

Planning Policy Manual – Part 2

**Planning Policies and Design Guidelines for Normalised
Redevelopment Areas**

Section 2.41
Elizabeth Quay - Area 41
Barrack Square



Version #	Decision Reference	Synopsis
1	31 August 2021	Adopted



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1.0 INTRODUCTION

1.1 Application

These guidelines apply to land bound by Barrack Street and The Esplanade to the north, Riverside Drive to the east, Swan River to the south and Lot 10 to the west, as shown in Figure 1. This area is within Precinct: Barrack Square as defined in the City of Perth Local Planning Scheme No. 26 (Normalised Redevelopment Areas)(herein called ‘the Scheme’).

Figure1: Barrack Square Precinct



The Design Guidelines set out the design objectives for buildings and other development standards for land within Elizabeth Quay that must be achieved and a related set of performance standards that satisfy the stated objective.

Design Intent

- A statement outlining the design philosophy for each Objective.

Objectives

- Describes the main goal which must be achieved. It is mandatory to meet the Objective.

Acceptable Development Criteria

- Performance standards identify design criteria which will satisfy the specific Objective. Compliance with all of the criteria will, through whatever method, achieve the Objective. However, individual criteria are not mandatory and alternative solutions for complying with the Objective may be considered.

1.2 Relationship to Planning Scheme and Planning Policies

These Design Guidelines are intended to supplement the provisions of the Scheme and should be read in conjunction with the Scheme and other Planning Policies.



The Deemed Provisions set out in the *Planning and Development (Local Planning Schemes) Regulations 2015* also form part of the Scheme Text.

The Scheme identifies Preferred, Contemplated and Prohibited uses for Precinct 40: Barrack Square and stipulates maximum plot ratio. In determining any application for development approval, the local government will have regard to these Design Guidelines, the Scheme and other Planning Policies.

1.3 Vision

The vision of Elizabeth Quay Project is to transform the relationship between the city and the river and enhance the identity of central Perth. Elizabeth Quay will be a highly interactive civic space, accessible to the whole region and within walking distance of all major facilities within central Perth.

The key principles of the development are:

- To deliver an iconic place and world class destination which signifies Perth globally in the 21st century.
- To create a major destination between Barrack Street and William Street which anchors the city along an axis that links Northbridge, the Cultural Centre and the Central Business District (CBD) to the waterfront.
- To contribute to the transformation of the Perth CBD into a vibrant place to live and work and visit with high quality public spaces.
- To establish a transit oriented hub of development in accordance with Perth and Peel@3.5 million that is directly serviced by ferry, bus and train and provides good access for pedestrians, cyclists and emergency vehicles.
- To seamlessly integrate with the surrounding city and foreshore including the provision of a high quality pedestrian environment that is universally accessible.
- To provide active and contemporary civic space in the form of a continuous waterfront promenade for all the citizens of Perth to enjoy at all times of the year.
- To create a unique and inspirational urban environment through innovative and exemplary architectural design.
- To be an exemplar of leading edge sustainability and design whilst recognising and interpreting the cultural heritage significance of Elizabeth Quay.

1.4 Site Heritage

Prior to European settlement the site of Elizabeth Quay Project was extensively used by Noongar people. The river and associated wetland systems are important landscape features to the Noongar people which hold considerable cultural and heritage significance.

Since European settlement in 1829 the form of the Swan River foreshore has changed significantly. During the early period of European settlement Elizabeth Quay area operated as the Perth Port and was the focal point for transport, commerce and leisure in the city.

In the late 19th century construction of the Perth railway station on Wellington Street removed the need for Perth Port and made the river foreshore available purely for recreational pursuits. As a result, large scale works were undertaken to reclaim portions of the foreshore to create a linked series of public open spaces.

The reclaimed Esplanade Reserve witnessed the State's proclamation of self-government in 1890 and was the site of the first ANZAC day parade in 1916. Foreshore reclamation continued through the early 20th century as far as the Causeway with the creation of Riverside Drive and the Narrows Interchange.



Since that time Riverside Drive has come to be seen as a barrier that separates the city from the Swan River and there has been a sustained desire to reconnect the city to the river to make Perth a truly waterfront.

1.4 Land Use and Staging

Elizabeth Quay has been designed as a place for everyone, and a balanced land use mix is critical to the overall success of its development over the long term.

A key principle of the [Elizabeth Quay Masterplan](#) is to deliver commercial, residential, retail and hotel/short stay within the development. These complimentary uses will ensure that Elizabeth Quay is an active city precinct around the clock, offering a range of opportunities for living, working, visiting the area. Public realm areas have been specifically designed with these uses in mind, providing active and passive spaces to engage, experience and relax.

Being on the doorstep of the city it is important that Elizabeth Quay presents well and attracts people through all stages of development build-out. As such development applications for interim and temporary uses that support the project vision for activation and align with the Place Plan are encouraged.

Upon full development it is expected that Elizabeth Quay will provide an additional level of housing choice within the Perth central area, and contribute to the supply of much needed short-stay accommodation for business and leisure visitors.

The Design Guidelines specify the mix of land uses to be included within development sites throughout the project area.

2.0 PUBLIC REALM

2.1 Public Realm Design Principles

The Elizabeth Quay Master Plan envisages a major new high quality public space for Perth. The public realm is a key driver of the Master Plan and will provide a variety of public spaces serving different functions and offering different experiences.

In particular, the creation of a new inlet and island will provide opportunities for a unique alfresco dining experience and encourage the community to engage with the Swan River as a key city destination.

The design philosophy behind the high quality, innovative Elizabeth Quay Project is to develop a multi-functional and vibrant social environment with highly connective pedestrian, vehicular and public transport networks.

The design of the urban environment will recognise the cultural heritage significance of Elizabeth Quay and create a variety of spaces that offer a range of open, intimate, passive and semi-active gathering areas.

A combination of well-designed hard and soft landscaping features will provide shade and shelter and create a comfortable pedestrian environment with safe universal access at all times of the day and night.



2.2 Connection to the City

Elizabeth Quay Master Plan extends the existing city grid down to the river. Buildings will frame the new inlet and extend William Street and Barrack Street strengthening the primary north-south corridor through the Perth CBD.

The existing secondary streets of Howard Street and Sherwood Court will be continued through the new project ensuring strong connections with the existing city.

The Elizabeth Quay Project Area will integrate seamlessly with the existing CBD grid and streets, providing excellent access to the wider city, surrounding open space and public transport links.

2.3 Streets

Streets within Elizabeth Quay Project shall be designed as shared pedestrian/cycle /vehicle spaces that give priority to pedestrians. Streetscape treatments will incorporate materials which express the role and character of different spaces.

The materiality and composition of the street that exists within the CBD must be carried through to the Project Area and the use of different materials and road treatments should be kept to a minimum.

Street spaces shall accommodate the key movement desire lines for pedestrians, cyclists and vehicles.

The development shall incorporate a bike path linking Elizabeth Quay with the existing cycle network around the site. Streets will be designed in accordance with specified sections and plans.

Figure 2: Street Network

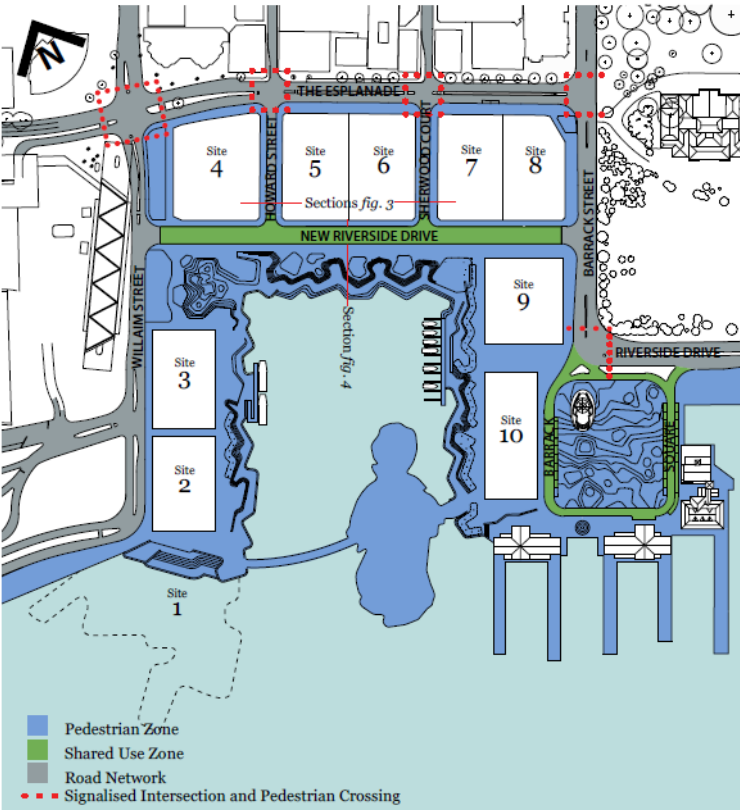




Figure 3: Pedestrian Network

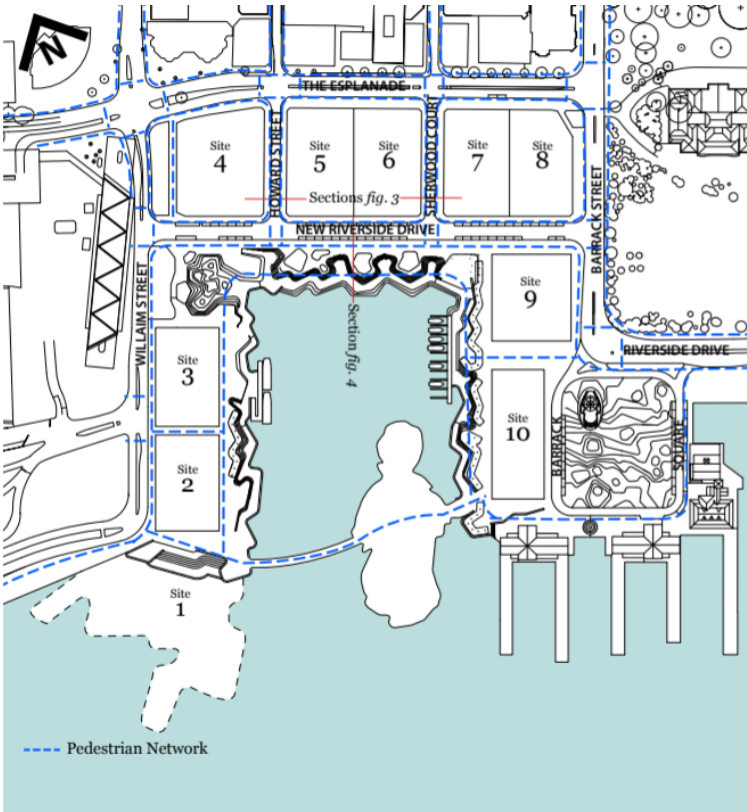
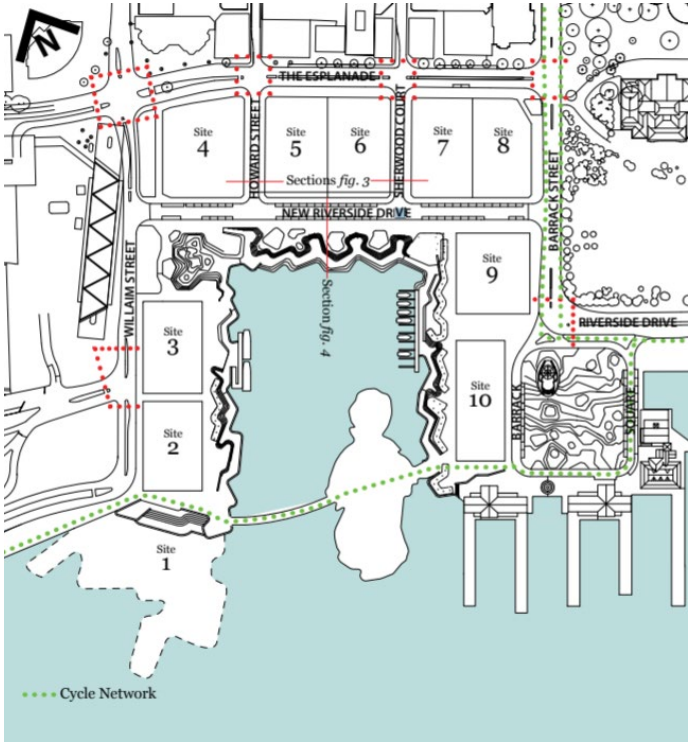


Figure 4: Cycle Network





2.4 Public Realm Design Elements

The Elizabeth Quay Master Plan identifies several key public realm design elements. These design elements should respond to the location and history of Elizabeth Quay and the opportunities created by public spaces with varying terrains.

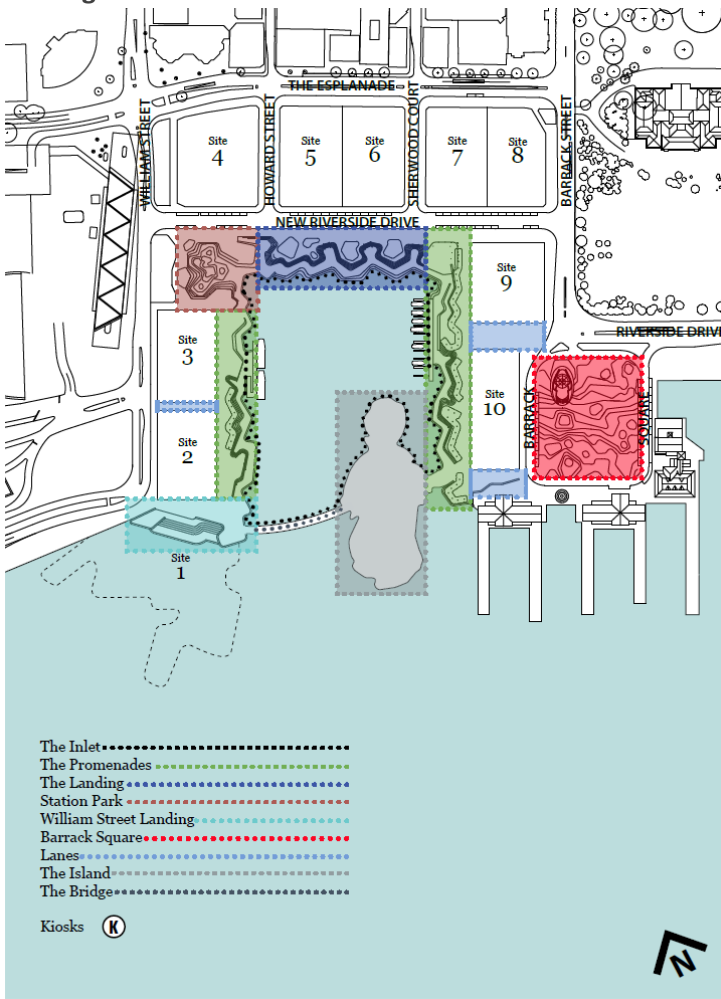
These areas have been identified as places of cultural significance or as areas that provide opportunity to capitalise on specific experiences or locations. The location of these design elements is shown in figure 5.

The public realm should be conceived as a series of spaces that integrate with one another with seamless transition to create a contiguous environment for Elizabeth Quay.

The public realm in Elizabeth Quay Project Area shall provide a high quality public space that incorporates a variety of structures as well as hard and soft landscaping that facilitates a variety of uses throughout the day and night.

Public art and heritage interpretation will be integrated into the public realm in accordance with the Integrate Elizabeth Quay Public Art and Heritage Interpretation Strategies.

Figure 5: Public Realm Design Elements



2.4.1 Barrack Square

Barrack Square will integrate the existing functions of the Barrack Street jetty into the project and build on this activity to create a major city destination at the southern end of Barrack Street.

The western edge of Barrack Square will be framed by activated, contemporary development of a scale consistent around the inlet. Development to the south and east of Barrack Square will be of a smaller scale that is consistent and complimentary to the existing built form in those locations.

Barrack Square provides a large pedestrian plaza at the southern end of Barrack Street. The roadways surrounding Barrack Square will be shared pedestrian priority zones with a high quality finish and a nominated bus and taxi set down and pick up area will also be provided.

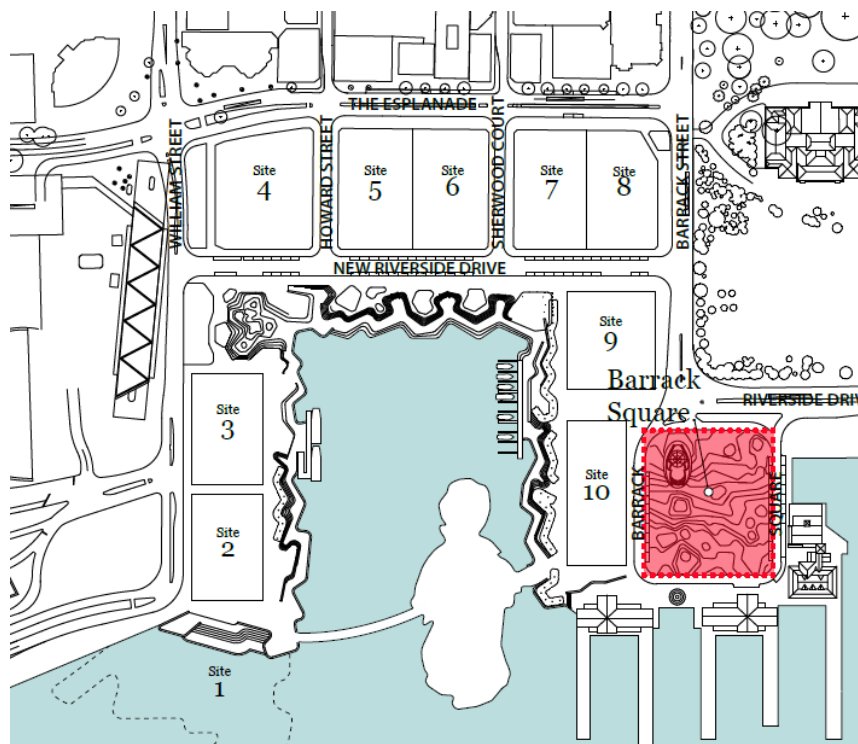
Barrack Square will incorporate a wide central spine that will allow flexible use of the space, for various events such as markets or special events such as a parade.

Landscaping will incorporate a water feature to support the existing Bell Tower building and the eastern side of Barrack Square will integrate the existing feel of the Supreme Court Garden planting through the retention of large existing trees and additional plants.

Barrack Square contains remnant historical plantings, particularly in the south east and south west corners, these plantings together with the road layout indicate evidence of the Union Jack design employed in the formal layout of the of the Square in 1905.

This heritage significance of the square should be recognized and interpreted in accordance with the Elizabeth Quay Heritage Interpretation Strategy. The Vlamingh memorial will be relocated in consultation with the Heritage Council of WA.

Figure 6: Barrack Square Precinct





2.4.2 Lanes

Elizabeth Quay incorporates three lanes. Barrack Lane, William Lane and Riverside Lane form important pedestrian connections between William Street and the promenade and Barrack Square, Riverside Drive and the Promenade.

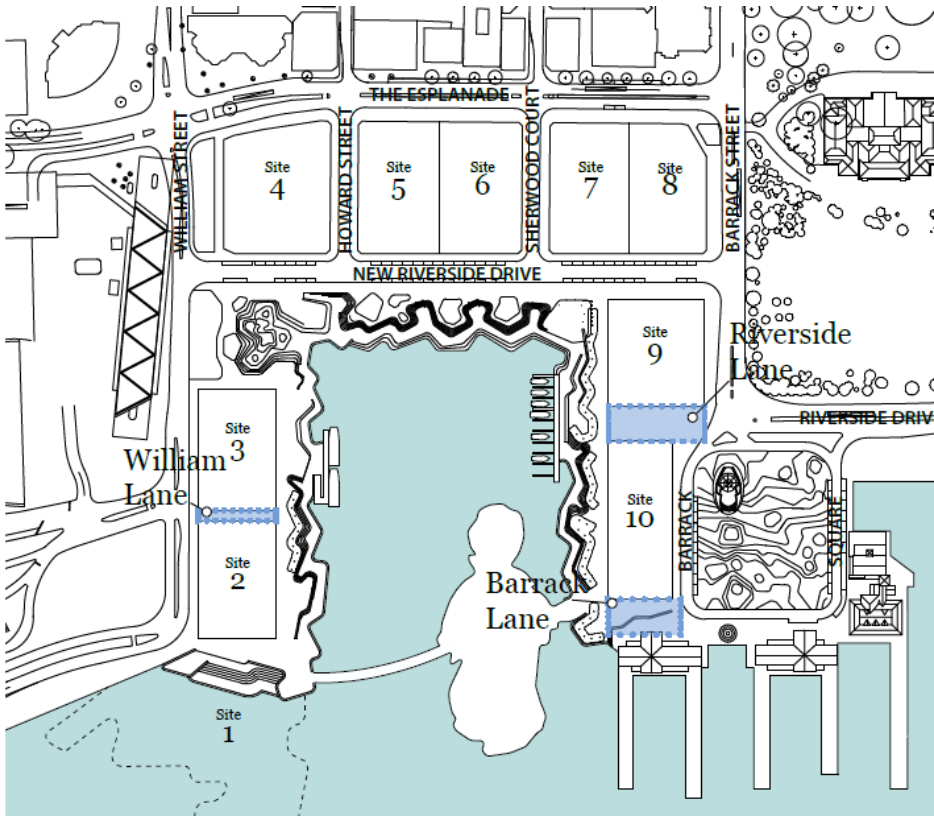
The spaces will be more intimate in scale than either Barrack Square or the Promenade and provide entry to Elizabeth Quay from the east and west.

Barrack Lane and Riverside Lane will respond to the materials of the Promenade and Barrack Square, seamlessly connecting the spaces.

Barrack Lane and Riverside Lane will accommodate the change in level between Barrack Street and the Promenade while ensuring universal access is maintained.

A kiosk building will terminate Riverside Lane on the Promenade and activate the space. The building edges of site 9 and 10 which frame Riverside Lane will also be activated.

Figure 7: Laneways



3.0 BUILDING DESIGN

3.1 Buildings and the Public Realm

The street blocks have been designed to facilitate a relatively seamless transition between the existing urban fabric and the water’s edge, as a continuation of the city grid.



Buildings surround the water body to create an urban ‘frame’ to public spaces. Site envelopes prescribed in Section 5 will maintain sight lines and view corridors established in the Master Plan, ensuring that overshadowing of the inlet is minimized and that important elements of the public realm have access to sunlight.

The Master Plan provides an indicative built form to demonstrate desirable building types for development within Elizabeth Quay Project. Notionally, the Master Plan provides a range of heights from three to five storey podiums, with tower elements of up to 36 storeys.

However, development sites are intended to be flexible and to avoid over-regulation of heights and setbacks. Variation of building height or setbacks may be supported where innovation and exemplary design quality can be demonstrated to have a positive impact on the project area and the city skyline as a whole.

Design of individual sites must be responsive to neighbouring sites, the existing context and the public realm, and provide a positive contribution to the Project Area as a whole. Buildings should demonstrate design excellence, include fine grain architectural detail and be designed and oriented to minimize the impact of wind and overshadowing on the public realm.

The final form and function of the buildings is to ensure both civic quality and suitability for each particular site with a focus on the interface and activation of the adjacent public realm.

3.2 Podiums

Design Intent

Elizabeth Quay will be organised around mid-rise podiums with tower elements above that are setback from the street. The podium/tower design will facilitate the breaking up of the visual presence of the towers and provide view lines between the buildings.

The podiums present an opportunity for a diversity of use with a scale differentiation to the towers above; providing a sense of human scale to the streetscape and an appropriate built form response to the street context. The podiums also provide an ideal opportunity for increased upper level activation with roof top gardens.

Objective

All developments are to exhibit a ‘fine grain’ and ‘human scale’ character at the podium and street level to ensure a quality street edge and reduce building bulk and massing.

Acceptable development criteria

- Ensure that podiums address human scale in height and through design elements, such as balconies, windows and roof terraces.
- Building facades shall consider the alignment and proportion of neighbouring buildings and fit appropriately into the broader city context.
- Materials and Architectural features are to be used to articulate the built form to introduce fine-grain elements and assist in wind amelioration.
- Continuous pedestrian awnings are to be provided to all primary streets and to activate frontages to secondary streets.
- Active uses including communal terraces and gardens shall be incorporated into podium roofs.
- Podium roofs shall be designed to limit potential overlooking of residential areas



3.3 Towers

Design Intent

Towers in Elizabeth Quay will make a positive addition to the Perth city skyline. Tower elements will not present as a ‘wall’ of development and will be separated and proportioned to break up the visual presence of the towers and maintain key view corridors.

Towers will demonstrate exemplary contemporary design and provide visual interest through innovative use of materials and construction methods.

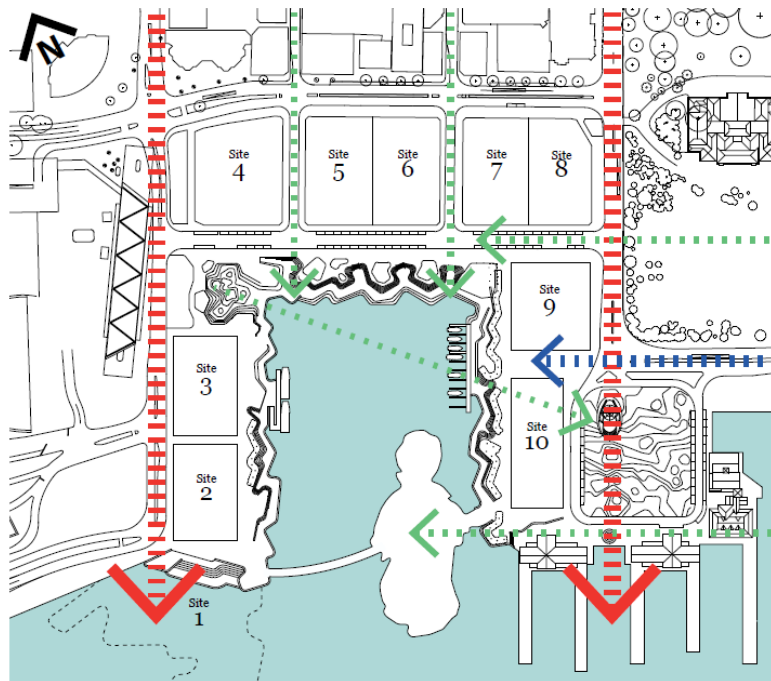
Objective

All developments will demonstrate exemplary contemporary design and innovation through the exploration of the tower typology. Towers will be appropriately ‘proportioned and separated to integrate with the existing Perth skyline whilst maintaining important view corridors and minimising any overshadowing of neighbouring buildings and the public realm.

Acceptable development criteria

- Maintain view corridors as shown in figure 8.
- Maximise visual permeability through the site from all vantage points
- Position and orient the tower element(s) to maximize solar access to the public realm and assist in wind amelioration.
- Articulate and step the tower at different intervals to break up building mass and maximise views.
- Through use of materials or structure emphasize verticality of tower element(s).
- Towers that ‘come to ground’ or occupy portions of the setback areas as set out in Section 5.2 may be supported if it can be demonstrated that other design criteria have been met.

Figure 8: View Corridors





3.4 Public Art

Design Intent

Elizabeth Quay will recognise and celebrate the historical significance of the site and its contribution to the evolution of Perth as a city. Heritage interpretation is an important part of Elizabeth Quay and will shape the experiences of visitors, workers and residents.

Objective

To recognise and interpret the cultural heritage of Elizabeth Quay through the creation of new public spaces and public art integration.

Acceptable development criteria

- Development of heritage interpretation in Elizabeth Quay public realm shall be in accordance with the [Elizabeth Quay Heritage Interpretation Strategy](#).
- New buildings and public spaces should interpret the cultural heritage significance of Elizabeth Quay through integrated contemporary design responses.

3.5 Heritage

Design Intent

Elizabeth Quay will recognise and celebrate the historical significance of the site and its contribution to the evolution of Perth as a city. Heritage interpretation is an important part of Elizabeth Quay and will shape the experiences of visitors, workers and residents.

Objective

To recognise and interpret the cultural heritage of Elizabeth Quay through the creation of new public spaces and public art installations.

Acceptable development criteria

- Development of heritage interpretation in Elizabeth Quay public realm shall be in accordance with the [Elizabeth Quay Heritage Interpretation Strategy](#).
- New buildings and public spaces should interpret the cultural heritage significance of Elizabeth Quay through integrated contemporary design responses.

3.6 Solar Access

Design Intent

Solar access to new developments and the public realm is an important factor in the achievement of a successful built form outcome. The space between podiums and the footprint of the building towers above are to be designed to reduce overshadowing and permit natural sunlight into the streets, promenade and parks.

Objective

Developments are to be designed to minimise their impact on the amenity of the public realm and neighbouring developments.

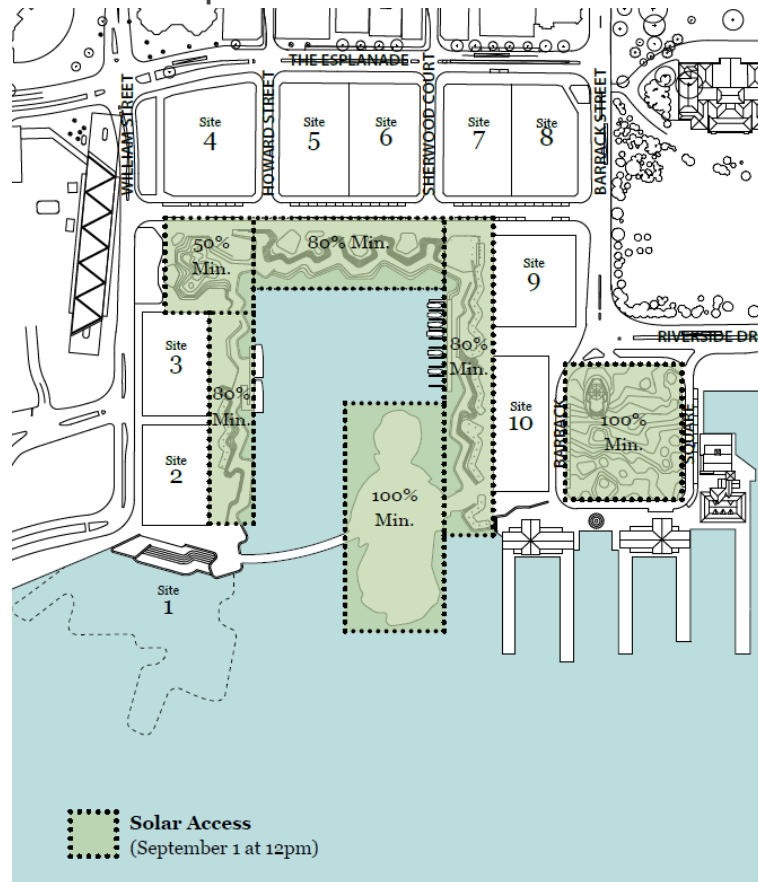
Acceptable development criteria

- Maintain minimum levels of solar access in the public realm on 1 September as shown in Figure 9.
- Consider the likely impact of adjacent development on the public realm, the cumulative impact of shadow from all development must not reduce solar access to less than the minimum levels as shown in Figure 9.
- Ensure that buildings and open spaces have access to sunlight and outlook.



- Orientate new buildings to optimise sunlight and outlook and to minimise overshadowing.

Figure 9: Minimum solar access to public realm



3.7 Wind

Design Intent

The strong wind directions for Perth are typically east to north-east (morning) and south-west to west (afternoon). In order to ensure pedestrian comfort and safety, buildings are to be designed to mitigate the impacts of wind on the public realm and safeguard the overall outdoor amenity of the development.

Objective

Developments are to be designed to provide acceptable environmental wind conditions in the public realm in accordance with the pedestrian comfort criteria for activity.

Acceptable development criteria

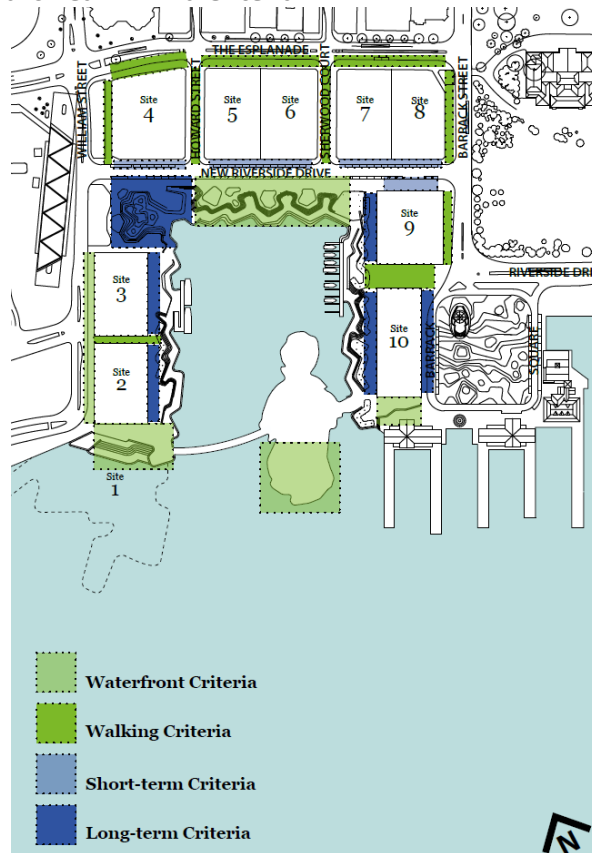
- Achieve acceptable environmental wind conditions in the public realm as shown in Figure 10.
- Take into account prevalent climatic conditions when planning the location of activities, particularly at ground floor and podium level:
 - Stationary long term refers to activities where people remain in the same location for 15 minutes or more e.g. outdoor dining areas, cafes, theatres and recreational playgrounds.
 - Stationary short term refers to activities where people remain in the same location between 5 and 15 minutes e.g. window shopping, waiting in plazas and building entrances.

- Walking refers to activities where people are neither in constant motion nor remain in the same location, like walking and cycling.
- Waterfront refers to activities exposed to the natural setting of the Swan River.
- Engage a qualified wind consultant to undertake wind tunnel and /or computer model testing during concept and detailed design stages to avoid induced winds into the public realm.
- A report, prepared by a qualified wind consultant, will be required to be submitted as part of any development application to confirm compliance with the acceptable environmental wind conditions.
- Integrate wind amelioration strategies into the building design from concept stage to meet the relevant pedestrian comfort criteria for activity set out in Table 1. Use of 'add-ons' such as screening or landscaping to provide direct wind amelioration will only be accepted as a tool to fine tune the design.

Table 1: Pedestrian comfort criteria for activity:

Activity	Acceptable Criteria
Stationary long term	Peak gust speed during the hourly average with a probability of exceedance of 0.1% in any 22.50 wind direction sector does not exceed 10 ms ⁻¹
Stationary short term	Peak gust speed during the hourly average with a probability of exceedance of 0.1% in any 22.50 wind direction sector does not exceed 13 ms ⁻¹ .
Walking	Peak gust speed during the hourly average with a probability of exceedance of 0.1% in any 22.50 wind direction sector does not exceed 16 ms ⁻¹ .
Waterfront	Peak gust speed during the hourly average with a probability of exceedance of 0.1% in any 22.50 wind direction sector does not exceed 20 ms ⁻¹ .

Figure 10: Acceptable Public Realm Wind Criteria



3.8 Architectural Design

Design Intent

Elizabeth Quay represents the opportunity to create an iconic urban destination which will signify Perth in the 21st century and set the benchmark for future developments. Developers are to create architecture and public spaces that are exemplary in design quality at all levels of detail.

Development applications will be required to demonstrate exemplary, inspirational, innovative and creative designs that display an understanding of the public realm as the key element to the success of the Elizabeth Quay Project.

Elizabeth Quay is an opportunity for developers and designers to embrace innovation. New ideas and approaches are encouraged and variations should be demonstrated to be innovative in design quality and excellence.

These guidelines outline the baseline requirements of architectural quality, however, creative exploration of typologies, materials and strategies for the building sites are expected.

3.8 Architectural Expression

Design Intent

High quality buildings make an exemplary contribution to the quality of the public realm, providing pedestrian friendly streetscapes and contributing to the built fabric of the city. Elizabeth Quay Project should achieve a high standard of architectural design that offers a contemporary aesthetic.



Buildings should respond positively to the environment and the heritage of the site, creating a unique sense of place and generate interest in the city skyline.

Objective

- Buildings within Elizabeth Quay are to demonstrate exemplary design quality of an international standard, generating interesting, innovative and creative architectural expression whilst remaining respectful to the Perth context.

Acceptable Development Criteria

- All buildings must be designed by registered architects.
- Demonstrate innovative design by incorporating contemporary construction techniques and architectural excellence.
- Respond to adjacent buildings, streetscape design and city identity when developing a design solution.
- Buildings on corner lots are to provide a legible and memorable experience. The developments are to acknowledge the intersection of the adjoining streets through their position and massing on the site. Since the characteristics along intersecting streets may vary, the building design and architectural detail on corner sites should respond to the difference in conditions.
- Public Art within development sites must be in accordance with the [Elizabeth Quay Heritage Interpretation Strategy](#) and the [Elizabeth Quay Public Art Strategy](#).
- Signage and graphics should be an integral component of the design of buildings and facades, to avoid 'cluttering' the public domain and to compliment the architectural expression of the building.

3.9 Materials

Design Intent

Buildings in Elizabeth Quay will be of a high quality finish that reflects the significance of the Project Area and the broader West Australian landscape.

Objective

- Developments should incorporate the use of high quality locally sourced materials to create innovative and exemplary design outcomes whilst recognising the cultural significance of the site.

Acceptable Development Criteria

- Materials should be of an extremely high quality to reflect the significance of Elizabeth Quay and the cultural heritage of the site.
- Wherever possible, materials should be locally sourced to minimise embodied energy levels and create a unique sense of place.
- The material selection should be appropriate for the Perth climate and reflect the broader West Australian landscape through the use of local hard-scape and soft-scape materials.
- Materials should be employed and detailed in ways that are innovative and non-conventional.

3.10 Building Layout and Orientation

Design Intent

The orientation and configuration of internal spaces and uses has a significant impact on the functionality of buildings and the amenity of workers, residents and visitors. The design of all new buildings should take into account solar access, with towers aligned to reduce overshadowing and to take advantage of natural cross ventilation and access to natural light. View corridors between the city and the Swan River should also be retained.



Objective

- To enhance the amenity of residents and workers all buildings are to be designed to provide usable functional spaces that accommodate desired uses in a manner that maximises solar access and passive ventilation whilst minimising overshadowing and overlooking of adjacent buildings.

Acceptable Development Criteria

- Maintain view corridors as shown in figure 8
- Provide at least 20 metres spacing between towers to secure outlook, daylight access and privacy for residents.
- Residential apartments are to be designed so that all living areas and balconies have access to northern daylight and winter sunshine wherever possible.
- Provide functional private open space for individual dwellings in the form of balconies or an appropriate alternative, using an innovative design response.
- Provide appropriate shading to windows to minimise solar heat gain, considering orientation, glare, etc.
- Incorporate natural cross ventilation through residential apartments.
- Towers are to be designed to ensure that all sides of the building provide visual interest.
- All residential units are to be provided with an external store room with a minimum area of 4m² and a minimum internal dimension of 1.5m and minimum height of 2.2m

3.11 Communal Open Space

Design Intent

Development sites to provide communal open space at roof top and podium levels, by incorporating roof terraces into the design of the building.

Objective

- Podiums and tower roof spaces will be designed as accessible and functional areas for communal use by residents and or visitors.

Acceptable Development Criteria

- A minimum area equivalent to 20% of the lot area is to be provided as communal open space in the form of plazas and/or terraces in or on the podium levels and/or as part of the roofscapes.
- These areas should be incorporated into the design of the building and actively programmed as gardens, green space, or active or passive recreational space.
- An allowance of space for communal activity is also to be provided within buildings. These should be designated areas such as recreational facilities (gyms, pools etc) and communal facilities (shared kitchens, meeting rooms, multimedia rooms, games rooms etc).
- Forecourts and lobbies should also be designed as communal spaces which respond to both the public and private realm, rather than as blank thoroughfares.

3.12 Sustainability

Design Intent

Elizabeth Quay will be an exemplar project in terms of urban sustainability. Sustainable design elements are to be integrated into architectural design rather than becoming the dominant feature, creating 'Design that is Sustainable, not Sustainable Design'.



Objective

- Buildings will be designed to achieve international excellence for environmental sustainability through innovative design, construction and management.

Acceptable Development Criteria

- Refer to Planning Policy 1.3 – Development Policies for Normalised Redevelopment Areas - Green Building.

3.13 Roofs

Design Intent

Careful consideration is to be given in the design of roof tops. Active open space at roof level provides opportunity to create a unique sense of place for Elizabeth Quay. Roofs will be used to provide landmark features which can help define a sense of place within the city context.

Objective

- Roof forms will be an integral and functional aspect of the overall building design, which contribute positively to the amenity offered to residents, workers and visitors of Elizabeth Quay.

Acceptable Development Criteria

- Incorporate and conceal plant and lift overruns as an integral part of roof design.
- Incorporate elements such as solar or wind collectors into an innovative building design solution.
- New towers are to be designed to contribute positively to the skyline through distinctive shaping of the roof and upper floors of the building.
- Incorporate external lighting and signage to accentuate the roof as part of an innovative, high quality building design.
- Roof tops should be functional and at a minimum 50% accessible, providing functions that contribute to the amenity and vibrancy of Elizabeth Quay.
- Incorporate communal gardens and orchards on roof spaces where possible.
- To provide an urban habitat and reduce building heat gain, innovative local xerophytic plant species could be planted on roof decks which are not accessible by people. Stormwater from roofs should be collected and reused as irrigation.

3.14 Universal Access

Design Intent

A principle objective of Elizabeth Quay Project is the establishment and maintenance of a sustainable community – the success of which depends largely on the diversity and robustness of this community. One of the means to achieving this is to ensure that all buildings in Elizabeth Quay are to be universally accessible. That is, they are designed to be usable by people of all ages, incomes and abilities to the greatest extent possible without the need for adaptation. Designing for access will not only assist people with disabilities but also carers, older people and people with small children.



Objective

- Developments provide a universally accessible environment as an integral component of each building.

Acceptable Development Criteria

- A report prepared by an accredited access consultant will be required to be submitted as part of any development application to demonstrate that all development proposals comply with the access obligations of the Disability Discrimination Act and all applicable Australian Standards.
- To ensure universal access the accredited access consultant should have on-going input at all stages of the design and construction process, including project completion.
- Refer to Planning Policy 1.3 – Development Policies for Normalised Redevelopment Areas - Green Building - Adaptable Housing.

3.15 Dwelling Diversity

Design Intent

In addition to designing for access, the Authority is committed to maintaining and enhancing residential diversity within Elizabeth Quay through the delivery of diverse housing stock and residential choice in three key areas:

- A range of dwelling types
- Affordable housing
- Adaptable buildings

Objective

- Developments are required to provide a variety of dwelling sizes and types in order to create a diverse, sustainable development with varied activities, accessible to a broad socio-economic population.

Acceptable Development Criteria

- Refer to Planning Policy 1.3 – Development Policies for Normalised Redevelopment Areas - Green Building - Affordable and Diverse Housing.

3.16 Safety

Design Intent

Buildings have an impact on perceptions of safety and security. In order to create a safe urban environment during all hours of the day and night developments should minimize the opportunity for crime and maximize the sense of safety through the design and management of built and landscaped environments.

Objective

- Ensure that all developments are safe and secure for residents, workers and visitors and contribute to the safety of the public realm.

Acceptable Development Criteria

- A report, prepared by an accredited CPTED consultant, will be required to be submitted as part of any development application to confirm that the development has been designed in accordance with:-
 - Design principles of Crime Prevention Through Environmental Design (CPTED);
 - Local Planning Policy 'Designing Out Crime'; and/or
 - Western Australian Planning Commission 'Designing out Crime Planning Guidelines'

3.17 Acoustics

Design Intent

The development of mixed use buildings within an inner city context provides the potential for noise intrusion and emissions, especially considering the locality of the Bell Tower, bus and rail stations and night time activation. Such issues must be addressed at the planning and design stage to ensure that appropriate measures are taken to minimise impacts.

Objective

- Ensure all developments are designed and constructed to incorporate high performance acoustic attenuation measures and materials.

4.0 ACCESS AND SERVICING

4.1 Car Parking

Design Intent

Elizabeth Quay is ideally located to take advantage of and implement Transit-Oriented Design (TOD). The proximity of The Esplanade Station, the Perth Bus Station, Ferry Terminal and the location a priority shared path running along the foreshore provide the ingredients to optimise the benefits of TOD.

Limitations in car parking provision will encourage the use of alternative modes of transport and a reduction in private car use and contribute to the delivery of a more pedestrian friendly environment.

Objective

- Provide secure car parking for residents and workers which has a minimal impact on the urban form and the amenity of the locality whilst promoting the utilisation of alternative modes of transport, such as public transport and cycling.

Acceptable Development Criteria

- Parking shall be provided in accordance with the following table:

Non Residential	<p>Maximum car parking bays in accordance with the Perth Parking Policy</p> <p>In addition, scooter/motorbike parking shall be provided at 1 bay per 10 parking bays of the total parking bays provided.</p>
Residential	<p>Maximum car parking of 0.7 bays per dwelling.</p> <p>In addition, scooter/motorbike parking provided at 1 bay per 5 parking bays of the total parking bays provided</p>

- Pedestrian access to underground parking shall be provided within buildings and not within the public realm.
- Provide well considered pedestrian access from the car park to lobbies, foyers and individual apartment entrances.
- Design parking areas to assist with orientation, including directional signage.



- All parking areas are to be designed in accordance with AS2890.1 and are to be well lit, safe and secure.
- All non-residential parking bays are required to be licensed by the Department of Transport in accordance with the Perth Parking Management Act. A License Application is to be submitted to the Office of State Revenue following receipt of Development Approval from the Authority.

Objective

- Parking facilities shall be integral to the development and where aboveground sleeved or creatively screened from view to enhance the pedestrian environment.

Acceptable Development Criteria

- Basement level parking is encouraged wherever possible through the use of space saving parking technology such as car stackers, car lifts and automotive parking systems.
- Alternative methods of parking shall be provided to achieve greater efficiency from parking areas including shared use of parking bays between different land uses and the provision of 'car pooling' bays to decrease overall parking provision.
- Where parking is provided at ground floor or podium level it shall be screened from view and sleeved behind other activities such as retail or office.

4.2 Bicycle Parking

Design Intent

Through the provision of convenient end of trip facilities and secure bicycle parking, developments in Elizabeth Quay will encourage the use of bicycles as a convenient form of transport

Objective

- Developments will provide safe and secure bicycle storage and end-of-trip facilities to encourage alternative methods of transport.

Acceptable Development Criteria

- Provide secure bicycle parking and end of trip facilities in accordance with the following table:

Commercial	Secure bicycle parking for a minimum of 10% of building staff (based on 1 person per 15m ² of Net Lettable Area (NLA);
Accessible showers	Minimum of two female and two male showers, located in separate changing rooms, for the first 10 bicycle parking bays. additional shower facilities to be provided at a rate of one male and one female shower for every 10 bicycle parking bays thereafter.
Changing facilities	One secure locker for each bicycle parking bay.
Visitor Bicycle Storage	A minimum of 10 bicycle parking bays located in the public realm and signed near the main public entrance to the building.
Residential	Bicycle parking facilities for multiple dwellings, short-stay accommodation and serviced apartments shall be provided at a minimum of 1 bay per three units.



- Bicycle parking facilities are to be designed, located and constructed in accordance with AS 2890.3 and Austroads Guide to Traffic Engineering Practice Part 14 – Bicycles.
- The changing rooms must be secure facilities capable of being locked and located adjacent to the showers in a well-lit area which is capable of easy surveillance.
- Lockers and change rooms should be well ventilated and be of a size sufficient to allow the storage of cycle clothing and equipment.
- The end of journey facilities should be located as close as possible to the bicycle parking facilities.

4.3 Vehicle Access

Design Intent

To ensure provision of safe, secure, accessible and visually acceptable parking for residents and workers, it is important to minimise the visual impact of access to garages by incorporating these elements as integral components of the building design. Vehicle movement must not compromise pedestrian movement and safety.

Objective

- Ensure that the design and location of vehicle access and circulation does not compromise pedestrian movement and safety or the design quality of the building and public spaces.

Acceptable Development Criteria

- A Traffic Impact Assessment compiled by a qualified traffic engineer must be submitted with any application for Development Approval. The report should make reference to the location of the Primary and Secondary frontages defined in the Lot Specific Guidelines and identify the main vehicle, bicycle and pedestrian routes through Elizabeth Quay Project.
- Vehicle access shall be designed and detailed as an integral component of the development and be incorporated into the design treatment of the streetscapes.
- Vehicle crossovers must be located and designed not to impede pedestrian and cyclist movement and allow for safe and efficient access to the adjoining carriageway.
- Vehicle access gates should not detract from the architectural character of the streetscape or the visual quality of the buildings.
- Loading, service and car park access areas should be located and designed to minimise impact on the public realm. Single discrete crossovers and vehicle access points are preferred over multiple or large, combined alternatives.
- Service areas should be incorporated as integral components of both the building and the streetscape through a consistent language of materials and design.

4.4 Building Services

Design Intent

The servicing functions of a building will be designed to ensure that the potential to have a negative impact on the amenity of the building, surrounding developments and the public realm is reduced.

Objective

- Ensure that the servicing requirements for any development do not impact negatively on the character and amenity of the public realm.

Acceptable Development Criteria

- Loading and service areas should be located and designed to minimise their visibility from, and impact on the amenity of the public realm.



- Air conditioning units must not be visible from the street or above the roofline of buildings.
- Piped and wired services are to be concealed from public view.
- FESA pumps and booster cabinets, transformers and any other utility requirements shall be incorporated into the design of the building in such a way to minimize the impact on the extent of activated frontages and the public realm.
- Service meters and related infrastructure are to be wholly contained within the subject lot boundary and fully integrated into the development to minimise any impact on the streetscape.
- The provision of outdoor clothes drying areas is encouraged, wherever possible, as a way of minimising the use of clothes dryers (and therefore reducing energy consumption). Clothes drying areas shall be appropriately screened so as not to be visible from the street.
- Provide secure and accessible facilities for mail and parcel drop off that are integrated into the building design.

Objective

- Ensure that waste management is planned and coordinated as an integral component of the design and development process.

Acceptable Development Criteria

- A Waste Management Plan is to be prepared and must be submitted as part of the Development Approval application.
- Ensure that on-site waste management and hygienic storage facilities are considered in design, taking into account the need for easy access for drop off and collection, that limits pedestrian and vehicle disruption.
- Plan kitchens and waste storage/collection areas to allow sorting of waste for recycling purposes.
- Screen service yards and bin enclosures from general view to prevent the release of odours and sound emissions.
- Screening mechanisms should be integrated into the design of the building. Ensure that service areas are in appropriate locations.