

ROYAL NEWCASTLE HOSPITAL REDEVELOPMENT SITE DESIGN PRINCIPLES



24th November 2006

Part 1 Introduction

The Royal Newcastle Hospital site as illustrated at **Figure 1**. This document accompanies the Royal Newcastle Hospital Concept Plan 2006. The objectives and design principles outlined in the document underpinned the preparation of the Concept Plan and will help establish the framework for the detailed design and implementation of the Concept Plan. As such, these objectives and design principles may be used as part of the assessment of Project Applications for new development on the site.



Figure 1: The existing Royal Newcastle Hospital site

Part 2 Design Objectives and Principles

2.1 Built Form

Objective

- To ensure development contributes towards the desired urban form for City East.

a) Floor space ratio (FSR)

Objective

- To provide an appropriate density of development on the site.

Design Principles

- **Figure 2** demonstrates the base FSR allowable across the whole site.
- The total FSR calculated for the entire site will not exceed the nominated base FSR.
- Gross Floor Area (GFA) is defined as follows:

gross floor area means the sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- (a) the area of a mezzanine within the storey, and
- (b) habitable rooms in a basement, and
- (c) any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
- (d) any area for common vertical circulation, such as lifts and stairs, and
- (e) any basement:
 - (i) storage, and
 - (ii) vehicular access, loading areas, garbage and services, and
- (f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
- (g) car parking to meet any requirements of the consent authority (including access to that car parking), and
- (h) any space used for the loading or unloading of goods (including access to it), and
- (i) wintergardens and terraces and balconies with outer walls less than 1.4 metres high, and
- (j) voids above a floor at the level of a storey or storey above.



Figure 2: Permitted FSR

c) Building Heights

Objectives

- To improve sunlight access to Newcastle Beach and the Foreshore.
- To reinforce the landmark significance of the site.
- To enhance the built form character of Watt Street and King Street.
- To maintain significant view corridors around the site and to local landmarks.
- To minimise overshadowing of terrace houses on Watt Street.
- To ensure taller buildings minimise visual and environmental impacts.

Design Principles

- Building heights are shown at **Figures 3 to 10**.
- Buildings may extend up to a maximum of 16 and 18 storeys (49m and 55m).
- The upper height limit is expressed in storeys and in metres above ground level and measured to the underside of the ceiling of the uppermost level. It does not include roof features and plant structure. Ground level is taken to be the level of the public street immediately adjacent to that part of the site. Where a building has two street frontages, an interpolated ground level is to be used. Where the land is sloping, the height limit is to be taken as an average height of the subject building.
- Buildings fronting Watt Street (adjacent the United Services Club) are to provide an appropriate transition to this building in terms of heights, separation, modulation and street alignments.
- Taller buildings are to be located on the western portion of the site so as to minimise overshadowing impacts on the beach and foreshore.
- The facades of buildings fronting the streets are to align with the adjacent street grid.
- All exposed facades are to be designed to be seen, both from adjacent streets and from distant views (i.e. blank facades should be avoided).
- Plant rooms and lift overruns may occupy up to 75% of the roof area and be up to 6m in height inclusive of architectural details such as parapets.
- The plant rooms and lift overruns are to be articulated in form and integrated into the design of the building.

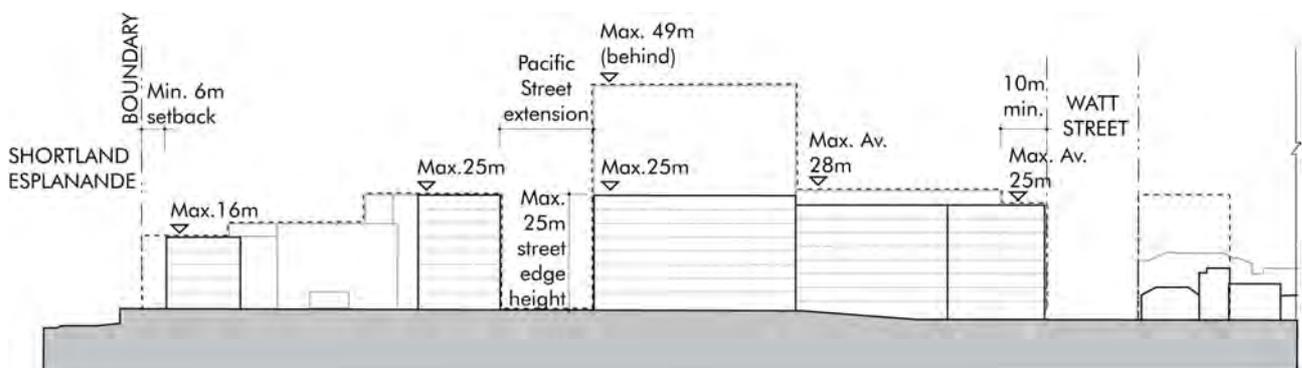


Figure 3: King Street elevation

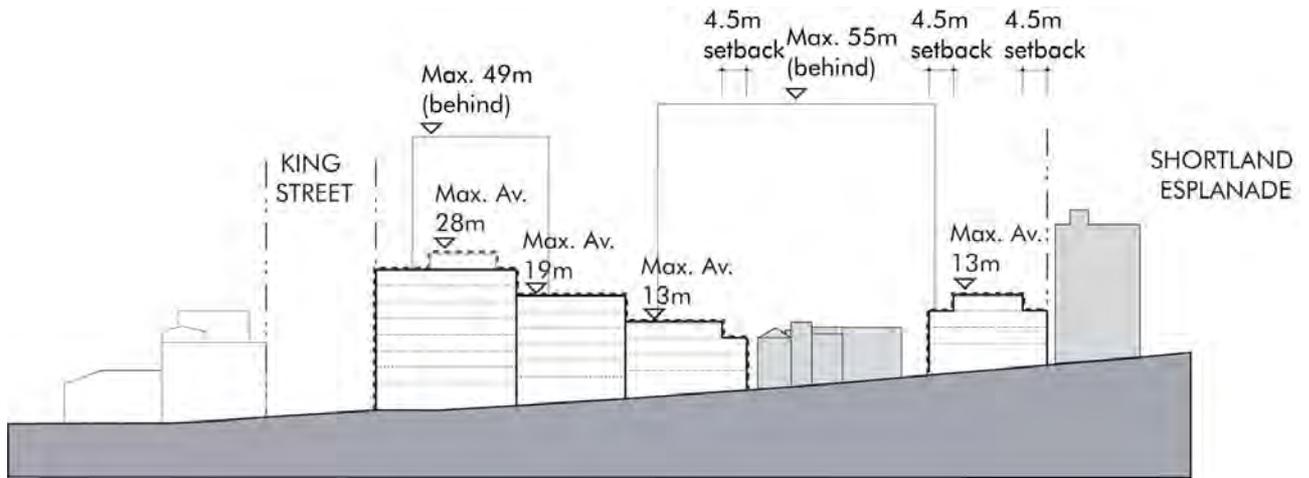


Figure 4: Watt Street elevation

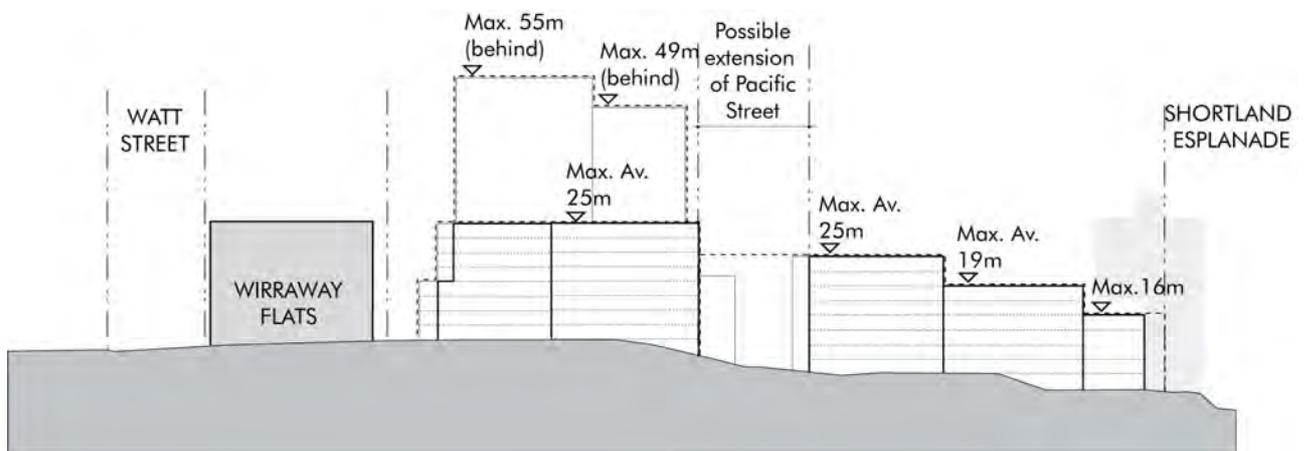


Figure 5: Shortland Esplanade elevation

d) Street wall heights and upper storey setbacks

Objectives

- To provide a human scale to streets and other public places.
- To encourage building massing and forms that are consistent with and sympathetic to the prevailing building forms within the City East locality.
- To ensure new streets are provided with an appropriate proportion and scale.

Design Principles

- Maximum street wall heights of buildings are shown in **Figures 6 – 10**.
- Where required, an upper level setback is to be a minimum of 4.5m.



Figure 6: Cross section key

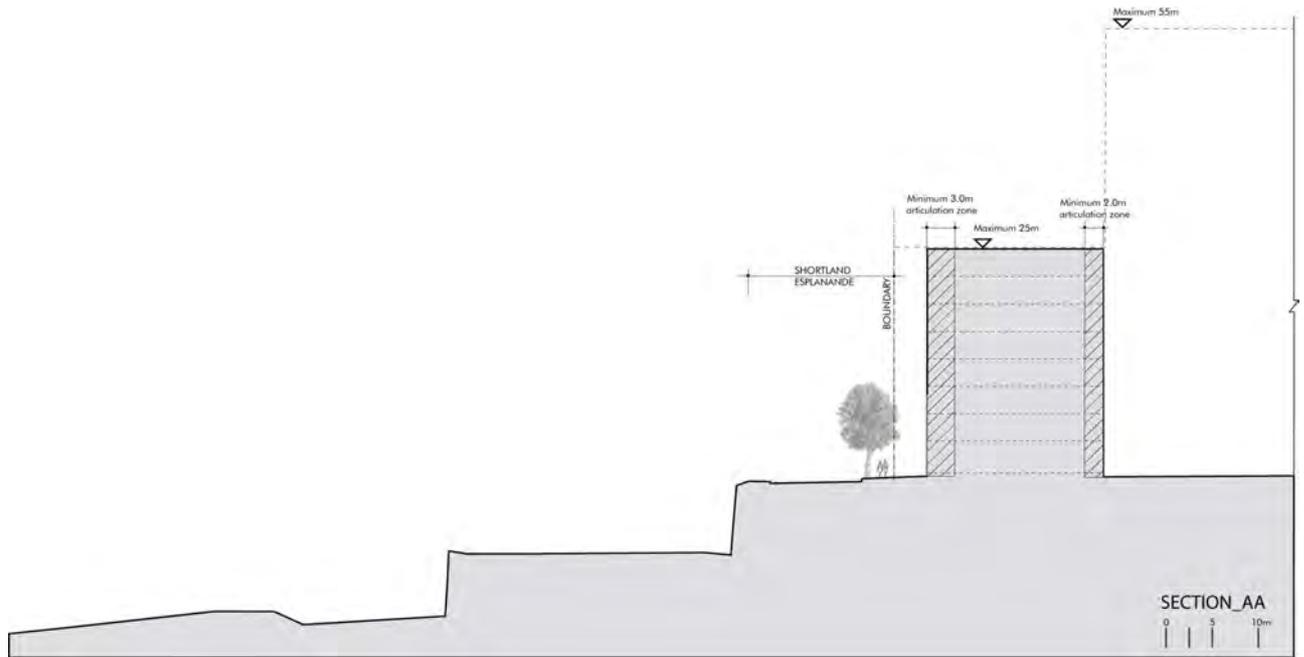


Figure 7: Shortland Esplanade 1 typical street cross-section A-A

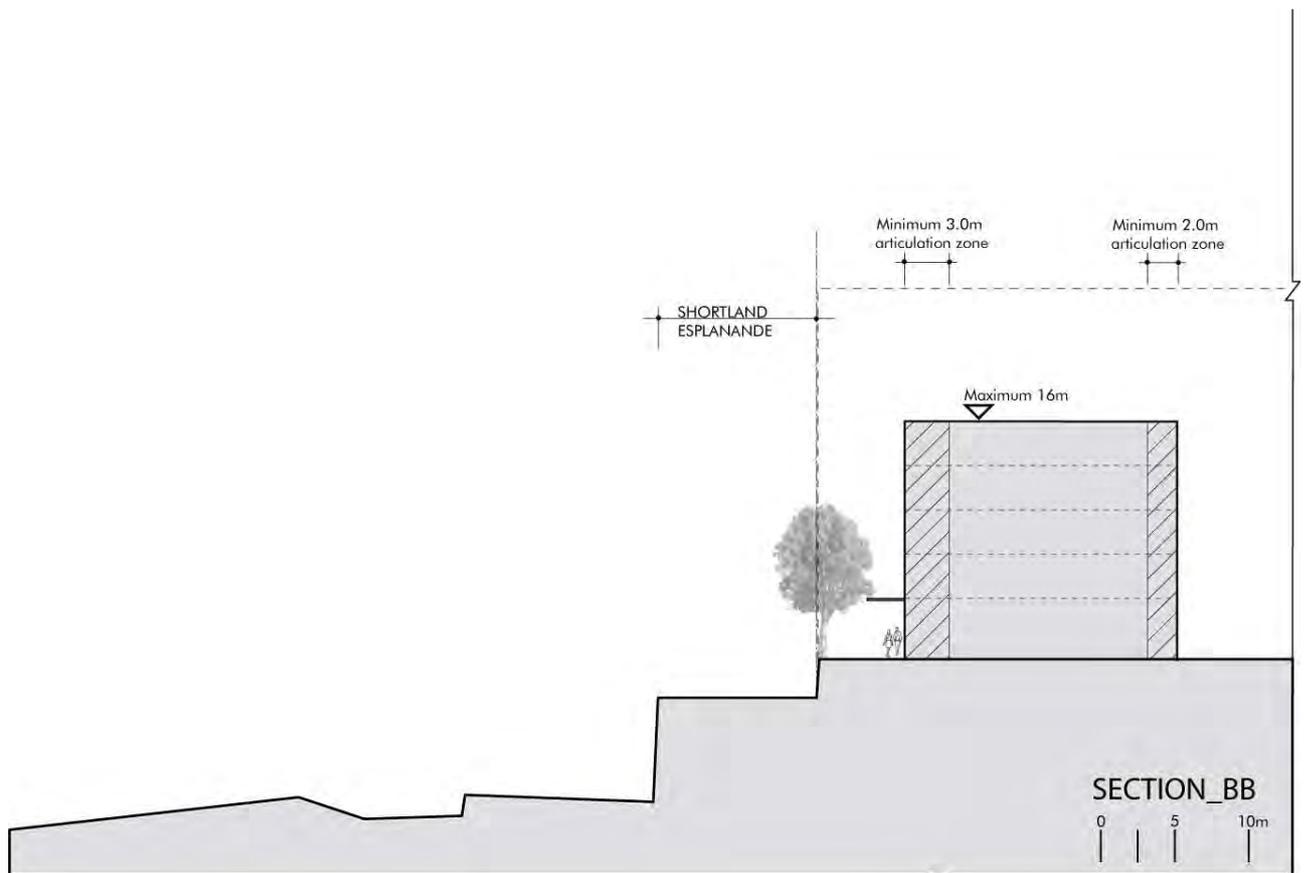


Figure 8: Shortland Esplanade typical street cross-section B-B

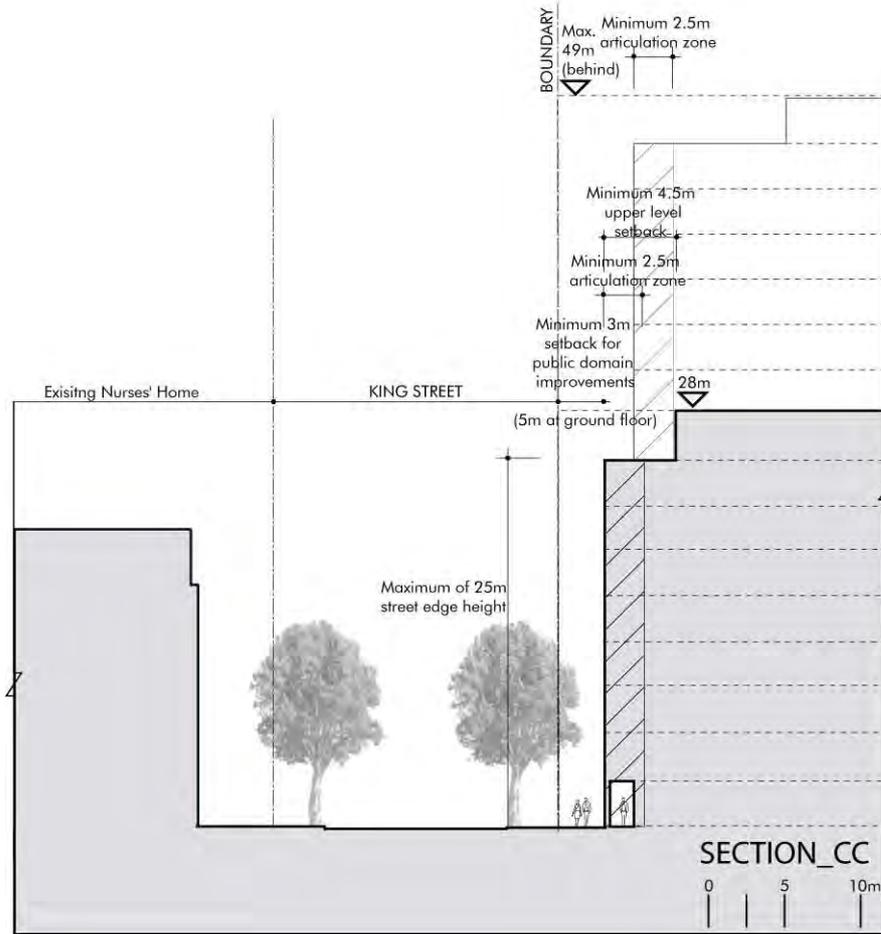


Figure 9: King Street typical street cross-section C-C

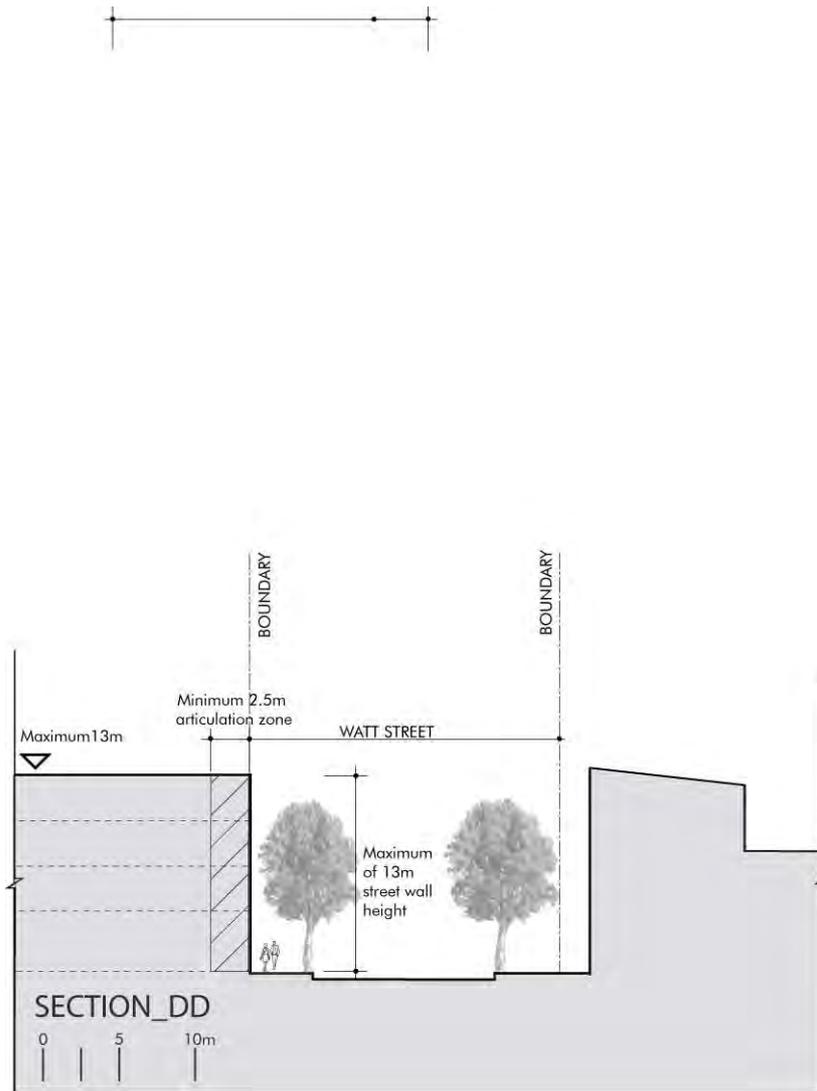


Figure 10: Watt Street typical street cross-section D-D

e) Building setbacks

Objectives

- To improve the pedestrian amenity and circulation around the site.
- To create consistent street edges while providing opportunities for street tree planting

Design Principles

- Building setbacks are to be generally consistent with those shown in **Figure 11**.
- Buildings are to be built generally to the street alignment to create a consistent and well defined edge to the street.
- Building forms fronting Shortland Esplanade are to express and define the curved nature of the street.

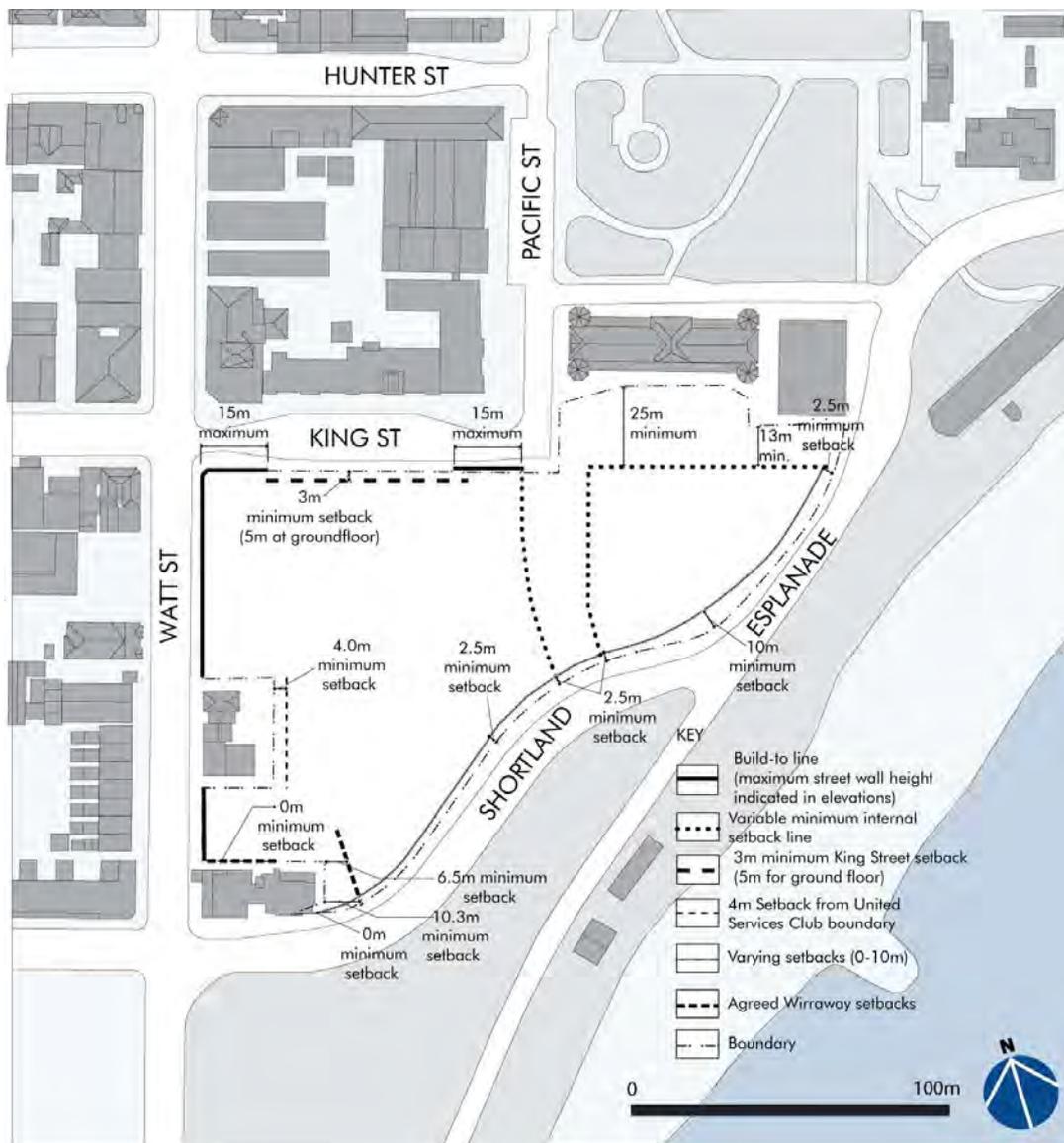


Figure 11: Building setbacks plan

f) Building separation

Objectives

- To achieve acceptable levels of amenity in terms of solar access and privacy for residents.
- To achieve acceptable levels of amenity at ground level surrounding buildings.

Design Principles

- Building separation is to be consistent with the Residential Flat Design Code 2002.

6.7.2 Building character

a) Building articulation and facade treatment

Objectives

- To promote development that provides variety and visual interest in the modulation, articulation and architectural expression of building facades.
- To ensure that developments on corners respond to the visually interesting corner building characteristic of City East.

Design Principles

- Long lengths of building frontages are to be minimised through the use of breaks in buildings and modulation of facades.
- Minimum articulation zones are to be provided where shown at **Figures 7-10**.
- Some variation in height and setback for corner features may be permitted where a satisfactory resolution of the form in terms of scale, proportion, materials and finishes can be demonstrated.
- Where articulation zones apply, 50% of the building is to be recessed from the relevant build-to line, setback line or internal setback line.

b) Active frontages and pedestrian amenity

Objectives

- To create vibrant streets and public spaces.
- To maximise passive surveillance of public spaces.
- To provide weather protection and shelter for pedestrians.

Design Principles

- Active frontages and pedestrian shelter (awnings or colonnades) are to be provided in accordance with **Figure 12**.
- Active frontages and awnings are required to be provided around any new public plaza.
- The safety and amenity of the bus stop on Watt Street is to be enhanced by providing street level active frontages, passive surveillance, and weather protection.



Figure 12: Active frontages and pedestrian shelter plan

c) Vehicular access and car parking

Objectives

- To provide for the parking needs of building occupants and visitors while minimising adverse impacts on building bulk and streetscapes.
- To minimise the impact of driveways on pedestrian access and the streetscape.

Design Principles

- The number of vehicular access points to the site should be minimised. Preferred access points are from Watt Street, King Street and Pacific Street extension (**Figure 13**).
- Opportunities for on-street public parking should be maximised.
- Car parking rates are to be in accordance with Element 4.1 Car parking of the Newcastle DCP 2005.
- The visual impact of car parking and service access and facilities is to be reduced by:
 - ensuring that blank car parking structures do not adjoin public spaces but are located behind other uses or screened with high quality materials, and
 - minimising the width of driveways and setting back access points beyond the facade of the building.
- Section 4.1.10 of Element 4.1 (Car parking) of the Newcastle DCP 2005 relating to on-site parking in pedestrian-orientated business areas applies to the Watt and King Street frontages of the site.

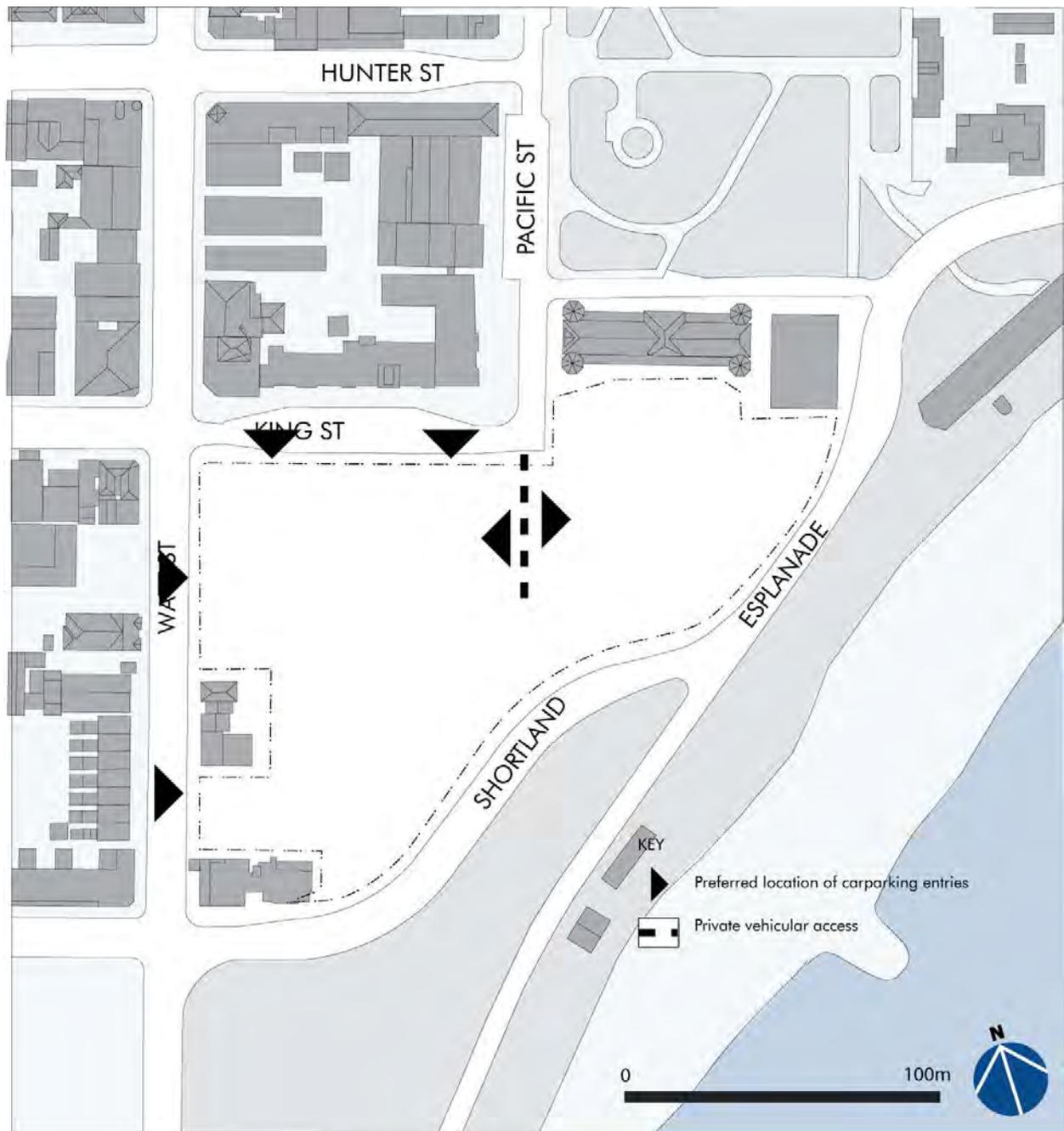


Figure 13: Preferred car parking access locations

d) Heritage and archaeology

Objectives

- To retain and enhance existing heritage buildings.
- To reinterpret the cultural and social heritage, including indigenous heritage of the site.

Design Principles

- Ensure the height, setbacks and massing of buildings adjacent to the United Services Club provides an appropriate transition to the building.
- A Site Interpretation Strategy is to be prepared and submitted as part of any major development proposal on the site.

e) Roofs and skyline elements

Objectives

- To ensure that new buildings contribute to Newcastle's modulated skyline through a variety of building heights and roof forms.
- To ensure that roofs are integrated into the overall design of the building composition.

Design Principles

- Roof plant, lift towers and vents should all be designed as an integral part of the roof form.
- Roof form elements are to be designed in proportion to the building elevation.

f) Materials and colours

Objectives

- To retain the overall cohesiveness and variety of materials and finishes that characterise the locality.
- To ensure that materials and colour are appropriate to the coastal environment.
- To ensure that materials have low environmental impact.

Design Principles

- Buildings should incorporate material finishes that complement the material and finishes of buildings in the locality, including:
 - sandstone and granite;
 - timber;
 - brickwork; and
 - render.

- Materials which contrast with those that exist in texture or scale are to be avoided including:
 - PVC;
 - reflective glass;
 - unrelieved painted render;
 - unarticulated concrete surfaces; and
 - unarticulated cladding systems;
- Colours that complement the existing colours in the locality are encouraged including those based on warm earth tones and sandstone.

6.7.3 Public Domain

Objectives

- To create dynamic public spaces with permeable interfaces between the public and private domain.
- To provide a safe, accessible, convenient and legible movement network for vehicles, pedestrians and cyclists along streets and through public open spaces.
- To minimise the negative effects of new buildings on adjacent public spaces.
- To provide integrated water cycle management on the site.

Design Principles

- Development is to ensure the distinction between public and private open space is clear through its design.
- All new development should adopt design strategies to minimise environmental effects on surrounding public spaces, especially overshadowing, wind turbulence and glare.
- Ensure public open space is of a high quality and provides a range of experiences and facilities.
- Ensure appropriate access those with a disability and those with limited mobility.
- Issues of safety, security and surveillance are to be assessed against the principles of Crime Prevention Through Environmental Design (CPTED) in the Project Application.

a) Through-site links

Objectives

- To increase pedestrian permeability through the site.
- To improve connections between Newcastle Beach and the CBD.

Design Principles

- Publicly accessible through site links will be provided and embellished as follows:
 - from Pacific Street to Shortland Esplanade (No. 1 on **Figure 14**); and
 - from King Street to Shortland Esplanade (No. 2).

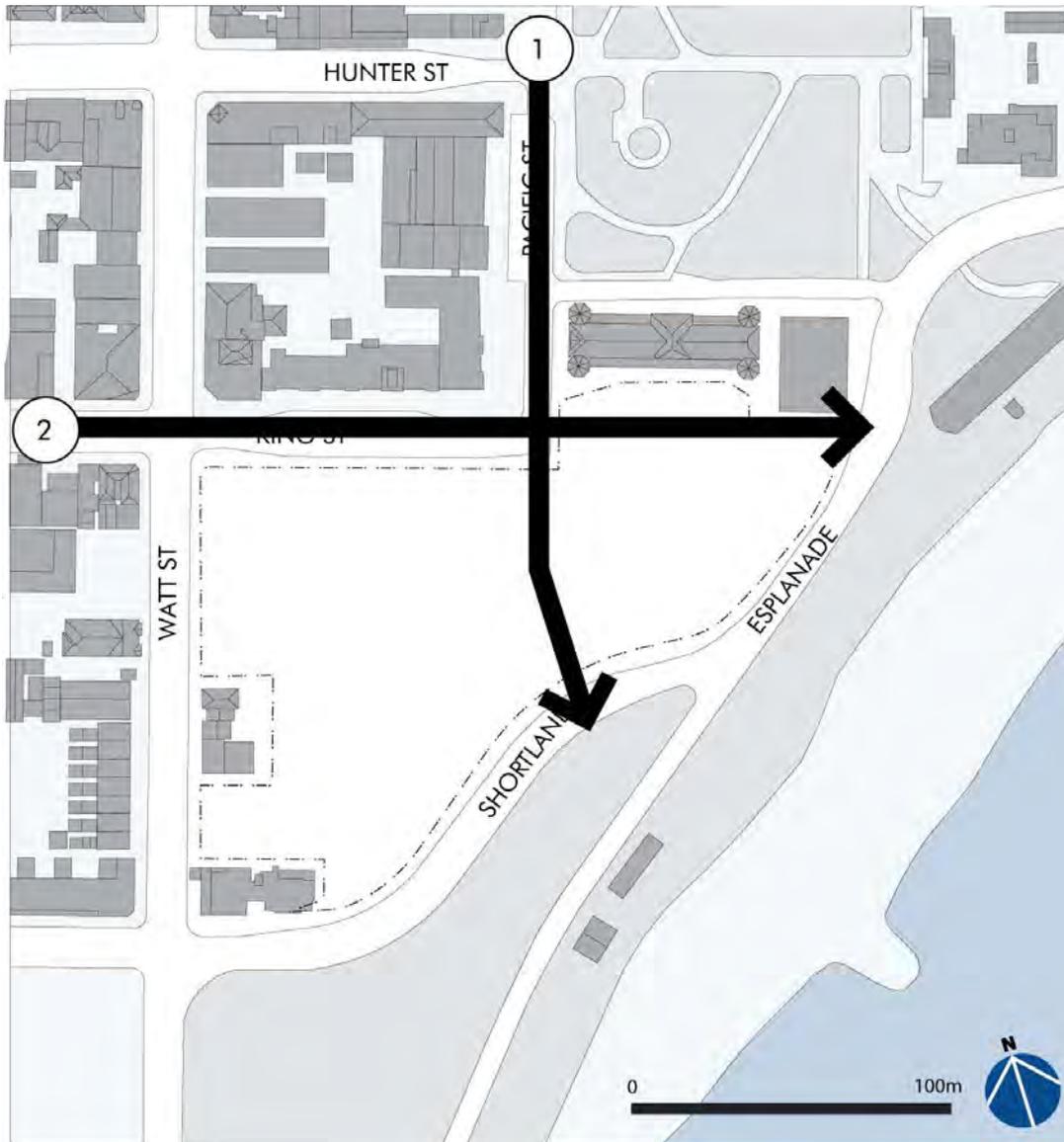


Figure 14: Indicative location of publicly accessible through site links

b) Public plaza**Objectives**

- To create a vibrant and sheltered public plaza in close proximity to the beach.
- To ensure the design of the public plaza responds to the existing environmental conditions affecting the site.

Design Principles

- Provide active uses along the edges of any public plaza (i.e. cafes, restaurants and the like).
- Orientate the public plaza towards north to maximise solar access.
- Protect the public plaza from the southerly and westerly winds.
- Provide awnings around the edges of the plaza.
- Design the plaza to ensure that it is overlooked by residential uses from above.

c) Shortland Esplanade**Objectives**

- To improve pedestrian amenity adjacent to the foreshore.

Design Principles

- A widened footpath along the northern side of Shortland Esplanade.
- Provide a continuous edge of appropriately scaled buildings along the Shortland Esplanade frontage.
- Create viewing opportunities towards the beach.
- Appropriately located pedestrian crossings are to be provided from the site across Shortland Esplanade to the foreshore.

d) Water Sensitive Urban Design

Objectives

- To integrate water management measures into the landscape and built form.
- To reduce potable water demand and minimise wastewater generation.
- To treat stormwater to meet best practice water quality objectives and to attenuate and safely convey flood flows.

Design Principles

- External spaces are to be designed in accordance with best stormwater planning and management practices and should include opportunities for the following measures:
 - on-site retention,
 - porous pavements,
 - bio-retention systems,
 - water gardens, and
 - green roofs.
- Integrate water features into the built form and landscape design.
- Maximise stormwater capture and reuse on-site.
- Ensure that development has minimal impact on the flood flows from the site.

e) Landscape treatment

Objectives

- To enhance the amenity of the site by providing 'greening' to complement the built environment.
- To adopt an integrated approach to ensure that stormwater management practices are incorporated into the landscape design.

Design Principles

- All landscape treatment is to help achieve the overall water sensitive urban design objectives for the site.
- The selection of plant species will need to take account of the local environmental conditions, particularly the exposure to strong coastal winds, salt spray and the degree of shading.
- All planting is to reflect the overall environmental objectives of the site, particularly in terms of minimising water and energy use.
- New street tree planting is to be provided along King and Watt Streets, and Shortland Esplanade.
- Communal open space areas are to include feature tree planting and mass planting and are to investigate incorporation of water garden(s) as part of the stormwater management strategy for the site.
- Green roofs on buildings may be provided for recreation and environmental benefits (e.g. stormwater storage/treatment, insulation etc) where possible, particularly at lower levels.
- Opportunities to encourage substantial planting at ground level should be investigated where possible.

f) Public art and site interpretation

Objectives

- To celebrate and commemorate the social and cultural significance of the hospital and the site, including indigenous heritage.

Design Principles

- A Site Interpretation Strategy is to be prepared and submitted as part of any major development proposal on the site.
- The Strategy shall identify opportunities for public art to reflect the cultural and social history of the hospital including themes such as its role in healing and health services.
- The treatment of the public domain should integrate site interpretation with landscape design to create multiple layers of meaning. Possibilities for how this may be achieved include:
 - interpreting the Aboriginal and European history of the site in the landscape design in other ways such as the design of individual elements (e.g. furniture, structures), selection of materials, and choice of plant species (e.g. medicinal theme),
 - relaying/recreating the stone tiled lobby floor of the Nickson Building near its original location in the new paving within the public domain,
 - indicating the footprints of the Nickson Wing building where it appears within the public domain,
 - inlaying names or words associated with the site's history in the paving or other elements, and
 - site specific public artworks and water features located in public areas.