

## Large Erecting Shop (LES) Design Principles

MIRVAC [MVLES] — Rev 1 — 31/01/2023

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# Introduction

These Design Principles have been prepared on behalf of Transport for NSW (TfNSW), the applicant of a State-led Rezoning Application for the Large Erecting Shop (LES) also known as the South Eveleigh Train Workshop located within the South Eveleigh Precinct.

The Rezoning Application shall seek approval for land use and site controls such as Gross Floor Area (GFA) whilst detailed design shall follow in future and separate development applications.

A clear set of Design Guidelines has been established to guide the future development of the LES site. This criteria will ensure that there is a clear and legible framework within which the project can be delivered. These Principles respond feedback from government and non-government agencies as part of ongoing project consultation and note relevant reference throughout this report.

Design Guidelines are structured around key themes including:

- **Urban Structure**
- **Urban Realm**
- **Building Form, Function & Expression**
- **Materials & Character**
- **Sustainability**

The intention of the design principles are to guide development and to provide flexibility for the design of the future building and spaces within the parameters of a clearly structured framework.

The Design Principles are intended to be used as a tool to achieve design excellence and a built form and public domain that is appropriate within the context of the existing Eveleigh Precinct. Future development applications should aim to demonstrate consistency with these guidelines.

It is not intended these principles become a set of prescriptive design controls for any future development. This has specifically been avoided to allow for design innovation, creativity and alternate design solutions.

The design principles cover a range of design elements that are considered to be appropriate to facilitate the overall success of the LES project.



/ Historic Photograph: Locomotive construction

# Design Principles

<b>1.0</b>	<b>Urban Structure</b>	<b>3</b>
1.1	Site, Access & Address	3
1.2	Eastern Forecourt	4
1.3	Parking & Traffic	5
1.4	Character of Streetscape	6
1.5	Footpaths	7
<b>2.0</b>	<b>Urban Realm</b>	<b>8</b>
2.1	Public Domain	8
2.2	Landscaping	9
2.3	Street Trees	10
2.4	Canopy Cover & Deep Soil	12
2.5	Planting Integration	14
<b>3.0</b>	<b>Building Form, Function &amp; Expression</b>	<b>15</b>
3.1	Services, Plant & Loading Annexes	15
3.2	Floorplate arrangement & office amenity	16
3.3	Voids & Atria	18
3.4	Circulation	18
3.5	Subdivisibility of Floorplates	19
3.6	Structure	20
3.7	Gantry Cranes	21
3.8	Skylights	22
3.9	Service pits	23
3.10	Rooftop Plant	24
3.11	Openings in Heritage Façades	24
<b>4.0</b>	<b>Materials &amp; Character</b>	<b>25</b>
<b>5.0</b>	<b>Sustainability</b>	<b>26</b>



# 1.0 Urban Structure

## 1.1 Site, Access & Address

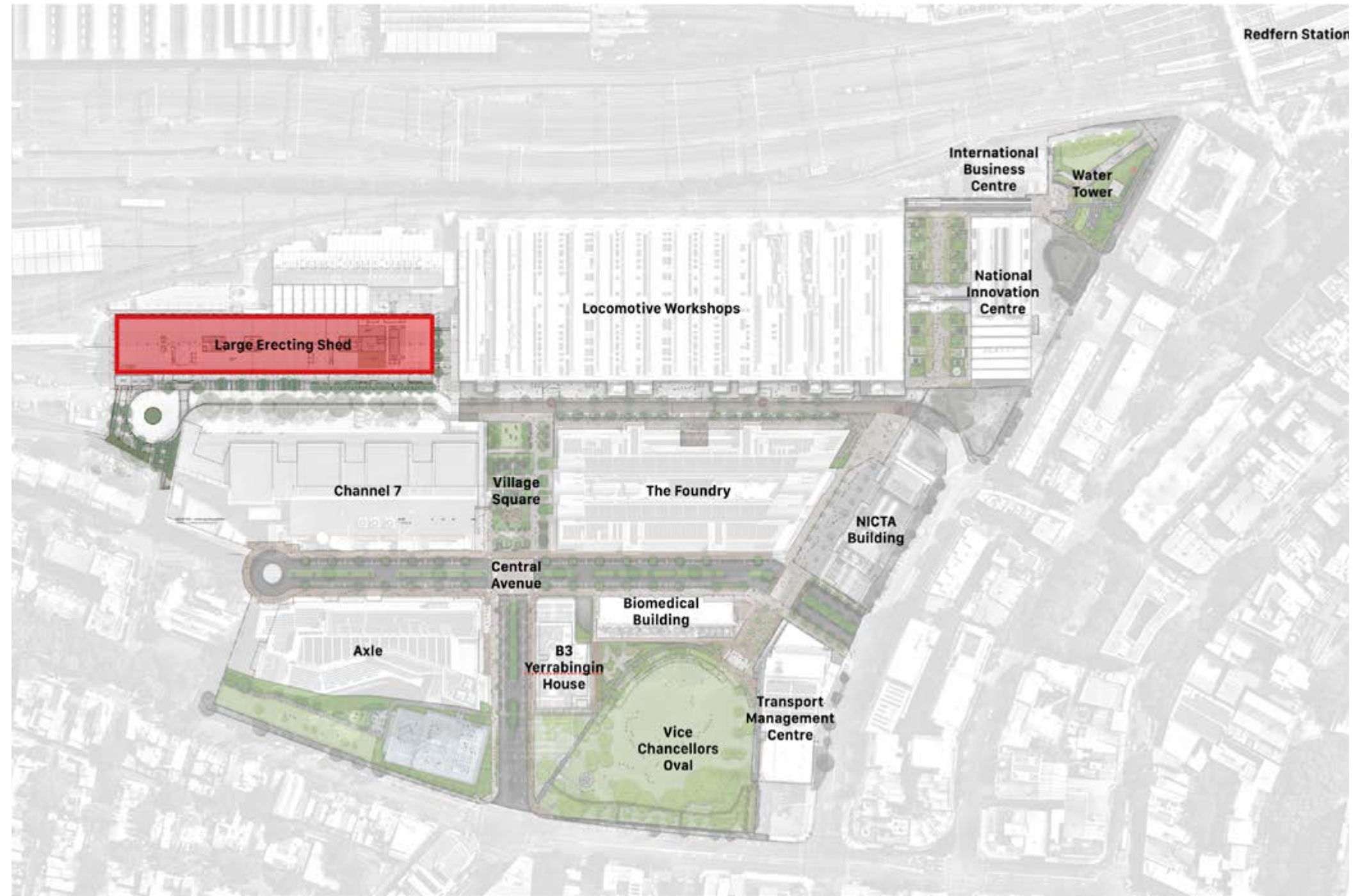
- (CoS) City of Sydney Council, Australian Society for the Study of Labour History: noted that future development should ensure ongoing public access to the LES building
- SDRP: consideration of First Nation People's role within the life cycle of the LES building and continued connections

### Objectives

- Ensure public access to the site is maintained to ensure rich history is continued
- Acknowledge that Traditional owners were the Gadigal.
- Connect to the existing networks of the immediate and surrounding area
- Provide easy access to a range of modes of transport
- Work within the restricted access of the site and active Transport Depots to the North and West
- Celebrate the entries of the site and building
- Provide main building address to the building away from potential traffic conflicts

### Controls

- Ensure the design responds and reflects the recommendations and outcomes of the Connecting with Country report as included in this submission
- Locate building entries predominately at the south utilising existing entries, supplemented by a new proposed entry at the south east.
- Eastern Foyer is to accommodate public access and viewing of this space during office operation hours
- Provide an environment where conflicts between vehicles and pedestrians & cyclists is minimised
- Provide equitable access for changes in levels
- An environment that acknowledges predominate access is from the East and South of the building
- Provide way-finding to direct and encourage public transport usage
- Enable EOT users effective and intuitive facilities and parking
- Ensure the character and amenity of Locomotive street is continued



/ LES in context of Eveleigh



## 1.2 Eastern Forecourt

- SDRP: Support positioning of the main entrance to the east of the building
- CoS,REDWatch, Australian Society for the Study of Labour History, Sydney Branch Rail, Tram and Bus Union Retired Members Association, Ecotransit  
Consider planning for a bridge connection between north and south Eveleigh

### Objectives

- Provide an appropriate experience for majority of arrivals to the site at the south eastern corner, supplemented by entries along the southern facade.
- Integrate the new commercial and retail use and pedestrian users into the surrounding context
- Respond to the active transport uses immediately adjacent
- Encourage effective separation of pedestrians, cyclists and vehicles
- Ensure traffic and plant equipment is effectively screened or softened
- Future proof the design for a potential North / South link to North Eveleigh

### Controls

- Ensure vehicle access is maintained to the active Sydney Trains depot at the north.
- Provide traffic amelioration measures to the site boundary for pedestrian and cyclist safety
- Provide landscape buffer and planting to the roadway, and plant areas of the Locomotive Workshops
- Provide high level of material finishes for this public domain
- Ensure development does not impinge on a potential future North-South bridge link to North Eveleigh
- Ensure adequate clear dimensions for building users, pedestrians and cyclists against existing heritage fabric, and landscaping
- Provide EOT access to the site on the Eastern Elevation



/ Reference Design view of eastern forecourt - (subject to detailed design and approvals)

### 1.3 Parking & Traffic

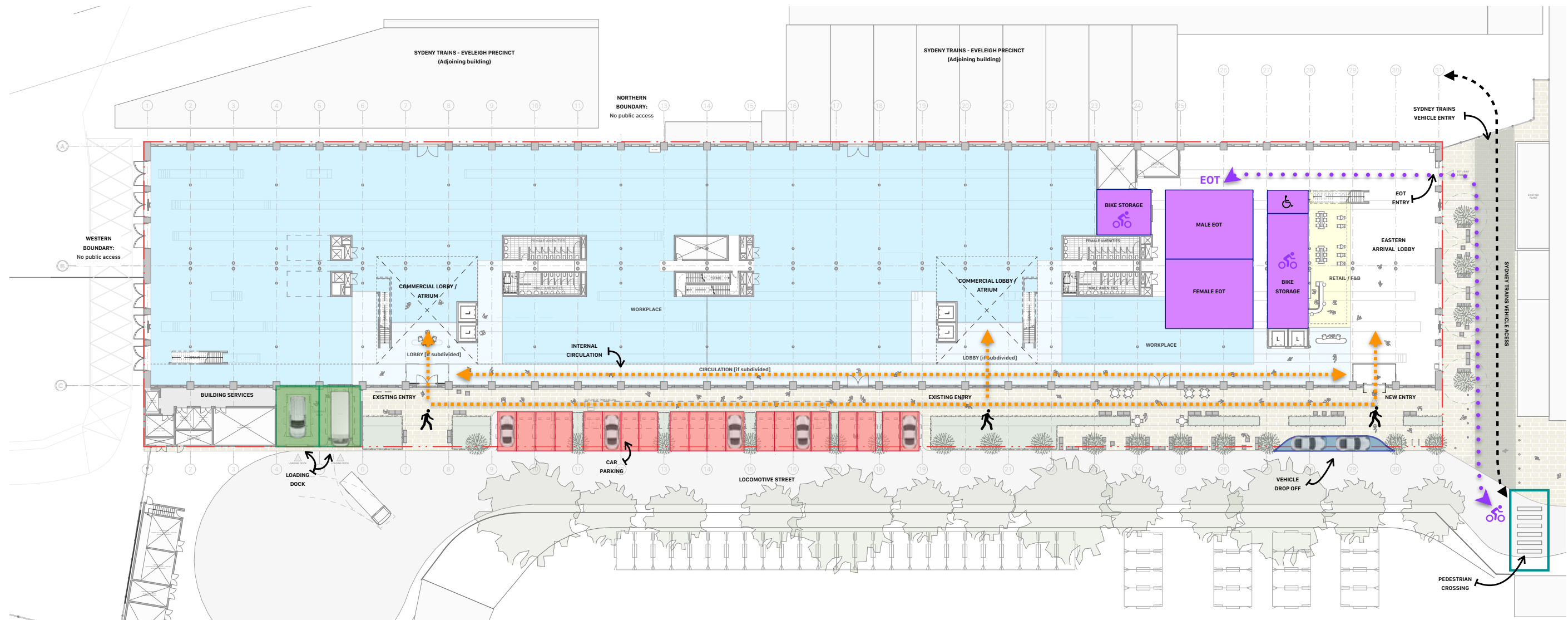
- CoS, Ecotransit, & Rail, Tram and Bus Union Retired Members Association  
Reduce the quantum of carparking provided
- CoS: Demonstrate how the proposal meets minimum standards for cycle paths and end of trip facilities as per the Sydney DCP.

## Objectives

- Provide parking in accordance with the rates under any relevant development approvals
- Integrate parking into the public domain and urban realm
- Ensure parking does not detract from the existing heritage fabric
- Provide safe drop-off zone for vehicles and pedestrians
- Provide adequate EOT facilities for active transport modes
- Ensure EOT access eg footpaths is adequate and way finding is intuitive

## Controls

- Provide separation between traffic and pedestrians
- Provide effective amelioration measures where separation is unavoidable
- Provide drop-off near building entry
- Locate parking away from main building entries where possible
- Provide landscaping to soften parking against heritage fabric
- Ensure parking does not conflict with public domain seating, fixtures or plant and services
- Provide EOT facilities in accordance with relevant CoS or ESD requirements



/ Proposed Ground Floor Plan: highlighting on grade parking, drop-off and pedestrian safety measures



# 1.4 Character of Streetscape

Provide clarification and more detail on the desired function of the entire of Locomotive Street, to understand how the proposed design supports the objectives of delivering a heritage street typology.

## Objectives

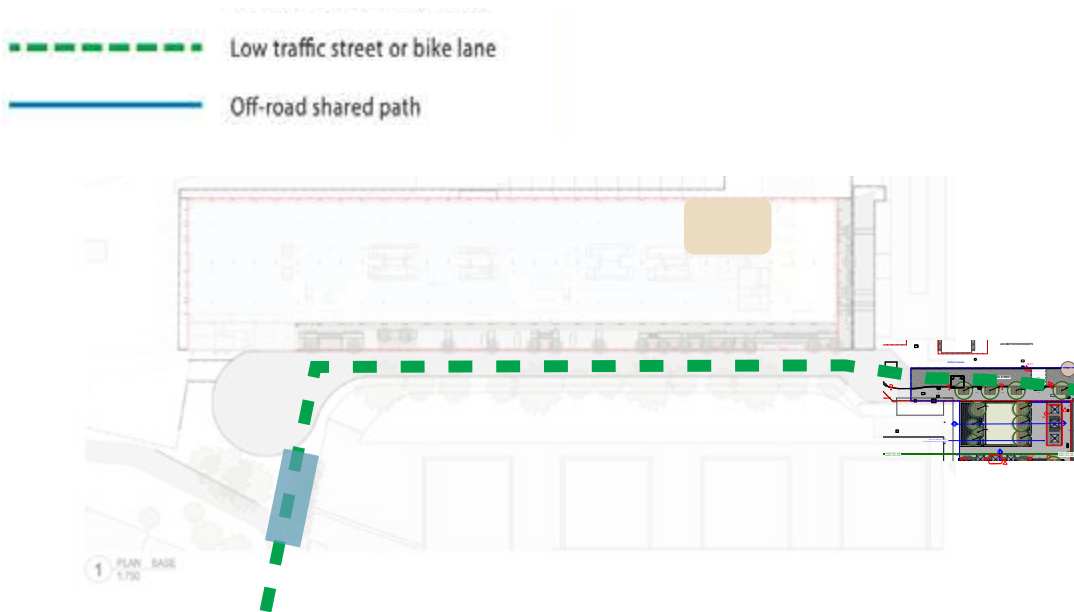
- Retain operational functionality of Locomotive Street as a road.
- Maintain vehicular access for Sydney Trains to access their operational land at the western end of Locomotive Street (via the electronic sliding gate), and the laneway between the LES and the Locomotive building.
- Ensure vehicular access to new loading dock and the 20 on-grade spaces serving the LES building.
- Enhance the heritage streetscape
- Ensure detailed design will consider the South Eveleigh Precinct Heritage Interpretation Plan
- Develop heritage integration per the Stage 2 Heritage Interpretation Plan

## Controls

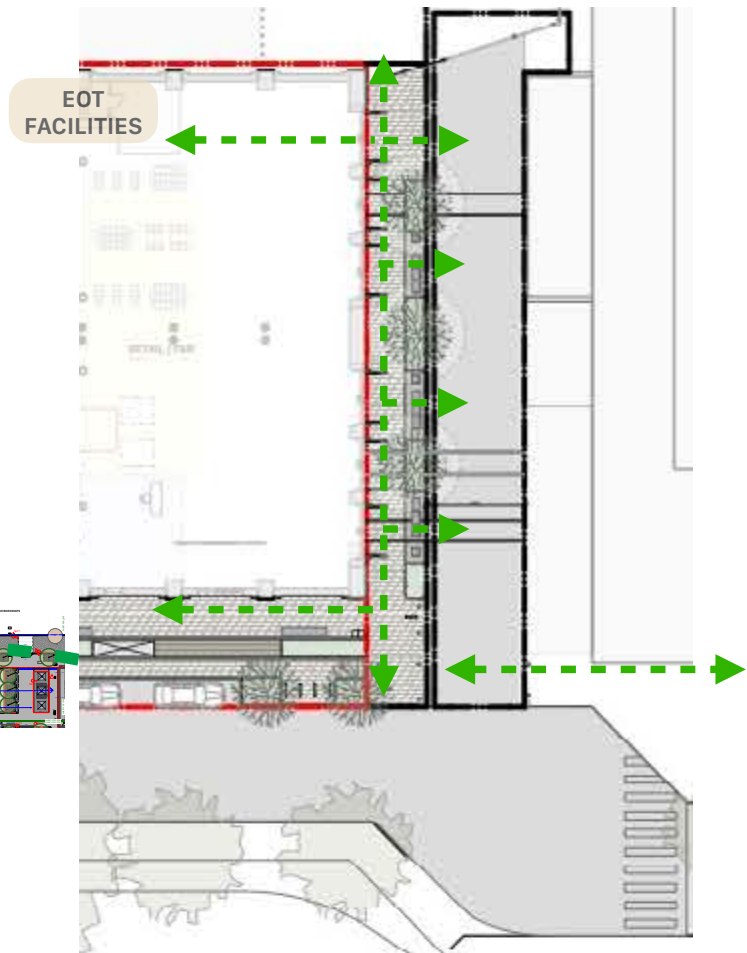
- Provide bicycle access in accordance with the City of Sydney Bike strategy (as below) includes a low traffic street or bike lane that runs along locomotive street, this forms into a short section of off road shared path (blue)
- End of trip facilities are to be accessed via the Access way,
- Shared path widths for local access path is 2.5m as per Austroads
- Ensure the northern side of the Locomotive Street is landscaped
- Provide final tree species and sizes balanced against objectives of CoS and Heritage NSW (tree size vs obscuring views of the heritage facade)
- 2 Interpretation Plan will be prepared as part of the future DA to ensure that the project is integrated seamlessly into the broader South Eveleigh heritage interpretation approach and visitor experience.
- Ensure design of the landscaping is informed by and developed collaboratively with heritage advice to ensure the project contributes positively to objective of a heritage street typology for Locomotive Street.
- Introduction of public domain street furniture consistent with overall precinct design



EVELEIGH AREA



LOCOMOTIVE STREET



LINK TO EOT FACILITIES

# 1.5 Footpaths

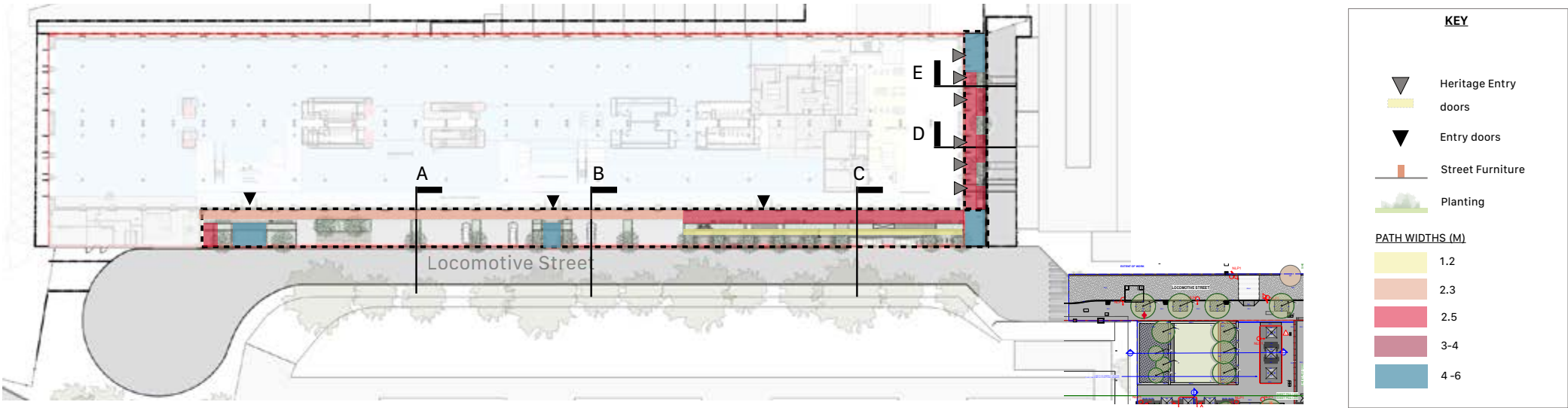
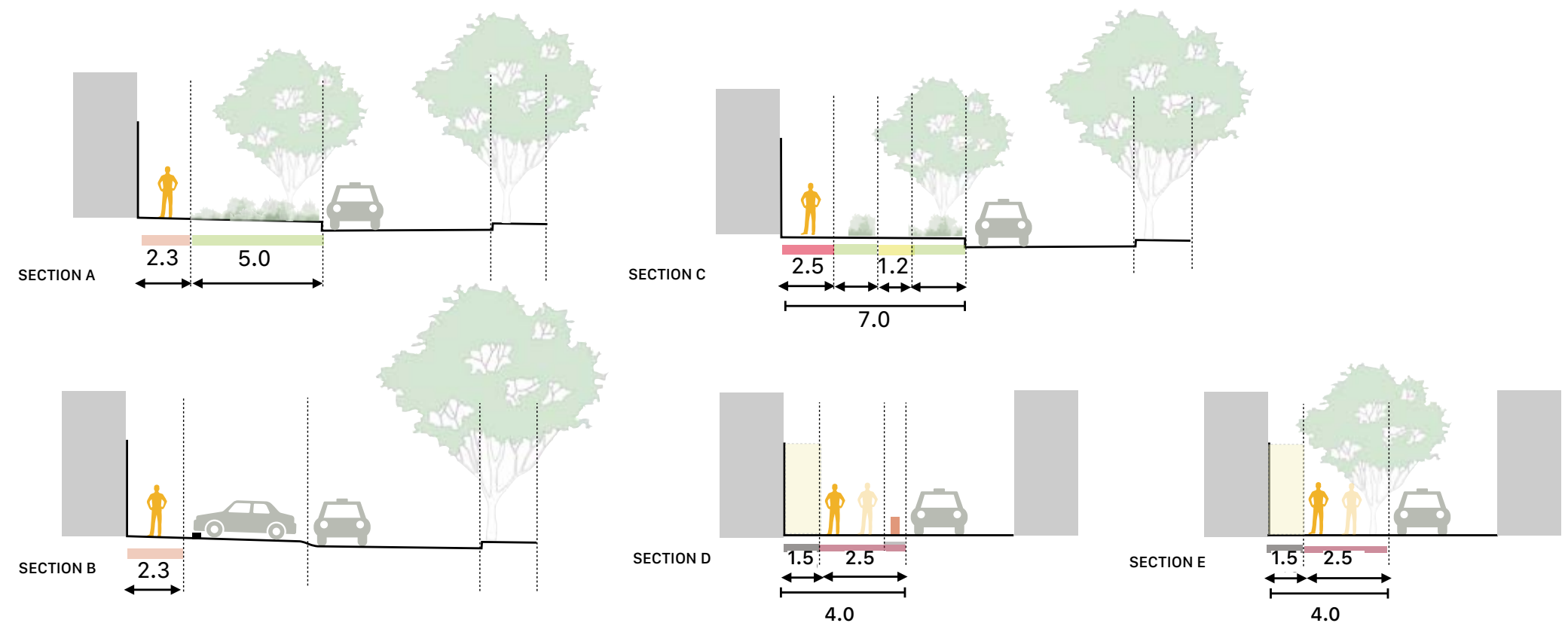
- CoS: Ensure consistency with TfNSW's Walking Space Guide in terms of appropriate footpath widths.
- CoS: All plans should show the eastern (existing) doors in an open position to identify conflicts with paths of travel for pedestrians and cyclists, and outdoor seating and landscaping.

## Objectives

- Provide public domain that is safe with good amenity
- Enhance the heritage streetscape
- Provide site and access connections
- Develop the public domain to create inviting and enjoyable spaces

## Controls

- Seek to provide footpaths and public domain in accordance with the TfNSW Walking Spaces Guide
- Ensure effective footpath widths for different functions as per examples (right)
- Provide separation as required between conflicting uses



/ Diagrams: footpath and public domain widths



## 2.0 Urban Realm

### 2.1 Public Domain

- CoS: Locomotive Street needs to be considered as a whole, with consideration of the northern and southern footpaths
- CoS: The design of the public domain should be consistent with the City's codes, policies and frameworks.
- CoS: Ensure consistency with TfNSW's Walking Space Guide in terms of appropriate footpath widths.

#### Objectives

- Provide activation and amenity for visitors
- Create clear and unobstructed pedestrian connections and movement paths
- Link development to the existing context
- Provide an appropriate bookend to Locomotive street
- Provide diversity and flexibility to support a range of uses
- Acknowledge and celebrate the rich First Nations and Industrial Heritage of the site
- Integrate art and heritage interpretation with built and landscape forms
- Provide safe and secure spaces for public
- Ensure access across the site is universal and equitable
- Facilitate easy and intuitive way finding

#### Controls

- Develop the Public Domain with consideration of the City of Sydney City streets and open space codes, policies and frameworks.
- Provide varied opportunities for visitors and tenants to occupy the urban realm
- Provide Heritage and Public art integration in accordance with the Heritage and Art Interpretation Plan and Connecting with Country Framework
- Ensure the intent and success of Locomotive Street is extended through to the west of the site
- Provide consistency with the existing materials, finishes and furniture of Locomotive Street
- Build in safety: passive surveillance, and design principles
- Provide access in accordance with AS1428 Disability and Discrimination Act
- Signage that is clear and appropriately coordinated with the wider precinct
- Final selection of material, furniture and pallet subject to detailed design approvals
- Ensure consistency with TfNSW's Walking Space guide in terms of appropriate footpath widths



/ Eveleigh and Locomotive Street: Urban realm, material finishes and character



## 2.2 Landscaping

- SDRP: Ensure engagement with site strategy, industrial heritage and Country, and how these elements can inform the design of the internal and external spaces particularly the ground plane
- Cos: Commit to the City of Sydney's Canopy, green and deep soil provisions
- CoS: Confirm tree species selection with the City, given the City is developing a Tree Species list which deals with future climate resiliency
- CoS: Ensure Locomotive street is designed as a whole

### Objectives

- Create inviting spaces
- Provide adequate canopy cover for shade
- Provide an appropriate bookend to Locomotive street
- Create distinctive places with character
- Integrate Connecting with Country and First Nation voices
- Ensure integration with heritage and art interpretation
- Aid biodiversity
- Ensure visitors and tenants feel arrival and departure through a precinct feeling

### Controls

- Provide street planting that responds to the existing pattern of Locomotive Street
- Provide landscape to soften parking, plant and servicing requirements
- Balance tree heights and canopy against maintaining key heritage views of building and façades
- Use native plants where possible
- Implement sustainable landscaping strategies
- Provide a variety of open space types
- Target the City of Sydney's relevant codes, policies and landscape guidelines, eg Canopy Cover



/ Photographs: Example of structured public domain with street trees and integrated landscape furniture



## 2.3 Street Trees

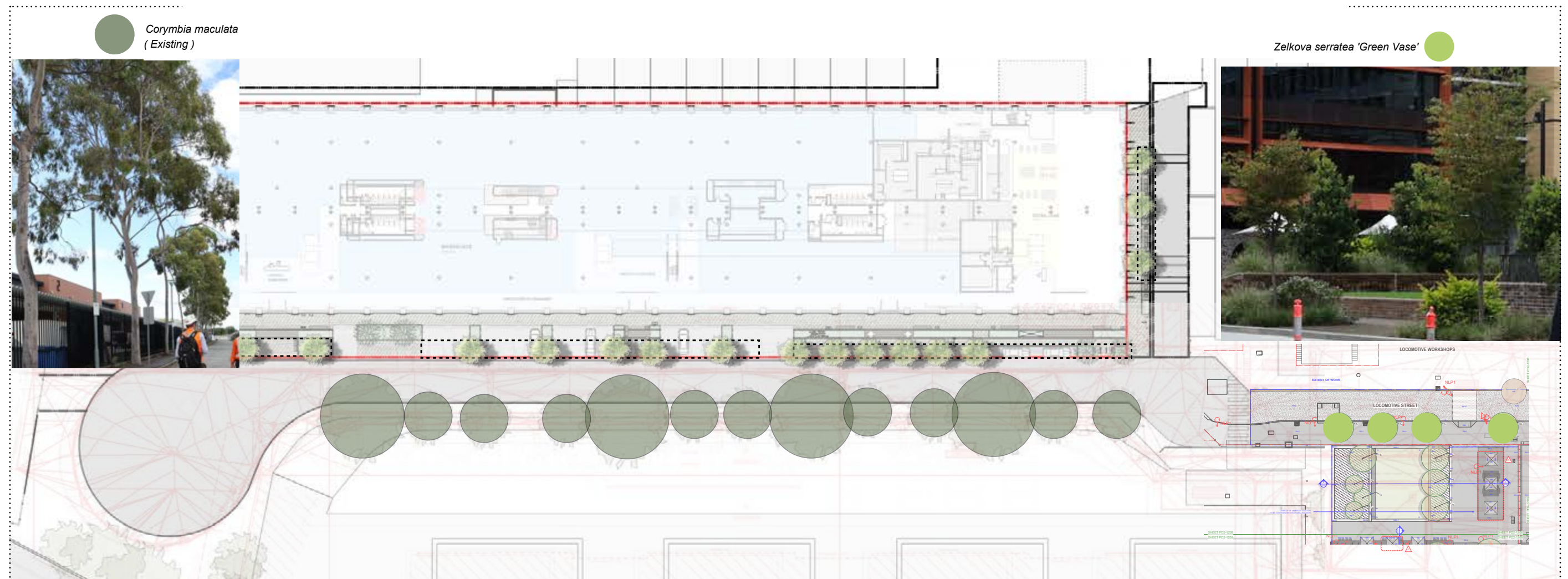
- CoS: Include planning provisions that require compliance with the City's streets and open space codes, policies, and frameworks.
- Reduce the number of carparking spaces to ensure trees are spaced for continuous canopy.

### Objectives

- Provide continuation of the existing Locomotive street
- Ensure consistent and integrated public domain
- Reflect the overall character of the South Eveleigh precinct
- Provide consistency in street planting along Locomotive Street

### Controls

- Enhance the existing native character of the mature *Corymbia* spec. trees to the southern side of locomotive street in front of the development site
- Reflect Sydney's unique typologies through a planting mix of native tree species: *Syzygium leuhmanni*, *Elaeocarpus reticulatus*, *Tristaniaopsis Laurina* and the Banksia Scrub - *Banksia integrifolia*, *Banksia serrata*
- Provide contrast to the exotic deciduous existing row of *Zelkova* trees to the East.
- Provide evergreen small trees capable of fostering habitat. ]
- Develop understory planting of *Brachyscome multifida* 'White Delight' *Lomandra confertifolia* 'Little Con' *Osmanthus diosmifolius* 'Coral Flush' *Scaevola aemula*, to continue the dominant understory planting mix seen to the East of locomotive street.



/ Diagram: Existing and Proposed Street trees and character



Tree Specification: Rainforest Species

Width at maturity (5-10year maturity) 4-6m canopy



Photo of a mature tree. (Photo: Arterra)

Botanic Name:  
*Trochodendron laurina*

Common Name:  
**Water Gum**

Family:  
MYRTACEAE

Origin:  
Eastern Australia

Typical Height:  
7-10 metres

Typical Width:  
5-6 metres

Typical Growth rate:  
Moderate to fast

Typical Habit:  
Very hardy small sized native evergreen tree with a dense canopy.

Foliage:  
Obovate glossy dark green leaves with a pale underside.

Flowers:  
Nectar rich small yellow flowers in summer.

Fruit:  
Small round green fleshy fruit.

Site requirements:  
Tolerates a wide range of soils in a full sun or part shade position.



Close up photo of foliage and flower. (Photo: Arterra)

© City of Sydney Street Tree Master Plan 2011 - Adopted 5 December 2011 (Updated 2015)

E-47



Photo of a mature tree. (Photo: Arterra)

Botanic Name:  
*Syzygium leuhmannii*

Common Name:  
**Riberry**

Family:  
MYRTACEAE

Origin:  
East Coast Australia

Typical Height:  
8-10 metres

Typical Width:  
5-6 metres

Typical Growth rate:  
Moderate.

Typical Habit:  
Small bushy rainforest native tree. May require formative pruning to achieve clearances and promote a single leader and tree form.

Foliage:  
Small glossy dark green leaves with a prominent pointed tip. Flushes of new growth in pale pink to red.

Flowers:  
Bird attracting small fluffy white flowers in summer.

Fruit:  
Small pink round shaped fleshy fruit, sometimes prolific.

Site requirements:  
Tolerates a wide range of soils but prefers rich moist soil in a full sun or part shade position.



Close up photo of foliage and fruit. (Photo: Arterra)

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E-48



Photo of a semi-mature tree. (Photo: Arterra)

Botanic Name:  
*Elaeocarpus reticulatus*

Common Name:  
**Blueberry Ash**

Family:  
ELAEOCARPACEAE

Origin:  
Eastern Australia

Typical Height:  
7-10 metres

Typical Width:  
3-5 metres

Typical Growth rate:  
Moderate.

Typical Habit:  
Small native evergreen tree with a typically upright narrow and dense form but somewhat more random canopy shape with age.

Foliage:  
Dark green matt leaves with finely toothed edges.

Flowers:  
Showy light pink to creamy white flowers in spring to summer.

Fruit:  
Bright blue berries that give the tree its name.

Site requirements:  
Tolerates a wide range of soils but prefers rich moist soil in a full sun position. Drought tolerant. Not tolerant of prolonged periods of wet soil.



Close up photo of foliage and flowers. (Photo: Arterra)

© City of Sydney Street Tree Master Plan 2011 - Adopted 5 December 2011 (Updated 2015)

E-49




Photo of a mature tree. (Photo: Arterra)

Botanic Name:  
*Banksia integrifolia*

Common Name:  
**Coast Banksia**

Family:  
PROTEACEAE

Origin:  
East Coast Australia

Typical Height:  
7-10 metres

Typical Width:  
5-7 metres

Typical Growth rate:  
Moderate.

Typical Habit:  
Small tree with rough corky bark and sometimes twisted and curvy trunks and stems.

Foliage:  
Leathery dull green leaves with a silvery underside.

Flowers:  
Pale yellow-green cylindrical flower spikes that are rich in nectar in summer through to winter.

Fruit:  
Woody fruit cones.

Site requirements:  
Well drained soil in a full sun position. Tolerates extreme drought and coastal exposure.




Photo of foliage and flower spike. (Photo: Arterra)

© City of Sydney Street Tree Master Plan 2011 - Adopted 5 December 2011 (Updated 2015)

E-50

# 2.4 Canopy Cover & Deep Soil

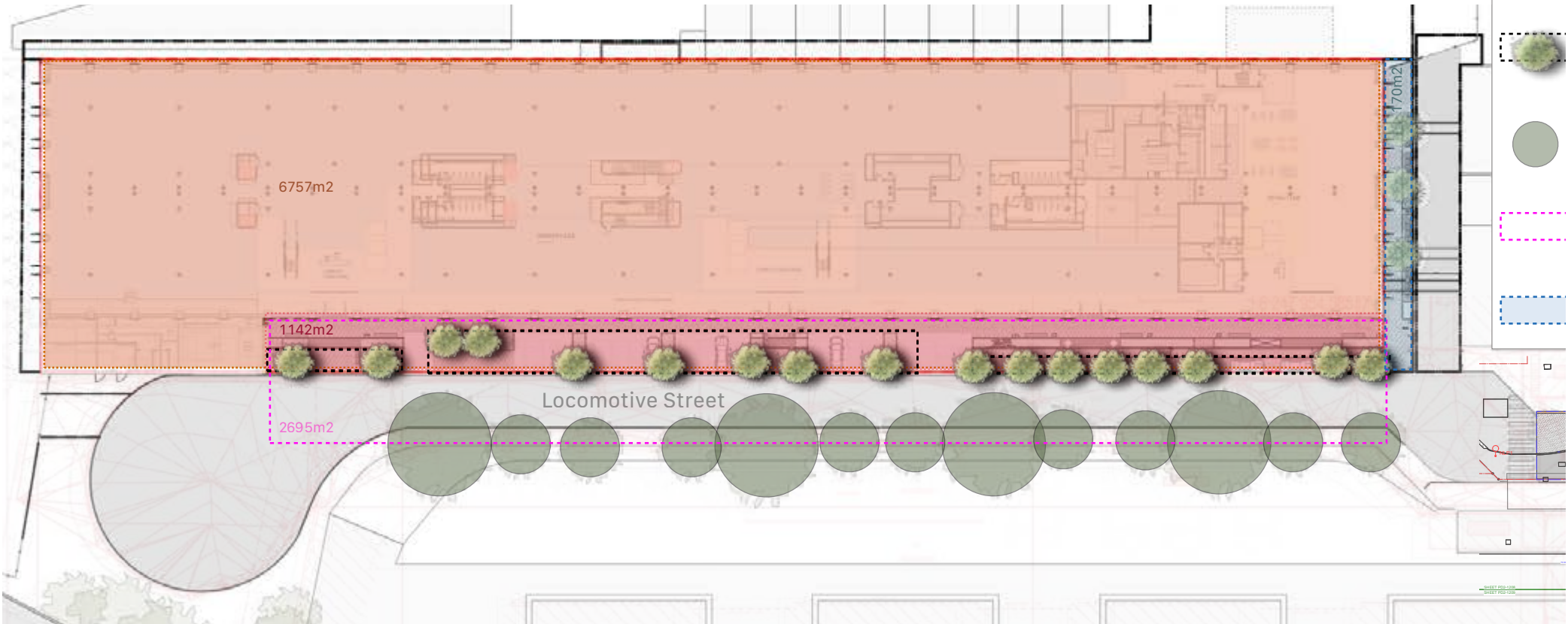
- CoS: Confirm tree species selection with the City, given the City is developing a Tree Species list which deals with future climate resiliency.
- Commit to the City's canopy, green cover, and deep soil provisions.

## Objectives

- Consider canopy and green cover requirements against heritage considerations, and significant views
- Landscaping should be sensitive to maximising views to the southern facade (Heritage NSW)
- 
- Ensure consistent and integrated public domain
- Reflect the overall character of the South Eveleigh precinct
- Provide consistency in street planting along Locomotive Street

## Controls

- Continue paving and street trees to connect with adjacent development on Locomotive Street
- Continue the character of Locomotive Street
- Provide as much canopy cover for the site and Locomotive street as feasible noting:
  - That the existing heritage building occupies 85% of the site
  - Of the 1,142m2 open space area, consideration must be given to requirements of amenity, pedestrian & bicycle movements, building clearances, heritage view considerations and car parking
- Capitalise on opportunity to increase the canopy cover of the streets and building curtilage as a focus to enhance streetscape and character.



	Site Boundary	Area = 7899m2		Locomotive Street Area	Area = 2695m2		Locomotive Street Trees	Area = 2695m2 Canopy % = 52.8%
	Building Area	Area = 6757m2 = 85.5%		Proposed Trees Canopy Cover	Area = 153m2 Canopy % = 13.6%		Laneway Street Trees	Area = 170m2 Canopy % = 15.8%
	Open Space Area	Area = 1142m2 = 14.5%		Existing Trees Canopy Cover	Area = 1271m2			

/ Diagram: Site and canopy cover metrics



The City of Sydney Canopy cover Streets target is 27.13% by 2050, by targeted programs for trees located in streets, parks and private land. With the locomotive street exiting mature canopy there is opportunity for a mix of small native trees closely spaced that will minimise heritage facade impacts whilst providing optimum canopy cover to better align with City of Sydney targets for streets.



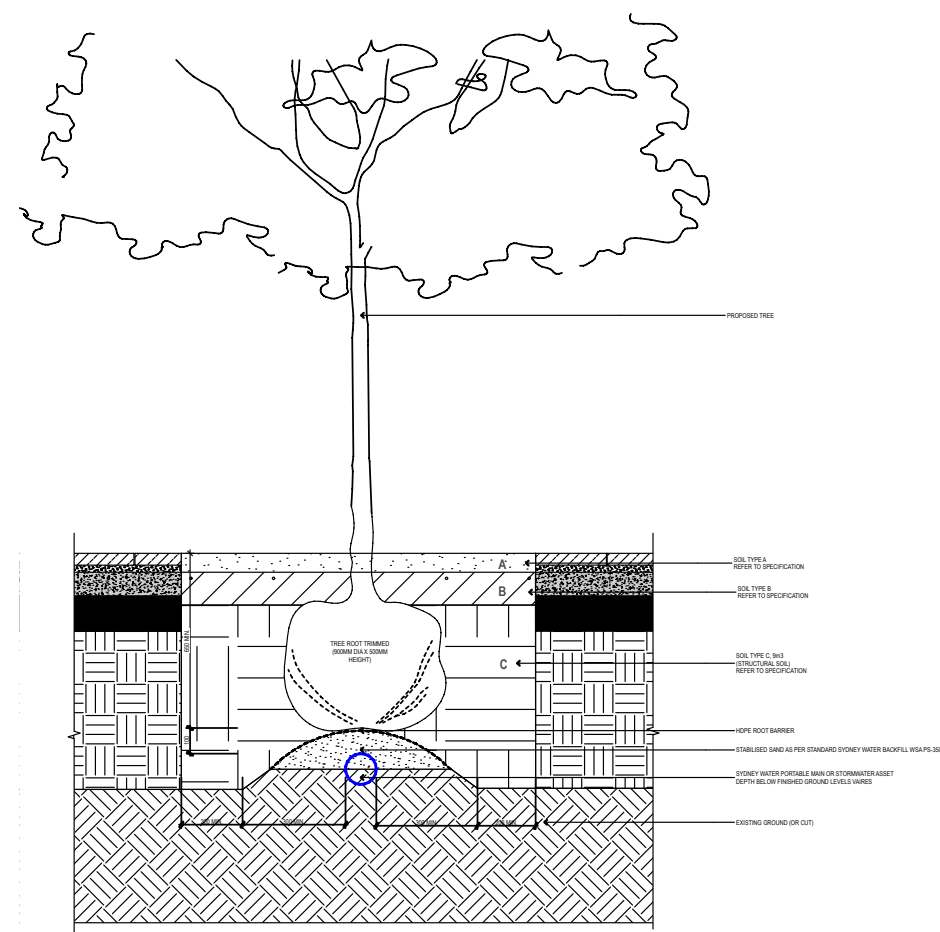
/ Diagram: Existing and proposed street trees and canopy cover metrics

## 2.5 Planting Integration

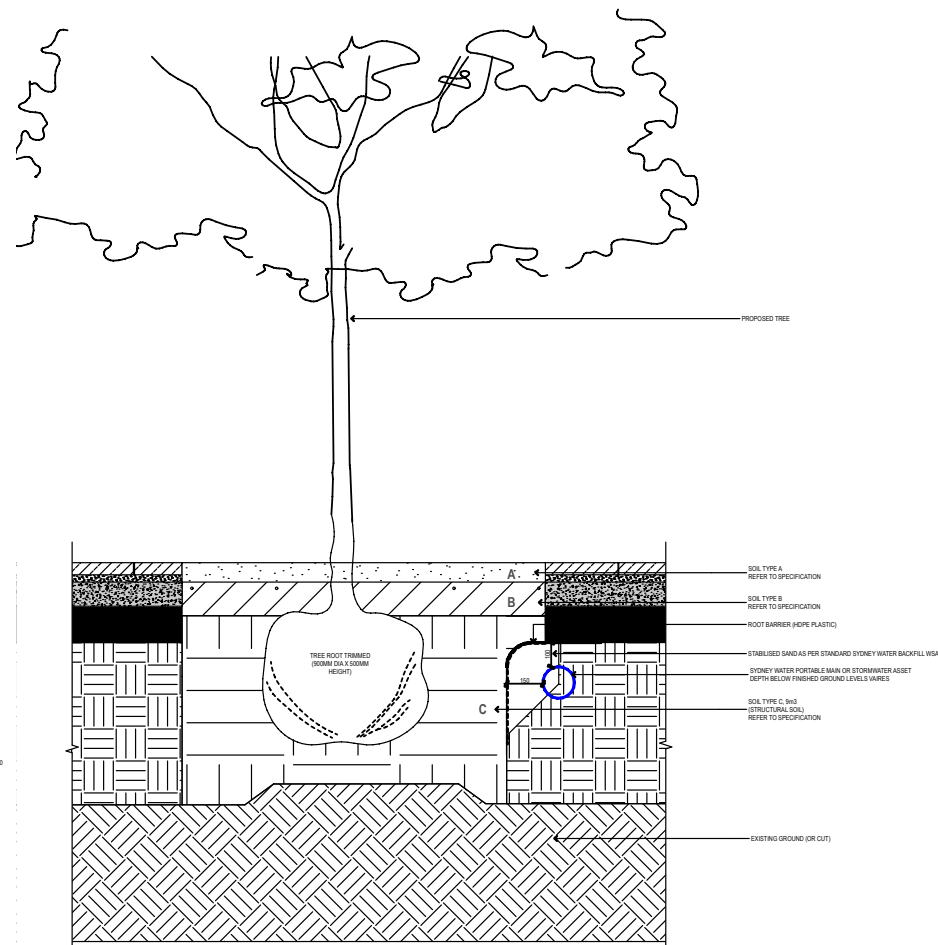
- CoS: Include planning provisions that require underground utilities to be incorporated within the street reservation as agreed with the consent authority and in a manner that does not impede consistent street tree planting, provision of requisite soil volumes and any associated drainage requirements.

## Controls

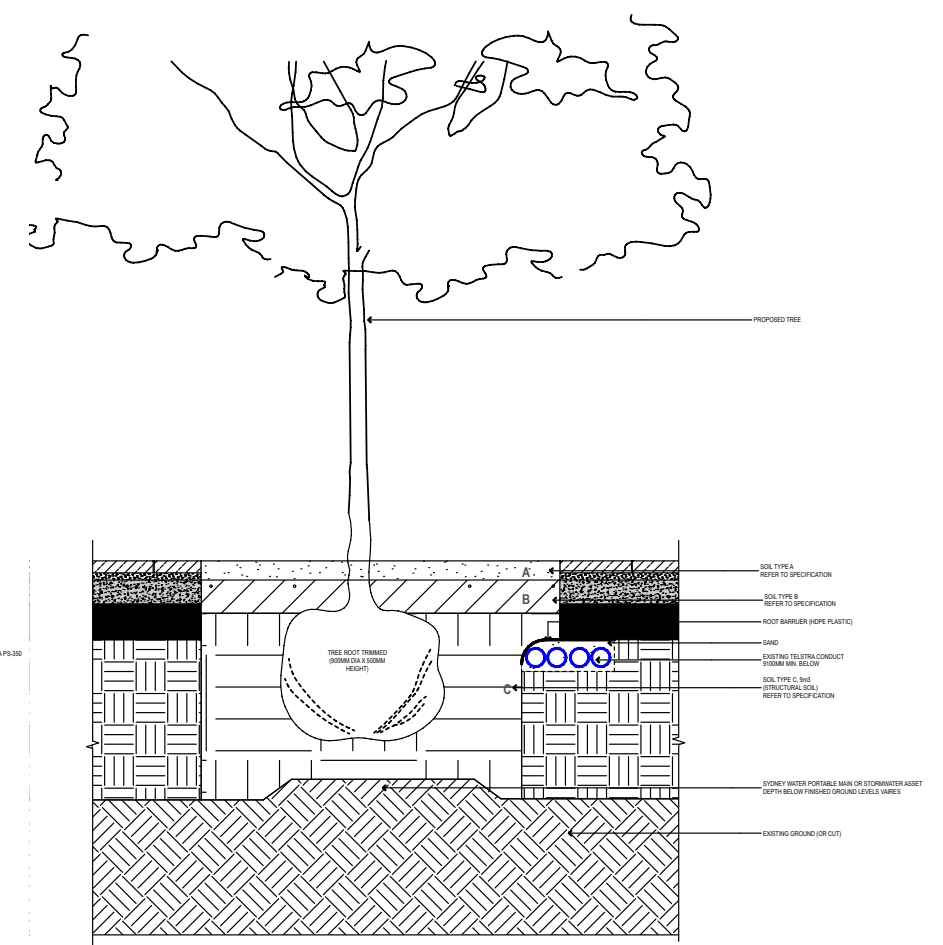
- Provide planting depths and requisite soil volumes in accordance with relevant requirements for tree species, size and consistency.
- Ensure underground services and infrastructure do not impinge on provision soil and associated drainage requirements



## Water Serivces



## Water Services



## Electrical Services

/ Above :demonstrates various treatments to the street tree to accommodate underground infrastructure (subject to ground works / radar survey detailed design)



## 3.2 Floorplate arrangement & office amenity

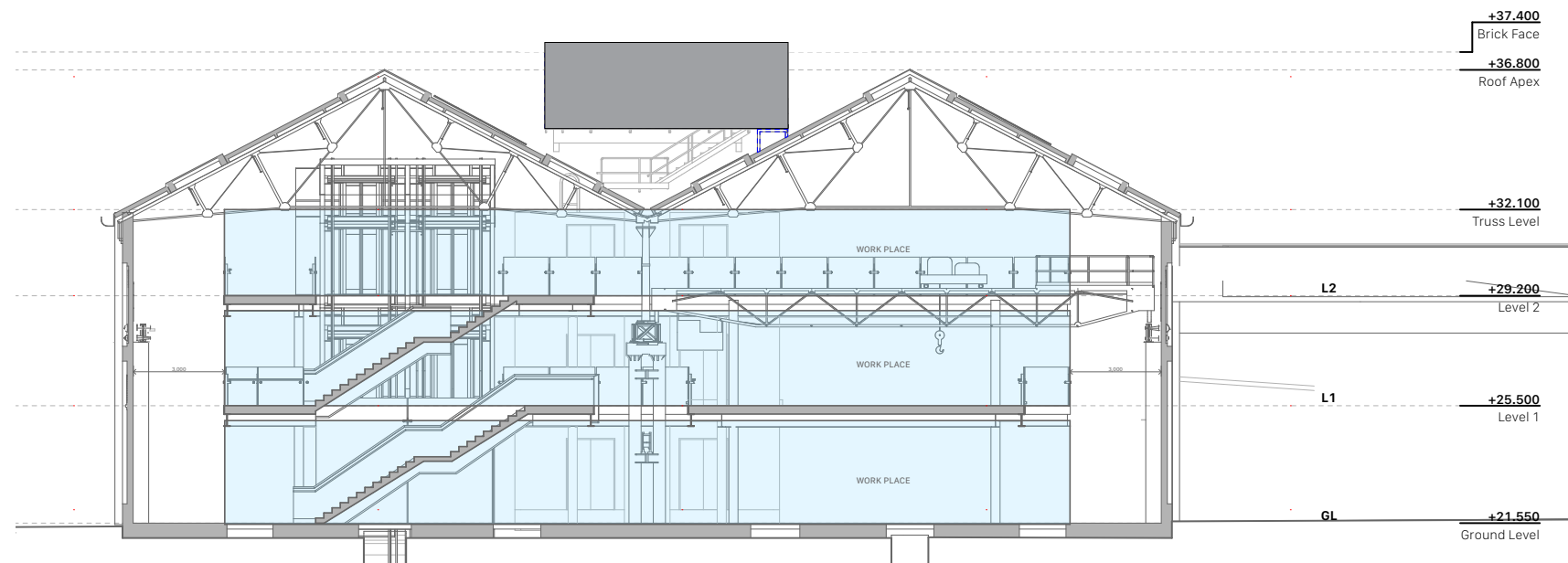
- CoS, SDRP, Ecotransit: Balance of floor area against larger voids
- CoS, SDRP, Others: Ensure that the original spatial conception of the building, with a central row of columns is able to be read

### Objectives

- Celebrate and retain the clear dual bay, long linear scale and character of the building
- Views along the building length are to be celebrated and protected
- Ensure new floorplate infill is sympathetic to the existing fabric and volume
- Provide areas within the site to ensure public ability to engage with the heritage and site history
- Provide A-grade commercial floorspace
- Ensure acoustic and visual privacy between tenants is provided that are sympathetic to heritage
- Develop clear criteria surrounding offsets
- Explore positioning of services, amenities and plant to continue key building vistas

### Controls

- Provide adequate separation between new and existing fabric. Vary setbacks where appropriate to adequately respond to on-site conditions and adjoining building fabric
- Provide offset typically along common internal elevations
- Ensure commercial targets for floor area are carefully balanced against heritage considerations, and new infill is sensitive to existing fabric, including industrial heritage items
- Create an arrival lobby and publicly accessible space at the eastern end of the building, clear from ground to roof
- Ensure moveable heritage is appropriately viewed in the round through setback and separation
- Provide adequate voids and atria to support natural light ingress into the floorplate and lower levels
- Ensure view of the infill floors are not visible from the key public domain
- Explore additional voids and articulation at the centre of the floorplate to better acknowledge the existing linear building form
- Seek to maximise the extent and scale of the eastern void space whilst still meeting the other objectives of the section and commercial targets



/ Reference scheme Cross section: Showing arrangement of floorplate infill around existing fabric and heritage (subject to detailed design and approvals)



/ Southern void: offset between new and existing fabric (subject to detailed design and approvals)







### 3.3 Voids & Atria

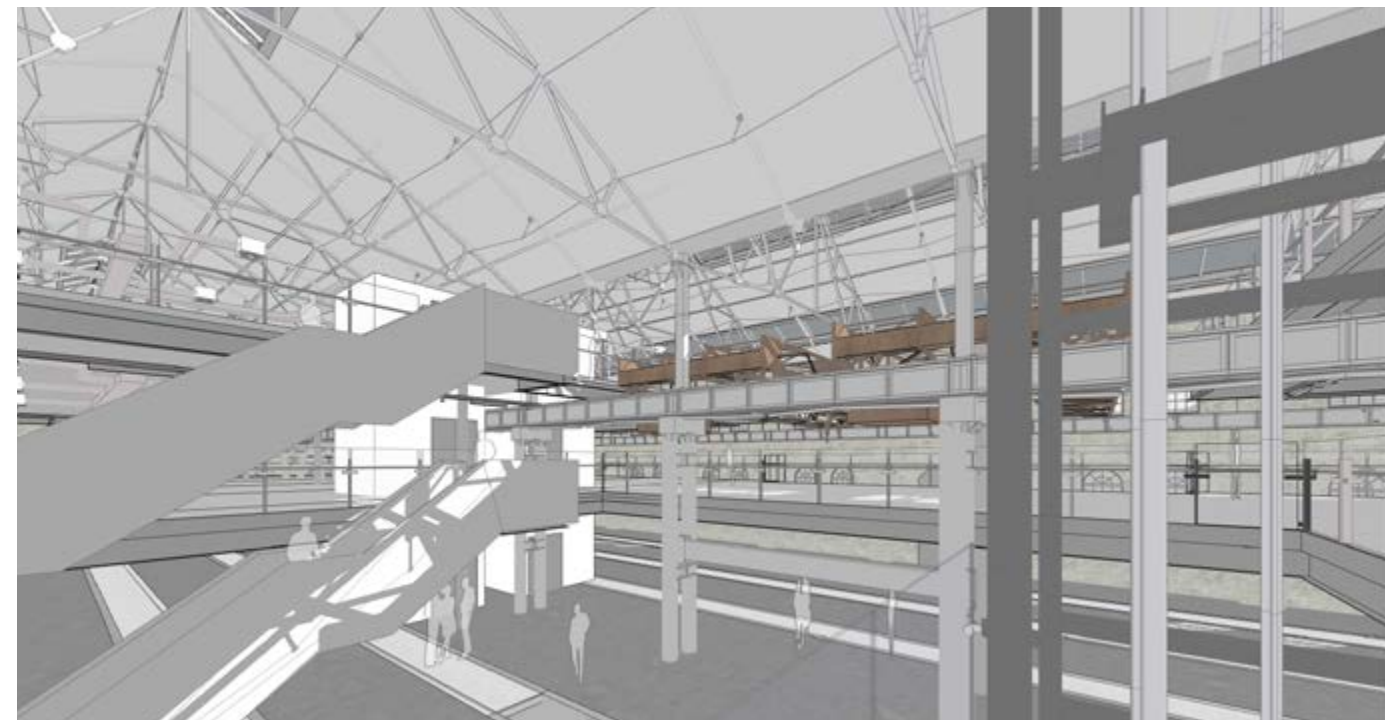
- CoS, SDRP, Ecotransit: Balance of floor area against larger voids that provide increased viewing of the long linear nature of the existing building
- SDRP: Consider arrangement of floor area and voids to better read the scale and character of the building
- SDRP: Consider additional voids throughout the centre of the floorplate to provide better amenity and light to lower levels whilst reinforcing the dual building form

#### Objectives

- Ensure the scale and original long linear nature of the building can be read
- Bring natural light into the floor plate and the lower levels
- Provide flexibility for multiple tenant subdivision options
- Acknowledge the existing heritage openings within the building
- Respond to the rhythm, structure and repetition of the existing building
- Provide separation from existing fabric

#### Controls

- Ensure atria are large enough to support adequate light ingress and clearances to heritage fabric
- Develop the voids and atrium to ensure scale and character of the existing building form is maximised
- Align primary atrium to existing transverse path access doors (southern facade)
- Reinforce the linear nature of the building at voids with material finishes
- Ensure floorplate offsets, void placement, and skylights are effectively positioned to maximum effect



/ Indicative view of central atrium (subject to detailed design & approval)

### 3.4 Circulation

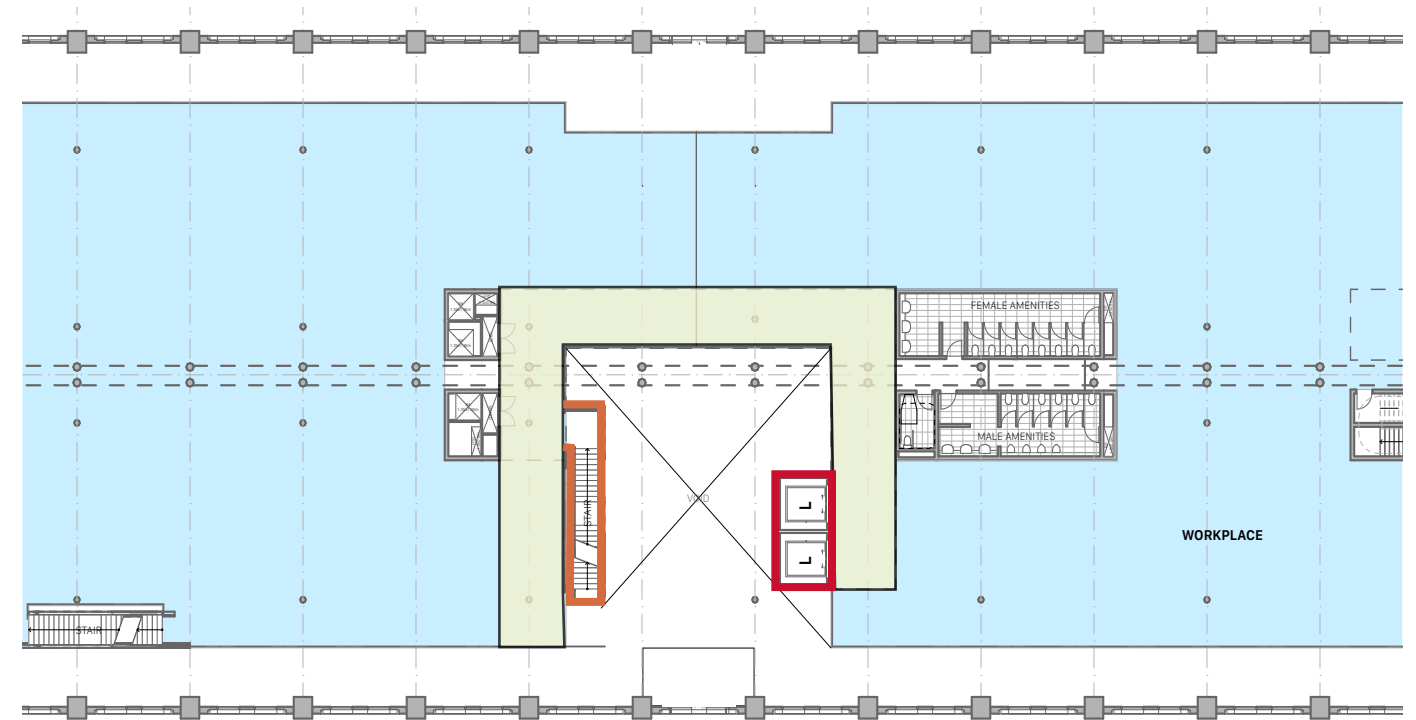
- SDRP: Explore the rhythm and composition of circulation and internal planning
- CoS: Where there is vertical circulation points consider additional voids

#### Objectives

- Provide legibility to the workplace and building
- Acknowledge the existing heritage openings within the building
- Develop clear justification for points of egress and vertical circulation
- Ensure circulation is equitable and universal
- Work with the main atria as key organisational features

#### Controls

- Ensure circulation is direct, intuitive and equitable
- Align circulation and entries to existing openings wherever possible
- Primary routes could be organised around key atria, with vertical circulation nodes
- Explore the location of circulation and opportunities to matching the rhythm of the building composition and bays
- Provide secondary spaces adjacent to primary paths of travel for tenant interaction



/ Reference Design L01 Plan: Atrium, common and vertical circulation

## 3.5 Subdivisibility of Floorplates

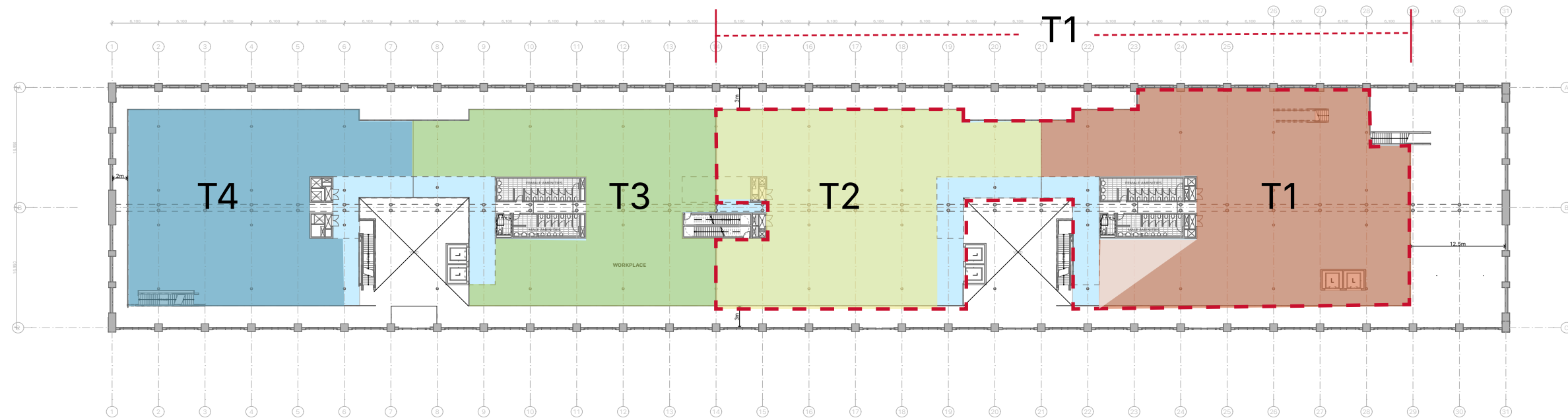
- SDRP: Intent to provide flexibility to subdivide the floorplate into multiple tenancies

### Objectives

- Provide flexibility in tenant profile through variable floor-plate configurations
- Provide commercial gross floor area (GFA) in accordance with the approved figures
- Opportunity for greater diversity of precinct tenants

### Controls

- The maximum GFA is to be controlled by the rezoning approval
- Ensure a flexible floorplate configuration that allows multiple tenant profiles through the life of the building
- Co-locate services, amenities and circulation for ease of subdivision
- Explore servicing strategies and equipment that allows for multiple subdivisions
- Consider the need to balance acoustic and visual privacy with heritage considerations in subdivided modes
- Provide a tenant fit-out guide in conjunction with the CMP to ensure heritage restraints are appropriately managed



/ L01 Floor plan highlighting grouping of common circulation, amenities and services with potential subdivided model (subject to detailed design and approvals)



## 3.6 Structure

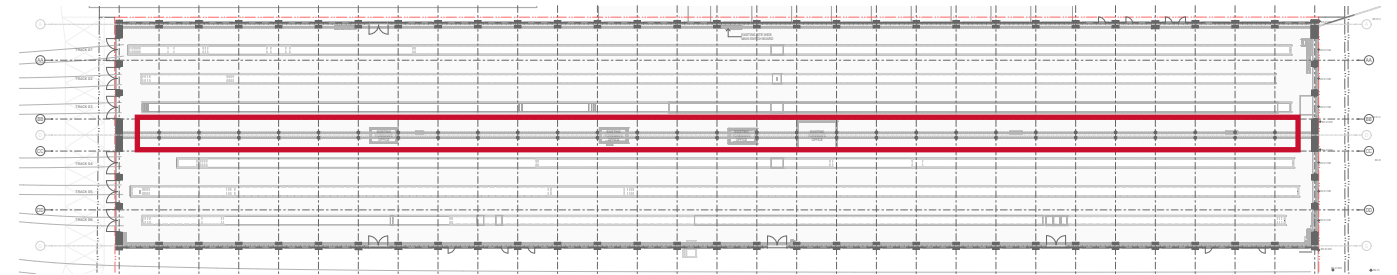
- CoS: Minimise engagement of services with the original fabric of the building and ensure they are located so as not to disrupt the space around and between the trusses.
- CoS: ensure any new structure is not engaging with the original fabric.
- SDRP: Support the design intention for new office floors to site completely independently from the existing building

### Objectives

- Provide an architectural response that provides clarity between existing and new elements
- Provide a structural solution that enables the new proposal to be independent from the existing
- Develop a structural solution that acknowledges the rhythm and repetition of the existing fabric
- Provide a cost effective and robust structure
- Retain and celebrate existing structural fabric
- Investigate embodied carbon impacts and sustainability targets
- Design for disassembly and a circular economy

### Controls

- Ensure new structure is independent from the existing fabric
- Where required to upgrade the existing fabric to code or specification, ensure new elements can be clearly read, and are sympathetic in either material or finish.
- Explore a structural system that could be modular and be dissembled
- Minimise excavation where possible
- Seek reductions in carbon through material and structural selections
- New works provide contemporary counterpoint to the existing fabric
- Adopt innovative servicing strategies that protect the integrity of the existing roof trusses with minimum visual obstruction



/ Central Spine: showing centre line of columns and roof structure to be celebrated



/ Internal photograph: showing centre line of columns and roof structure



# 3.7 Gantry Cranes

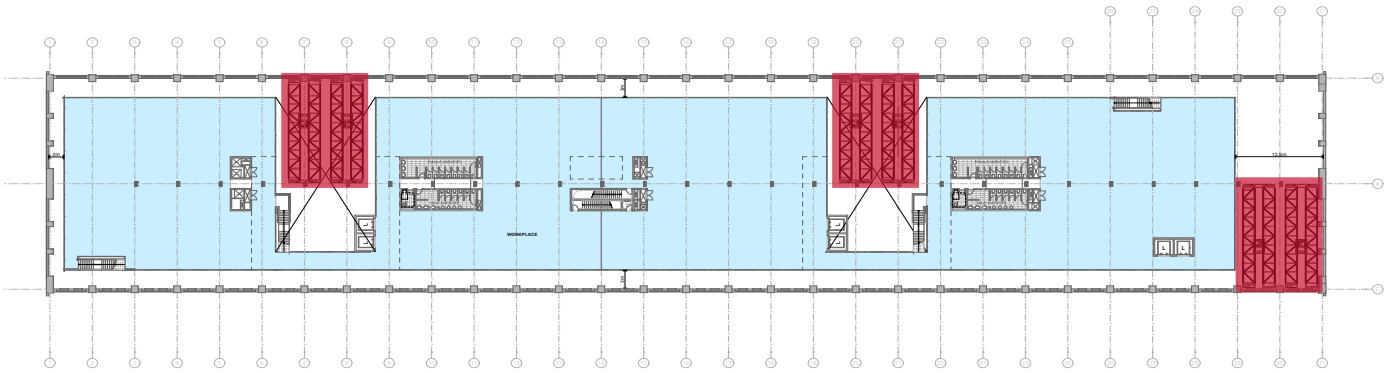
- SDRP / Rail, Tram & Bus Union Retired Members association:  
Provide enhanced opportunity to view the cranes in-situ, and seek to provide more tolerance to better appreciate their scale
- REDwatch: Acknowledges the importance of heavy machinery associated with the LES to be left or returned to the LES

## Objectives

- Ensure key industrial heritage is retained in-situ on site where appropriate
- Celebrate heritage throughout LES

## Controls

- Ensure gantry cranes can be read in the round
- Provide cranes in locations where there is enhanced opportunities to view them by tenants and visitors
- Explore options to utilise cranes for art and heritage adaptation and interpretation



/ Reference scheme Plan L02 noting locations of gantry cranes retained in-situ



/ Photograph of gantry crane in use with driver in cabin



/ Photograph of gantry crane in-situ



## 3.8 Skylights

- SDRP: / Heritage Council of NSW: Support of the realignment of the original skylight orientation
- SDRP: Consider rearranging the rooftop plant space to accommodate further original skylight positions

### Objectives

- Explore the reinstatement of the original skylight orientation
- Ensure Skylights are provided to ensure adequate natural lighting and reduce reliance on artificial\
- Balance light ingress with solar heat gain risks

### Controls

- Provide skylight in the original orientation running in linear strips in the east - west axis
- Skylight system, material and extent to carefully manage environment conditions and desired light ingress.
- Provide effective amounts of skylights to reduce artificial lighting demands
- Ensure skylight material is complementary to existing heritage fabric
- Where possible seek to rearrange rooftop plant to accommodate more skylights



/ Original Arrangement of skylight aligned to main linear axis



/ Current Arrangement of roof sheeting and skylights running counter to the main building axis



## 3.9 Service pits

- SDRP: Develop ways to further integrate the linear service pits at the ground floor into the design proposal
- Heritage Council of NSW: Support the inclusion of the service pits, and note they should be incorporated in the heritage interpretation as a key design feature

### Objectives

- Celebrate the industrial use and history of the LES through heritage interpretation and overlay
- Develop ways to integrate the service pits at ground floor into the proposal
- Enable viewing of the service pits and trenches throughout the building
- Provide a means for heritage displays
- Retain heritage on site in-situ where able

### Controls

- Ensure service pits are displayed and celebrated in public zones of the building
- Utilise the service pits for heritage interpretation and integration
- Develop the pits, track ways, and trolley roads in ground floor finishes, materials and interpretation elements throughout the building.
- Utilise the linear pits, and numbered track ways as a potential way-finding mechanism for the building



/ LES Photograph: highlighting existing network of service trenches and track ways



/ Locomotive workshop: Heritage interpretation floor inlay



/ Example of glazed floor for art, archeology and heritage display



## 3.10 Rooftop Plant

- SDRP: Consider the roof as the 5th elevation of the building, and is carefully considered
- REDwatch: Supports the proposed height controls which allow for or minor protrusions of up to 1 metre for roof plant, machinery and cooling towers subject to consent authority approval.

### Objectives

- Provide adequate rooftop plant platform for effective building servicing
- Balance plant requirements with heritage considerations and key public domain views
- Acknowledging that the site is overlooked by adjoining neighbours

### Controls

- Ensure rooftop plant platform is not viewed from key ground level views and public domain aspects
- Develop the rooftop plant height and extent in relation to any rezoning building controls
- Provide flexibility in plant and equipment selection for design and project innovation
- Ensure the rooftop is designed as the 5th facade of the building and is appropriately resolved articulated, and of sufficient material quality



/ Southeast aerial perspective - reference design (subject to detailed design and approvals)

## 3.11 Openings in Heritage Façades

- SDRP: Ensure Conservation Management Plan is completed, and used to inform how design can preserve and interpret site history & character
- SDRP / City of Sydney: Consider shifting eastern atrium voids to align to existing southern door
- CoS: Consider new openings in the south facade detrimental and seek to remove

### Objectives

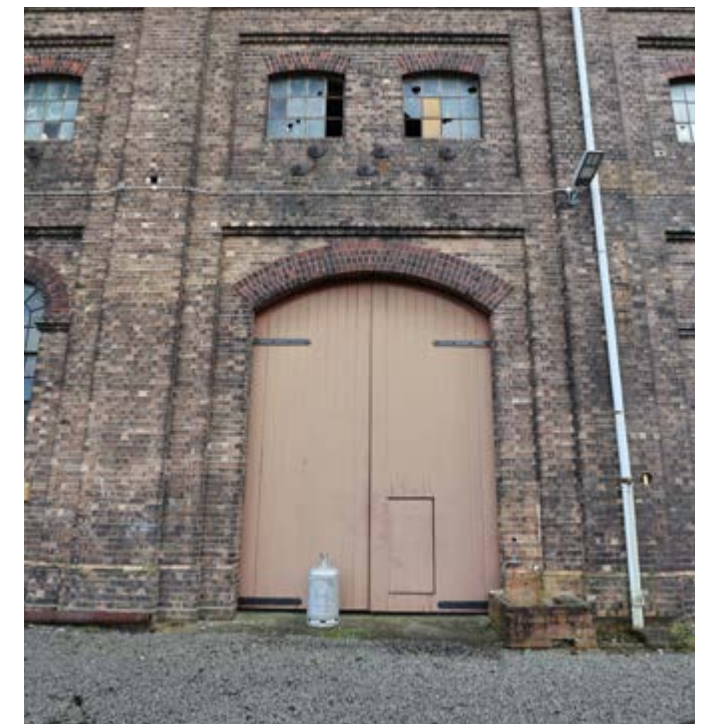
- Ensure that during adaptive reuse, any new works are carefully considered in relation to heritage significance, including any proposed facade openings
- Explore returning previously adapted or incorrectly repaired fabric to it's original condition
- Balance the need of heritage and conservation against new building functions and uses
- Acknowledge the need for new works to upgrades services, loading, plant and equipment
- Manage existing access and egress onto Sydney Trains active land
- Balance existing openings and required life and building safety / performance regulations

### Controls

- Develop and utilise the Conservation Management Plan to guide existing fabric and any new works
- Develop methodology and justification in reinstating existing steel windows and façades to their original condition (pending heritage confirmation)
- Utilise existing heritage openings in the southern facade to organise internal building form and functions
- Align internal atria to existing doorways on southern facade
- Any new openings should be sufficiently detailed, with quality material and systems and be complementary to the existing fabric



/ Photograph: Existing window openings infilled



/ Photograph: Existing southern access doors



## 4.0 Materials & Character

- SDRP: Develop ways to integrate heritage equipment / artefacts in-situ
- City of Sydney: Ensure public domain materials and finishes match the existing precinct

### Objective

- Quality, long lasting and low maintenance materials should be selected to maintain a quality appearance
- Utilise a variation of materials, application and texture to achieve richness in architecture
- Where possible, utilise materials that are sustainable
- Adopt integrated landscaping elements
- Provide a design that has richness and texture when viewed from afar and close
- Respond to the existing material palette of the heritage building and site history giving careful consideration to the interface between heritage and contemporary
- Respond to the building and industrial transport context and on-site equipment
- Repair and retain existing heritage fabric wherever possible

### Control

- Longevity, durability and flexibility shall be considered in the choice of materials
- Provide generous feelings of light and air throughout the development
- Utilise materials that connect the building to its surrounds, use or history
- Provide articulation to new façades that responds to the existing rhythm and repetition
- Ensure material diversity between existing and contemporary
- Adopt complementary materials and systems that enhances the rich history of the site
- Retain the existing patina and layered fabric of the building and site



/ Existing material finishes, patina and layered history

/ Proposed material finishes, integration and landscape



## 5.0 Sustainability

Submission item or theme:

- SDRP: Ensure Greenstar targets can be achieved through the aspirations of an open plan fit out without compromising existing heritage
- City of Sydney: Concerns regarding sustainability targets

### Objective

- Limit the development impact on the environment
- Maximise daylight and reduce the need for artificial lighting
- Prioritise sustainable practices, systems and innovations throughout all stages of design and operation

### Control

**Development is to be designed to achieve the following ESD targets:**

- 5 Star and Carbon Neutral: Green Star Buildings v1
- All Electric (no gas)
- 100% Renewable - Combination of on-site and off-site Electricity
- Net Zero Waste to landfill by 2030
  
- 5.5 Star NABERS Energy
- 4.5 Star NABERS Water
- Gold (Shell and Core) WELL rating
- EV Charging provisions
  
- Commitment to innovative measures to separate and recover food organics on-site and circular economy approach to design and construction



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