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K19 160 Burwood Rd, Concord (former Bushells Factory)

Figure K19-1 Aerial photo (source: nearmap.com)

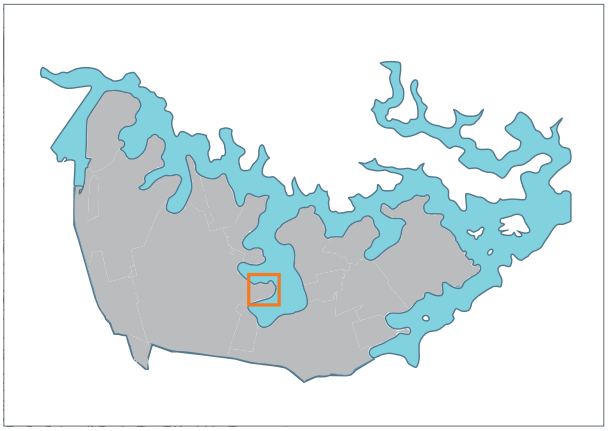

Figure K19-2 Council area map

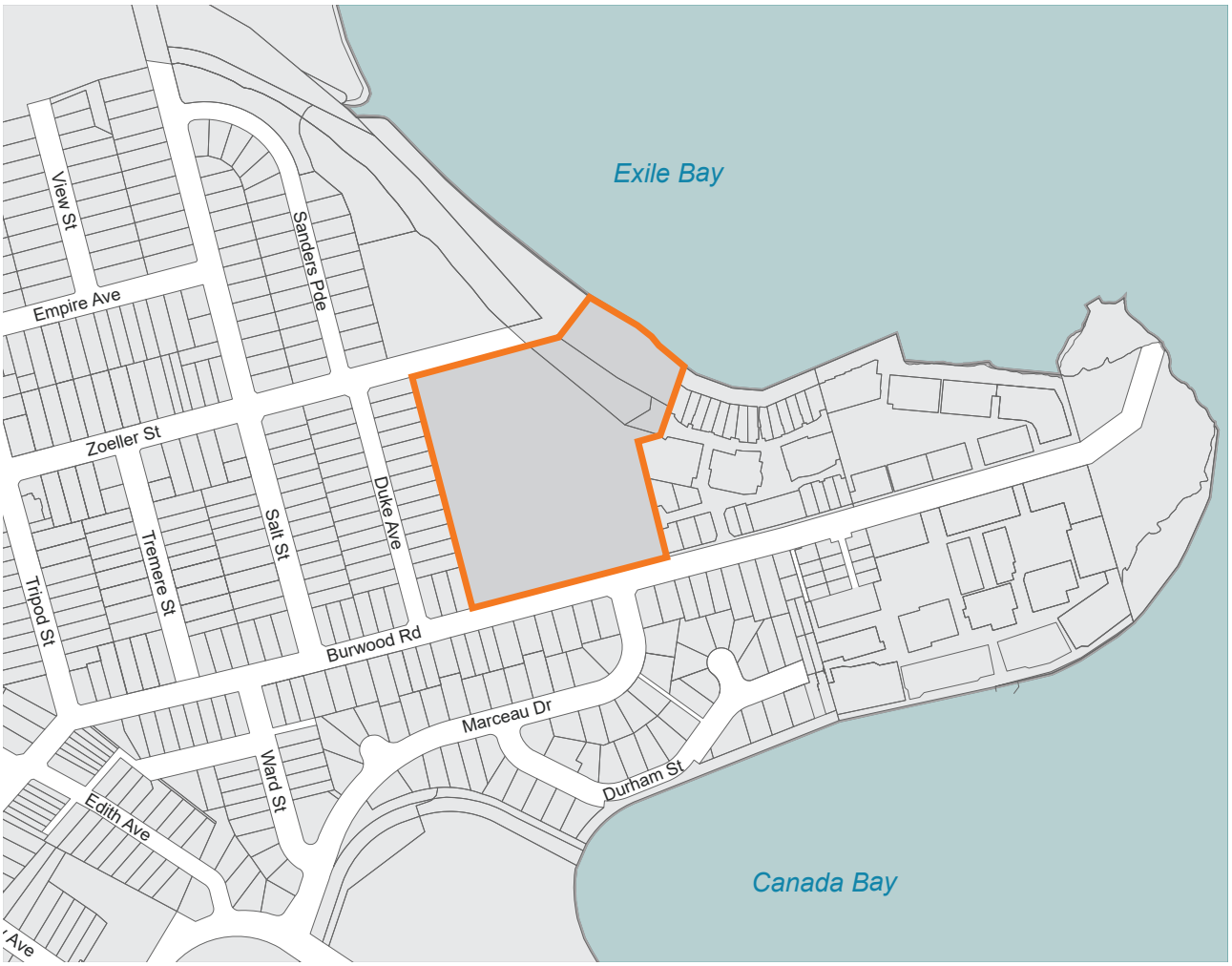

Figure K19-3 160 Burwood Road, Concord - Location Plan

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K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.1 Introduction

Location

The site is located at 160 Burwood Road, Concord, approximately 15km to the west of the Sydney CBD, 2.6km from Burwood District Centre and Burwood Train Station, 3km from Strathfield Train Station and 5.5km from Rhodes Strategic Centre. The nearest local commercial/ retail centre is located at Majors Bay Road, approximately 1.5kms from the precinct.

The precinct comprises approximately 3.9Ha of land and is bounded by Massey Park Golf Course to the north, Exile Bay foreshore area to the north east, medium density residential developments to the east, and low density residential developments to the west and south. Bayview Park is located further to the east along the foreshore line of Exile Bay and the Parramatta River.

Context

The precinct is surrounded by low to medium density residential development. To the east lies a medium density housing development known as 'Pelican Quays'/ 'Pelican Point' which was built in the last 10-20 years. Another medium density development known as 'Phillips Landing' is located to the south of the precinct.

The Massey Park Golf Course is located along the northern boundary of the site and is publicly owned. The surrounding streets comprise tree lined avenues with on street parking reinforcing a residential streetscape character.

Current use, built form and character

The precinct is located on a small peninsula of land between Exile Bay and Canada Bay. The shape of the peninsula, combined with the generally flat topography of the surrounding area and 2 to 3 storey buildings along the foreshore, creates a landscape that has a strong horizontal dominance, formed by the water, the land and the tree line.

The site currently operates as a coffee manufacturing facility. The main industrial building is a multi-storey brick and concrete structure that is orientated north-south and is sited in the western part of the site and contains an industrial building, known as the 'Robert Timms Factory' or 'Bushell's Factory' featuring a prominent 78m high chimney stack. A two storey administration building is located to the eastern side of the factory and a covered walkway joins the two structures. A security booth/ gatehouse and boom gates are located at the Burwood Road frontage.

Vehicular access to the precinct is provided off Burwood Road, which extends along the centre of the peninsula to Bayview Park. A small section of the north west corner of the precinct connects to Zoeller Street.

K19.2 Desired Future Character

Vision statement

"The precinct will be a fine-grain, river-orientated village bringing broad public benefit to locals including new parklands, community uses, daily needs retail and diversity of housing choice where the retention of the existing Roasting Hall as a heritage item creates a unique sense of place and enhances local identity."

General objectives

O1 To create a river-orientated 'urban village' providing jobs and diversity of housing.

O2 To celebrate the natural landscape assets and the precinct's history through view corridors, unique public spaces and physical connections.

O3 To reconnect the precinct to the water by providing a new public foreshore and plaza for the benefit of the wider community and ensuring the access to the site is inviting to the public.

O4 To maintain the precinct's connection to the past by protecting and adaptively reusing the former 'Bushell's Factory' Central Roasting Hall for urban services and retail/commercial uses.

O5 To sensitively transition to the surrounding residential built form and support the existing neighbourhood & landscaped character.

O6 To focus on people and improve the overall 'quality of life' by building strong social and cultural networks, connecting people to place and creating a sense of community.

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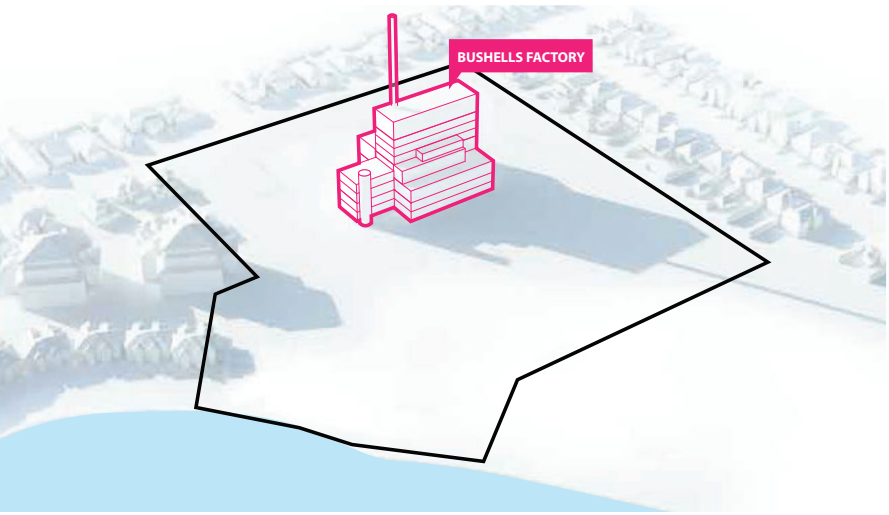
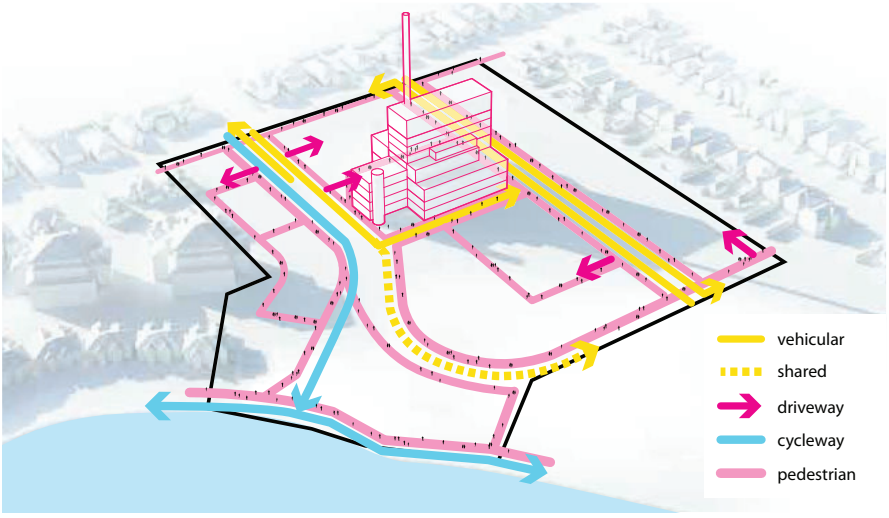
K19.3 Urban Design Principles



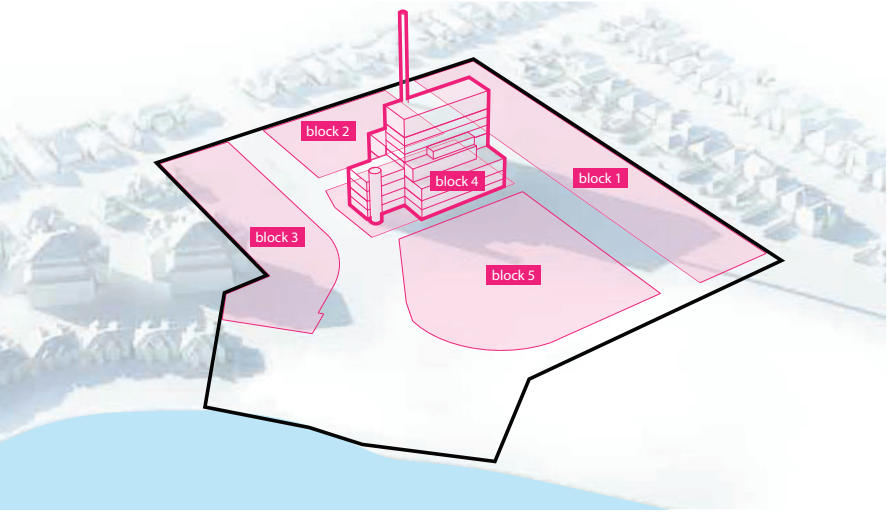
Character Retention

The existing Former 'Bushell's Factory' Central Roasting Hall and associated chimney stack will remain the dominant built form features on the site, ensuring the value of the factory as a recognisable landmark.



Movement & Access

An internal hierarchy of movement networks increases the overall permeability & accessibility within the site and to other local networks. Free flowing public movement along the foreshore (east west) and north south avenue completes the Green Loop. Pedestrian networks are the key focus.



Block Structure

The block structure and internal movement network orientates towards key landmarks and public places allowing for enhanced permeability and uninterrupted view corridors to key landmarks and spaces.

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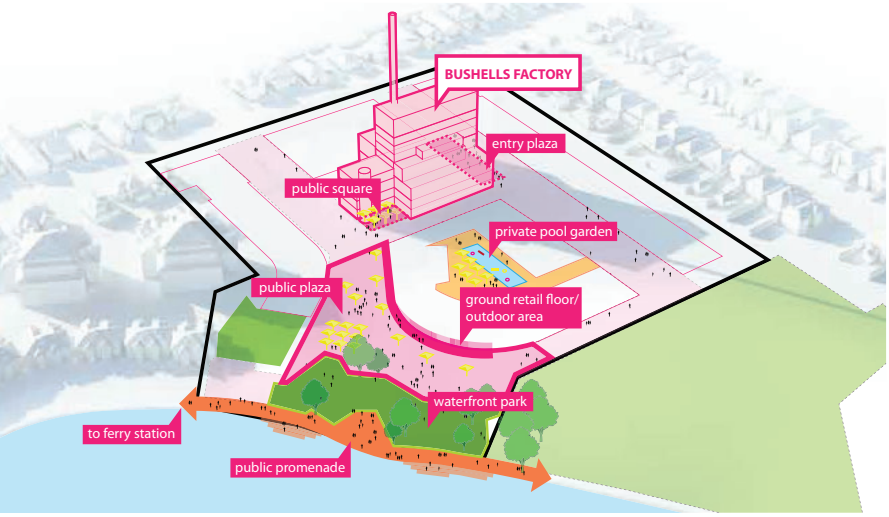
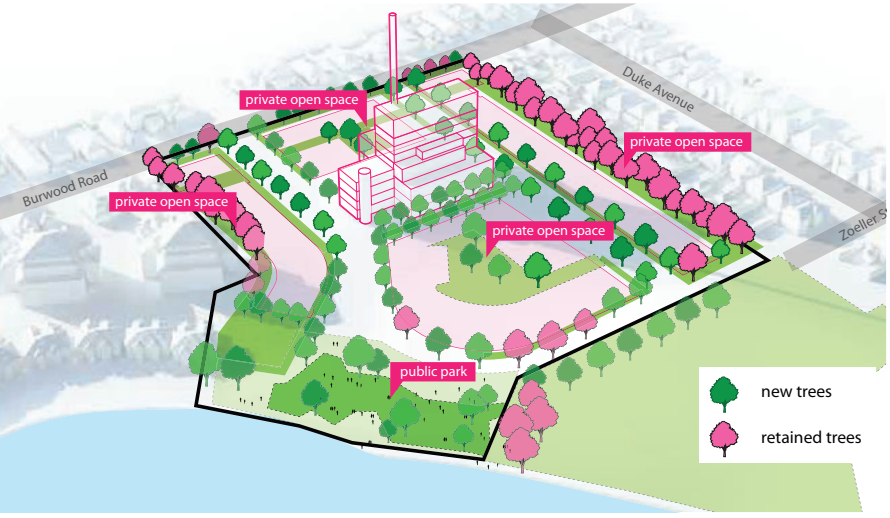


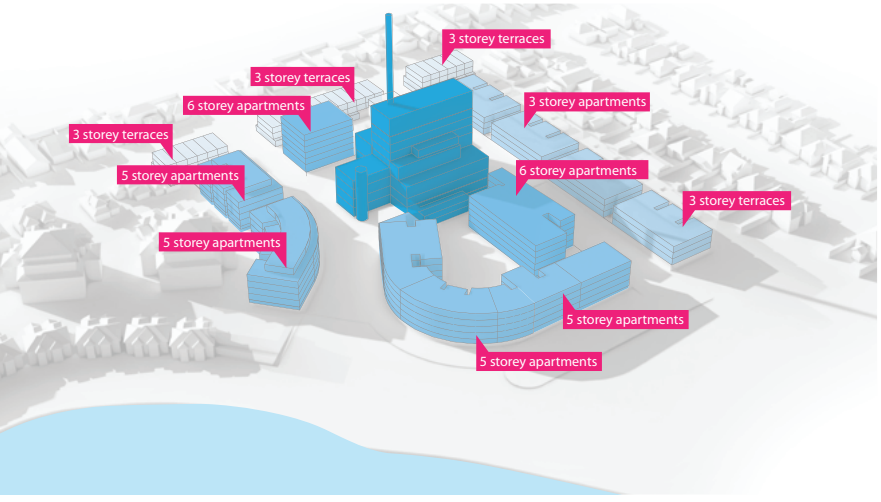
Public Domain

An abundance of flexible public space is a key public benefit, aiming to create a series of destinations, complementing the existing natural and urban context. Highly activated spaces create various stages for social and cultural connectedness, wellbeing and community relationships.



Greenery & Tree Retention

The adjacent diagram illustrates the concept of greening the precinct through public parks, planting new trees along pedestrian networks as well as retaining significant mature trees which contribute to the overall amenity, local character and identity of the area.



Scale & Height Transition

Built form is appropriately scaled based on function, orientation and views to amenity and public spaces. Heights sensitively transition to the surrounds, maintaining privacy and amenity for neighbours with lower building heights to the precinct's periphery.

K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.4 Movement and Access Network

Objectives

O7 To provide a new, fine grain and publicly accessible access network that effectively connects the Precinct to its surrounds.

O8 To provide a hierarchy of new local streets consistent with their function.

O9 To maximise permeability and public access through the Precinct and to be visually and physically integrated into the surrounding street network.

O10 To strongly promote active transport (walking and cycling) and the use of public transport.

O11 To encourage activity in public (and publicly accessible) open spaces, with a particular focus on the Exile Bay foreshore.

O12 To ensure the safety of pedestrians, cyclists and users of the foreshore walk and open space.

O13 To enable access and a safe environment for all including children, disabled people and the elderly.

Access Network

Controls	
C1.	New streets, through-site links, and cycle and pedestrian routes are to be constructed to the satisfaction of Council in accordance with Figure K19-5 Public Domain Framework and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections.
C2.	Any vehicle, pedestrian and cycle network that varies from that shown in Figure K19-5 Public Domain Framework, and Street Sections is to demonstrate an improved public benefit and design excellence having regard to: • The objectives, character statement and principles of this DCP; • The degree to which any alterations may enhance or detract from public enjoyment of the public benefits associated with the development.
C3.	The access point located on Burwood Road opposite Marceau Drive is to be the main vehicular access to and from the Precinct and provide access to commercial and retail uses and the new public open space. The road network shall focus site traffic to that intersection.
C4.	An additional vehicular access point is to provide access between Burwood Road and Zoeller Street along a new north-south street. Vehicle access should in the first instance be provided from Burwood Road. Vehicle access from Zoeller Street will require the street to be extended to the east. This access should only be provided as an alternative or secondary access to the main access off Burwood Road.
C5.	Ensure permanent public access through the site and linkage to the new public open space, along publicly accessible private roads, is provided through an easement or similar.
C6.	A Traffic Operations Plan is to be submitted with a development application and implemented prior to issue of the occupation certificate. The plan is to include measures to: • calm traffic and implement a maximum speed of no more than 40km per hour for all streets and lanes; • prioritise pedestrian and cycle access across the site with kerb extensions, continuous raised footpath thresholds, tight corner radii and street trees; • discourage inappropriate through traffic; • manage potential vehicle and pedestrian conflict at the interface of open spaces and streets; and • manage access to commercial, retail and industrial uses including access by heavy vehicles for the servicing of permissible uses.

C7.	Where roads or lanes are closed to vehicular access, connections to public open space or between public roads are to provide: • public access whether or not the land is public; and • are to be designed so that the access is clearly public and encourages pedestrian and cycle traffic to and from the open space and the adjoining public roads.

Pedestrians and Cyclists

Controls	
C8.	Pedestrian and bicycle access is to be provided as shown in the Movement & Access Design Principle and to the satisfaction of Council.
C9.	Ensure the continuation of the foreshore walk through the public open space provides a wide, direct, accessible and legible route between Bayview Park and the Massey Park Golf Club.
C10.	Support the integration of a direct and well located bicycle connection to the North Burwood Metro station.
C11.	Pedestrian and bicycle access throughout the Precinct, including connections from roads to the public open space, is to be designed to: • be direct and accessible to all; • be easily identified by users and have a public character; • include signage advising of the publicly-accessible status of the link and the places to which it connects; • be clearly distinguished from vehicle access unless it is a purpose built shareway; • allow visibility along the length of the link to the public domain at each end; • include materials and finishes (paving materials, tree planting, furniture etc.) integrated with adjoining streets and public spaces and be graffiti and vandalism resistant; • include landscaping to assist in guiding people along the link while enabling long sightlines; • be well lit to safety standards (AS1158 pedestrian lighting) with use of metal halide (white) lighting, giving regard to highlighting any unique architectural or public art features; and • be open to the sky along the entire length and accessible 24 hours a day.

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K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.5 Public Spaces & Public Access

Objectives

O14 To provide high quality public space and a network of publicly accessible spaces and connections.

O15 To capitalise on the precinct's unique setting and location by creating strong visual and physical connections to heritage items and the water.

O16 To reconnect the precinct to Exile Bay and provide a highly accessible public park on the foreshore for the benefit of local residents.

O17 To cater for a range of passive recreational activities within the public spaces.

O18 To create memorable places with high quality public domain design that the wider community uses and enjoys.

Public Domain Network

Controls	
C12.	A highly permeable and high quality public domain network including various open spaces, foreshore plaza, and new internal streets and pedestrian links, is delivered as per Figure K19-5.
C13.	A minimum of 9,700m^2 of publicly accessible, privately owned public domain is to be provided within the Precinct and is to be generally consistent with that shown in Figure K19-4.
C14.	The layout of public open space and publicly accessible, privately owned public domain is to be generally consistent with that shown in Figure K19-5. Alterations to that layout will be considered where they demonstrate an improved public benefit and design excellence having regard to: • The objectives, character statement and principles of this DCP; • The degree to which any alterations may enhance or detract from public enjoyment of the public benefits associated with the development.
C15.	Maximise direct sunlight to streets with active frontages between 9am and 3pm on 21 June.
C16.	50% of public and publicly accessible open space is to receive at least four hours direct sunlight between 9am and 3pm on 21 June.

Foreshore Area

Controls	
C17.	The foreshore public open space is to be designed to provide for a range of passive activities.
C18.	A minimum of 5,900m^2 of public open space as shown in Figure K19-4 is to be dedicated to Council and is to: • create a new and vital public space on the waterfront that may include i.e. seating and furniture, opportunity for markets and events, provision of public BBQ's & shelter, a community garden, heritage interpretation and public art; • be located and designed so that it is clearly identifiable as public space and encourages public use; • reflect and respond to the heritage landscape character; • have clearly defined pedestrian entrances and paths, appropriate seating, and zones for activities that are clearly defined and encourage use; • maximise access for people with mobility difficulties, through design and location of paths and entrances; • the public open space is to primarily feature soft landscaping except for civic spaces, pathways, and small areas ancillary to active frontages; • minimise area required for stormwater and overland flow paths; and • provide legible pedestrian and cycle connections along the forshore and connecting to Burwood Road and Zoeller Street.
C19.	The existing 3m high concrete sea wall that separates the precinct from the water is to be removed and potentially access provided to the water (via terraced steps).

Figure K19-4 Public Spaces diagram

K19.6 Landscape Design

Objectives

O19 To control climatic impacts on buildings and outdoor spaces, maximise provision of shade and reduce urban heat island effect.

O20 To improve the local micro-climate, increase native fauna and flora habitats and promote biodiversity.

O21 To promote high quality landscape design as an integral component of the overall design of new development, softening the appearance of buildings.

O22 To allow adequate provision on site for infiltration of stormwater.

Deep Soil

Controls	
C20.	Deep soil zones are to be provided as identified in Figure K19-5 Public Domain Framework plan.
C21.	Buildings and structures including basements are not to encroach into identified deep soil zones.
C22.	Non-permeable hard surfaces (i.e. concrete slabs) are not permitted in identified deep soil zones.

Landscape Screening

Controls	
C23.	Development is to provide sufficient setbacks with deep soil zones along the boundaries (for more detail see *Section K19.X Setbacks & Building Separation*) in order to create adequate landscape screening to the surrounding residential areas.
C24.	Existing trees along the western boundary of the site are to be retained in a healthy condition to provide screening towards adjoining low density housing along Duke Avenue.
C25.	Existing vegetation along the eastern boundary is to be retained and new screening landscape is to be provided towards adjoining existing residential development.
C26.	Vegetation in the landscaped setback to Burwood Road is to be provided to soften the appearance of new built form.

Native Species Selection

Controls	
C27.	Native species must comprise at least 75% of the plant schedule, incorporating a mix of locally indigenous trees, shrubs and groundcover appropriate to local climatic conditions.
C28.	Where exotic species are proposed to provide a change of form, texture and seasonal colour, these must be consistent with the character outlined in section "K19.3 Urban Design Principles".

K19 160 Burwood Rd, Concord (former Bushells Factory)

Tree Canopy Cover

Controls	
C29.	A minimum of 25% of the precinct area is to be covered by tree canopy.
C30.	Generous landscape opportunities exist to achieve the above control including the foreshore park, plaza, street verges, communal open space of apartments, and retention of most existing trees along the western boundary.
C31.	To demonstrate compliance with the above control, a landscape plan is to be submitted as part of any future development application (DA), prepared by a suitably qualified landscape architect and supported by an arborist statement/ report that includes the following: • A site plan showing the entire precinct and identifying the percentage of canopy of all retained trees, and the percentage of canopy achieved by proposed new tree planting (calculated for all tree species at 'established age' of no more than 20 years); and • A detailed plan showing the subject site of the DA including: – all retained trees and their percentage of canopy; – all new trees and their percentage of canopy at 'established age'; and – detail in regard to landscaped setbacks and screening, deep soil zones, protection measures for retained trees, and type of tree species to be planted including information on mature canopy size and height.

Retention of Trees

Controls	
C32.	All trees and vegetation identified in Figure K19-5 Public Domain Framework plan are to be retained, protected and maintained.
C33.	Of particular importance are the mature groves of trees along the eastern and western boundary, which are to be retained and protected, to maintain the existing developed landscape and privacy for the neighbours.
C34.	Retention and ongoing protection of the large Hill's Weeping Fig (Tree 184) and its TPZ (tree protection zone) near the north eastern boundary of the site is a key requirement. This particular tree has been identified as "the best tree on the site" and is considered a significant item that contributes to the landscape of the precinct and the 'Factory in a Garden' setting.

Other/ Miscellaneous

Controls	
C35.	Landscape design highlights architectural features, defines entry points, indicates direction, and frames and filters views from and into the site.
C36.	A golf course fence is to be provided along the Massey Golf Course interface to protect people, vehicles and structures from potential stray golf balls. The fence is to be of high design quality and visually unobstrusive.
C37.	The seawall to Exile Bay is to be restored and waterfront edge landscaping is to be provided.

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Public Domain / Ground Floor Uses

Figure K19-5 Public Domain Framework Plan

K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.7 Diversity of Uses

Objectives

O23 To increase jobs and skills (employment generation) on site through the provision of adaptable retail uses and maker spaces.

O24 To include industries that serve the population related needs of the Canada Bay community (urban support services).

O25 To provide for a diverse mixture of housing types with a scale of built form that responds to existing neighbouring properties.

O26 To ensure an adequate supply of low cost housing in the private market and facilitate the development of affordable housing by social and not-for-profit providers.

Urban Services, Commercial and Retail Uses

Controls	
C38.	The minimum provision of non-residential uses in the Precinct is 10,000m^2 GFA.
C39.	Non-residential uses should be predominantly located within the area zoned B1 Neighbourhood Centre.
C40.	Within the total 10,000m^2 GFA, a minimum of 3,000m^2 GFA is to be provided for 'urban services' (aka light industrial uses).
C41.	Mixed light industry, new economy and creative uses are encouraged and are ideally to be located within the retained Central Roasting Hall and adjoining buildings.
C42.	Social and community uses, such as a childcare centre or community meeting space.
C43.	The maximum size of any supermarket in the Precinct is 1,000m^2 GFA.
C44.	Outdoor dining areas should be provided that overlook the foreshore plaza and public promenade.

Housing Mix & Affordable Housing

Controls	
C45.	Dwelling mix is to be provided in accordance with the Canada Bay Local Environmental Plan 2013.
C46.	A minimum of 10% of all new dwellings are to be provided as affordable housing and dedicated to be dedicated to Council in perpetuity.
C47.	Dwellings dedicated to Affordable Housing are to be of equivalent design quality, diversity and mix as all other dwellings.
C48.	Affordable housing is to be consistent with the requirements of the *City of Canada Bay Affordable Housing Program and Policy.*

K19.8 Maximum Density (FSR)

Objectives

O27 To ensure the height and density of future development is compatible with the surrounding context.

O28 To ensure each stage of the development contributes appropriately to the overall density of the Precinct.

O29 To concentrate development at the centre of the site and away from the sensitive interfaces with surrounding area.

Controls	
C49.	The maximum overall density of the Precinct is not to exceed the maximum FSR shown in the LEP
C50.	Development of each part of the site is not to exceed the maximum floor space ratio shown in Figure K19-6 below.
C51.	Each stage of the development is to provide a table showing both the FSR of the parcel and the overall FSR (to date). The maximum FSR of both the parcel and the Precinct is not to be exceeded. If early stages maximse FSR, later stages may be required to have a lower FSR than shown on Figure K19-6 to ensure the maximum overall FSR is not exceeded.

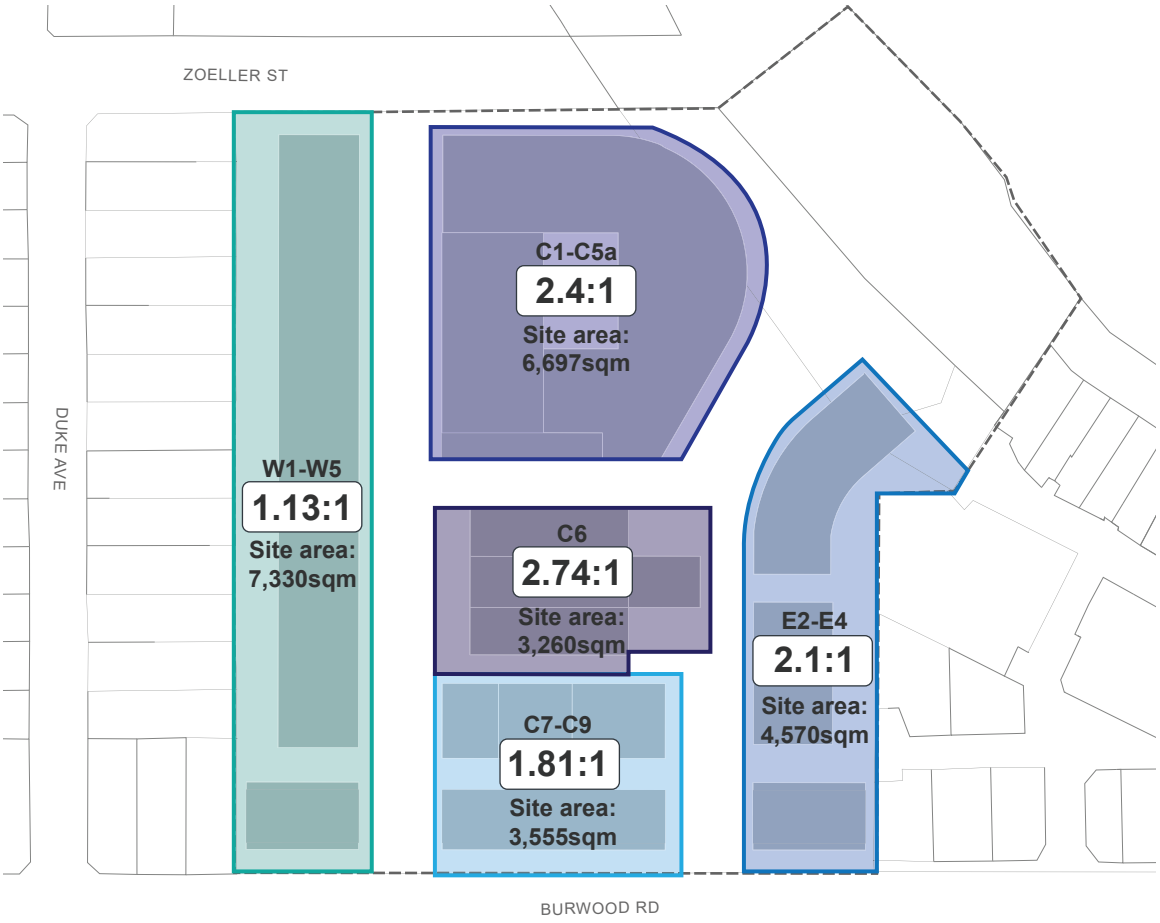

Figure K19-6 Maximum Floor Space Ratio (net FSR) per block

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K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.9 Built Form Envelopes

Objectives

O30 To create building forms that reinforce the future desired character of the area and protect valued character attributes such as views to the foreshore and the Central Roasting Hall.

O31 To facilitate daylight access and ventilation to streets, public places and neighbouring properties.

O32 To define the proportion, scale and visual enclosure of the public domain and provide a level of consistency across the Precinct.

Building Heights

Controls	
C52.	New development is to conform with the maximum heights (in metres) as shown in Figure K19-7 Building Envelope Controls Plan and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections.
C53.	New development is to conform with the maximum number of storeys as shown in Figure K19-7 Building Envelope Controls Plan and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections.
C54.	Minimum floor to floor heights are as follows:

Use	Minimum floor to floor height	Minimum floor to ceiling height
Retail	4.4m	4m
Commercial	3.7m	3.3m
Adaptable	3.7m	3.3m
Residential	3.1m	2.7m
Community	3.7m	3.3m

Height Transition to Adjoining Land

Controls	
C55.	Building heights are to transition (be lower) towards the Precinct's boundaries and adjoining residential uses as identified in Figure K19-7 Building Envelope Controls Plan and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections.

Heritage Integration

Controls	
C56.	New development is to minimise the impact on the visual curtilage and setting of the Central Roasting Hall.
C57.	New development near the Roasting Hall is to provide visual separation to preserve the iconic nature of the structure.

Solar Access/ Overshadowing

Controls	
C58.	Overshadowing of neighbouring buildings is minimised while direct sunlight to the public domain and publicly accessible spaces is maximised.
C59.	Direct solar access (sunshine) to windows of principal living areas and to the principal area of open space of existing dwellings, particularly along the eastern and western boundary, should not be reduced to less than 3 hours between 9.00am and 3.00pm on 21 June (mid winter).
C60.	50% of publicly accessible open space is to receive at least four hours direct sunlight between 9am and 3pm on 21 June.
C61.	Shade from strong sun is available between September and March, for at least 20% of the area used for passive recreation, and protection from strong winds is provided to any space that is open to winds from the south.

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Building Envelope Controls Plan

Figure K19-7 Building Envelope Controls Plan

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K19 160 Burwood Rd, Concord (former Bushells Factory)

Building Footprints/ Envelopes

Controls	
C62.	The maximum building/ floor plate depth of all residential apartment development is 18m. The maximum depth of medium density typologies (terraces) is 15m.
C63.	Along the western boundary of the site the maximum length of any building is 35m and buildings are to be broken into a minimum of five buildings with a building 'break' that is a minimum of 6.5m wide.
C64.	The maximum length of any building over 3 storeys high is 50m with a building 'break' of 7.5m wide between buildings. This control does not apply to the perimeter block building on the north east facing the golf course.

Building Façades, Entrances and Articulation

Controls	
C65.	Building façades are to be articulated into smaller elements at a scale or grain that reflects: • different uses and/or components of the building; • the location of the building relative to pedestrian or public spaces; • building entries; and • the ground floor, lower floors, top floor and roof.
C66.	Underground parking areas are to protrude no more than 1m above the level of the footpath or adjacent public domain and are to: • be integrated into the landscape and building design; • not have car ventilation grills on the street frontage unless screened by landscaping in a garden bed with a minimum plan depth of 1m; and • have any ground floor car parking areas sleeved with uses fronting the street.
C67.	Ground floor dwelling units facing the street and public domain are to have individual entries from the street.
C68.	Entrances to dwellings and or associated transitional spaces are to be designed to encourage personalisation of the space.
C69.	Individual dwelling layouts are to be planned and located to provide passive surveillance of the street and public open space.

Setbacks

Controls	
C70.	New development must set back as identified in Figure K19-7 Building Envelope Controls Plan and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections.
C71.	Setback areas are to be deep soil where identified in Figure K19-7 Building Envelope Controls Plan. Basements are not permitted to encroach into deep soil zones.
C72.	'Undesirable' elements such as vents, electric substations, or plant and equipment spaces are not permissible within the setback area. Where unavoidable they must be screened from view by quality landscape design.

Building Diversity and Architectural Character

Controls	
C73.	To achieve diversity and interest in the architectural character of the Precinct: • architectural expression of a development block should be varied and present as a group of buildings rather than one building designed by a single designer or company; • at least two architectural firms should be used within each block; and • buildings designed by the same architectural company should not be adjacent or opposite to each other.

Building Envelope Controls Sections

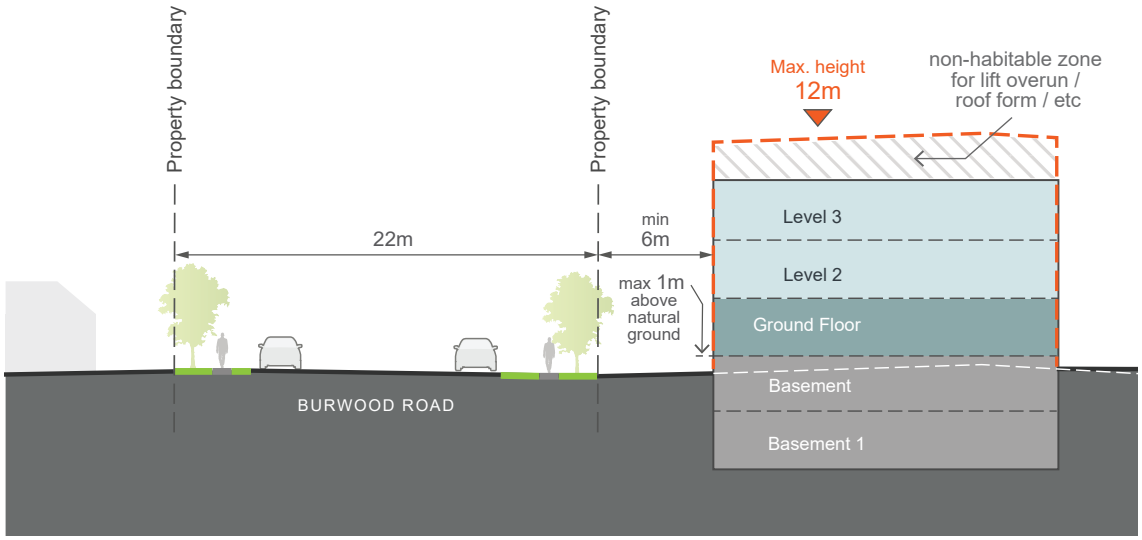

Figure K19-8 Section 1: Burwood Road and 3 storey terrace interface

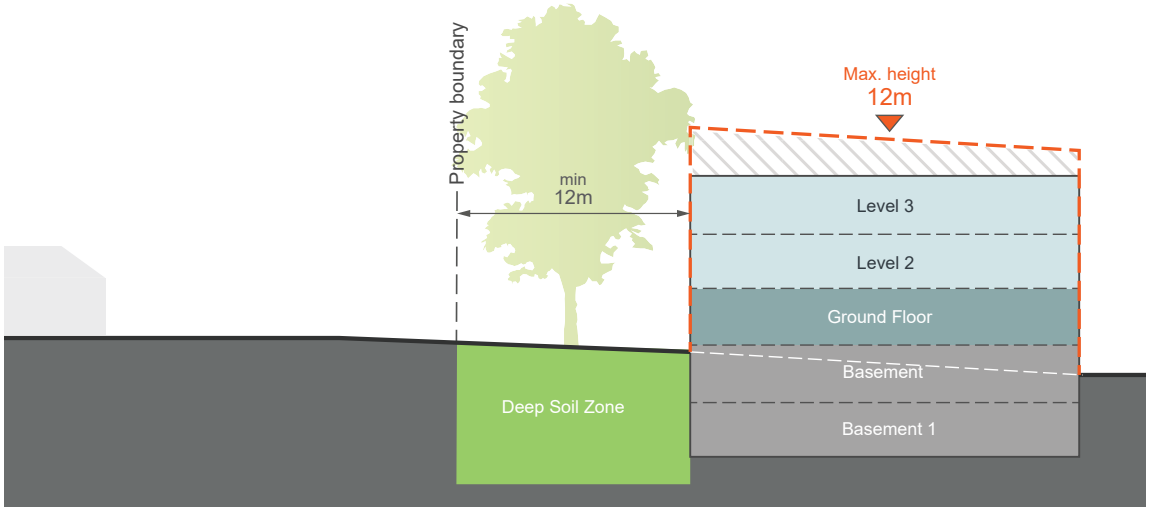

Figure K19-9 Section 2: Western boundary and 3 storey development interface

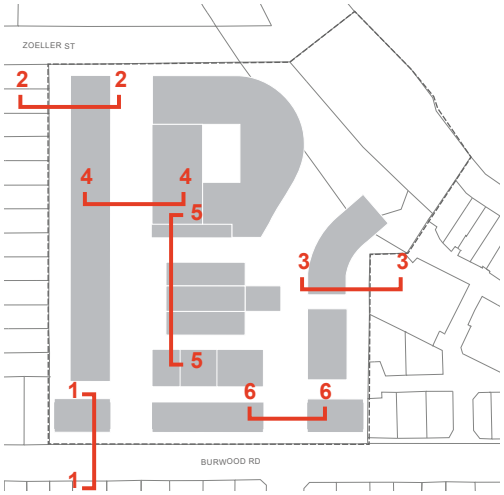

Figure K19-10 Section key

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K19 160 Burwood Rd, Concord (former Bushells Factory)

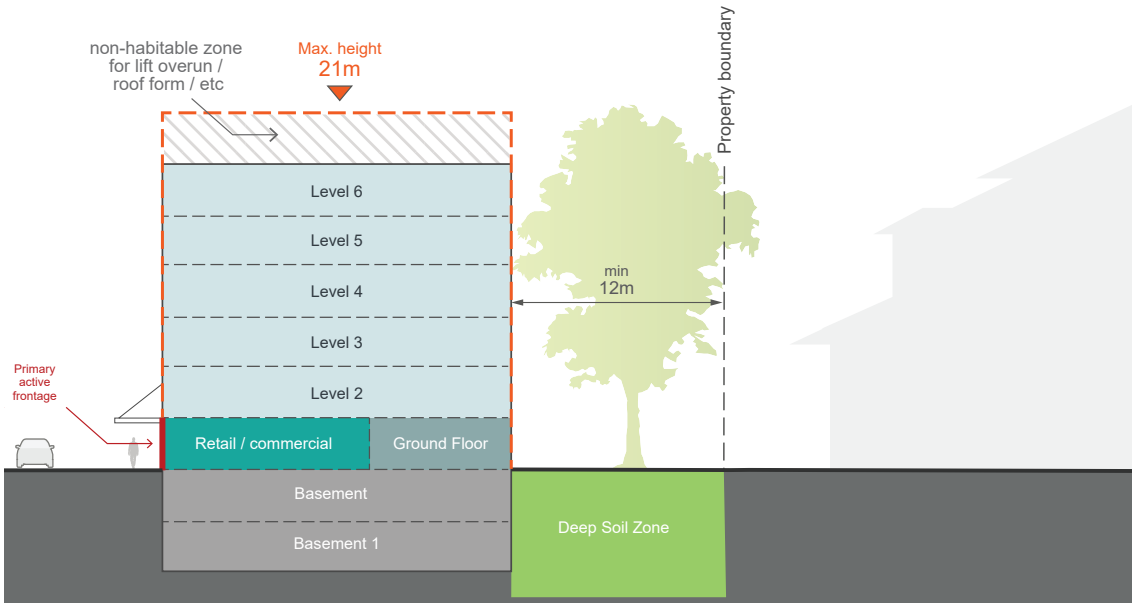

Figure K19-11 Section 3: Eastern boundary and 6 storey development interface

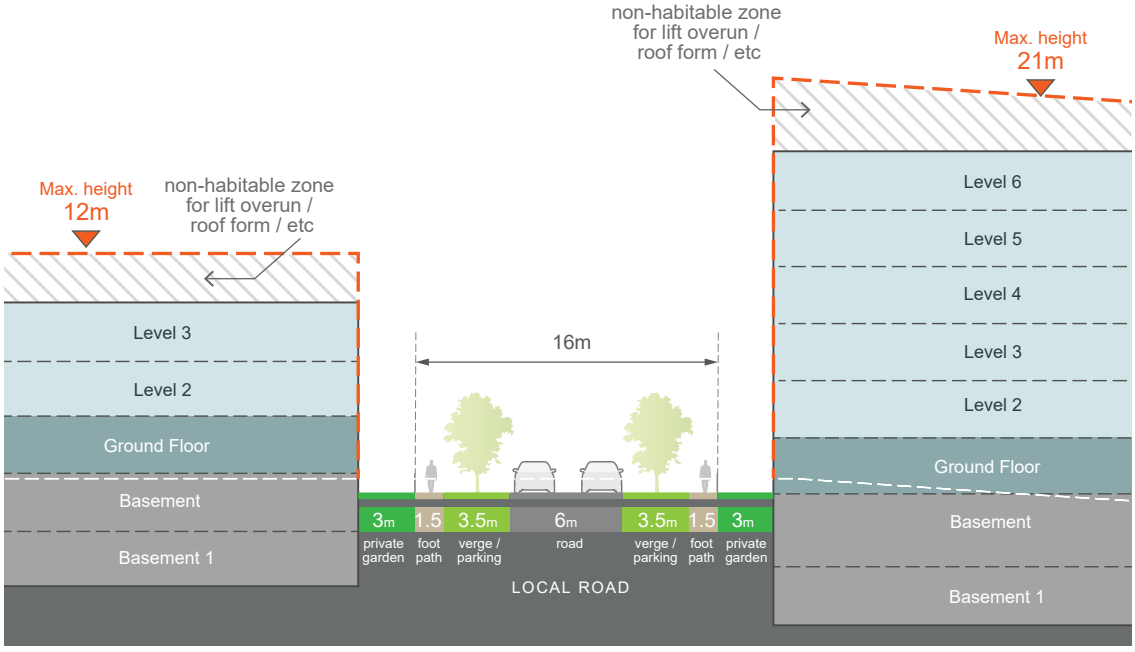

Figure K19-12 Section 4: Local street section 1

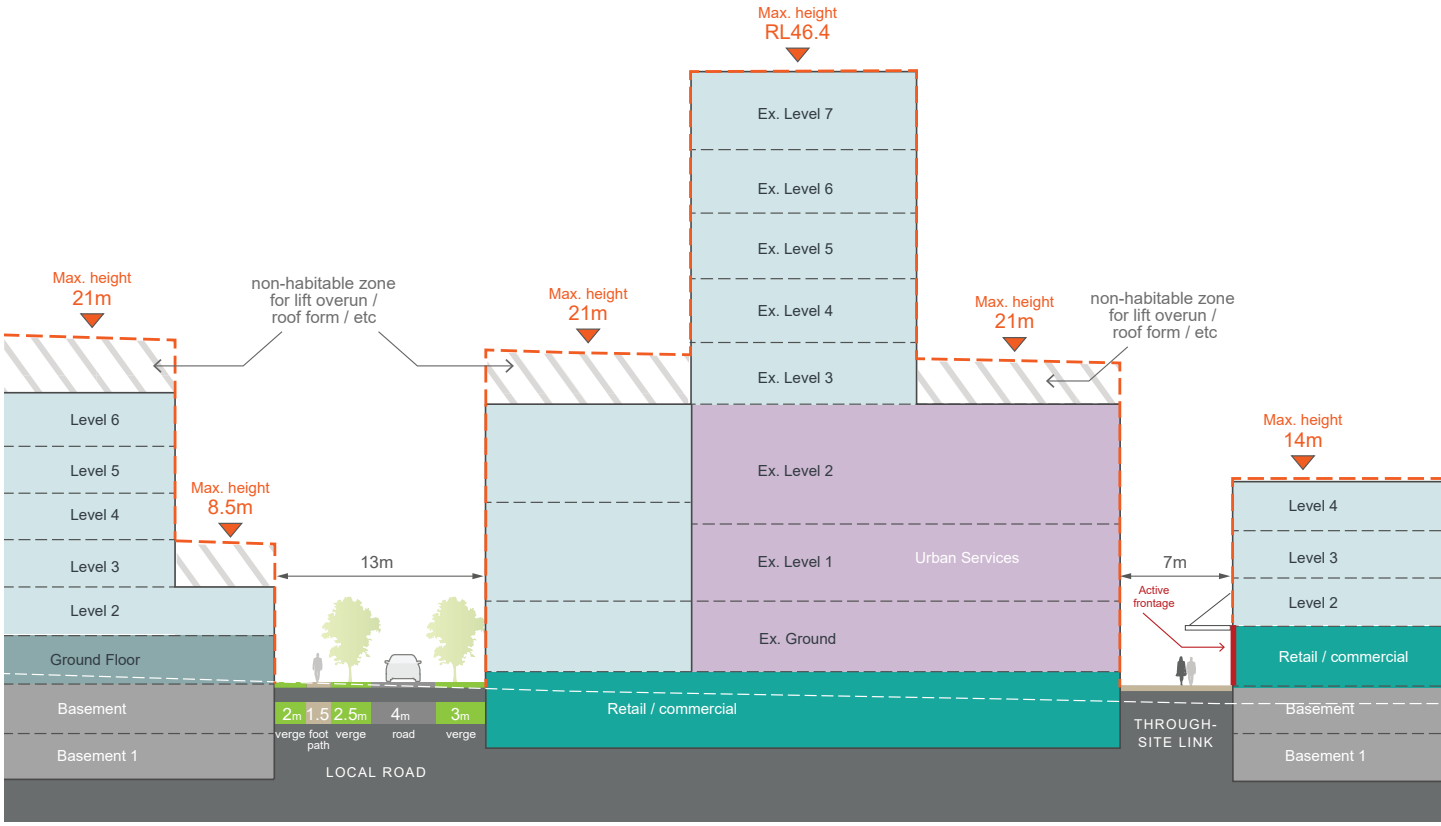

Figure K19-13 Section 5: Looking east towards 6 storey development, existing Central Roasting Hall and 4 storey development

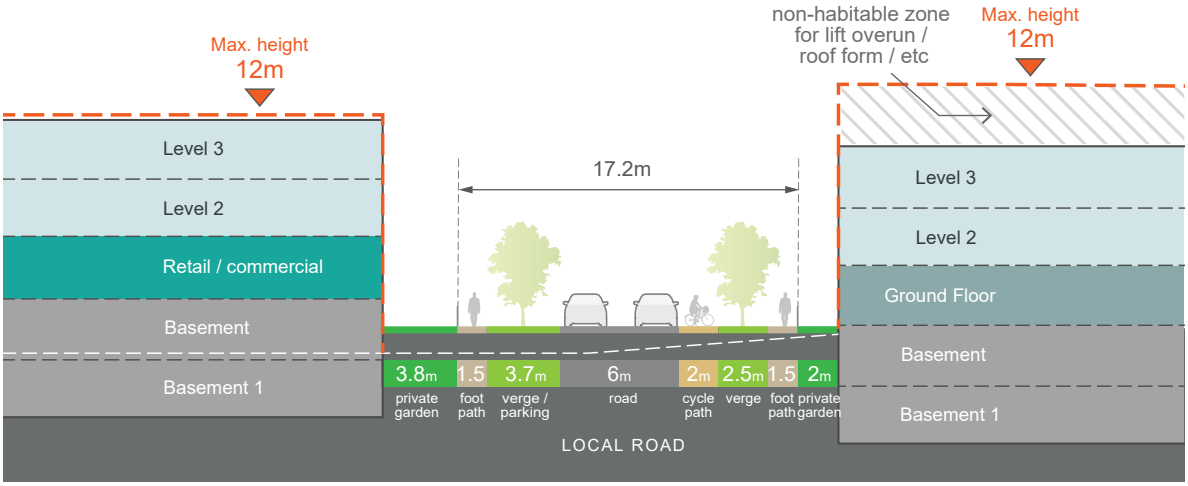

Figure K19-14 Section 6: Local street section 2

K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.10 Public-Private Interfaces

Objectives

O33 To provide a safe, interesting and vibrant environment that encourages pedestrian activity and supports the economic success of the Precinct.

O34 To maximise opportunities for passive surveillance of the public domain.

O35 To enhance the commercial viability of the area and compliment existing retail, commercial, entertainment and community uses.

Active Frontages on the Ground Floor

Controls	
C74.	Ground level active uses must be provided along 'Active frontages' as identified in Figure K19-5.
C75.	Along active frontages: • the finished ground floor level is to match the footpath level; where this is not possible, the ground floor level is a maximum of 0.35m above or below the footpath; • active uses/ tenancies must be a minimum of 10m deep; • continuous awnings must be provided to shelter pedestrians from weather conditions; and • the design guidance shown in Figure K19-15 must be applied.
C76.	Residential entries and foyers are permitted along active frontages, however, they are not to compromise the commercial/ retail activity along the street, by keeping their frontage width to a minimum. The maximum width for residential entries/ foyers is 6m.
C77.	Vehicle access points are generally not permitted along active frontages. Where no alternative access point can be provided, their width must be kept to a minimum.

'Interactive' Frontages on the Ground Floor

Controls	
C78.	'Interactive' frontages are all ground floor frontages that address the public domain or publicly accessible spaces and are not designated as 'active frontages' in Figure K19-5.
C79.	Interactive frontages must: • display a high level of architectural quality and detail; • minimise vehicular access points; • avoid blank facades; • avoid visually dominant building services where possible. Co locate service cabinets to loading, waste or parkings areas where possible to avoid impact on the public realm; • maximise the number of doors and windows and have no more than 5m along the ground floor without a door or window; and • place a particular focus on 'human scale' and pedestrian views i.e. through the use of detailed design, insets and projections that create interest and diversity.

Residential Uses on the Ground Floor

Controls	
C80.	All ground floor residential units must have individual unit access directly off a street or laneway to improve activity levels and surveillance.
C81.	Where possible, ground floor residential units are elevated by up to 1.2m with the exception of accessible units where level access off the street/ laneway/ footpath is preferred.
C82.	Residential uses on the ground floor should have a minimum floor to floor height of 3.6m to allow for future change of use, for example home based businesses.

Figure K19-15 Design guidance for active frontages

Safety & Surveillance

Controls	
C83.	New development is to address and define the public domain and publicly accessible spaces through entrances, lobbies, windows and balconies that overlook public spaces, maximising opportunities for passive surveillance.
C84.	The building design is to maximise opportunities for casual surveillance of the public domain and any semi-public or common open space, particularly adjacent to public open space.
C85.	Ground floor dwellings adjacent to public open space are to have an “address” or “front door” that is visible and directly accessible from the pedestrian paths within the public open space.
C86.	Balconies should be designed to balance visual privacy for the resident and opportunities to overlook the public domain. Design treatment may include a combination of solid and transparent balustrade materials.
C87.	A high level of surveillance is required from upper levels of buildings adjacent to public open space.
C88.	The detailed design of the external areas of the ground floor is to minimise blind-corners, recesses and other areas which have the potential for concealment.

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K19.11 Massing and Articulation

Objectives

O36 To ensure buildings and their individual elements are appropriately scaled to define the built form and respond to the surrounding character.

Controls	
C89.	The built form layout is to be generally consistent with that shown in Figure K19-7 Building Envelope Controls Plan and Figure K19-8 to Figure K19-14 Building Envelope Controls Sections. Alterations to the layout will be considered where they demonstrate an improved public benefit and design excellence having regard to: • the objectives, character statement and principles of this DCP; • the degree to which any alterations may enhance or detract from public enjoyment of the public benefits associated with the development; and • the impact on neighbouring properties.
C90.	All buildings, with the exception of terrace development, are to be clearly articulated i.e. base, middle and top.
C91.	The maximum length of straight wall without articulation such as a balcony, recess, projection or return is 15m.
C92.	Roof plant, lift overruns, vents, carpark entries and other service related elements are to be located within the maximum building height, visually unobtrusive, integrated into the built form and complement the architecture of the building.
C93.	Ensure buildings exhibit high design quality, minimise overshadowing of neighbouring buildings, and public and private open spaces.

K19.12 Appearance

Objectives

O37 To add visual quality and interest to new buildings, with a focus on breaking up massing of higher density forms when viewed from the public domain, publicly accessible places and neighbouring properties.

Controls	
C94.	All development along Burwood Road, Zoeller Street and the new public open space are to be of the highest architectural quality and reflect the prominence of the streets and spaces that they face.
C95.	The composition of facades balances solid and void elements and does not display large areas of a single material, including glass.
C96.	Visually prominent elements such as balconies, overhangs, awnings, and roof tops are to be of high design quality.
C97.	Facades are articulated using techniques such as projections, recesses, eave overhangs and deep window reveals. Elements are not to protrude into the front setback area. In general, vertical articulation should be more 'pronounced' than horizontal articulation.
C98.	Buildings on corners address both streets and architectural elements are composed so that they 'turn the corner'.

K19.13 Heritage Integration

Objectives

O38 To retain and integrate remnants of the precinct's history and structures of heritage value and connection to the past.

O39 To retain the 'Bushells Factory' Central Roasting Hall, being one of the few remaining industrial structures on the Sydney waterfront.

O40 To protect the Central Roasting Hall's prominence as an iconic visual landmark (including 'B' sign and chimney) that can be seen from the water and surrounding suburbs.

New Development

Controls	
C99.	Any future development is to embrace the existing industrial character of the Precinct. Particular consideration should be given to the following: • built form shape and scale; • roof form; • architectural detail (e.g. window design inspired by the prominent translucent wall of the Central Roasting Hall); and • appropriate colours and materials such as natural red/ brown brick.
C100.	Surrounding new development is of appropriate scale and provides adequate separation of the historic structure(s). The minimum setbacks are identified in Figure K19-7 Building Envelope Controls.
C101.	Buildings are to be built to the building setback for at least 65% of the length of each street frontage.

Adaptive Reuse of the Roasting Hall

Controls	
C102.	The arrangement of new built form, open space and roads is to enable the Central Roasting Hall to retain its landmark quality and 'factory in the garden' setting.
C103.	The Central Roasting Hall is to be retained and protected through the following: • listed as an item of environmental heritage in the Canada Bay Local Environmental Plan 2013, including the Central Roasting Hall, chimney stack, 'B' sign and other characteristics such as the landscaped setting; • the chimney stack is to be retained, maintained and where required restored; • the 'B' sign is to be retained, maintained and where required restored; • original structural elements and the translucent facade of the Roasting Hall are to be retained, maintained and where required restored; and • a future Detailed Fabric Analysis undertaken by a suitably qualified heritage consultant is required with any development application to confirm the initial assessment and to ensure no significant fabric of potential heritage value will be lost.
C104.	The Central Roasting Hall is to be adaptively reused. Appropriate uses include the following: • community facilities and multipurpose cultural spaces; • spaces for temporary activation such as markets, events and concerts; • retail/ commercial and urban services uses; • food & drink premises, e.g. gourmet providores stores, wine/ tapas bars, market style food outlets; • short term accommodation; and • apartments.

K19 160 Burwood Rd, Concord (former Bushells Factory)

K19.14 Medium Density Housing (Terraces)

Objectives

O41 To ensure high quality design of medium density residential typologies with a particular focus on their contribution to the local character.

O42 To transition to lower density residential areas, in particular along the Burwood Road interface.

Controls	
C105.	The maximum building depth is 14m unless it can be demonstrated that all habitable rooms receive adequate ventilation and solar access, e.g. through the use of a courtyard design.
C106.	The minimum overall landscaped area for terraces is 35% of the lot area. The minimum dimension of landscaped area is 1.5m. A minimum of 50% of the overall landscaped area is to be deep soil.
C107.	A minimum of 35% of the front setback is to be landscaped area. A minimum of 50% of the landscaped area in the front setback is to be deep soil.
C108.	The minimum area of private open space (POS) is linked to the number of bedrooms as follows: • 15m² for 1 bedroom dwellings • 25m² for 2 bedroom dwellings • 30m² for 3+ bedroom dwellings
C109.	Master bedrooms have a minimum area of 10m² and other bedrooms 9m².
C110.	Driveways of front-loaded terraces are a maximum width of 3.5m.
C111.	Where basement parking is provided, the following applies: • basement car parking is not to protrude more than 1m above finished ground level except at the carpark entry; • carpark entries are to be set back behind the building line; • the first 4.5 metres of the carpark entry/ driveway measured from the street boundary is to be at grade; and • carpark entries are a maximum 2.7m high and 3.5m wide.

K19.15 Sustainability & Performance

Objectives

O43 To celebrate the ecological values of the site and improve the ecology of the waterfront.

O44 To reduce the embodied energy in new development through the retention and adaptive reuse of existing structures.

O45 To achieve Australian leading practice in design, construction and operation to deliver on sustainability outcomes, targeting a net positive ecological impact.

Controls	
C112.	The development is to achieve beyond the baseline compliance requirements set by BASIX through the following key interventions: • efficient appliances and improved thermal design; • solar photovoltaic and battery ready facilities; • recycled water infrastructure; • green facade treatment for cooler dwellings; and • best practice parking measures and access to car share facilities.
C113.	All new buildings are to implement the technology (or similar) of the 'Modelled Scenario' identified in Figure K19-16 and achieve the impact performance identified in Figure K19-17.

Technology	Benchmark	Modelled scenario
Hot water system	Centralised gas	Centralised gas
Thermal Design (NatHERS)	5-star average	8-star average (delivered through design & green façade)
Space heating and cooling	2-Star A/C	5-Star A/C
Lighting	Halogen, T8 & CFL	Efficient (LED)
Appliances	Dishwasher 2.5-star Energy, 2.5-star Water Dryer 1.5-star Energy Clothes washer (not installed) Fridge (not installed)	Dishwasher 4-star Energy, 5-star Water Dryer Heat Pump Clothes Dryer Clothes washer 4.5-star Energy, 5-star Water Fridge 5-star Energy
Solar PV	None	300 kW* (0.5 kW per multi unit dwelling 2 kW per townhouse)
Water Fixtures & fittings	Toilet – 4-star Showerhead – 3+ Star Kitchen Taps – 5-star Other Taps – 5-star	Toilet – 4-star Showerhead – 3+ Star Kitchen Taps – 5-star Other Taps – 5-star
Water reuse	None	Recycled water for irrigation, toilet and laundry
Car parking rates	Affordable – 1 space 1 bed – 1 space 2 bed – 1.5 space 3 bed – 2 space 1 visitor per 3 apartments	Affordable – 0 space 1 bed – 0 space 2 bed – 1 space 3 bed – 1.5 space 1 visitor per 5 apartments Unbundled parking Provision of car share spaces

Figure K19-16 Technological assumptions for scenarios (Kinesis, Feb 2019)

	Impact of interventions
Greenhouse gas emissions	▼34%
Water consumption	▼38%
Peak electricity	▼50%
Solar PV contribution	20%
Recycled/rain water contribution	30%
BASIX Energy score (estimated)	53
BASIX Water score (estimated)	66
Annual household cost savings	$7,200

Figure K19-17 Impact of interventions table (Kinesis, Feb 2019)