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Wentworthville Centre Urban Design and Built Form Modelling

for Wentworthville Centre Revitalisation Planning Project

For Holroyd City Council
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Introduction

In 2011 and 2012, Holroyd City Council undertook a review of the Local Environmental Controls (LEP) for the Wentworthville Town Centre and proposed increased building heights. The proposal elicited significant responses from the community. Consequently, Council decided to revisit the planning for the Wentworthville Centre, maintaining that the LEP would be endorsed with no changes to heights until further studies were undertaken.

Council decided to undertake a holistic approach to revitalise the town centre in consultation with the community and obtained a grant from the Department of Planning and Infrastructure. The first step of the revitalisation project was to engage the community to define their vision for the town centre. Council engaged Place Partners to prepare the 2014 Place Audit and the accompanying Community Participation Report. The Community Directions and Findings established through the consultation process form the basis of this Urban Design and Built Form Modelling study.

Architectus was engaged to prepare the Urban Design and Built Form Modelling study in collaboration with feasibility testing by Hill PDA and traffic and transport review by Stapleton Transportation and Planning and Bitzios Consulting.

The Urban Design and Built Form Modelling study is based on detailed analysis of the public realm and built form within the current town centre. The Structure Plan provides recommendations to enhance the public realm and character within the town centre and directly responds the Community Directions. Scenario 1 demonstrates the likely built form outcome of the current development controls, while Scenarios 2 and 3 explore alternative built form outcomes with a mid-rise approach and mid-rise with strategically located taller heights.

The recommendation in this report and supporting consultant reports will inform Council's review of the current LEP and Development Control Plan for the Wentworthville Town Centre.

View west along The Kingsway showing character shops and significant trees opposite Wentworthville Station

Active and pedestrian friendly retail frontage on Dunmore St

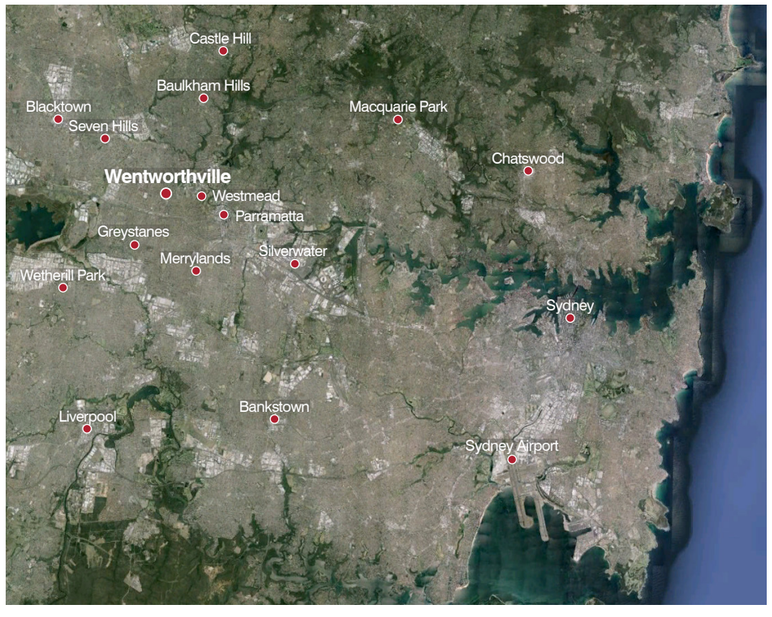
Tall built form and heavy traffic at entrance to Wentworthville Town Centre from the Cumberland Highway

1 Purpose and Background

1.1 Study area

Wentworthville is a suburb of Western Sydney, located 27km west of the Sydney CBD and 3km west of Parramatta CBD. The suburb is split between two local government areas – the City of Holroyd (on the southern side of the railway line) and the City of Parramatta (on the northern side of the railway line).

The Study Area, as shown in the diagram alongside, encompasses the B2 Local Centre zone of the Wentworthville Centre (The Centre). The study area lies south of the Wentworthville Railway Station, bounded generally by The Kingsway on the north, Perry Street on the south, Lane Street on the east and the Cumberland Highway on the west. The study area is approximately 9.7HA in area.



Location map

Study area

1.2 Project methodology

1.21 Methodology

The project was undertaken in 4 distinct stages, in constant discussions with Council. These stages are:

1. Planning Context: In this stage, the state and local planning controls for the Site were studied in detail, particularly with respect to their implications for both the existing and proposed future built environment of Wentworthville.

2. Urban Design Analysis: In this stage, the town centre was analysed through visual inspections with respect to existing context, topography, flooding, connectivity (vehicular and pedestrian), public domain, community uses, sense of place, neighbourhood character, land ownership, land uses, lot frontage conditions and built form. Analysis findings were summarised in a SWOT analysis to inform the design strategy and scenarios.

3. Urban Design Strategy: During this stage, a clear urban design strategy was formulated for the future built character of the town centre, based on findings during the analysis phase and in response to feedback from community consultation sessions. The strategy is based on clear design principles, a pragmatic lot amalgamation strategy, and a structure plan, which sets the framework for future urban form through rational built form and building height, enhancement of open space, improved connectivity, creation of public plazas, integration with the heritage fabric of the area, and management of car parking.

4. Urban Design Scenarios: This stage encompasses the preparation of three urban design scenarios for the site, in conjunction with context, community feedback, transport and economic feasibility. Scenario 1 shows the resulting built form outcome for the town centre based on current planning controls. Scenario 2 shows a mid-rise built form outcome, with a fairly equal distribution of height and density across the town centre. Scenario 3 looks at a general mid-rise built form across the study area with taller heights making key locations such as entries to the town centre, pedestrian linkages and the intersections of Dunmore and Station Streets.

1.3 Project aims, vision and guiding objectives

1.3.1 Project Aims

The objectives of this Urban Design and Built Form Modelling Study are:

1. To produce built form concepts that respond to community vision and economic feasibility, place-making, design and transport considerations with the overall aim to achieve revitalisation and renewal of the Wentworthville Centre;

2. To ensure that built form concepts respond to the strategic direction of the centre;

3. To ensure that proposed built form concepts can be interpreted and clearly understood by the community; and

4. To enable the results/recommendations of the Study to be easily translated into development controls.

1.3.2 Community Vision and Directions

The Wentworthville Centre Revitalisation Project: Community Participation Report identifies a vision for the future of the centre, supported by 5 Community Directions.

Town Centre Vision

"*The Wentworthville community envisions the Centre to be a place where people of diverse backgrounds can share stories and participate in activities, making it a vibrant, colourful place: where the elderly can meet and play chess; where families can get quality authentic food; where children can play safely; where the locals and visitors come to shop; and where young people can express their creativity.*

Wentworthville Centre in the future is also a place where one creates new opportunities in business, tries out experimental ideas and finds support from the local consumers. While it looks forward to progressive thinking, its physical attributes do not replicate the nondescript large scale developments of adjacent suburbs and retains the human quality of its places." - Community Participation Report

Five Community Directions

1. Centre Redevelopment: The community supports attracting investment to create a modern, engaging and safe Centre while maintaining the human scale and village feel of the street;

2. Residential Development: The community supports high quality mid-rise redevelopment particularly in and around the train station;

3. Retail Revitalisation: The community supports a successful and sustainable retail and commercial centre with locally owned and run businesses that offer quality services, products, shop design and extended trading hours;

4. Amenity and Facilities: The community supports an accessible and green public realm where people can gather, sit and enjoy active and passive interactions with others; and

5. Community and Cultural Understanding: The community supports an increase in community activities that help people of different cultures understand each other better, build on their existing community strength and celebrate Wentworthville as a place to live, do business and play.

1.3.3 Guiding Objectives

The guiding objectives of this Study come from feedback received from the local community at consultation sessions and reflect community aspirations. These objectives are:

– Creating a streetscape that has a 'human scale quality' modernising and building upon existing 'village feel' of the Centre;

– Facilitating a centre that is creative and vibrant and has colour; that is progressive and entrepreneurial;

– Broadening housing choice and creating housing close to the station;

– Creating a primarily mid-rise scale of development;

– Ensuring that a quality built form design is achieved; and

– Creating a definitive link between the Railway Station and the Centre.

Design Principles in Section 4.1 expand on the guiding objectives and are aligned with the Community Directions. The design principles directly inform the Structure Plan and Built Form Scenario in Sections 4 and 5 of this report.

2 Planning Context

2.1 Existing policy framework

2.1.1 Planning Context

Current land use Planning

– During Councils recent review of its Local Environmental Plan, Council prepared a new Residential Development Strategy (RDS) in response to the State Government's Draft West Central Subregional Strategy, which identified dwelling targets for the region and all LGAs within it. The RDS was adopted by Council in April 2012, and has informed the preparation of Council's new comprehensive LEP.

– The LEP has zoned a number of key locations identified in the RDS as suitable for higher densities of residential development. These include existing local centres, railway stations and transitway stations, as well as sites that are currently zoned for other purposes. The expected dwelling yield for the Holroyd LGA to 2031 is just over 15,000 dwellings.

– The increase in dwelling stock within Holroyd will lead to a change in the building typology mix for the LGA. The number of apartments as a proportion of total building stock will rise to over 40% of the total dwelling numbers by 2032. The occupancy rate predicted for Holroyd for 2032 will be an average of 2.53 persons per dwelling, a decrease from 2.84 in 2011.

Wentworthville Town Centre

Size and land use

– The Wentworthville Centre Precinct is bounded by the Western Railway line, Cumberland Highway, Station Street and Pritchard Street East. It is approximately 9.7 hectares in area. The suburb of Wentworthville is located in both Holroyd and Parramatta LGAs, however the main business centre is located within Holroyd LGA

– Under Holroyd Local Environmental Plan 2013, Wentworthville Town Centre is zoned B2 Local Centre and Zone RE1 Public Recreation, with varied maximum building heights of five and six storeys in the core and 3-4 storeys on the edge of the centre. The floor space ratios vary from 2.4:1 to 1.5:1. There are several local heritage items within the centre. A number of sites located towards the Cumberland Highway and towards Finlaysons Creek are flood affected.

Existing building stock

– Wentworthville Centre began to grow after the construction of the railway station in the late 1880s, although few original buildings to this date remain. The precinct is characterized by predominantly single and two storey commercial buildings, including limited shop-top housing. Building stock largely dates from 1960s to 1980s, with the exception of a few inter-war heritage items and a couple of recent developments.

– In the past 10 years, two sites have developed on the fringes of the centre, including a 6 storey commercial building and a 3 storey mixed commercial and residential flat building.

– Housing surrounding the precinct consists of a mixture of residential flat buildings, single dwellings and medium density housing. Residential flat buildings are generally dated to the 1990's.

Commercial vacancies

– The Wentworthville Town Centre Revitalisation Project: Economic and Development Feasibility Assessment found that the Centre's retail trade has remained relatively consistent since 2008, The strengthening of surround centres with new anchor tenants has had an adverse impact on retail in the Centre. Vacancy rates for shopfront retail have increased to 13% of all floorspace. Fluctuations in retail vacancy and general decline are key issues for the centre. Hill PDA recommends that a full line supermarket or a mini major, appropriately located, could draw additional trade to the Centre with spin off benefits for surrounding specialty retailers.

Accessibility

– The centre is accessible by road and rail. Wentworthville train station opened in 1883 and was the third train station to service Holroyd. Rail service on the Western Line and Cumberland Line can be accessed from Wentworthville Station. There are also a number of local bus routes that service the centre. It is in immediate proximity to the Cumberland and Great Western Highways and the M4 Motorway, making the Centre highly accessible.

– It is also noted that the Liverpool to Parramatta Transitway (Finlayson Station) is located just over 1km walk from the precinct.

2.2 Existing LEP - Key considerations

2.2.1 Current Land Use Zoning controls

The existing land use zoning within the town centre is B2 Local Centre with the exception of Friendship Park, part of Memorial Park and Finlaysons Creek Reserve which are zoned RE1 Public Recreation.

B2 Local Centre Objectives:

– To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.

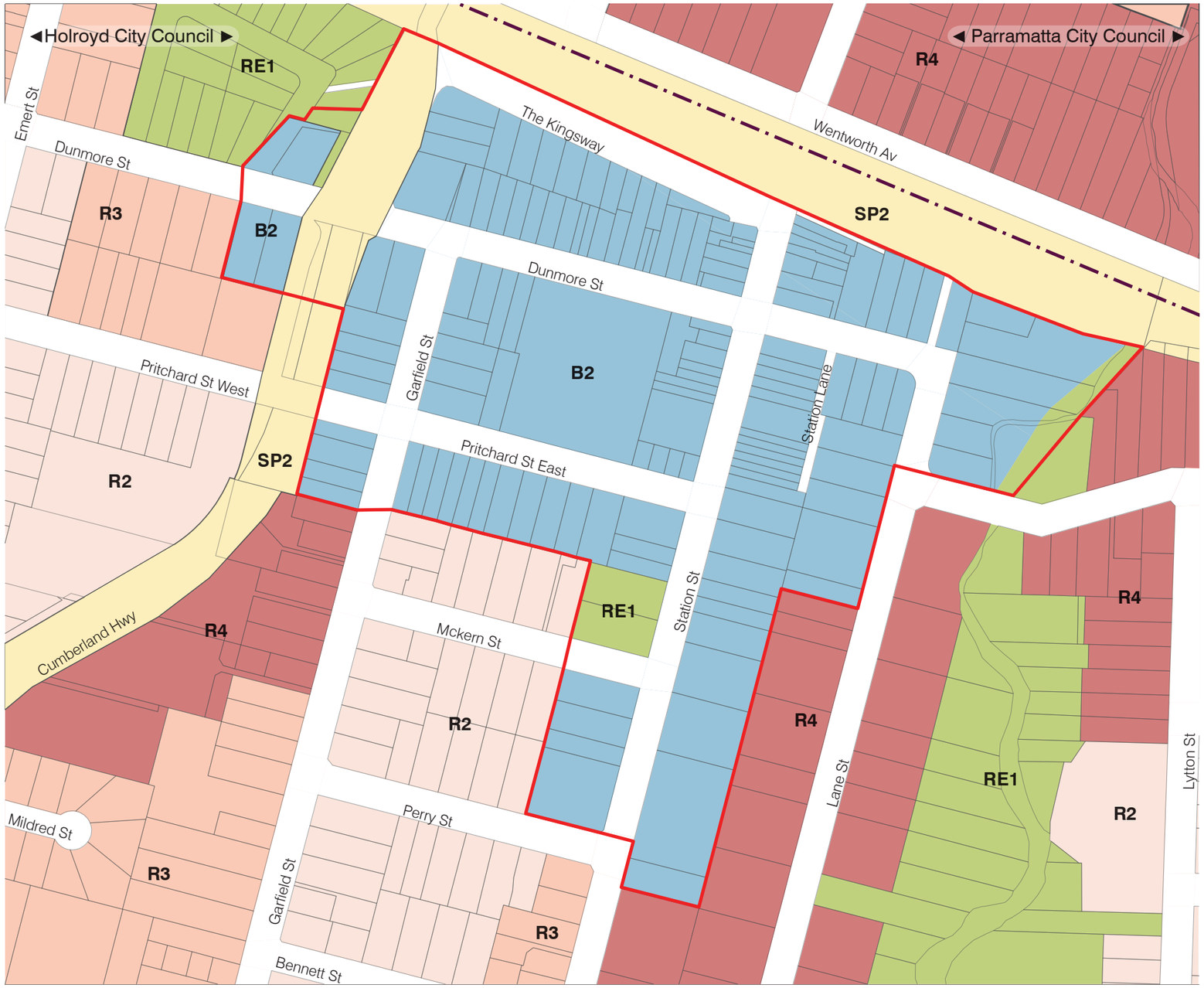
– To encourage employment opportunities in accessible locations.

– To maximise public transport patronage and encourage walking and cycling.

– To permit residential development that is complementary to, and well-integrated with, commercial uses.

Key Issues

– B2 uses to the west of the Cumberland Highway - The extension of the town centre across a busy highway and culvert is not attractive for pedestrian access and retail destinations. These sites would be attractive to car based retail, which would likely be an underutilisation of land in such close proximity to the railway station.



LGA Boundaries
Study Area Boundary

Land Zones

B2	Local Centre
R2	Low Density Residential
R3	Medium Density Residential
R4	High Density Residential
RE1	Public Recreation
SP2	Infrastructure

NOTE: This map shows existing LEP Land Zoning maps with the streets made white for clarity. Zoning for roads can be viewed in Holroyd LEP 2013

0 10 20 50 100 150m

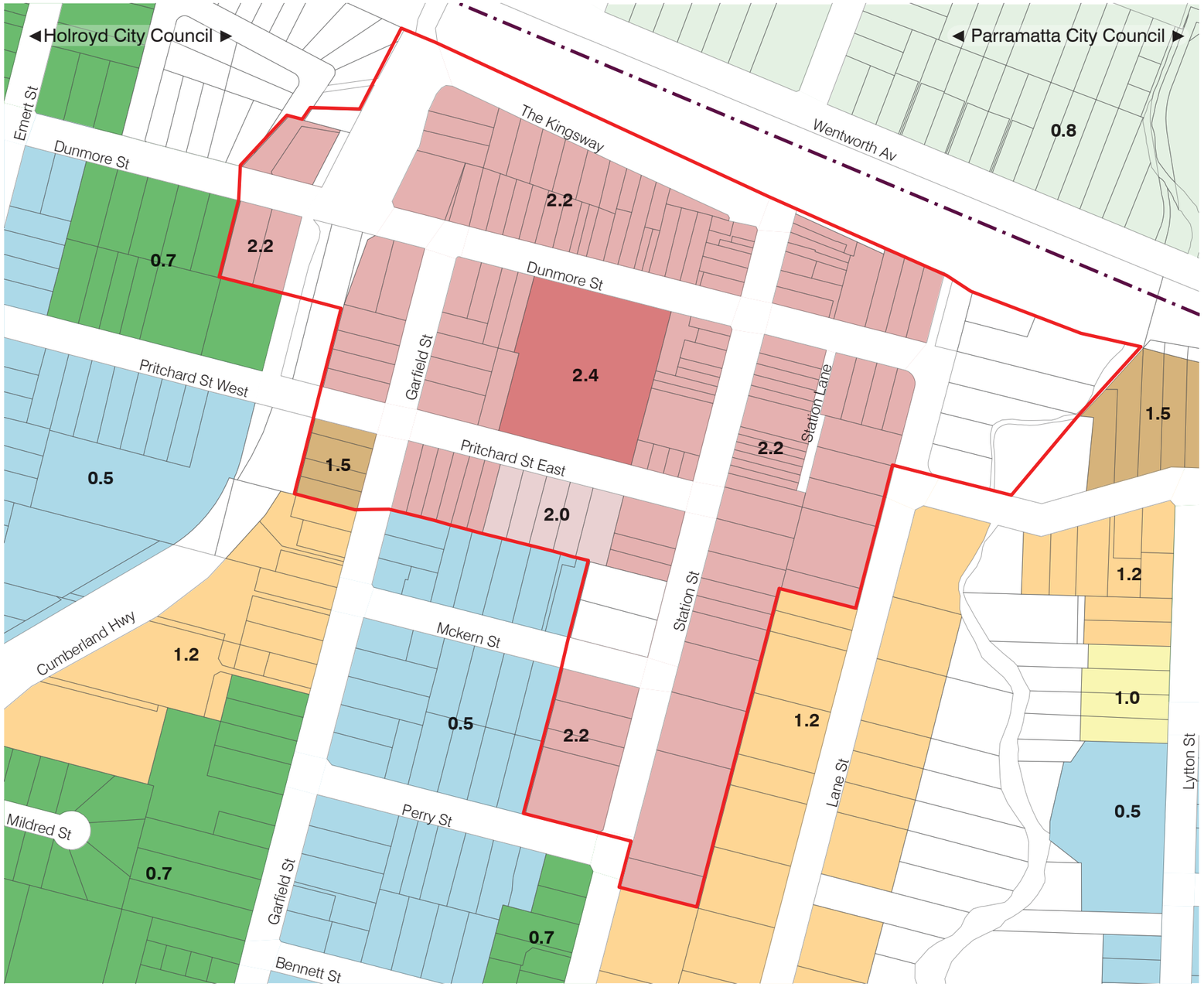
Current Land Use Zoning controls

2.2.2 Current Floor Space Ratio controls

The distribution of FSR across the town centre is generally 2.2:1 with the exception of 1.5:1 and 2.0:1 adjacent residential uses at Ernest Street and McKern Street and 2.4:1 at the large consolidated site in the centre between Dunmore Street and Pritchard Street West.

Key Issues

– It is not clear why some sites have lower FSR adjacent existing residential areas and other sites do not, for example along the southern side of Pritchard Street East. A transition between higher density in town centre and lower density surrounding the town centre could be addressed in detailed built form controls such as side and rear setbacks and storey heights.



Current Floor Space Ratio controls

2.2.3 Current Maximum Building Height controls

The current building heights within the town centre are generally 20m with greater height of 23m at the large central site between Dunmore Street and Pritchard Street East and with lower heights of 17m and 14 m along Pritchard Street East and the south-western part of Station Street adjacent the existing residential neighbourhood.

Key Issues

– Lower heights (17m) at the southern part of Station Street and along Pritchard Street are not consistent with the permissible FSR. A 2.2 FSR with a building height of 4 - 5 storeys is difficult to achieve and is likely to result in overly deep building floorplates , high site coverage and generally poor residential amenity within the site and with adjacent sites.

– Similarly at the corner of Pritchard Street East and Garfield Street, a 14m building height and a FSR of 1.5:1 is also difficult to achieve.

– Coordination of future height and FSR controls will ensure that the built form expectations of the community, land owners and Council are aligned.

LGA Boundaries

Study Area Boundary

Maximum Building Height

J	9m	P1	17m
K	10m	P2	18m
L	11m	Q	20m
M	12.5m	S1	23m
N	14m		No Defined Building Height
O	15m		

NOTE: Storey heights indicated on map are related to permissable development types under current land zoning controls. Indicated storey heights are based on mixed used developments with 2-storey commercial podiums in areas zoned B2, and residential developments in areas zone R2, R3 and R4. Indicated storey heights also include allowances for roof articulation, lift overrun and ground interface of buildings.

NOTE:This map shows existing LEP Maximum Building Height maps with the streets made white for clarity. Maximum building height for roads can be viewed in Holroyd LEP 2013

0 10 20 50 100 150m

Current Maximum Building Height controls

2.2.4 Current Heritage controls

Heritage items within the town centre include:

– single storey post office on Dunmore Street (item I 108)

– shops at northern end of Station Street adjacent the rail station (items I 138 and I 139)

– corner shop on the south-west corner of Garfield Street and Pritchard Street East (item I126)

– the Wentworthville Railway Station (item I 140)

– the Wentworthville Memorial Fountain on The Kingsway in front of the railway station. (item I 141)

Immediately adjacent the study area to the south is the Wentworthville Presbyterian Church. (item I 136)

The residential neighbourhood to the south of the town centre includes a number of heritage listed houses, which significantly contribute to the character of the neighbourhood.

Key Issues

– Relationship of future building forms to the post office, a detached single storey building with a hipped roof.

– Adaptation of existing shops into future redevelopment.

– Articulation of future building forms and the location of deep soil planting to the north of the Presbyterian Church.

Heritage items map

2.3 DCP Summary: Wentworthville Town Centre

Planning Control	Objectives	Controls
Site Consolidation **DCP Part L 3.1 P498**	O1. To ensure all sites achieve the required minimum width to adequately provide for basement car parking. O2. To minimise vehicular and pedestrian conflicts throughout the town centre through the appropriate location and number of vehicular access points. O3. To ensure all sites achieve the required minimum width to allow for a site configuration that permits a consistent landscaped open space to the rear of sites. O4. To ensure any site amalgamation pattern does not restrict the development opportunity of any adjoining site or the ability of adjoining sites to provide basement carparking or rear open space. O5. To establish fine grain shop-fronts along primary retail streets within the town centre. O6. To ensure new developments do not reduce the opportunity for the development of adjoining properties to develop in accordance with this DCP and adversely impact on the economic viability of development in accordance with s79C of the Environmental Planning and Assessment Act 1979.	C1. The minimum lot frontage requirements for all development within a Business zone is located in Part C. DCP Part C 1.1 P245: C1. The minimum lot frontage for development within Zone B2 Local Centre... shall be, unless otherwise stated as site specific controls in this DCP: • Up to three storeys - 20 metres. • 4 - 8 storeys - 26 metres.• 9 storeys and greater - 32 metres. C2. The minimum lot frontage requirements for all development within a Residential zone is located in Part B. DCP Part B 2.1 P179: C2. The minimum frontage for a dwelling house is 10 metres at the building line. DCP Part B 3.1 P195: C3. The minimum site frontage for an attached dual occupancy, as measured from the building line is 15 metres. DCP Part B 4.1 P206: C5. [For attached and small lot housing] A minimum lot frontage of 6.5 metres at the building line is required after subdivision. DCP Part B 5.1 P211: C5. A minimum lot frontage of 24 metres at the building line is required [for multi-dwelling housing] (Figure 27). DCP Part B 5.1 P211: C6. A minimum lot frontage of 20 metres at the building line for multi- dwelling housing is permitted where basement parking is proposed. DCP Part B 6.1 P216: C1. The minimum lot frontage for residential flat buildings at the property line is as follows: • 45 metres for all development 6 storeys or more • 28 metres for all other properties,. C3. Notwithstanding the above, development located on Dunmore Street (between Cumberland Highway and Lane Street) and Station Street (between Pritchard St East and The Kingsway) are to provide a fine grain retail shopfront character.
Rear Laneways, Land Dedication, Access, Vehicular Entries and Pedestrian Access **DCP Part L 3.2 P499**	O1. To require the provision of rear access ways on properties for private and service vehicle access, in order to reduce vehicular and pedestrian conflict and provide greater amenity to future residents. O2. To require buildings fronting primary roads to have vehicular access from the rear of the property in order to reduce vehicular and pedestrian conflict and create a safe retail environment. O3. To require all sites with existing access ways from the rear of the property to be used for vehicular access and parking. O4. To mitigate any impacts of vehicular traffic on adjoining residences. O5. To allow improved circulation space for pedestrians and future residents within the precinct. O6. To limit or prohibit vehicular access from primary street frontages. O7. To improve the pedestrian circulation system in the major centres.	C1. Where new development has access available off existing or proposed laneways, vehicular access must be provided from the laneway. C2. Where vehicular access is currently achieved from the Kingsway commuter carpark, this is permitted to continue, however a formal right of way is to be established during redevelopment. C3. Where a development proposes a right of way over adjacent properties for vehicular access, permission for the right of way must be demonstrated to Council. Note: If no opportunity exists to use a rear laneway or secondary street for vehicular access for a site and where driveways are proposed to be located on Dunmore Street or Station Street, they shall not be within 10 metres of an adjacent driveway on the same street. C4. A 6 metre wide, 4 metre high pedestrian arcade must be provided and dedicated for unrestricted public access as part of any redevelopment of the site as shown in Figure 12. C5. A minimum 4 metre wide pedestrian accessway must be maintained and dedicated for public access as part of any redevelopment of the site as shown in Figure 12.

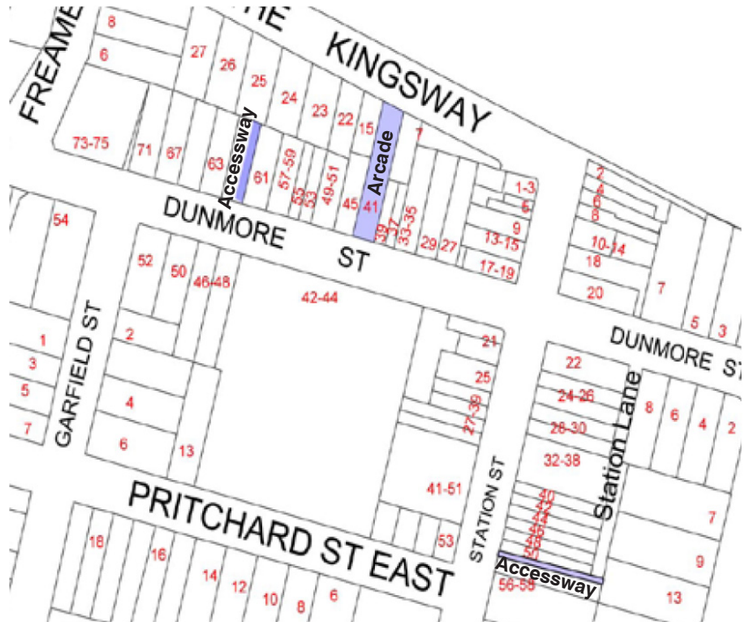


Figure 12: Wentworthville Town Centre Proposed Pedestrian Accessways

Planning Control	Objectives	Controls
Building Height **DCP Part L 3.3 P500**	O1. To require an appropriate scale relationship between building heights and street width. O2. To ensure the appropriate management of overshadowing, access to sunlight and privacy. O3. To enable flexibility of used by implementing higher floor to ceiling heights within buildings for the ground and first floors. O4. To allow activation of the street edge on primary roads. O5. To allow for reasonable daylight access to other development and the public domain.	C1. The maximum height for development within the Wentworthville Town Centre is detailed within Holroyd Local Environmental Plan 2013 as a written statement and associated maps. C2. The maximum building height in storeys within the Wentworthville Town Centre is detailed in Figure 13. C3. The minimum floor to ceiling height requirements are located in Part B and C. [Refer to Residential Flat Buildings / Commercial / Shop Top / Mixed Use rear and side setback controls.] C4. The prominence of street corners shall be reinforced by concentrating the tallest portion of the building on the corner in relation to the overall building height and predominant street wall height.

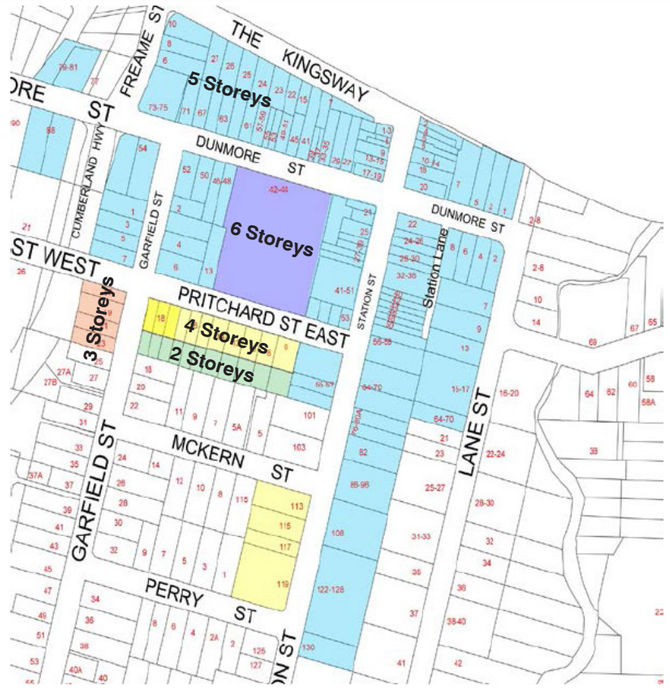


Figure 13: Wentworthville Town Centre Building Height Map

Building Setbacks, Separation, and Street Presentation **DCP Part L 3.4 P501**	O1. To require suitable definition of the public domain and public spaces. O2. To require a continuous built edge within commercial and mixed use development for activation of the street edge. O3. To retain a landscaped setback character for residential development. O4. To ensure setbacks respond to the building separation requirements. O5. To reduce the visual impact of buildings on the public domain. O6. To ensure the maintenance of amenity, including privacy and sunlight, to adjacent residential development.	C1. All building setbacks shall be in accordance with Figure 14. C2. Where a 0 metre setback is permitted, buildings shall form a continuous street edge. C3. Rear and side setbacks (unless indicated otherwise in figure 14) are to be in accordance with setbacks indicated in Part B or Part C of this DCP. [Refer to Residential Flat Buildings / Commercial / Shop Top / Mixed Use rear and side setback controls.] C4. Residential Development shall correspond to building depth and separation requirements in Part B. [Refer to Residential Flat Buildings depth controls.] C5. A 8m rear setback is required for properties 8-16 Pritchard Street East (as indicated in Figure 14). C6. Developments shall present and address the street. C7. Sites with corner lots shall present and articulate to both street frontages.

Figure 14: Wentworthville Town Centre Setbacks

2.4 DCP Summary: Commercial / Shop Top / Mixed Use

Planning Control	Objectives	Controls
Lot Size and Frontage **DCP Part C 1.1 P245**	O1. To ensure that commercial development is carried out on sites that are sufficient in frontage in order to provide adequate vehicular access and basement carparking. O2. To ensure developments are compatible with both the established character and desired future amenity of commercial areas. O3. To ensure sufficient lot dimensions for vehicular access and parking. O4. To avoid land locking of adjoining sites.	C1. The minimum lot frontage for development within Zone B2 Local Centre... shall be, unless otherwise stated as site specific controls in this DCP: • Up to three storeys- 20 metres. • 4 - 8 storeys- 26 metres. • 9 storeys and greater- 32 metres. C2. Council may require the consolidation of more than one existing land holding to be undertaken in order to meet all the requirements of this development control plan. C3. Commercial development is not permitted on battleaxe lots.
Site Coverage **DCP Part C 1.2 P246**	O1. To provide controls that support the objectives established in Holroyd Local Environmental Plan 2013. O2. To provide for a variety of building forms. O3. To ensure new development responds appropriately to the size and dimensions of the subject site to avoid over development and inappropriate bulk and scale.	**Site Coverage** C1. There is no minimum site coverage controls for commercial or shop top housing development, unless otherwise stated as site specific controls within this DCP. **Floor Area** C2. The maximum retail floor area for neighbourhood shops is detailed within Holroyd Local Environmental Plan 2013. LEP 5.4(4) Industrial Retail Outlets: If development for the purposes of an industrial retail outlet is permitted under this Plan, the retail floor area must not exceed: (a) 10% of the gross floor area of the industry or rural industry located on the same land as the retail outlet, or (b) 400 square metres, whichever is the lesser.

Planning Control	Objectives	Controls
Building Height **DCP Part C 1.3 P247**	O1. To provide controls that support the objectives established in Holroyd Local Environmental Plan 2013. O2. To permit a scale of development that is compatible with the localities topography and the context, scale and character of the street and streetscape. O3. To require an appropriate scale relationship between building heights and street width. O4. To preserve the amenity of adjoining buildings. O5. To ensure appropriate management of overshadowing, access to sunlight and privacy. O6. To allow reasonable daylight access to all developments and the public domain. O7. To enable flexibility of uses by implementing higher floor to ceiling heights within buildings for the ground and first floors. O8. To ensure a variation of the height of each storey to enable flexible uses over time. O9. To reduce the visual impact of building on the public domain. O10. To encourage, in town centres, articulation of the façade of the building by variation in the ceiling heights of the various floors, which gives the building a top, middle and base.	C1. The minimum floor to ceiling height for a floor in a commercial building, or the commercial component of a building shall be as follows: **Floor** / **Min Floor to Ceiling Height** Ground Floor — 3.5m First Floor — Regardless of use 3.3m All Other Floors — 2.7m C2. Basement level parking above the natural ground level should be limited to not impact on the bulk, scale and design of the building. C3. Maximum building height in storeys shall be provided in accordance with the table below: **Permitted Height (Storeys)** Height (m) / Storey 10 / 1 11 / 2 12.5 / 2 14 / 3 17 / 4 20 / 5 23 / 6 26 / 7 29 / 8 32 / 9 38 / 11 41 / 12 50 / 15 53 / 16 65 / 20 Note: • Permitted height in storeys have been determined based on a number of assumptions including minimum floor to ceiling heights, slab thicknesses, roof heights, slope of the land, basement provision, floor level requirements for flooding. There may be instances where development is able to achieve a greater number of storeys and still comply with maximum height under Holroyd LEP 2013. A full and proper assessment including relevant controls such as floor to ceiling height, floor space ratio, flooding, amenity and character will determine the appropriate height for the specific site. • Ceiling heights shall be measured from finished floor level (FFL) to finished ceiling level (FCL).

Planning Control	Objectives	Controls
Building Setbacks, Separation, and Depth **DCP Part C 1.4 P249**	O1. To permit flexibility in the siting of buildings. O2. To protect the amenity of adjoining sites and reduce the impact of buildings on the public domain. O3. To minimise overshadowing of adjacent buildings and properties. O4. To ensure a consistent built streetscape. O5. To require suitable definition of the public domain and public spaces, including the provision of sufficient curtilage to heritage items. O6. To require a continuous built edge adjacent to footpaths that will reinforce the retail activity and commercial uses within the majority of the town centre. O7. To require setbacks which appropriately respond to the building separation requirements. O8. To provide visual and acoustic privacy for existing and new residents. O9. To ensure appropriate separation and articulation to minimise overshadowing of other residential areas and the public domain. O10. To provide adequate separation between proposed and existing buildings, whilst not unnecessarily burdening any proposed development with the majority of the separation requirements. O11. To establish the desired spatial proportions of the street and define the street edge. O12. To allow an outlook to and surveillance of the street. O13. Building separation is to increase in proportion to the building height to ensure appropriate urban form, adequate amenity and privacy for building occupants.	**Front Setback** C2. Front setbacks in B2 Local Centre Zones... are indicated in site specific controls within this DCP. [Wentworthville Town Centre section specifies 0m front setbacks for the B2 Town Centre Zone.] **Upper Storey Setback** C5. Unless otherwise stated in site specific controls within this DCP, a street wall height of three storeys (11-14 metres) is required for all commercial development, and for mixed use development in a commercial zone. C7. A 3 metre setback is required above the street wall height. **Side Setbacks** C8. Unless otherwise stated in site specific controls within this DCP, where a site adjoins a business zone, there is no side setback requirement. C9. Where a site adjoins any residential zone (and not separated by a road), the side setback shall be a minimum of 3 metres. C10. Where adjoining a residential zone, the development must demonstrate that the proposed setbacks will enable the achievement of access to sunlight and privacy as required under this DCP to the adjoining residential property. Setbacks, transition of height, location of balconies and windows and screening may assist. **Rear Setback** C11. Unless otherwise stated in site specific controls within this DCP, development adjoining residential zones shall have a rear setback of 6 metres.
Laneways **DCP Part C 2.1 P256**	O1. Make vehicular access to buildings more compatible with pedestrian movements and the public domain. O2. Require buildings fronting primary roads to gain vehicular access from the rear of the property. O3. Ensure the design of laneways promotes the principles of safer by design by ensuring clear sight lines through the laneway. O4. For building treatment and design for laneways to ensure functional and safe places. O5. Enable the maintenance of continuous retail frontages.	C1. Where buildings have access to existing laneways, vehicular access must be provided from the laneway. C5. All laneway shall be 8m in width, unless specified otherwise.

Planning Control	Objectives	Controls
Car Parking **DCP Part A 3.1 P25**	O1. To ensure that adequate and convenient off-street parking facilities are provided for all vehicles generated by the various types of development. O2. To ensure that off-street parking facilities do not interfere with traffic flow and safety in adjacent streets or endanger pedestrian traffic on or off the site. O3. To limit traffic generation associated with private vehicle use, in order to encourage public transport, walking and cycling, as alternative forms of transport, where possible.	C1. Parking spaces shall be provided in compliance with Council's minimum car parking spaces requirements as set out in the tables below. C2. Parking rates for commercial and other non-residential land uses may be provided off-site with payment of a local parking contribution where a Section 94 development contributions plan makes provision for such contributions. C3. Notwithstanding the above provision, a minimum parking rate of 20% and maximum of 70% must be provided on-site.

Carparking Controls for Residential Flat Buildings and Dwellings (including Shop Top Housing) in Zone B2 in Wentworthville Town Centre:

Measure	Minimum Spaces Required	Maximum Spaces Required
Studio / 1 Bedroom	0.8	1
2 Bedroom	1	1.5
3 Bedroom	1.2	2
4+ Bedroom	1.5	2
Visitor / Dwelling	0.2	0.5

Carparking Controls for Commercial Use in Zone B2 in Wentworthville Town Centre:

Measure	Minimum Spaces Required	Maximum Spaces Required
Ground Floor - Leaseable GFA	1 per 20sqm	1 per 15sqm
Above Ground Floor - Leasable GFA	1 per 40sqm	1 per 20sqm

Carparking Controls for Food and Drink Premises and Registered Clubs in Zone B2:

Measure	Minimum Spaces Required	Maximum Spaces Required
GFA	1 per 10sqm	n/a

Upon demonstration to Council that the pub, tavern or licensed club will have its main patronage outside of normal business hours and that there is existing parking in the vicinity, consideration may be given to reducing the above requirement. (For major developments with a mixture of uses, overlapping parking demands may be considered.)

Bicycle Parking Controls:

Use / Location	Measure	Minimum Spaces Required	Maximum Spaces Required
Ground Floor - Business Zones	GLFA: Employee	1 per 300sqm	Unlimited
	GLFA: Visitor	1 per 2500sqm	
All First Floor Business Zones and all other Commercial Floors	GLFA: Employee	1 per 200sqm	Unlimited
	GLFA: Visitor	1 per 750sqm	
Residential Buildings	Studio	0	Unlimited
	1+ Bedrooms	0.5	
	Visitors per Unit	0.1	

Planning Control	Objectives	Controls
Car Parking **DCP Part C 2.5 P260**	O1. Minimise car dependency for commuting and recreational transport use and to promote alternative means of transport such as public transport, bicycling and walking. O2. Maintain a positive streetscape character by designing and treating carparking to reduce its visual impact. O3. Ensure parking does not impact on the character and function of active frontages.	C1. On-site parking is to be accommodated underground wherever possible, in zones where residential development is permitted. C2. Consolidate basement parking areas under building footprints to maximise the area available for landscaping. C3. No on-site parking is to be directly visible from an active or main street frontage.
Awnings **DCP Part C 3.8 P270**	O1. Ensure the amenity of pedestrians through weather protection. O2. Maintain a consistent streetscape and provide visual interest through a continuous awning theme. O3. Locate awnings to provide for the safety and security of pedestrians. O4. Enable the provision of street tree planting and furniture location.	C1. Continuous awnings are required to be provided to all active street frontages (except laneways). C2. Awnings generally: i) Should be flat, ii) must be 3m deep, iii) be setback from the kerb a minimum of 600mm, iv) have a minimum soffit height of 3.2m-3.3m, v) have slim vertical fascias and/or eaves not to exceed 300mm. C3. Awnings are permitted on laneways where active frontages are required and shall be retractable and only used in hours of operation. C4. Colonnades are generally not permitted except only for building façades that address open space areas. C5. Awnings should be provided in modules to match building frontages. C6. Awnings on street corner buildings shall wrap around corners. C7. Cantilevered awnings from the buildings shall have a minimum soffit height of 3.2m – 3.3m. C8. Do not break a continuous run of awnings. C9. Canvas blinds along the street edge are not permitted. C10. Awnings are to be located over all building entries to indicate entry points. C11. Awnings should be complimentary to each other in regards to size, design and location. C12. Cut outs or offsets in awnings for trees and light poles are not acceptable. C13. Lighting fixtures should be recessed into the design, with all wiring and conduits to be concealed. C14. Gutters should not be clearly visible from the footpath and could be concealed or recessed into the ground floor frontage of the building.

2.5 Residential Flat Design Code Summary

Control	Description
Building Height / Ceiling Heights	Generally these features will be established by the LEP which provides maximum heights, and by the DCP which may provide stories. The RFDC provides test heights against the number of storeys and the minimum ceiling heights required for the desired building use. (Note that some Development Control Plans have specific floor to ceiling heights for different uses). In residential flat buildings or other residential floors in mixed use buildings, the RFDC encourages: • In general, 2.7 metre minimum for all habitable rooms on all floors, 2.4 metres is the preferred minimum for all non-habitable rooms, however 2.25m is permitted. • For two storey units, 2.4 metre minimum for second storey if 50 percent or more of the apartment has 2.7 metre minimum ceiling heights • For two-storey units with a two storey void space, 2.4 metre minimum ceiling heights • For attic spaces, 1.5 metre minimum wall height at edge of room with a 30 degree minimum ceiling slope.
Building Depth	In general, the RFDC suggests an apartment building depth of 10-18 metres is appropriate. Developments that propose depths wider than 18 metres must demonstrate how satisfactory daylighting and natural ventilation are to be achieved.
Building Separation	RFDC provisions suggest building separation guidelines that increase with height. For up to 4 storeys / 12 metres: • 12 metres between habitable rooms / balconies • 9 metres between habitable / balconies and non-habitable rooms • 6 metres between non-habitable rooms For 5-8 storeys / up to 25 metres • 18 metres between habitable rooms / balconies • 13 metres between habitable rooms / balconies and non-habitable rooms • 9 metres between non-habitable rooms For 9 storeys and above / over 25 metres • 24 metres between habitable rooms / balconies • 18 metres between habitable rooms / balconies and non-habitable rooms • 12 metres between non-habitable rooms Allow zero building separation in appropriate contexts, such as in urban areas between street wall building types (party walls). Developments that propose less than the recommended separation distances apart must demonstrate that daylight access, urban form and visual and acoustic privacy has been satisfactorily achieved (see Daylight Access, Visual Privacy and Acoustic Privacy).

Control	Description
Building Setbacks	Setbacks are normally controlled by the applicable Council DCP, but the RFDC: • Identifies the desired streetscape character, the common setback of buildings in the street, the accommodation of street tree planting and the height of buildings and daylight access controls. • Identifies the quality, type and use of gardens and landscaped areas facing the street. • Relates side setbacks to existing streetscape patterns.
Deep Soil Zones	These provisions can be varied depending on the character of the area. The RFDC suggests a minimum of 25 percent of the open space area of a site should be a deep soil zone; but more is desirable. Exceptions may be made in urban areas where sites are built out and there is no capacity for water infiltration. In these instances, stormwater treatment measures must be integrated with the design of the residential flat building. (See Stormwater Management)
Daylight Access	Whilst not directly important for building envelopes, daylight it needs to be take the following into consideration: • Living rooms and private open spaces for at least 70 percent of apartments in a development should receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid winter. In dense urban areas a minimum of two hours may be acceptable. • Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed.
Natural ventilation	As with daylight access, natural ventilation is not directly influential on building envelopes, but still needs to be considered. RFDC provides: • Building depths, which support natural ventilation typically range; from 10 to 18 metres. • 60% of residential units should be naturally cross ventilated. • 25% of kitchens within a development should have access to natural ventilation. • Developments which seek to vary from the minimum standards must demonstrate how natural ventilation can be satisfactorily achieved, particularly in relation to habitable rooms.

2.6 Population and housing

Population growth and age profile

– According to the 2011 census data, the population of Holroyd City currently stands at 99,163 people, representing an increase of 11.5% from the population as recorded at the 2006 Census. By 2031, projections show Holroyd is expected to be home to an additional 30,000 people.

Community Demographics - General

– Latest Census information shows that, 49.5% of the population of Holroyd were born overseas, with 57% of the total population coming from a non-English speaking background. The most common birth countries were India (7.5% of the total population), Lebanon (4.5%), China (2.8%), and Sri Lanka (2.5%).

– Approximately 27% of those born overseas arrived in Australia after 2001, indicating Holroyd is one of the leading areas in Sydney for new migrants to make their home.

– The median age for the population of Holroyd is 34 years, with the 35-49 year old age group the largest (21.1% of the total city population). Holroyd is home to many children, with the 0-4 year (8.2%), 5-9 year (7%) and 10-14 year (6%) groups represented strongly across the population. As a result the proportion of those aged 65 years and over has fallen and only comprises 12% of the city population.

– Over 800 members of the Holroyd Community identify themselves as Indigenous. Holroyd City Council acknowledges the Aboriginal people of the Darug nation who are the traditional custodians of the land upon which Holroyd is built.

Community Demographics - Wentworthville

– In 2011, the population of the suburb of Wentworthville was 6,992 people, with 2,703 dwellings and an average household size of 2.74 persons per dwelling. Approximately 40% of residents were born in Australia, however 59.3% of residents in Wentworthville speak a language other than English at home. The most common birth countries are India (19.3%), Sri Lanka (7.3%) and China (4.1%). Between 2006 and 2011, the percentage of residents of Wentworthville that were born in India increased by 9%.

– Approximately 30% of the working age population in Wentworthville hold a bachelor degree or higher, which is double the Holroyd average. While 13% of Wentworthville residents are employed in the health care and social assistance industries and 10.5% in manufacturing.

– Approximately 48% of households in Wentworthville only own 1 motor vehicle, which is above the Holroyd average.

Trends in housing development - General

– There are approximately 36,000 occupied private dwellings in the Holroyd LGA. Approximately 20,000 of these dwellings are separate houses, and the remainder are medium density dwellings (such as townhouses, villas and terrace housing) and high density dwellings (flats & apartments in blocks of 3 storeys and above). There has been a major shift in dwelling type over the last 20 years, with a downward trend in the number of separate houses and a corresponding increase in medium density housing types. The average household occupancy rate is 2.8 persons per dwelling. There has been consistent growth in the number of new occupied private dwellings since 1991, averaging around 400 dwellings per year. Of the dwelling completions in the period 2005-2010 approximately 40% were single dwellings and the remainder multi□unit dwellings.

Trends in housing development - Wentworthville

– As of 2011, there were 2,700 dwellings in Wentworthville, of which 45% are separate houses, 30.9% medium density and 23.9% are high density. Between 2006 and 2011, there was an increase in the proportion of high density dwellings, and a reduction in dwelling houses and medium density.

Recent low-rise, high density mixed used use development on Lane Street

Typical older-style detached bungalow housing, located on McKern St

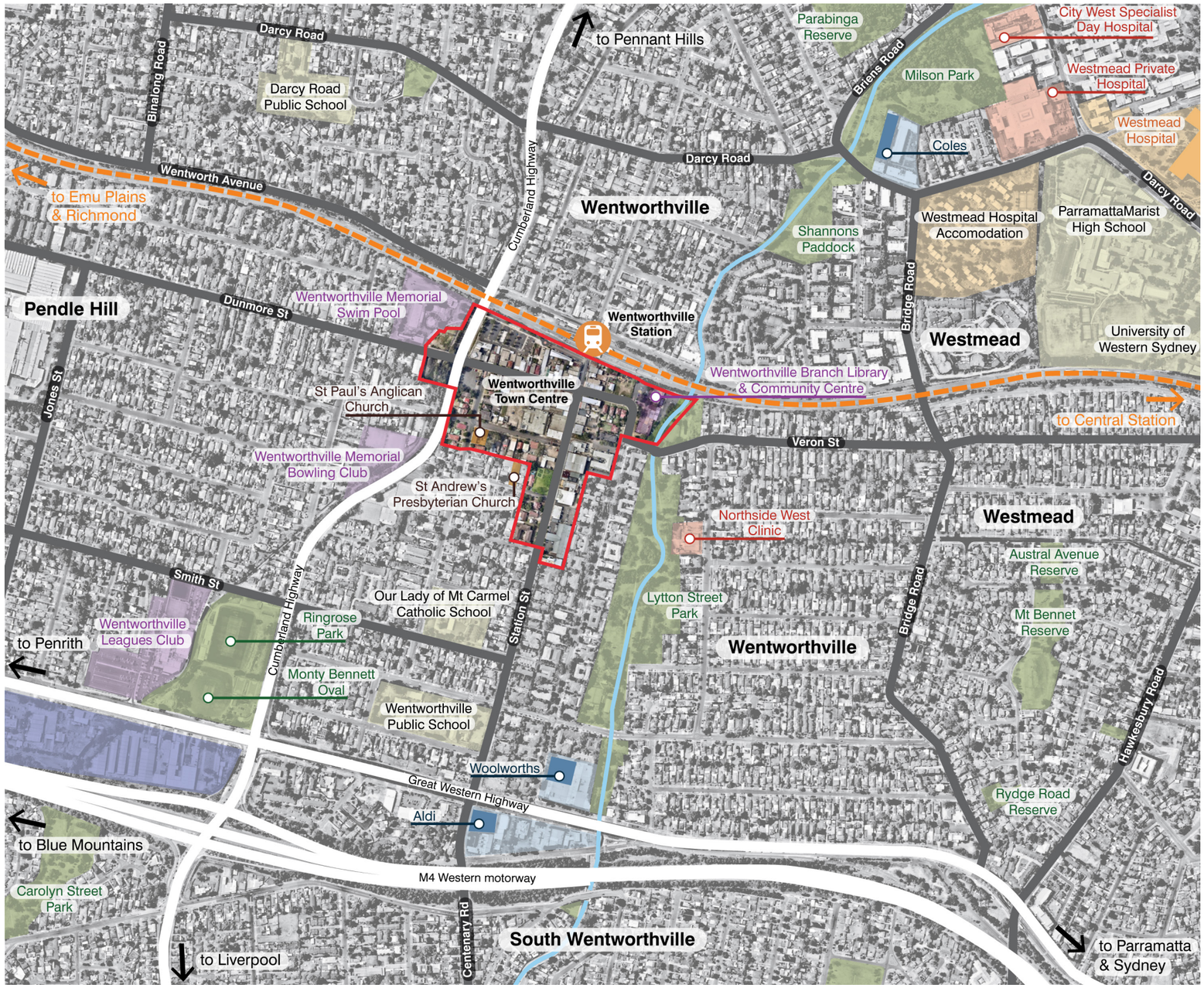
3 Urban Design analysis

3.1 Local context

Wentworthville is a suburb of Western Sydney, located 27km west of the Sydney CBD and 3km west of Parramatta CBD. The suburb is split between two local government areas – the City of Holroyd (on the southern side of the railway line) and the City of Parramatta (on the northern side of the railway line).

The Study Area, as shown in the diagram alongside, encompasses the area of the Wentworthville Centre (The Centre) which lies south of the Wentworthville Railway Station, bounded generally by The Kingsway on the north, Perry Street on the south, Lane Street on the east and the Cumberland Highway on the west. The Site is approximately 9.7HA in area.

The Site is zoned 'B2 Local Centre', and is well served by public transport being located immediately south of the Wentworthville railway station. It is also well-served by road infrastructure with the Cumberland Highway to its west, the Great Western Highway and the M4 motorway to its south. The Westmead Hospital, Parramatta Marist High School and University of Western Sydney, are within a short driving distance to the Site's north-east.



Major Roads
Feeder Roads
Railway Line
Wentworthville Town Centre

Key Usage Zones

- Public Open Space
- Schools
- Key Civic Facilities
- Local Churches
- Westmead Hospital
- Westmead Hospital Campus
- Private Hospitals (Westmead Private, City West Specialist Day Hospital, Northside West Clinic)
- Shopping Centres/ Convenience Shopping Sites
- Supermarkets
- Bulky Goods/ Business Development

0 40 100 200 500m

Wentworthville Town Centre in its local urban context

3.2 Topography and flooding

Key Issues

– The topography of Wentworthville Town Centre is defined by a north-south ridge located between Garfield Street and Station Street. The study area is bound to the east by the channelised Finlayson's Creek and to the west by a stormwater culvert running parallel to the Cumberland Highway.

– A significant proportion of Wentworthville Town Centre is affected by both mainstream and stormwater flooding, however neither flood planning levels or the PMF level for overland flooding is not available at this time as Council is currently undertaking a flood study.

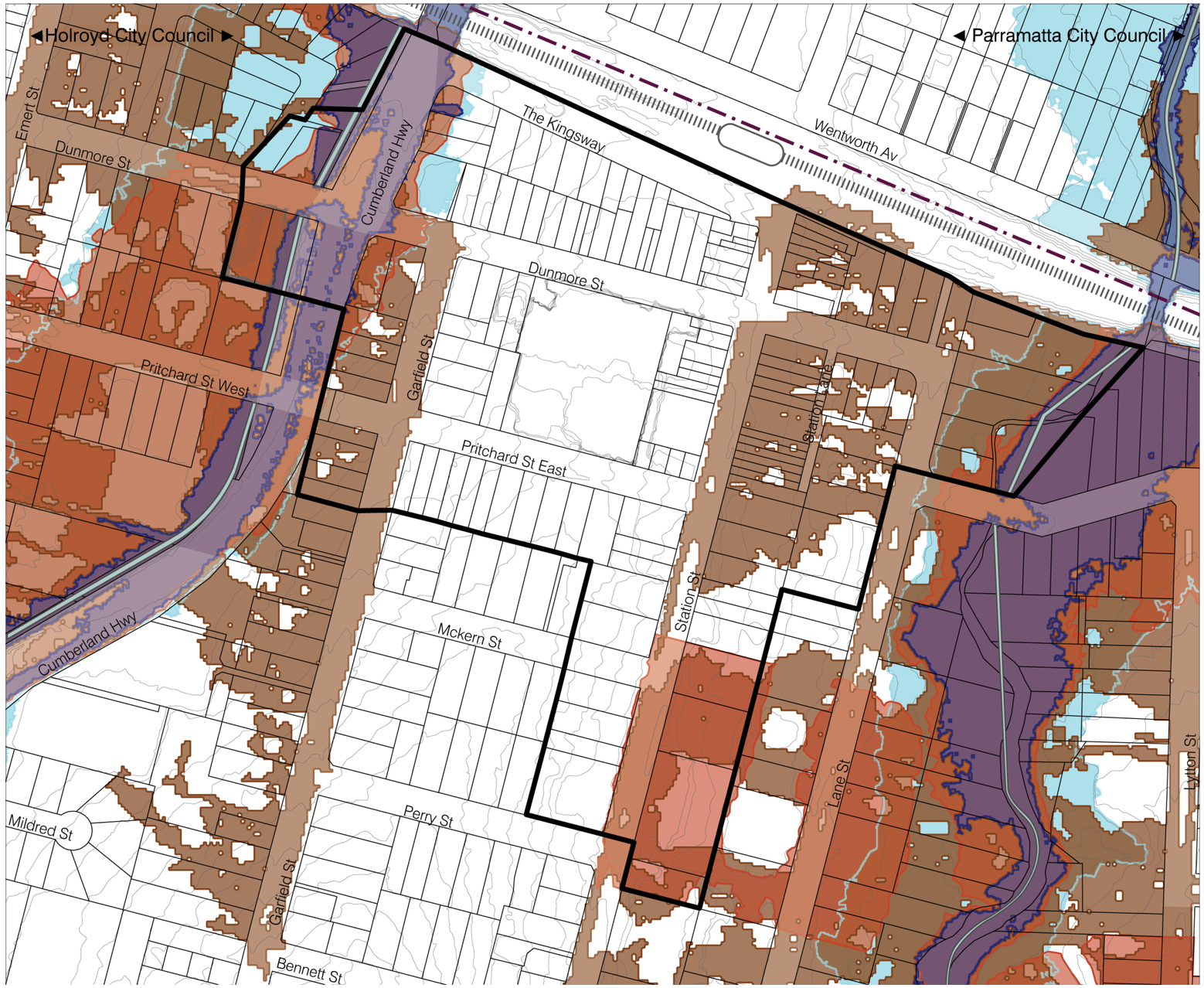
On the map opposite;

– Orange areas indicate flood planning level zones (1% flood level + 0.5m freeboard) for overland flood. All property covered by this zone will be subjected to flood controls indicated by chapter 8 of the HCC DCP. These controls have been adopted by Floodplain Management Committee (FMC) and Council. No levels are available at this stage.

– Brown areas indicate the preliminary 1% overland flood extent. The extent will be defined by the overland flood study currently in progress.

– Light blue areas indicate the Probable Maximum Flood (PMF) extent for mainstream flooding. This extent has been adopted by the FMC and Council.

– Darker blue areas indicate the 1% mainstream flood extent. This extent has been adopted by the FMC and Council.



Landform and flood prone areas in Wentworthville Town Centre (Source: Holroyd City Council Date: 25/02/2015)

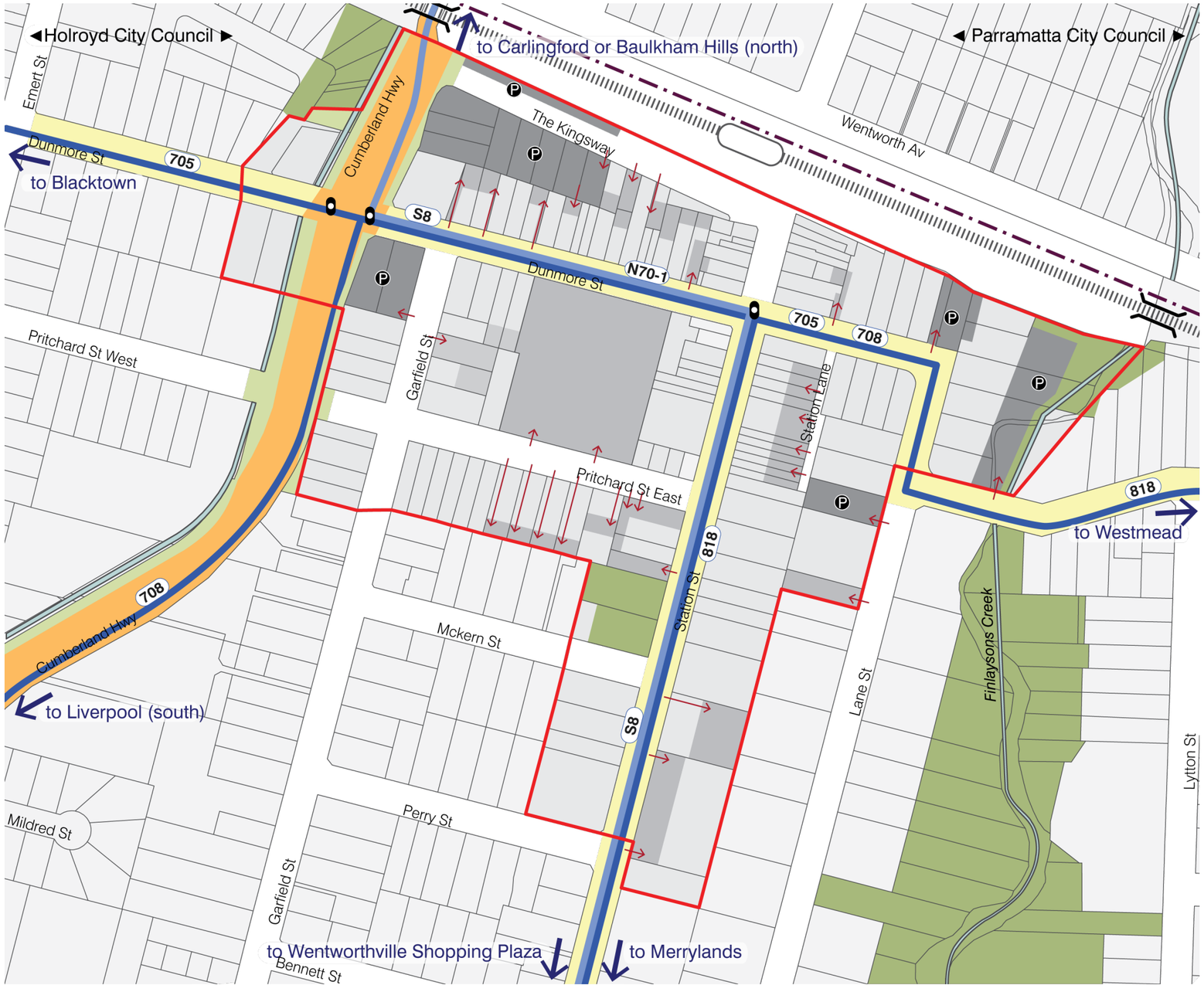
3.3 Connectivity - vehicles

Key Issues

– **Public Transport**: The Site is well-served by public transport being located immediately south of the Wentworthville railway station. There are frequent buses that run along Dunmore Street and Station Street.

– **Road Infrastructure**: The Centre is well-served by major road infrastructure with the Cumberland Highway (major road) to its west which connects the site to the Westmead Hospital, Parramatta Marist High School and University of Western Sydney. The Great Western Highway and the M4 motorway (major roads) lie in close proximity to the Site's south. Dunmore Street is the main east-west street (collector road), connecting the Centre to Blacktown and Westmead. Station Street is the main north-south road (collector road) and is also the main street (retail street) of the Centre, connecting the Centre south to the Wentworthville Shopping Centre and to Merrylands.

– **Car Parking**: A good portion of the Centre is occupied by private and public surface car parks, as shown on the diagram alongside. The view of surface car parking detracts from streetscape quality and from a pleasant pedestrian experience. Therefore, it is desirable for any future plans for the Centre to incorporate underground car parks or car parks screened from public view. Redevelopment of large, key sites could accommodate relocated town centre car parking.



Vehicular connectivity in Wentworthville Town Centre

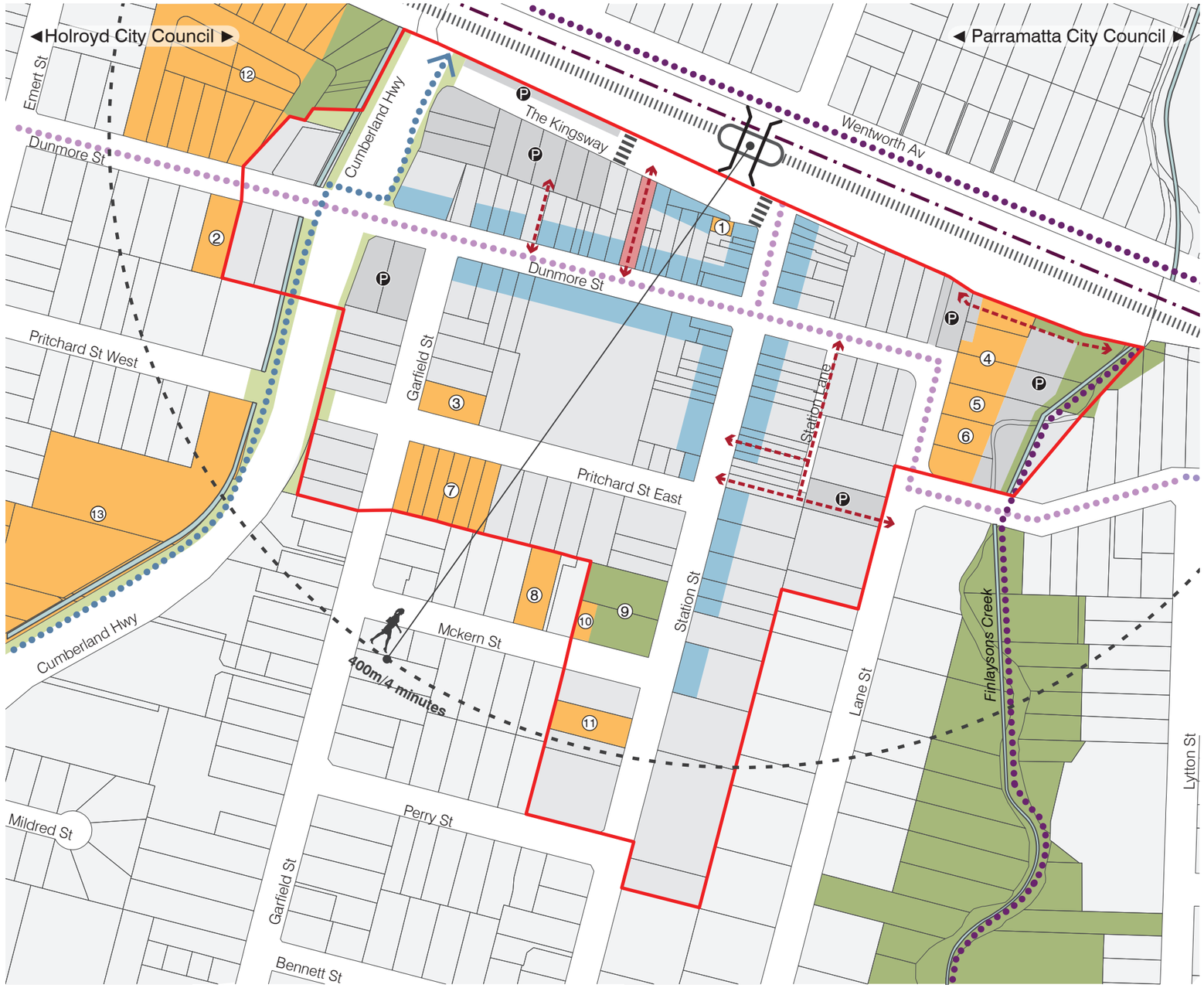
3.4 Connectivity - pedestrian and cycleways

Key Issues

– **Public Transport Accessibility**: The entire Centre is well within a 400m walking radius of the railway station, or within a 4-minute walk.

– **Cycleways**: There are existing cycleways outside the Site along Wentworth Avenue on the north and along Finlaysons Creek on the east. There are proposed cycle routes within the Site along Dunmore Street. New and enhanced cycleways through the Centre which connect to existing routes are highly desirable.

– **Pedestrian Circulation**: Pedestrian circulation is mainly along the footpaths and via the various through-site links between Dunmore Street and The Kingsway, and between Station Street and Station Lane. 2 pedestrian crossings are located on The Kingsway. Additional through-site links and pedestrian crossings are to be explored and established in order to make the Centre more permeable for pedestrians.



Pedestrian and cycle connectivity in Wentworthville Town Centre

3.5 Public domain and community uses

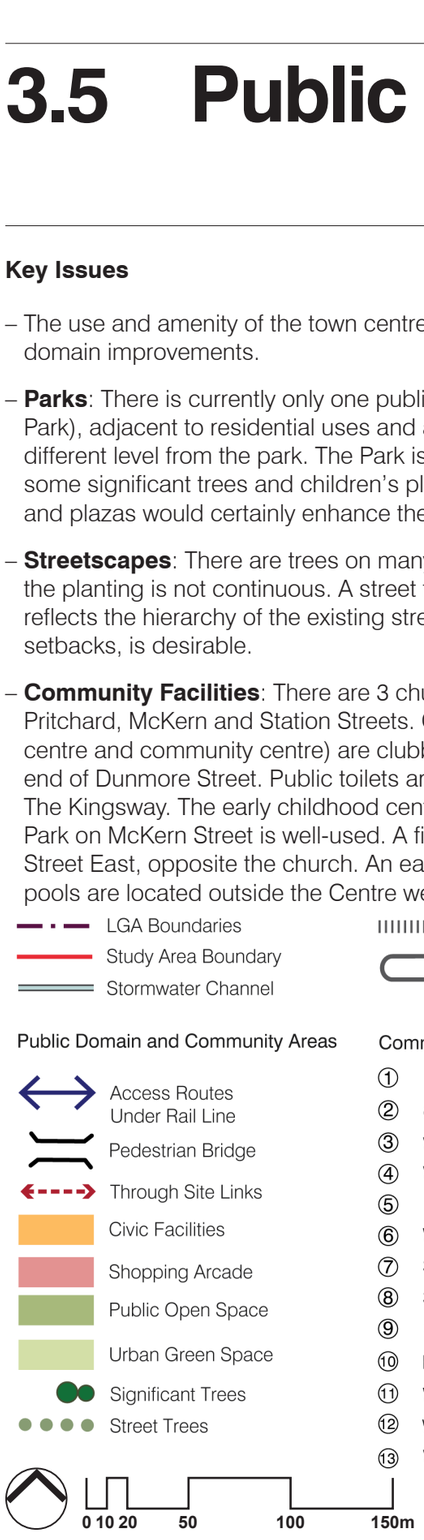
Key Issues

– The use and amenity of the town centre would benefit from a public domain improvements.

– **Parks**: There is currently only one public park in the Centre (Friend Park), adjacent to residential uses and a garage to its north on a different level from the park. The Park is well landscaped and contains some significant trees and children's play equipment. Additional parks and plazas would certainly enhance the public experience.

– **Streetscapes**: There are trees on many streets in the Centre, but the planting is not continuous. A street tree planting strategy which reflects the hierarchy of the existing streets, including appropriate street setbacks, is desirable.

– **Community Facilities**: There are 3 churches in the Centre, located on Pritchard, McKern and Station Streets. Civic facilities (Library, function centre and community centre) are clubbed together and located at the end of Dunmore Street. Public toilets are located outside the station on The Kingsway. The early childhood centre located adjacent to Friend Park on McKern Street is well-used. A fire station is located on Pritchard Street East, opposite the church. An early learning centre and swimming pools are located outside the Centre west of the Cumberland Highway.



Heritage map

3.6 Character and place

Key Issues

– The Wentworthville Centre has a calm village feel and is characterised by a medium-scaled walkable Centre, well-served by public transport and roadway connections, with a good mix of retail and civic uses.

– The Place Audit notes that the community feels the existing Centre looks run down and old. Vacant shops, blank walls and sporadic tree planting contribute to this perception. A more cohesive built street edge with revitalised shopfronts and streets with widening footpaths and more consistent street tree planting would assist in revitalising the character of the Centre.

– The Centre has a lot of potential for growth and densification with a great opportunity for the creation of a truly mixed use Centre – A Centre where people can live, work and play, in a safe and well-designed public environment, interspersed with character buildings, pocket parks and landscaped setbacks.

Significant views and places in Wentworthville Town Centre

View west along The Kingsway showing character shops

Heritage and character buildings at the corner of The Kingsway and Station Street

View east on the Kingsway showing the entrance to the through-site Arcade

View of shopping arcade connecting The Kingsway and Dunmore Street

View from the Kingsway transport shelters to the rail line and the street edge

View at corner of the Kingsway and Station Street showing significant trees and heritage items at the entrance to Wentworthville Station

View corridor along Station Street towards Wentworthville Station

View east along the Kingsway showing significant trees along the rail line to the north and the carpark to the south

View south across the Kingsway carpark

View north along the Cumberland Highway at the Kingsway carpark showing railway viaduct and main pedestrian route under the rail line

View corridor to the south along Station Street showing continuous shop-fronts and key landmarks - the Wentworthville Hotel to the left and the fig trees in Friend Park to the right

View on Station Street showing the Wentworthville Hotel and the street entrance to the carpark behind, with the Friend Park fig trees in the distance

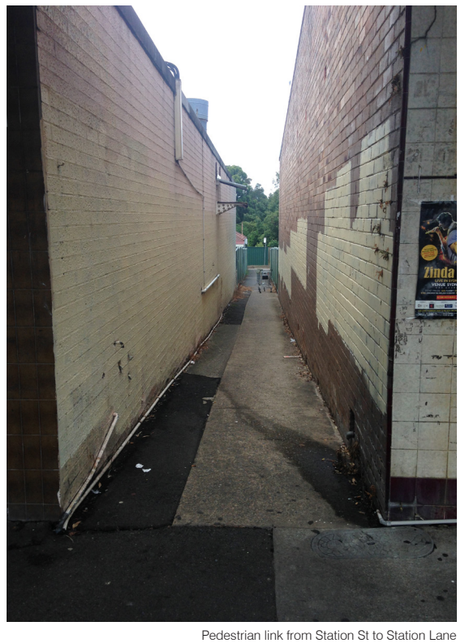
View south down Station Street at Pritchard Street showing destination shopping site Udaya Supermarket on left, Friend Park fig trees and automotive repair shop on right

View of Wentworthville Presbyterian Church from corner Station St and Pritchard St behind existing buildings

Entrance to Friend Park from Station Street

View north from Friend Park showing family friendly play equipment

View west from Friend Park showing glimpses of Wentworthville Presbyterian Church



Pedestrian link from Station St to Station Lane

Pedestrian link from Station Street to Lane Street next to Wentworthville Hotel

Landscape view corridor along Lane Street towards the south, showing new mixed use development and the pedestrian link to Station Street alongside the Wentworthville Hotel

View west along Pritchard Street East showing street trees and landscape views

Significant trees on Pritchard Street East

View south from Pritchard Street East showing glimpses of Wentworthville Presbyterian Church

View south from Pritchard Street East showing glimpses of Wentworthville Presbyterian Church

Access to Wentworthville Presbyterian Church is limited to McKern Street

View south along Garfield Street at corner of Pritchard showing street trees, distant landscape views and character/ heritage buildings

View south down Garfield Street at Dunmore Street

View of Dunmore St and Cumberland Highway intersection from Garfield Street

View south along Cumberland Highway at the Kingsway carpark showing Dunmore Street intersection and trees beyond

View of destination shopping site showing street trees and pedestrian friendly store-front

View through to trees via partial through site links on Dunmore St

View west along Dunmore Street showing shop-fronts and street trees

View through to trees from Dunmore St

Dunmore St through site link to the Kingsway carpark

View of Arcade to the Kingsway from Dunmore St

View east along Dunmore Street showing heritage buildings and street trees

View east along Dunmore Street showing the Mall entry-point and street trees

View east along Dunmore Street towards Station Street intersection

View west along Dunmore Street at Station Street showing shop-fronts and street trees

View north towards rail line at corner of Dunmore Street and Lane Street showing landscape views and significant trees outside Wentworthville Branch Library

Shady and informal community gathering place outside Library

Through site link to Finlayson Creek at rear of Library

View of rail line viaduct and Finlaysons Creek behind Wentworthville Library showing graffiti

Generous setbacks and street trees along Lane Street at corner of Veron Street

3.7 Land ownership and tenure

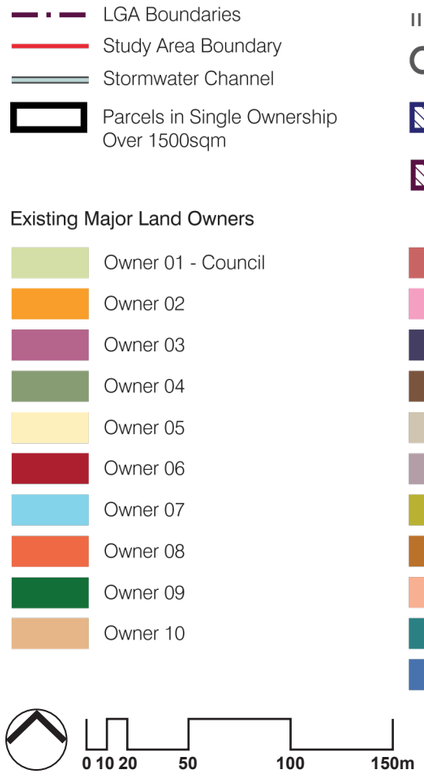
Key Issues

– The pattern and size of land ownerships within the Centre are indicated on the diagram alongside. These patterns inform likely future development sites and / or lot amalgamation patterns.

– The town centre benefits from a number of consolidated sites, which have the potential to facilitate orderly redevelopment and building types that can deliver mixed use and good built form outcomes.

– Smaller sites at the northern end of Station Street and Dunmore Street may be challenging to amalgamate and to deliver viable redevelopment.

– For the purposes of this Study, it is to be assumed that the residential strata titled land holdings along Station Street and Lane Street are left untouched in any future planning of the Centre. The commercial strata titled land holdings along Station Street and Pritchard Street can be explored for future redevelopment.



Existing major land owners and strata titled lots

3.8 Town Centre uses

Key Issues

– Currently, the Centre includes a wide variety of land uses including residential, retail, professional services, medical services (ancillary to the hospital uses at Westmead), eateries, community facilities, public open space, car parking, and destination retail.

– Residential uses in the east and west the Centre are typically single dwellings and offer the opportunity to intensify as mixed use buildings, which could improve street activity and housing diversity.

– Concentration of retail along Station Street north and Dunmore Street contributes to the vitality of the Centre. Regeneration of these sites should retain the fine grain frontage of retail and restaurant uses.

– The renewal of the IGA Mall with a new supermarket will further strengthen and activate the Centre as a destination.

– On-grade car parks are strategically located to support intensity of residential uses along the edges of the centre.

LGA Boundaries
Study Area Boundary
Stormwater Channel
Rail Line
Wentworthville Train Station

Usage Types

Residential
Mixed Use
Retail (Pharmacies, Grocers etc)
Services (Professional, BP Station, Automotive store, Banks, Salons etc)
Medical Services (Dentists, Optometrists, Medical Centres etc)
Eateries (Restaurants, Cafes, Take-aways etc)
Civic Facilities (Centres, Churches, Fire Station, Library etc)
Public Open Space
Urban Green Area
Function Centre and Library (Belhaven Manor & Redgum Function Centre)
Public Carparking
Vacant Land
Vacant Premises
Destination Site

Key Town Centre Destinations

① Big Apple Market
② IGA Mall
③ Wentworthville Hotel
④ Udaya Supermarket
⑤ Patel Brothers India Town
⑥ Friend Park

0 10 20 50 100 150m

Existing use categories within Wentworthville Town Centre

3.9 Street edge conditions

Key Issues

– The town centre is characterised by active retail and/or commercial street edges with awnings along Station Street, Dunmore Street and part of The Kingsway.

– Dwelling houses and residential uses along the eastern, western and southern ends of the Centre provide landscaped street edges for private residential gardens. These edges will transition to more urban and active as these properties redevelop.

– On-grade car parks and the service station at Station Street degrade the street edge.

– Decked car park and service access to the IGA Mall dominate the northern edge of Pritchard Street East. Redevelopment of this key site should improve activation along this street and create greater pedestrian amenity and access.

– There is a huge opportunity to activate more of the street edges, thereby improving street legibility and amenity and in turn, improved pedestrian experience and safety (real and perceived safety).

Map of active frontages in Wentworthville town centre

3.10 Built form

Key Issues

– The Centre is primarily characterised by low-rise buildings, mainly 1-2 storeys high. There are a few 4-6 storey buildings on Dunmore Street, Station Street and Lane Street.

– The built form consists mainly of fine-grained retail along Station Street, big-box retail on Dunmore Street and low-rise buildings on individual lots on the majority of sites.

– Future increased building heights could assist in spatially defining the town centre and in reinforcing the role and character of streets with desired ground floor uses, appropriate building types, human scaled street wall heights, awnings and active frontages.

Map of key current built form conditions

3.11 Urban Design SWOT Analysis

Strengths

– Convenient public transport with direct access to the Wentworthville Train Station and efficient connectivity to Parramatta and Westmeade.

– Successful food oriented retail supporting a cultural diversity of the centre and surrounding neighbourhoods

– Heritage and character buildings adjacent the train station contribute to the fine grain scale and character of the northern part of the town centre

– Existing pine trees marking the rail station and terminate the Station Street view corridor.

– A well-established row of trees at St Paul's Anglican Church along Pritchard Street East and along the rail corridor and the large fig trees in Friendship Park contribute to the landscape character of the centre

– Friendship Park is a well-established park within town centre

– Fine grain shop fronts along Station Street north and Dunmore Street contribute to the vitality and character of the centre

– Consolidated land ownership provides larger lots that could support viable redevelopment and provide opportunities for improved pedestrian connectivity and enhanced public domain

– Existing solar access to southern side of Dunmore Street

– Provides daily shopping needs

– Medical centre to the south of the town centre and the Wentworthville Pub are attractors and potentially encourage pedestrian activity along Station Street

Weaknesses

– Limited spaces to gather and sit within the public realm

– The southern part of Station Street lacks character and is dominated by larger format buildings with limited street activation

– Library is isolated from the town centre and adjacent open space is underutilised.

– Lacks diversity of retail

– Blank walls, on-grade car parks, neglected buildings and fencing detract from the streetscape.

– Poor pedestrian amenity and potential safety at The Kingsway car park with poor access to Dunmore Street

– Lack of mid-block pedestrian crossings

– Lack of night time economy and activity

– Small street trees with limited shade and lack of streetscape planting along streets

– Wentworthville Pub lacks opportunities for outdoor dining and activation

– The service station negatively impacts Friendship Park and constrains opportunities to activate the park edge

– Lack of cleanliness and safety of public toilets

– Lack of rear lane access

Opportunities

– The existing rich cultural heritage evident in multicultural restaurants, shops

– Extensive graffiti - some of which is high quality - suggest there is potential to harness youth in creatively enlivening public space

– Multiple full and partial through site links – a potentially very permeable town centre

– Significant stands of large trees on boundary edges, along streets and within lots could be strengthened to reinforce landscape views, provide delight and pedestrian amenity

– Adaptive reuse of the heritage and character buildings on The Kingsway, and strengthening existing public domain elements in front of the train station present a unique opportunity to create a charming historic quarter that reveals Wentworthville's unique character

– Improved cycle access to Westmead and Parramatta along Finlaysons Creek and rail underpass

– Better integrate the library site into the Centre by: extending retail edges to the east along Dunmore St; co-locating a new plaza and public spaces with community uses and increasing residential population in the eastern part of the Centre.

Threats

– Potential inundation from stormwater and mainstream flooding to areas east and west of Station Street

– Small lot sizes along the northern end of Station Street are challenging to amalgamate into viable development parcels.

– Potential overshadowing of residential houses to the south

– Cumberland Highway is a very busy road and provides low amenity residential frontage

– The two sites located to the west of the Cumberland Highway are isolated from the town centre by the busy road and present challenges to effective integration

Opportunities and constraints for future development in Wentworthville Town Centre **Opportunities and constraints for future development in Wentworthville town centre**

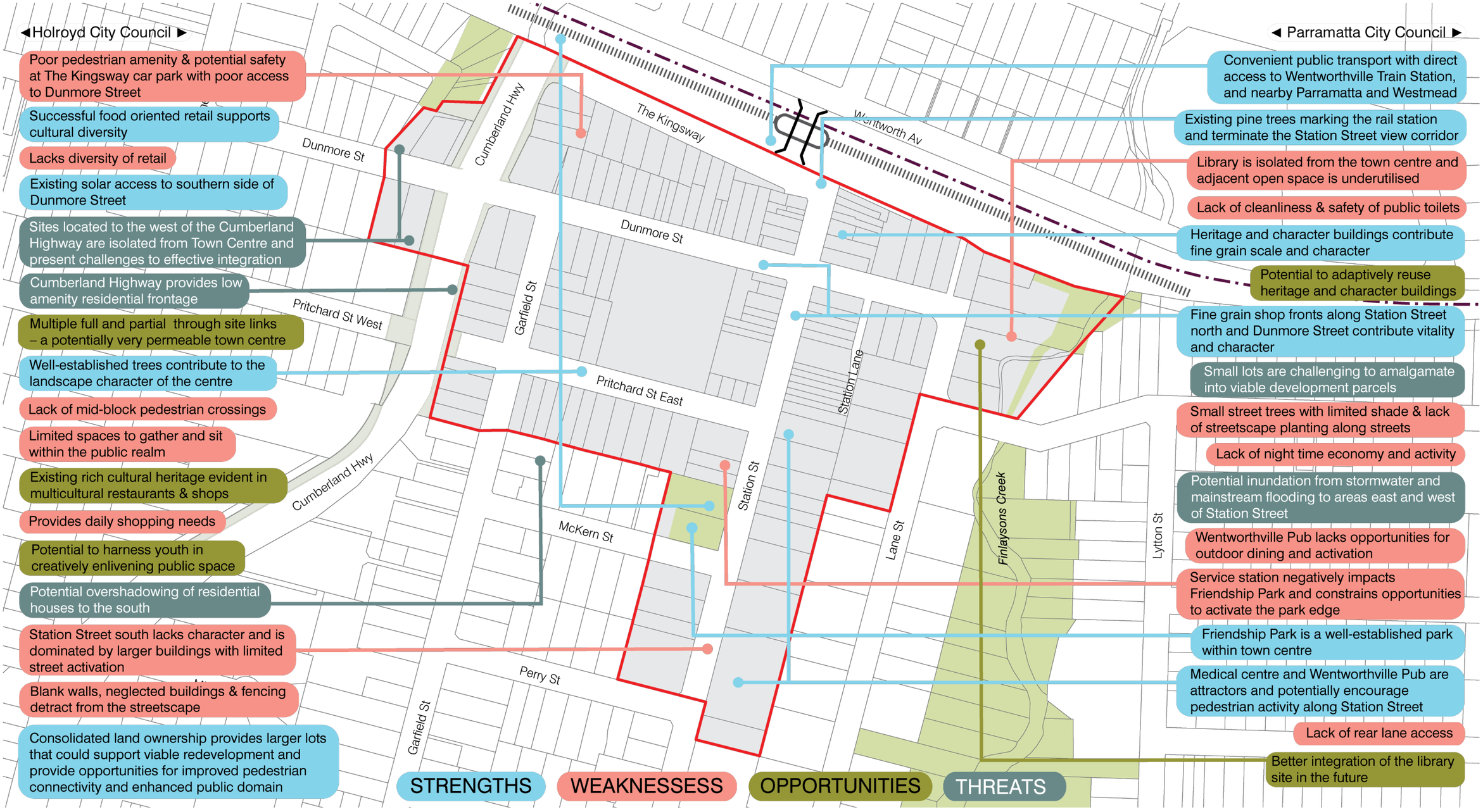


Diagram showing strengths, weaknesses, oppotunities and threats for Wentworthville Town Centre

4 Urban Design Strategy

4.1 Design principles

Objective	Principles	Community Directions				
		Centre Redevelopment	Residential Development	Retail Revitalisation	Amenity and Facilities	Community and Cultural Understanding
Creating a streetscape that has a 'human scale quality; - modernising and building upon the existing 'village feel' of the Centre	**1) Ensuring pleasant and safe pedestrian access along streets and to key destinations.**	✓		✓	✓	
	– Promote primary retail frontage along Dunmore Street and Station Street with secondary commercial frontages along other streets	✓		✓		
	– Encourage increased pedestrian permeability within the centre with new links and arcades	✓			✓	
	– Locate vehicle entries away from Dunmore Street and Station Street where possible and promote second streets and laneways for vehicle access. This includes opportunities for extending Station Lane to the south and retaining rear vehicle access to properties along the north side of Dunmore Street	✓		✓	✓	
	2) Reinforcing fine grain shop fronts that accentuate pedestrian scale and provide human interest along the streets:	✓	✓	✓	✓	✓
	– Respect heritage elements (fountain) and adaptively reuse heritage buildings					✓
	– Express the existing subdivision pattern in future building façade design. On large sites, introduce a vertical rhythm along the street consistent with existing narrow frontage shops	✓	✓	✓		
	– Define a street wall datum with upper levels setback to create well-proportioned and human scale streets	✓			✓	
	3) Enhancing sense of landscape and green outlook within the Town Centre:	✓	✓		✓	✓
	– Maintain view corridors along streets to leafy residential streets beyond the centre	✓	✓		✓	✓
	– Retain the existing pine trees at the train station				✓	✓
	– Retain existing trees at St Pauls Anglican Church along Pritchard Street East and extend tree planting along the southern side of Pritchard Street East				✓	✓
	– Strengthen the street tree planting along streets within the town centre	✓	✓		✓	✓
	– Transition between street edge active frontage in the town centre and landscape street setback in residential streets		✓		✓	✓

Source of Objectives and Community Directions: *Wentworthville Revitalisation Project: Community Participation Report,* Place partners for Holroyd Council,, 2014

Objective	Principles	Community Directions				
		Centre Redevelopment	Residential Development	Retail Revitalisation	Amenity and Facilities	Community and Cultural Understanding
Facilitating a centre that is creative and vibrant and has colour; that is progressive and entrepreneurial	**1) Providing new and enhanced public spaces with increased opportunities for public gathering and celebration within the town centre**	✓		✓	✓	✓
	– Provide a new public plaza /widened street edge along the southern side of Dunmore Street	✓		✓	✓	
	– Improve connectivity to and formalisation of the open space along Finlayson's Creek at the library				✓	✓
	– Improve access to and use of Friendship Park				✓	✓
	– Co-locate open space with heritage (post office) and public facilities (library)				✓	✓
	2) Identifying opportunities for public art in public spaces and encouraging integration with private development	✓			✓	✓
	3) Providing improved community facilities with better opportunities for creative and youth space.				✓	✓
	4) Preserving and adaptively reusing existing heritage and character buildings	✓	✓	✓		✓
	5) Retaining and enhancing existing public car parking amenity.	✓			✓	
	6) Considering opportunities for pop-up shops to activate vacant premises.	✓		✓		
	7) Expanding the supermarket to better cater to demand and reinforce its role as a key destination and activator in the town centre.	✓		✓		
		✓	✓	✓		
Broadening housing choice and creating housing close to the station	**1) Leveraging existing landownership and key sites as a catalyst for mixed use buildings with housing at upper levels within the town centre**	✓	✓			
	2) Promoting site amalgamation to deliver mixed use buildings with high amenity residential at upper levels.	✓	✓	✓		
	3) Considering reduced parking and loading access requirements on small lots to promote upgrading of existing properties and modest redevelopment of existing shop top housing in the short term.		✓			
	4) Considering opportunities for affordable housing within the Centre. Particularly on sites with increased development potential.					

Source: *Wentworthville Revitalisation Project: Community Participation Report,* Place partners for Holroyd Council,, 2014

Objective	Principles	Community Directions				
		Centre Redevelopment	Residential Development	Retail Revitalisation	Amenity and Facilities	Community and Cultural Understanding
Defining a mid-rise scale of future development	1) Reinforcing the community vision for a mid-rise town centre height.	✓	✓			✓
	2) Promoting street aligned buildings with a 4-5 storey street edge and active retail/commercial frontages at ground level.	✓		✓		
	3) Sensitively locating taller heights to enhance the legibility of the centre, mark key places and retain solar access to streets and public spaces.	✓	✓		✓	
Planning to ensure quality built form design	1) Ensuring building envelopes and supporting primary development controls are designed to comply with SEPP 65: Design Quality of Residential Flat Buildings.	✓	✓			
	2) Coordinating FSR and height controls to ensure high quality design can be achieved within community vision.	✓				✓
	3) Creating an appropriate transition in scale between town centre taller buildings types and lower scale residential to the south and the east to protect residential amenity.	✓		✓	✓	
	4) Considering shop front design guidelines to promote visibility and use.				✓	✓
Creating a definitive link between the Railway and the Centre	1) Retaining the view corridor along Station Street to the rail station and significant pine trees				✓	✓
	2) Creating a slower vehicle environment and promoting pedestrian crossing at The Kingsway	✓			✓	✓
	3) Consider opportunities to redevelop The Kingsway car park to provide improved through site links and more efficient commuter parking solutions				✓	✓
	4) Promoting pedestrian links and / or arcades along the north side of Dunmore Street providing greater pedestrian permeability through to the Kingsway and train station.					

Source; *Wentworthville Revitalisation Project: Community Participation Report,* Place partners for Holroyd Council,, 2014

4.2 Amalgamation strategy

Key Issues

– While the Centre has a number of consolidated sites in single ownership that can support the envisaged redevelopment, amalgamation of smaller properties is required.

– The proposed amalgamation pattern to the right was developed for the purpose of testing built form scenarios and development feasibility and to inform future planning controls for the Centre. Sites were grouped based on land ownership, potential built form scale and car parking footprint requirements and to facilitate public benefits, such as through site links, public space and retention of heritage buildings.

– The proposed amalgamation pattern is indicative only and a number of alternative patterns of amalgamation are possible.

– Sites are grouped into 37 development parcels as shown in diagram.

– Lots with a residential strata title have been precluded from any future development plans. Commercial strata properties have been included as these are likely to be more viable to amalgamate.

4.3 Proposed Structure plan

The proposed Structure Plan for the Centre addresses the project objectives, community direction and design principle in Section 4.1 and incorporated the following elements:

Connections

- Improved through-site links between The Kingsway and Dunmore Street to provide more direct and safe pedestrian access to the rail station and public car park.
- Improved through site link between Station Street and Lane Street adjacent to the pub to cater for cyclists and pedestrians and improve access to the Centre for residents to the east.
- New pedestrian link between Dunmore Street and Pritchard Street East to improve pedestrian permeability within this large urban block and to promote activation along Pritchard Street East.
- New pedestrian link between Pritchard Street East and Friend Park to improve activation of the Park and better integrate it into the core of the Centre.
- New pedestrian crossing a mid-block on Dunmore Street and Pritchard Street East to improve north-south pedestrian connectivity with the core and though long blocks.
- New pedestrian crossing across Station Street to improve the Station/ Lane Street though site link.
- Cycle routes connecting into the centre and improving access to the rail station. This also includes opening the underpass along Finlaysons Creek to provide cycle access across the rail line to the north.
- New service lane from The Kingsway to the rear of properties along Dunmore Street to facilitate redevelopment of the on-grade car park and retain service access to existing and future shops.
- Extension of Station Lane to the south existing across from McKern Street to provide service access for future development and maximise active street frontage along Station Street.
- Potential vehicle access extension of The Kingsway to Cumberland Highway to improve access to the Station and to reduce vehicle circulation in the core (Dunmore and Station Streets).

Public Spaces and Streets

- New linear plaza along the southern side of Dunmore Street. This space is intended to be a tree-lined public promenade / pedestrian mall that supports outdoor dining, shaded seating areas with public art, feature lighting and WSUD opportunities. The depth of the space supports temporary activities such as street fairs, markets, pop-up stalls and outdoor music.
- Improved link at the existing arcade. The pedestrian laneway is shown as 11m wide at ground level and is a product of the alignment of sites between Dunmore Street and The Kingsway. Pedestrian links and / or arcades should be a minimum of 8m with retail activation along both sides. Arcades should have generous ceiling height, ideally 2 storeys.
- New plaza at the library and civic hub at the end of Dunmore Street and revitalised parkland along Finlaysons Creek to enhance the civic precinct and provide much needed open space within the Centre.
- Widened footpaths along the western side of Station Street to promote outdoor dining.
- New pocket park on Lane Street at existing car park to provide opportunity for children's play space and pedestrian / cycle link.
- Pedestrian / cycle link adjacent the pub on Station Street accommodates opportunity for outdoor dining space.
- Improved and enhanced street tree planting along streets to improve streetscape character and enhance amenity with the Centre.

Built Form

- Retention and enhancement of character buildings on The Kingsway, Station Street, Pritchard Street and McKern Street to reinforce the sense of place and richness in character within the Centre.
- Buildings generally aligned to street the edge with ground floor retail uses and potential first floor commercial uses to promote greater activity along the street and a safer, more engaging pedestrian spaces.
- Taller buildings in strategic locations to reinforce the core of the Centre and key entries; to co-locate with public domain improvement that may be delivered through redevelopment, for example the provision of through site links or public spaces and the retention of heritage items.
- Active frontages along Dunmore Street and Station Street to reinforce the retail core of the Centre.
- Landscaped setbacks along the Cumberland Highway to promote retention and enhancement of large trees and to assist in mitigating busy road impacts on adjacent properties.
- Landscape street setback along southern side of Pritchard Street East to enable retention of significant trees on church land and create a consistent streetscape between Garfield and Station Streets.
- Landscape street setbacks at town centre fringes to assist in transitioning from an urban street edge to a residential streetscape character to the south and west.
- Landscaped rear setbacks to assist in transitioning the scale and mitigating privacy impacts between town centre buildings and adjacent residential properties.


◄Holroyd City Council►
◄ Parramatta City Council ►
Emert St
Dunmore St
Cumberland Hwy
The Kingsway
Wentworth Av
Dunmore St
Garfield St
Pritchard St West
Pritchard St East
Station Lane
Cumberland Hwy
McKern St
Station St
Perry St
Mildred St
Garfield St
Bennett St
Finlaysons Creek
Lytton St
LGA Boundaries
Study Area Boundary
Stormwater Channel
New development
Primary active frontages
Landscaped setbacks
Existing/ Enhanced Public Open Space
Urban Green Space
Significant Trees
Strengthened Street Tree corridors
New/ improved through site links
Rail Line
Train stops
Sites with significant building height
Preferred supermarket location
Heritage and character buildings
Public plazas
New/ enhanced sites for public carparking
New slow zone
New Pedestrian Crossings
New laneway access
Cycle routes
0 10 20 50 100 150m

4.4 Proposed Setback plan

Recommendations

– Generally street edge aligned buildings with retail uses along street edges in the core of the Centre.

– 8m setback along south side of Dunmore Street to provide a linear plaza.

– Landscape setback along Cumberland highway provide tree outlook and visual break between future development and busy road environment.

– Landscape setbacks at edges of the Centre to transition between town centre and residential neighbourhoods adjacent.

– Generous rear setbacks between town centre uses and adjacent residential properties.

– Side setbacks between town centre uses and adjacent residential properties assume new buildings will generally orient windows toward the street and rear.

– Laneway setback to provide opportunities for residential address along laneway and small tree planting.

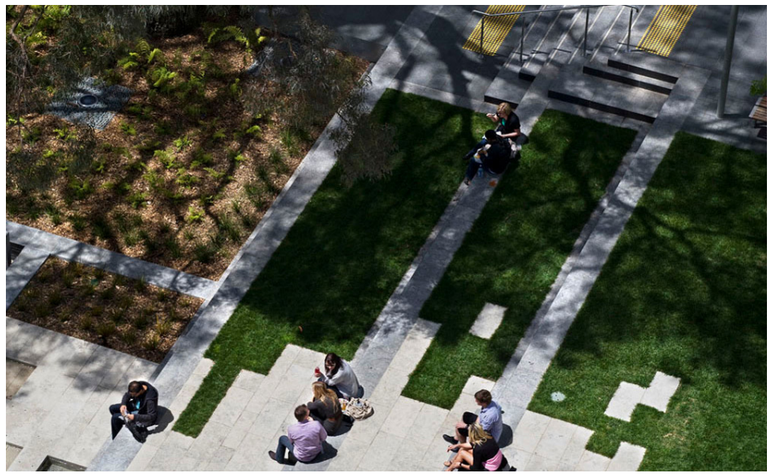
4.5 Proposed quality and character

Outdoor dining zones and generous. leafy footpaths encourage an active street life; Castro Street, San Francisco

Linear plaza along Dunmore Street provides opportunties for signficant tree planting and a generous pedestrian realm, Albury, NSW

Linear plaza along Dunmore Street provides opportunties for signficant tree planting and a generous pedestrian realm, Albury, NSW

Holistic street design with high pedestrian amenity and quality streetscape with a diversity of building heights; Rouse Hill NSW



New library plaza and revitalised parkland provides opportunties for repite and gathering, St. Patricks Square Auckland NZ

Spaces for all ages to enjoythe town centre and the civic hub, Pirrama Park , Pyrmont NSW

5 Urban Design Scenarios

5.1 Built form scenario approach

5.1.1 Three Scenarios

Three built form scenarios demonstrate the built form outcome of the current planning controls and two alternative scenarios for achieving a mid-rise building scale in the Wentworthville Town Centre as per the community direction in the Wentworth Centre Revitalisation Project: Community Participation Report. Scenario 1 is based on the existing town centre structure, while Scenarios 2 and 3 reflect the Structure Plan in Section 4.3 of this report. Feasibility of sample sites with both Scenario 2 and Scenario 3 was prepared by Hill PDA. The test sites are identified in Appendix A.

The built form scenarios are as follows:

– **Scenario 1** is based on the current permissible heights in the LEP and supporting controls in the DCP;

– **Scenario 2** includes a general 8 storey street edge building form with a 4 storey datum. Taller heights, up to 12 storeys, are located on key sites.

– **Scenario 3** includes a general 8 storey street edge building form with a 5 storey datum. Taller heights, from 12 to 18 storeys, are located on key sites.

All scenarios have a perimeter block building form that reinforces the street edge. Perimeter block forms provide options for internal building layouts to accommodate a mix of unit types including dual aspect units such as corner and cross-through configurations.

5.1.2 Assumptions

The following assumptions underpin the built form scenario modelling:

– Built form envelopes are designed to fit the Amalgamation Strategy in part 4.2.

– Residential strata lots have been excluded from consideration for future development due to the relative difficulty in obtaining singular ownership. Commercial strata lots have been considered as viable lots for future development.

– Council is currently undertaking a flood study and no flood planning levels are currently available. For the purposes of this report no allowance has been made for additional ground floor height.

– Provision has been made for a large supermarket on Site ID 19.

– Included envelopes on heritage sites. Heritage buildings on Site IDs 8, 9 & 27 have been allocated commercial floorspace on all floors.

– Ground floors are considered commercial floorspace, with all other floors considered residential. Site ID 19 is the exception with two floors of commercial floorspace to accommodate. For the feasibility testing, first floor commercial was considered on site with tall buildings.

– Residential efficiency rates have been calculated at 75% of GBA Commercial efficiency rates have been calculated 50% of GBA, except for the large site identified as Site ID19. For this site the assumption is that there will be a supermarket on ground floor, and an efficiency rate of 75% has been applied to the GBA.

– Site ID 26, while available for development, is considered too small to realistically develop to 6 storeys and has therefore been omitted from this scenario.

– All proposed consolidated large sites have a frontage which meets or exceed the 26m of frontage required for development between 4-8 storeys.

– Generally street edge building alignment with street setbacks as per the Proposed Setback Plan.

– Rear landscape setbacks and lower building heights to assist the transition between B2 zone and adjacent lower scale residential zones.

– Transition in building heights along streets between southern edge of the town centre and lower scale residential neighbourhoods.

– New public spaces, laneways and setbacks as shown in the structure including a linear plaza along southern side of Dunmore Street to facilitate outdoor dining, seating and street activity.

– Active frontages as shown in Structure Plan.

– Envelopes comply with SEPP 65 and can support building designs capable of delivering design quality.

– Ceiling heights as follows:

  – Ground Floor - 3.6m (floor to floor height of 4.0m)

  – Level 1 - 3.3m (floor to floor height of 3.6m)

  – Level 2+ - 2.7m (floor to floor height of 3.1m)

– Building depth a maximum 20m to support a variety of unit layouts and mix of unit types \9included dual aspect units) in response to orientation and adjacencies. In town centres where buildings are often attached, limiting the building depth ensures better amenity in apartments and minimises the likelihood of units buried deep in the plan or located in re-entrant corners.

– The exception to the above building depth is for ground floor retail uses.

– Tower forms with a maximum building length of 45m. When combined with the maximum building depth, this length promotes a slender tower form with less visual bulk and amenity impacts on adjacent properties and the public realm.

– Building separation as per SEPP 65: RFDC. Where building separation is limited by the site shape, for example Site 7, building depths are reduced to support internal building layouts that orient units away from the adjacent site.

– Upper levels of buildings are set back along pedestrian links to provide a more human scale and to support building separation requirements.

5.1.3 Next Steps

This study provides 3 scenarios for the future built form within the town centre. Once Council have determined a preferred approach, the following key considerations for translating the preferred built form scenario into development controls are recommended:

– Alignment of FSR and building height controls to ensure that sufficient height is permissible to support the desired FSR.

– Ensuring good design outcomes and SEPP 65 residential amenity can be achieved on all sites.

– Development controls need to address equity between sites, noting that some site are more efficient than other sites, for example corner sites tend support a greater density within the same height as a mid-block site with only a single street frontage.

– Linking increased height and/or floor space to clear public benefits, as noted in the Structure Plan, specifically new open spaces and through site links.

5.2 Built form scenario 01 - Existing controls

5.2.1 Strategy

– Existing LEP (height and zoning) and DCP controls have been applied across the study area to all almagamated lots without reference to the new accessways and public space identified in the proposed structure plan

– As per Holroyd DCP, a 3 storey street wall has been applied with storeys above this set back from the street wall

Development scenario 01 plan based on existing controls

5.2.2 Built form attributes

For B2 zoned areas with mixed use built form the following working assumptions have been extracted from the current HCC LEP and DCP and from SEPP 65.

Heights

– Storeys as per drawing on previous page:

  – 10m = 2 storeys

  – 14m = 3 storeys

  – 17m = 4 storeys

  – 20m, = 5 storeys

  – 23m = 6 storeys

– Ground Floor - Floor to floor height of 4.0m

– Level 1 - Floor to floor height of 3.6m

– Level 2+ - Floor to floor height of 3.1m

– Street Wall Height - 3 storeys

Setbacks

– Front setback : 0m

– Upper floor setback: 3m required for upper floors above the street wall

– Side setback: No requirement for side setbacks unless adjacent to residential zoning where a 3m setback is required.

– Rear Setback: 6m required where adjacent to residential zoning.

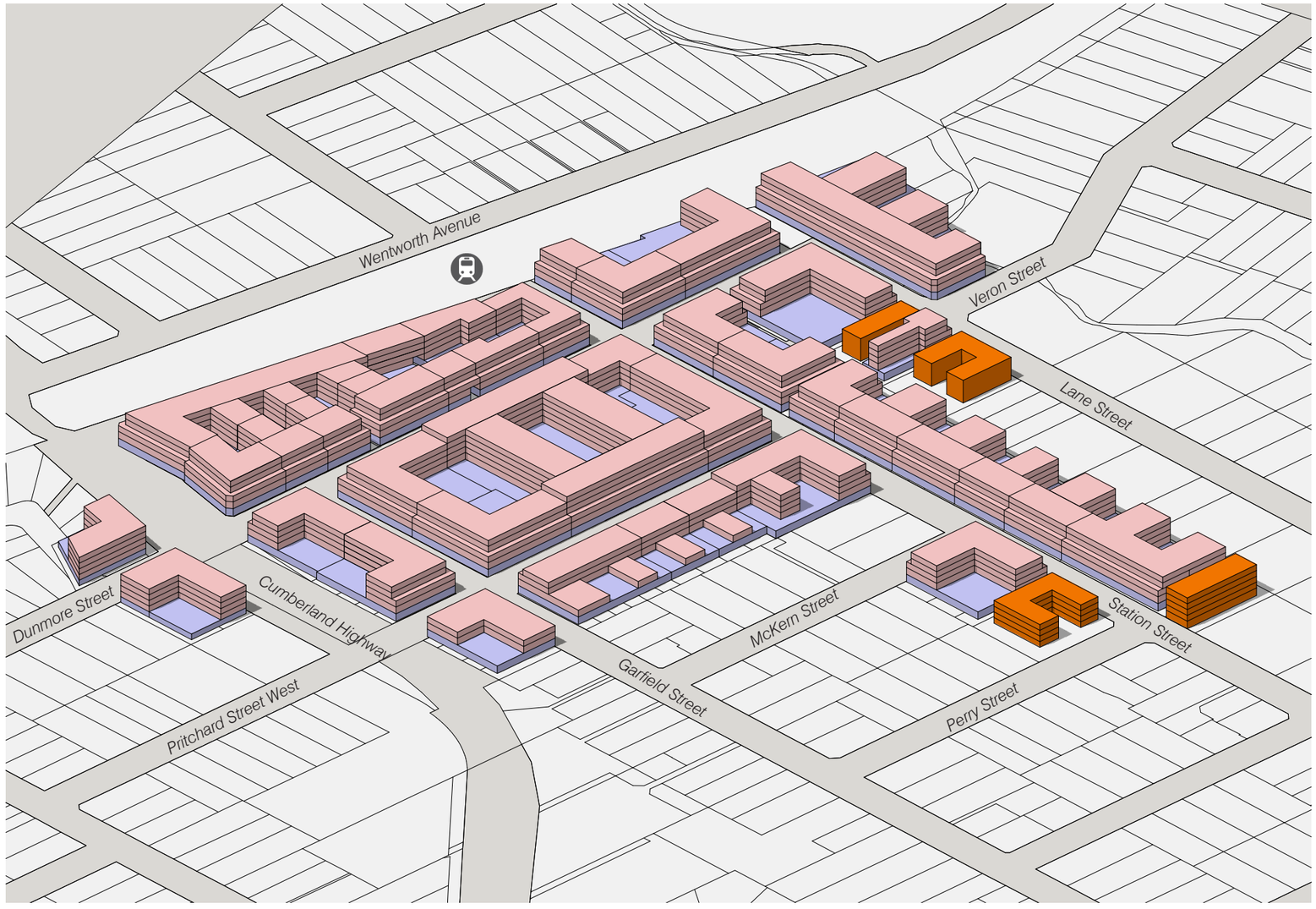
Frontages

– All proposed consolidated large sites have a frontage which meets or exceed the 26m of frontage required for development between 4-8 storeys

Building Separation

– Consistent with SEPP 65

– Party wall (zero setback) between adjacent sites along streets to define street edge.



Axonometric aerial view of Scenario 01 looking north east towards Wentworthville train station

Axonometric aerial view of Scenario 01 looking north west towards Wentworthville train station

Shadow study: 9am June 22nd

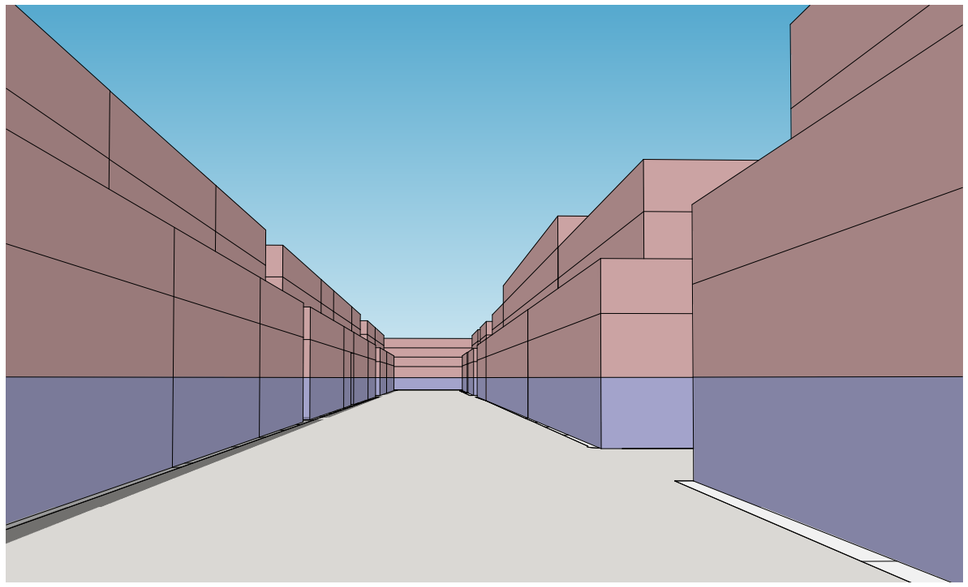
Shadow study: 12pm June 22nd

Shadow study: 3pm June 22nd

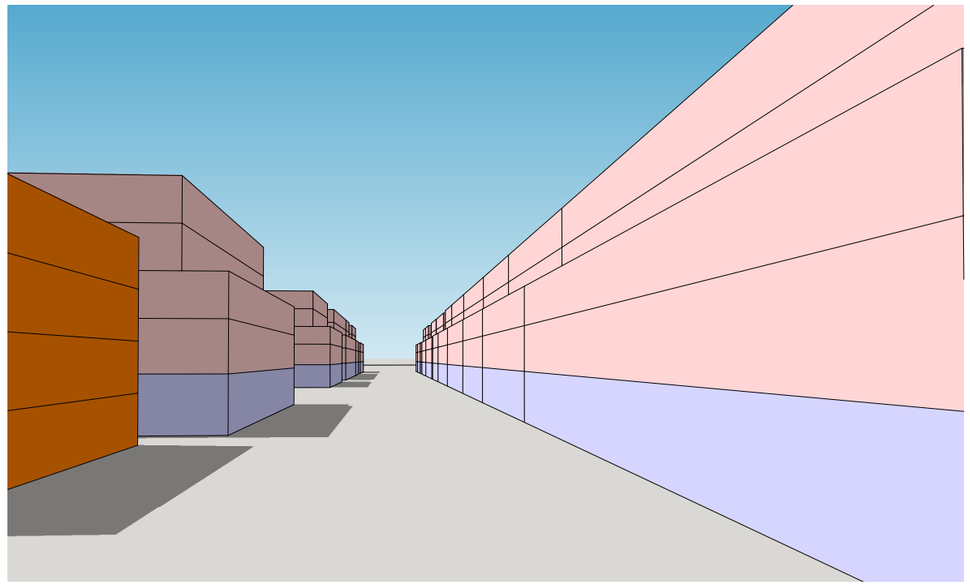
Shadow study: 9am September 23rd

Shadow study: 12pm September 23rd

Shadow study: 3pm September 23rd



View along Dunmore Street at Cumberland Highway intersection



View north along Station Street at Perry Street intersection

5.3 Built form scenario 02 - Mid-rise

5.3.1 Built form strategy

To provide a mid-rise height across the town centre with the following attributes:

– a **general 8 storey height across the town centre** study area

– **6 storeys along the northern side of Dunmore Street** are proposed to facilitate solar access to the linear plaza and shop fronts and to promote its use for outdoor dining at lunchtime

– **towers of 12 storeys strategically located** to

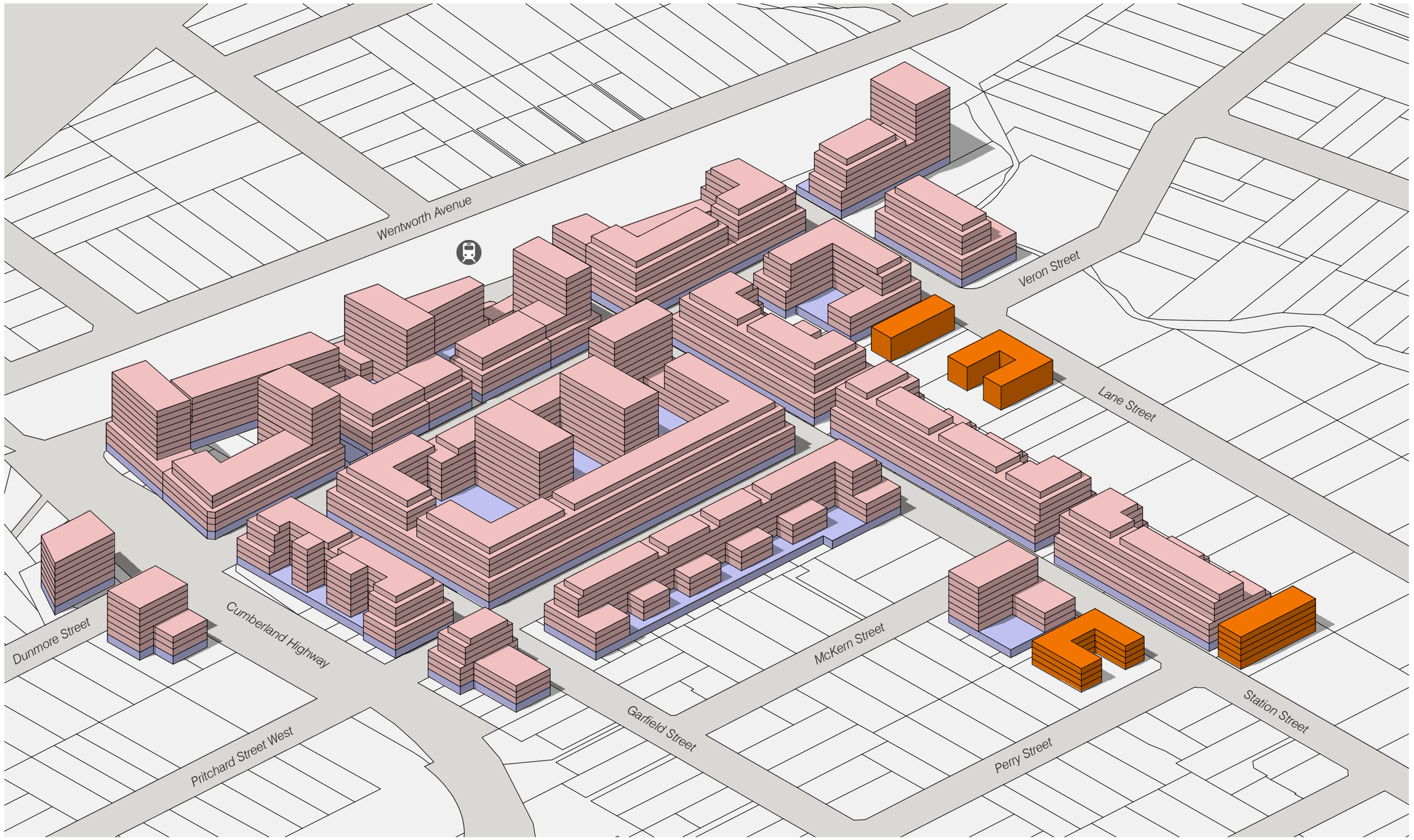
  – reinforce key places and town centre entries

  – limit overshadowing of streets, public open space and adjacent residential neighbourhoods

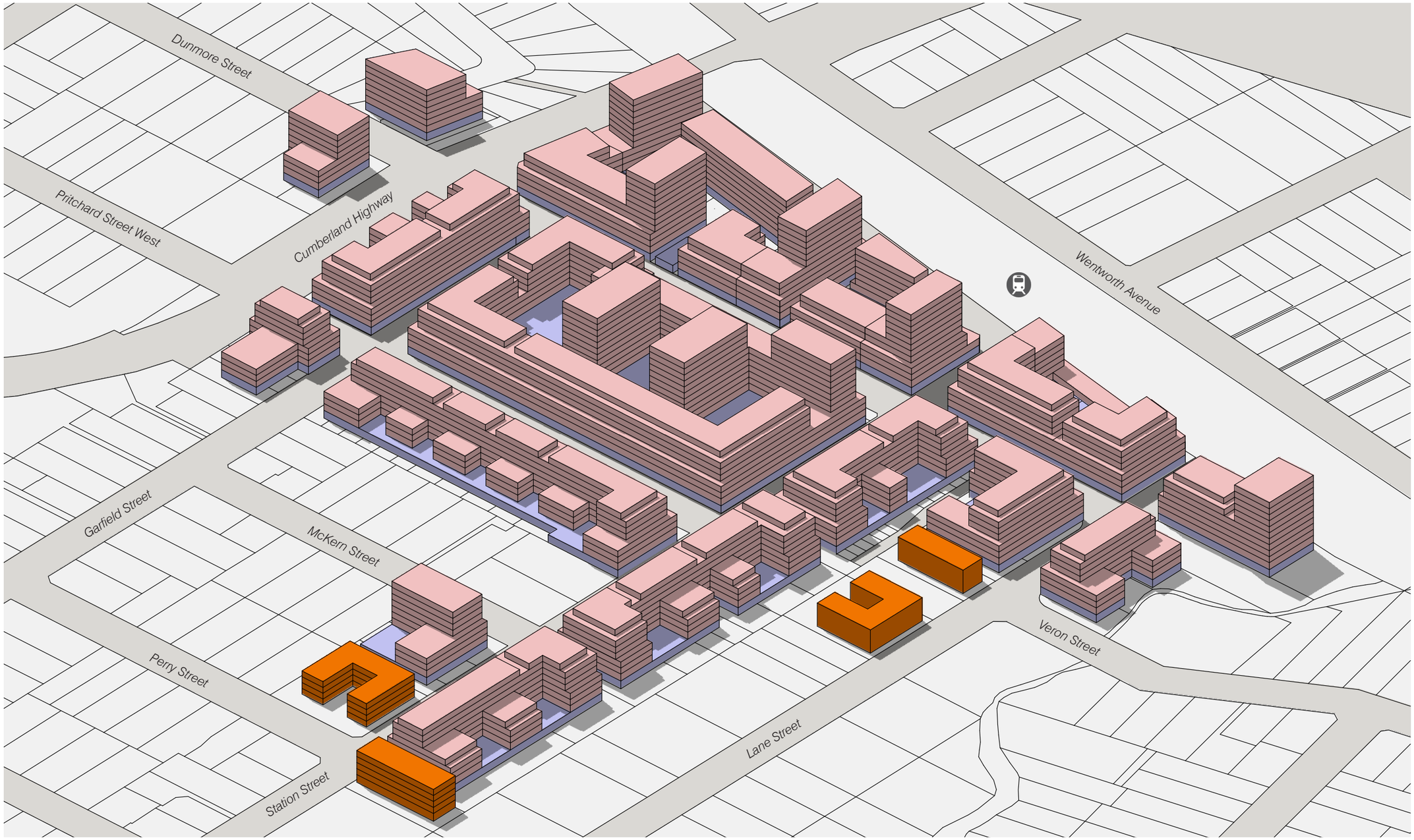
  – collocate increased floor space where public benefits, such as open space and through site links are desired.

– a **4 storey street edge** has been adopted to create a lower scale street edge with a more pedestrian scale within the centre. Upper levels up to 7 storeys are setback with the top storey further set back to minimise enclosure of the street and to facilate a base, middle and top built form articulation. The top storey is shown also setback from the side boundaries to provide an articulated roofline.

Development scenario 02 plan

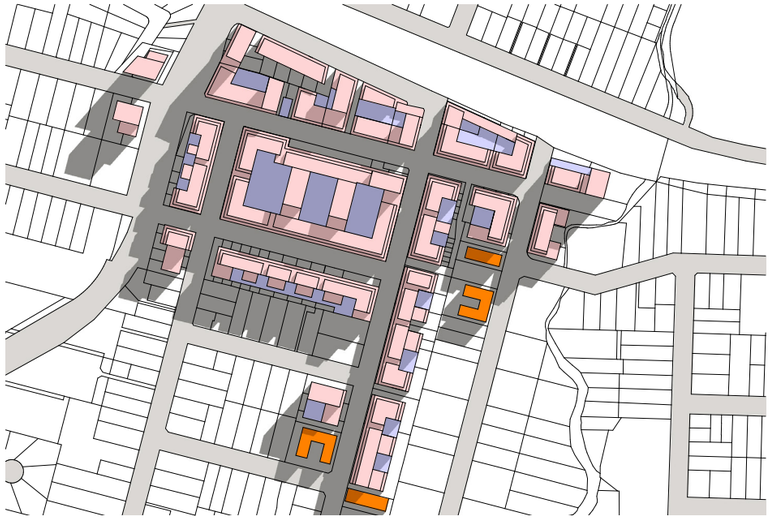


Axonometric aerial view of Scenario 02 looking north east towards Wentworthville train station



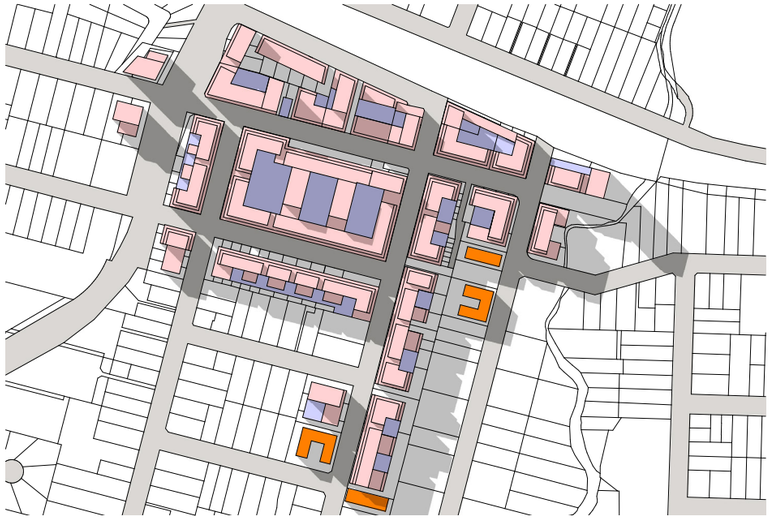
Axonometric aerial view of scenario 02 looking north west towards Wentworthville train station

5.3.2 Solar Access and key views



Shadow study: 9am June 22nd

Shadow study: 12pm June 22nd

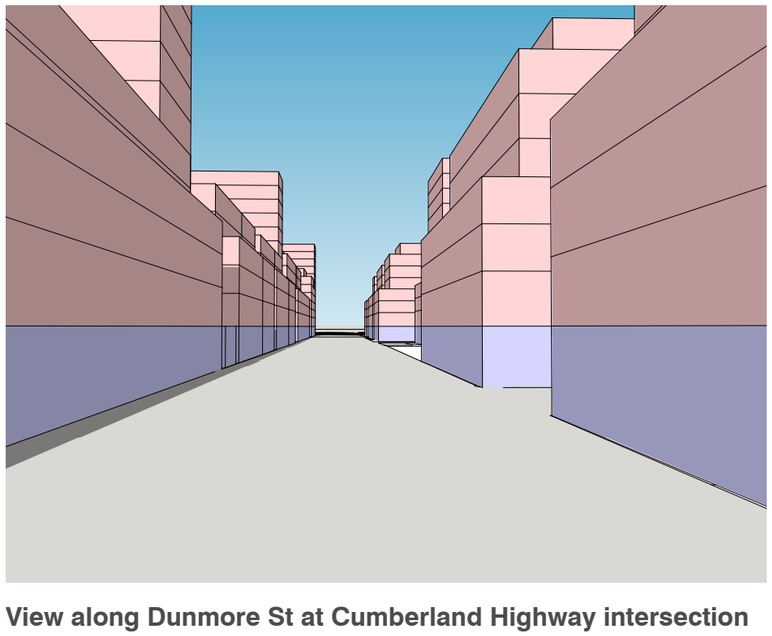


Shadow study: 3pm June 22nd

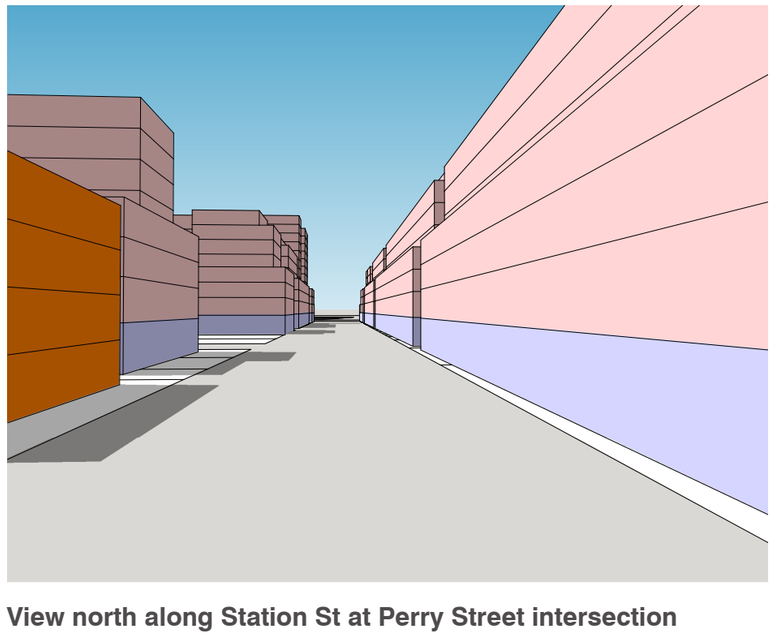
Shadow study: 9am September 23rd

Shadow study: 12pm September 23rd

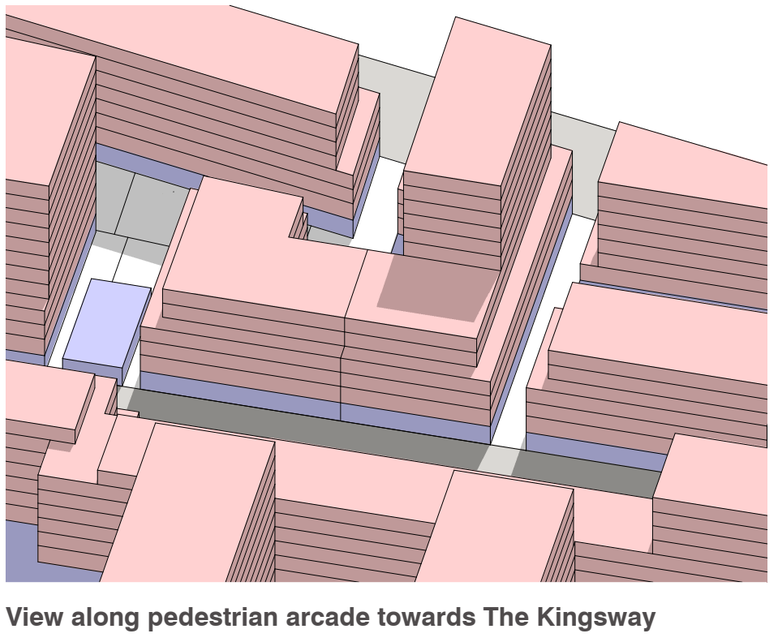
Shadow study: 3pm September 23rd



View along Dunmore St at Cumberland Highway intersection

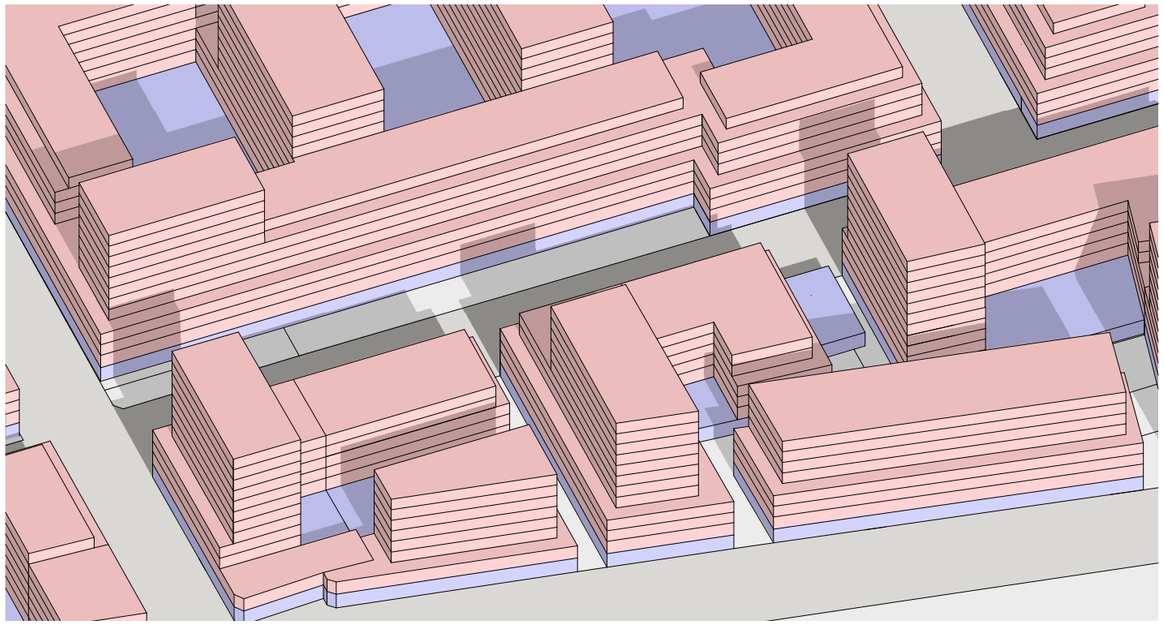


View north along Station St at Perry Street intersection

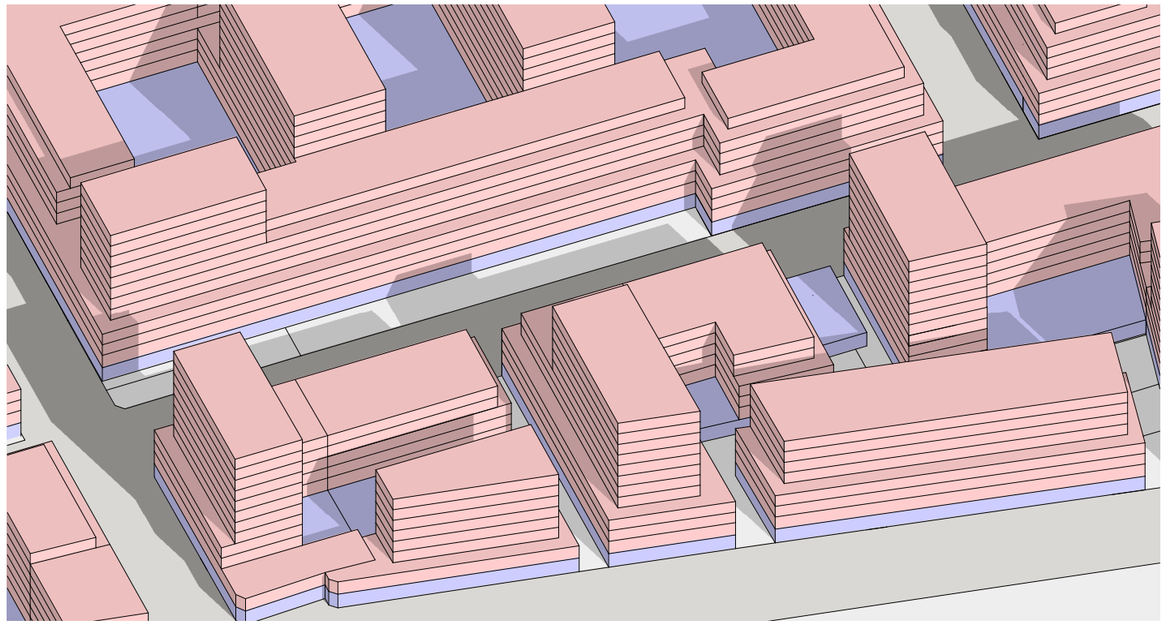


View along pedestrian arcade towards The Kingsway

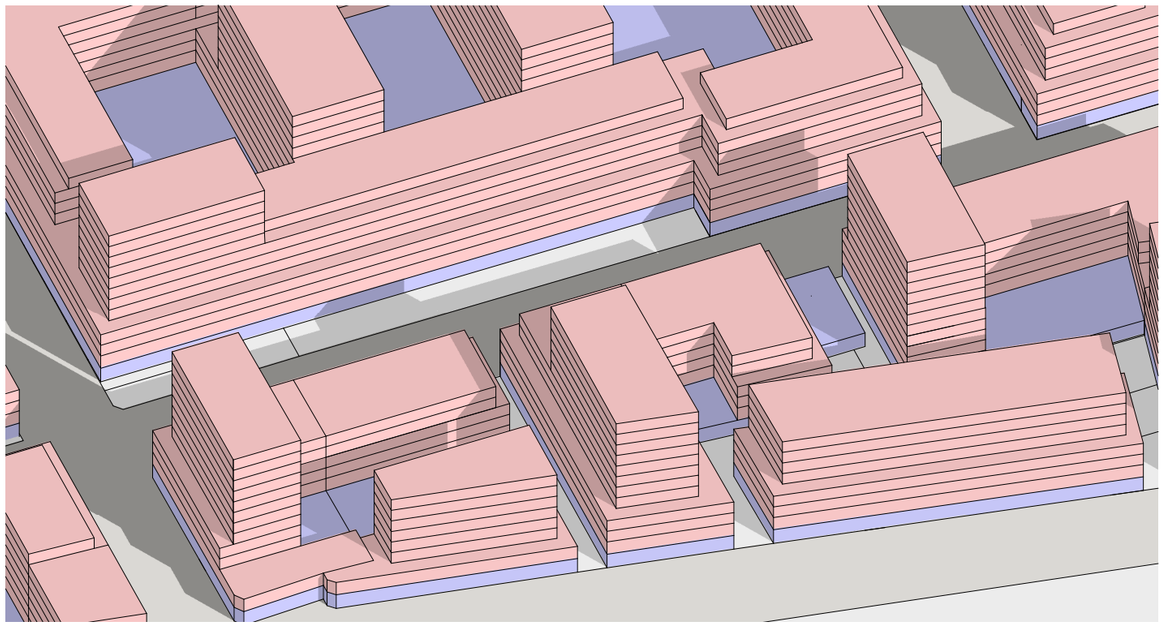
5.3.3 Solar Access to South Side of Dunmore St



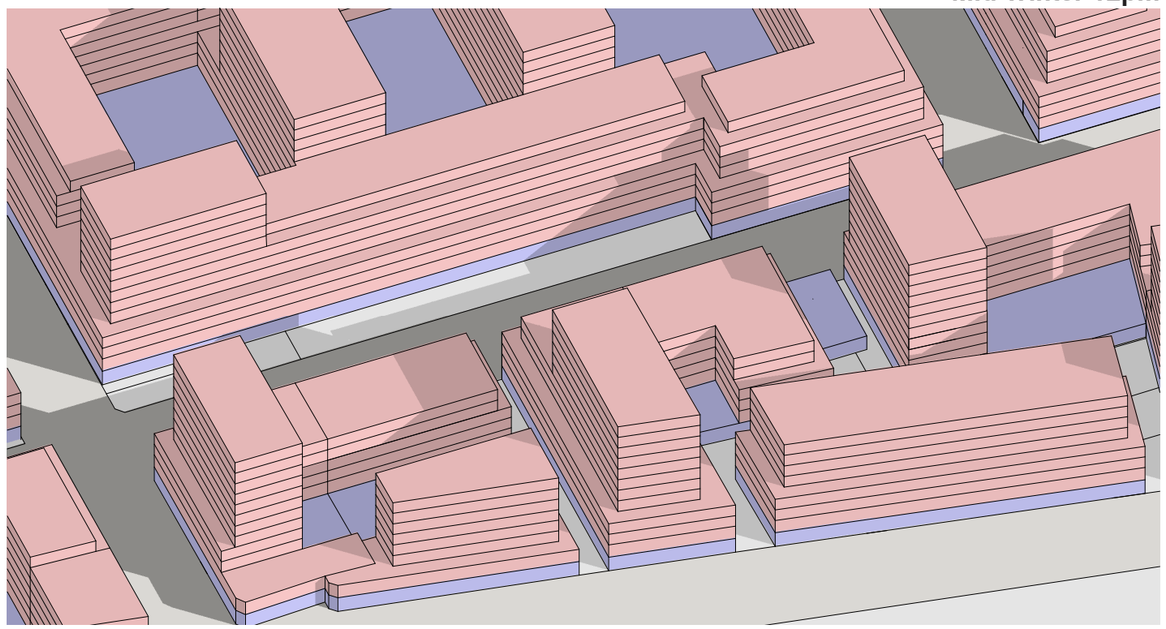
Mid-Winter 11am



Mid-Winter 12pm



Mid-Winter 1pm



Mid-Winter 2pm

5.4 Built form scenario 03 - mid-rise with strategic height

5.4.1 Built form strategy

To provide a mid-rise height across the town centre with strategic located towers with the following attributes:

– a **general 8 storey height across the town centre** study area

– **6 storeys along the northern side of Dunmore Street** are proposed to facilitate solar access to the linear plaza and shop fronts and to promote its use for outdoor dining at lunchtime

– **towers of 12 and 18 storeys strategically located** to

  – articulate the skyline and reinforce the centre of the town centre with increased height away from surrounding residential neighbourhoods

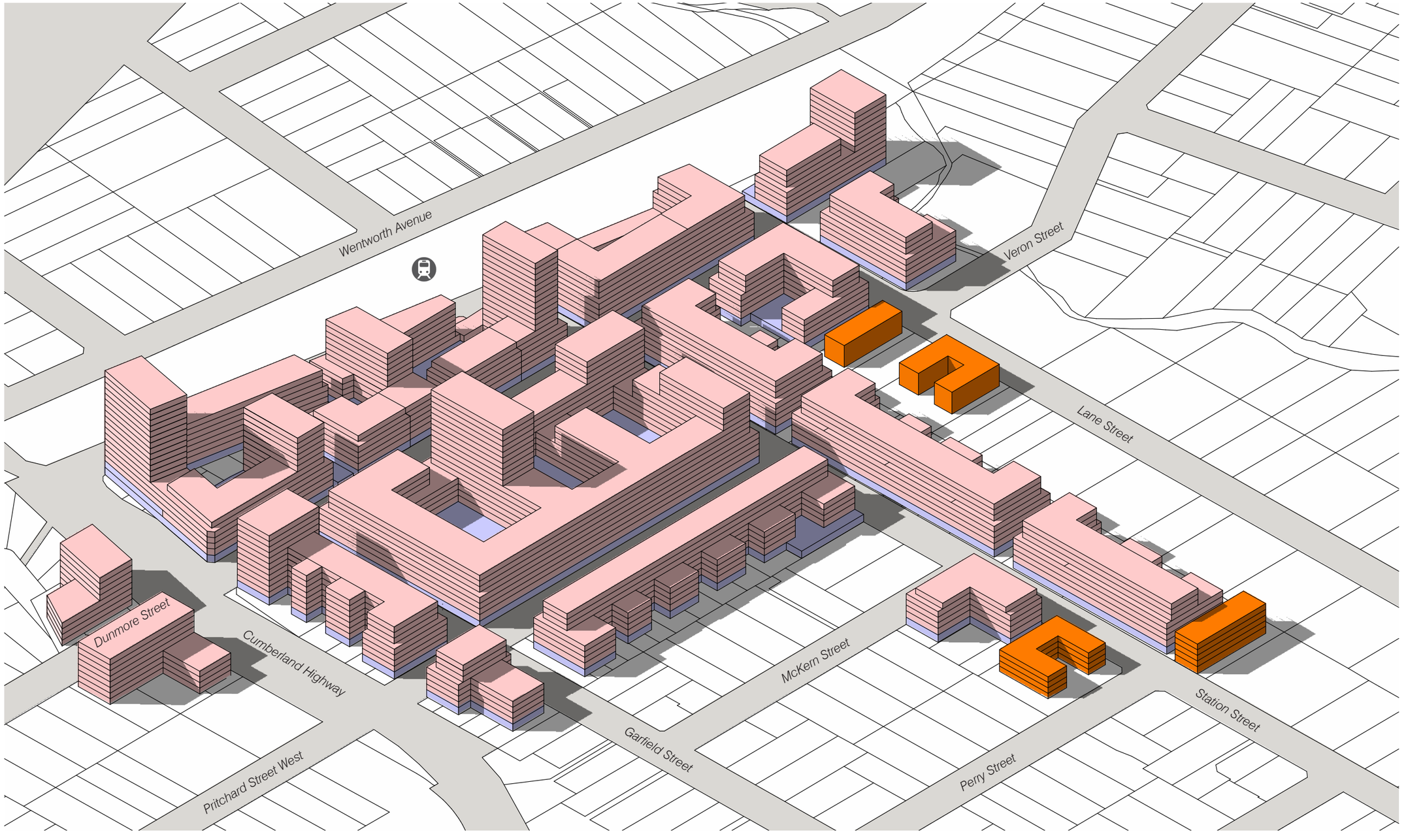
  – reinforce key places and town centre entries

  – limit overshadowing of streets and public open space

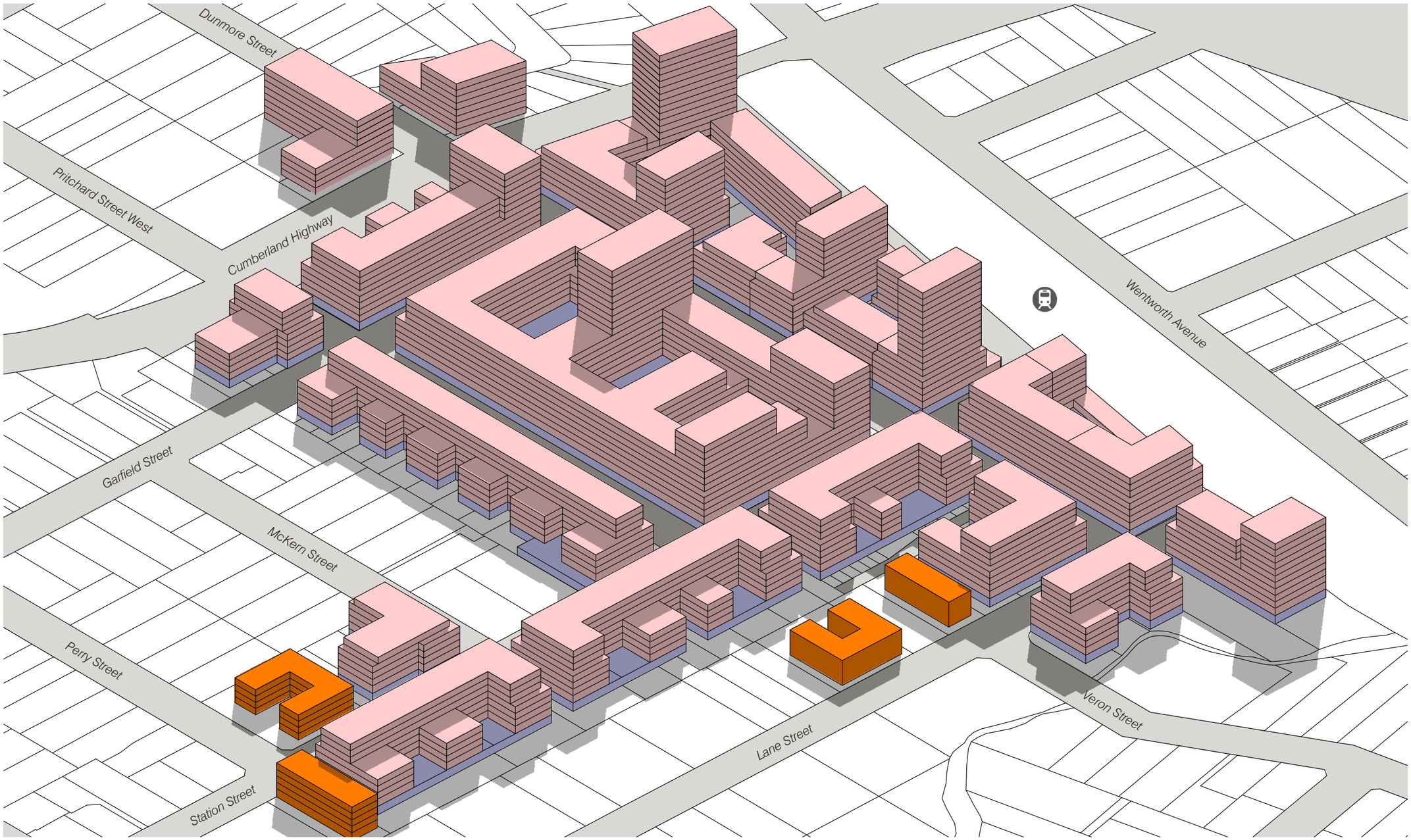
  – collocate increased floor space where public benefits, such as open space and through site links are desired.

– a **5 storey street edge** has been adopted to create a lower scale street edge with a more pedestrian scale within the centre. Upper levels up to 8 storeys are setback to reinforce the street scale and to reduce visual impact and overshadowing of upper levels.

Development scenario 03 plan



Axonometric aerial view of scenario 03 looking north east towards Wentworthville train station



Axonometric aerial view of scenario 03 looking north west towards Wentworthville train station

5.4.2 Solar Access and key views

Shadow study: 9am June 22nd

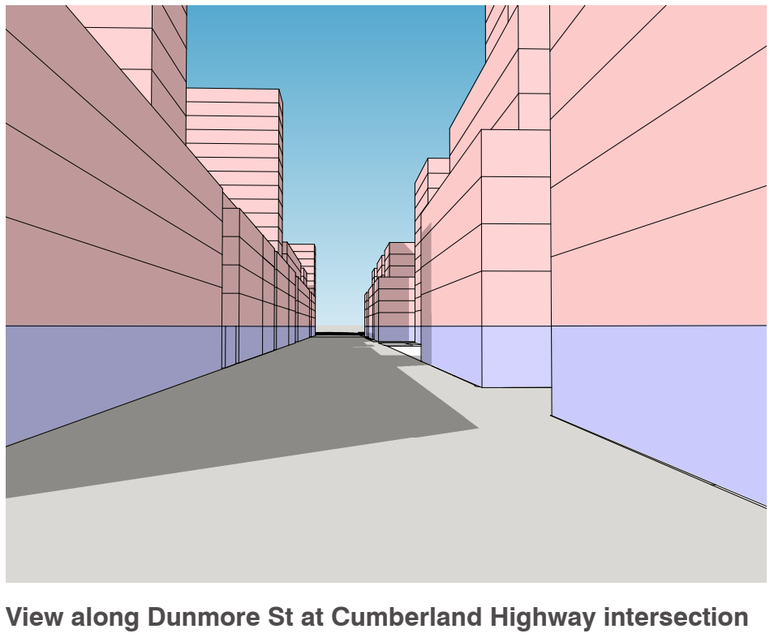
Shadow study: 12pm June 22nd

Shadow study: 3pm June 22nd

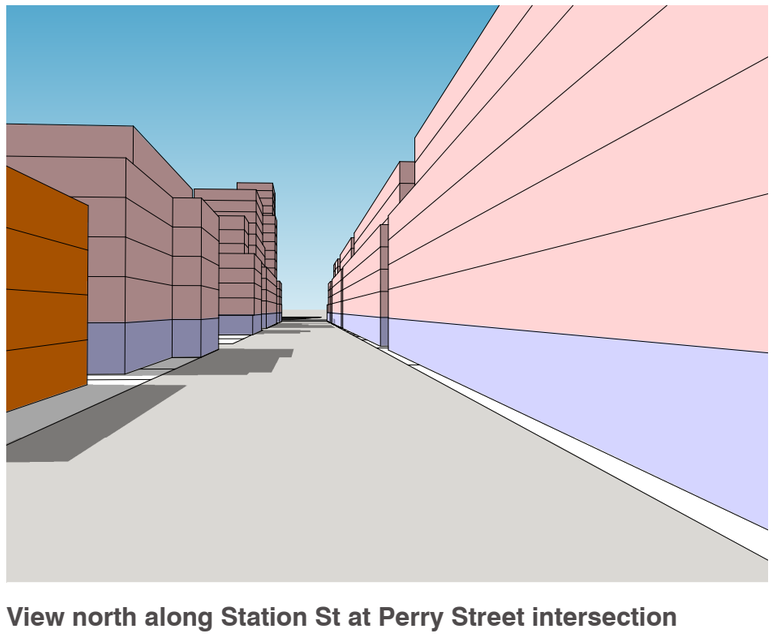
Shadow study: 9am September 23rd

Shadow study: 12pm September 23rd

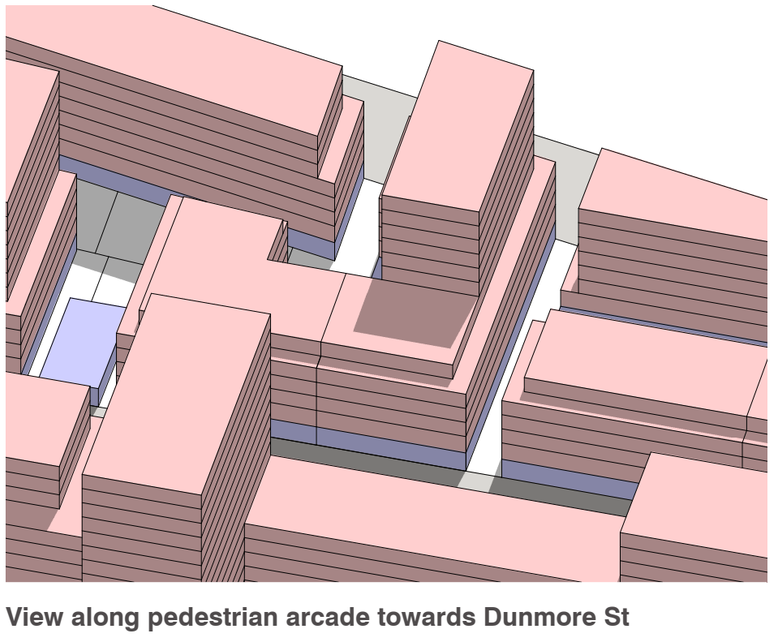
Shadow study: 3pm September 23rd



View along Dunmore St at Cumberland Highway intersection

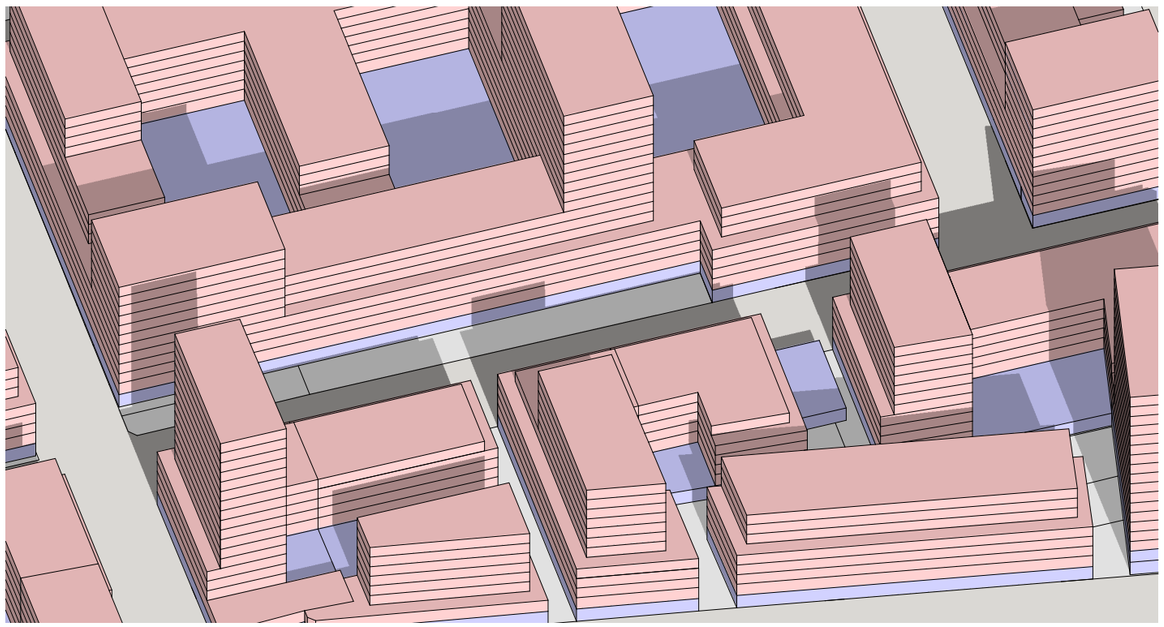


View north along Station St at Perry Street intersection

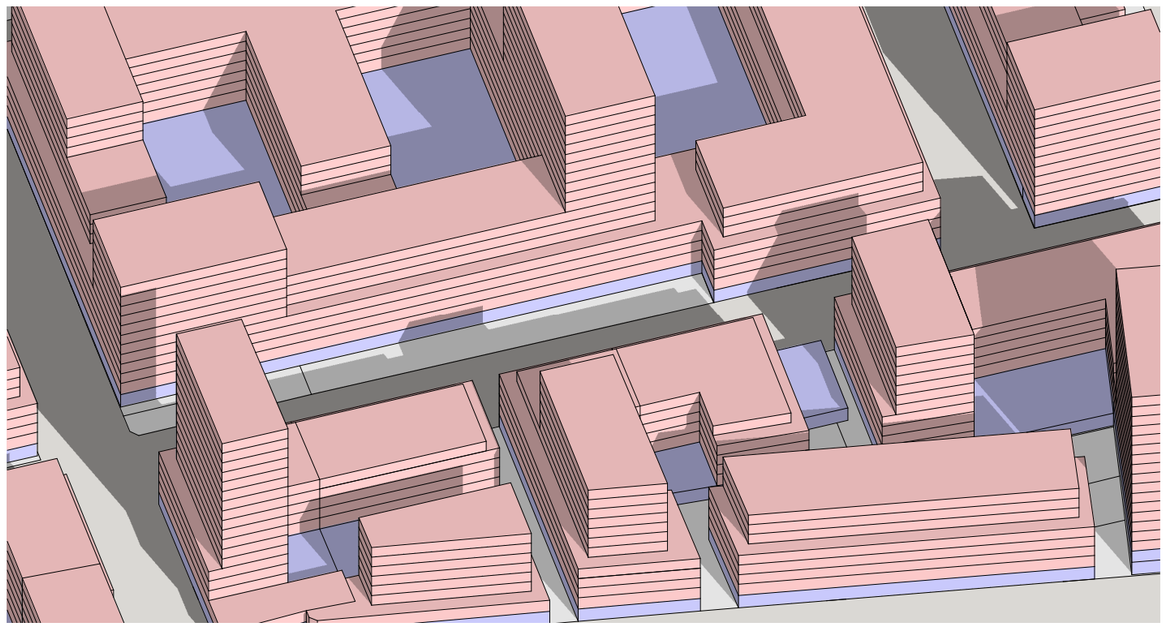


View along pedestrian arcade towards Dunmore St

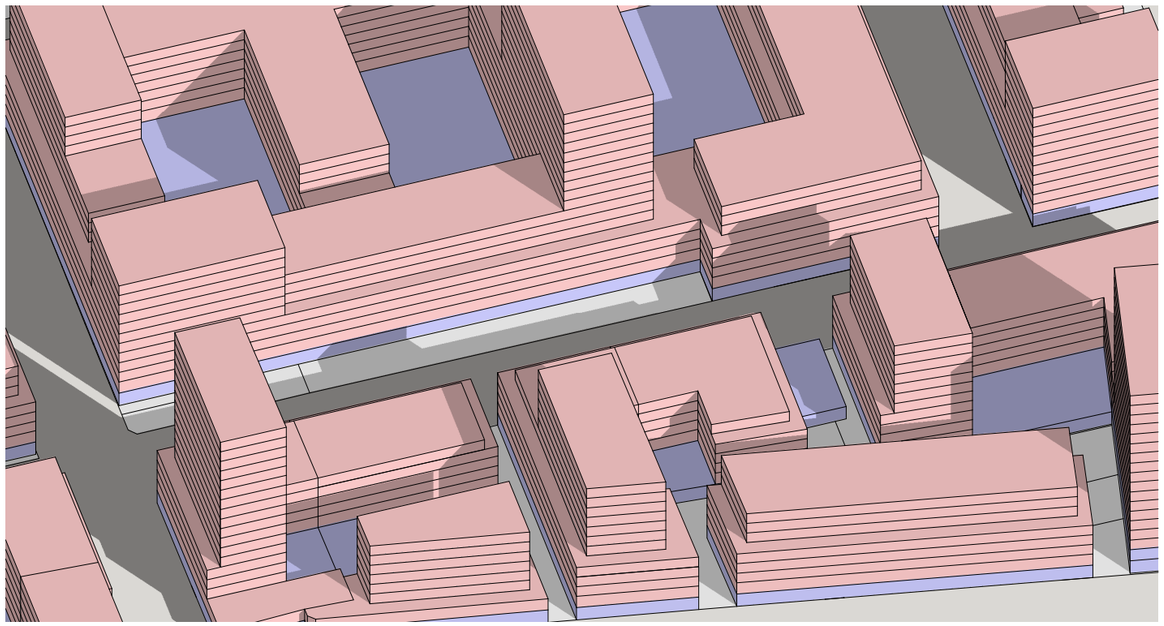
5.4.3 Solar Access to South Side of Dunmore St



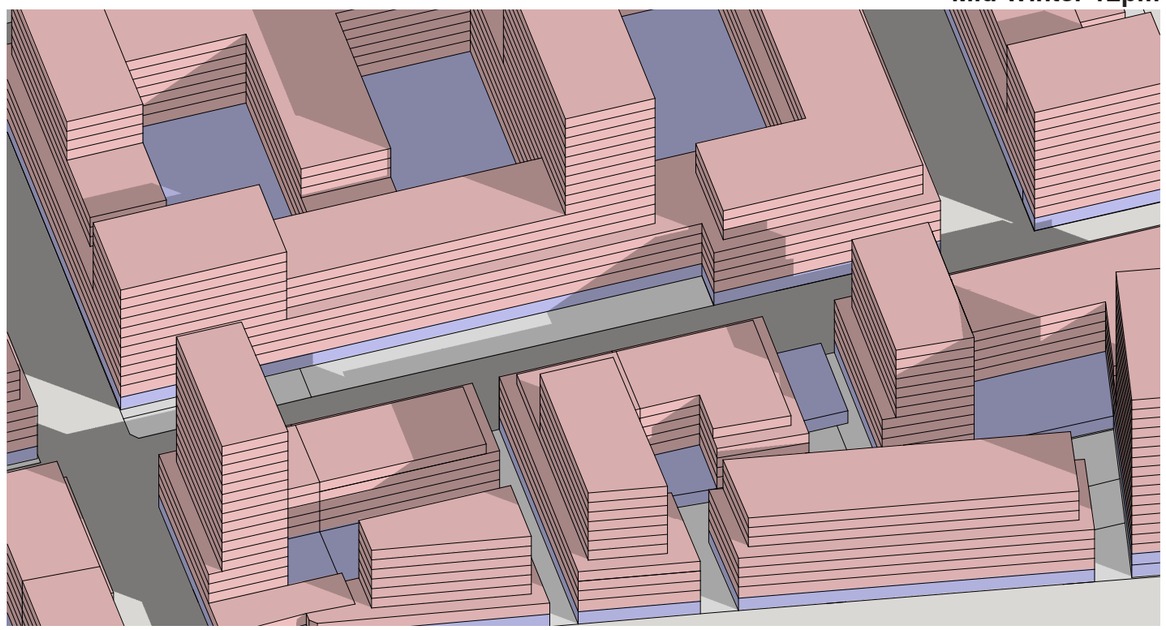
Mid-Winter 11am



Mid-Winter 12pm



Mid-Winter 1pm



Mid-Winter 2pm

6 Appendix

6.1 Building heights

6.1.1 Heights of Building (HOB)

The approach to building height recommendations is based on two key considerations:

– The desired future character for each neighbourhood /precinct. Building heights shapes the future character of a neighbourhood in relation to its setting and topography. It defines the space and enclosure of streets and public spaces and provides visual definition and transition between places. Heights can be further refined and modelled with DCP controls such as upper level setbacks.

– Amenity within both the public realm and on private land. This includes considerations for daylight and solar access, wind protection, outlook and the protection of privacy.

The height recommendations in this report are expressed, firstly, in storeys as a measurement that relates to human scale and is more easily visualised. However to support Council's LEP, which defines building height in overall metres, the recommendations are also translated into metres.

6.1.2 LEP Height of Building in Metres

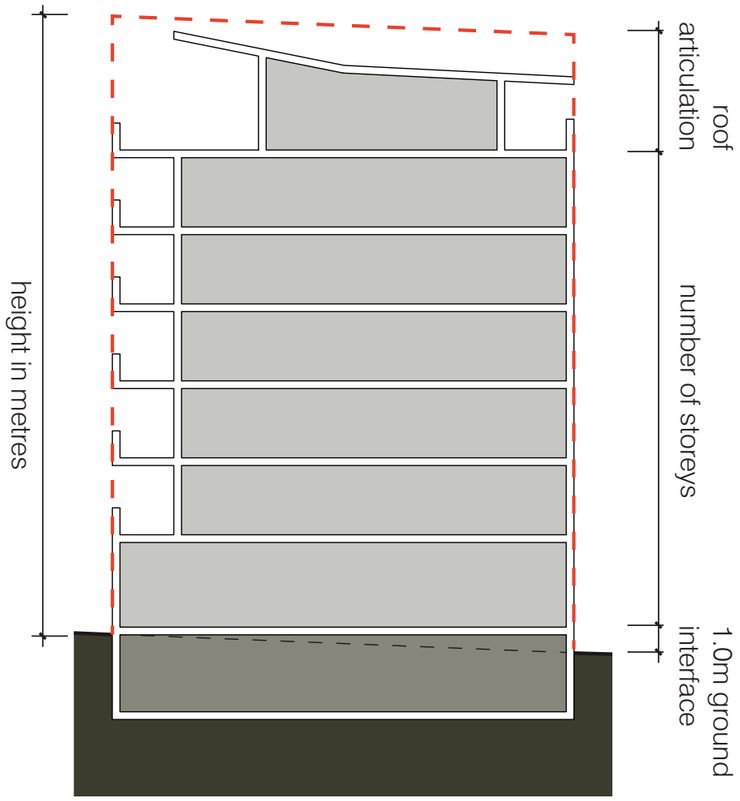
To convert height in storeys to height in metres for the LEP, the following need to be considered:

– Ground interface - this allows for up to 1m for a building to project out of the ground to allow buildings to adjust to the topography and/or flood constraints of a site.

– Floor to floor heights - this includes minimum ceiling heights by use and the floor slab directly above.

– Roof articulation - this includes space for roof design, lift overrun and plant equipment.

Table 01 shows the translation from storeys to metres for residential and mixed use buildings.



Measurement and components of building height

Height in Storeys	Floor to Ceiling Heights		Floor to Floor Heights		Total Metre Heights		Overall Height - Incl. Roof Articulation
	Resi	MU	Resi	MU	Resi	MU	
Roof			1.5	1.5	+1.5	+1.5	
08	2.7	2.7	3.0	3.0	24.0	24.6	26.1
07	2.7	2.7	3.0	3.0	21.0	21.6	23.1
06	2.7	2.7	3.0	3.0	19.0	19.6	21.1
05	2.7	2.7	3.0	3.0	16.0	16.6	18.1
04	2.7	2.7	3.0	3.0	13.0	13.6	15.1
03	2.7	2.7	3.0	3.0	10.0	10.6	12.1
02	2.7	3.3	3.0	3.3	7.0	7.6	9.1
01	2.7	3.3	3.0	3.3	4.0	4.3	5.8
Ground Interface	1.0	1.0	1.0	1.0	1.0	1.0	

Comparison between storeys and overall metre heights with allowances for ground interface, use and roof articulation.

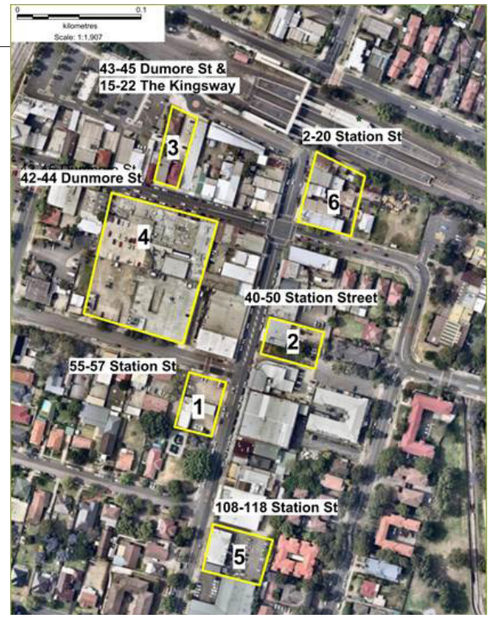
6.2 Hill PDA Site Testing Scenario 02 + scenario 03 - Ground floor commercial

Commercial and Residential capacity testing for Hill PDA identified sites - Scenario 02

Scenario 04 Site ID	Hill PDA Site ID	Site Area (m2)	Total Storeys	Total GBA (m2) 85% of building envelope	Commercial GBA (m2) 85% of building envelope	Residential GBA (m2) 85% of building envelope	Commercial NSA (m2) 65% of Commercial GBA	Residential NSA (m2) 85% of Residential GBA	Job Yield 1/30 m2 Commercial NSA	Dwelling Yield 1/90 m2 Residential NSA	Resultant FSR (calculated using Council GFA - 75%/ 50% of building envelope)	Current Permissable FSR
31	1	2,745	8	8,937	1,637	7,300	1,064	6,205	35	69	2.70	2.2
24	2 (60.5% of original site area)	1,337	8	4,983	940	4,042	611	3,436	20	38	3.08	2.2
7	3	1,517	12	7,617	1,006	6,665	654	5,666	22	63	5.06	2.4
19	4	8,836	12	41,435	6,892	34,543	4,480	29,362	149	326	4.14	2.2
35	5	1,918	8	5,997	983	5,014	639	4,672	21	47	2.61	2.0 - 2.2
10 + 11	6	2299	8	9,572	1,954	7,618	1,270	6,475	42	72	4.16	2.2

Commercial and Residential capacity testing for Hill PDA identified sites - Scenario 03

Scenario 03 Site ID	Hill PDA Site ID	Site Area (m2)	Total Storeys	Total GBA (m2) 85% of building envelope	Commercial GBA (m2) 85% of building envelope	Residential GBA (m2) 85% of building envelope	Commercial NSA (m2) 65% of Commercial GBA	Residential NSA (m2) 85% of Residential GBA	Job Yield 1/30 m2 Commercial NSA	Dwelling Yield 1/90 m2 Residential NSA	Resultant FSR (calculated using Council GFA - 75%/ 50% of building envelope)	Current Permissable FSR
31	1	2,745	8	8,153	1,329	6,824	864	5,801	29	64	2.48	2.2
24	2 (60.5% of original site area)	1,337	8	5,275	940	4,335	611	3,685	20	41	3.27	2.2
7	3	1,517	12	7,832	1,006	6,826	654	5,802	22	64	5.16	2.4
19	4	8,836	18	43,945	6,892	37,053	4,480	31,495	149	350	4.39	2.2
35	5	1,918	8	6,094	983	5,111	639	4,344	21	48	2.65	2.0 - 2.2
10 + 11	6	2299	8	10,226	1,954	8,272	1,270	7,031	42	78	4.45	2.2



Map showing Hill PDA identified and numbered sites for testing

6.2.1 Assumptions

Residential

– GBA (Gross Built Area) figures calculated as 85% of building envelope area

– NSA (Net Saleable Area) figures calculated as 85% of GBA

Commercial

– GBA (Gross Built Area) figures calculated as 85% of building envelope area

– NSA (Net Saleable Area) figures calculated as 65% of GBA

Resultant FSR figures have been calculated based on Council GFA (using efficiency rates of 50% Commercial & 75% Residential envelopes for all sites except HillPDA Site !D 4 which uses efficiency rates of 75% Commercial & 75% Residential envelope

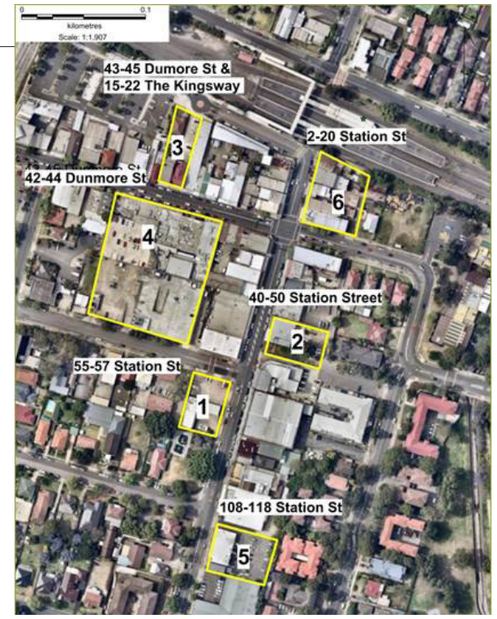
6.3 Hill PDA site testing: Scenario 02 + scenario 03 - Ground + first floor commercial

Commercial and Residential capacity testing for Hill PDA identified sites - Scenario 02
with 2 levels commercial floorpace for buildings between 12 and 18 storeys

Scenario 04 Site ID	Hill PDA Site ID	Site Area (m2)	Total Storeys	Total GBA (m2) 85% of building envelope	Commercial GBA (m2) 85% of building envelope	Residential GBA (m2) 85% of building envelope	Commercial NSA (m2) 65% of Commercial GBA	Residential NSA (m2) 85% of Residential GBA	Job Yield 1/30 m2 Commercial NSA	Dwelling Yield 1/90 m2 Residential NSA	Resultant FSR (calculated using Council GFA - 75%/ 50% of building envelope)	Current Permissable FSR
31	1	2,745	8	8,937	1,637	7,300	1,064	6,205	35	69	2.70	2.2
24	2 (60.5% of original site area)	1,337	8	4,983	940	4,042	611	3,436	20	38	3.08	2.2
7	3	1,517	12	7,860	2,012	5,848	1,308	4,971	44	55	5.18	2.4
19	4	8,836	12	43,609	13,784	29,826	8,959	25,352	299	282	4.35	2.2
35	5	1,918	8	5,997	983	5,014	639	4,262	21	47	2.61	2.0 - 2.2
10 + 11	6	2,227	8	7,755	1,864	5,891	1,212	5,007	40	56	2.83	2.2

Commercial and Residential capacity testing for Hill PDA identified sites - Scenario 03
with 2 levels commercial floorpace for buildings between 12 and 18 storeys

Scenario 03 Site ID	Hill PDA Site ID	Site Area (m2)	Total Storeys	Total GBA (m2) 85% of building envelope	Commercial GBA (m2) 85% of building envelope	Residential GBA (m2) 85% of building envelope	Commercial NSA (m2) 65% of Commercial GBA	Residential NSA (m2) 85% of Residential GBA	Job Yield 1/30 m2 Commercial NSA	Dwelling Yield 1/90 m2 Residential NSA	Resultant FSR (calculated using Council GFA - 75%/ 50% of building envelope)	Current Permissable FSR
31	1	2,745	8	8,153	1,329	6,824	864	5,801	29	64	2.48	2.2
24	2 (60.5% of original site area)	1,337	8	5,275	940	4,335	611	3,685	20	41	3.27	2.2
7	3	1,517	12	8,021	2,012	6,009	1,308	5,108	44	57	5.29	2.4
19	4	8,836	18	46,119	13,784	32,336	8,959	27,485	299	305	4.61	2.2
35	5	1,918	8	6,094	983	5,111	639	4,344	21	48	2.65	2.0 - 2.2
10 + 11	6	2,227	8	8,043	1,864	6,179	1,212	5,252	40	58	2.94	2.2



Map showing Hill PDA identified and numbered sites for testing

6.2.2 Assumptions

Residential

– GBA (Gross Built Area) figures calculated as 85% of building envelope area

– NSA (Net Saleable Area) figures calculated as 85% of GBA

Commercial

– GBA (Gross Built Area) figures calculated as 85% of building envelope area

– NSA (Net Saleable Area) figures calculated as 65% of GBA

Resultant FSR figures have been calculated based on Council GFA (using efficiency rates of 50% Commercial & 75% Residential envelopes for all sites except HillPDA Site !D 4 which uses efficiency rates of 75% Commercial & 75% Residential envelope

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