

# **Attachment B10(a)**

**Visual Impact Assessment Part 1 –  
Waterloo Estate (South) – Land and  
Housing Corporation**



# Waterloo South Planning Proposal

Visual Impact Study

8021708101

Prepared for  
Land and Housing Corporation

20 April 2020



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## Document Information

Prepared for	Land and Housing Corporation
Project Name	Visual Impact Study
File Reference	FINAL
Job Reference	8021708101
Date	20 April 2020
Version Number	3

Name	Effective Date	20/04/2020
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Job title:

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Senior Landscape Architect

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Approved

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Name	Date Approved	20/04/2020
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## Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
1	06/03/2020	Draft	John O'Grady Amelia Grace	John O'Grady
2	11/03/2020	Draft 2	John O'Grady	John O'Grady

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FINAL

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## Executive Summary

This report relates to a Planning Proposal to create a new suite of planning controls for land within the Waterloo South Precinct, part of the greater Waterloo Estate. The report provides an assessment of the potential visual impacts of the Proposal in response to the Study Requirements for the Project (issued 19 May 2017):

*Study requirement 2.7*

Provide a view and visual assessment, with particular focus on significant views to, from and within the site. Use eye level views from public parks and street footpaths, simulate a focal length of 55mm, to approximate the correct proportions of the elements of views as experienced by the human eye, compare to existing views and analyse the relative quantity of visible sky. Include analysis of any visual impacts on the conservation areas and surrounding areas, and any mitigation measures.

The process adopted for the study addresses this study requirement and is consistent with current planning principles set by the NSW Land and Environment Court for assessment of the visual impacts of development proposals. Specifically, the study is consistent with the principles for assessment of visual impacts of development on the public domain set by *Rose Bay Marina Pty Ltd v Woollahra Council and anor [2013] NSWLEC 1046*; and photomontages relied upon by the Study have been prepared in a manner consistent with NSW Land and Environment Court Photomontage Policy.

To assist in the view and visual assessment, photomontages have been prepared from a range of selected view locations. The majority of these have been prepared as “block diagrams” which relate to building envelopes illustrating the extent of the proposed built form likely to be visible in these views.

The study assessed the visual character and quality of Waterloo and its environs and derived Planning Principles to protect and enhance the identified positive components of its visual character. The Waterloo South Masterplan was assessed against these Planning Principles which can be found in Section 6 of this report.

The existing Waterloo Estate displays a unique visual character that contrasts markedly with its context.

Existing built form within the Estate is a function of its primary historical function as social housing, coupled with some small areas of commercial space on remnant privately owned land. Housing forms vary from the visually dramatic housing towers (up to 30 storeys in height) and blocks (approximately 17 storeys) in the north eastern portion of the Estate to two / three storey walk-ups and terrace style housing in the western and southern portions of the Precinct. At the time of preparation of this report, station works on the Metro Quarter are under construction and the above station works have received planning approval.

The Waterloo Estate Precinct currently is visually contained with its edges clearly defined by boundary streets. Within these boundaries, the Precinct exhibits a relatively open character defined by:

- > A grid pattern of wide streets, which assists legibility and allows for views through the Precinct. Tall towers and slab buildings as dominant elements of the built form. The buildings are often in a parkland setting.
- > Very large street blocks (varying in size from around 7000m<sup>2</sup> up to approximately 3.5 hectares). Large blocks contribute to an open visual character.
- > A high ratio of open land to built-upon land which also contributes to a relatively open visual character.
- > A substantial stock of large trees both in the streetscape and within the developed properties. Trees contribute to a human scale moderating against the very high rise tower and slab buildings in the northern parts of the Precinct.

The findings of the assessment are:

- > The Waterloo South Proposal is consistent with current planning for inner western Sydney incorporating new centres of activity at Green Square and the Central to Eveleigh corridor. Where visible in distant views from the public domain it will present as a consolidated new urban centre within the context of the Sydney CBD and the other two mentioned developing centres.
- > The Proposal will transform views from within Waterloo South. This assessment has found, however, that the masterplanning will retain and enhance the identified positive visual characteristics of the Estate by retaining an open street grid pattern, separating tall buildings, retaining and adding to the stock of tall trees in the streets, parks and private spaces and allowing for long views down streets towards open spaces and tall buildings.

- 
- > The Proposal for Waterloo South will impact on views from streets immediately surrounding the Estate. In close views, visibility will be variable depending on the context and the existence of local vegetation. Mitigation measures to address these impacts will include design development to result in a high quality ground plane including allowance for healthy growth of forest scale trees in the street and other proposed public places.
  - > The Proposal will be visible as a new skyline urban form in medium distant views from all directions. Its success as a new element in views from these locations will be contingent on achievement of design excellence in the completed development, with particular regard to the architectural design of the proposed tall buildings.
  - > In distant regional views, the Proposal will appear in the context of the existing tall buildings in the Northern part of the Waterloo Estate, the proposed Metro Quarter building group and the substantial tree canopy within and adjacent to the Waterloo Estate. If designed in keeping with principles of design excellence, the taller buildings in the Proposal will have an acceptable impact on these views.
  - > Overall, contingent on achieving design excellence and on maintaining a high quality vegetated foreground, the Proposal has been found to have an acceptable impact on the conservation values of local Conservation Areas including specifically, the Redfern Estate, the Alexandria Park Conservation Area and the Waterloo Conservation Area.
  - > Contingent on the recommended mitigation measures in this report, the Proposal has been found to be consistent with the visual quality Planning Principles for development of the Waterloo Precinct and Metro Quarter and is considered to be worthy of support with regard to its effects on the existing visual environment of the site and its locality.

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# 1 Introduction

## 1.1 Introduction

The Greater Sydney Region Plan and Eastern City District Plan seek to align growth with infrastructure, including transport, social and green infrastructure. With the catalyst of Waterloo Metro Station, there is an opportunity to deliver urban renewal to Waterloo Estate that will create great spaces and places for people to live, work and visit.

The proposed rezoning of Waterloo Estate is to be staged over the next 20 years to enable a coordinated renewal approach that minimises disruption for existing tenants and allows for the up-front delivery of key public domain elements such as public open space. Aligned to this staged approach, Waterloo Estate comprises three separate, but adjoining and inter-related stages:

- Waterloo South;
- Waterloo Central; and
- Waterloo North.

Waterloo South has been identified as the first stage for renewal. The lower number and density social housing dwellings spread over a relatively large area, makes Waterloo South ideal as a first sub-precinct, as new housing can be provided with the least disruption for existing tenants and early delivery of key public domain elements, such as public open space.

A planning proposal for Waterloo South is being led by NSW Land and Housing Corporation (LAHC). This will set out the strategic justification for the proposal and provide an assessment of the relevant strategic plans, state environmental planning policies, ministerial directions and the environmental, social and economic impacts of the proposed amendment. The outcome of this planning proposal will be a revised planning framework that will enable future development applications for the redevelopment of Waterloo South. The proposed planning framework that is subject of this planning proposal, includes:

- **Amendments to the Sydney Local Environmental Plan 2012** – This will include amendments to the zoning and development standards (i.e. maximum building heights and floor space ratio) applied to Waterloo South. Precinct-specific local provisions may also be included.
- **A Development Control Plan (DCP)** – This will be a new part inserted into ‘Section 5: Specific Areas’ of the Sydney DCP 2012 and include detailed controls to inform future development of Waterloo South.
- **An infrastructure framework** – in depth needs analysis of the infrastructure required to service the needs of the future community including open space, community facilities and servicing infrastructure.

### 1.1.1 Waterloo Estate

Waterloo Estate is located approximately 3.3km south-south-west of the Sydney CBD in the suburb of Waterloo (refer to **Figure 1-1**). It is located entirely within the City of Sydney local government area (LGA). Waterloo Estate is situated approximately 0.6km from Redfern train station and 0.5km from Australia Technology Park. The precinct adjoins the new Waterloo Metro Station, scheduled to open in 2024. The Waterloo Metro Quarter adjoins Waterloo Estate and includes the station and over station development, and was rezoned in 2019. Waterloo Estate comprises land bounded by Cope, Phillip, Pitt and McEvoy Street, including an additional area bounded by Wellington, Gibson, Kellick and Pitt Streets. It has an approximate gross site area of 18.98 hectares (14.4 hectares excluding roads). Waterloo Estate currently comprises 2,012 social housing dwellings owned by LAHC, 125 private dwellings, a small group of shops and community uses on the corner of Wellington and George Streets, and commercial properties on the south-east corner of Cope and Wellington Streets.

A map of Waterloo Estate and relevant boundaries is illustrated in **Figure 2**.

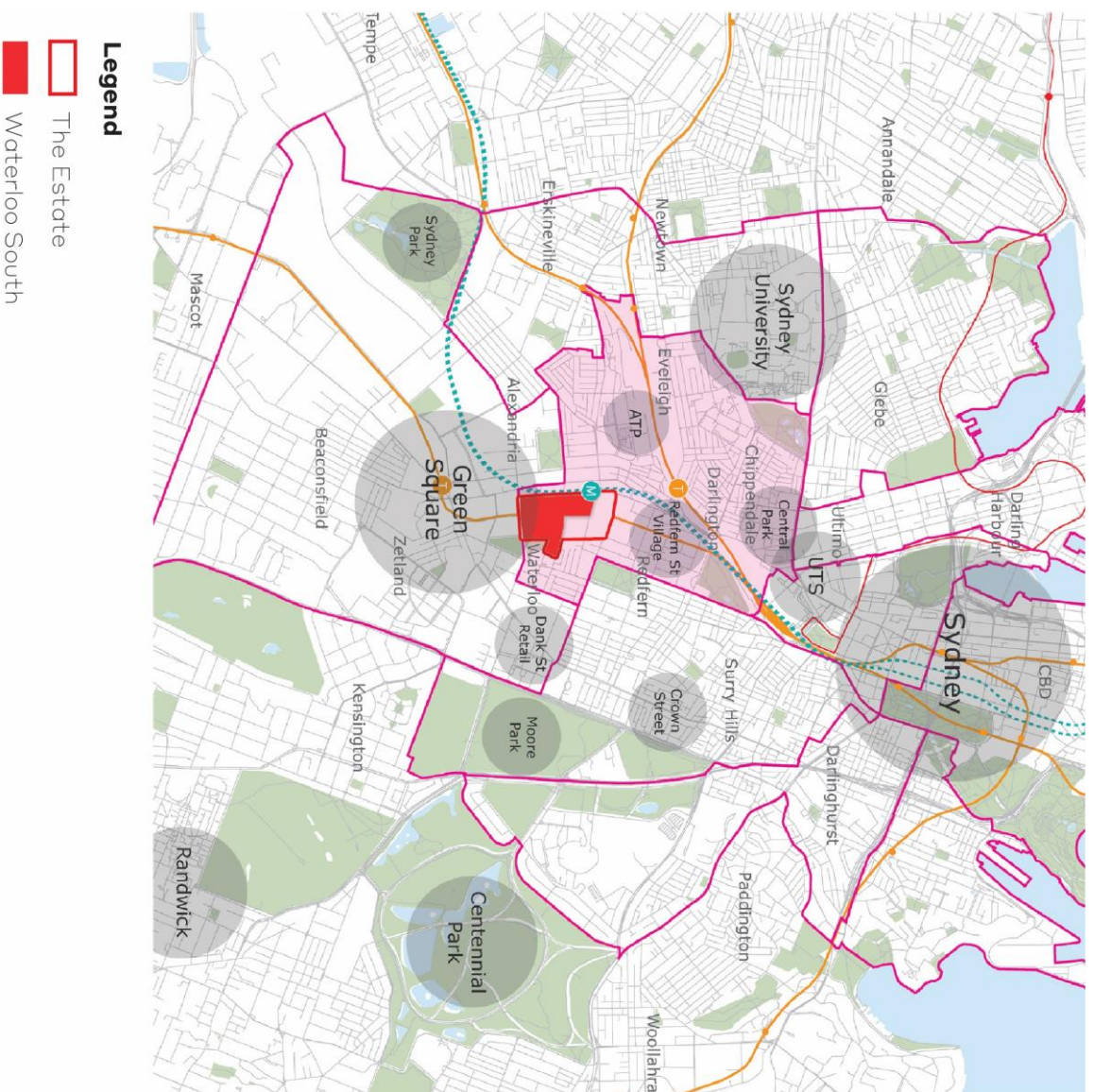


Figure 1-1 Location plan of Waterloo Estate and Waterloo South

Source: Turner Studio

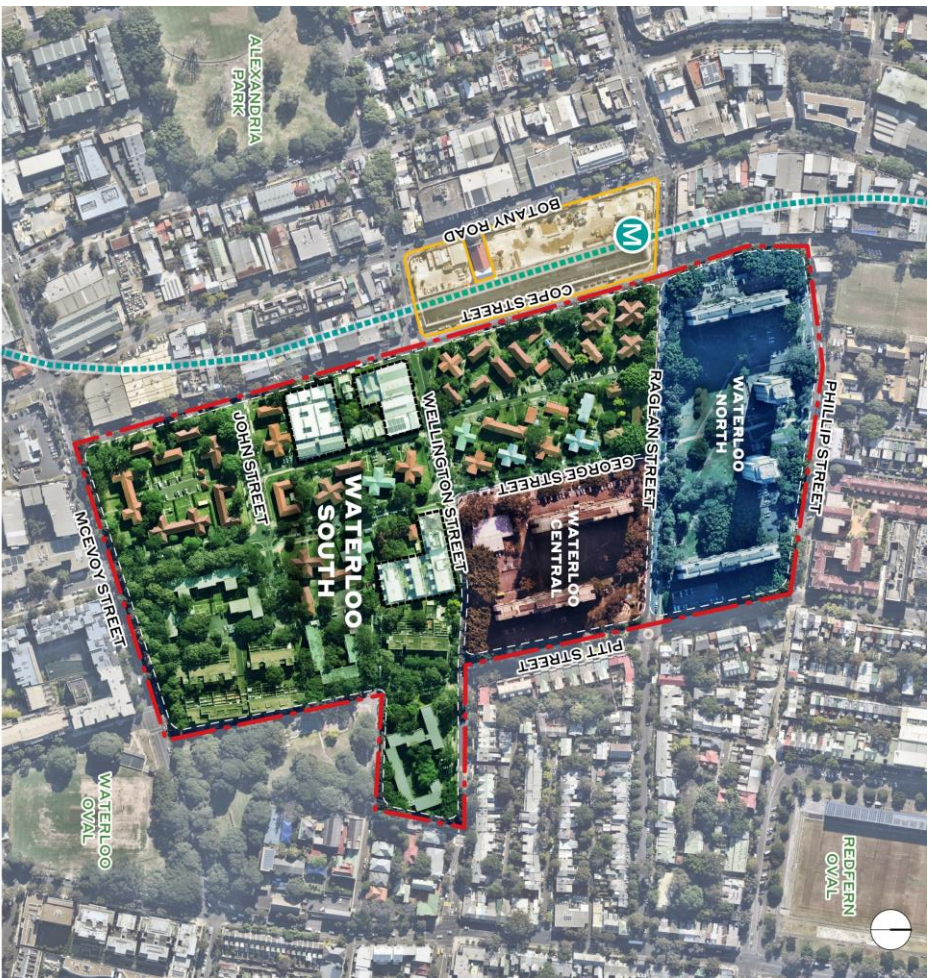
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### 1.1.2 Waterloo South

Waterloo South includes land bounded by Cope, Raglan, George, Wellington, Gibson, Kellick, Pitt and McEvoy Streets, and has an approximate gross site area of 12.32 hectares (approximately 65% of the total Estate).

Waterloo South currently comprises 749 social housing dwellings owned by LAHC, 125 private dwellings, and commercial properties on the south-east corner of Cope and Wellington Streets. Existing social housing within Waterloo South is predominantly walk up flat buildings constructed in the 1950s and '60s, and mid-rise residential flat buildings (Drysedale, Dobell & 76 Wellington Street) constructed in the 1980s. Listed Heritage Items within Waterloo South include the Duke of Wellington Hotel, Electricity Substation 174 on the corner of George and McEvoy Streets, the terrace houses at 229-231 Cope Street and the Former Waterloo Pre-School at 225-227 Cope Street. The State Heritage listed 'Potts Hill to Waterloo Pressure Tunnel and Shafts' passes underneath the precinct.

A map of Waterloo South and relevant boundaries is illustrated in **Figure 1-2**.



- Legend**
- The Estate
  - Private Properties
  - Waterloo Metro Quarter
  - M Waterloo Metro Station
  - Sydney Metro Alignment
- 
- Subject to this planning proposal**
- Waterloo South
- 
- Subject to future planning and planning proposal**
- Waterloo North
  - Waterloo Central

Figure 1-2 Waterloo Precinct

Source: Ethos Urban

### 1.1.3 Renewal Vision

The transition of Waterloo Estate will occur over a 20-year timeframe, replacing and providing fit for purpose social (affordable rental) housing as well as private housing to create a new integrated and inclusive mixed-tenure community.

This aligns with Future Directions for Social Housing in NSW – the NSW Government’s vision for social housing. It also aligns with LHC’s Communities Plus program, which is tasked with achieving three key objectives:

1. Provide more social housing
2. Provide a better social housing experience
3. Provide more opportunities and support for social housing tenants

The following is LHC’s Redevelopment Vision for Waterloo Estate, which was derived from extensive consultation and technical studies:

*Source: Let’s Talk Waterloo: Waterloo Redevelopment (Eilon Consulting, 2019)*



#### **Culture and Heritage**

- Recognise and celebrate the significance of Waterloo’s Aboriginal history and heritage across the built and natural environments.
- Make Waterloo an affordable place for more Aboriginal people to live and work.
- Foster connection to culture by supporting authentic storytelling and recognition of artistic, cultural and sporting achievements.



#### **Communal and Open Space**

- Create high quality, accessible and safe open spaces that connect people to nature and cater to different needs, purposes and age groups.
- Create open spaces that bring people together and contribute to community cohesion and wellbeing.



#### **Movement and Connectivity**

- Make public transport, walking and cycling the preferred choice with accessible, reliable and safe connections and amenities.
- Make Waterloo a desired destination with the new Waterloo Station at the heart of the Precinct’s transport network – serving as the gateway to a welcoming, safe and active community.



#### **Character of Waterloo**

- Strengthen the diversity, inclusiveness and community spirit of Waterloo.
- Reflect the current character of Waterloo in the new built environment by mixing old and new.



#### **Local Employment Opportunities**

- Encourage a broad mix of businesses and social enterprise in the area that provides choice for residents and creates local job opportunities.



#### **Community Services, Including Support for Those Who Are Vulnerable**

- Ensure that social and human services support an increased population and meet the diverse needs of the community, including the most vulnerable residents.

- 
- Provide flexible communal spaces to support cultural events, festivals and activities that strengthen community spirit.



- **Accessible Services**
- Deliver improved and affordable services that support the everyday needs of the community, such as health and wellbeing, grocery and retail options.

#### **Design Excellence**



- Ensure architectural design excellence so that buildings and surrounds reflect community diversity, are environmentally sustainable & people friendly – contributing to lively, attractive and safe neighbourhoods.
- Recognise and celebrate Waterloo's history and culture in the built environment through artistic and creative expression.
- Create an integrated, inclusive community where existing residents and newcomers feel welcome, through a thoughtfully designed mix of private, and social (affordable rental) housing.

### **1.1.4 Purpose of this report**

This report relates to the Waterloo South planning proposal. While it provides comprehensive baseline investigations for Waterloo Estate, it only assesses the proposed planning framework amendments and Indicative Concept Proposal for Waterloo South.

The key matters addressed as part of this study, include:

- > The impacts of the Waterloo South masterplan on the visual quality of its locality including views from regional and local locations.
- > The impacts of the masterplan on the Heritage Conservation proposed on the visual quality of Conservation Areas in the vicinity of the Waterloo Estate scheduled in the Sydney Local Environmental Plan 2012 (SLEP 2012) including:
  - The Redfern Estate (incorporating Redfern Park and adjacent residential streets);
  - Alexandria Park Conservation Area (incorporating Alexandria Park and adjacent Streets); and
  - Waterloo Conservation Area (incorporating Waterloo Park and Oval, the Our Lady of Mt Carmel Church and School and adjoining residential streets).

### **1.1.5 Waterloo South planning proposal**

The planning proposal will establish new land use planning controls for Waterloo South, including zoning and development standards to be included in Sydney LEP 2012, a new section in Part 5 of DCP 2012, and an infrastructure framework. Turner Studio and Turf has prepared an Urban Design and Public Domain Study which establishes an Indicative Concept Proposal presenting an indicative renewal outcome for Waterloo South. The Urban Design and Public Domain Study provides a comprehensive urban design vision and strategy to guide future development of Waterloo South and has informed the proposed planning framework. The Indicative Concept Proposal has also been used as the basis for testing, understanding and communicating the potential development outcomes of the proposed planning framework.

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The Indicative Concept Proposal comprises:

- > Approximately 2.57 hectares of public open space representing 17.8% of the total Estate (Gross Estate area – existing roads) proposed to be dedicated to the City of Sydney Council, comprising:
    - Village Green – a 2.25 hectare park located next to the Waterloo Metro Station; and
    - Waterloo Common and adjacent – 0.32 hectares located in the heart of the Waterloo South precinct.
    - The 2.57 hectares all fall within the Waterloo South Planning Proposal representing 32.3% of public open space (Gross Waterloo South area – proposed roads)
  - > Retention of 52% of existing high and moderate value trees (including existing fig trees) and the planting of three trees to replace each high and moderate value tree removed.
  - > Coverage of 30% of Waterloo South by tree canopy.
  - > Approximately 257,000 sqm of GFA on the LAHC land, comprising:
    - Approximately 239,100 sqm GFA of residential accommodation, providing for approximately 3,048 dwellings comprising a mix of market and social (affordable rental) housing dwellings;
    - Approximately 11,200 sqm of GFA for commercial premises, including, but not limited to, supermarkets, shops, food & drink premises and health facilities; and
    - Approximately 6,700 sqm of community facilities and early education and child care facilities.
- The key features of the Indicative Concept Proposal are:
- > It is a design and open space led approach.
  - > Creation of two large parks of high amenity by ensuring good sunlight access.
  - > Creation of a pedestrian priority precinct with new open spaces and a network of roads, lanes and pedestrian links.
  - > Conversion of George Street into a landscaped pedestrian and cycle friendly boulevard and creation of a walkable loop designed to cater to the needs of all ages.
  - > A new local retail hub located centrally within Waterloo South to serve the needs of the local community.
  - > A target of 80% of dwellings to have local retail services and open space within 200m of their building entry.
  - > Achievement of a 6 Star Green Star Communities rating, with minimum 5-star Green Star – Design & As-Built (Design Review certified).
  - > A range of Water Sensitive Urban Design (WSUD) features.

The proposed land allocation for the Waterloo South precinct is described in **Table 1-1** below.

Table 1-1 Breakdown of allocation of land within the Waterloo South

Land allocation	Existing	Proposed
<b>Roads</b>	3.12ha / 25.3%	4.38ha / 35.5%
<b>Developed area (Private sites)</b>	0.86ha / 6.98%	0.86ha / 7%
<b>Developed area (LAHC property)</b>	8.28ha / 67.2%	4.26ha / 34.6%
<b>Public open space (proposed to be dedicated to the City of Sydney)</b>	Nil / 0%	2.57ha / 20.9% (32.3% excluding roads)
<b>Other publicly accessible open space (including former roads and private/LAHC land)</b>	0.06ha / 0.5%	0.25ha / 2%
<b>TOTAL</b>	<b>12.32ha</b>	<b>12.32ha</b>

The Indicative Concept Proposal for the Waterloo South is illustrated in **Figure 1-3** below.





Figure 1-3 Indicative Concept Proposal Source: Turner Studio

- LEGEND**
- Waterloo South Boundary
  - Waterloo Central Boundary
  - Waterloo North Boundary
  - SP2 Reservation
  - Proposed Lot Boundary
  - Private Site Boundary
  - Public Open Space
  - High Value Tree Retained
  - Moderate Value Tree Retained
  - Low-rise Building
  - Mid-rise Building
  - Tall Building
  - [X] Height in storeys
  - [x+a] Height in storeys + Attic

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## 2 Study Process

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The visual impact assessment (VIA) has been prepared to accompany a planning proposal to be submitted to the City of Sydney (CoS) to establish new land use planning controls for Waterloo South, including zoning and development standards to be included in Sydney LEP 2012, and a new section in Part 5 of DCP 2012. The VIA has been carried out through a combination of electronic modelling and ground-truthing. The critical visual attributes of the Waterloo Precinct that contribute to its visual character and quality are described in **Section 3.2**. The process adopted for this assessment has included the following tasks:

### 2.1 Existing Conditions

- > Review all background documentation, strategies and plans to understand context and key outcomes;
- > Undertake a site visit and prepare a photographic record;
- > Identify visual catchment areas and existing conditions in terms of topography/terrain modelling, and insert existing buildings and landscapes into the model to provide an accurate assessment of existing conditions;
- > Assess the visual character of the locality with regard to:
  - Existing built form
  - Open space
  - Existing tree stock
  - Building to open space relationship
  - Streetscape
  - View lines, both internal and to / from the study area
  - Permissible future development in the vicinity, which will impact on local visual quality
- > Identify elements of the current visual character that should be retained in the development along with elements that are detrimental to a high visual quality or could be changed without negative impact.
- > Prepare a succinct description of the local visual character with the aid of maps, and aerial and ground level photography. The description, among other things, identifies elements within the character that pose challenges and/or opportunities for its future development.
- > Prepare visual quality objectives. The objectives articulate specific components of the visual quality of the precinct that are to be preserved and enhanced in its development.

## 2.2 Visual Impact Assessment

- > Identify key viewpoints towards Waterloo South from within the Waterloo Precinct and surrounding areas. This work has been carried out using GIS data. Critical views within the viewshed of the Waterloo Precinct have been identified through ground-truthing with the aid of photography. Views within and towards Waterloo South have been evaluated for their perceptual (scenic) quality. Views that have cultural, historic or community values have also been identified.
- > Key viewpoints were discussed with relevant members of the consultant team and officers of the City of Sydney in order to agree on viewpoints that are critical to assessment of change within the Precinct.
- > Take professional quality photographs from each of the identified key viewpoints and certify the location of each photograph using survey technology.
- > Integrate each photo into the 3D model to generate accurate photomontages.
- > Prepare a Verification Statement as to the accuracy of the photomontages in accordance with the relevant Land and Environment Court Planning Principles.
- > Through the testing exercise, and in consultation with the urban designers and Project Management, arrive at an acceptable development scenario with respect to retention and enhancement of the visual character of the Precinct.
- > Carry out and document a detailed visual impact assessment of the Waterloo South Concept Proposal.

## 2.3 Review of Conclusions against relevant Court Planning Principles (*Rose Bay Marina Pty Ltd v Woollahra Council and anor [2013] NSWLEC 1046*)

The assessment of impacts on views from the public domain has been informed by relevant planning principles for assessment of such impacts set by the Land and Environment Court of NSW, specifically in *Rose Bay Marina Pty Ltd v Woollahra Council and anor [2013] NSWLEC 1046*. A summary of the impacts against these principles is provided in the conclusion to the report.

In this matter in the NSW Land and Environment Court the Commissioners established principles specifically to guide assessment of visual impacts of development on the public domain. A brief review of the visual impact of the proposal against these Principles follows.

### Identification stage

#### Nature and scope of views

*“The first step of this stage is to identify the nature and scope of the existing views from the public domain.”*

The views identified in the assessment of this proposal are composed exclusively of man-made elements – buildings, roads and pavement, planted vegetation and constructed open space and recreation areas. The open sky is the only natural element in the views. Trees and green spaces are naturalistic elements in the views that provide visual relief. As such they are important contributors to the visual quality of the locality. The elements in the views are all static and only subject to change as a result of further human interventions such as development. In turn, the quality of the views is contingent on the aesthetic quality of the individual man made elements and their composition in relation to one another. Impacts of changes to these views will be contingent on the design quality of the new elements of any development. With respect to the natural (or naturalistic) elements, whether impacts of change are positive or negative will depend, among other things, on the extent to which the natural and naturalistic elements are obscured or enhanced by the change.

#### Location

The second step is to identify the locations in the public domain from which the potentially interrupted view is enjoyed.

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Locations of views have been determined via the process described in **Section 6.1** of this report. A logical process was followed involving identification of the visual catchment of the site and ground truthing by site inspection to identify critical view locations within the catchment that are representative of general views towards the site from the public domain. The locations identified were agreed with officers of the City of Sydney and Department of Planning, Industry and Environment.

*“The third step is to identify the extent of the obstruction at each relevant location.”*

The Principle maintains that views from the public domain should not be defined at any specific eye height. Viewers may be seated or standing. Visual interpretations for the purposes of this assessment have been prepared from the height of a standing person. This is appropriate in the circumstances of this case as it can be assumed that close viewers would most likely be walking or standing in local streets. The exception would be viewers in cars or people seated in public spaces. However, views of the site in its developed state would not change appreciably from a seated or standing position.

*“The fourth step is to identify the intensity of public use of those locations where that enjoyment will be obscured, in whole or in part, by the proposed private development.”*

The intensity of the use of the locations studied will vary. With respect to close viewing locations, the intensity of use will inevitably increase significantly due to the introduction of the new land use planning controls within Waterloo South. In the case of more distant locations (parks and streets in the surrounding neighbourhood) the intensity of use is moderate, typical of residential and recreational locations in an inner city location and the level of use would not be likely to change dramatically as a result of implementation of the proposal.

*“The final step to be identified is whether or not there is any document that identifies the importance of the view to be assessed.”*

Views from the Conservation Management Areas within the visual catchment of the site are subject to protection under the SLEP 2012. Aside from this, there are no controls in the planning policies that pertain specifically to protection of views from the public domain.

### **Analysis of impacts**

The Court guidelines go to quantitative and qualitative evaluations of impacts of development on views. With respect to quantitative evaluation the fundamental question to be posed is:

*“If the view remaining (if the development were to be approved) will be sufficient to understand and appreciate the nature of the existing view.”*

Some factors to be considered in qualitative assessment of visual impacts include, among other things:

- > Is any significance attached to the view likely to be altered?
- > If so, who or what organisation has attributed that significance and why have they done so?
- > Is the present view regarded as desirable and would the change make it less so (and why)?
- > Should any change to whether the view is a static or dynamic one be regarded as positive or negative and why?
- > If the present view attracts the public to specific locations, why and how will that attraction be impacted?
- > Is any present obstruction of the view so extensive as to render preservation of the existing view merely tokenistic?
- > However, on the other hand, if the present obstruction of the view is extensive, does that which remains nonetheless warrant preservation (it may retain all or part of an iconic feature, for example)?
- > If the change to the view is its alteration by the insertion of some new element(s), how does that alter the nature of the present view?

---

Existing views towards the Waterloo Precinct from surrounding streets have been found to be of variable quality so that with respect to close views, the “nature of the existing view” is not a critical consideration in assessment of the impacts of the proposal. In more distant views from local and regional parks such as Alexandra Park, Sydney Park and Mount Steele, Moore Park, our assessment has found that the more expansive views across the site available from these locations would change but would remain intact with regard to their “nature”. The proposed taller buildings would present as new elements in these views but they would not alter the fundamental composition of the views that currently include built elements, vegetation and sky. The exception to this is in some close views from the east where the new built form will constitute continuous views of built form.

With regard to the Courts principles for qualitative assessment, the following observations are made:

- > Only views from Sydney Park and Mount Steele, Moore Park would have any generally recognised significance. These are the only locations within the identified visual catchment of Waterloo South that people would visit with the specific intention of observing the view. To our understanding the significance of these views is popular rather than being formally recognised. Sydney Park attracts visitors to observe its panoramic city views at moderate levels in general times and in substantial numbers during special events such as the New Year’s Eve fireworks. Mount Steele would be expected to be subject to similar levels of visitation. Our assessment has found that the quality of the view from Sydney Park would not be changed substantially by the proposed development and the enjoyment by visitors would not be noticeably impacted. With respect to Mount Steele, the change to the view that would result from the development would be subordinate to the principle view from the viewing point which is towards the Sydney CBD.
- > The change to the majority of views assessed is the result of the insertion of new built elements – the built podium and taller buildings located within the Waterloo South development. The views will alter as a result to varying degrees. In close proximity, views will alter significantly where the redeveloped Waterloo South precinct, including podium and taller buildings will replace the existing built form. View alteration will be moderate to minor from distances further away from the site where only the taller buildings will appear as new elements in views that are currently dominated by other built elements as well as trees and sky. Our general finding is that, contingent on achievement of high quality design outcomes, the proposal will result in improvements to the quality of the majority of the views assessed. Exceptions to this occur in the few occasions where the developed site will present as continuous walls of built form. High quality design incorporating a high level of articulation in building facades supplemented by foreground tree planting would mitigate these impacts.

## 3 Existing Condition

### 3.1 Process

Baseline investigations for visual quality have been derived via examination of the combined Waterloo Estate and Waterloo Metro Quarter (the Waterloo Precinct). The baseline investigations have been aimed at identifying issues, opportunities and constraints with respect to visual quality to be explored through the master planning process for Waterloo South

### 3.2 Waterloo Estate – Existing character

The visual character of a locality or place is generally accepted as being generated by:

- > The type and intensity of human intervention;
- > The juxtaposition between the various built, natural and semi-natural elements on the land; and
- > The topography of the land.

#### 3.2.1 Regional context

The Waterloo Precinct occurs in the context of the inner western suburbs of Sydney (Figure 3-1). Traditionally, the area has supported a mix of industrial uses, associated with the rail line and the Alexandria Canal, and terrace housing to accommodate local workers. Traditional strip shopping centres along arterial roads complete the mix, resulting in the self-contained living / working environment that typified inner western Sydney in the first half of the twentieth century. In recent years, most of the industrial uses have been progressively renewed to residential and boutique commercial uses but the fine grain residential uses still remain over much of the locality.

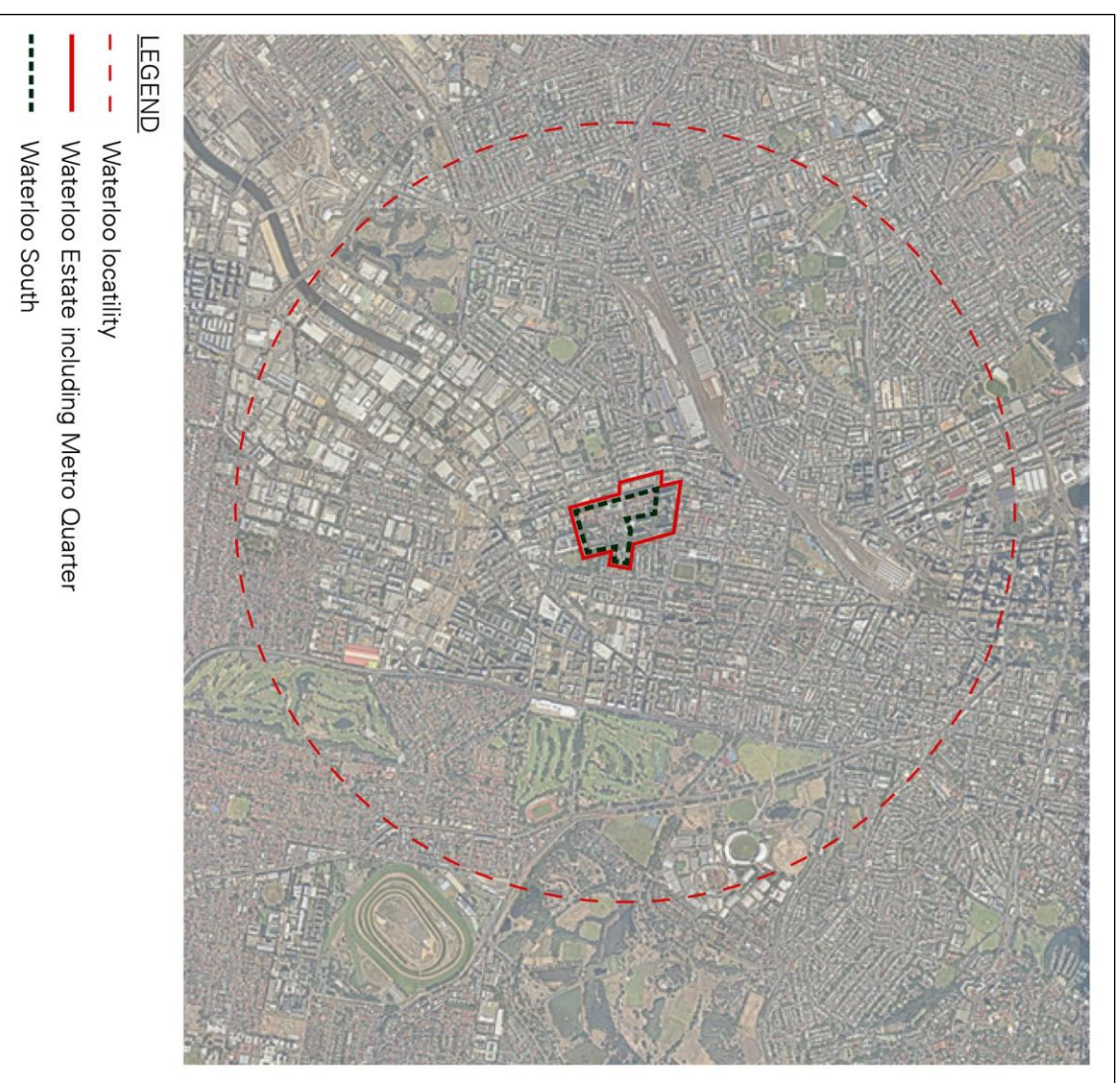


Figure 3-1 Regional Context

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Topographically, the locality is characterised by undulating land forms with a series of higher ridges. Many of these ridges have high points which constitute significant landmarks. These are broadly described at **Figure 3-2**.

Land within these confines is generally occupied by housing and commercial development but there are significant areas of open space at:

- > Sydney Park;
- > Moore Park and Centennial Park;
- > Victoria Park; and
- > Prince Alfred Park.

Substantial parcels of open space in close proximity to the Waterloo Precinct include:

- > Redfern Oval and Park;
- > Waterloo Park (north and south); and
- > Alexandria Park.

These well designed and managed parcels of open space provide visual relief and contrast in the generally densely developed environment. They are critical to the visual amenity and character of the region.

**Figure 3-3** to **Figure 3-8** provide an illustration of some of the forms of existing development in the locality.

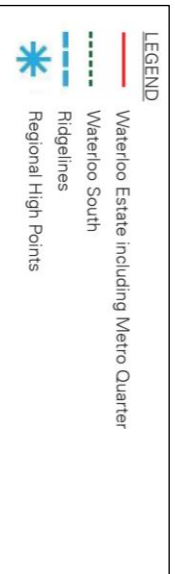
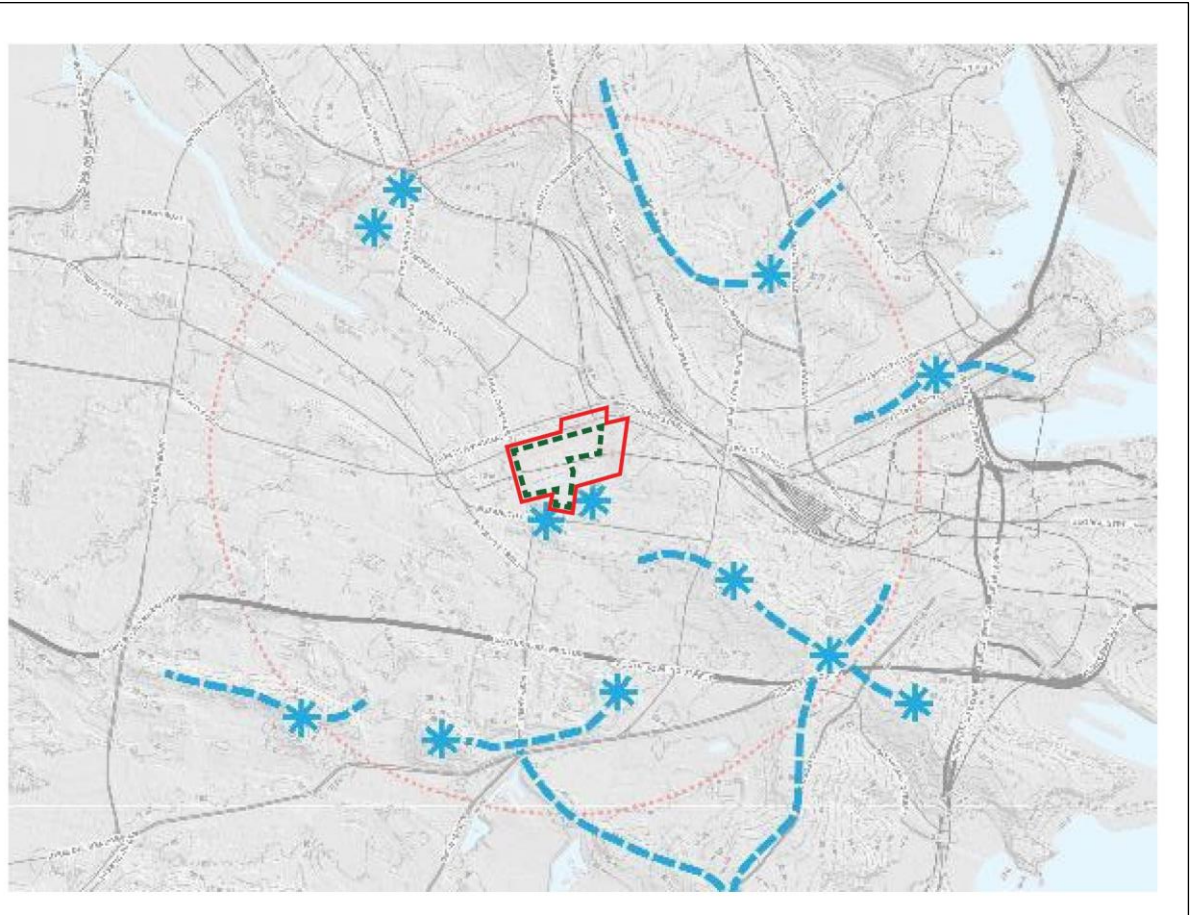


Figure 3-2 Regional context – ridgelines and high points





Figure 3-3 Traditional terrace housing



Figure 3-4 Residential areas characterised largely by traditional terrace housing and strip shopping centres (Redfern, Surry Hills, Erskineville and Newtown)



Figure 3-5 Local parklands



Figure 3-6 Light industrial development backing on to the Alexandria Canal



Figure 3-7 Local urban renewal project



Figure 3-8 Former industrial areas in transition to mixed and residential and commercial uses (Eveleigh, Alexandria and Waterloo)

Design decisions about the height and architectural form of the proposed building envelopes need to account for how they will affect local and regional views. Critical views identified in the report include views from within Waterloo South, views to the city from Sydney Park, views to Waterloo South from Redfern Park and its neighbourhood, Alexandria Park and its neighbourhood, Waterloo Park and its neighbourhood and Moore Park.

A map showing the identified critical viewpoints is at **Figure 6-1** below, along with the existing views from those viewpoints.

### 3.1 Visual Description – the Waterloo Precinct

Waterloo South displays a unique visual character that contrasts markedly with its context.

Topographically, the Waterloo Precinct and its immediate locality consists of a relatively level plane to the west of George Street and north of Wellington Street rising to the east in its south eastern portion towards an elevated platform bounded roughly by McEvoy Street, Pitt Street and Kellick Street (see **Figure 3-9**).

Existing built form within the Waterloo Precinct is a function of its primary historical function as community housing, coupled with some small areas of commercial space on remnant privately owned land. Housing forms within Waterloo South largely consists of two/three storey walk-ups and terrace style housing. At the time of preparation of this report, station works on the Metro Quarter are under construction and the above station works are the subject of a rezoning application and State Significant Development Application, both of which are under consideration by the Minister.

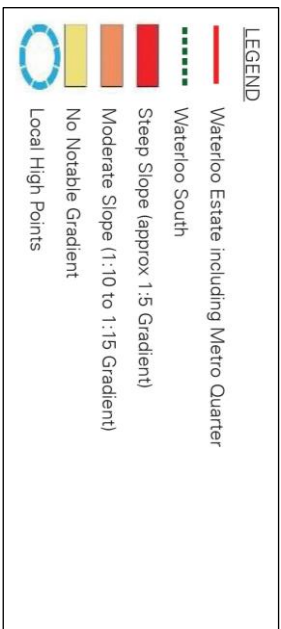
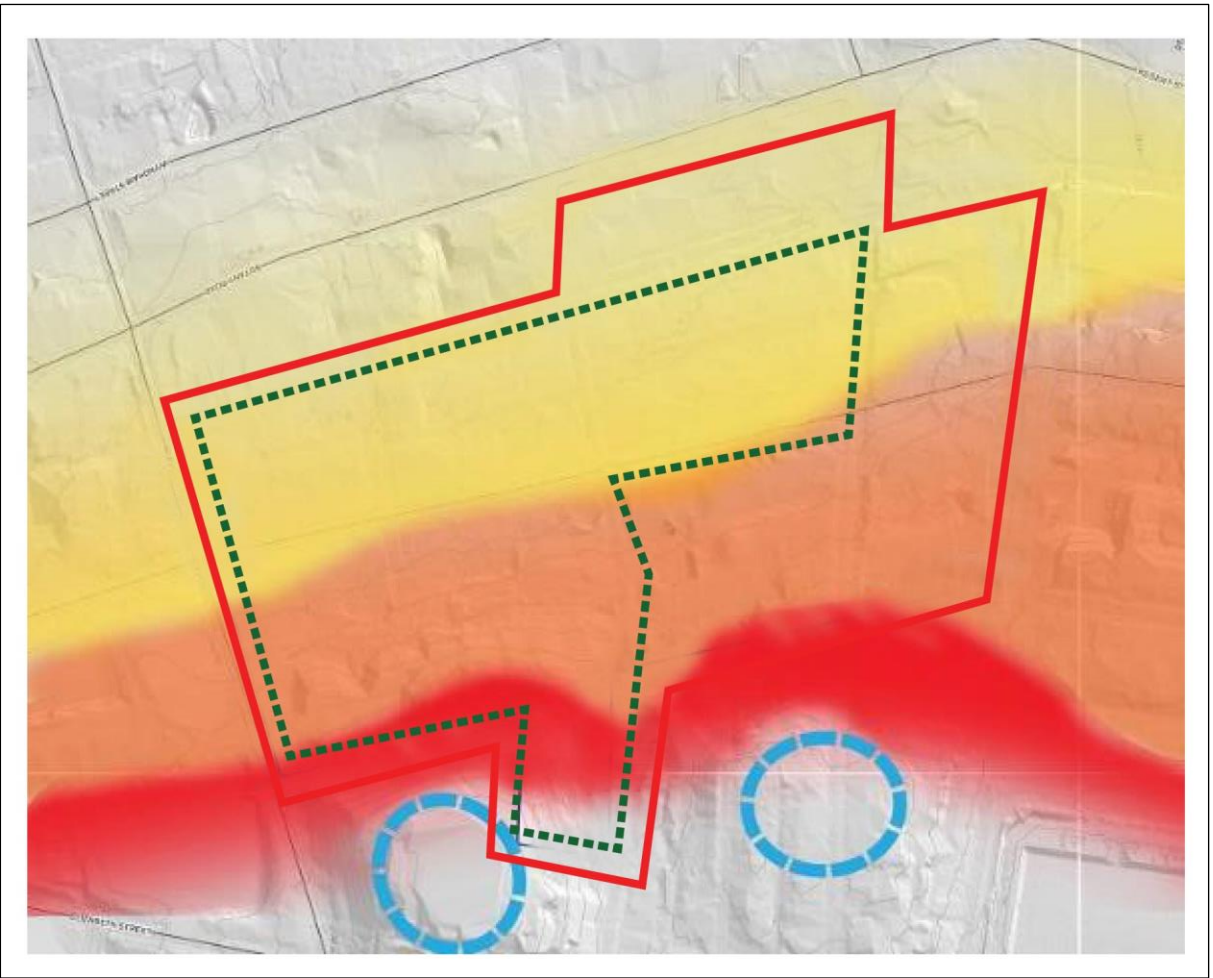


Figure 3-9 Tower development in the northern part of the Precinct (Source: Nearmap)

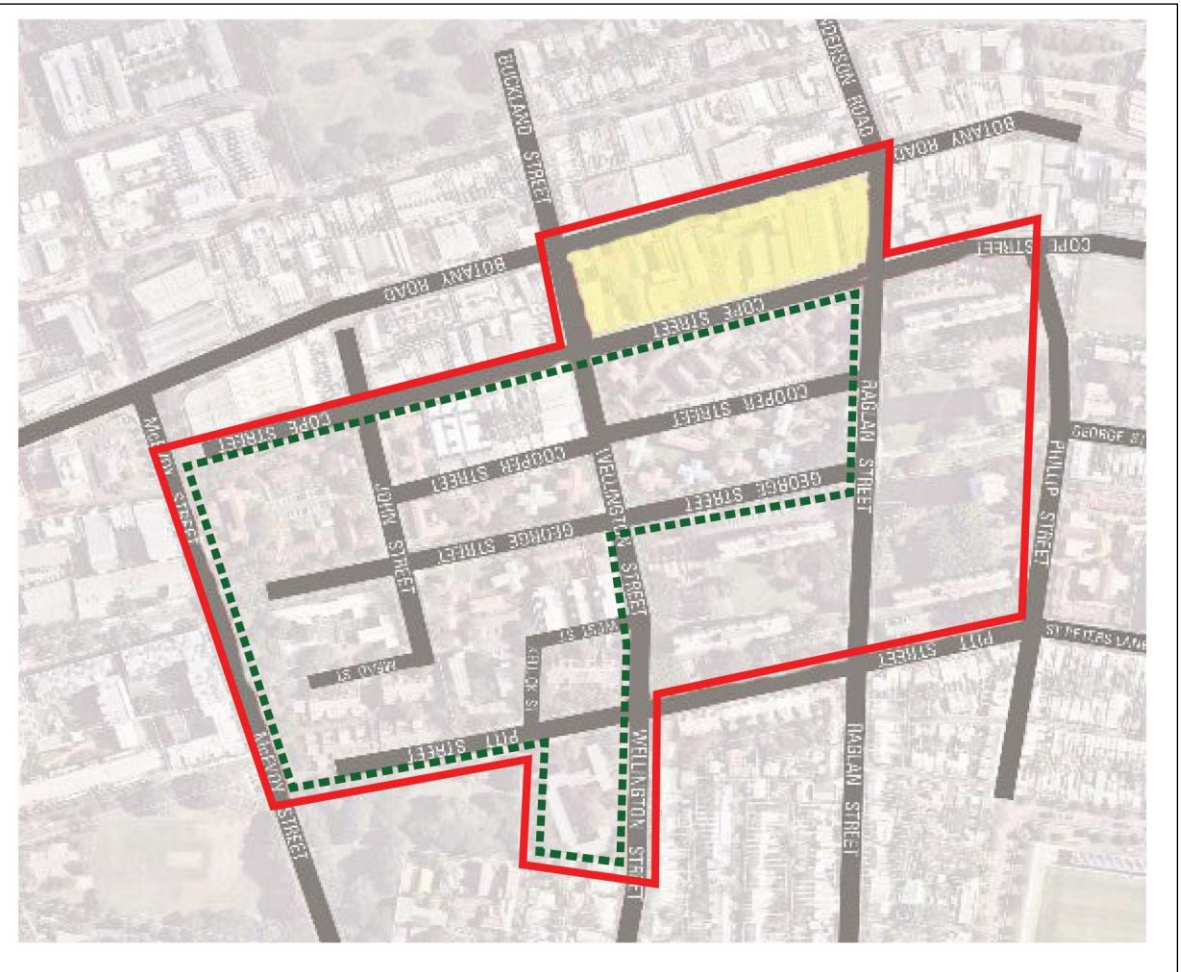


Figure 3-10 Precinct street pattern

The Waterloo Precinct is visually contained with its edges clearly defined by boundary streets. Within these boundaries, the Waterloo Precinct exhibits a relatively open character defined by:

- > A grid pattern of wide streets (Figure 3-10 and Figure 3-11). The Precinct has developed with a roughly regular street grid which has been moderately altered by various street closures since its original construction. The general grid structure of Precinct remains, however, and this is a contributory component of its character, allowing for some long views from and across the Precinct and a good level of legibility. Some of these long views, for example views north along Cooper Street and George Street, include the tall towers in the northern part of the Precinct as dominant elements. Others, for example north-south views on Pitt Street and Cope Street and views generally along east-west streets do not have significant focal points, but they contribute to a generally open and legible visual character within the Precinct.
- > Very large blocks (varying in size from around 7000m2 up to approximately 3.5 hectares). These large land parcels also contribute to an open visual character which is a distinctive component of the visual quality of the Precinct.

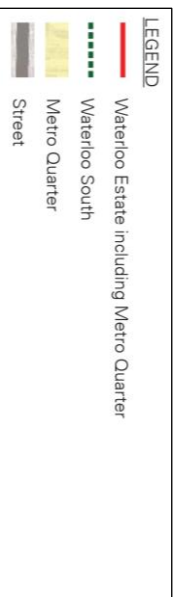




Figure 3-11

Typical street view within Waterloo South

- > A high ratio of open land to built-upon land which also contributes to a relatively open visual character. This contrasts to the more traditional development form of low rise terrace housing that occurs in significant portions of the local neighbourhood and results in a much higher portion of built form on the ground (Figure 3-12 and Figure 3-13). The existing development form of Waterloo South has been in place since its redevelopment in the 1970's. It would be appropriate for the new development of Waterloo South to be consistent with this existing character. Having said this, the unique character of the Waterloo Precinct and its contrasting context of traditional terrace housing on a street grid pattern provides an opportunity for urban renewal that retains street level openness while referencing the laneway forms that are part of the existing visual character of its context, and the former character of the Waterloo Precinct. We also acknowledge, however, that there is a need for a better transition between the low rise large development footprint character of the neighbourhood and the high rise / open ground plane character of the Study Area. Currently this transition is achieved to some extent by large trees which tend to contribute to a visual transition between the ground plane and the tall buildings. Low level podia at similar heights to the adjacent development would achieve a similar result.
- > A substantial stock of large trees both in the streetscape and within the developed properties. These are a critical element of the visual character. They contribute to a human scale within the entire Precinct.



Figure 3-12 Tower development in the northern part of the Precinct. (Source: Nearnmap)



Figure 3-13 Traditional terrace housing adjoining the Precinct to the East. (Source: Nearnmap)



Figure 3-14



Figure 3-15

### 3.1.2 Sub-Precincts and Character Statements

Within the Waterloo Precinct a number of sub-precincts are clearly defined by contrasting visual character. **Figure 3-17** illustrates these sub-precincts and brief descriptions of the character of each follow.



#### Visual Character Precinct

- A** High rise in landscaping setting
- B** 2/3 storey walk-ups (60's housing commission)
- C** Contemporary terrace style/built to street
- D** Remnant commercial
- D1** Metro Quarter (under construction)
- E** Medium rise units in landscaping setting (circa 70's)
- F** Heritage

Figure 3-17 Visual character sub-precincts



3.1.2.1 Sub-precinct A – High Rise in Landscape Setting (Waterloo North and Centre – Subject to future planning and planning proposal)

Large scale buildings within a park like setting of well-maintained open space (Figures 3-18 and 3-19). Visual quality at street level is generally high, characterised by broad streets, usually tree lined with buildings set back well from the street alignment.

Very tall building forms, notwithstanding their architectural character, create precedents for tall, slender building forms that could be incorporated into the redevelopment of Waterloo.

Photos on this page illustrate the important role played by large mature trees as softening elements for tall buildings and visual transitions between the built form and the ground plane.

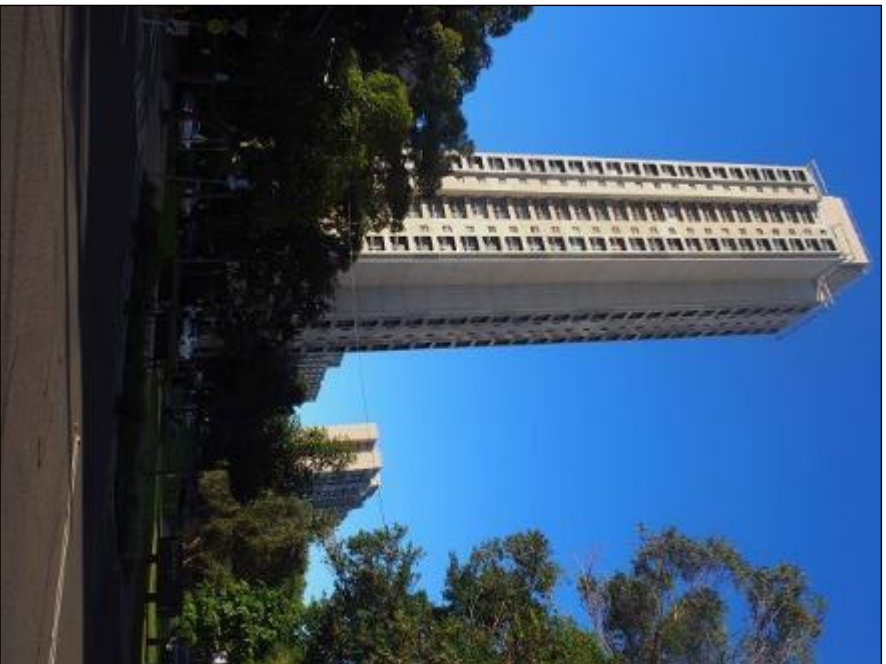


Figure 3-18 Existing tall towers in Waterloo North



Figure 3-19 Tall buildings in landscape setting – Waterloo North



Figure 3-20 Landscape setting providing relief to high density built form (Waterloo North)



Figure 3-21 Existing trees softening bulky built form (Waterloo North)



Figure 3-22 Existing trees softening bulky built form (Waterloo North)

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Streets are generous in dimensions and buildings are well setback allowing for an acceptable relationship between large buildings and the streetscape (**Figures 3-19, 3-20, 3-21**).

Tall slender tower forms work well as visual elements as they allow for substantial areas of sky and landscape in viewlines. Notwithstanding the architectural quality of the tall towers that currently exist within Sub-precinct A of the Study Area, it is our opinion that the towers create a precedent for tall, slender building forms in the redevelopment of the Precinct.

Conversely, the existing lower building blocks in the Sub-precinct create long walls along their long axes (**Figure 3-20**). The perception of these walls is continuous across two or more buildings in many views. The bulk and scale of these buildings, although softened by mature trees in many instances, creates a negative element in the visual environment.

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3.1.2.2 Sub-precinct B – 2-3 Storey Walk-ups

Traditional housing circa 1960's is the dominant form within this sub-precinct (**Figure 3-23**). Buildings are well setback from the street and are within an established landscape setting. Streets are wide and tree-lined (**Figure 3-24**).



Figure 3-23 Three storey "walk-ups" in landscape setting (Waterloo South)



Figure 3-24 Street trees and wide road reserves create landscape setting (Waterloo South)

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3.1.2.3 *Sub-precinct C – Contemporary Terrace Style – Built to Street*

The Precinct includes modern interpretations of the traditional terrace house form that is common in neighbourhoods surrounding the Waterloo Precinct (**Figures 3-25, 3-26, 3-27**).

Two storey attached terraces are built to or close to the street boundary.

It is notable that the varying styles also vary in their success as contributors to the visual character of the street. Forms that address and overlook the street via balconies and front gardens will be more conducive to an attractive and safe streetscape than those with blank facades and enclosed courtyards.



Figure 3-25 Terrace style housing forms (Waterloo South)



Figure 3-26 Terrace style housing forms (Waterloo South)



Figure 3-27 Terrace style housing forms (Waterloo South)

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3.1.2.4 Sub-Precinct D – Remnant Commercial

Post demolition of the Metro Quarter site, existing commercial development is restricted to a small portion of land on the corner of Buckland and Cope Streets (**Figure 3-28**).

There is nothing in the commercial component of the Precinct that makes a significant contribution to its visual quality.



Figure 3-28 Remnant commercial building (Waterloo South)

3.1.2.5 Sub-precinct E – Medium-rise units in landscape setting

The residential units in this sub-precinct are not considered to be significant contributors to the visual quality of Waterloo South (**Figures 3-29, 3-30 and 3-31**). Similar to other sub-precincts the negative visual impacts of these building forms are significantly mitigated by the broad streets and existence of a large number of forest scale trees in the road reserves and on the lots. Where the buildings are well set back from their boundaries, the setbacks provide opportunities for the very large trees that are a significant component of the visual character of Waterloo South.



Figure 3-29 Residential flat buildings (Waterloo South)



Figure 3-30 Residential flat buildings (Waterloo South)



Figure 3-31 Residential flat buildings (Waterloo South)

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### 3.1.2.6 Sub-precinct F – Heritage

The listed heritage items within the Waterloo South, including remnant terrace houses on Cope Street and the Duke of Wellington Hotel on Wellington Street are important references to the Study Area character prior to its development for commercial uses and public housing (**Figures 3-31, 3-32 and 3-33**). They are likely to be retained due to their heritage status and development in their vicinity will be required to not detract from their heritage values, which will largely include their visual character.



Figure 3-32 Duke of Wellington Hotel



Figure 3-33 Remnant terraces, Cope Street.



### 3.1.3 Local Views / Visual Character

The grid form street pattern of Waterloo Precinct allows for long views within, into and out of the Precinct. East – west views on Wellington and Raglan Streets extend through the site and beyond to Botany Road and Elizabeth Street, creating visual connections between the Study Area and its neighbourhood. Long north – south views are available on Cope, George and Pitt Streets. Where the original street grid pattern has been truncated by road closures (e.g. at the northern and southern extremities of Cooper Street and George Street), the arrangement of buildings has conserved these long views.

The key north-south streets (Cooper, George and Pitt Streets) and many of the east-west streets (Raglan Street and to a lesser extent, Wellington and John Streets) are lined with mature trees for most of their length, creating long avenues that are integral to the character of the Study Area. Consistent with tree planting practices in the period of development of Waterloo South, the majority of street trees in the Study Area are native. This is also a contributory factor to its existing visual character.

Conversely, significantly parts of the Precinct are visually contained by street wall development along much of its eastern edge (from Wellington Street to Phillip Street).

The street character of the Study Area is an integral component of its visual character and quality. In summary, this street character incorporates:

- > Long, straight streets, most of which are tree lined; and
- > Views into and out of the Study Area from its neighbourhood.

Our opinion is that these elements of the street should be retained and enhanced in the re-development of the Precinct.



Figure 3-34 East facing view along Wellington St



Figure 3-35 West facing view along Wellington St



Figure 3-36 North facing view along George St indicating the importance of trees to soften built form and provide a human scale.



Figure 3-37 North facing view along George St from McEvoy St

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### 3.1.4 Regional Views

**Figure 3-38** illustrates the visual catchment of the Waterloo Precinct within a 2 km distance. The yellow shaded areas on the figure indicate places from which existing buildings on the site would be visible to a person standing at street level.

At 113 and 117 metres, the very tall buildings within the Precinct appear as skyline elements in views from elevated locations over long distances within the local region. A visit to the locality has revealed a number of viewing locations that are representative of regional views towards the Precinct. We consider that assessment of the visual impacts of the Proposal from these locations will provide a serviceable representation of the way in which the Proposal will generally change regional views towards and across the Waterloo South Masterplan area. The views have been selected on the basis that:

- > They are from public places where it would be expected that views and visual quality would be highly valued by visitors; and
- > They include views towards the site that would be representative of the types of views that would be available from private places in the same vicinity.

These views are indicated at **Figure 6-1**.

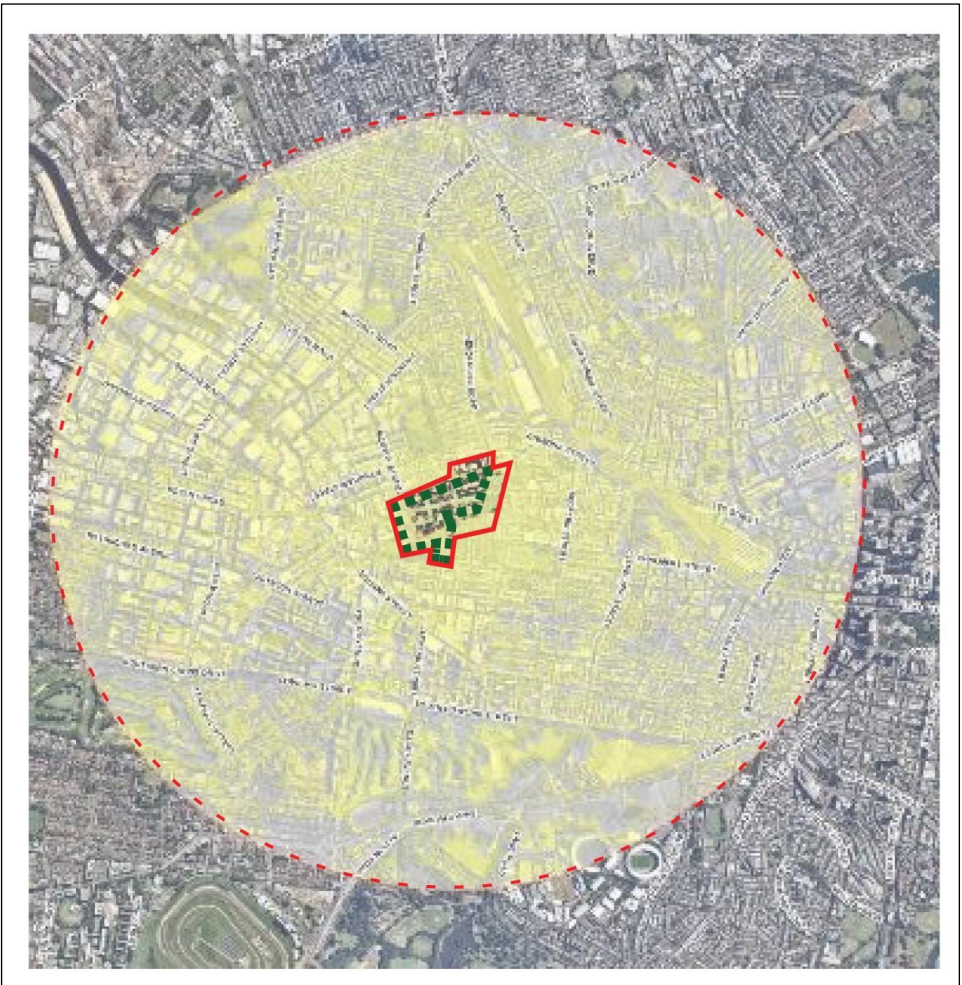
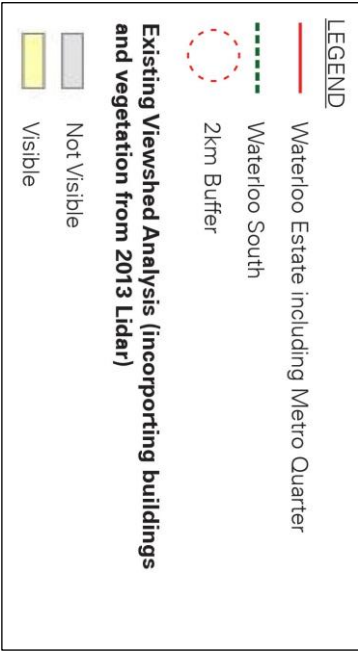


Figure 3-38 Catchment Diagram



## 4 The Proposal

This report relates to:

- > A planning proposal to establish new land use planning controls for Waterloo South, including zoning and development standards to be included in Sydney LEP 2012, a new section in Part 5 of DCP 2012; and
- > An Indicative Concept Proposal for Waterloo South.

### 4.1 Proposed Planning Framework

The existing and proposed planning controls for Waterloo South are:

Table 4-1 Waterloo South Planning Controls

Land allocation	Existing	Proposed
<b>Zoning</b>		
- LAHC Properties	2 (b) Residential (Medium Density) – SSLEP 1998 R1 Residential – SLEP 2012	B4 – Mixed Use B4 – Mixed Use
- Private Properties		
<b>Building Height (Max)</b>	32 storeys (including plant)	Variable to a maximum of 32 storeys (excluding plant)
<b>Floor Space Ratio (FSR) (Max)</b>		
- LAHC Properties	1.75:1 (including 0.25:1 bonus)	2.24:1 (gross FSR*)
- Private Properties	1.75:1 (including 0.25:1 bonus)	3:1

\*FSR for Waterloo South, including roads and public open space. The FSR for individual development blocks varies and is higher, as they do not include roads or public open space.

These proposed key planning controls are accompanied by a draft Development Control Plan (DCP) providing more detailed controls to enable the redevelopment of Waterloo South as an authentic place for people, which responds to the following elements of the character of Waterloo:

- > **Layered:** The area's layered architectural, historic and stylistic character and the convergence of people from diverse backgrounds who have lived in and shaped Waterloo.
- > **Proud:** The sense of pride invested in Waterloo and local attributes including environmental features, building materials and styles.
- > **Distinct:** Waterloo's distinct qualities that people know and love, including its industrial and productive heritage and leafy green character
- > **Resilient:** The innovative ways in which the people and physical landscape of Waterloo has endured over time in the face of change and challenges.

## 4.2 Indicative Concept Proposal

The Indicative Concept Proposal comprises land allocation as follows:

Table 4-2 Land Allocation

Land allocation	Existing	Proposed
<b>Roads</b>	3.12ha / 25.3%	4.38ha / 35.5%
<b>Developed area (Private sites)</b>	0.86ha / 6.98%	0.86ha / 7%
<b>Developed area (LAHC property)</b>	8.28ha / 67.2%	4.26ha / 34.6%
<b>Public open space (proposed to be dedicated to the City of Sydney)</b>	Nil / 0%	2.57ha / 20.9% (32.3% excluding roads)
<b>Other publicly accessible open space (including former roads and private/LAHC land)</b>	0.06ha / 0.5%	0.25ha / 2%
<b>TOTAL</b>	<b>12.32ha</b>	<b>12.32ha</b>

The key features of the Indicative Concept Proposal are:

- > It is a design and open space led approach.
- > Creation of two large parks of high amenity by ensuring good sunlight access.
- > Creation of a pedestrian priority precinct with new open spaces and a network of roads, lanes and pedestrian links.
- > Conversion of George Street into a landscaped pedestrian and cycle friendly boulevard and creation of a walkable loop designed to cater to the needs of all ages.
- > A new local retail hub located centrally within Waterloo South to serve the needs of the local community.
- > A target of 80% of dwellings to have local retail services and open space within 200m of their building entry.
- > Achievement of a 6 Star Green Star Communities rating, with minimum 5-star Green Star – Design & As-Built (Design Review certified).
- > A range of Water Sensitive Urban Design (WSUD) features.

A plan of the Indicative Concept Proposal is included at **Figure 4-1** and computer generated images (CGIs) are included at **Figures 4-2 to 4-3**.



- LEGEND**
- Waterloo South Boundary
  - Waterloo Central Boundary
  - Waterloo North Boundary
  - SP2 Reservation
  - Proposed Lot Boundary
  - Private Site Boundary
  - Public Open Space
  - High Value Tree Retained
  - Moderate Value Tree Retained
  - Low-rise Building
  - Mid-rise Building
  - Tall Building
  - Height in storeys
  - Height in storeys + Attic

Figure 4-1 Indicative Concept Proposal  
 Source: Turner Studio



Figure 4-2 CGI of the proposal, corner of Raglan and Cope Streets looking into the Village Green





Figure 4-3 CGI of the Proposal, from Cope St looking north towards Raglan St

### 4.3 Staging

Renewal of the Waterloo Precinct will occur over a period of approximately 15 - 20 years, commencing along Cope St ideally in the south-west corner of the estate, where new housing can be provided with disruption to the smallest number of existing tenants. The majority of tenants (63%) are currently located within the northern tower buildings, which are not subject to this Planning Proposal. The Waterloo South masterplan is intended to be delivered over a period of approximately 12 years.

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## 5 Approach to design

### 5.1 Urban design principles (visual quality)

At the time of preparation of this report there are three planned urban renewal projects within the urban corridor extending west from the Sydney CBD to the Sydney International Airport. These include:

- > The Eveleigh Rail Corridor / Australian Technology Park;
- > The Waterloo Metro Quarter and Waterloo Estate; and
- > Green Square.

In concert with the Sydney CBD, these three renewal projects will change the scenic environment of inner western Sydney by essentially creating three new nodes of high rise development. Consistent with the growth of this part of Sydney as planned in the Regional Plan and the Eastern City District Plan, the nodes will contribute to a new cityscape characterised by four skyline clusters. If the new nodes are designed in keeping with general principles of design excellence they will create points of interest that will function as visual markers in the cityscape. In this regard, they will contribute positively to the scenic landscape of this part of the Sydney as it develops into the global city envisaged by the Sydney Regional Plan.

To achieve this outcome with respect to urban renewal of the Waterloo Precinct, the following visual quality based design principles have been derived:

- > Develop a unique visual character for the Waterloo Precinct that maintains the positive elements of its existing character (tall slender buildings in the context of an open, legible ground plane incorporating tree lined streets with long views) and incorporate the positive components of its urban context including fine grain street level character and a street hierarchy including laneway typologies;
- > Build upon the precedent of tall buildings in a landscape setting to create a visually distinctive built environment;
- > Ensure that tall buildings vary in height and are well separated to create an articulated skyline with a substantial component of sky visible between building forms;
- > Retain the open internal qualities and legibility of the Precinct at street level that result from its existing development pattern of broad streets in a clear grid pattern;
- > Retain the dominance of large forest scale trees at street level; and
- > Avoid continuous “walls” of built form in local and regional views.

### 5.2 Constraints and Opportunities

The Cardno analysis of the visual / scenic character of the Waterloo Precinct has identified the following opportunities and constraints with regard to visual quality.

Element	Opportunity	Constraint
Urban form / height	<p>The existing configuration of very tall buildings within the Waterloo North and Central areas establishes a distinctive visual character in local and regional views. This translates to an opportunity for a site responsive urban renewal program incorporating tall slender towers that would continue the established theme of dramatic sculptural elements in the local and regional cityscape.</p>	<p>The Location of new tall buildings in redevelopment of the Study Area is to be informed by impacts on the critical views identified in this Study.</p> <p>Wherever possible, continuous walls of built form result in excessive bulk in close and distant views. New built form should be positioned on the ground plane so that it does not read as long continuous walls, either as single buildings or combinations of buildings.</p>
Open space / built form ratio	<p>The established high ratio of open space to built form constitutes an opportunity to develop a distinctive sense of place by retaining and strengthening the existing ground plane character in its urban renewal.</p>	<p>The use of very tall buildings in the Waterloo North and Central area has facilitated a high ratio of open space to built form. This is a distinctive component of the visual character of the Precinct. The resultant public and semi-public domain is of high quality and is well used.</p> <p>The higher densities required to be accommodated in the renewal of the Waterloo Precinct should be achieved against a principle of maintaining a high quality public domain at street level. This is considered particularly relevant where very tall buildings are proposed. An open, tree dominated character at the street should be a contributing component of the future character of the Precinct.</p>
Street grid	<p>The street grid provides opportunities for long views through, into and out of the Precinct and for dramatic views toward built form. Master planning should take advantage of these established internal and local view lines.</p>	<p>The existing street grid pattern should be maintained and enhanced in the renewal of the Precinct.</p>
Road reserve widths and building setbacks	<p>Broad road reserves and substantial setbacks to buildings contribute to the distinctive open character of the Precinct in general and provide opportunities for good street level relationships between tall and / or large buildings and the public domain.</p>	<p>Broad road reserves and street setbacks should be maintained where large and / or tall buildings are proposed in the masterplan.</p>
Tree stock	<p>The existing stock of established forest scale trees in streets and within blocks is a major resource for visual amenity.</p>	<p>Subject to expert assessment of Safe Useful Life Expectancy (SULE) along with consideration of amenity impacts on residents through overshadowing, existing significant trees in the</p>

Element	Opportunity	Constraint
Building forms	Redevelopment of the Precinct provides a unique opportunity to incorporate housing choice in a broad palette of building forms ranging from high rise towers to conventional residential apartments to town houses and residential terraces. This opportunity results from the existing character of the Precinct established through its progressive development over an extended time period for public housing purposes.	Precinct South should be treated as a constraint in renewal planning.  Building forms and their location within the Precinct should be informed by a constraint to retain the existing street level character and ground plane / built form relationship within its identified sub-precincts.  All building forms should address the street to provide a high quality visual environment at the street level.

### 5.3 Issues

Key issues identified in this study with respect to visual quality include:

- > Existing tall slender tower forms at Waterloo North and Waterloo Central provide a significant opportunity for a locally unique built form in the redevelopment of Waterloo South. Bulky buildings that present as continuous walls in local views are not consistent with acceptable visual quality.
- > The general built form appearance, comprising very tall slender buildings softened by substantial stands of forest scale trees, should be acknowledged and should be an informing component in the redevelopment of the Precinct.
- > The existing relationship between built form and well treed ground plane is a significant contributor to the current visual quality. It should be an informing component in the renewal program.
- > The street grid form should be retained and enhanced in the renewal of the Precinct. Judiciously located laneways should be included in the street hierarchy to enhance visual variety and to reference the existing street grid in the adjacent Conservation Areas and the former street pattern in the Precinct.
- > Existing road reserve widths and building setbacks should inform the renewal program.
- > Existing street and on block trees are a critical component of the local visual character. They should be retained and protected subject to SULE ratings and impacts on apartment amenity.