer within and between buildings and associated external areas.

Project Response

The overall planning and design of the apartments has been developed to maximise IEQ and health and wellbeing outcomes for occupants. This is a process of balancing daylight, glare control, thermal comfort and air quality whilst not impacting energy efficiency. Please refer to section 3.3 for further details regarding the following:

- Exhaust of pollutants
- Lighting comfort
- Visual comfort
- Indoor pollutants
- Thermal comfort

Stormwater

Key Objectives and Policies:

- To reduce the impact of stormwater run-off.
- To improve the water quality of stormwater run-off.
- To achieve best practice stormwater quality outcomes.
- To incorporate the use of water sensitive urban design, including stormwater re-use.

Project Response

The stormwater system will be designed to ensure that run-off from the site will not exceed the pre-development condition when assessed on current climate data as well as under the projected impacts climate changes. Treatment will be implemented such that stormwater released from the site meets pollution reductions consistent with best practice guidelines.

Transport

Key Objectives and Policies:

- To ensure that the built environment is designed to promote the use of walking, cycling and public transport, in that order.
- To minimise car dependency.
- To promote the use of low emissions vehicle technologies and supporting infrastructure.

Project Response

The project benefits from an ideal location close to Melbourne's CBD and amongst a varied selection of community, retail and food outlets. Additionally, the project is located adjacent to trams along Swan St and within walking distance of Burnley station, enabling residents to reduce their reliance on private car travel.

Bike spaces are being considered to be provided for visitors to the precinct. Additionally, discussions are taking place around implementation of a car share scheme for the project, though nothing has been confirmed at present.

Design of the public realm is intended to:

- Prioritises people walking, mobility scooter or riding bikes before vehicles.
- Residents and staff can move easily between the precinct and other local points of interest / public transport stops.
- Scooter, bike parking facilities and electric bikes available for residents.

Waste Management

Key Objectives and Policies:

- To promote waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure durability and long term reusability of building materials.
- To ensure sufficient space is allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

Project Response

A waste management specialist will prepare a comprehensive waste management plan for the project and provide guidance on appropriate space and access requirements to central waste storage. This process is aimed at maximising the amount of waste recycled during operation of the building.

Significant materials initiatives are proposed as detailed in section 3.7. A life cycle assessment will be undertaken to identify appropriate initiatives beyond those indicated in section 3.7.

Waste is proposed to be minimised through the delivery of the development as follows:

- The construction team will aim to recycle at least 90% of construction and demolition waste.
- Prefabrication will be maximised through the bathroom and kitchens significantly reducing construction waste. Refer to section 3.7 for further details.

8.1 SUSTAINABILITY REQUIREMENTS

Urban Ecology
Key Objectives and Policies:
<ul style="list-style-type: none"> • To protect and enhance biodiversity within the municipality. • To provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect. • To encourage the retention of significant trees. • To encourage the planting of indigenous vegetation. • To encourage the provision of space for productive gardens, particularly in larger residential developments.
Project Response
<p>The project site was originally a Wertheim Piano Factory. The project site meets the conditional requirements in the Green Star Land use and Ecology category as the site is home to no endangered, threatened or vulnerable species, nor land uses with high ecological value such as old growth forests or wetlands of significance.</p> <p>In addition to responsibly selecting a site, the project will further enhance ecological diversity through the inclusion of landscaping, with a preference toward native and drought tolerant species.</p>

Building Materials
Key Objectives and Policies:
<p>To minimise the environmental impacts of materials used by encouraging the use of materials with a favourable lifecycle assessment.</p> <p>Building materials includes the following considerations:</p> <ul style="list-style-type: none"> • embodied energy of materials • use of materials with recycled content • future recyclability of materials
Project Response
<p>An environmental life cycle assessment (LCA) of the proposed project will be undertaken in the early design phase of the project to identify key opportunities to reduce the environmental impact of material selection.</p> <p>Beyond using LCA to identify opportunities, the project team is committing to a number of materials initiatives as listed in section 3.7.</p>

Innovation
Key Objectives and Policies:
<p>To encourage innovative technology, design and processes in all development, so as to positively influence the sustainability of buildings.</p> <p>Examples of innovation could include:</p> <ul style="list-style-type: none"> • significant enhancements of best practice sustainable design standards • introduction of new technology • good passive design approach
Project Response
<p>A number of innovative design strategies and processes are being considered or being adopted by the project as follows:</p> <ul style="list-style-type: none"> • Site accommodation meeting defined sustainability requirements as required by Green Star • Education of sub-contractors with regards to sustainability and project commitments • Bathroom and kitchens pre-fabrication to reduce waste • Exceeding minimum NatHERS requirements • The use of a CLT structure is being considered. • A high level of pollutant reduction targeted with stormwater strategy

Construction and Building Management
Key Objectives and Policies:
<p>To encourage a holistic and integrated design and construction process and ongoing high performance.</p> <p>Construction and building management includes:</p> <ul style="list-style-type: none"> • building user's guide that explains a building's sustainable design principles • preparation of an operation Environmental Management Plan • contractor has valid ISO14001 (environmental management) accreditation.
Project Response
<p>As part of the proposed Green Star strategy, the project is adopting many strategies and initiatives that will address this category. These are listed and described in detail in section 3.2</p>



9.0
HERITAGE +
COMMUNITY
FACILITIES
CONSIDERATIONS

9.1 HERITAGE ASSESSMENT

VICTORIAN HERITAGE REGISTER

The north eastern portion of Development Plan land is included on the Victorian Heritage Register as place H2165 (Former Wertheim Piano Factory – GTV 9 Studios)

HERITAGE OVERLAY

Part of the site corresponding to Heritage Victoria's extent of Registration is individually identified as HO224 (22-50 Bendigo Street, Richmond, Former Wertheim Piano Factory, GTV9 Studios) in the Schedule to the Heritage Overlay of the Yarra Planning Scheme. Parts of the site, to the south of Khartoum Street, are also adjacent to the Bendigo Street Heritage Precinct (HO309).

HERITAGE IMPACTS

The proposal anticipates new development on vacant land that is associated with the GTV9 buildings, which are listed on the Victorian Heritage Register. Given that no heritage fabric will be physically impacted by the proposed Development Plan, a key consideration is the relationship between the development proposed for Blocks B and C and the heritage building on the registered land. The interfaces with the adjoining heritage overlay precinct at Blocks C, E and F is also relevant to heritage considerations.

There will be no detrimental impacts on the registered buildings arising from the Development Plan. The registered buildings associated with the GTV9 site have been developed separately, and are not part of the Development Plan, therefore no significant original fabric will be altered. While the surrounding proposed development will have some impact upon the presentation of the building from the wider streetscape, the essential presentation of the building and the ability to interpret its historic character will not be compromised.

The Development Plan would not create a situation where new built form obscures or damages significant heritage fabric, and key views, particularly from Bendigo and Jago Streets, will not be adversely affected. New structures are entirely independent from the fabric of the registered building, and the majority of new development would lie outside of the extent of registration. Development within the extent of registration takes place at the rear of the heritage building where it will have minimal impact on the character and significance of the place.

New built form on Block C has three storey frontage to Bendigo Street with the fourth storey at a greater setback, providing a sympathetic scale relationship to the façade of the registered building. Development on Block C will also be separated from the heritage buildings by a relatively wide buffer associated with Deakin Lane.

The nine storey building heights on Block B will create increased visual bulk associated with the rear of the registered buildings, however this will not affect the primary street presentation of the heritage buildings to Bendigo Street. The impact of the increased height on Block B will be further mitigated by the physical separation from the registered buildings and upper level setbacks.

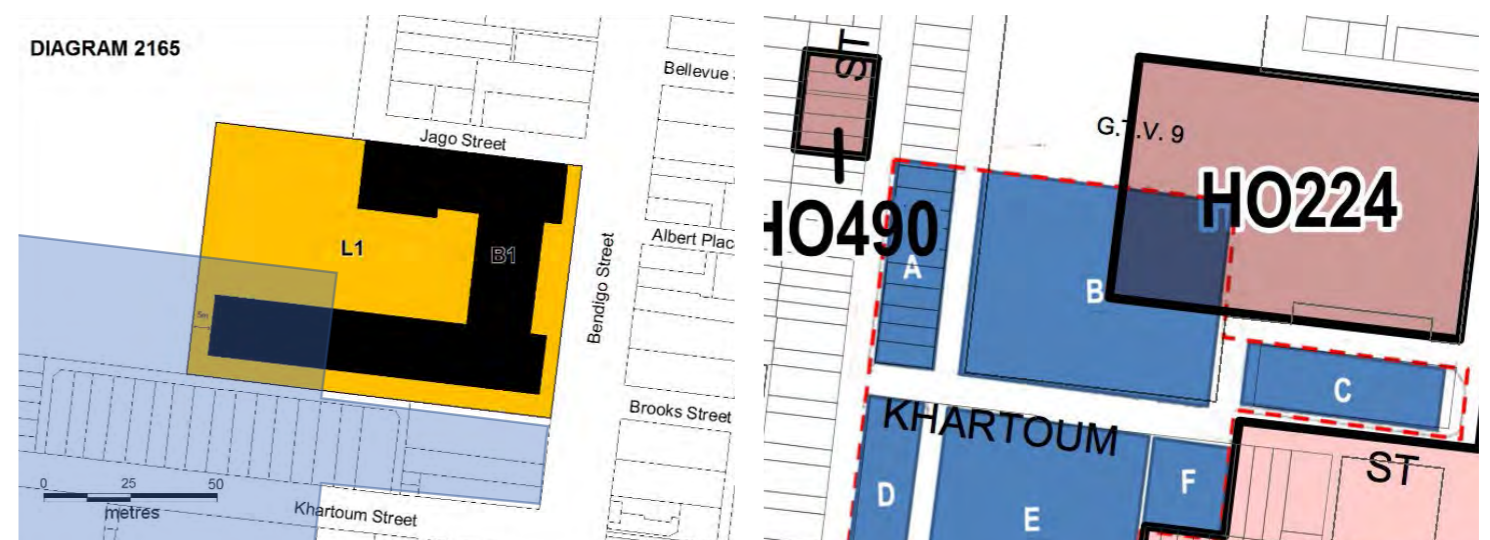
The Development Plan provides for lower rise built form on Blocks C and F at the interface with the adjoining Heritage Overlay precinct. New built form will be of a scale and character that is different to the predominately single storey residential building stock in the heritage precinct but it is important to note that the land covered by the Development Plan does not have a sensitive interface with the adjoining Heritage Overlay precinct where there might be any concern with regard to changes in scale and architectural character.

New built form on Block E is setback from the Moore Street boundary behind a fence and does not have a direct interface with single-storey heritage buildings. That is to say, new development will be visible as a backdrop to the heritage buildings on Moore Street but it will not disrupt the continuity of this low rise residential streetscape.

The key measures taken to mitigate the potential for negative impacts upon the cultural significance of the place are as follows:

- The envelopes associated with the new buildings have been designed to protect the key views to the heritage place from Bendigo Street and Jago Street.
- The Development Plan allows for an appropriate buffer of physical separation between new development and the registered buildings.
- Taller built form is sited to the rear of the registered buildings where it will have minimal impact on key views from Bendigo Street and Jago Street.
- Lower building heights are proposed for the Bendigo Street frontage such that new development (on Block C) will not overwhelm or visually dominate the key façades of the registered buildings.
- Lower built form on the perimeter of the site will also provide an appropriate transition down to the scale of the neighbouring heritage precinct.

Overall, the Development Plan provides an appropriate framework for new development to be complementary to the existing heritage buildings on the former GTV9 site and neighbouring streetscapes in the Heritage Overlay.



EXTENT OF HERITAGE VICTORIA'S REGISTRATION OF THE FORMER GTV9 SITE.

Diagram prepared by Bryce Raworth Pty Ltd

The blue area highlights the approximate location of part of the updated development plan area, relative to the registered site. Note that the western half of the southern wing has been demolished as part of the previously permitted development of the site, and the associated land is presently vacant.

HERITAGE OVERLAY MAP

Diagram prepared by Bryce Raworth Pty Ltd

Heritage Overlay map with the block plan for the proposed Development Plan highlighted blue.