Australian Technology Park, Eveleigh.

Master Plan
Appendix

Sydney Harbour Foreshore Authority

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Australian Technology Park
Draft Public Domain Strategy

Sydney Harbour Foreshore Authority

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1 Introduction

1.1 Purpose of the public domain strategy

The purpose of this public domain strategy is to establish the principles and guidelines for the design of the public domain within and adjacent to the Australian Technology Park.

It supports the ATP Master Plan 2001 and is based upon a review of the ATP Public Domain Strategy prepared by City West Planning in 1998 and Keys Young in 1994.

1.2 The Australian Technology Park

The Australian Technology Park (ATP) is owned and managed by the Sydney Harbour Foreshore Authority.

The ATP development began with adaptive re-use of the heritage buildings at the north and north east corner of the site followed by construction of new buildings along the new pedestrian street, Mitchell Way which links Redfern Station diagonally through the ATP to the residential area south of Henderson Rd. Of relevance to the public domain, the Master Plan 2001 provides for:

- 3.42 hectares of public recreation space (increased by 2,200sqm from the 1994 ATP Master Plan);
- informal and formal recreation areas;
- pedestrian pathways linking residential areas into the ATP and through to Redfern Station; and
- links to the local and regional cycle network

Areas of the public domain constructed to date include:

- Innovation Plaza
- The Oval
- Linear Park over railway easement
- Pedestrian promenades
- Water Tank/Cornwallis St open space area

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2 Public domain framework

The following framework is proposed as the basis for the principles and design guidelines for the Public Domain. The elements of the public domain are the accessways, gateways, special places, trees and street furniture (including paving, lighting, furniture, shelters, signage and public art).

For each of the elements of the public domain, the Elements of the Public Domain in Section 3 describe the desired function, principles and design guidelines. In the case of completed areas, the design elements and recommendations for improvements (if appropriate) are described.

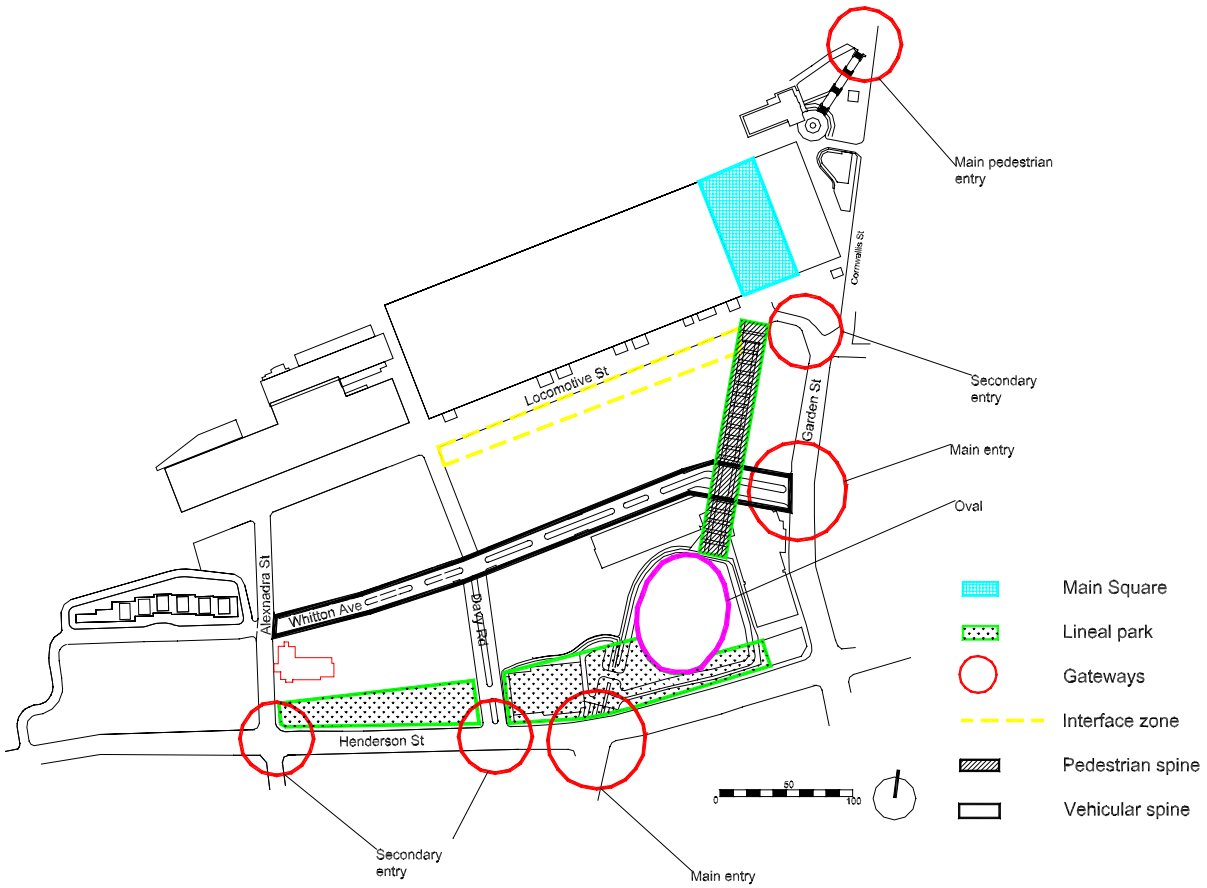

Figure 1: Public Domain Framework

3 Elements of the public domain

This section describes the function, principles and design guidelines for all of the elements that make up the Public Domain of the ATP:

- accessways;
- gateways;
- special places;
- edges;
- building interfaces; and
- landscape.

3.1 Accessways

The accessways are the roads, paths, transport corridors - all the elements of the circulation system. The accessways are the places from where people observe and experience the areas they pass through. For adjacent uses, accessways need to provide an address, an interesting outlook, and a place to safely stroll and meet passers-by rather than being overwhelmed by the noise and hazards of speeding traffic.

The arterial road system defines the district boundaries. One of the underlying principles of the ATP Master Plan and this strategy is to re-establish linkages between surrounding areas through the site.

The function principles, and design guidelines for each of the elements within the accessway network are described in the following pages.

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3.1.1 Mitchell Way:

Figure 2: Mitchell Way

Function:

- This is part of the major North-South pedestrian link between Alexandria and the station, between the new park (the Oval) at Henderson Rd and the Plazas formed by the Heritage buildings at the north eastern end of ATP.
- It collects other, more dispersed North-South and East-West links from adjacent residential areas leading towards Redfern Station.
- Provides a node of retail and service activity at the junction of the vehicular entry and the major pedestrian route, as required by the UDP to activate the major pedestrian route from the park through the development.
- Provides an address to adjacent developments.

Design principles:

- Defined by built edges and avenue planting to provide visual continuity.
- Pedestrian zone - generally free of any vehicular access.
- Provide weather protection (awnings generally preferred, but colonnading at activity strips and building entries is an option).
- Level change provides opportunity to provide terraces along the edges associated with an appropriate use such as hotel, retail, cafe at the northern end.

Design elements:

- Divided longitudinally into central zone and edge zones along building boundaries.
- Building edge zones to be built in association with each building development.
- Evenly spaced trees and lights provide the division and frame views towards plaza looking north, towards parking looking south.
- Brick paved with wide banding reinforces zones and provides scaling.

Recommendations:

- Review tree planting - presently Gleditsia 'Shademaster' is inadequate to provide avenue definition. Consider interspersed planting of evergreen and deciduous species at regular intervals such as:
  - Jacarandas and Frame trees or
  - Brushbox with Gleditsias
- Review lights (refer to Lighting Section)

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3.1.2 Whitton Avenue:

Figure 3: **Whitton Ave looking west**

Function:

- Provide a major vehicular arrival and address within the ATP
- Provide east-west continuity for pedestrians through to the adjacent housing area to the west
- Provide parking/drop-off/pick up lane and shared vehicle/cycle lane in each direction.

Design principles:

- A 25m wide road reserve is provided to maximise natural light and opportunities for street tree planting to provide a befitting vehicle address.
- Define edges by building to boundary and with avenue planting.
- Consistent pattern of tree planting along kerb edge taking account of kerbside drop-off/pick up and parking requirements, and visibility at laneway junctions
- Traffic calming to slow traffic and provide for direct and safe pedestrian linkages and/or significant pedestrian entries to buildings.

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Guidelines:

- Two-way traffic separated by 4 m wide median
- Clear trunked, broad canopied trees regularly spaced in median
- Regular, widely spaced 'clusters' or clear-trunked, tall canopied trees at kerb edges.
- Kerb widening, thresholds or marked crossings at laneway junctions
- Weather protection along building edges - awnings preferred.

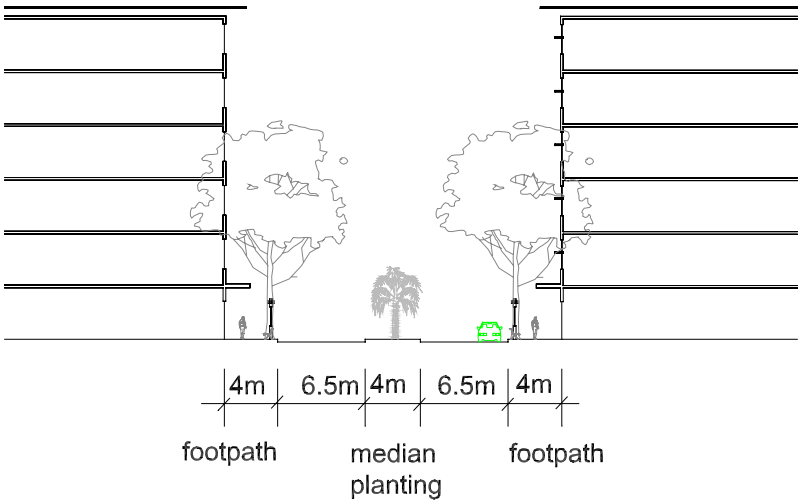

Figure 4: Whitton Ave cross-section

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3.1.3 Locomotive Street:

Figure 5: Locomotive St looking east

Function:

- Provide shared pedestrian and secondary vehicular address to locomotive workshop and new ATP developments.

Design principles:

- The Locomotive Workshop building provides a consistent scale and edge. Its heritage significance, architectural detailing and industrial fixtures provide a unique character and visual interest. New buildings should respond by providing a consistent height along the opposite side of the street.
- Enhance hard edged, industrial character.
- Provide weather protection and continuity of pedestrian pathways - along footpath edge.
- As new development will compromise separate buildings, punctuation by courtyards is encouraged to allow appreciation of locomotive workshop, and provide activity nodes.

Guidelines:

- Asphalt paving, no kerb along Locomotive workshop side of the street to retain character of its setting.
- Retain turntables as heritage and interpretive features.
- Balance the requirement for a hard edged, industrial character and maximum visibility of the Locomotive workshop, with the need for places to rest and meet under the shade of trees.
- Continuous tree planting on the southern side of the street.

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- Kerb along south side to be straight, ie diversion of pedestrians into porte cochere is to be avoided.

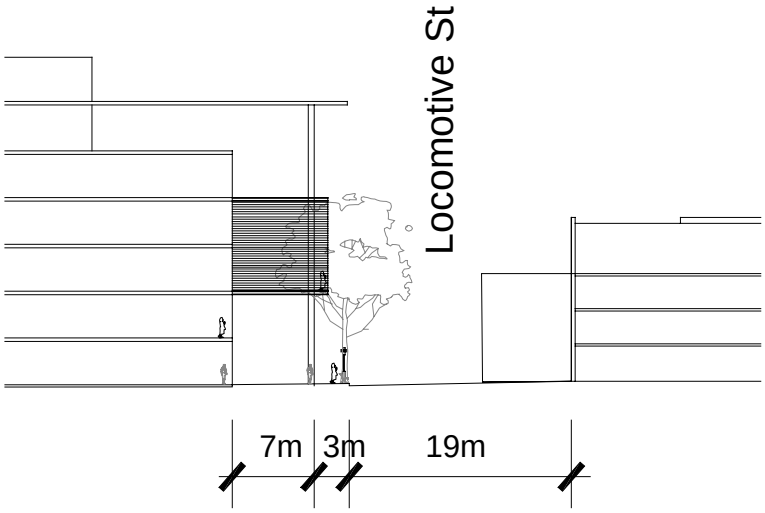

Figure 6: Locomotive St cross-section

3.1.4 Henderson Road:

Figure 7: Henderson Rd looking west opposite the Chancellor's Oval

Function:

- Provide pedestrian address to each of the building developments
- Provide well lit, secure and overlooked pedestrian and cycle path

Design principles:

- Provide continuity of themes for tree planting to unify the street between Erskineville and Waterloo.
- Maximise visibility and street address of new buildings for personal safety and security and minimise embankment (taking into account requirements for on site stormwater detention)
- Review previous strategy and present landscape treatment which provide a sequence of spaces defined by bands of shrubs and trees planted in rows perpendicular to Henderson Rd.

Guidelines:

- Retain existing kerbside tree planting (Melaleuccas) for continuity (in preference to their gradual and selective removal and replacement by plane trees as proposed by previous strategies)
- Gradual, selective removal of poplars to maximise visibility and street address of the ATP.

- Create secondary row of clear-trunked trees that provide a distinctive character to the edge of the ATP, options such as closely spaced 'spotted gums', Eucalpytus maculata, and/or 'lemon-scented gums', Eucalyptus citrodera, 'Sydney blue gums'. widely spaced (10 - 12 m) broad canopied trees such as: Hills weeping fig (Ficus Hillii),
- Provide two paths - one along kerbside nature strip and along northern edge of the wide verge and mound. Cycle path is to provide continuous access (ie ramped at the eastern and western ends to connect with the route beyond the ATP).

3.1.5 Garden Street

Figure 8: Garden St at Whitton Ave looking north

Function:

- Provides a main vehicular entry to the ATP and a main street address and access for the Sydney Ambulance Centre, the RTA Transport Management Centre and Site H within the ATP.
- Kerbside coach drop-off and pick-up required in vicinity of RTA Transport Management Centre.
- Street address for existing properties on the east side
- Its role as a 'short cut' for through-traffic needs to be discouraged. Option of making Boundary Street one-way westbound (from Regent St / Botany Rd) should be investigated. This would provide more direct access to the ATP from the paired arterials.
- Provide for pedestrian access at ATP entry into Whitton Ave.

Design principles:

- Utilise surplus road carriageway width for kerb widening.
- Retain openness of view towards the National Innovation Centre and Innovation Plaza.
- Cohesive streetscape treatment - consistent paving, tree planting and spacing on both sides of the road.

Guidelines:

- Kerb widening.
- Regular but widely spaced groups of trees to allow for kerb crossings, coach drop-off and pick up requirements on the one hand and a consistent theme, befitting a 'front door' for the ATP, on the other.
- Clear-trunked, broad canopied, evergreen, dense foliage trees. As groups of two to three trees are spaced widely apart, there is an opportunity to utilise a mix of species repeated in each group to provide seasonal variation and colour.

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3.1.6 Davy Road

Function:

- Provide a major vehicular arrival and address within the ATP
- Provide continuity for pedestrians through to the middle of the site
- Provide parking/drop-off/pick up lane and shared vehicle/cycle lane in each direction.

Design principles:

- A 25m wide road reserve between Henderson Rd and Whitton Ave is provided to maximise natural light and opportunities for street tree planting to provide a befitting vehicular address.
- A 15m wide road reserve between Whitton Ave and Locomotive St
- Define edges by building to boundary and with avenue planting
- Consistent pattern of tree planting along kerb edge taking account of kerbside drop-off/pick up and parking requirements, and visibility at laneway junctions
- Traffic calming to slow traffic and provide for direct and safe pedestrian linkages and/or significant pedestrian entries to buildings.

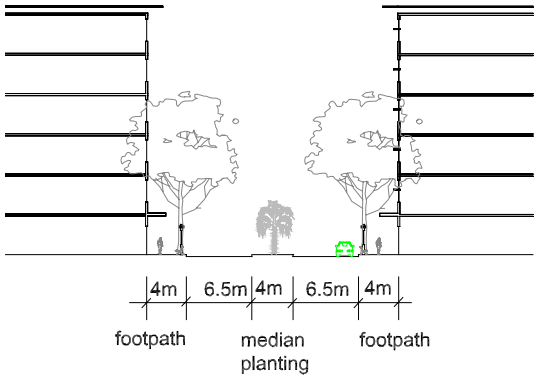

Figure 9: Lower Davy Rd cross-section entry zone from Henderson Rd

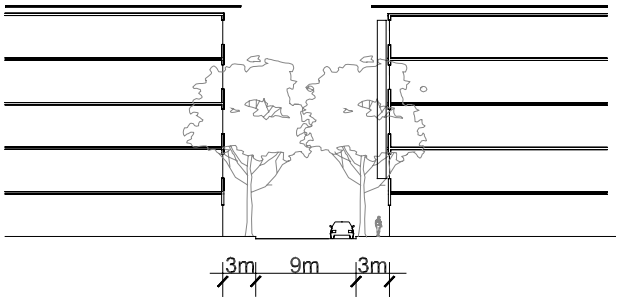

Figure 10: Davy Rd cross-section beyond Whitton Ave

3.1.7 Alexander Street

Function:

- Provide a minor vehicular arrival point within the ATP
- Provide a defined western edge to the ATP
- Provide a high quality interface between the ATP and the adjacent residential area with planting and buildings addressing the street frontage
- Provide pedestrian links to surroundings.

Design principles:

- Define edges by building to boundary and with avenue planting
- Consistent pattern of tree planting along kerb edge
- Traffic calming to slow traffic and provide for direct and safe pedestrian linkages and/or significant pedestrian entries to buildings.

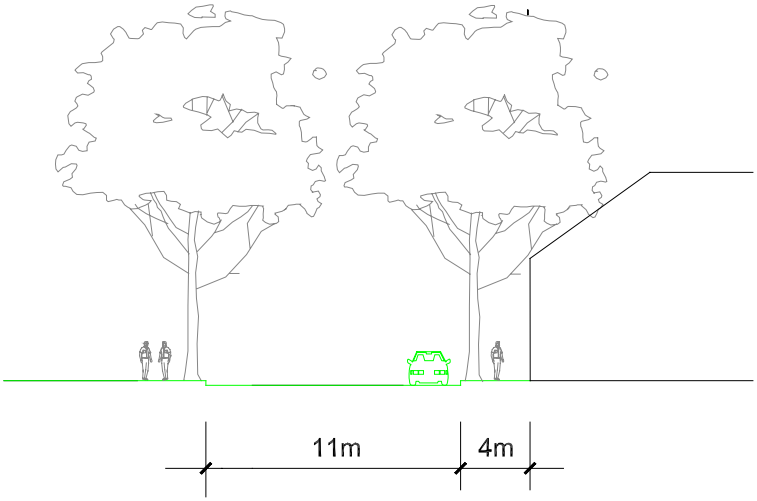

Figure 11: Alexander St entry from Henderson Rd

3.1.8 Bay 8 Walkway

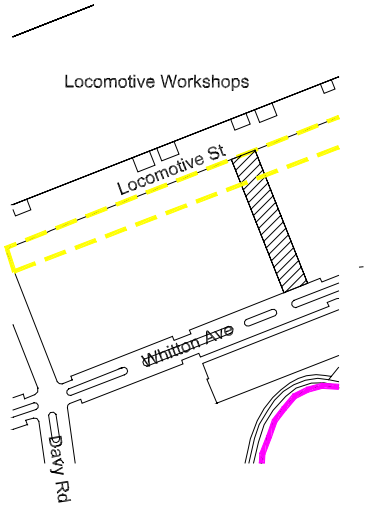

Figure 12: Bay 8 Walkway location

(shown cross-hatched on plan)

Function:

- A major through site pedestrian link between Whitton Ave and the Locomotive Workshop building
- A roofed or unroofed public accessway

Design principles:

- A pedestrian throughway either between development parcels or within an integrated development
- Full building height transparent visibility at both ends to Whitton Ave and Locomotive St
- Publicly accessible 24 hours a day
- Well lit at all times
- As a minimum paving should be of a standard of the existing paving in Mitchell Way
- Clear visibility is to be provided from the walkway to courtyards and/or atrium spaces of developments either side
- Windows are to be provided in developments adjoining overlooking the walkway at every floor level.

3.2 Gateways

Gateways express a change of precinct, and entries to important or special places, the beginning or end of a sequence. They provide orientation, a sense of identity and a welcoming gesture. Gateways can be formed by a variety of means including small-scale fixtures such as gates and built elements such as portals or arches, or specially designed spaces that provide a distinct transition from one place to another. The latter is appropriate to the ATP.

Gateways do not always necessarily require special features. Sometimes the emphasis should be on integration with the local context, rather than giving emphasis to many 'gates' - which may only serve to create a separation between the development and its neighbours.

Two main vehicular entries into the ATP are from Garden St into Whitton Ave and from Henderson Rd to Davy Rd. These are major 'gateways'.

These vehicular gateways are addressed below:

- Redfern Station gateway'
- Garden St/Whitton Ave gateway,
- Garden St/Boundary St gateway, and
- Henderson Rd/Davy Rd gateway.

The main pedestrian gateways are:

- from Redfern Station - (which provides major linkages for the other adjacent precincts, as well),
- Garden St - opposite Boundary St, and
- Henderson Rd/Davy Rd intersection- which are both clear and welcoming, while emphasising integration with the adjacent residential area.

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3.2.1 Redfern Station gateway

Figure 13: Gateway from Redfern Station

Function:
Redfern is a major railway station, with connections to all suburban branch lines, providing an opportunity to increase modal share of public transport for the inner urban residential district, the growing employment base, and Sydney University. Planning for the ATP is based on the opportunity to encourage rail use.

The station should provide a free link between:
- Sydney University and the ATP:
- Darlington/Chippendale and Redfern; and
- as well as clear, direct and legible access from the ATP and for Erskineville and Alexandria residents via the ATP.

Principles and recommendations:

- Proposals to upgrade Redfern Station provides opportunities to improve linkages and access.
- Provide a more direct and legible link between the University, Darlington/Chippendale and the Station (and the University to the ATP). New links will need to consider footpath capacity, pedestrian/vehicular conflict, security and ability to create a Station entrance-forecourt.
- Provide a clear, direct and legible link between the ATP (and the new housing and Alexandria via the ATP) and Redfern Station.
- Provide a more direct, pedestrian friendly link to Redfern Centre via Redfern St and Marian St.

- A station forecourt for any new Station should be at the junction of pedestrian paths from Redfern St, Marian St and the ATP, with weather protection for the pedestrian linkages.
- Bus and taxi set down and pick up near the entry plaza should minimise conflict with pedestrian approaches from Marian and Redfern Streets (eg: set down area north or south of a crossing from Marian St).
- Provision of a shared traffic zone at the end of Rosehill St, Marian St and top of Cornwallis St, with traffic management measures to reduce pedestrian/vehicular conflict.
- The resolution of the access issues goes beyond the immediate boundaries of the SRA and will require ongoing liaison between SRA, South Sydney City Council, City West Planning, the ATP, Department of Transport, STA and the RTA.

Guidelines:

- Free bridge, in addition to the behind-barrier bridge is required.
- Direct, visible, well illuminated access required between ATP and Redfern Station.
- Satisfy disabled access requirement to new station entry.
- Clear view of the ATP from the Station and of the Station from the ATP is considered the most effective orientation device and improves personal safety and security.
- Openness preferred. A forecourt with a direct line path from the north eastern corner of the ATP to the Station entry should be the gateway, not a 'gatehouse'.

3.2.2 Garden St/Whitton Ave gateway

Figure 14: Garden St/Whitton Ave gateway

Function:

- A major vehicular arrival point into the ATP.
- Provide information and directions on arrival.
- Pedestrian links to surroundings.

Design pinciples:

- Design treatment to slow vehicles.
- Allow for information and directional signage and gateway kiosk.

Elements:

- Wide grassed median with palms.
- Footpaths to carriageway to be completed with adjacent buildings, as per brick paving in Mitchell Way.

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3.2.3 Garden St/Boundary St gateway

Figure 15: Garden St/ Boundary St gateway

Function:

- Pedestrian entry into ATP from Redfern via Boundary St and from Garden St.
- Vehicular entry.

Design principles:

- Direct, inviting and visible access.
- Retain and frame views of Locomotive workshop from Boundary St, of NIC and of Innovation Plaza from Garden St.
- Create a northern address towards Innovation Plaza from the building on Development Parcel D.

Guidelines:

- The set back and alignment of Development Parcel D is to define gateway and retain views of Locomotive workshop and of Innovation Plaza.
- Align northern terrace of Development Parcel D to address Innovation Plaza and visually continue the Locomotive St corridor.

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3.2.4 Henderson Rd/Davy Rd gateway

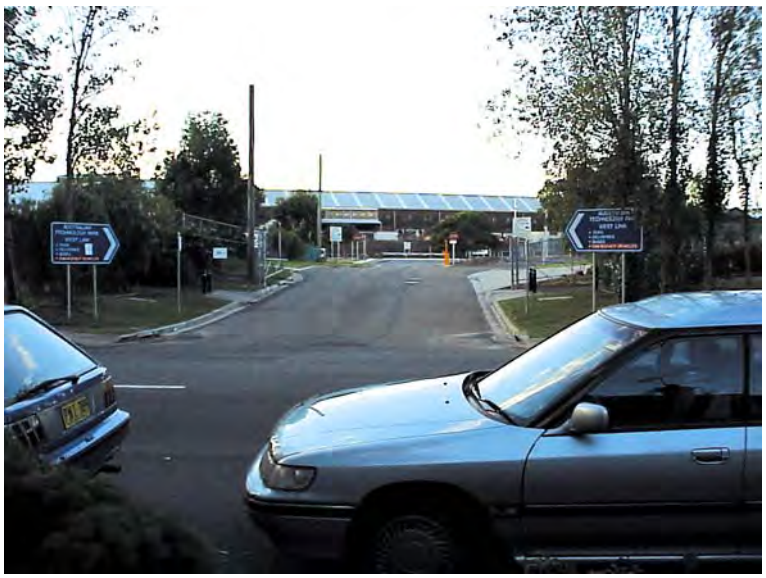

Figure 16: Henderson Rd/Davy Rd gateway

Function:

- A major vehicular entry point and address to the ATP

Design principles:

- Direct, inviting and visible access
- Retain and frame views to Locomotive workshop from Henderson Rd
- Announce the ATP

Guidelines:

- Avenue planting is to ensure clear visibility.
- Site identification, information and directional signage is to be designed to reflect the high quality nature of the ATP.

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3.3 Special Places

Special places are the outdoor gathering places; rest places, events, performance and sports places. They are the main destination points and foci along the accessways. In the surrounding areas, the special places are associated with the main retail, civic and recreational centres such as:

- the core area at Erskineville shopping centre; at the Railway stations, bus stop and pocket park, which provides an opportunity to become a 'village green' providing a focus for the shops and civic buildings;
- the Botany Rd shops and Jack Floyd reserve within the Redfern Centre;
- The proposed Darlington Urban Village at neighbourhood, the retail core on Abercrombie St.
- Pemulwuy Park on Evenleigh St opposite Redfern Station provides an outdoor gathering spaces for the Aboriginal community.

The surrounding areas lack large, useable public open space. Alexandria Park and Erskineville Park are the only two large parks within the district. These parks are usually open, grassed areas with majestic trees defining edges and main pathways. Openness to the street is retained below tree canopies and in some cases over low masonry fences or kerbs. There are a number of smaller, neighbourhood parks and pocket parks created by street closures.

Hollis Park is one of the most successful neighbourhood parks and serves as a good model for new parks. It is defined and overlooked by built edges comprising 1-3 storey terrace houses around three sides along the quiet streets, and has grade separation from the busier street edge - Wilson St, achieved by a retaining wall.

Within the ATP the public open spaces of various sizes, types and formality have been commenced such as plazas for exhibitions, formal gatherings, sunny corners for occasional meeting informal and place to sit, rest, and eat, an oval for informal ball games, grassed areas for picnics or general relaxation.

The result is a variety of linked open spaces that frame the main pedestrian routes. Containment and definition of the parks is created through scale, protection from wind, shade from trees and planting to provide separation from heavy traffic noise, A sense of security is provided when parks and plazas are overlooked by surrounding places and accessways.

These spaces are designed to be accessible for the local community as well as ATP workers. Special places in Stage One are described below and include:

- Cornwallis St Park;
- Managers Plaza;
- Henderson Rd and Park;
- Innovation Plaza;
- The Chancellor's Oval and Ball Courts;
- Alexander St Park.

These are described in detail below. All these special places are built except the Alexander St Park.
It is important that new and interesting 'special places' continue to be created at key locations or activity nodes within the ATP.

3.3.1 Cornwallis St Park

Cornwallis St Park provides an informal park setting to this 'front gate' from Redfern Station. The historic water Tower and a mature Fig flank the grand steps from the station to the entrance way between the historic Manager's office refurbished as the Australian Graduate School of Engineering Innovation (AGSEI) and the National Innovation Centre (NIC).

Figure 17: Entry from Redfern Station Manager s plaza

3.3.2 Managers Plaza

The Managers Plaza serves as an entry forecourt to the ATP and specifically to the AGSEI and NIC buildings for people arriving from Redfern Centre and Redfern Station.

Figure 18: Henderson Rd frontage and Park major pedestrian entry

3.3.3 Henderson Road and Park

The sequence of parks along Henderson Rd include an informal oval or ball games and ball courts. Mounded edges within the parks provide a variety of seating opportunities as ledges, steps, grassed banks, low walls or embankments looking into the tennis courts and oval.

Refer Section 3.5 for tree planting guidelines and 3.3.5 for details on oval and tennis courts.

Figure 19: Innovation Plaza

3.3.4 Innovation Plaza

This plaza between the Engine Workshop and the Locomotive Workshop buildings plays an important role in linking the heritage elements of the ATP and providing a meeting place and pedestrian accessway through to Redfern Station. It should retain a sense of grandeur and provide a high quality curtilage to the large heritage railway buildings.

Function:

- A forecourt to a range of possible community facilities in the Locomotive Workshop such as a Museum, Higher Skills Training Centre in the Locomotive Workshop, and the national Innovation Centre in the Engine Workshop.
- Place to sit, relax, meet, serviced by cafe or restaurant in National Innovation Centre.
- Potential as major gathering space and outdoor display area for the ATP.
- part of pedestrian network - from Mitchell Way to Redfern Stations, and between the Locomotive Workshop and the National Innovation Centre.

Design principles:

- Retain industrial character (ie don't dress up as a 'Civic' space), retain simplicity.
- Potential to include industrial archaeological artefacts integrated with design treatment to evoke the past usage, eg rail line through centre of locomotive engine workshop and Steam Crane Train in plaza.
- Provide shaded places to sit with tree planting whilst retaining views of and sense of spatial definition created by the fine industrial buildings.
- Containment at the ends is constrained by requirement for SRA easement, but can be provided by moveable elements such as the railway carriage (which has potential for some form of public, active usage - such as displays or as cafe).
- The railway edge of the site is dominated by the noise from adjacent railway tracks. However, it provides a direct and legible route to the station and can form an interesting space with an unusual outlook to the north. Fixtures such as planters and seats need to be moveable, to allow SRA access.

Design elements:
Simple plaza comprising the following main elements:

- Brick paved plaza with simple banding to provide scaling.
- Central 'special paved' area in concrete, retained railway rack and steam crane train evokes the industrial heritage of the buildings and their setting.
- Rows of evenly and broadly spaced plane trees near the building edges to provide shade while retaining views of the heritage buildings.
- Seating and lighting evenly spaced within the corridors of the rows of trees.

Recommendations:

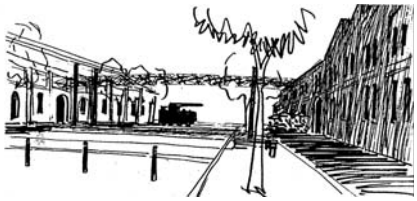

Figure 20: Artists impression Innovation Plaza

View showing a tensegrity structure across Innovation Plaza

- Retain simplicity and openness of plaza (ie ensure outdoor cafe seating and associated fixtures are lightweight and moveable).
- A need for covered access across the centre of the Plaza between the central doors of the Locomotive Workshop and the National Innovation Centre has been expressed by the ATP to provide weather protection for pedestrians (and for the Steam Crane Train).

  A shelter in such a sensitive position is to be :
  - high (approx 6-8 m above ground) light weight, with maximum possible transparency of the structure and roofing;
  - provide minimum vertical supporting columns (to retain openness and continuity of the plaza), and such columns are to be in the line of the trees towards each side of the plaza;
  - free standing (ie not supported from the heritage buildings). This provides an opportunity for a high tech expression, which could celebrate the revitalisation of this 'State of the Art' 19th/early 20th Century precinct with its new, high tech research and development activities. A tensegrity structure is the most likely approach to fulfil the above requirements.

3.3.5 The Chancellor's Oval and Tennis Courts

Figure 21: The Chancellor's Oval viewed from Mitchell Way

Function:

- Provide passive and active recreational space for the ATP and neighbouring areas.
- The sequence of open spaces should form part of the pedestrian and cycle pathway system.

Design principles

- Utilise level changes such as mounding and terracing to advantage: seating edges, to view to all games, and slopes to sit and relax.
- Define pathways - to Henderson Rd near Mitchell Rd, along Henderson Rd and along the eastern edge of the Chancellor's Oval to the bus stop along Henderson Rd.
- Use the spatial definition to suggest and invite varied usage: outdoor seating and meeting areas associated with built developments along the northern and eastern edges, and a central gathering and games area.
- Provide shelter from sun and wind while retaining openness to view from adjacent buildings, pathways and streets.

Design elements:

- Grassed 'oval' with sloped sides (part of the stormwater detention system).
- Curved line of figs and bridge define main pedestrian route from Mitchell Rd to Mitchell Way.
- Casuarinas and row of melaleucas provide shade and shelter along southern and eastern flanks.
- Tennis courts and brick paved entry provide a frontage to Henderson Rd.

Recommendations:

- Continue proposed planting themes along Henderson Rd to the southern and south eastern oval edges for continuity and cohesiveness and to improve shade and shelter for unstructured recreational uses around the edge of the oval.
- Improve oval definition along southern and eastern edges by continuing arc of figs, or utilising proposed Henderson Rd planting themes.
- Provide eastern path between Mitchell Rd and Henderson Rd along the building edges so as to be overlooked by buildings and receive weather protection from awnings.

3.3.6 Alexander St Park

At the western end of the ATP, a park provides a transition between the quiet residential area and the ATP.

Function:

- Provide informal, unstructured relaxation area.

Design principles

- Provide a sense of place: like some of the pocket parks in Erskineville (eg Sydney St)
- Visibility of the streets.

Guidelines

- Retain the sense of a small park.
- Maximise overlooking of the space from adjacent buildings and pathways by retaining visual permeability by use of tall, clear trunked broad canopied deciduous trees, grass and paved pathways with no shrubs or low walls.

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3.4 Building edges and landmarks

Unlike other new industrial estates and business parks where buildings are separated from the public streets and places by 'screen planting' and hardstand car parking, the buildings in the ATP define and overlook streets, paths, public plazas and parks. The quality of the building edges and the relationship between ground level activity within the building and in the public domain become critical considerations.

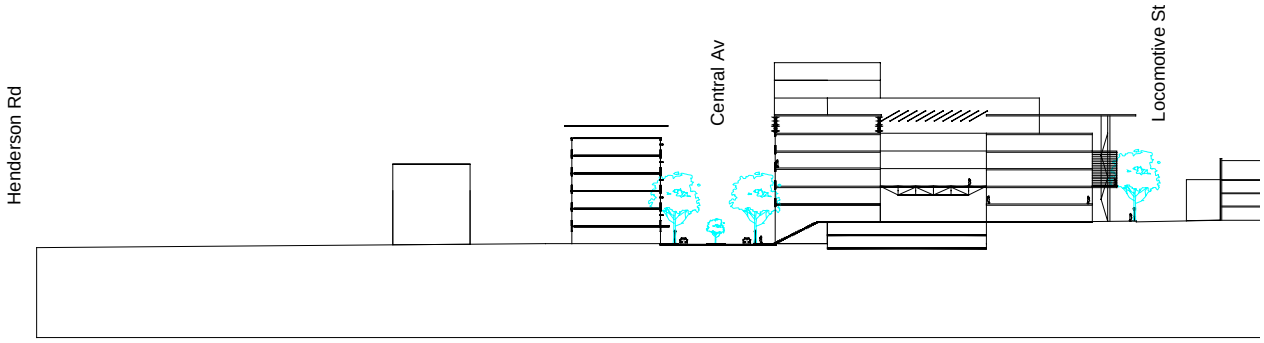

Figure 22: Building edges define the public domain.

Opportunities to maximise overlooking the public domain should be encouraged.

3.5 Street tree planting

Tree plants can be used to reinforce the existing urban structure, giving special identity to the network and hierarchy of routes, gateways, special places, large and intimate parks.

Landscape should generally be:

- low maintenance;
- use species that do not rely on extensive watering;
- satisfy functional attributes - such as summer shade canopies, surfaces that are comfortable to sit on, withstand sporting and playing; and
- visual attributes that complement the required characteristics of each location and its role within the network.

The fig trees' used to define the main path around the oval, are typical of public landscapes and parks in Sydney such as Alexandria Park, Moore Park, Prince Alfred and Hyde Park where they either frame the edge or draw people into the centre of the landscapes.

Along Locomotive Street, the articulated facade of the workshop provides a rhythm which should be addressed on the other side by new development. This historic facade needs to be revealed fully to the view of pedestrians . Tree canopies should be above pedestrian sight lines on the southern side of Locomotive Street.

Along other streets, there should be deciduous trees that define the street edges responding to each place with a different character.

The dark green canopy provides a distinctive contrast with the muted Australian trees surrounding the playing fields and ball courts close to Alexandria. Along Mitchell Way, an avenue of colourful deciduous trees frames the view and defines the main pedestrian route. The main vehicular gateway into Whitton Ave provides contrast with the palms set in the wide median. The contrast of the evergreen median planting and the regular rhythm of smaller, colourful deciduous and dense canopied evergreen trees in clusters along the kerb provides a distinctive character for the main vehicular access.

Along Henderson Rd, across from Alexandria, spaciously planted Melaleucas provide an established theme addressing the low scale buildings in Alexandria. The planting strategy along the linear park needs to be open at ground level, welcoming people into the ATP. The massing of trees

reduces the effect of southerly winds, stabilises and creates a cooler place to sit and watch the games in the oval or the ball courts.

The rows of trees along the edges of Innovation Plaza are at an urban scale. They are deciduous, provide and open and temporal quality, satisfying both the need for shade and shelter as well as openness and visual prominence of the heritage buildings that frame the space.

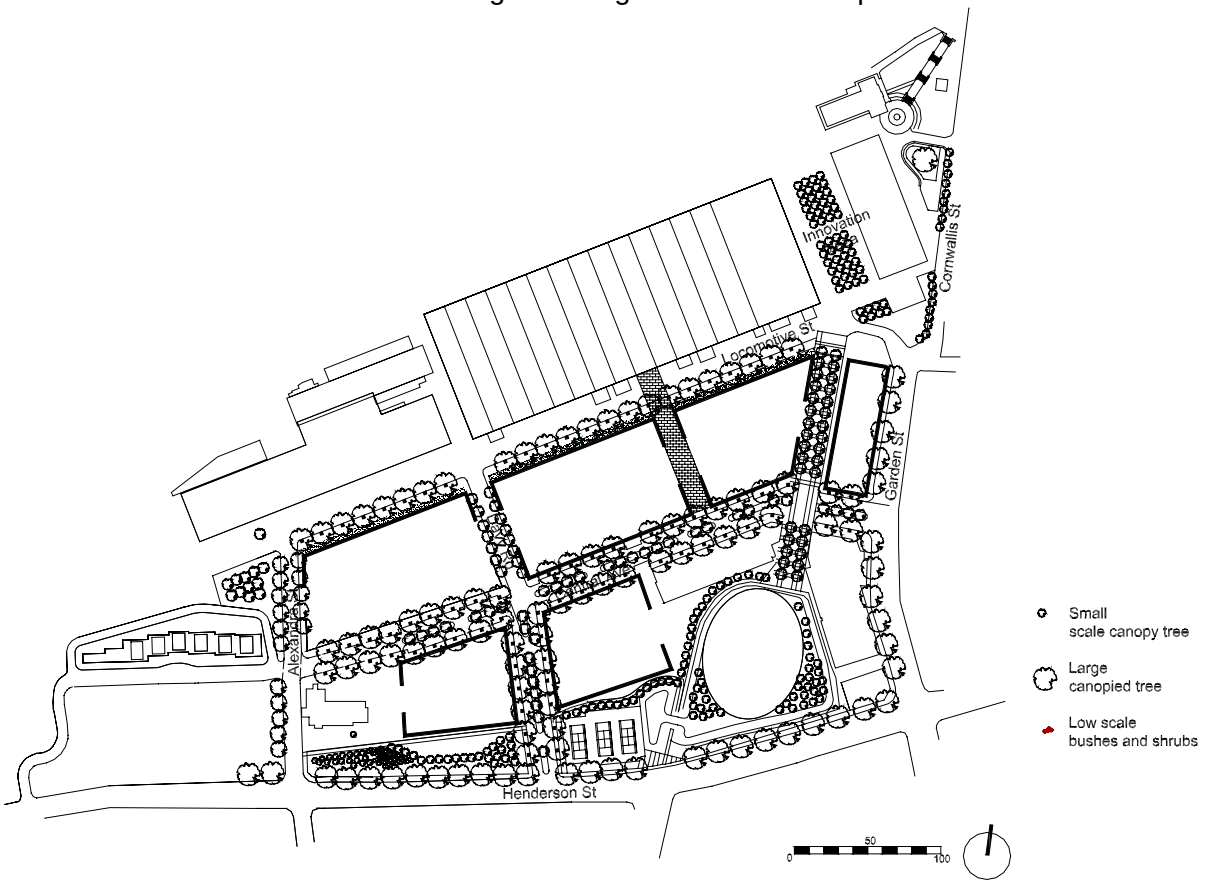

Figure 23: Street tree planting strategy

3.6 Street furniture

Paving, furniture, lighting, signage and artworks are components of the public environment that when design coordinated provide visual unity, special character and identity to an area.

These components are often relatively anonymous individually, but as a family they can give a strong impression and help create identity.

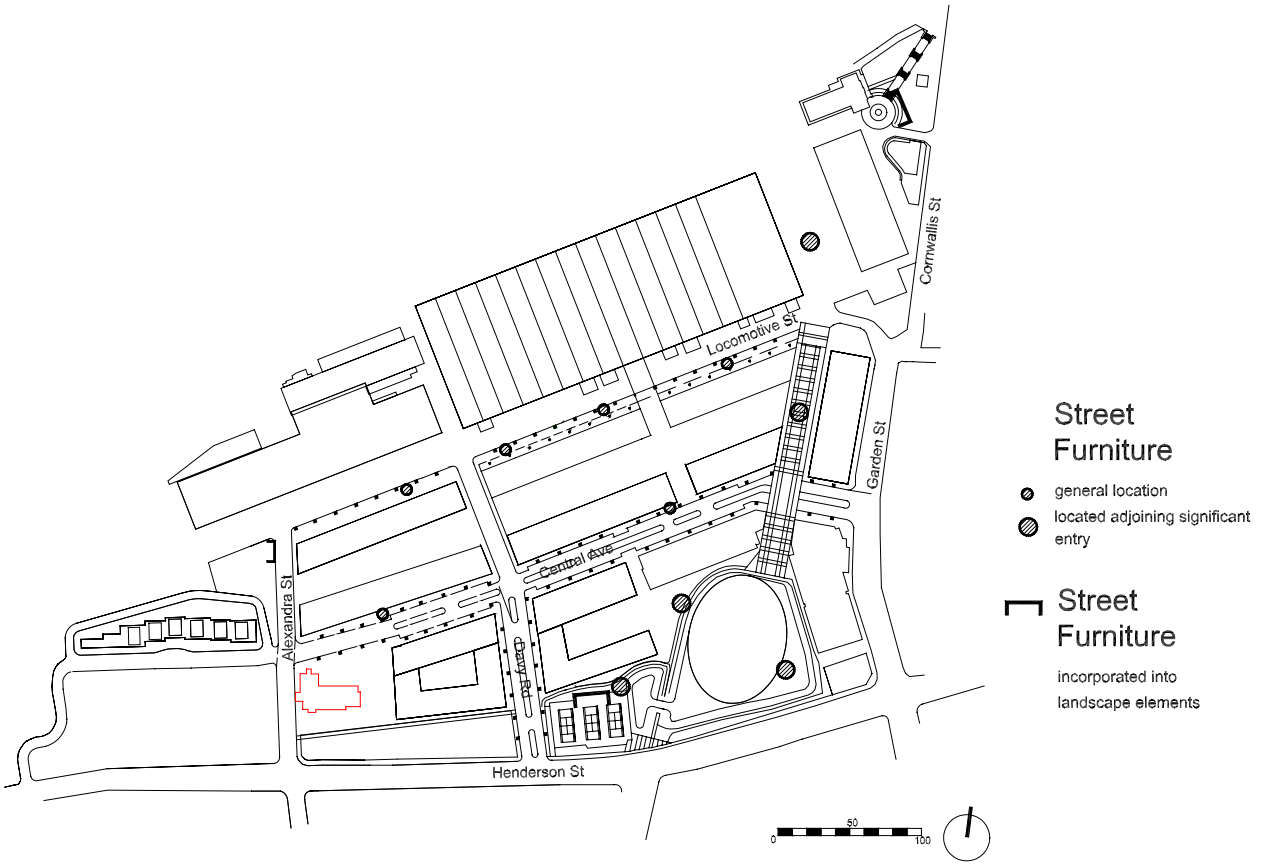

Figure 24: General location of street furniture

3.6.1 Paving

The historic railway workshops are built of brick and inspire its use as the predominant paving material. Brick is good base material that can be contrasted with other materials and colours such as bitumen, gravel and concrete.

The scale, size and texture of bricks is warm and intimate and yet when seen from a distance bricks appear as an overall background colour highlighted with contrasting patterns or bands.

Specific functions and special areas will be distinguished with different types of brick paving. Emphasis is given to the north-south pedestrian corridor, Mitchell Way, connecting Redfern Station to Henderson Rd.

Vehicular and pedestrian routes are separate and the paving is differentiated in scale and type to indicate a predominantly pedestrian environment. The character of the paving needs to convey the new spirit of the ATP - a warm human environment encouraging social interaction, and yet be compatible with the heritage industrial buildings.

The paving location philosophy and palette within the ATP should be, as in the adjacent areas: special paving in the special places:

- in the paved areas of the parks;
- main plazas and squares;
- the primary pedestrian routes: Mitchell Way, and the footpath along Whitton Ave;
- pedestrian nodes, entries and thresholds.

Desirable Attributes and Character

- Distinctive colours that will be retained over time.
- A theme that provides a feeling of warmth conducive for gathering spaces.
- Compatible with the robust industrial character of the heritage buildings and environs.
- High abrasion resistance and slip resistance.
- Low porosity and resistance to staining.
- Ease of replacement and access to underground services.

Figure 25: Detail paving treatment

Recommended paving materials

Selection for special paved areas Clay-pressed pavers - Bowral London Chestnut, have been selected to complement buildings and to be used for edgings and main field. Bowral Silver Sand bricks will provide light colour banding.
Pattern Header edgings, herringbone field, 45° to edge, chevrons in the line of main walking direction.

For temporary works and large open play areas relating to Henderson Rd, bitumen and brick edges will relate to the local streets and pathways. These two main materials integrate the site with adjacent streets.

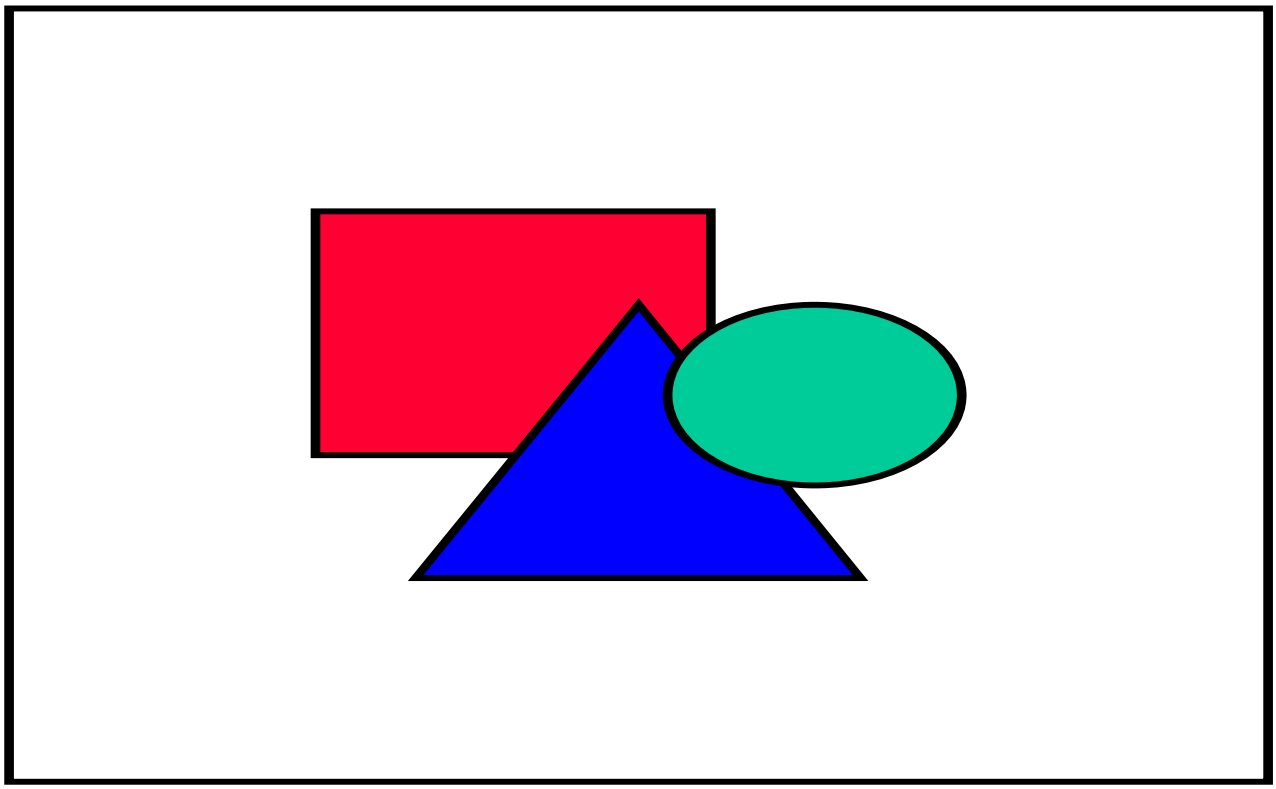

Figure 26: Paving strategy

3.6.2 Street Furniture

Figure 27: bollard with bicycle fixing

The furniture has been chosen for it's robustness and ability to stand up to rough treatment. Elements are part of a family, similar enough in appearance to be recognised as the ATP family of street furniture, contributing towards the visual identity and cohesiveness of ATP.

The furniture should be:

- robust;
- ergonomically designed;
- pleasant to touch;
- require little maintenance and finishing;
- easily replaceable over time
- able to handle rough treatment; and
- appropriate in appearance to the established urban character of the precincts, eg. the prevalent form of street seating is the classic timber bench.

More than decorative elements within the public domain, the street furniture consists of:

- Seating
- Garbage bins, including waste recycling containers
- Drinking fountains
- Bollards.
- Public telephones

General principles

- The location of furniture should reflect the useage needs of the public seating
- use planting beds, level changes and walls as seating where possible
- cluster seating in areas of activity
- provide both solitude and group seating (interaction)
- provide places for people to pause and rest along the way or enjoy a nice view or peaceful setting,
- placement of other furniture (drinking fountains, bins, telephone) should be guided by the positioning of seating areas.

Telephones

- situate telephones near ATP path junctions used as entry and pick up points
- locate on or with buildings using existing structure Bollards
- to restrict vehicular access to areas
- to protect pedestrians at building entries and vehicular areas.

NOTE: Bollards should restrict vehicular access but not pedestrian movement and therefore should not be used as de-facto bicycle racks. See bicycle facilities.

Garbage bins

- garbage receptacles should be located near retail areas and food outlets.

Bicycle facilities

- Bicycle parking facilities should be provided at major entries to buildings.
- A pay bicycle storage facility for local community train commuters could also be located on site.

Moveable facilities

- Facilities which only operate in peak times such as the "Coffee a la Carte" are encouraged as short term temporary editions to the public domain.

The use of other devices, to reduce the need for furniture, is encouraged - such as planter edges at the right height to sit or lean on, grass to lie and picnic on.

3.6.3 Lighting

The safety and security of people walking through the ATP is critical and the lighting will provide that sense of security. More than security, the lighting will provide a flattering night time appearance of gently lit historic facades, trees and foliage.

Special places will be specially lit and the night scene will provide stimulating visual contrasts designed to be different from the day scene.

The lighting Design principles recommended are:

- visibility of path of travel, pedestrians and vehicle safety, visibility for sporting activities;
- character: enhance the desired character of special public places, architectural or landscape features;
- quality:
- consideration of the colour rendition of light, its effect on the surfaces illuminated, use of lighting flattering to human skin colour and vegetation colours
- modulate lighting levels to differentiate spaces and their characteristics for visual interest
- minimise use of exposed light sources – which result in harsh glare – except where it is deliberately chosen for feature or special effect lighting;
- energy efficiency, low maintenance and long lamp life;
- reinforce the structure and function of the public domain:
- street lighting
- pedestrian pathway lighting
- differentiation between primary and secondary routes may be considered.
- lighting of special places: atmospheric lighting for plazas, malls and gateway area
- lighting of sport venues: flood lighting with cut-off to prevent unwanted glare in adjacent areas and buildings
- special effects lighting appropriate in civic and important community spaces: opportunity to illuminate special architectural features such as façades of heritage buildings, clock tower in Managers Office.

The lighting strategy is comprised of a family of coordinated lighting types. These are:

- Street lighting and general Pedestrian lighting
- Flood lighting
- Court lighting
- Space lighting
- Festive lighting
- Building lighting
- Tree lighting

The current lighting system has proven to not be resistant to vandalism or the effects of ultra-violet light. The maintenance and repair have become costly and persistent. Therefore it is suggested that a new lighting system be phased in beginning with the new building construction. The new system should be based on the current Rocks Authority light illustrated above. The advantage of this type of lighting system is that the luminaire is angled upwards rather than downwards and therefore does not present as a target to vandals.

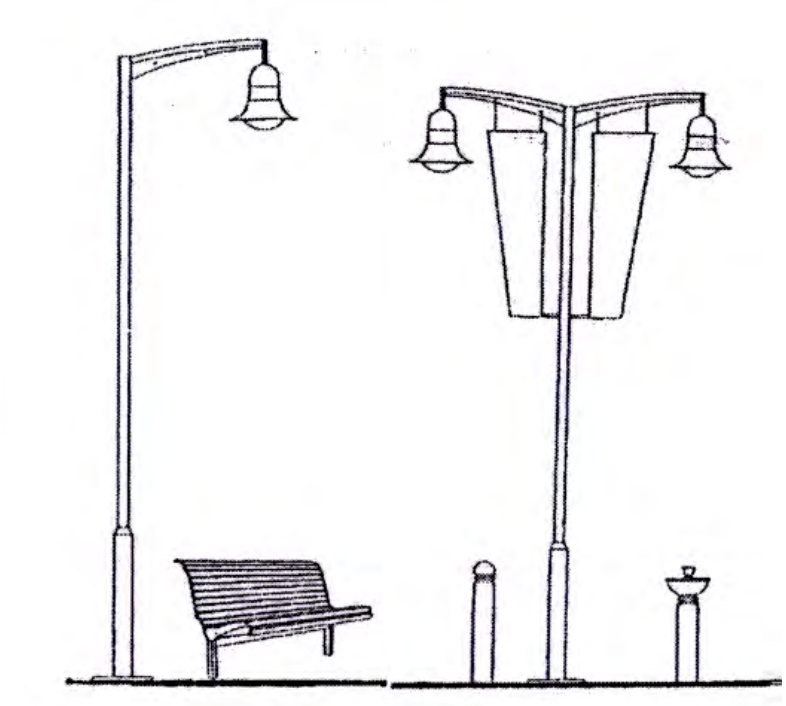

Figure 28: ATP existing light stands

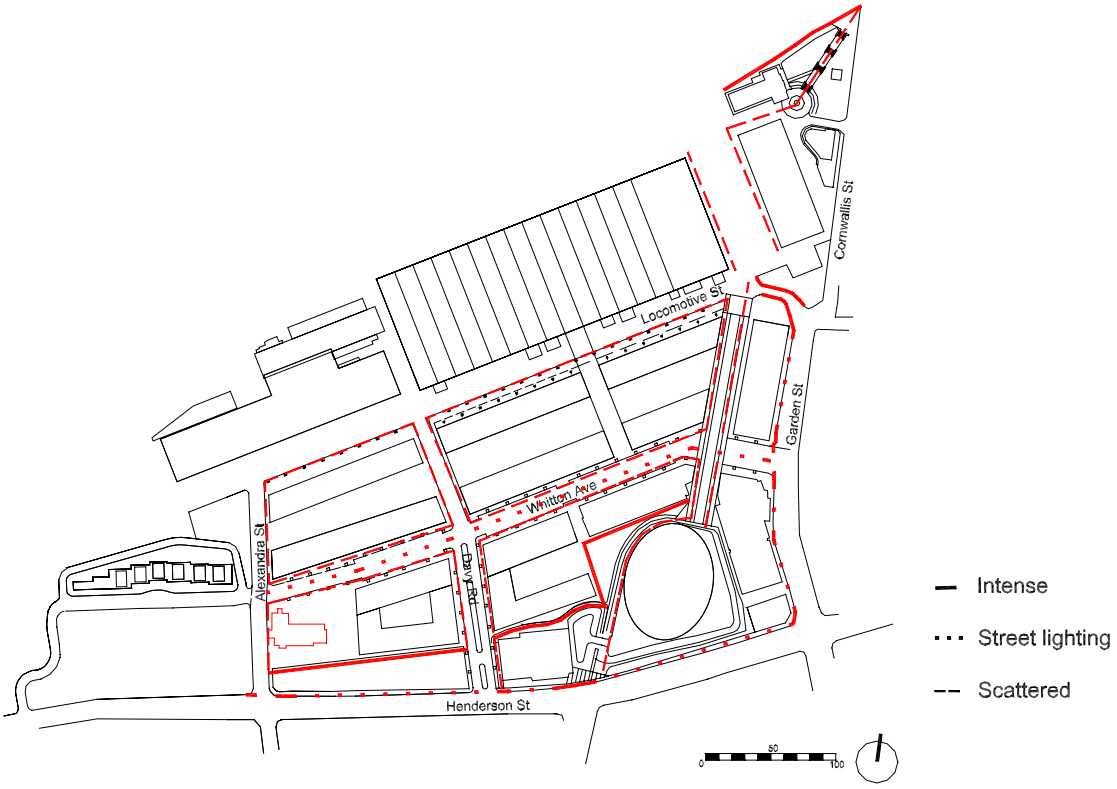

Figure 29: Lighting strategy

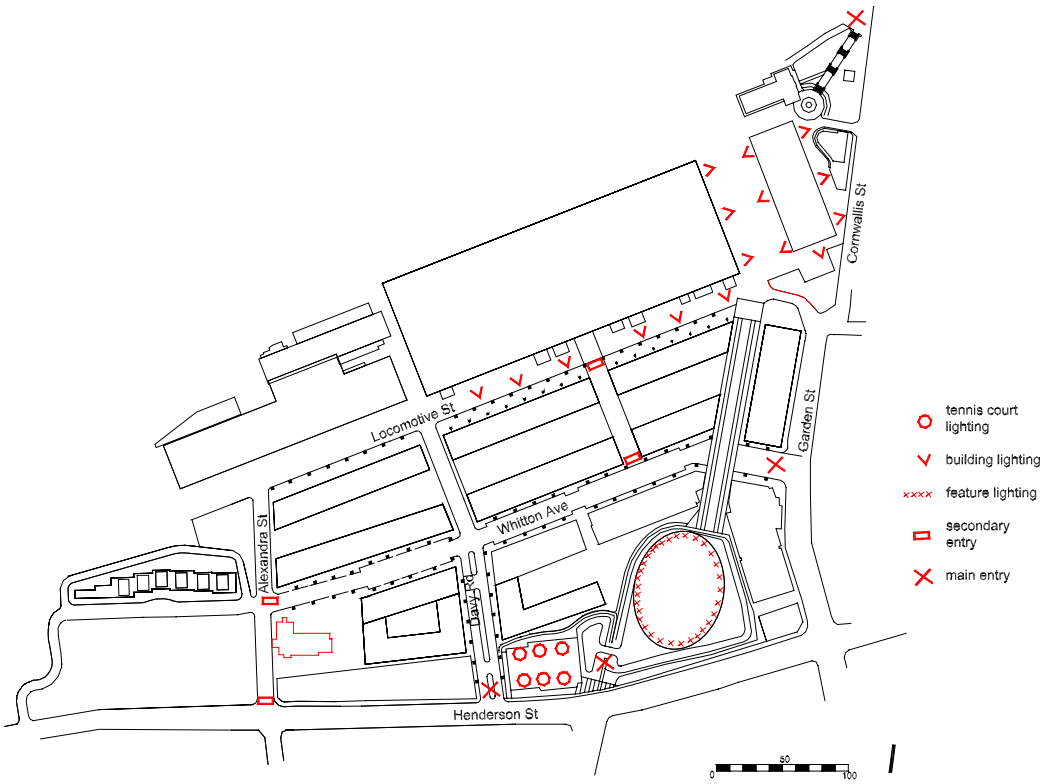

Figure 30: Festive lighting

3.6.4 Signage

Signage system:
The signage system is based on a clear approach hierarchy that includes:

- Distinctive entry signs at Henderson Rd, Garden St and Redfern Station
- Internal directory and guide signs
- Street identification
- Place identification for public domain areas and associated buildings
- Tenant signage/directories
- Temporary signage/services
- Interpretive signs for information about historical elements and the like.

Figure 31: Directional signage

General design guidelines

- In general those outdoor signs required to assist people to find their way to and within the ATP, are the only signs that will be encouraged in the ATP. These signs will be graphically coordinated into a family of signs that help create the onsite identity of the ATP.
- Signs promoting the identity of the ATP to a wider audience may be permitted but general product or service outdoor advertising will not be encouraged.
- The promotion of tenant's identity will be restricted to building entries and internal foyers and ATP directories.
- Special events, however, may be accompanied by temporary promotional signage, flags and banners.
- Unnecessary signs, sign clutter and in particular, sign pole clutter, is to be avoided. Where possible signs should be affixed to building facades rather than on poles.
- Signs attached to buildings should fit with the pattern of the building façade and should be compatible with the façade colour, size and scale.
- The number of messages on signs or directories should be minimised.

Signage hierarchy

The development of a coherent visual identity and provision of clear directions for the visitor requires the development of an appropriate signage hierarchy.

The signage hierarchy for the ATP is as follows:

Signage types

There are five main signage types - advance guide signs; directory; internal guide; street and place names, and building identity signage. The ATP will provide directory and guide signage coordinated with the street furniture family.

1. **Advance Guide Signs** - leading commuters and vehicles to main attractions (such as the ATP, or Belvoir St Theatre). These need to be located along approach routes prior to key junctions, and at the origins of pedestrian trips from public transport stops.
2. **Directory Signage** - at major vehicular and pedestrian entries to the ATP, indicating venues, tenancies, community and recreational facilities, reference points and places of interest outside the ATP.
3. **Street and Place Names** - at locations prominently visible from the directions of approach - with the ATP and Affordable Housing sub precincts.
4. **Internal Guide Signs** - for pedestrians and vehicles, along the way indicating parking, retail, community and recreational facilities, places of interest outside.
5. **Building identity Signage** - to identify buildings, their use and the occupants and in the residential, to identify building and unit numbers or names.

Graphic Image

These different levels of signage should be coordinated to provide a clear visual identity 9Advance Guide Signs and street names should be coordinated with the RTA and existing neighbourhood signage systems). The graphic layout, size, font and colour selection should be based on legibility, considering distance and speed of travel of the viewer. The signage graphic and structural support system should be subservient to the need for clarity (ie the sign should not become an object for its own sake).

The aim is to create a tightly knit urban fabric that integrates well into its surrounding context. Signage that is very large and/or very prominent will not be permitted to alienate buildings of the ATP from their surrounding community.

The ATP requires building signage that is low key and that is integrated with the architectural expression of the building. Building identification signage should create a means of identity and pride for the building community and should clarify the function of arrival and address. Building signage shall conform to the following guidelines:

- Building signage shall not be allowed above second floor level
- Internally illuminated light boxes shall not be permitted
- Illuminated signs shall be either simple neon letters attached to a wall surface or individual letters illuminated externally
- Building identification signage should be limited to the immediate proximity of the building's entry, and should have a limited signage area. As previously stated it should be integrated as part of the architectural expression of the building, eg as part of the entry canopy or other architectural features.
- The signage on heritage buildings, in particular, requires sympathetic integration with the architectural features of the buildings.
- Activity strip signage shall be limited to ground floor level and shall be integrated within the design of awnings, colonnade and shopfronts.

3.6.5 Public Art

Public art has an important role in articulating the environment, providing visual interest, enjoyment and involvement in the environment, giving expression to the historic, cultural and environmental significance of places and the people who inhabit them. Public art in the ATP has the capacity to transform places by adding a layer of decorative richness and visual entertainment.

The theme of technological innovation combined with the history of past technology provides for a vast spectrum of ideas that can be expressed through works of art. Works of art can be used as components of the site plan to articulate and strengthen the character of special places and gateways and can stimulate the interaction of ideas that is central to the synergy of the ATP.

It can help in enabling the new occupants of Eveleigh and neighbouring communities to develop a sense of belonging to the ATP, if the themes chosen are relevant to them. This can be facilitated by developing the themes through a consultative process. The opportunity to involve people in the making of the space - and can help to provide skills training or employment.

Themes that could be developed in the ATP could be based upon:

- its industrial, technological and social heritage;
- local youth culture;
- aboriginal culture;
- the ATP vision; and
- social or personal stories of local residents or workers.

Artwork could take the form of discreet objects such as:

- sculptures;
- murals on prominent blank walls with new development;
- surface treatment such as pavings, planter edgings etc
- environmental art which is integral with the space within which it sits; and
- building artwork.

Artworks could be implemented as specifically commissioned pieces, works carried out by the community under the guidance of a facilitator, or integral to the design of the spaces as collaborative works between artist and designer.

Building Artwork

Artworks can be integrated into building design in many ways. For example in the design of balustrades, door hardware, sculptural relief, in entry doors, floor, wall or ceiling inlays, in seating, in mural wall/panels, through designs on awnings or banners, through sculpture in pediment, niche, key stones, gargoyles etc.

By encouraging artists and architects to work together from the projects earliest conception, full integration of the artwork into the final building design is possible.

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Appendix A

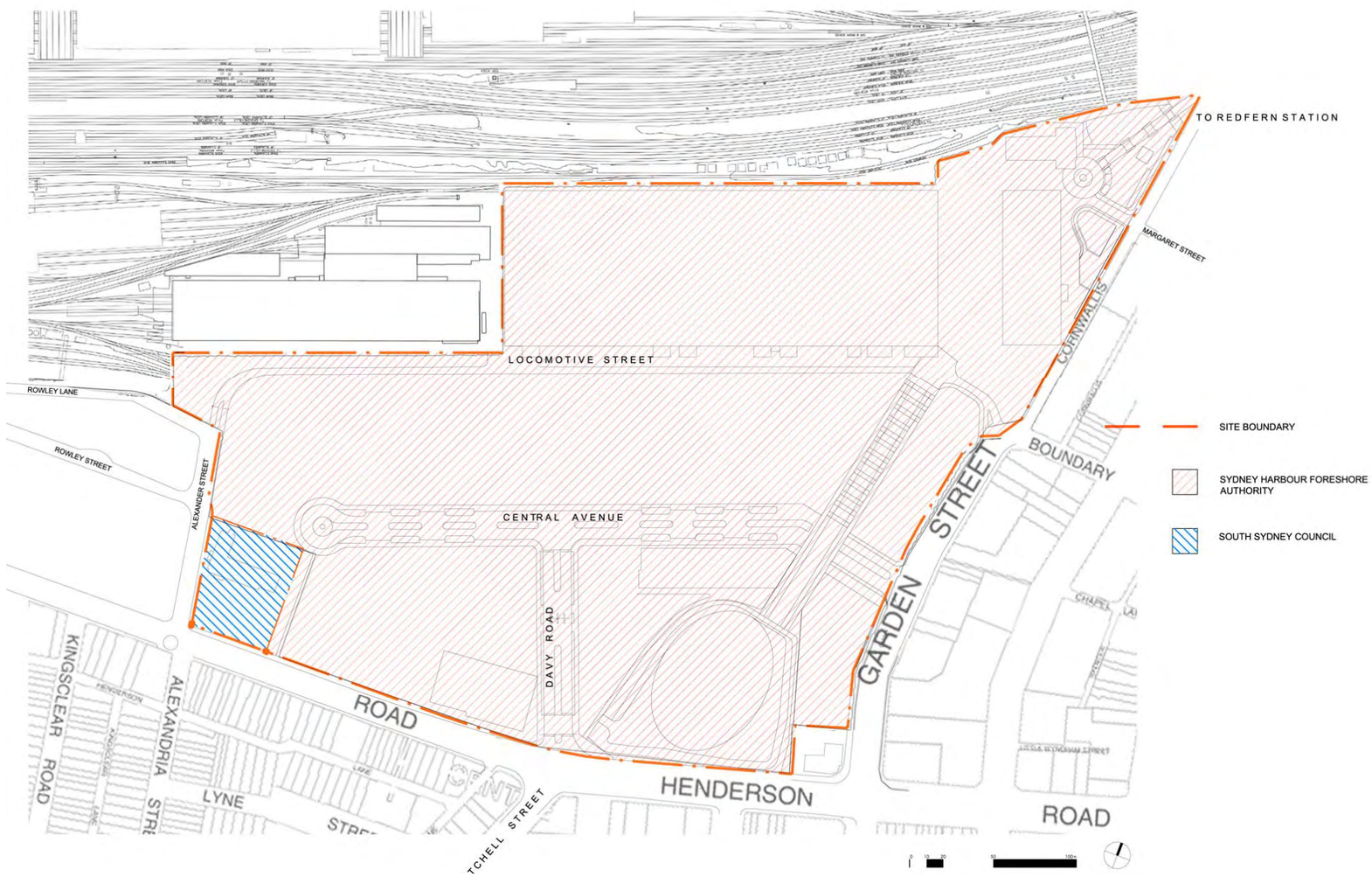
Urban Design Analysis

1 The Site

The 13.89ha ATP site (Refer Figure 1) is bounded to the north and northwest by the State Rail Authority (SRA) operational facilities, to the southwest by the Department of Housing development, to the south by Henderson Road and Alexandria Hotel and to the east by Garden Street and Cornwallis Street. The site now comprises 13.54ha of land owned by the Sydney Harbour Foreshores Authority (Lot 50, DP 859192) and 0.35ha of land owned by the South Sydney Council (Lot 51, DP 859192).

The ATP forms a major use within the Eveleigh Precinct of City West, a planning initiative for the inner west areas from Eveleigh through Central, Ultimo and Pyrmont to Rozelle and Balmain (Figure 2). It is subject to the requirements of Sydney Regional Environmental Plan (REP) No. 26 City West for the Eveleigh Precinct. The REP requires that the ATP site, the Alexandria Hotel and the adjacent site (developed as affordable housing) are subject of separate Master Plans for which the Minister for Urban Affairs and Planning is the consent authority.

Figure 1: The Site



2 Regional Context

As illustrated on Figure 2 the Site is located approximately 4 kilometres south of the Sydney GPO, bounded by the inner suburbs of Darlington, Redfern, Alexandria Park, Erskineville and Newtown and across the railway corridor to Sydney Central Station.

The district is within the City of South Sydney Local Government area and comprises inner urban, housing with a mix of employment uses. Industrial and commercial activity servicing the CBD, the ports and the airport increases the concentration of activity and traffic along the north-south arterial roads and towards the south.

The district is well served by a number of neighbourhood shopping centres – such as Newtown, Redfern and Erskineville and Darlington/Chippendale.

Figure 2: Regional Context

3 Local Context

Figure 3: Local Context

The area surrounding the Site contains a mix of residential, educational and railway uses:

- To the north, the main rail line effectively cuts the Master Plan site off from the Wilson St area beyond, while the visual and historic linkages with the railway itself have already been established through the retained workshop buildings.
- To the north east the Water Tower Apartments, converted from a former 4/5 storey factory building, overlook the north east corner of the Master Plan

Site,

- To the east of the site on Cornwallis St and Garden St is a mixture of predominantly single storey light industrial development. The two storey Hotel Alexandria marks the south east corner of the Site.
- To the south is Henderson Road with a mix of residential two and three storey development opposite the Master Plan site.
- The west the boundary of the Master Plan site is marked by a sealed road and Department of Housing affordable housing which is three and four storeys higher.
- Higher density development has been approved.

A principle of Master Plan 2003 is to provide a transition in scale from the surroundings to the development on the site.

4 History and building character

The site is rich in history. It has been utilised for railway and associated uses since the early 1800's. The conservation and adaptive reuse of the large heritage buildings on the site provides a focus and establishes the unique character or point of difference of this technology park. It enables interpretation and appreciation of the continuity of technologies from the steam age onwards.

As detailed in the Eveleigh Precinct Conservation Policy prepared by Schwager Brooks and Partners for the NSW Department of Planning, the Eveleigh Precinct has functioned as the major rail corridor in the State for some 140 years.

The Railway workshops, which have been in existence since the late 1870's, were responsible for producing over two hundred locomotives, including the famous C36 and C38 Class, and were the major repair and maintenance shop for rolling stock in the early 20th century.

These three heritage buildings (the Locomotive Shed, Engine Workshop and Managers Office) and various artefacts provide the Site with a strong sense of place and identity, which is to be retained and conserved.

The Heritage Conservation Strategy requires the conservation and sympathetic reuse of the heritage buildings on the site providing exciting spaces for innovative business, leisure and cultural pursuits. Heritage buildings on the Site are illustrated on Figure 4.
The building character of the Site has been one of predominantly very broad large floor plate building forms. Historically the large building forms followed a general east/west orientation. Where economically appropriate for today's uses it is desirable to reflect this historical building pattern in the orientation of street blocks and the presentation of buildings to the public domain to new streets within the Site.

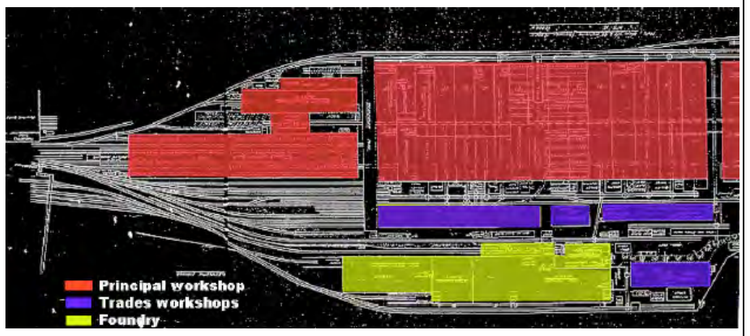


Figure 5: Former lineal building layout
This illustrates the historic relationship of the site with the railway

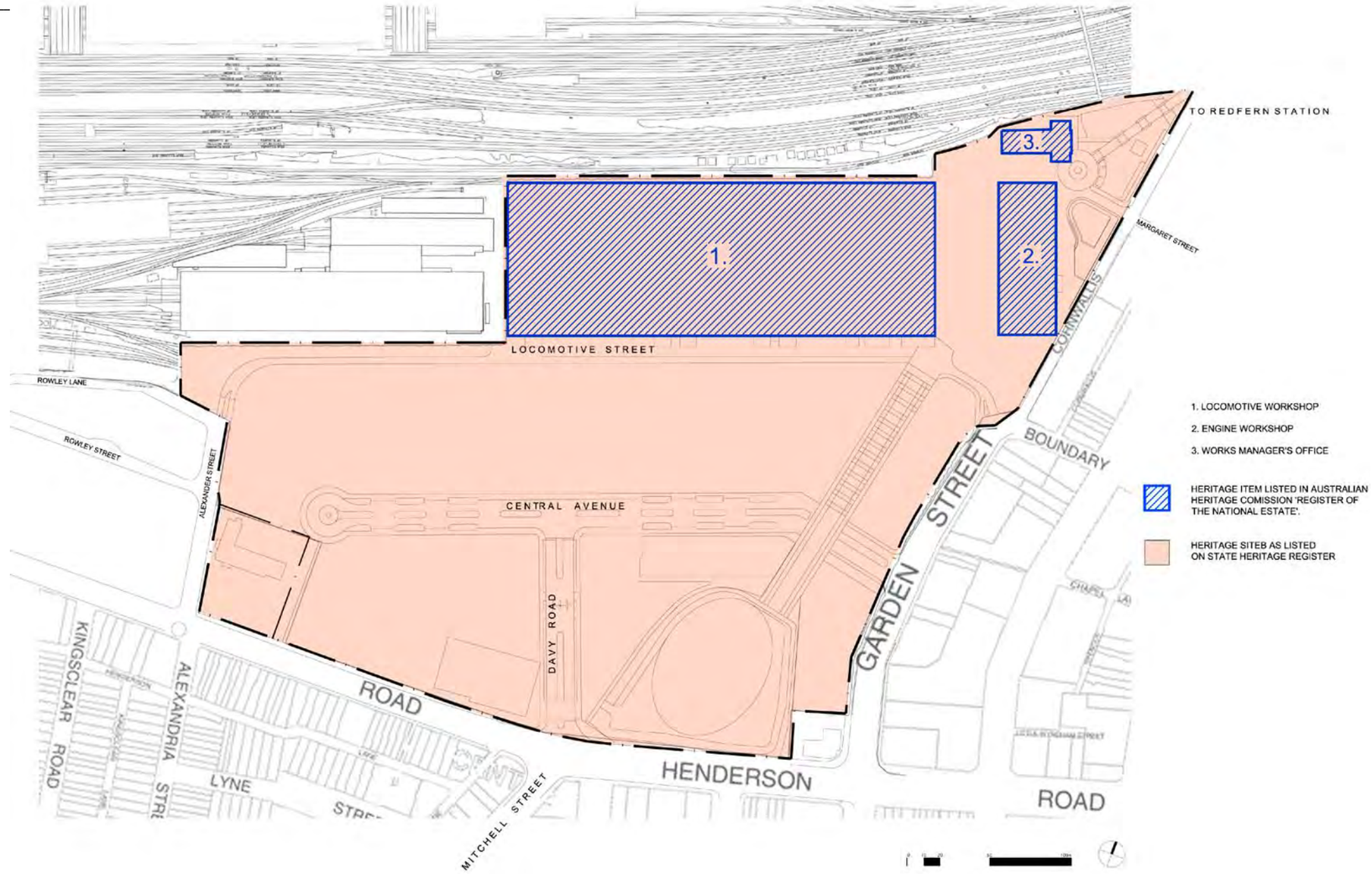


Figure 4: Heritage

5 Industrial archaeology

The Site is rich in industrial (railway use) archaeology. Master Plan 2001 requires that elements of archaeologic interest on the Site be recorded and where feasible preserved.

6 Public transport

The site is located immediately adjacent to the Redfern Railway Station, which is a major rail station on the Sydney rail network. CityRail and the Department of Transport have proposals to up-grade Redfern railway station based on a centre loading platform design as well as a new bus interchange in Wyndham St.

The Site is also within easy walking distance of a number of STA bus services. This excellent accessibility provides the opportunity in Master Plan 2001 to encourage a modal choice towards the use of public transport, walking and cycling by ATP tenants and visitors by limiting the number of available car parking spaces on the Site. The 1994 Master Plan (as amended) limited the total number of parking spaces on the site to 1,600 spaces. Master Plan 2003 adopts the same limit.

7 Traffic

A recent (1999) traffic study of the existing and future situation carried out by Transport and Urban Planning indicated:

Traffic conditions on the road network adjacent to the ATP are characterised by:

- *High levels of traffic congestion in Botany Road/Regent Street and Wyndham Street at Henderson Road and to the south at McEvoy Street during peak hours*
- *A northbound bypass movement using Garden Street/Boundary Street between Henderson Road and Wyndham Street due to this congestion.*

The main features of the arterial road network servicing the Master Plan Site include:

- The one way pair of Regent St/ Botany Rd (one way south) and Wyndham St /Gibbons St (one way north). These roads revert to two-way south of Henderson Rd. Regent St/Botany Rd is a State Road and Wyndham St is a Regional Road.
- Henderson Rd, a Regional Road (east of Mitchell Rd) which links Mitchell Rd to Botany Rd and extends west to Railway Pde and Swanson St.
- Mitchell Rd, a Regional road (except between Copeland St and Fountain St where it is a State Road) which links to Sydney Park Rd to Henderson Rd.

Local Roads adjacent to the Site include:

- Garden St which provides direct access to the Site from Henderson St;
- Boundary St which links between Garden St and Botany Rd;
- Cornwallis St which is one way south between Marian and Garden Streets.

A Traffic Study prepared by Transport and Urban Planning in 1994 concluded that traffic conditions on the road network adjacent to the Site are characterised by:

- High levels of traffic congestion in Botany Rd / Regent St and Wyndham St at Henderson Rd and to the south at McEvoy St during peak hours;
- A northbound bypass movement using Garden St / Boundary St between Henderson Rd and Wyndham St due to its congestion.

Since the formulation of the 1994 Master Plan access to the ATP has been improved by:

- Provision of traffic signals at Garden St / Henderson Rd;
- Exemption of no right turn restrictions for emergency vehicles from Henderson Rd into Botany Rd;
- Emergency access provisions for the Central District Ambulance.
- Completion of the Eastern Distributor Motorway in 2000. Following on from this, there are plans for extension of the one way pair to the south (Botany Rd and Regent St).
- Completion of the new heavy rail line from Central to the Airport and on to the East Hills line is completed which should have some effect upon the modal choice along this corridor.

Proposals for a major upgrading of Redfern Station and a new bus/rail interchange off Gibbons Street are currently under review and should improve vehicular and public transport to the site.

It is understood that studies are also underway to reconfigure bus routes making the new train station at Green Square into a possible interchange point.

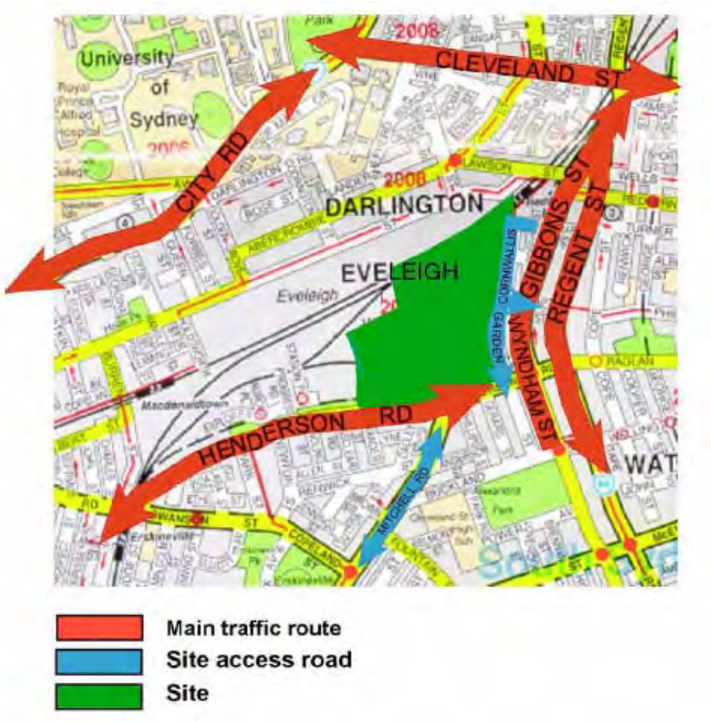


Figure 6: Surrounding road hierarchy

8 Open space

As detailed in the ATP Public Domain Strategy, public open space in the vicinity of the Site is limited. A number of large open spaces in the surrounding area are dedicated single use sporting ovals, while many of the smaller spaces are too small, have limited public access, or have restrictions on their use.

The Strategy maintains that the ATP generates its own need for open space as pleasant settings for its buildings, but more importantly as part of the sporting and recreational resources that encourage social interaction between ATP tenants. Such interaction is central to the underlying objective of 'synergy' between the disciplines within the ATP.

The railway line and the major roads surrounding the Site serve to isolate it from the adjacent communities and activities.
Master Plan 2001 presents the opportunity to provide greater levels of public open space available to the general public and better pedestrian links across the precinct.

Most of the open space identified in the 1994 Master Plan has been constructed and serves as an interface between the residential area to the south west and the ATP.

Master Plan 2003 increases the extent of open space on the site.

9 Social context

The site is located in close proximity to the Central Business District of Sydney and Central Railway Station, the city's primary regional transport node.

In the immediate vicinity of the site, the suburbs of Surry Hills, Redfern, Alexandria, Erskineville, Newtown, Darlington and Chippendale are densely populated with a mix of residential, light industrial retail and warehousing activities. Residential styles are a mix of traditional inner city terrace row housing, and more recent medium density flat developments. Areas of Alexandria, Erskineville and Darlington contain a significant proportion of public housing accommodation and in Redfern the high rise public housing opposite Redfern Oval dominate both the skyline and the social mix of residents.

The traditional mix of residential, light industrial and warehousing uses in the locality are changing and as suburbs such as Newtown and Surry Hills are gentrified and the traditional working class residents and workers are pushed out of the area by rising prices. Large-scale redevelopment is planned at nearby Green Square, where an additional 20,000 residents are predicted over the next 25 years will reinforce these trends.

The demography of the area is predominantly young people in the 18 – 35 age group, attracted, by the locality's close proximity to the city, and places of higher education, such as Sydney University. There is also a significant proportion of long time aging residents.

Note: Updated socio-economic data is to be included in the final draft of this plan.

10 Topography

The Eveleigh Precinct historically sloped from the north and north east at approximately RL 30m down to the south and southwest at approximately RL 14m on Henderson Rd.

To accommodate the railway operations over the years the Site has been benched into three distinct platforms. With the exception of a section at the north east corner, the site occupies the two lower levels at approximately RL 22m and RL 17m. The step between these levels has been both a constraint and an opportunity for Master Plan 2001– a constraint on the provision of vehicular and pedestrian movement north/south between the platforms but also an opportunity to use the step to contain the main parking structure without the need for substantial excavation.

11 Integration with Surrounding area

Master Plan 2001 should address the issue of integrating the ATP physically and socially with its surroundings by:

- maximum height limits and urban design controls which require the new development to have a transition in the scale between neighbouring areas and the centre of the Site;
- provision of pedestrian and cycle links with the adjacent residential and business areas; and
- locating open space and recreational facilities at the interface with the main residential street to the south. This physical proximity will contribute to interaction between the ATP workers and the local residents.

To ensure that integration measures and policies are ongoing and that traffic and parking strategies are coordinated, Master Plan 2001 requires liaison with the South Sydney City Council (SSCC) and other relevant authorities.

12 Easements

As illustrated on Figure 7 a number of existing and proposed easements cross the site to accommodate the site, local and regional services requirements and SRA access. In addition, the proposed easement for the regional transgrid electricity cabling traverses the site down Mitchell Way and across the oval area.

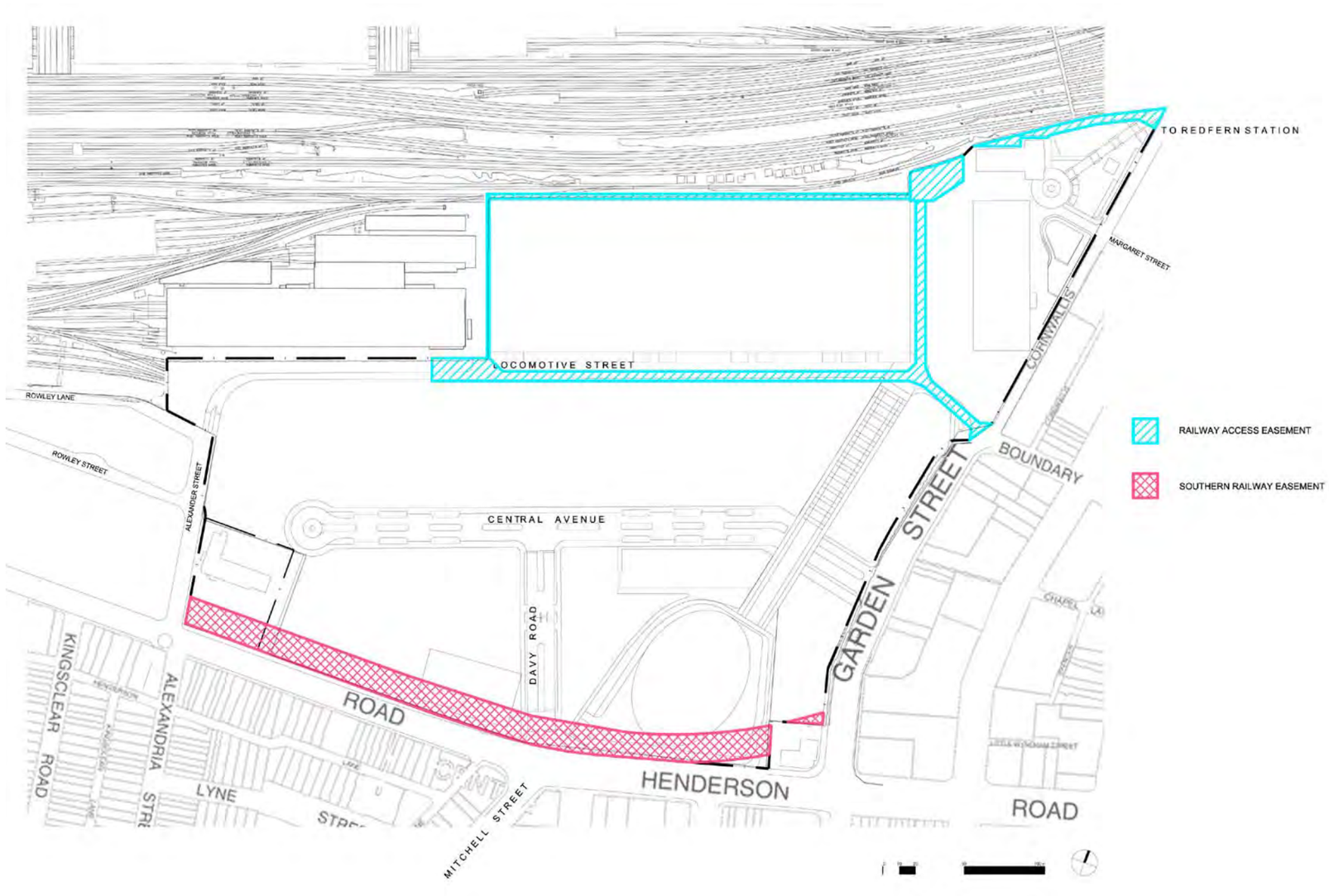


Figure 7: Easements

13 Completed buildings and infrastructure

As illustrated on Figure 8, existing buildings on the Site comprise a mix of large footprint historic railway sheds and contemporary buildings.
A significant proportion of the elements envisaged by the 1994 Master Plan and as amended have been completed, particularly infrastructure, open space, community facilities and adaptive re-use of heritage buildings on the site. These are illustrated on Figure 8 and include:

The Locomotive Workshops and the attached buildings on its southern face

The Locomotive Workshops building has been refurbished in accordance with the provisions of the 1994 Master Plan to house the following functions; exhibition areas, educational facilities, lettable space for ATP tenants, retail shops, restaurant/coffee shop, 520 seat fully equipped theatre and convention facility and 6,500m2 of exhibition space.

Works Manager's office and curtilage

This heritage building has been refurbished in accordance with the provisions of the 1994 Master Plan. The building is occupied by the Australian Graduate School of Engineering Innovation.

Water Tank/Cornwallis St open space area

The Water Tank has been retained and a public recreation space of 0.4 hectare has been provided in accordance with the Public Domain Strategy.

Bio-medical Building between Central Avenue and the oval

This is a high technology/research building of ### sqm gross floor space.

RTA Facility and the Ambulance Station fronting Garden Street and Whitton Avenue

These buildings were completed in early 2000.

National Innovation Centre (Engine Shop)

This heritage building has been adapted for re-use in accordance with the provisions of the 1994 Master Plan. This building is fully occupied by technology “start up” companies.

Innovation Plaza

Plaza completed in accordance with the Public Domain Strategy.

Kindergarten

The 60 place long-day Alexandria Child Care Centre has been completed and is operating. It is owned and operated by South Sydney Council.

Oval

The Oval is a major public recreation area of 0.9ha, which acts as a stormwater detention basin, has been constructed in accordance with the provisions of the 1994 Master Plan and the Public Domain Strategy. An active public recreation area to the west of the oval has been constructed in accordance with the provisions of the 1994 Master Plan and the Public Domain strategy. The area consists of two tennis courts and a basket ball court.

Linear Park

A linear park has been provided over the Eastern Suburbs Railway easement in accordance with the provisions of the 1994 Master Plan and the requirements of the Public Domain Strategy.

Pedestrian promenades

The main spine of pedestrian walkways (particularly Mitchell Way) required by Master Plan 2001 have been constructed linking the site to the railway and surrounding local area.

Infrastructure

All following services have been provided:

- electrical service to existing buildings;
- stormwater floodways and the provision of a detention basin, along a diagonal service corridor between Innovation Plaza and Henderson Road at Mitchell Way; and
- a stormwater floodway and service corridor from the SRA properties west of the Locomotive Workshop;

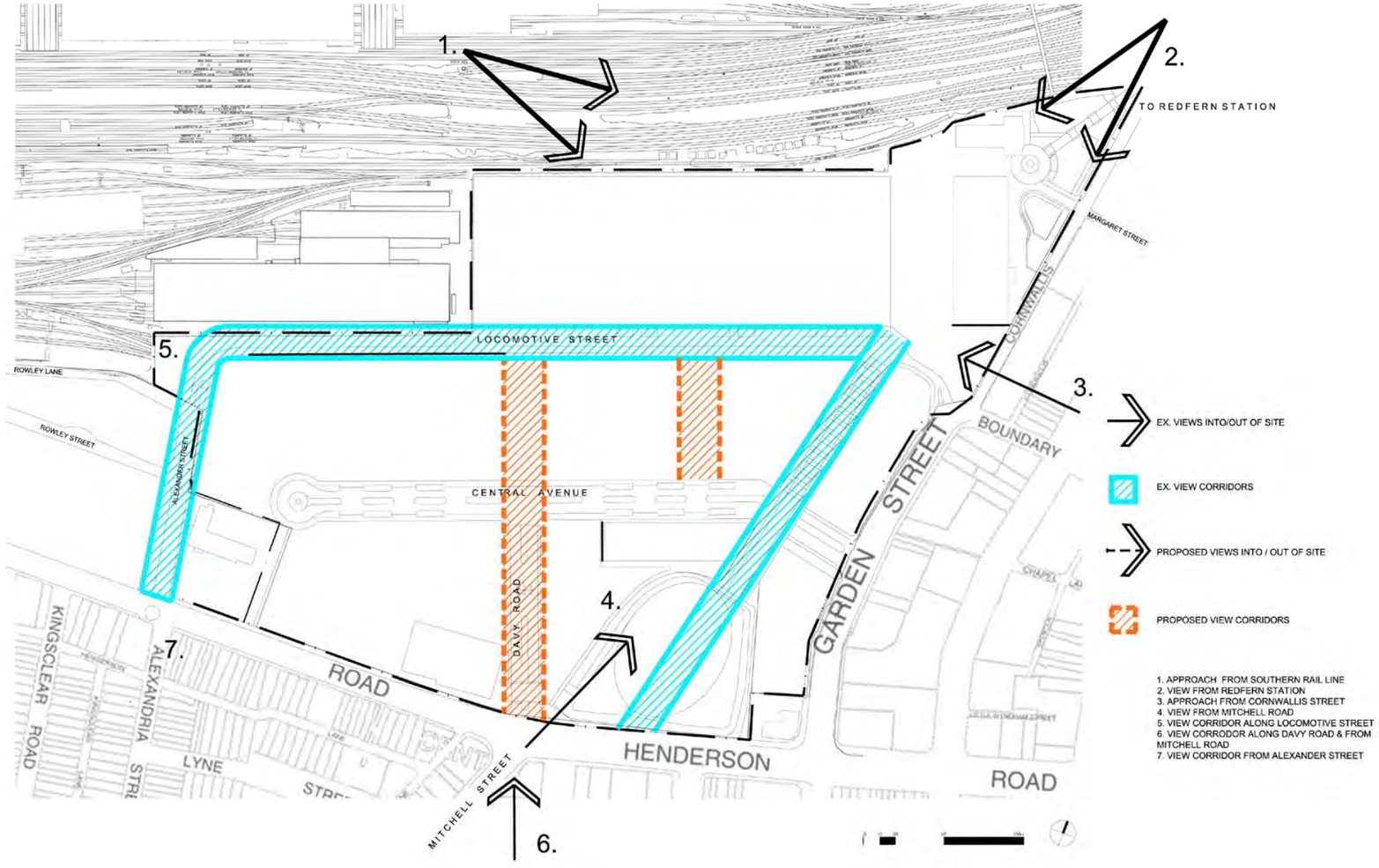
progressive implementation of roads and stormwater to accommodate new developments.

14 Views

There are significant view corridors to and on the Site that provide constraints and opportunities for future development. These are identified on Figure 9. These view corridors to and across the Site should be reinforced by the future development of the Site.

The Site's location, towards the northern rim of the Botany basin, means that taller buildings will be afforded views from the Site south to Botany Bay while upper levels will also have views north and north east to the CBD. Towers in the immediate vicinity of the Site, such as the TNT twin office towers and the Waterloo residential blocks, are readily visible from the Site.

Figure 9: Views



15 Public domain open space

The 1994 Master Plan and REP 26 zonings earmarked certain areas of public open space required on the Site. With the exception of the park planned at the western end of Whitton Avenue (referred to as Central Avenue in the 1994 Master Plan) and the additional open space proposed in this plan, all these facilities have been constructed. (Refer Figure 10).

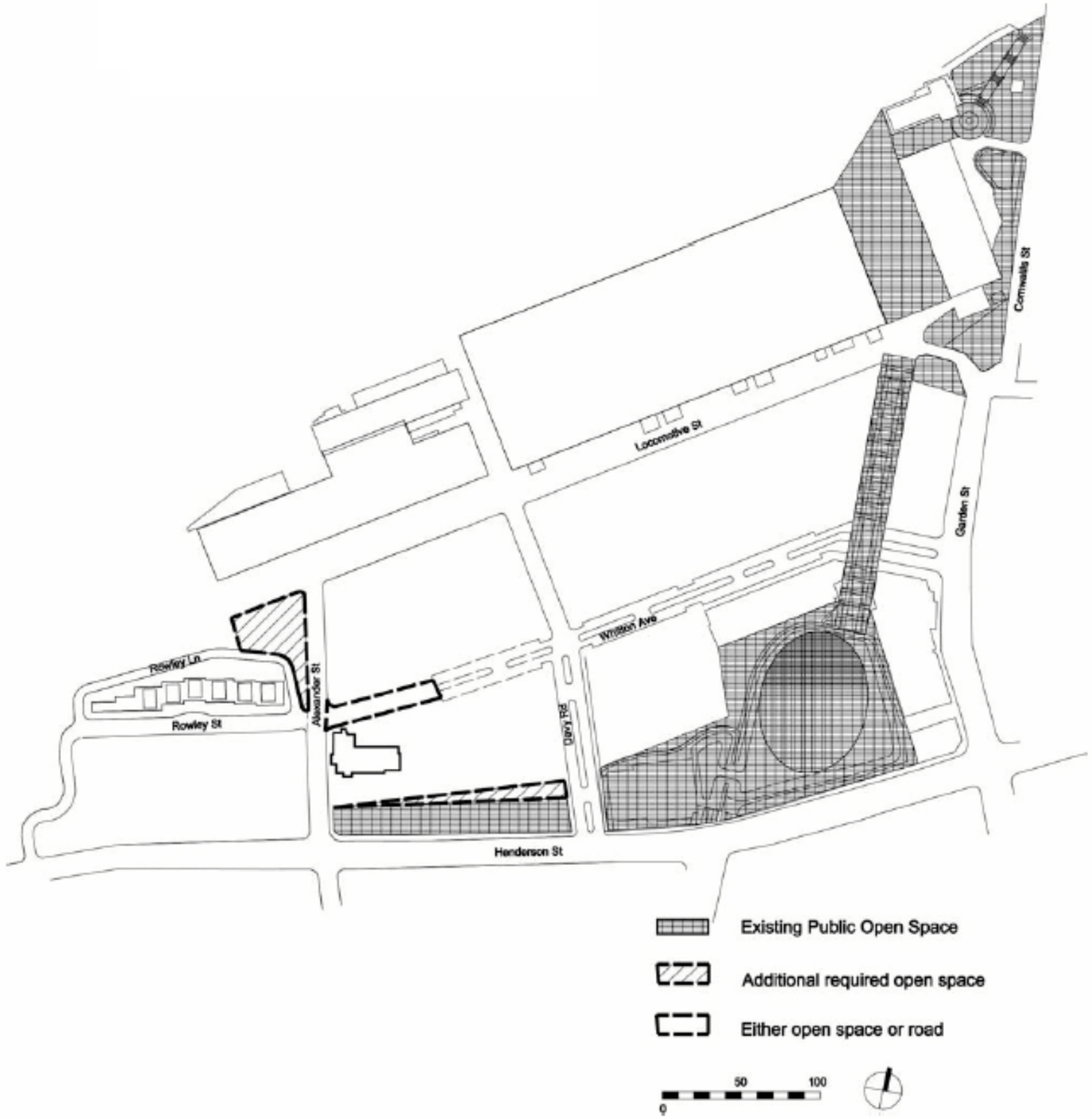


Figure 10: Existing open space

16 Pedestrian and cycle routes

The 1994 Master Plan established a system of cycle and pedestrian routes through the Site linking to the surrounding area which have been partly implemented. There are opportunities to resolve the pedestrian and cycle connections at the western end of the Site and to provide a relocated second entry from Henderson Road that links more directly to the centre of the Site. Refer Figure 11.

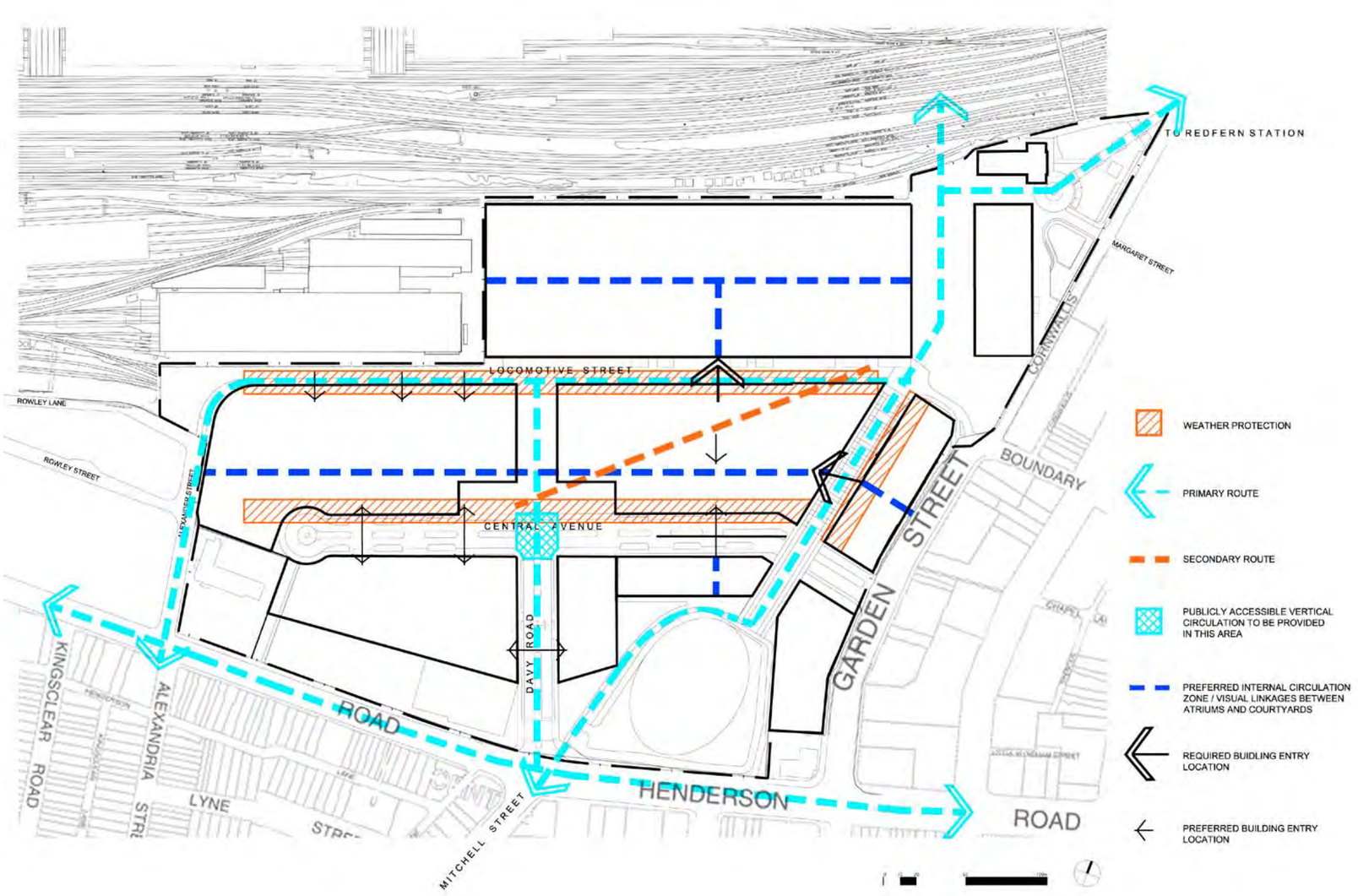


Figure 11: Pedestrian and cycle routes in locality

17 Utilities and Stormwater

With the exception of a high voltage electricity tunnel easement running through Innovation Plaza to Garden St, most existing services on the Site will eventually require replacement and are not a constraint. Optic fibre routes have been provided for on the site and a new 'Transgrid' tunnel is proposed.

Stormwater is to be handled by both piped stormwater and a surface floodway from the SRA tracks through Innovation Plaza to the detention basin at Henderson Road (Refer Figure 13). Use of existing stormwater pipes in Garden St has not been permitted.

Most of the stormwater infrastructure is now constructed. The Oval and tennis courts act as a major stormwater detention basin for the Site.

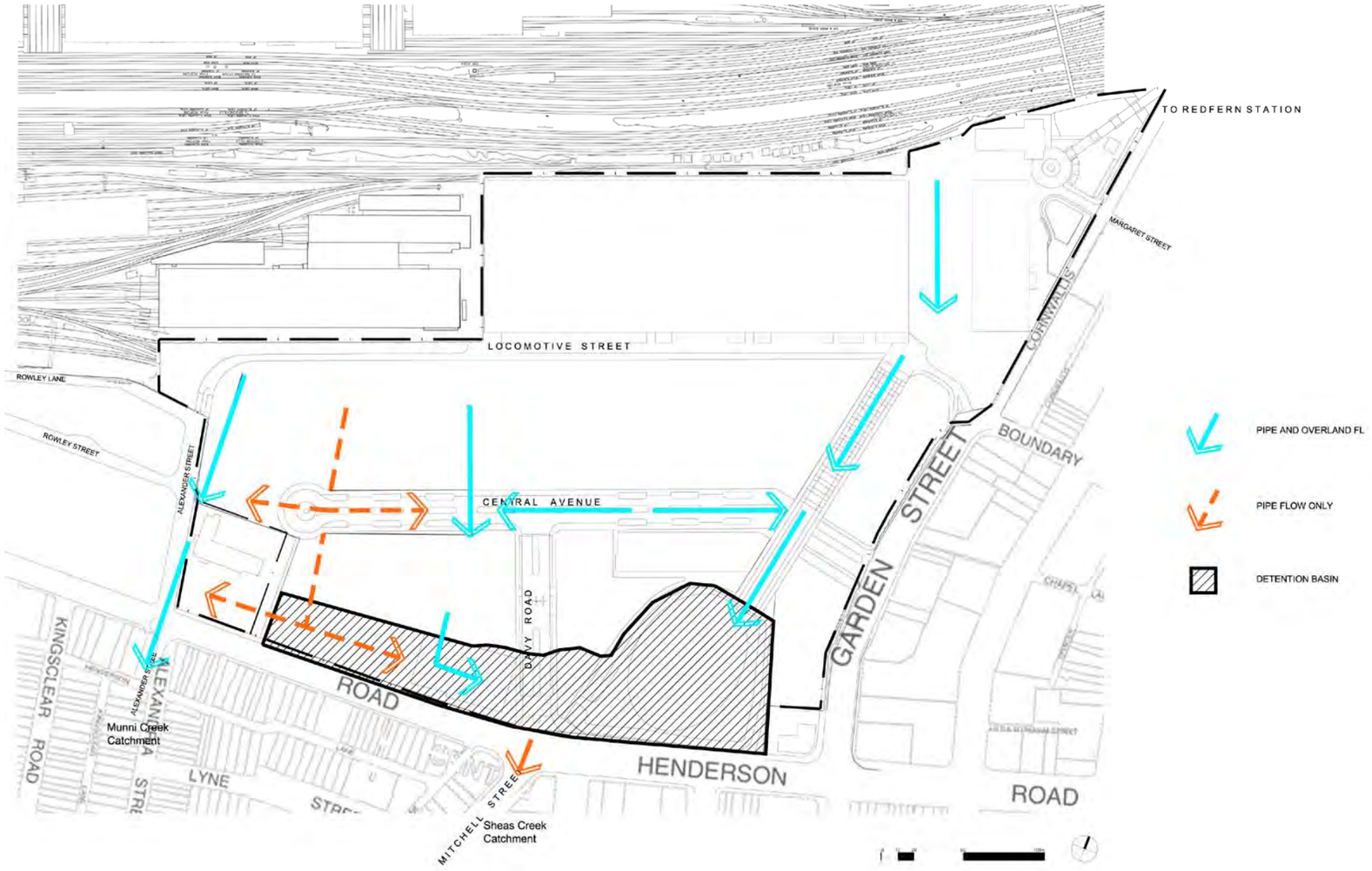


Figure 12: Stormwater

Appendix B

Compliance with REP 26 – City West

Compliance with Sydney Regional Environmental Plan No.26 – City West

1 Development principles

The Master Plan adopts and reinforces the development principles for City West contained in REP 26.

REP 26 contains a number of specific development principles for the Eveleigh Precinct of which the site forms part. The Master Plan adopts and responds to these principles. Details of how the Master Plan responds to the REP are described below. The REP principles are italicised followed by a response responding to compliance by the Master Plan for each group of principles. Sections in italics are quoted from the REP.

2 Role and land use activities

- *Public and private sector high technology industrial enterprises involved in research and development should be promoted within the Precinct. Advantage should be taken of the Precinct's proximity to the University of Sydney, the University of New South Wales and the University of Technology, Sydney…*

- *Development in the Precinct is to include employment opportunities for people residing in, and in the vicinity of, the Precinct….*

- *Development is to take advantage of Redfern Railway Station as a major regional public transport node.*

- *The provision of on-site car parking within the Precinct is to be strictly limited and the use of public transport maximised.*

- *Development is to make efficient use of surplus Government owned land and any heritage items located on that land.*

- *Development is to incorporate cultural and community facilities to assist in meeting the needs of various groups constituting the residential and working populations of the locality.*

- *Development is to be compatible with and enhance the surrounding land uses in Waterloo, Redfern and Darlington.*

- *Development is to make a significant contribution to ecological sustainability by the use of practical management frameworks for water distribution, sewerage, and stormwater recycling.*

The proposed development strategy in Master Plan 2003 is to continue to provide high quality commercial, educational, community and leisure facilities on the site, which will benefit from the excellent accessibility and play a complementary role to the Sydney CBD.

Master Plan 2003 reinforces the innovative approach to the use of the site, incorporating the adaptive re-use of the large heritage buildings on the site for commercial, educational, cultural and leisure uses.

Master Plan 2003 continues to provide for the promotion of public and private sector high technology enterprises involved in research and development as required by the REP. It takes advantage of the proximity of the three universities (Sydney, New South Wales and Technology, Sydney).

A significant element of the plan is the inclusion of 'incubators' at reduced rents, for the development of new ideas and businesses in association with the nearby universities.

Many large high technology industries are also actively encouraged to relocate to the site.

The site is located immediately adjacent to an established residential area and the new Eveleigh residential precinct. This provides the opportunity for people to live and work in close proximity within easy walking distance.

The site is directly linked by pedestrian ways to the adjacent Redfern Station.

The Master Plan 1994 maximum of 1,600 on site car parking spaces permitted on the site is adopted. This equates to a ratio with the uses on the site commensurate with the site's position adjacent to a major railway station and bus interchange.

A range of cultural and community facilities have been provided and are proposed on the site including:

2.68 hectares of public open space;

a kindergarten, which has been constructed on the western edge of the site adjoining residential areas.

The exhibition centre, National Innovation Centre, theatre and function rooms (completed).

3 Urban design

- *The height of new buildings is to reflect and emphasise the topography of the Precinct, at the same time respecting the height and scale of heritage items.*

- *New buildings within the Precinct that are close to the Precinct boundaries are to respect the character and height of buildings in their immediate vicinity.*

- *Higher buildings may be accommodated towards the eastern part of the Precinct to the south of the Locomotive Workshop building and Garden Street, to provide a focus and symbol for development. Any such buildings should not compromise the environmental amenity, heritage significance and general scale of development in their locality.*

- *Development involving former railway buildings and associated items of heritage significance is to result in their conservation and re-use.*

Building envelopes have been refined from Master Plan 1994 to provide for building forms that more closely correspond to the historic pattern of large floor plates oriented east-west, the market requirements of future tenants and are more ecologically sustainable.

Building envelopes continue to reflect the topography of the site by stepping upwards in height towards Henderson Rd to the higher level at Locomotive Street.

The landmark building concept recommended in the original Master Plan has been reintroduced to provide a central focal point within the development.

Different scales and building forms have been chosen at the boundaries of the site to provide transitional elements between the site and surrounding development forms.

The built forms of the heritage buildings have been successfully refurbished and will have their conservation values maintained.

Building envelopes to the south of the railway workshops have been further set back with a commensurate slight increase in height to better frame the heritage buildings without detracting from their heritage value.

4 Public domain

- *Public recreation areas are to provide for a range of recreational opportunities for the residents and workers within the Precinct.*
- *Links for pedestrians, cyclists and disabled people are to provide access to buildings and other places within the Precinct and access across the Precinct from Darlington to the Redfern/Waterloo commercial area.*

Public domain areas and their linkages throughout the site and to surrounding areas are major elements of the plan.

The public recreational areas have been mostly constructed. The oval and public promenades are to be retained and these are to be linked to pedestrian ways through the building envelopes.

The existing cycleways are to be retained and links to Redfern Station are recommended to be improved.

Additional informational and directional signage is proposed.

5 Zoning

The proposed uses comply with and support the objectives of the *Residential-Business* zoning of the site under REP 26.

Zone objectives:

- *To promote a range of uses, particularly business development including tourist, leisure, commercial, retail and office development consistent with the Precinct's proximity to the Sydney CBD, harbour locations and transport infrastructure, and….*

- *To accommodate uses which generate employment opportunities and provide facilities and services that enable people to live and work in the same community, and*

- *To ensure that the total amount of employment-generating development is compatible with the traffic capacity of the Precinct and adjoining areas, and*

- *Encourage sustainable transport modes for journeys to work and other trips, including walking, cycling and all forms of public transport,*

The Land Uses in the Master Plan comply with the zoning. The location of the landuses on the Master Plan site has been altered to a minor degree. This is permissible with the Minister's consent under Clause 48 of the REP.

The changes include –

- an increase in open space and its utility

- a more restrictive approach to development at the western end of the site, particularly to maintain the amenity of the existing child care centre.

These changes improve the overall land use management on the site.

The Master Plan does not pursue the opportunity for residential development provided in the REP, apart from contemplating serviced apartments or similar accommodation related to business use.

Development of the ATP will provide job opportunities for people residing in and in the vicinity of the Eveleigh precinct (more than 6,500 jobs in the ATP at full development are anticipated). No increase in business floor space is contemplated.

The Master Plan acknowledges the role of Redfern Station as a major regional public transport node by making it the focus of pedestrian routes crossing the ATP site.

6 Height controls

The Master Plan complies with the building heights contained in the REP with the following exceptions:

- The western portion of Block B1 is one metre above to provide for efficient storey heights;
- The tower buildings are the same height but have been relocated in order to provide central focus to the ATP site.
- Site D is approximately 5m above but complies with the Amendment of the original Master Plan. This continues the "landmark" principle of the original plan in the same general location.
- Blocks B2 and C are 6m higher because they are set back further from Henderson Rd

The building height changes occur within the context of –

- the overall amount of business GFA available to the total site (166,680sqm)
- a restriction on the amount of the building envelope for each development parcel that is able to be used
- an incentive to reduce building height by a control that allows 70% of the building envelope to be used for buildings 1 or more storeys less than the maximum.

Consistent with the REP's principles about flexibility, these measures enable increases in height in parts of the site to be offset by decreases in building volume in other parts.

The general principles of a gradation of height from the edges is reflected in the graduation of building heights from north to south. The draft Master Plan takes this further and introduces a grading of building heights from east to west. In particular, this is intended to maintain solar access to the child care centre and to existing housing in the wider locality.

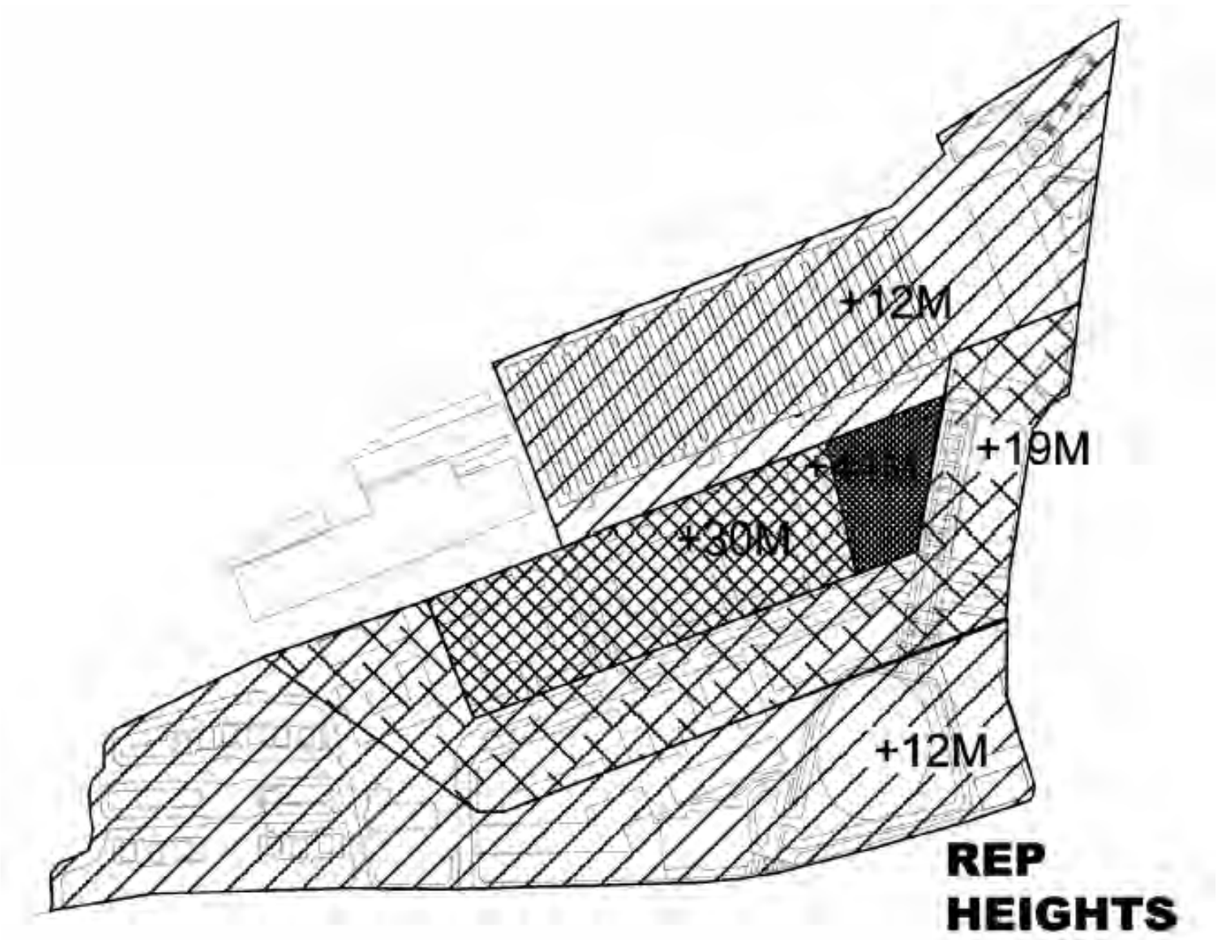


Figure A: REP Height limits

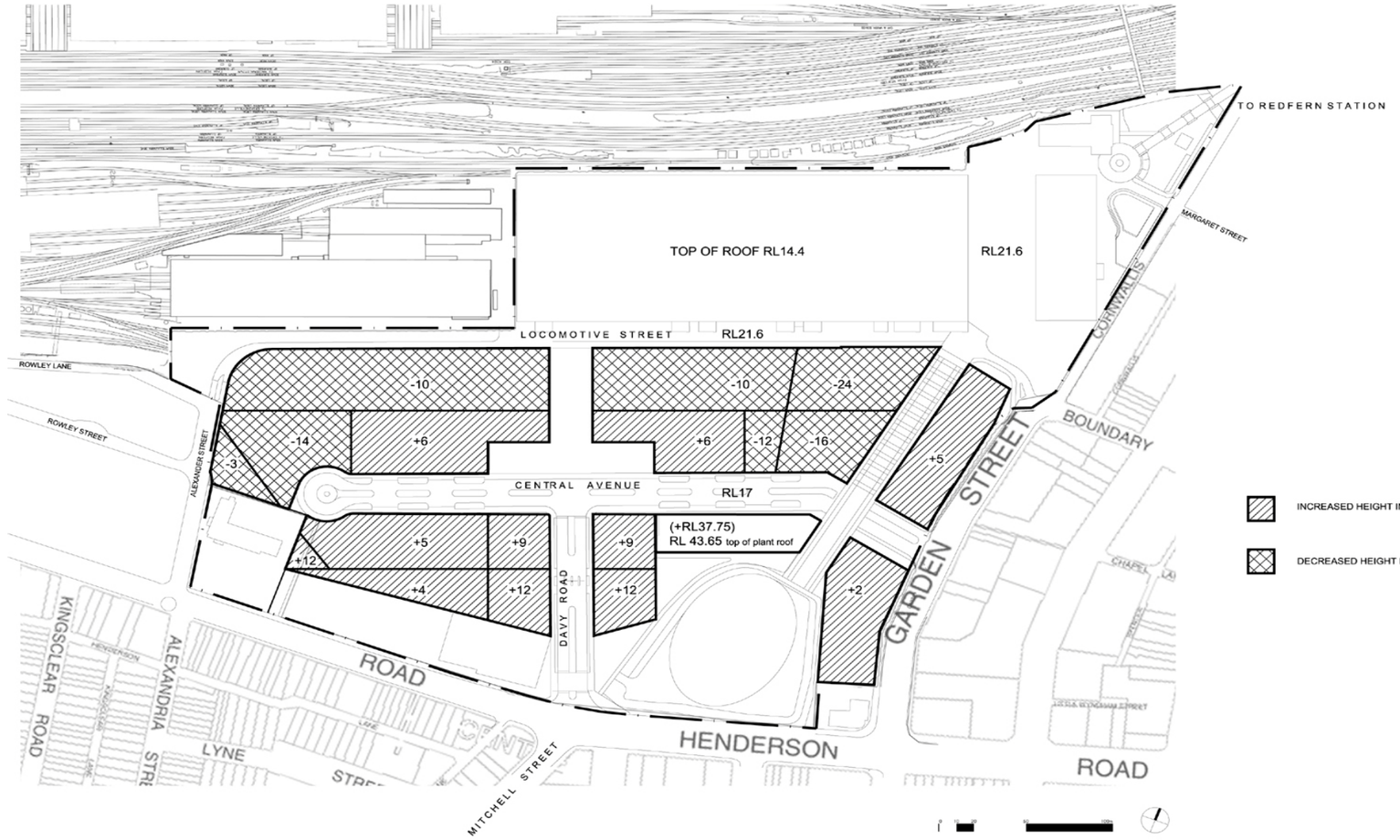


Figure B: Comparison REP and the Draft Master Plan Heights

Note: Clause 25 of the REP allows the Master Plan to vary the maximum heights with the Minister's consent

7. Urban Development Plan

The Urban Development Plan (UDP) for Eveleigh Precinct City West Region establishes a series of planning and urban design principles for the site. This Plan is required to be taken into account in the consideration of development applications. It is also intended to guide Master Plan preparation.

The Master Plan is generally consistent wit the UDP/, and represents a more detailed expression of the UDP Principles.

The Master Plan does not make any provision for residential development, although acknowledges the possibility of serviced apartments on similar uses as an adjunct to business activity. To that extent, the provisions of the UDP relating to residential development are no longer relevant.

Other differences are –

- the adoption of an overall parking limit of 1600 spaces supersedes the UDP approach, although the principles are essentially the same

- the UDP requires parking to be accommodated within individual development sites. Master Plan 2003 proposes a consolidated parking approach with links to individual sites. These UDP provisions are no longer relevant.

Appendix D

Schedule of approved floor space areas

2 Schedule of approved floor space areas

List of buildings already constructed

Table 1: Register of Approved Floor space			
Development Consent Reference No.	**Date of Development consent**	**Description of Development**	**Gross Floor Area Approved**
DA 8/94	01/01/94	Innovation Centre	6318
DA 6/96	06/06/96	Locomotive Workshop	21745
DA 75/97	07/04/98	Biomedical Building	8555
DA 65/97	09/02/98	Ambulance Building	2943
DA 31/97	01/10/97	RTA Building	2630
		International Business Centre	1500
		Total	**43,691**

Notes:

1. International Business Centre GFA is an estimate only based on Survey Plan

Appendix E

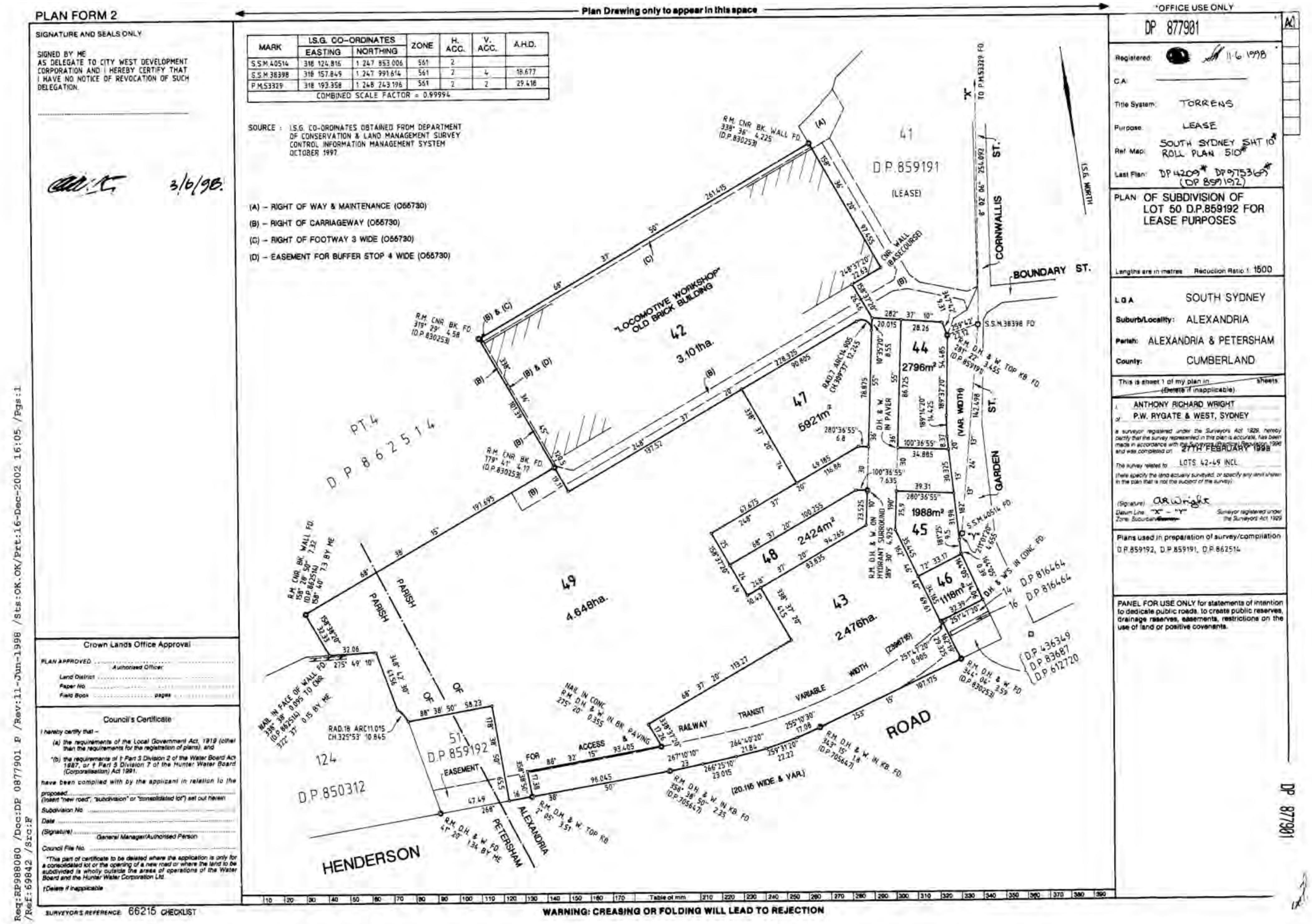
Public Domain Strategy

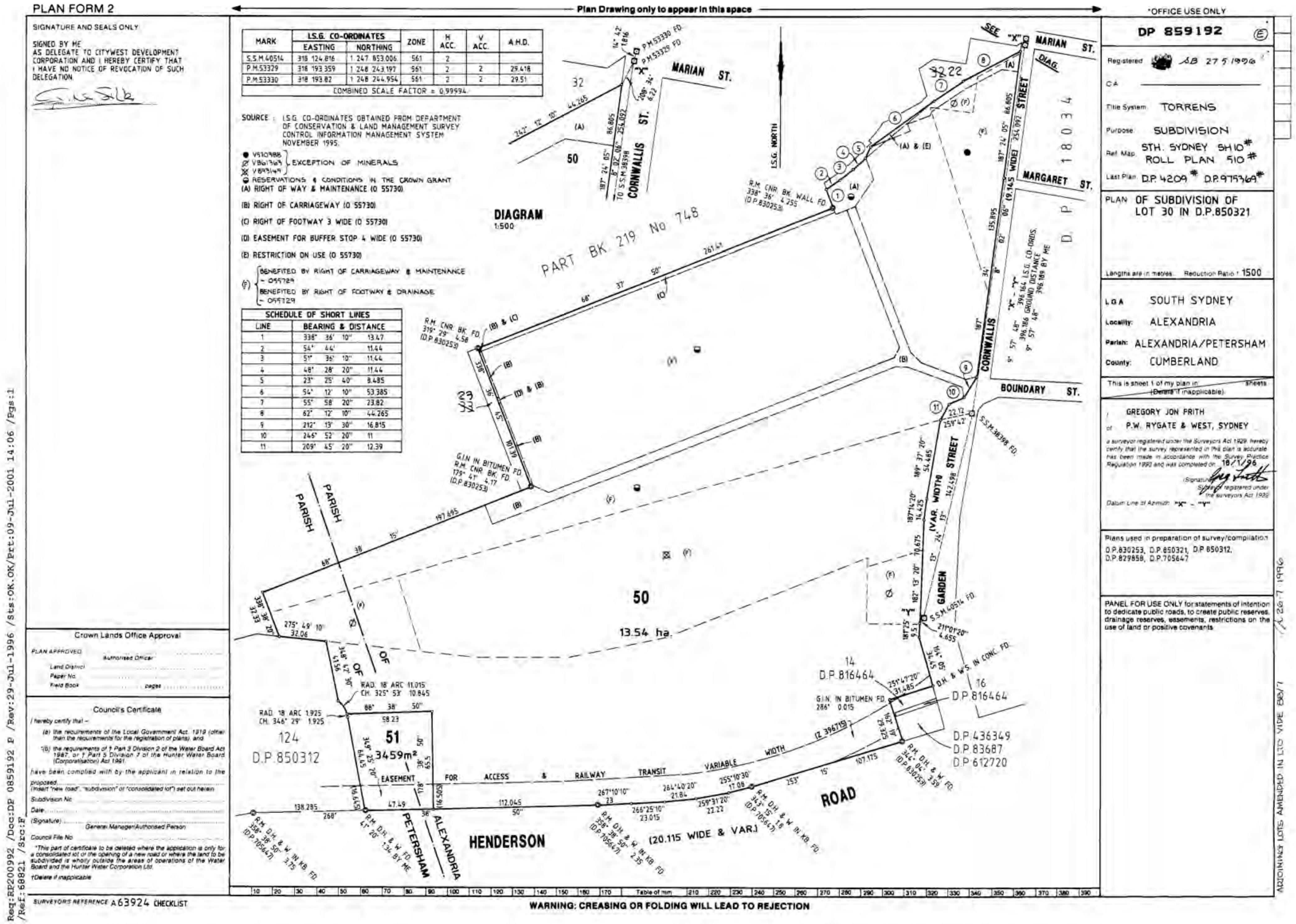
Prepared by Architectus

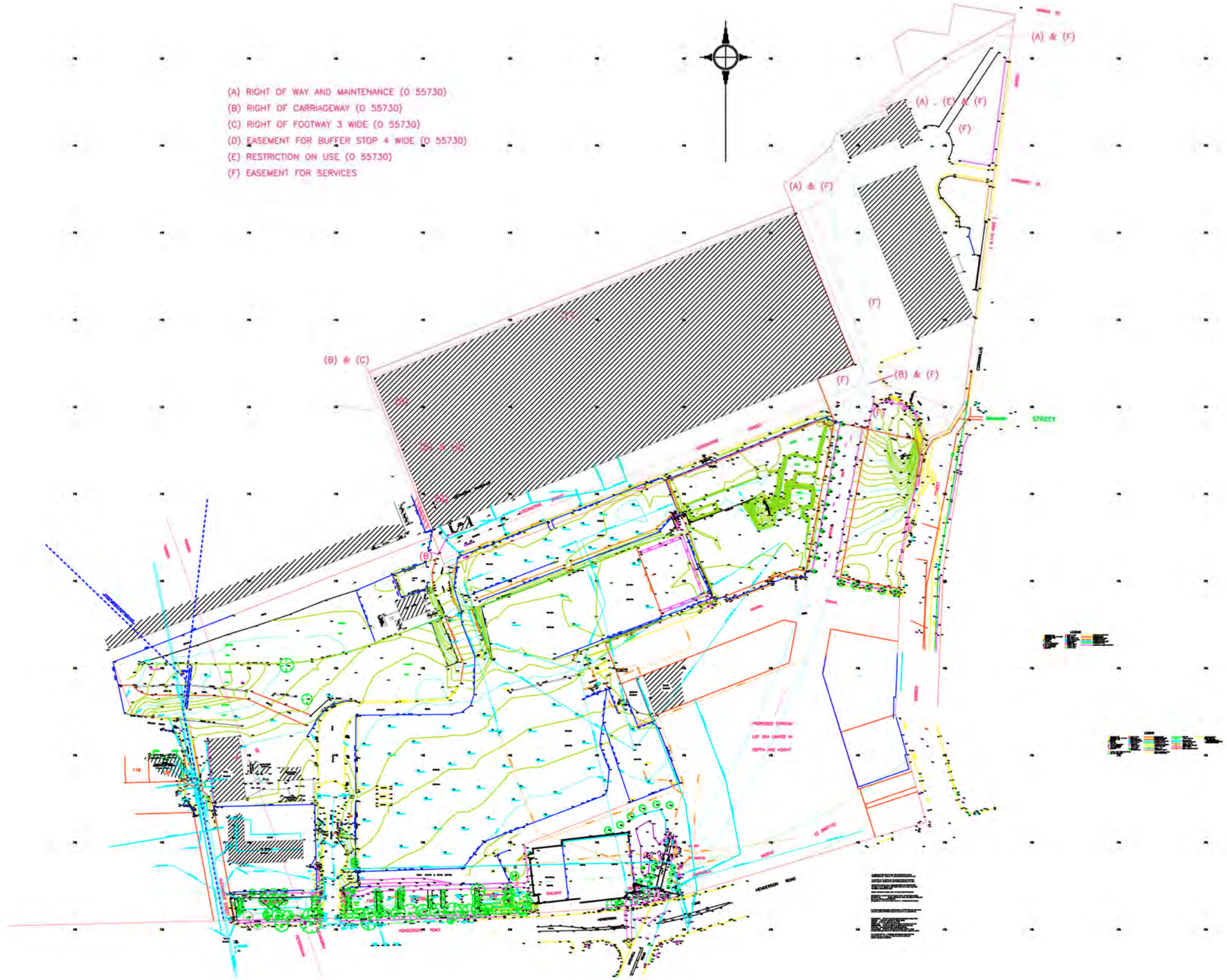
Appendix F

Surveys

Prepared by Rygate & Company


PLAN FORM 2
Plan Drawing only to appear in this space
OFFICE USE ONLY
DP 877901
SIGNATURE AND SEALS ONLY
SIGNED BY ME AS DELEGATE TO CITY WEST DEVELOPMENT CORPORATION AND I HEREBY CERTIFY THAT I HAVE NO NOTICE OF REVOCATION OF SUCH DELEGATION.
3/6/98
SOURCE : I.S.G. CO-ORDINATES OBTAINED FROM DEPARTMENT OF CONSERVATION & LAND MANAGEMENT SURVEY CONTROL INFORMATION MANAGEMENT SYSTEM OCTOBER 1997
COMBINED SCALE FACTOR = 0.99994
(A) – RIGHT OF WAY & MAINTENANCE (O55730)
(B) – RIGHT OF CARRIAGEWAY (O55730)
(C) – RIGHT OF FOOTWAY 3 WIDE (O55730)
(D) – EASEMENT FOR BUFFER STOP 4 WIDE (O55730)
"LOCOMOTIVE WORKSHOP" OLD BRICK BUILDING
42 3.10ha.
47 5921m²
44 2796m²
45 1988m²
48 2424m²
46 1118m²
49 4.648ha.
43 2.476ha.
41 D.P. 859191 (LEASE)
PT. 4 D.P. 862514
51 D.P. 859192
124 D.P. 850312
CORNWALLIS ST.
BOUNDARY ST.
GARDEN ST.
HENDERSON ROAD
RAILWAY TRANSIT VARIABLE WIDTH ACCESS EASEMENT FOR
PARISH OF PETERSHAM
PARISH OF ALEXANDRIA
Registered: 11.6.1998
Title System: TORRENS
Purpose: LEASE
Ref Map: SOUTH SYDNEY SHT 10 ROLL PLAN 510
Last Plan: DP 4209 DP 975365 (DP 859192)
PLAN OF SUBDIVISION OF LOT 50 D.P. 859192 FOR LEASE PURPOSES
Lengths are in metres. Reduction Ratio 1: 1500
LGA SOUTH SYDNEY
Suburb/Locality: ALEXANDRIA
Parish: ALEXANDRIA & PETERSHAM
County: CUMBERLAND
ANTHONY RICHARD WRIGHT
P.W. RYGATE & WEST, SYDNEY
27TH FEBRUARY 1998
LOTS 42-49 INCL.
Plans used in preparation of survey/compilation
D.P. 859192, D.P. 859191, D.P. 862514
PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.
Crown Lands Office Approval
Council's Certificate
SURVEYOR'S REFERENCE: 66215 CHECKLIST
WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION


PLAN FORM 2
Plan Drawing only to appear in this space
OFFICE USE ONLY
SIGNATURE AND SEALS ONLY
DP 859192
Title System TORRENS
Purpose SUBDIVISION
Ref. Map STH. SYDNEY SH10 ROLL PLAN 510
Last Plan D.P. 4209 D.P. 975369
PLAN OF SUBDIVISION OF LOT 30 IN D.P. 850321
L.G.A. SOUTH SYDNEY
Locality: ALEXANDRIA
Parish: ALEXANDRIA/PETERSHAM
County: CUMBERLAND
GREGORY JON FRITH
P.W. RYGATE & WEST, SYDNEY
DIAGRAM 1:500
PART BK. 219 No 748
SCHEDULE OF SHORT LINES
MARIAN ST.
MARGARET ST.
BOUNDARY ST.
CORNWALLIS ST.
GARDEN STREET
HENDERSON ROAD
PETERSHAM
ALEXANDRIA
PARISH OF
50
13.54 ha.
51
3459m²
124
D.P. 850312
D.P. 816464
D.P. 436349
D.P. 83687
D.P. 612720
EASEMENT FOR ACCESS & RAILWAY TRANSIT VARIABLE WIDTH
Crown Lands Office Approval
Council's Certificate
SURVEYOR'S REFERENCE A63924 CHECKLIST
WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION


(A) RIGHT OF WAY AND MAINTENANCE (O 55730)
(B) RIGHT OF CARRIAGEWAY (O 55730)
(C) RIGHT OF FOOTWAY 3 WIDE (O 55730)
(D) EASEMENT FOR BUFFER STOP 4 WIDE (O 55730)
(E) RESTRICTION ON USE (O 55730)
(F) EASEMENT FOR SERVICES
(A) & (F)
(A) , (E) & (F)
(F)
(B) & (C)
(B) & (F)
HENDERSON ROAD

SYDNEY HARBOUR FORESHORE AUTHORITY
AUSTRALIAN TECHNOLOGY PARK
2003

(A) RIGHT OF WAY AND MAINTENANCE (O 55730)
(B) RIGHT OF CARRIAGEWAY (O 55730)
(C) RIGHT OF FOOTWAY 3 WIDE (O 55730)
(D) EASEMENT FOR BUFFER STOP 4 WIDE (O 55730)
(E) RESTRICTION ON USE (O 55730)
(F) EASEMENT FOR SERVICES