

Submission to Central Precinct rezoning proposal



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Executive summary

The City of Sydney (the City) supports the future redevelopment of the land above and around Central Station rail yards with an approach that is people-focused, place-led and prioritises future-focused business and jobs growth. In 2008, Sustainable Sydney 2030 proposed that the airspace could be better used as a well-designed extension of Central Sydney uses.

In general, the strategic intent of the proposal is consistent with the City's Local Strategic Planning Statement and Central Sydney Planning Strategy. These strategic documents envisage significant business and jobs growth for the area supported by improved pedestrian connections, high-quality public domain and Central Sydney's future third public square to be realised adjacent to Central Station and George Street. The area should have safe and walkable connections across the rail lines and flexible workspaces that set a new benchmark in environmental performance and design development while protecting sun access to Prince Alfred Park.

Fostering jobs growth and delivering an authentic, high quality urban experience at Central will play a critical role in the expansion and diversification of Greater Sydney's economy. The City is committed to the overall vision for the Camperdown Ultimo Collaboration Area, rebranded as Tech Central, which looks to diversify the economy beyond financial and professional services toward jobs and an emerging economy fit for the 21st century. The co-location of leading institutions and businesses in emerging and growing sectors provides the conditions for greater innovation and enterprise outcomes. To contribute to this, Central Precinct will need to create space that is flexible and supports innovation.

Attracting and catering to knowledge workers or 'human capital' by creating a 24-hour epicentre of activity, interest, culture and creativity will better position Sydney to compete globally to attract this talent and serve the surrounding communities.

Central Precinct is ideally positioned to cater for this growth being the most accessible urban renewal precinct in Australia, with its proximity to public transport and existing and growing employment clusters.

The City supports development in this location, but there are significant issues within the proposal which need to be resolved for the development to deliver on the vision. The City is committed to working with the NSW Government to responsibly and thoughtfully review and update the planning controls for the Central Precinct to maximise outcomes for our residents, workers, visitors and businesses.

The City has reviewed the draft Explanation of Intended Effects (EIE), Design Guide, Planning Report, and supporting technical studies. **The City objects to the following aspects of the proposal**, which need to be more fully resolved to position development at Central Precinct for long term success:

- **The future operations and capacity of Central Station should be safeguarded, as the primary transport interchange in Greater Sydney.** The impacts of the proposals on rail services are unclear. The planning of the over station development (OSD) deck, the track level and the Precinct above should happen together to reach the best outcome.
- **Development should provide contributions and infrastructure to meet to the needs of the additional population resulting from the development.** The proposal places a heavy focus on the delivery of infrastructure within the Precinct itself and proposes the delivery of many items which are not genuinely local infrastructure, but are required for the delivery of the project, instead of providing monetary contributions. A revised local infrastructure schedule should be developed in close consultation with the City. The schedule should include the priority items of local infrastructure identified by the City and more broadly consider

infrastructure needs arising beyond the Precinct boundaries.

- **Development should create better public space in existing and planned public spaces around the development.** This includes maintaining sun access to Prince Alfred Park, the existing city streets, and the future Central Square. The development must not make the wind conditions or solar access worse in any area affected by the development. TAHE must work closely with the City to resolve the level change at the interface with Prince Alfred Park and to deliver the full vision for Central Square.
- **Any proposal should provide well-designed new public places, with good sunlight, greening, sky view and good wind conditions.** Much of the new open space created is poorly defined, overshadowed or suffers from poor wind, soil and water conditions. The streets are too narrow and lack activation on both sides. These conditions in turn create challenges for tree growth. The masterplan should be adjusted or reconsidered, to locate public space in the places of best amenity.
- **The proposal should include ambitious sustainability targets, to be carbon negative and restorative in every way.** While the proposal includes high-level objectives, it lacks the commitment to targets and prescriptive guidance required to deliver a low carbon and environmentally sustainable precinct. There is a lack of consideration towards the delivery of precinct-wide or development-wide sustainability systems.
- **The proposal needs to better integrate with the surrounding city to be a part of the city, and not apart from the city.** The streets, blocks and buildings replicate the obvious mistakes of Barangaroo South, without the drawcard benefit of the foreshore promenade. The streets are too narrow, connections from the surrounding streets and spaces are narrow, steep and not legible and only one clear east-west connection is provided, from Devonshire Street across to Lee Street. The other routes shown are convoluted, indirect or reach dead ends. The proposal should provide at least one more direct route for pedestrians and cyclists from Redfern heading north and west.
- **Development should prioritise building types which will support 21st century jobs and economy, not be aimed at premium grade office space.** The City does not support the optimisation of premium grade office space as the primary determinant for the planning of this important area. The proposal must be reconsidered to give primacy to variable space for innovative industries, including more affordable workspace to make it attractive for these types of businesses to relocate there and specific building types suitable for entertainment, retail and cultural uses.
- **Housing for all is needed here.** Given the land is publicly owned, 25% affordable housing should be provided on site (rather than 15%). A further 15% diverse housing is supported but should preferably exclude Build-to-Rent, which is typically a higher end product, with rents at a premium to typical market rents. A commitment to 10% Aboriginal and Torres Strait Islander occupancy of the affordable housing provision should be included in the proposal.
- **The amount of floor space and density is too high.** Gross Floor Area (GFA) and the Floor Space Ratio (FSR) have not been calculated accurately, resulting in floor space inflation. Furthermore, the current reference scheme is overly bulky, with too many towers, too close together, resulting in significant visual impact, deterioration of heritage significance, buildings not fit for innovation, and unacceptable wind conditions and insufficient sunlight in public spaces.
- **Development should respect the heritage significance of the site and celebrate the site's significant landmarks.** Consideration must be given to the cumulative heritage impact of development. The City appreciates the considerations thus far but does not support the loss of significant additional views to the clock tower as a result of too many buildings, too close together.

- **Design, construction, and the future use of the space should be led by Connecting with Country principles.** Engagement with First Nations people should be ongoing and meaningful. Beyond the design of public spaces, a stronger commitment is needed on how the proposal will deliver ongoing benefits for First Nations communities, including housing diversity and cultural spaces.
- **The proposal should include planning controls that will ensure that the level of design excellence embedded in the reference design, will be delivered, and exceeded for all public spaces and buildings.** City of Sydney Competitive Design Policy should apply – it cannot be left to the development market and the lowest common denominator.
- **Engage proactively and meaningfully with local communities and businesses to reach a shared vision for Central Precinct.** Engagement to date and the length of the exhibition period are not commensurate with the complexity and significance of this once-in-a-generation opportunity and must be extended and amplified. The City has requested an 8-week exhibition period rather than 4 weeks. We were recently advised of a 2-week extension resulting in a 6-week exhibition period.

Introduction

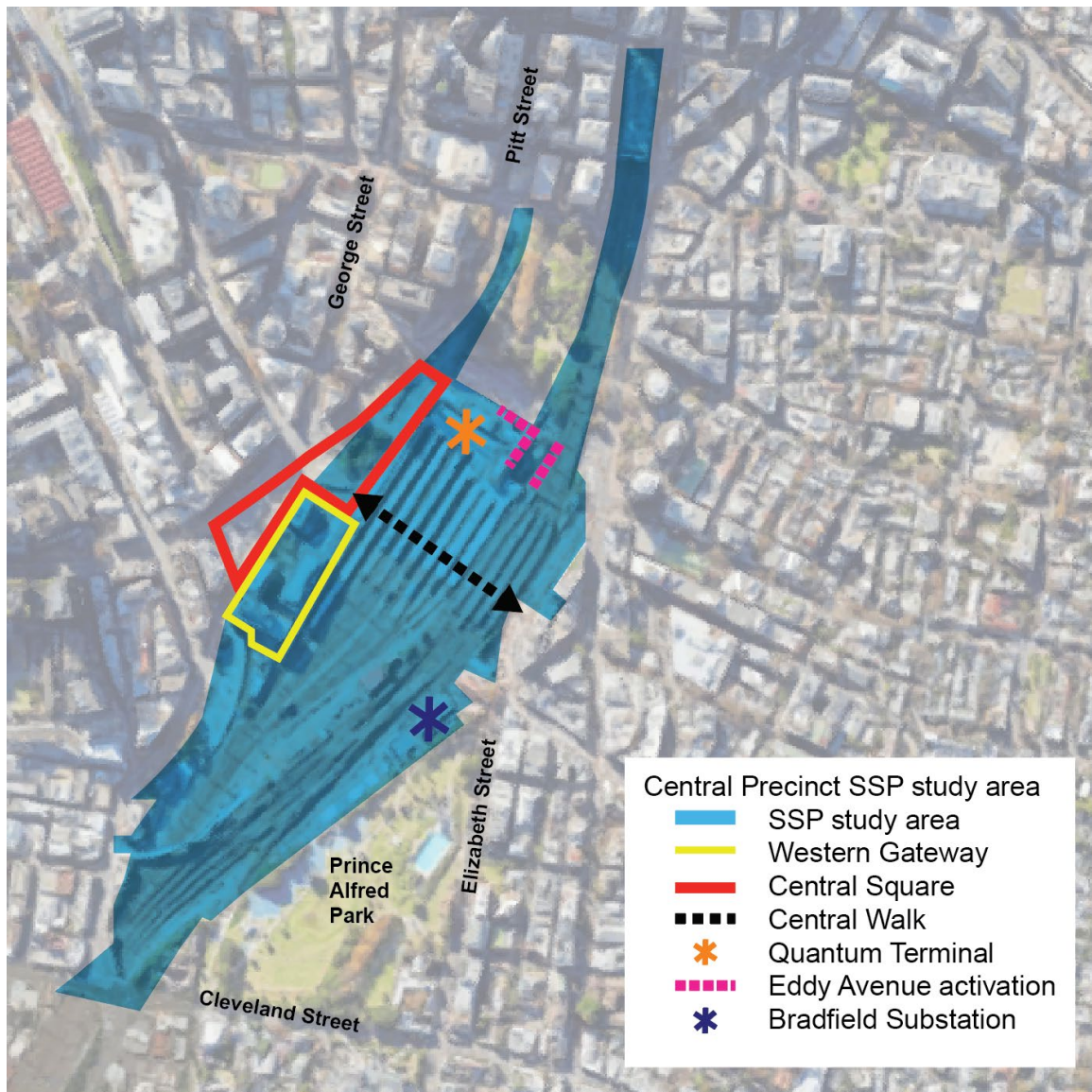
Background and context

Site context

Central Station is one of Sydney's most important places. The 24-hectare site is located approximately 1 kilometre south of Town Hall and is bounded by the localities of Haymarket, Chippendale, and Surry Hills. It is bound by Eddy Avenue to the north, Chalmers Street and Prince Alfred Park to the east, the Cathedral of the Annunciation of Our Lady and Cleveland Street to the south, and Regent, Lee and Pitt Streets to the west.

Figure 1. The site and related projects

Source: City of Sydney



The site became associated with railways in 1855 with the construction of the first Sydney Terminal and the starting point of the main line from which the NSW rail network grew. The present Central Railway Station, designed by Government Architect Walter Liberty Vernon, was opened in 1902 and was fully completed in 1921 with the addition of the clock tower. The tower was positioned to align with many nearby streets and is now a prominent landmark in the southern part of central Sydney. The entire site is listed on the NSW State Heritage Inventory, in recognition of its historical and cultural significance to the city and the state.

Central Station is the heart of the rail network for Sydney and New South Wales and is Australia's largest and busiest train station with 22 platforms providing suburban, intercity, regional, and interstate services. It is also a key node in Sydney's broader public transport network, connecting rail with Metro, light rail, bus, and coach services. The land is owned by Transport Asset Holding Entity (TAHE) and operated by Transport for NSW (TfNSW).

The City's vision for Central

Since the adoption of Sustainable Sydney 2030 in July 2008, the City has identified the land between Central Station and Cleveland Street as a natural southern extension of Central Sydney. Previous iterations of planning strategies for Central Sydney have said the same - in 1971 the site was suggested as a potential location for an indoor sports stadium or entertainment stadium, and in 1988 the airspace above the railway was identified as a potential opportunity for city growth, while noting "the need to ensure the adequacy of service, transport, traffic and utility infrastructure in areas surrounding the City Centre" (Central Sydney Strategy 1988, p35).

The Central Sydney Planning Strategy (2016) provided a clear strategic direction highlighting the importance of Central and its surrounds in supporting the future economic and employment growth of Greater Sydney. The Strategy noted that "the performance and growth of the rail network is inseparable from Central Sydney's prosperity" (Central Sydney Planning Strategy, p123).

The site was identified as being ideally located to cater for job growth with its proximity to existing and growing employment clusters. It had the potential to accommodate diverse employment floor space, targeted to a range of businesses, both big and small, local and international, and supported by community and cultural infrastructure. Planning controls were revised to deliver the Strategy including the addition of a new Sun Access Plane to protect Prince Alfred Park from over-shadowing between 12pm - 2pm all year round.

This potential future of Central was further emphasised in the City's Local Strategic Planning Statement, City Plan 2036, which highlighted the critical role the precinct would play in accommodating a high proportion of jobs floor space, boosting productivity and supporting the growth of existing knowledge-intensive employment clusters in the area.

It also emphasised how the appropriate redevelopment of the precinct could drive additional investment in the surrounding area by lifting its profile and improving its market perception both locally and globally. However, the rate of redevelopment will be influenced by the rate on increase in aggregate demand for innovation floorspace in Sydney and the lasting effects of flexible work arrangements and outsourcing and remote sourcing of specialist staff.

Urban Life

The SSP boundary includes the area the City has identified as the third square for Sydney, completing the George Street spine from Circular Quay to Town Hall and Central Station.

Jan Gehl's 2007 Public Space, Public Life study first envisaged a major new square at Central connected to other new squares at Circular Quay and Town Hall by the George Street spine. It has since formed part of Sustainable Sydney 2030 (2009), the Central Sydney Planning Strategy (2016) and the Local Strategic Planning Statement (2019) and most recently in Sustainable Sydney 2030-2050: Continuing the Vision.

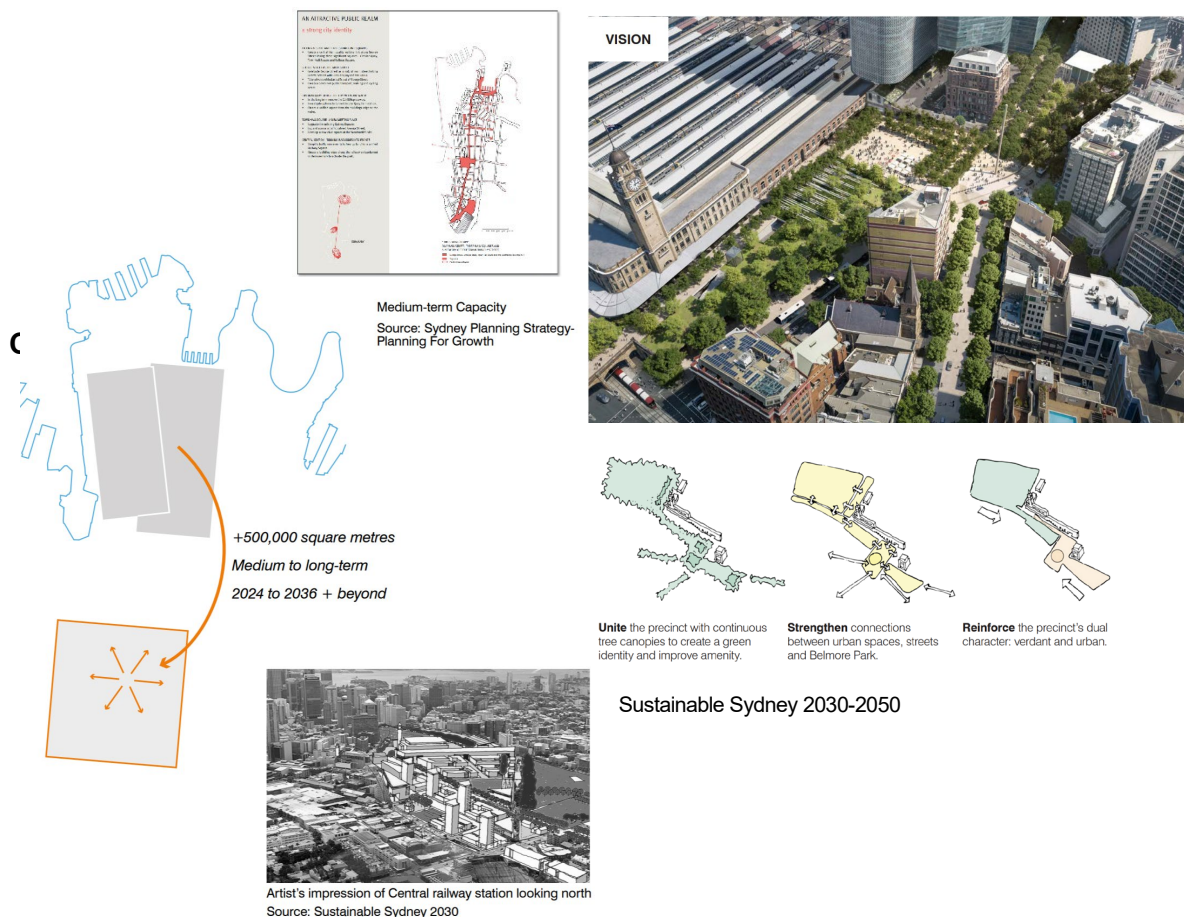
The Square will serve as a focal point and quality public setting for the area's growing creative and young professional workforce. Coupled with the opportunity to deliver buildings and public spaces

with the highest level of design excellence, the urban transformation of the precinct would enhance local connections between precincts, helping to establish walking and cycling connections east and west, north and south, knitting into the established network of streets and open spaces.

If supported by public space and public transport investment by both the City and NSW Governments, Central is well-positioned to be a once-in-a-lifetime opportunity to help grow a stronger, more competitive Central Sydney. If balanced with the need to conserve the unique heritage values of the precinct and maintain its current role as a vital transport interchange, the successful development of the Central Precinct could deliver flow-on benefits for Greater Sydney's global standing and contribute to its economic diversity and resilience.

Figure 2. Development at Central is on the City's strategic agenda

Source: City of Sydney



The City is a long-time supporter of the Camperdown-Ultimo Collaboration Area and member of the Camperdown Ultimo Alliance. We are working to grow innovation within Surry Hills, Haymarket, Ultimo, Camperdown, Redfern and Eveleigh, areas which are already home to some of Australia's most important innovation organisations. The co-location of institutions and businesses provides the conditions for greater innovation and productivity outcomes.

The Camperdown-Ultimo Collaboration Area has been rebranded as 'Tech Central' and the Greater Cities Commission and NSW Government are committed to facilitating the creation of 250,000sqm of floor space for innovators and 50,000sqm of affordable space for start-ups across the wider area. The development of Central Precinct is a key opportunity for the creation of this space. For Sydney, it is an opportunity for a more diverse and resilient economy – beyond financial and professional services, toward jobs and economies fit for the 21st century.

The process so far

State Significant Precinct Declaration

In July 2018, Transport for NSW (TfNSW) made a submission to the Department of Planning and Environment (DPE) to investigate the declaration of Central Precinct as a State Significant Precinct (SSP). In July 2019, the Minister for Planning and Public Spaces made such a declaration, acknowledging the importance of Central Precinct to Sydney and NSW, and enabling the commencement of planning for its renewal through preparation of the SSP Study. This declaration allowed planning to be undertaken in two stages:

- Stage 1: preparation of the Central Strategic Framework and rezoning of the Western Gateway sub-precinct.
- Stage 2: rezoning of the broader Central Precinct.

For the first stage, TfNSW and the Government Architect of NSW (GANSW) formed a State Design Review Panel, with a representative nominated by the City as a member, to review development proposals in the Western Gateway and the Central Strategic Framework. The Panel was to provide advice assisting TfNSW with lodgement and DPE assessment of the SSP. A Project Working Group (PWG) was established to support the Panel. For the second stage, a Project Review Panel (PRP) was also established, with a representative from the City, to consider planning control changes to implement the Strategic Framework.

Central Precinct Strategic Framework

The Strategic Framework represents the completion of Stage 1 of the planning process to develop a new planning framework for Central Precinct. Adopted in March 2021, it addresses the vision, key themes, planning priorities and design principles, precinct renewal options, and commitments to design excellence and sustainability, and defines and identifies the proposed future character of sub-precincts within Central Precinct. The five key themes for the vision of Central Precinct are place and destination, people and community, mobility and access, economy and innovation, and sustainability.

Western Gateway

The first part of Central SSP to proceed with development was the Western Gateway sub-precinct. Located at the western edge of Central Precinct, bordering Railway Square and Lee Street, the site consists of three development sites:

- Block A: the YHA and former inward Parcel Shed
- Block B: Henry Deane Plaza and associated office buildings
- Block C: the Adina Hotel and former Parcel Post building

Blocks A and B were rezoned in August 2020, enabling both the delivery of Atlassian's new global headquarters and a significant redevelopment proposal from a joint venture of Dexus and Frasers. The proposal will deliver 232,000 sqm of non-residential space for commercial, retail and hotel uses. Block C was rezoned in October 2021 to enable development above and adjacent to the Parcel Post building (the Adina Hotel) and provide an additional 43,000 sqm of non-residential space in the precinct. The remainder of Central Precinct is to integrate with the Western Gateway, through the management of public space and built form interfaces.

Central Precinct rezoning proposal

Since the Strategic Framework adoption and Western Gateway rezoning, TfNSW/TAHE have been developing their proposal with the City as observer of GANSW run Design Review Panel meetings. As well, the City has had representation on the Project Working Group and the Project Review Panel.

TfNSW/TAHE have now prepared their rezoning proposal for the Central Precinct. The proposal is on public exhibition for four weeks from Monday 22 August until (extended from Monday 19 September 2022). The City requested an extension to the exhibition period, which was granted.

Next steps

Following the exhibition period, the Department for Planning and Environment will determine the rezoning proposal. If adopted, the next step would be a development application(s) for the site.

To support this submission, the City has prepared a tracked changes version of the Explanation of Intended Effects (EIE) and the Design Guide which are provided as appendices. The City is committed to working with the DPE and TfNSW/TAHE to resolve the issues identified in this submission and to put in place robust planning controls which position the development for long term success and design excellence.

Key issues

The planning is up in the air and needs to be grounded

If built, the proposal will be the first in Australia and will join only a few cases internationally where a new Precinct has been constructed above (not beside) active rail lines. The City recognises the complexity and challenges involved and acknowledges TfNSW/TAHE on its ambition.

The current proposal seeks to rezone the airspace above the rail lines for over station development (OSD). However, it is important to note that the proposal and supporting technical studies do not transparently consider the engineering requirements or planning of the OSD deck, nor what will happen at track level. Construction of the deck and buildings proposed will require significant structure to be landed at track level, which is likely to require changes to the rail lines.

Development should safeguard the future operations and capacity of Central Station, as the primary transport interchange in Greater Sydney. Currently, no evidence is provided as to what the impact on rail services might be.

Recommendation: Demonstrate that the capacity and flexibility of rail services is protected into the future.

While the development in the airspace above the deck is being proposed through the state significant precinct planning process, the design of the deck itself and changes to the tracks below would be planned through the state rapid assessment framework for critical state significant infrastructure (CSSI). This proposal coming forward in isolation from the planning for the OSD deck and the service dock below the railway, poses several risks and challenges. Not only is this confusing for the local community and key stakeholders, but it negates the opportunity for the design of the three levels to influence each other and reach the optimal solution.

The lack of clarity or explanation about the nature of the deck makes it very difficult to ensure that noise and vibration assessment criteria and measurement are appropriate. For example, Provision 2 of Section 9.6 of the Design Guide lists the potential sources of noise and vibration to be considered when conducting a Noise and Vibration Assessment for a DA. It states that impacts from Sydney rail yard and adjacent suburban network are to be considered – this would appear to exclude the intercity lines underneath the proposed deck.

Similarly, servicing such as ventilation shafts will be required from track level upwards through the OSD deck. The locations of these are yet to be determined and are not included in the current proposal. These will be considered separately as part of a Critical State Significant Infrastructure application. There is a risk that these will punch up from below within the public realm, detracting from the quality of the streets and open spaces.

Recommendation: The planning processes for the airspace development above the deck and the infrastructure approvals below deck should be integrated to provide certainty of a coordinated outcome and clarity for the community about the implications of development on rail services.

Recommendation: Identify the location of ventilation shafts within the proposal. Amend the design guide to state that servicing of the area below the OSD deck is to be incorporated into the new buildings only and will not be located within the streets and public spaces.

The proposal sees the planning of airspace with no natural ground, which poses challenges to the planning process. With the planning and design process for the deck happening after this rezoning process, there is a risk that the level of the deck may change, having significant implications for the

design of the buildings above and the points of interface on all sides. The proposal has been evaluated in its fixed position and should not be seen to be 'floating' or able to shift up or down.

The Sun Access Plane for Prince Alfred Park has been put in place to protect overshadowing to the Park – a valued amenity for the community. It is critical that this plane is respected, and if the level of the deck were to be raised that the buildings would need to decrease in height to accommodate that increase while still respecting the sun access plane. This may mean that the full FSR is not achievable. Given this unique context of planning in airspace, the Design Guide should be amended to clarify the absolute boundaries and controls.

Recommendation: Amend the EIE to clarify that the proposed controls are based on the premise that the development is on an OSD deck at RL30.

Recommendation: Amend the design guide to clarify that levels of the sun access plane are absolute, not relative to the deck level and resultant floor space is an absolute and a maximum.

Recommendation: Given the long-term nature of the project, embed the requirement for the Design Guide to be reviewed and updated, in line with Government requirements for updating and maintaining local planning controls. Local infrastructure is needed to support this development

Local infrastructure

The City considers that the high density of development even after it is reduced in scale for the Central Precinct needs to be supported by local infrastructure with the capacity to meet the demands of new worker, resident and visitor populations. The City is well placed to assess and advise on local infrastructure needs, given our robust track record of funding, delivering and maintaining infrastructure assets throughout our local government area.

The approach to local infrastructure is not agreed and is in contention. The City raises the following strong concerns regarding the proposed approach to local infrastructure contributions in this rezoning proposal:

1. The proposal seeks to use a planning agreement for the delivery of infrastructure within the Precinct (much of which, in the City's view, is not genuinely local infrastructure) as an alternative to monetary contributions for future commercial development payable under the Central Sydney Development Contributions Plan 2020.
2. The proposal places a heavy focus on the delivery of infrastructure within the Precinct itself on TfNSW land, with little regard to the wider local infrastructure impacts and needs that will arise because of the significant scale of development proposed.

TfNSW's preferred approach for a planning agreement for local infrastructure is not agreed. Local contributions should remain payable under the Central Sydney Development Contributions Plan and there is no basis or agreement for proposing otherwise.

The Central Sydney Development Contributions Plan 2020 applies to the Central Precinct. Importantly, this plan specifically states that it applies to State Significant Development.

It is the City's firm position that local contributions (up to 3% of the development cost) would be applicable to development within the Central Precinct, including to State Significant Development.

The City does not agree to Transport for NSW's preferred approach for a planning agreement to be entered into for the items specified in the Planning Report's local infrastructure schedule (Table 21) as an alternative to the payment of local contributions. Table 21 is a misrepresentation of what a local infrastructure schedule is. It presents as a list of proposed infrastructure that is largely provided as part of and within the Central Precinct itself, rather than a list which has fully considered the infrastructure impacts of the development on the wider area. Furthermore, much of

this infrastructure is not genuinely local infrastructure – some of it is works to enable the development or works required to integrate new development with existing development. This infrastructure should be provided as part of the development, without seeking to offset its value against local contributions.

The City does not agree to offsetting contributions payable under the Central Sydney Development Contributions Plan to fund:

- **enabling works**
- **works that benefit the amenity of the precinct**
- **state owned community facilities (irrespective of whether it is run by a third party)**
- **state infrastructure such as health facilities or**
- **facilities that can be delivered by the private sector.**

Recommendation: The planning controls must require local contributions will be applicable to development within the Central Precinct to ensure adequate funding of local infrastructure needed by worker and resident populations. Offsets from local contributions will only be accepted for works-in-kind if the infrastructure is identified in the works schedule of the relevant City of Sydney contributions plan.

The City has reviewed the potential infrastructure items listed in Table 21 of the Planning Report and provided a response on their suitability for inclusion on a local infrastructure schedule and whether they may be provided as works-in-kind as offsets against local contributions payable under the Central Sydney Development Contributions Plan. Note the City is not objecting to the provision of the works. The City's position is set out below:

Item	Description	Proposed potential ownership / management	Suitable for offset against local contributions?
Open Space and recreational infrastructure			
Central Green	New publicly accessible open space	TfNSW and development partner	No. This should be provided as part of the development. It is not proposed to be dedicated to the City.
Central Square	Delivery of new publicly accessible open space	TfNSW	No. While the City strongly supports the delivery of Central Square, this should be provided as part of the development. It is not proposed at this stage to be dedicated to the City. Could be the subject to further discussions.
Mortuary Station Plaza	New publicly accessible open space	TfNSW	No. This should be provided as part of the development. It is not proposed to be dedicated to the City

Item	Description	Proposed potential ownership / management	Suitable for offset against local contributions?
Open space embellishments	Embellishments to new publicly accessible open spaces.	TfNSW and development partner	No. This should be provided as part of the development.
Eddy Avenue Plaza	Improvements to the existing civic plaza, including new seating opportunities, landscaping and wayfinding	TfNSW	No. This should be provided as part of the development as new station access points are impacting this existing public space area.
Ibero-America Plaza	Improvements to the existing civic plaza, including new seating opportunities, landscaping and wayfinding	TfNSW	No. This should be provided as part of the development as new station access points are impacting this existing public space area.
Recreational infrastructure	Indoor or outdoor recreational facility comprising a minimum of 2 courts	Owned by TfNSW, managed by a community based organisation	Potential, this could be local infrastructure <u>subject</u> to dedication of ownership to City to ensure community benefits are realised in perpetuity.
Community / Cultural facilities			
Integrated multi-purpose community facility	Integrated multipurpose community facility (minimum 4,000 sqm GFA)	Owned by TfNSW, managed by a community based organisation	Not to be offset from contributions payable under the Central Sydney Development Contributions Plan.
Tech lounge	Secondary local community tech lounge (minimum 400 sqm GFA)	Owned by TfNSW, managed by a community based organisation	Not to be offset from contributions payable under the Central Sydney Development Contributions Plan. Similar services are provided at City libraries which are accessible from the site.
Aboriginal community and cultural space	Aboriginal community and cultural space (minimum 1,000 sqm GFA)	Owned by TfNSW, managed by a community based organisation	No. While the City is supportive of an Indigenous cultural space within the Central Precinct, it would not be appropriate for this to receive offsets against local contributions.

Item	Description	Proposed potential ownership / management	Suitable for offset against local contributions?
Other			
Affordable housing	15% of residential GFA	Managed by a community housing provider.	No. Affordable housing is not local infrastructure. It would not be appropriate for this to receive offsets against local contributions.
Health and education	Social / health services hub (minimum 400sqm GFA)	Owned by TfNSW, managed by community based organisation.	No. While the City is supportive of a health services facility within the Central Precinct, Health and education are state infrastructure. It would not be appropriate for this to receive offsets against local contributions.
Private and public transport			
Internal streets and lanes on the over station development	As per Central Precinct Design Guideline	TfNSW	No. This is enabling development and should be provided as part of the development.
Access road from Cleveland Street to over station development	Provision of an access road	City of Sydney	No. This is enabling development and should be provided as part of the development.
Upgrade of Lee Street	Reprioritising road space on Lee Street to provide additional space for pedestrians.	City of Sydney or TfNSW	No. If the development is generating the need for upgrades to Lee Street, this should be provided as part of the development. The City reserves the right to make additional comments when complete transport modelling is provided.
Upgrades to intersections	Improve pedestrian capacity: - across the intersection of Pitt Street and Eddy Ave - along and across Eddy Ave - across the intersection of Elizabeth Street and Foveaux Street	City of Sydney or TfNSW	No. If the development is generating the need for intersection upgrades to manage impacts, then these should be provided as part of the development. The City reserves the right to make additional comments

Item	Description	Proposed potential ownership / management	Suitable for offset against local contributions?
	- across the intersection of Broadway and Harris Street		when complete transport modelling is provided.
Footpath widening	Widened footpaths along George Street, Eddy Avenue, Broadway, Pitt Street and Quay Streets through road space reallocation to support growing pedestrian movements.	City of Sydney or TfNSW	<p>The City may support footpath widening of City of Sydney land as local infrastructure (such as on Broadway) if the City deems it necessary.</p> <p>However, if footpath widening is required as a direct impact of the development, this should be provided as part of the development and there should not be an offset against local contributions.</p>
Road space reallocation	Reallocation of road space to accommodate both waiting passengers and moving pedestrians on Eddy Avenue and at Railway Square.	City of Sydney or TfNSW	No. Footpath widening required to accommodate waiting passengers would be the responsibility of Transport for NSW. It should be provided as part of the development.
Over rail bridges	<p>Three cross rail bridges from the OSD deck to:</p> <ul style="list-style-type: none"> - Northern over-rail bridge from OSD to Chalmers Street extended from Devonshire Street; - Central over-rail bridge from OSD to Prince Alfred Park; - Southern over rail bridge from OSD to Prince Alfred Park. 	TfNSW	No. This is enabling development and should be provided as part of the development.
Vertical transportation for the OSD	Vertical transportation points to provide connections between street, to concourse and OSD deck level	TfNSW	No. This is enabling development and should be provided as part of the development.
Active transport infrastructure	New separated cycleway along Regent Street	City of Sydney	Yes. This City supports the extension of the Regional Cycleway network, with the location to be resolved in consultation with the City.

Item	Description	Proposed potential ownership / management	Suitable for offset against local contributions?
Southern Gateway	Prince Alfred Park bridge loop	TfNSW	No. This is not an essential piece of infrastructure, and the main beneficiaries will be the worker and resident populations in Central Precinct.
Goods line extension	Goods line southern extension to Mortuary Station Garden	TfNSW and City of Sydney	No. This is a state government project. It would not be appropriate for this to receive offsets from local contributions.
Bike hubs	Publicly accessible end of trip facilities / bike hubs and east-west links on OSD	TfNSW	No. The City is supportive of bike hubs generally. However, as these will not be in City ownership, they would not be suitable for an offset against local contributions.

The City raises strong concerns that the proposal has little regard to the wider local infrastructure impacts and needs that will arise because of the significant scale of development proposed.

In the absence of TfNSW preparing a genuine local infrastructure schedule that has been developed in consultation with the City, the City has considered what local infrastructure may be needed to support the scale of development proposed within the Central Precinct. The City asserts that the following are priority items of true local infrastructure suitable for inclusion on a local infrastructure schedule:

- **Prince Alfred Park and associated recreational facilities - capacity improvements:** Given Central Precinct directly adjoins Prince Alfred Park, its new worker, visitor and resident populations are highly likely to use the open space and existing outdoor tennis/basketball courts to fulfil recreational needs. Local contributions funding will be critical to ensure that Prince Alfred Park and its facilities are able to meet additional user demand, however should not be relied on as the main public open space for the precinct.
- **Belmore Park upgrade:** Belmore Park is bound by Central Precinct on three sides, and will no doubt experience an increase in users as a result of development at Central. While the City's current contributions plan has already made provision for a park upgrade, additional work beyond that previously envisaged is likely to be needed to address capacity demands. Additional local contributions funding is critical to address increased demand and for the park's interface with Central Station.
- **Broadway public space:** Broadway's importance as an important thoroughfare will increase as a result of development at Central Precinct. Serving as the City's western gateway, it will be critical to ensure that Broadway can cope with the additional demands of commuters and pedestrians. Local contributions funding will be critical to transform and revitalise Broadway so that even under additional pressure it can serve as a safe environment for pedestrians and cyclists and accommodate greater volumes of efficient and reliable public transport.
- **Indoor or outdoor recreational facility (minimum of two courts):** The City is supportive of the provision two additional indoor or outdoor recreational courts which are currently proposed

to be located within the Central Precinct itself. However, for this to be considered local infrastructure, the City would require the stratum to be dedicated to the City, to ensure these new courts are kept as local infrastructure in perpetuity.

Noting the time scales envisaged for the development of the precinct, if the rezoning proposal proceeds the City considers that it would be appropriate for these items to be included in a future iteration of the Central Sydney local contributions plan.

The City's preference is for TfNSW to work collaboratively with the City to develop a local contributions schedule agreeable to both parties. If mutual agreement on a local contributions schedule is reached, and the rezoning proposal proceeds, it would be appropriate to include the identified items in the infrastructure schedule of the next iteration of the Central Sydney Development Contributions Plan. Only after infrastructure items have been included within a City contributions plan would the City be willing to consider contributions offsets for items in the schedule which are delivered as works-in-kind.

The City remains committed to continuing work with Transport for NSW to reach agreement on a suitable local infrastructure schedule.

Recommendation: A revised local infrastructure schedule should be developed in close consultation with the City. The schedule should include the priority items of local infrastructure identified by the City and more broadly consider infrastructure needs arising beyond the Precinct boundaries.

Community and cultural facilities

Section 15 of the Design Guide identifies objectives and guidance to ensure the delivery of high quality and resilient social infrastructure. Table 12 of Section 15 proposes a list of facilities that would form a community facilities network in the precinct.

Integrated multipurpose community facility

The City raises no objection to the provision of an integrated multipurpose community facility within the Precinct but does not consider that this would be suitable for any offset from payment of local contributions. We recommend a process to identify strategic opportunities and local needs for creative and cultural space in the precinct. For example, there are local art organisations who have expressed a need for studio and gallery facilities in the Central Precinct for their clients. There is market interest and state government support for an increase provision of performance venues in Central Sydney, prioritising mid-sized theatres and music venues.

Recommendation: Additional guidance provided in Section 15.1 of the Design Guide to create a process for identifying strategic opportunities and local needs for creative and cultural space in the precinct.

Recommendation: For 1,500 square metres of the 4,000 square metre facility to be set aside specifically for a creative space (which will act as an anchor to attract people), established in alignment with the City of Sydney Creative Spaces Design Guides.

Community and cultural space

The City raises no objection to the provision of community and cultural space within the Precinct but does not consider that it would be suitable for offsets from payment of local contributions. The purpose and proposed use of this space should be more clearly defined, with 'culture' being defined by the Aboriginal community. The creation and governance of such a space should be led by Aboriginal people or organisations.

Recommendation: Review and Amend Section 15 of the Design Guide to stipulate that the creation of an Aboriginal Cultural Space should be governed by an Aboriginal-led organisation and that 'culture' should be defined by the Aboriginal community.

Child-care facility

The City raises no objection to the provision of a child-care facility within the Precinct but does not consider that this would be suitable for any offset from payment of local contributions.

Health services hub

The City raises no objection to the provision of a health services hub within the Precinct but does not consider that this would be suitable for any offset from payment of local contributions. Health services facilities are state infrastructure or can be provided by the private sector.

Operation and management

Operation and management of community and cultural facilities is key, and objectives and guidance referring to these matters should be included in the Design Guide. In particular, large multi-purpose spaces with several different uses need clear operation and management models. Information regarding the location of such facilities is required, to understand their interaction with the surrounding communities of Haymarket, Ultimo, Chippendale, Surry Hills and Redfern. The provision of public wi-fi, wayfinding and signage should be included at this stage of the proposal.

Recommendation: More information is needed on the location of facilities within the Precinct, the makeup of facility space and type and operation.

Connecting with Country

The City of Sydney is supportive of the Connecting with Country approach to this project, and others across the LGA. This should be in alignment with the GANSW's draft Connecting with Country framework and principles in all stages of the project. In particular, noting the need for the project to deliver ongoing benefits for First Nations communities.

The proposed planning framework needs to be amended to provide more information on how Connecting with Country principles will be implemented and applied at Central throughout the lifecycles of development.

- Connecting with Country projects and principles should not be limited to the design of the public spaces.
- The Design Guide should be amended to address how the principles will be integrated from the initial concept design through development applications, construction, availability of space for Aboriginal communities and programs to care for country, activate spaces and involve communities in the place.
- More information is required on how the project will provide economic benefits to Aboriginal communities, through procurement, employment, enterprise, housing and spaces for cultural practice. In particular, if the precinct is to benefit from the use of Aboriginal cultural elements, such as language and art, then the benefits from their use must be shared with the Aboriginal community.
- More information is required on how the project can contribute benefits to Aboriginal-controlled organisations in the surrounding areas, including investment in programs, services and facilities.

Recommendation: More information and a stronger commitment is needed on how the proposal will deliver ongoing benefits for First Nations communities through the project lifecycle and the future use of the space.

Governance and Aboriginal engagement

Purposeful and co-ordinated engagement that is connected to outcomes and builds on previous conversations with community members is needed. Under the proposed Aboriginal Engagement Strategy separate engagement processes are proposed for each development application. With the many redevelopment proposals in the area, there is a danger that the local Indigenous people will be overburdened by the constant demand for engagement. If each development application requires a separate consultation process, this will lead to ineffective and disconnected engagement.

More information is required on how future Central Precinct proposals will 'close the loop' by sharing cultural knowledge and information collected through the Connecting with Country work with members of the local community.

A governance process should be established to ensure that Connecting with Country principles, and the perspectives and needs of First Nations people, are present and embedded throughout the lifecycle of the project from planning to operation. This may include a centralised or precinct-wide engagement approach that then avoids duplicated conversations but rather builds a respectful and informed relationship between Government and community.

Such a process offers an opportunity for TfNSW/TAHE to work with First Nations communities to develop a model for implementing Connecting with Country principles consistently across the full range of NSW Transport redevelopment projects.

Recommendation: Establish a governance process which demonstrates how Aboriginal people will have influence throughout the project lifecycle.

Recommendation: Amend the Aboriginal Engagement Strategy to establish a process for purposeful and coordinated engagement that is connected to outcomes and builds on previous conversations with community members.

More detailed comments include:

- Section 4.1 of the Design Guide, 'Connecting with Country strategy', Guidance 6. Development that provides for connecting with Country opportunities should adhere to Indigenous Cultural and Intellectual Property protocols, not merely recognise them.
- Section 4.2 of the Design Guide, 'Aboriginal engagement'. Engagement for separate development applications should not happen in isolation. Engagement should build on previous conversations with community members, be coordinated with other engagement, be connected to outcomes and 'close the loop' by sharing cultural knowledge and information collected.
- Section 4.3 of the Design Guide, 'Acknowledging and celebrating Aboriginal languages'. Additional guidance is required to ensure alignment with the City of Sydney's Naming Policy and the Aboriginal Naming Trust's guidance.
- Section 4.3 of the Design Guide, 'Acknowledging and celebrating Aboriginal languages'. Update the guidance to specify that the Gadigal language should be used as a priority over other Aboriginal languages.
- Section 4.5 of the Design Guide, 'Cultural infrastructure' should specify, 'culture as defined by the local Aboriginal community'.

Consulting with the community

The City acknowledges the consultation and engagement TfNSW/TAHE has conducted with staff and other key government agencies, but considers the approach taken with regards to local residents to be insufficient.

Precinct neighbours were identified as a key stakeholder in the Consultation Outcomes Report, and as such, select community groups were invited to three Key Stakeholder Workshops in 2021 and 2022 to seek input on their aspirations and concerns for the future of Central. However, the information provided at these workshops did not fully explain the scale of change that has been proposed by this rezoning. Local community members are understandably overwhelmed and concerned by the future vision for Central and the potential impact on the areas surrounding the precinct such as Chippendale and Redfern and want meaningful ways to engage with and influence the proposal. The almost 7,000 pages of technical documents that have been placed on public exhibition for review are a daunting prospect for local residents and business owners to understand how their neighbourhood will be affected by this proposal.

One of the concerns expressed by the community has been how they can engage as the project evolves. A proposal of the scale of Central Precinct deserves a community and engagement strategy to match the scale and complexity of the project. This could include setting up a community liaison group for continuity of involvement.

Recommendation: Engage proactively and meaningfully with local communities and business to reach a shared vision for Central Precinct to enable more meaningful engagement with the City and the community.

Space for 21st century jobs and economies

The City welcomes the principal ambition of the proposal to create a tech and innovation hub, helping to diversify Sydney's economy beyond the financial and professional services sectors, towards economies and jobs of the 21st century.

The City acknowledges the *Economic Productivity and Job Creation Study's* analysis which suggests the development of the Precinct would exceed demand, however the long-term nature of project makes this uncertain. In light of this uncertainty, there is need for a clear strategy and vision and a planning framework which can adapt to deliver the needs of future workplaces.

Proportion of education/tech floor space

Within the suggested land use mix of the 500,000+ square metres of floor space, less than 10 per cent (47,250 square metres) is provided for tech/education uses. By comparison, over half of the total floor space (approximately 269,500 square metres) is proposed to be commercial office space. This mix is inadequate to diversify the economy, instead offering more of the same standard office space. If the shared aspiration for an innovation hub is to be realised, this imbalance needs to be addressed, increasing the overall provision of space for tech/education.

Recommendation: Increase the proportion of tech/education subsidised space within the land use mix to at least 20 per cent of the total floor space, to reflect its primacy within the development.

Affordable workspace

Attractive affordable workspace is critical to innovation because it allows start-ups, businesses and other organisations to experiment and take risks without needing to focus as much on returns and profitability. In the Design Guide, Guidance 8.1(8) indicates that commercial developments 'are encouraged' to provide affordable employment floor space for innovation and technology start-ups and small and medium-sized enterprises. Like with affordable housing, the planning controls should include the requirement for affordable workspace. Affordable workspace should be defined, and operators (not-for-profits or social enterprises) should be identified to dedicate the space to in perpetuity, securing its long-term affordability.

Recommendation: Include in the planning controls a requirement for a minimum of 15 per cent of commercial space to be affordable, dedicated in perpetuity to an affordable workspace provider.

Creating space for innovation

The proposed masterplan has been derived from a principle of optimising premium grade commercial floorplates, illustrated in Figure 3. This results in too many towers, that are too close together at the expense of the public realm. It results in streets and open spaces that have poor sunlight and poor wind conditions, and connections from the surrounding streets and spaces that are narrow, steep and not legible.

The City does not support the optimisation of premium grade office space as the primary driver for the planning of this important precinct. If this precinct is to form a part of the city fabric, it must be designed around the placement of high-quality open spaces with good solar access, daylight and comfortable wind conditions. The location of buildings must be the result of the prioritisation of good open spaces, not the other way around.

The proposed envelopes for high grade commercial towers will not deliver the type of workspace required in the innovation precinct. The precinct will need to attract deep tech, innovation and start up uses, which will require flexible offices, prototyping workshops, laboratories, or clean rooms. The character and nature of innovation floor space is different to office space. The scheme should support diversity of organisations through diversity of building stock with maximum flexibility for adaptation built in. A review of precedent buildings which support innovation brings to light the following key characteristics:

- Larger floorplates, often set as a linear blocks or campus style buildings with a large atrium
- Larger floorplates could have the effect of requiring lower building heights
- Easy access for servicing
- Larger floor-to-floor heights
- Able to accommodate more significant ventilation systems

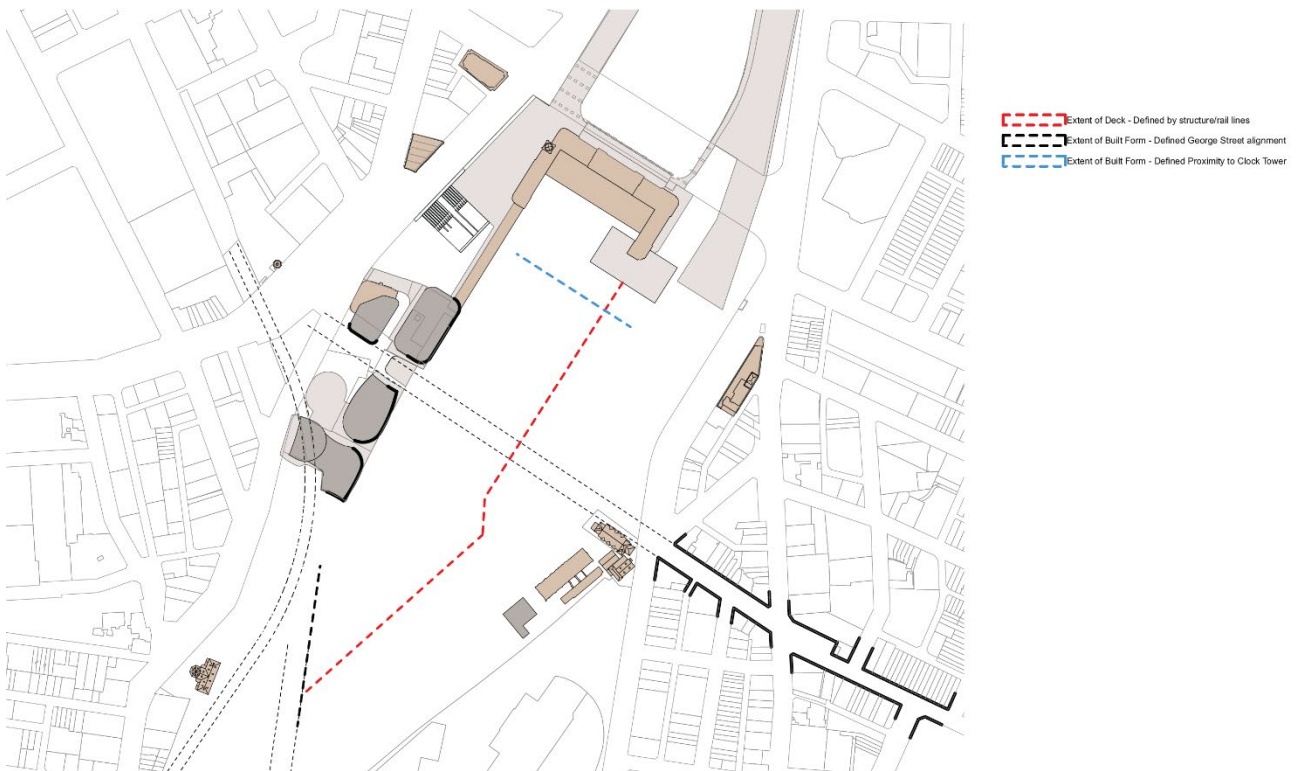
The proposed building envelopes support the construction of buildings with a podium and tower form, providing for standard high grade commercial space. The provision of standard office space in the precinct does not reflect the specific needs of the precinct for affordable, adaptable, and flexible workspace and should support diversity of organisations through diversity of building stock flexible and adaptable spaces.

Recommendation: The buildings envelopes should be updated to include a greater diversity of building types, to provide workspace, which is appropriate and adaptable for the innovation precinct.

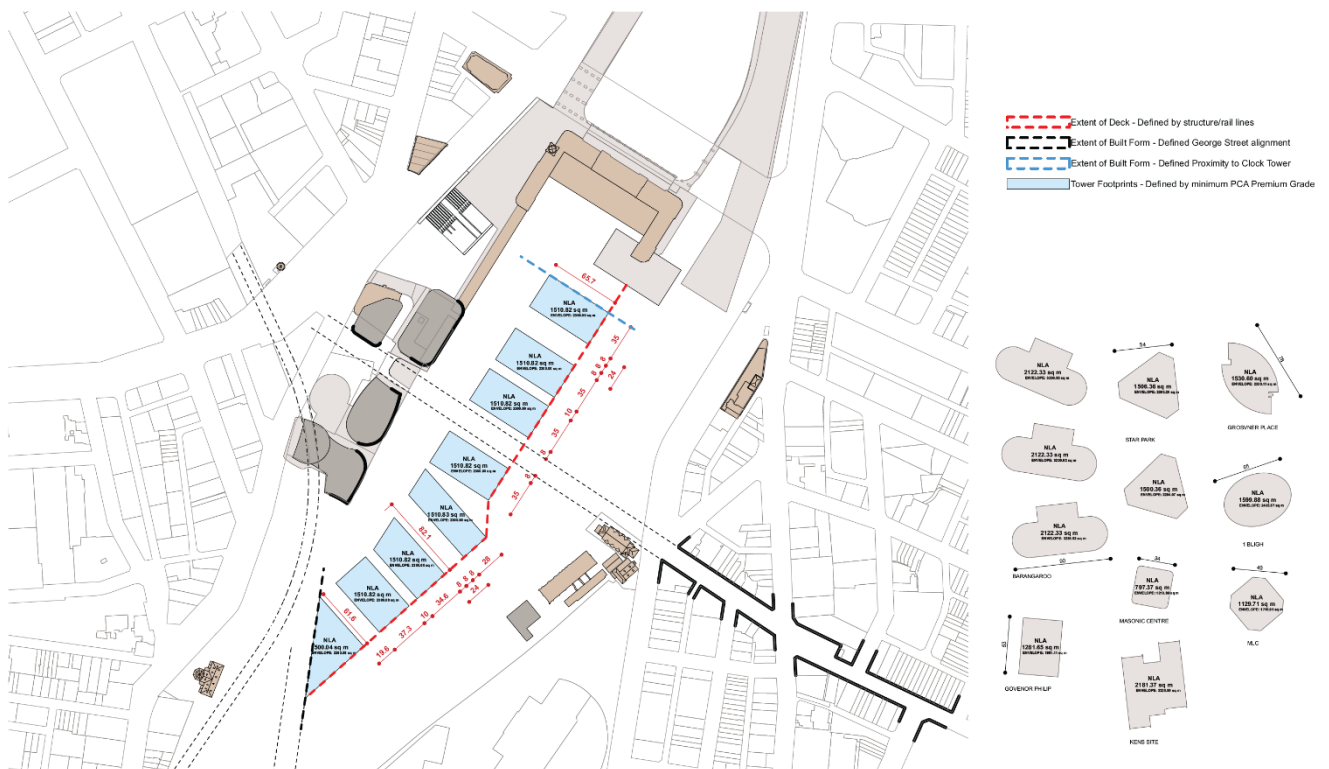
Figure 3. Analysis of how the masterplan has been derived

Source: City of Sydney analysis explaining the process undertaken for determining the placement and size buildings, driven by a primary aim of maximising premium grade commercial floor space.

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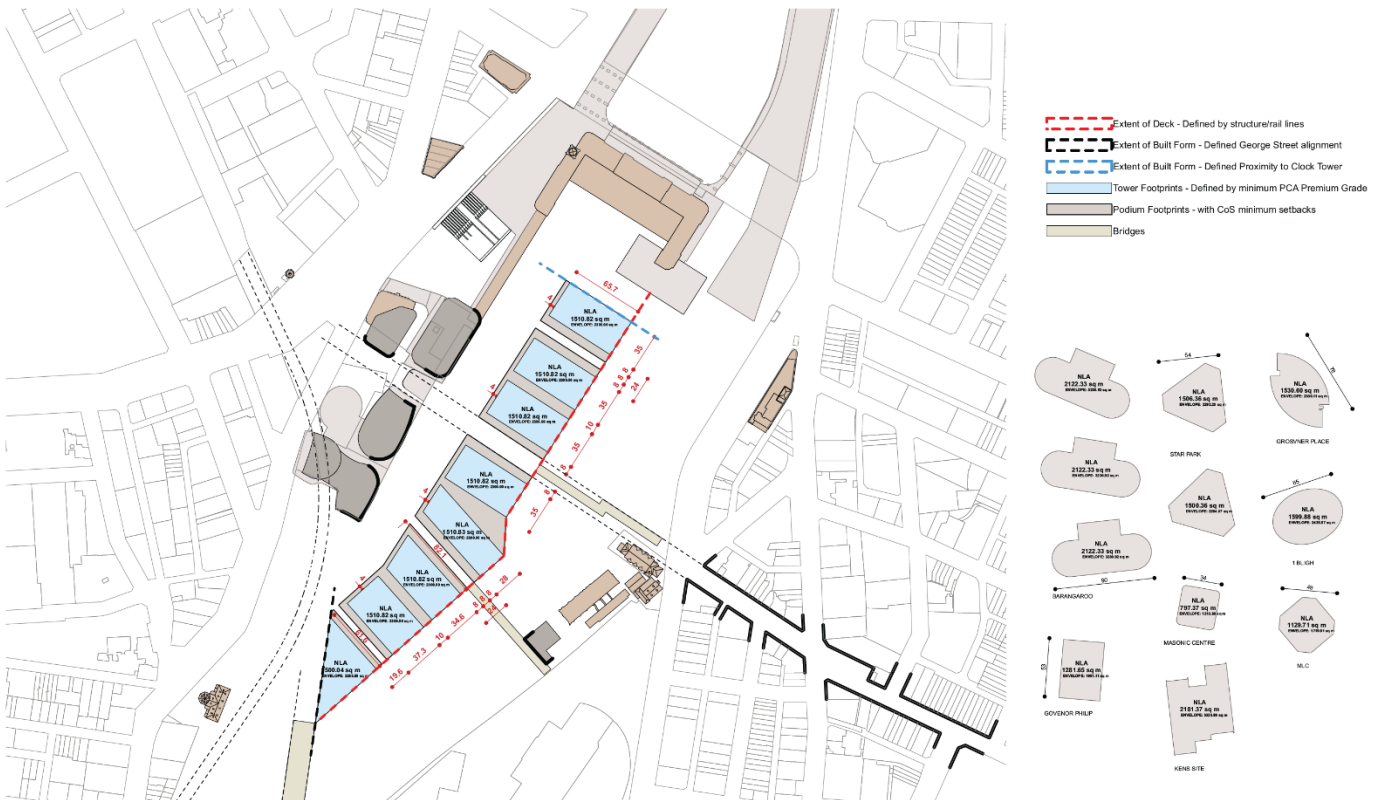


This diagram shows the extent of the deck, defined by the intercity train lines, the extent of building alignment to the north, defined by proximity to the clock tower, and the extent of building alignment to the south, defined by the continuation of the George Street (Redfern) alignment.

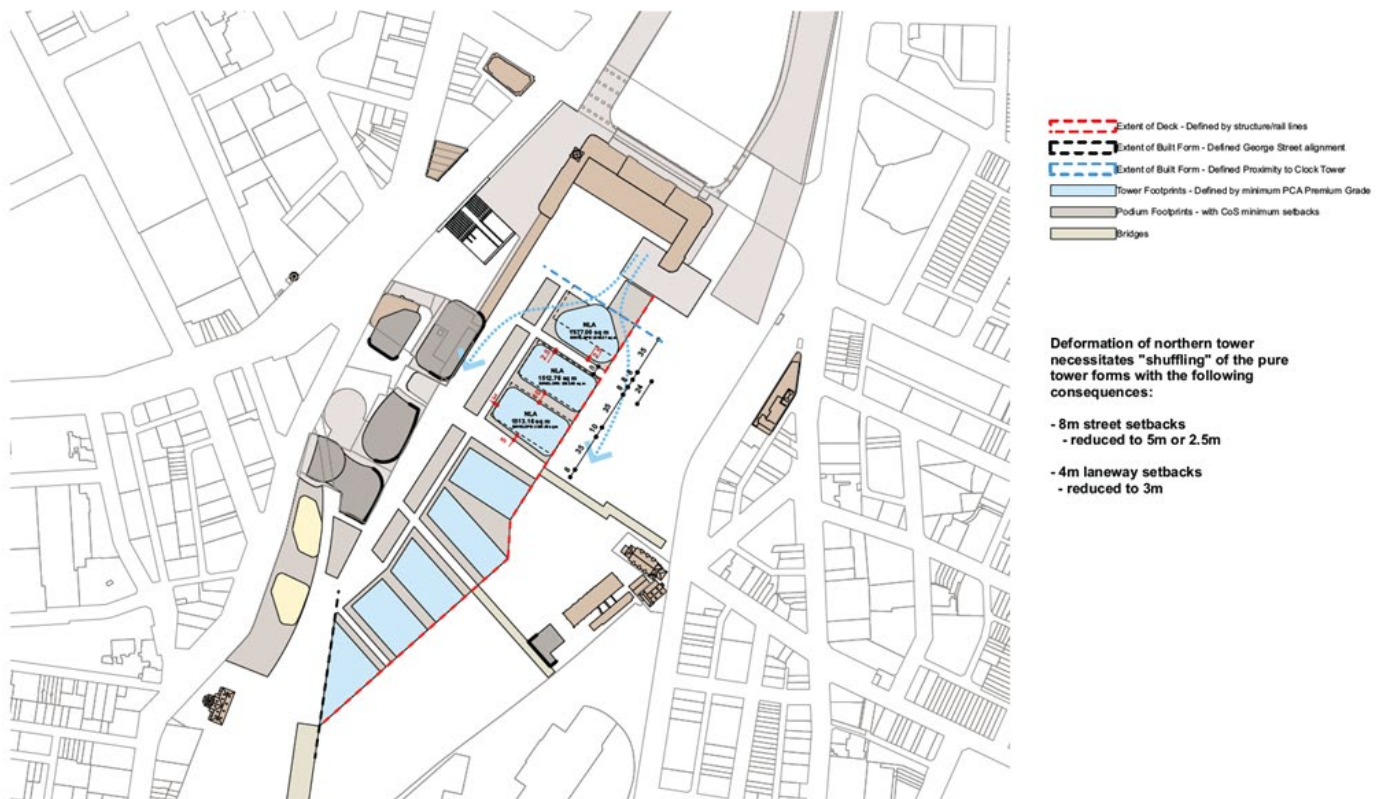


This diagram overlays the most tower footprints possible, ensuring that all, except the southern-most tower, meet the Property Council of Australia's Guidelines for premium grade office space for Net Lettable Space ($\geq 1500\text{sqm}$)

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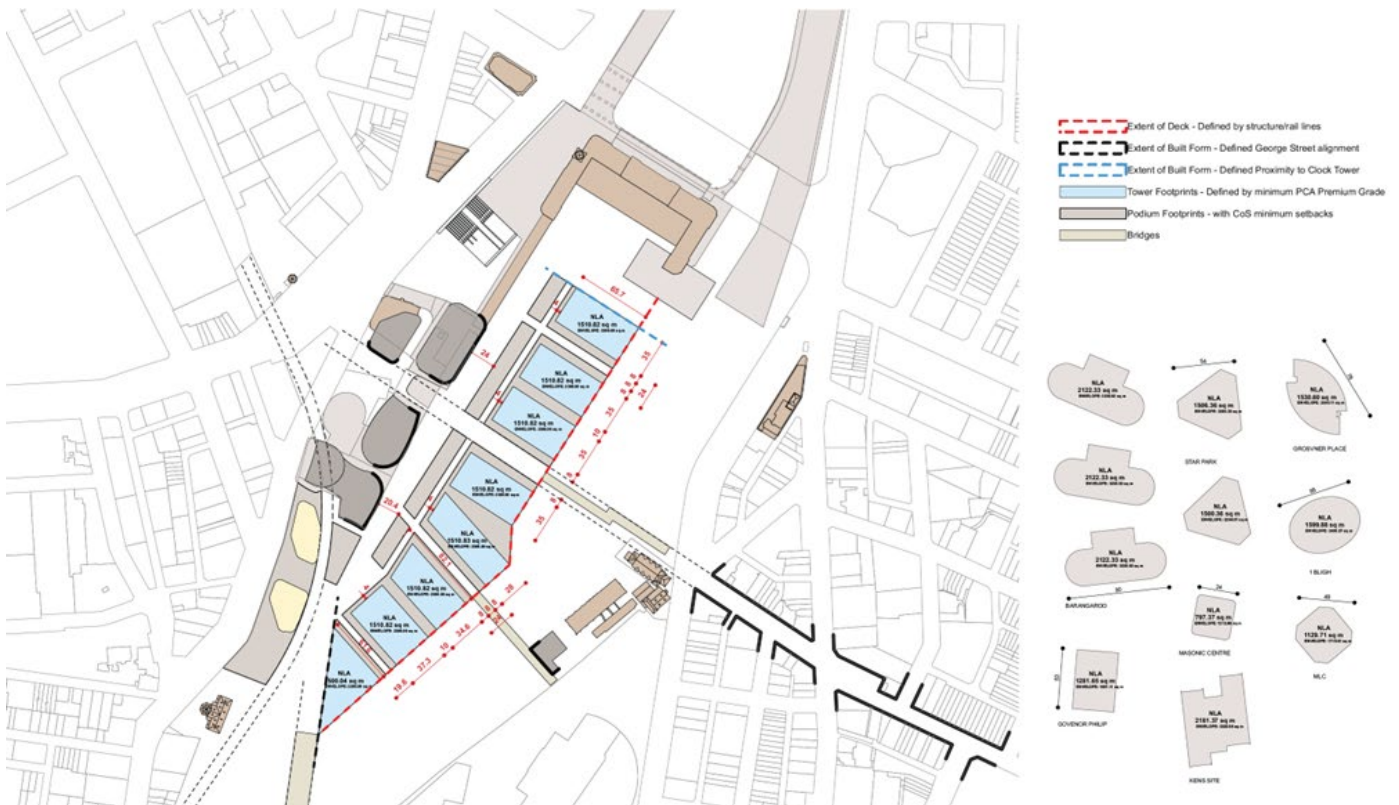


This diagram overlays the podiums beneath the towers. Upper-level setbacks of towers above podium height meet the minimum City of Sydney standards.

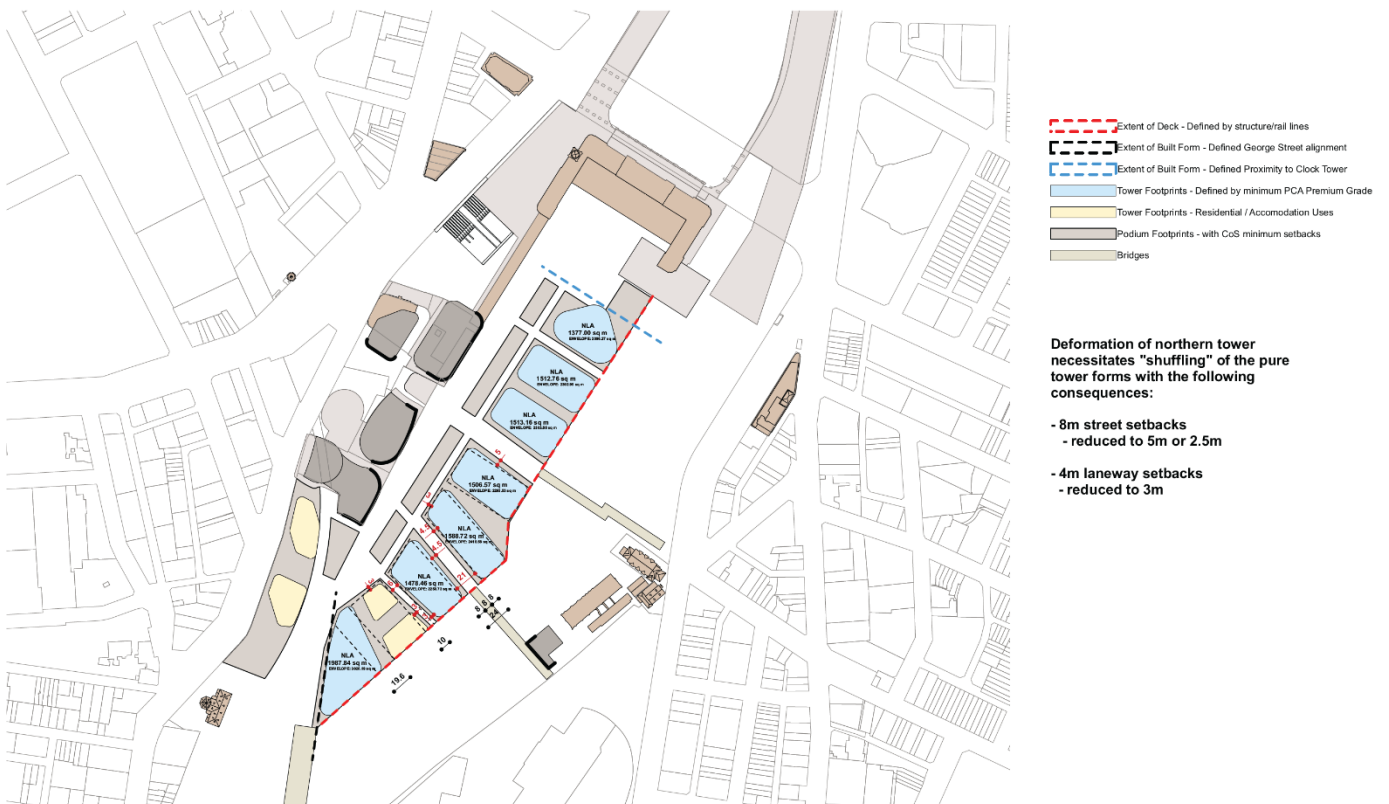


This diagram illustrates the curving of podium facades and the rotating of the northern tower to respond to wind issues. The deformation of the northern tower necessitates "shuffling" of the pure tower forms with the following consequences: 8m street setbacks are reduced to 5m or 2.5m and 4m laneway setbacks are reduced to 3m.

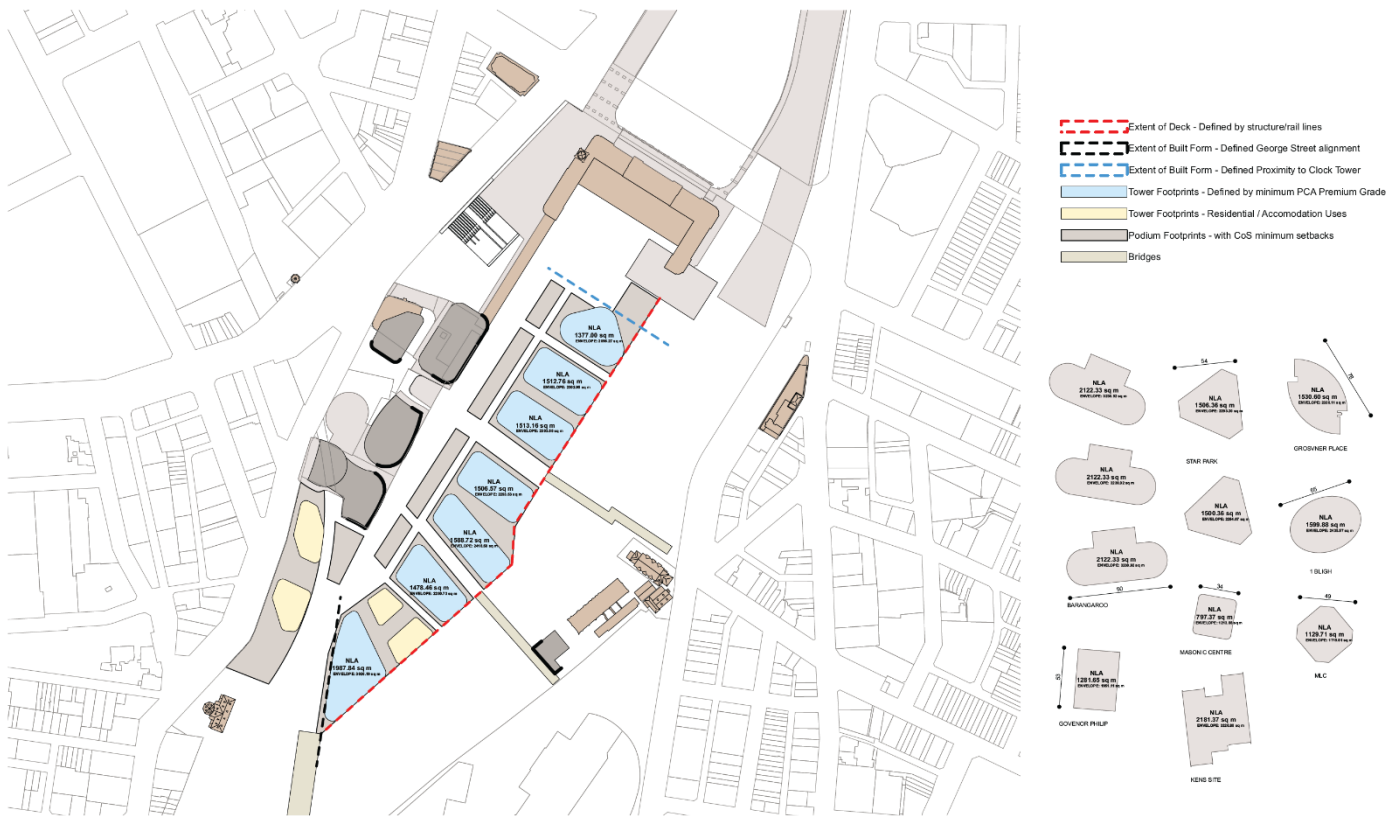
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This diagram overlays the 6-9 storey buildings to the eastern edge of Central Avenue.



This diagram illustrates how the deformation of the northern tower necessitates "shuffling" of the pure tower forms, and how it affects the southern towers with the following consequences: 8m street setbacks are reduced to 5m or 2.5m and 4m laneway setbacks are reduced to 3m.



This diagram illustrates the overlay of the steps shown above.

Excessive floor space and bulk

The City supports the aspiration of supporting jobs and business growth, providing new homes, and offering the cultural, creative and entertainment uses which bring a place to life, through the creation of floor space. This aspiration must be balanced with the need for high quality public space and amenity. The City reiterates its methodology for ensuring that the built form can be maximised without having undue impact on wind conditions, sunlight and sky view.

Excessive future building mass

The amount of floor space and density is excessive. The current reference scheme is overly bulky, with too many towers, too close together, resulting in significant visual impact, illustrated in Figure 6, and the deterioration of heritage item significance. Furthermore, the bulkiness of the built form has resulted in unacceptable wind conditions and lack of sunlight in public spaces.

Recommendation: Reduce the building bulk.

Building envelopes

The City notes that the street, block and building layout resembles the shortcomings at Barangaroo South, without the benefit of the foreshore promenade as shown in Figure 7. The majority of the proposal's active edges have been located with poor winter solar access. Building types are not suitable for entertainment, retail and cultural uses.

The City does not support the reduced upper level setbacks shown in the Design Guide. Building setbacks above street wall height must be determined by the appropriate amenity conditions in the adjacent public space, i.e., the wind comfort criteria, daylight and solar access benchmarks. It is noted that in the City, wind consultants have generally determined that a 6-8m setback above street wall height should be the minimum starting point. The Design Guide should set a minimum

control for 8m upper-level setbacks, with the opportunity for reduction in accordance with Schedule 12 of the Central Sydney DCP.

It is noted that the 3D model and CAD model supplied as part of the exhibition process are not building envelopes, rather a representation of the reference design possible within the building envelopes. This is misleading and is not a true representation of the scale of development possible under the proposed planning controls. In particular, the envelope for the Prince Alfred Park building is far larger than the reference scheme illustrated in Figure 5.

It is also noted that the building envelopes exhibited break the Sun Access Planes in several locations as shown in Figure 4. The building heights must be reduced, and the GFA re-calculated.

Figure 4. Exhibited reference design breaks the sun access plane

Source: City of Sydney analysis (TfNSW/TAHE reference design in red and proposed envelopes in blue)

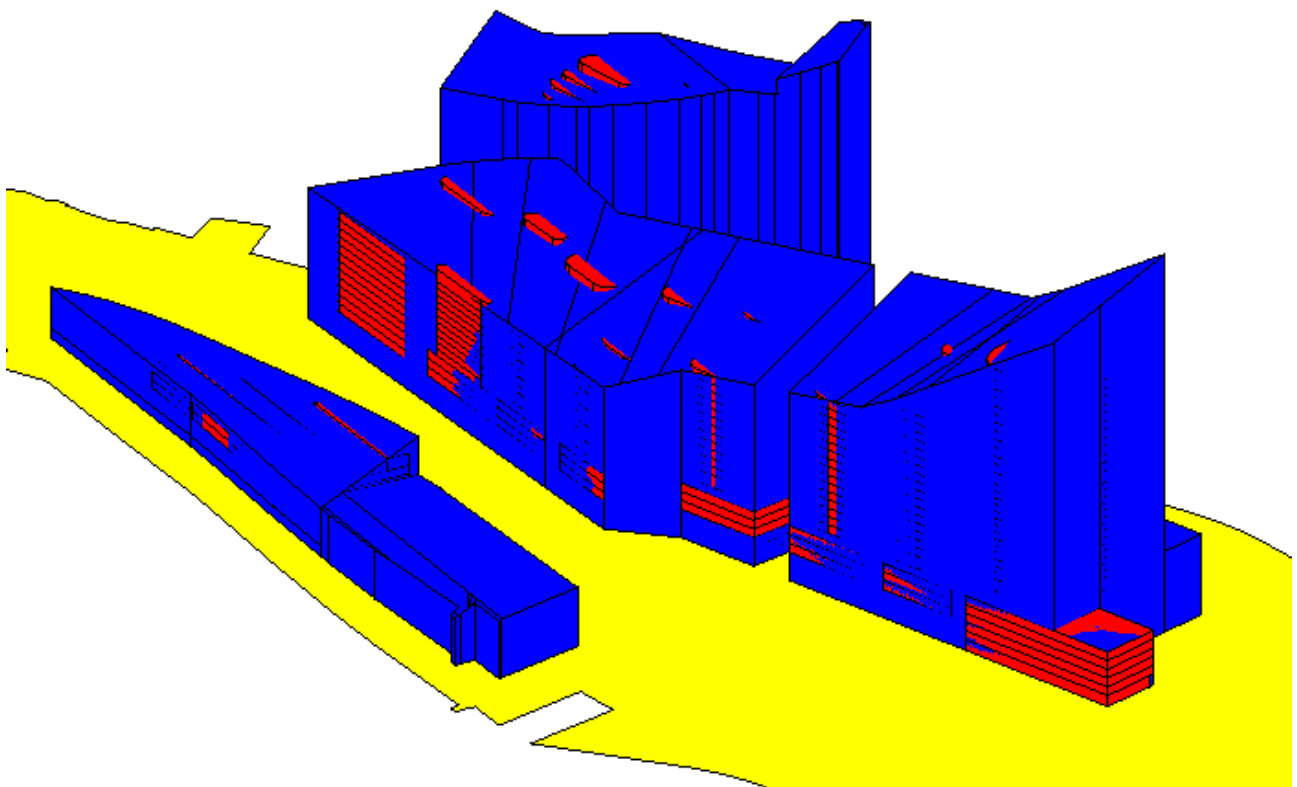


Figure 5. Proposed reference design

Source: Photograph, City of Sydney physical model, Town Hall House



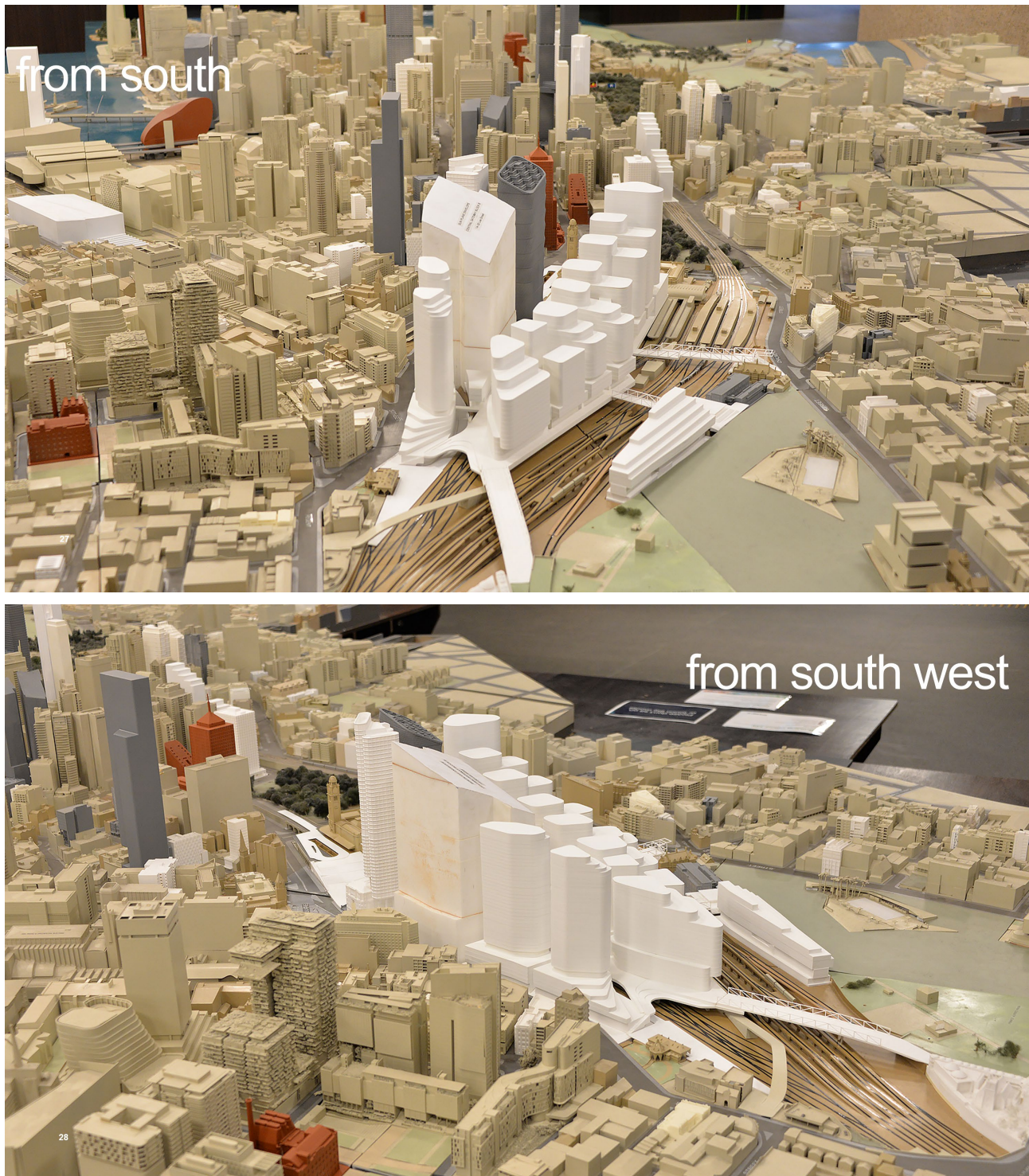
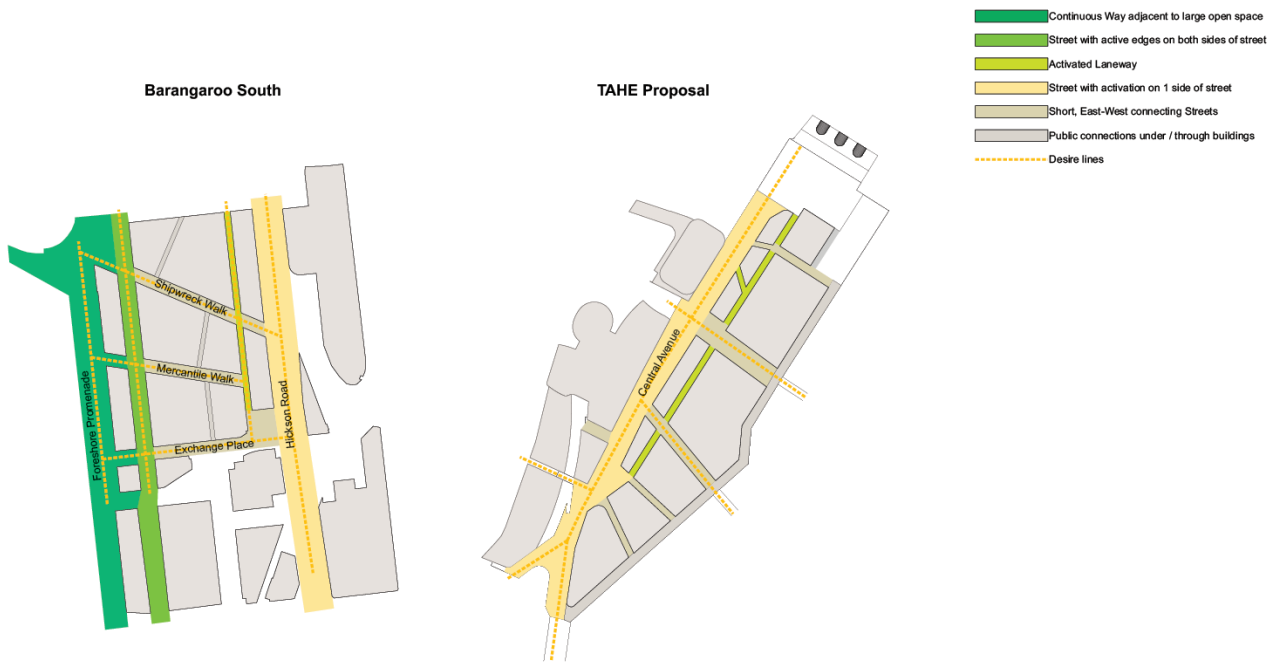


Figure 6. The blocks, streets and buildings resemble Barangaroo South

Source: City of Sydney analysis

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Barangaroo	Width	TfNSW/TAHE	Width
Hickson Road	30m	Central Avenue	15-24m
Shipwreck Walk, Mercantile Walk, Exchange Place		East-west connecting streets	
Publicly accessible links through T1, T2 and T3		Eastern colonnade	9m

Recommendation: Reconsider the street and public space structure and building envelopes from a first principles approach based on:

- better sunlight to public space on the OSD deck
- no unsafe wind areas in public spaces
- comfortable wind conditions for: sitting in all dwell spaces; walking (not business walking) in streets; and standing at building entrances
- more and better connections to surrounding streets and places that are legible and easy to navigate
- spaces that enable lively activity both day and night
- less buildings, further apart
- improvements to the main terminal access
- buildings are to be below the Sun Access Plane

Recommendation: Include a minimum control for 8m upper-level setbacks in the Design Guide, with the opportunity for reduction in accordance with Schedule 12 of the Central Sydney DCP.

Recommendation: Reduce the building heights under the Sun Access Plane.

Calculation of FSR and GFA

The City does not support the calculation of the GFA numbers in the exhibited documents.

1. There is no evidence that skyview and wind baseline standards have been met using the City's methodology for establishing a base case and
2. There are inaccuracies in the efficiencies applied to the GFA shown in the EIE and supporting studies.

Central Sydney Planning Strategy Base Case Methodology

The exhibited reference scheme has not proven it meets the equivalence metrics for sky view and wind, established by the Central Sydney Planning Strategy and in accordance with the methodology in Sydney DCP 2012 (DCP). This methodology is as follows:

1. Assume the proposed street and open space structure as per the exhibited scheme
2. Extrude the building envelopes, using the method outlined in the Central Sydney Development Control Plan for setbacks, this is the base case
3. Measure the sky view factor and wind impacts of the base case: this is the criteria that any modifications to the base case will be measured against
4. Demonstrate that the reference scheme maintains the minimum amenity standards set in 3 above
5. Calculate the GFA of the reference scheme to determine the FSR control, with correct application of the City's efficiencies

Meeting the metrics, through the above process, is essential for a safe, comfortable and inviting place and will likely result in reduced building envelopes and less GFA. This needs to be done prior to converting envelopes to GFA and FSR controls.

Correct calculation of the GFA of the reference scheme to inform the controls

The City's analysis has shown that, separate to the issues of wind and sky view factor baseline assumptions above, there are inaccuracies in the calculation of GFA in the exhibited scheme. The EIE allows 514,900sqm GFA in total, which is 449,900sqm GFA for Blocks A-E, excluding the Goulburn St carpark and the main terminal.

The City has applied the correct efficiencies and assumptions to each building's GFA figures as exhibited in the Urban Design Framework. The City's calculation shows that the envelopes for Blocks A-E can only accommodate a GFA 401,272sqm. **This analysis shows that the proposed GFA is not achievable.**

Figures 8 and 9 illustrate the methodology and the block-by-block calculation of GFA based on the correct application of the City's methodology.

This inflated GFA has then been used to calculate the FSR, which will determine the future density of the development, with implications for bulk and scale.

Once the envelopes and GFA are established through the City's methodology as described below, the GFA and associated FSR should be decreased by a further 10 per cent to enable an incentive for competitive design. This is discussed in the Design Excellence section below.

Figure 7. Calculation methodology used to measure the proposed envelopes using the City of Sydney methodology

Source: City of Sydney analysis

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Note: This measurement analysis assumes that the proposed envelopes have met all criteria / tests under Schedule 12 of the City of Sydney DCP - Procedure B for SVF/Daylight and Wind equivalency.

Step 01 Maximum Envelope

The envelope used (assuming it has met all equivalency tests under Schedule 12) has been supplied in the 24.08.2022 transmission of model.

Step 02 Gross Envelope Area - GEA

The assumed compliant envelopes are divided into floor plates at nominated rates under Attachment G1.

In this case the model transmission has already divided the envelopes into floor plates with the following departures from the City of Sydney G1 standard:

Use	G1 - Standard	TAHE Model
Ground Floor / Retail / Lobby	5.0m	5.0m
First Floor	5.0m	4.0m
Commercial Tower	3.8m	3.8m
Commercial Podium	3.8m	4.0m
Hotel	3.3m	3.1m
Plant	6.0m	5.5m
Residential	*3.2m	3.1m

For the purpose of this study the the TAHE floor to floor heights and Floor Uses were taken directly from the model as received. No testing has been carried out to determine if the TAHE departures were rectified - if the envelope model would further breach the SAP?

Note: * Defines ADG best practice to achieve required ceiling height + DBP Act waterproofing standards

Step 03 Gross Building Area - GBA

The GEA is multiplied down by an "Architectural Articulation" percentage defined in G1 based upon the height of the building:

A minimum proportion of the entire design envelope for architectural articulation and external façade depth and external sun shading (not occupied by floor space) of 8.0% plus 0.5% for each 10metres in height above 120m up to a maximum value to 16% articulation.

Note: the proportion (percentage) is established according to the maximum building height, this proportion is then applied to the whole envelope.

- 120 metres – 8%
- 160 metres – 10%
- 200 metres – 12%
- 240 metres – 14%
- 280 metres – 16%

Step 04 Gross Floor Area - GFA

The GBA is multiplied down by an efficiency ratio based on removing the elements of the Core that do not count as GFA.

As outlined in Attachment G1 the City of Sydney requires:

Minimum 16% floor space exclusions associated with the core.

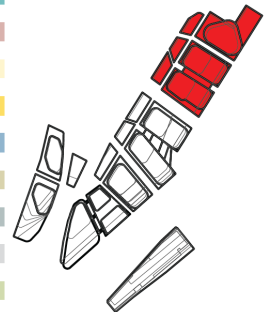
Due to the mixed use nature of the buildings

Figure 8. Analysis of the TfNSW/TAHE GFA shows total of 401,272sqm is achievable within exhibited envelopes, not 449,900sqm (excluding Goulburn St carpark and Main Terminal)

Source: City of Sydney analysis

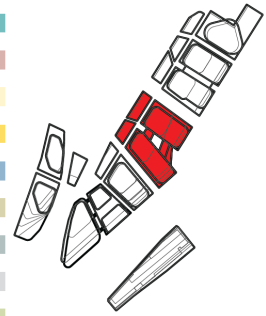
OSD Block A

	GROSS ENVELOPE AREA GEA	EFFICIENCY GEA-GBA	GROSS BUILDING AREA GBA	EFFICIENCY GBA-GFA	GROSS FLOOR AREA GFA
Commercial	126,867 sqm	90.00%	114,180 sqm	84.00%	95,912 sqm
Retail	10,225 sqm	90.00%	9,203 sqm	75.00%	6,902 sqm
Hotel	55,116 sqm	90.00%	49,604 sqm	84.00%	41,668 sqm
Student Accom	0 sqm	90.00%	0 sqm	75.00%	0 sqm
Residential	0 sqm	90.00%	0 sqm	75.00%	0 sqm
Cultural / Sports	4,327 sqm	90.00%	3,894 sqm	75.00%	2,921 sqm
Education	0 sqm	90.00%	0 sqm	84.00%	0 sqm
Transport	0 sqm	90.00%	0 sqm	0.00%	0 sqm
Plant	9,677 sqm	90.00%	8,710 sqm	0.00%	0 sqm
Plant - Central	8,012 sqm	90.00%	7,211 sqm	0.00%	0 sqm
Totals	214,225 sqm		192,802 sqm		147,402 sqm
				TAHE UDF	165,400 sqm
				Difference	-17,998 sqm
					-10.88%



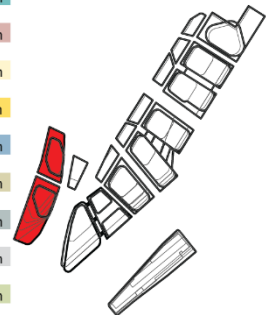
OSD Block B

	GROSS ENVELOPE AREA GEA	EFFICIENCY GEA-GBA	GROSS BUILDING AREA GBA	EFFICIENCY GBA-GFA	GROSS FLOOR AREA GFA
Commercial	88,876 sqm	92.00%	81,765 sqm	84.00%	68,683 sqm
Retail	6,507 sqm	92.00%	5,986 sqm	75.00%	4,490 sqm
Hotel	4,188 sqm	92.00%	3,853 sqm	84.00%	3,236 sqm
Student Accom	5,084 sqm	92.00%	4,677 sqm	75.00%	3,508 sqm
Residential	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Cultural / Sports	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Education	0 sqm	92.00%	0 sqm	84.00%	0 sqm
Transport	0 sqm	92.00%	0 sqm	0.00%	0 sqm
Plant	3,355 sqm	92.00%	3,087 sqm	0.00%	0 sqm
Plant - Central	7,160 sqm	92.00%	6,587 sqm	0.00%	0 sqm
Totals	115,169 sqm		105,955 sqm		79,917 sqm
				TAHE UDF	88,900 sqm
				Difference	-8,983 sqm
					-10.10%



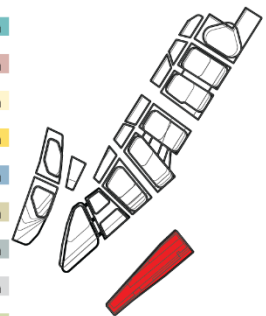
OSD Block D

	GROSS ENVELOPE AREA GEA	EFFICIENCY GEA-GBA	GROSS BUILDING AREA GBA	EFFICIENCY GBA-GFA	GROSS FLOOR AREA GFA
Commercial	18,255 sqm	91.00%	16,612 sqm	84.00%	13,954 sqm
Retail	0 sqm	91.00%	0 sqm	75.00%	0 sqm
Hotel	0 sqm	91.00%	0 sqm	84.00%	0 sqm
Student Accom	0 sqm	91.00%	0 sqm	75.00%	0 sqm
Residential	65,475 sqm	91.00%	59,583 sqm	75.00%	44,687 sqm
Cultural / Sports	0 sqm	91.00%	0 sqm	75.00%	0 sqm
Education	0 sqm	91.00%	0 sqm	84.00%	0 sqm
Transport	10,565 sqm	91.00%	9,614 sqm	0.00%	0 sqm
Plant	3,345 sqm	91.00%	3,044 sqm	0.00%	0 sqm
Plant - Central	0 sqm	91.00%	0 sqm	0.00%	0 sqm
Totals	97,639 sqm		88,852 sqm		58,641 sqm
				TAHE UDF	65,000 sqm
				Difference	-6,359 sqm
					-9.78%



OSD Block E

	GROSS ENVELOPE AREA GEA	EFFICIENCY GEA-GBA	GROSS BUILDING AREA GBA	EFFICIENCY GBA-GFA	GROSS FLOOR AREA GFA
Commercial	24,616 sqm	92.00%	22,646 sqm	84.00%	19,023 sqm
Retail	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Hotel	0 sqm	92.00%	0 sqm	84.00%	0 sqm
Student Accom	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Residential	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Cultural / Sports	0 sqm	92.00%	0 sqm	75.00%	0 sqm
Education	0 sqm	92.00%	0 sqm	84.00%	0 sqm
Transport	0 sqm	92.00%	0 sqm	0.00%	0 sqm
Plant	4,643 sqm	92.00%	4,271 sqm	0.00%	0 sqm
Plant - Central	0 sqm	92.00%	0 sqm	0.00%	0 sqm
Totals	29,258 sqm		26,918 sqm		19,023 sqm
				TAHE UDF	20,900 sqm
				Difference	-1,877 sqm
					-8.98%



Recommendation: Determine the base case wind and sky view factor controls for the area, using the City's methodology established in the Central Sydney Planning Strategy and Sydney DCP 2012. Use this base case to inform the minimum wind and SVF conditions acceptable for development.

Recommendation: Measure the GFA and FSR correctly, using the City's assumptions and methodology.

Recommendation: Once the GFA and FSR have been calculated correctly, further reduce the FSR by 10% to enable design excellence.

Housing for all is needed here

The proposals include approximately 84,900 square metres of residential GFA, equivalent to approximately 850 homes, 15 per cent of which are to be provided as affordable housing. The City acknowledges this improved commitment to providing affordable housing.

Affordable housing

The Greater Cities Commission's Camperdown-Ultimo Collaboration Area Place Strategy stressed the need for affordable housing for the community, students, creative workers and key workers (particularly in the health and education sectors) to support the aspirations for the innovation area. Affordable housing is also needed to realise the NSW Government's target for 25,000 new students in the areas of STEM and life sciences in the precinct.

The proposal does not meet the City's target for a minimum of 25 per cent affordable rental housing in perpetuity on a State Significant Site in accordance with Priority L3 of the City's Local Strategic Planning Statement. Currently, the proposal is for 15 per cent affordable (including social) housing which should be further increased by 10 per cent due to the location and nature of the proposed uses. In order to ensure long term affordability, the planning framework should also stipulate that the affordable housing is dedicated in perpetuity to a Community Housing Provider.

In addition, the planning framework should include a requirement for 15 per cent diverse housing for student housing, aging in place, accessible housing, co-living and mixed tenure housing to accommodate creative/live work opportunities. Build-to-Rent is generally a premium market product with rents that normally exceed market rents and therefore should not be included within the diverse housing.

The affordable housing should be the subject of a planning agreement to deliver housing on-site, or otherwise a contribution should be paid in accordance with the City of Sydney affordable housing program.

Recommendation: Include in the planning controls a requirement for at least 25 per cent on site affordable rental housing and in addition 15 per cent diverse housing for student housing, co-living, aging in the place, accessible and mixed tenure housing (preferably excluding Build-to-Rent if it is at a market rent premium) to accommodate a diversity of people. The planning framework should also stipulate that the affordable housing is dedicated in perpetuity to a Community Housing Provider.

Absence of provision for Aboriginal Housing

The proposal for NSW Government-led housing development on Gadigal land in the Aboriginal Redfern area do not include a commitment to provide for a minimum of 10 per cent of the total residential GFA for culturally appropriate Aboriginal and Torres Strait Islander affordable housing to prevent their displacement from the area. The absence of this commitment is inconsistent with the objectives of applying Connecting with Country principles for the Central Precinct. It is not sufficient or appropriate for the provision of housing to be addressed in the future tenancing of residential buildings on the site, because this provides no certainty to the City or its community that this will be provided in individual development proposals.

The design guide is to address the provision of Aboriginal housing, similar to the Design Guides prepared for NSW Government sites at Waterloo Estate (South) and 600-660 Elizabeth Street, Redfern. Firm commitments and implementation plans must be established alongside the planning controls and the affordable housing requirement for the entire site.

Recommendation: Firm commitments and implementation plans for the provision of at least 10 per cent of the affordable housing provision for culturally appropriate Aboriginal and Torres Strait Islander affordable housing must be established alongside the planning controls and the affordable housing requirement for the entire site.

It is not illegal to be homeless in NSW

As the first point of arrival to the city for many people, Central Station has a strong historical and ongoing relevance for people sleeping rough and holds cultural significance for our First Nation rough sleepers. The proposal does not mention homeless people or rough sleepers, nor how the public space will be managed. The City would advise that the design and management of the Central precinct considers these factors, including the NSW Protocol for Homelessness People in Public Spaces (NSW 2022) and that the needs and rights of rough sleepers are considered in the design and ongoing management in construction and occupation phases.

Recommendation: Respect the rights and needs of rough sleepers in the design, service provision and management of the Precinct, referring to the NSW Protocol for Homelessness People in Public Spaces (NSW 2022).

Housing near rail infrastructure

The inclusion of residential uses on the OSD deck has the potential to create poor quality living environments given the noise and vibration from the rail lines below. The inclusion of residential uses may also conflict with ambitions for a 24-hour precinct.

The NSW Government's document 'Development Near Rail Corridors and Busy Roads Interim Guidelines 2008' provides clear strategic planning advice:

As part of taking a strategic planning approach, noise and air quality issues should be considered at the strategic level to avoid or minimise the need to address them at the site-specific stage. For example, site selection and consideration of site layout and urban form can assist in reducing adverse health impacts from motor vehicle emissions. Similarly considering traffic noise issues upfront at the site selection and design stage is essential for residential, hospitals, childcare centres, schools, places of worship and other sensitive development.

This advice is not referenced or discussed in any of the relevant documentation of the study. The opportunity at the strategic planning stage is to locate sensitive uses like residential development away from the noise source.

Recommendation: Consider *Development Near Rail Corridors and Busy Roads Interim Guidelines 2008* and set out how noise and vibration will be mitigated for sensitive uses like residential.

Section 8.1 of the Design Guide indicates that residential would be limited to the Regent Sidings Sub-Precinct, except for Built-to-Rent and Student Accommodation which may be provided on the in the southern OSD sub-precinct if several conditions are met. While the City is supportive in general of creating places with a rich mix of uses, strata ownership on the deck would pose a threat to the on-going governance and operations of the state significant infrastructure. While housing tenures such as build-to-rent may avoid strata ownership in the short term, there is no planning mechanism to prevent its conversion in the future. Therefore, in order to safeguard the future rail operations, all residential should be limited to the Regent Street Sidings.

Recommendation: Remove guidance point 8.1(4) from the Design Guide and limit all residential to the Regent Sidings Sub-Precinct, with no exceptions.

Quality public spaces around and affected by the development

The City recommends better consideration of improvements required to public spaces surrounding the development including Prince Alfred Park, Central Square (Railway Square), Broadway, St Paul's Place (Regent St and Cleveland St intersection), and Belmore Park. The following sections provide detailed commentary.

Central Square (Third Square)

A significant public place at Central has been on the City's agenda since Jan Gehl's work in 2007. Gehl identified an opportunity to create and connect significant city spaces at Circular Quay, Town Hall and Central Station along the George Street spine. The vision in Sustainable Sydney 2030-2050: Continuing the Vision is to unite the wider precinct with continuous tree canopies to create a green identity and improve amenity, strengthen connections between urban spaces, streets and Belmore Park and reinforce the precinct's green and urban characteristics.

The City understands that there is a need for open space to support the uses proposed on the OSD and broader community recreation needs. The Greater Cities Commission has specifically identified the need for outdoor social/ collaboration spaces to support the tech and innovation talent the precinct is aiming to attract.

The square, at grade with Pitt Street, will serve a different function, connected seamlessly into the network of city streets and neighbourhoods.

The Council endorsed a series of structuring principles in September 2020 which specifically identified the need to maximise the square adjacent to Pitt Street and Broadway to enable a flexible space suitable for activity 24 hours per day, while supporting the City's environmental objectives of being cool and green, and creating high-amenity spaces. Transport should continue to work closely with the City to progress the design of this important place.

The City has identified the demand for this activity, given Hyde Park and Martin Place are already at capacity, and Belmore Park and Prince Alfred Park are also already heavily used.

The City supports the inclusion of the Pitt Street component of Central Square as part of this rezoning and notes the following:

- Central Square must be considered as a whole with Railway Square and the upper square at the station entry, RL21 or thereabouts, providing an important future connection to Belmore Park
- The City does not support the provision of walkway link in the form illustrated, linking the main concourse at RL21 to the Atlassian building. This would detrimentally impact on the view of the heritage station building, encroach into the usable space of the square and result in unacceptably deep colonnades. The City's recommendation remains that leading people to city streets and spaces at grade is the priority, minimising the need for grade separation. The dog-leg at the southern end of the RL21 link, where it interfaces with Atlassian, only exacerbates the detrimental impact and must be reconfigured.
- Traffic on Lee Street must be reduced to a minimum with low speeds and connected only to the south.
- A contraflow bus lane on Regent Street (Broadway to Lee St) is needed to move bus stops to Broadway.

Submission to Central Precinct rezoning proposal

- The circulation and resting space in the lower square are not clearly defined and this will likely result in its primary function to be as circulation space.
- The allocation of space for the active movement of people could be consolidated.
- Preserving the area under the inclined section for future activation to the square is recommended instead of a water retention/reuse location.
- The City supports the provision of trees in the square, given the significant existing deep soil south of the Bondi Sewer, but recommends more tree planting. Civic spaces and iconic parks have a target of 50% canopy cover in the City's policy. Tree alignment should be revisited to better frame and organise open space sequencing. For example, tree planting could extend east to the entrance of Central Walk West (CWW).
- The shape and pattern of trees should frame and organise open space sequences and be informed by likely pedestrian movements. It is noted that the City's design illustrated in Sustainable Sydney 2030-2050 enables the double programming of circulation and activity space and enables a path of movement either through the trees or through the open space adjacent.
- It is unclear what the intention is for retention of the significant heritage stone wall adjacent to Pitt Street.
- The City supports upgrades to intersections identified in the proposed mitigation measures mechanisms
- The location of the pedestrian crossing at the intersection of Broadway, George, Pitt and Quay Streets requires input from a transport planner and should inform the layout of the trees.
- There is an opportunity for public art in Central Square to act not only as an urban marker, but also to reflect the spirit of the space and its broader context (Railway Square, and the intersection of Broadway, George, Lee, Pitt, and Quay streets) as nexus and urban crossroads at the southern end of the city centre and at the centre of the Tech Central initiative.
- Further investigation is required on the integration of The Goods Line into Railway Square, potentially open to the sky and with a vertical connection suitable for people of all abilities
- The Third Square (referred to as Central Square) includes the forecourt to the Station (TAHE land), Lee Street (TfNSW land) and Railway Square (City land). Given the dual occupancy, TfNSW/TAHE should consider this as a separate design excellence process, run jointly by TfNSW/TAHE and the City. It could be managed by the City or jointly managed with TfNSW/TAHE.
- The Design Guide for public space and open space should include the City's strategic plans/policies and codes, such as its Sydney Street Codes, furniture palette, standard public space technical details, Legible Sydney Design Manual, City Art Strategy and City Centre Public Art Plan to ensure consistency and continuity across the precinct's public space and its integration into the City's public space fabric.
- All planning for publicly accessible places should make reference to ensuring universal access.
- The City does not support the proposed Codes SEPP amendments to enable temporary events in the public space without the need to obtain a development consent (pp 65-66). The City will not be able to guarantee appropriate governance of public spaces, and it runs the risk of public space being colonised by businesses.
- There should be no vehicle access to the basement on Pitt Street

Recommendation: Revise the proposal including the following:

- Consider Central Square as a whole with Railway Square and the upper square at the station entry, RL21, providing an important future connection to Belmore Park

- Remove the terrace connection in the form illustrated, linking the main concourse at RL21 to the Atlassian building.
- Prioritise the movement of people at grade with the streets and not in tunnels or on bridges.
- Prioritise the leading of people to city streets and spaces at grade
- Reduce traffic on Lee Street to a minimum with low speeds and connected only to the south.
- Include a contraflow bus lane on Regent Street (Broadway to Lee St)
- Provide better definition of the circulation and resting space in the lower square are not clearly defined and this will likely result in its primary function to be as circulation space.
- Consolidate the allocation of space for the active movement of people
- Preserve the area under the inclined section for future activation to the square instead of a water retention/reuse location.
- Prove more trees in the Square in accordance with the City's policy
- Revisit tree alignment to better frame and organise open space sequencing. For example, tree planting could extend east to the entrance of Central Walk West (CWW).
- Consider the shape and pattern of trees to frame and organise open space sequences to be informed by likely pedestrian movements.
- Clarify the intention for the removal of the significant heritage stone wall adjacent to Pitt Street.
- Provide detail on the upgrade of the intersections identified in the proposed mitigation measures mechanisms including the location of the pedestrian crossing at the intersection of Broadway, George, Pitt and Quay Streets requires
- Use public art in Central Square to act not only as an urban marker, but also to reflect the spirit of the space and its broader context (Railway Square, and the intersection of Broadway, George, Lee, Pitt, and Quay streets) as nexus and urban crossroads at the southern end of the city centre and at the centre of the Tech Central initiative.
- Provide further detail on the integration of The Goods Line into Railway Square, potentially open to the sky and with a vertical connection suitable for people of all abilities
- Engage with the City on the design excellence strategies (precinct and place specific) for delivery of the square, given the dual ownership as: the forecourt to the Station (TAHE land), Lee Street (TfNSW land) and Railway Square (City land). Consider this as a separate design excellence process, run jointly by TfNSW/TAHE and the City. It could be managed by the City or jointly managed with TfNSW/TAHE.
- Include the City's strategic plans/ policies and codes in the Design Guide
- All planning for publicly accessible places should make reference to ensuring universal access.
- The City does not support the proposed Codes SEPP amendments to enable temporary events in the public space without the need to obtain a development consent (pp 65-66). The City will not be able to guarantee appropriate governance of public spaces, and it runs the risk of public space being colonised by businesses.
- There should be no vehicle access to the basement on Pitt Street

Interface with Prince Alfred Park

The City supports the principle of building adjacent to Prince Alfred Park with the following recommendations:

- The City does not support zero setback to the park above ground floor of the Prince Alfred Sidings building.
- A 3m setback and pedestrian path should be introduced between the Prince Alfred Park boundary and the Sidings building to provide an address, circulation to and from the building, resolve level differences, and appropriate separation to the active recreation facilities in the park.
- Ensure no impact from the upper level of the Prince Alfred Sidings on the existing trees in Prince Alfred Park.
- The City does not support the removal of existing sports courts in Prince Alfred Park. Consultation must be undertaken with the City in relation to this issue.
- The ground floor of the Prince Alfred Sidings building is disconnected from the park due to level changes. Consideration should be given to how the Prince Alfred Sidings building will present to Prince Alfred Park including the relationship of the colonnade to the park level, noting of the level change running north to south, the need to avoid stairs and retaining walls, the existing tennis courts and pedestrian paths.
- Consideration should be given to the character of the bridges over the railway tracks. It is noted that the origin and destination of these bridges are important, but the bridges are exposed to the elements and should provide activity with small footprint active uses, be safe and of high amenity. They should not be 100m long suspension bridges.
- Pedestrian modelling is required to support the bridge connections between the OSD and Prince Alfred Park, and to justify any modifications required to paths within the park.
- It is noted that TfNSW/TAHE confirmed that servicing to the Prince Alfred Sidings building will be from behind the Railway Institute building and no trenching would be required. Trenching of Prince Alfred Park for services between Cleveland Street and Chalmers Street is unacceptable.
- All planning for publicly accessible places must ensure universal access.
- Prince Alfred Park Sidings basement should have minimal parking and sufficient servicing spaces.
- The City notes that the envelope for the proposed Prince Alfred Park building is much larger than building form shown in the reference scheme. More clarity is needed about the proposed form.

Recommendation: Revise the proposal based on the above points.

Interface with the Main Terminal building

The City does not support the stairs connecting the OSD deck to the Main terminal at RL 21. The stairs are overstated and further darken the platforms. The City recommends redesigning this space to include a new public space for the station, open to the sky, between the platforms, the main hall and the new metro hall. The redesign must include strong visual connection between the intercity platforms and trains, and the main hall to retain the heritage significance of the place.

Figure 9. Connection between OSD deck and Main Terminal

Source: Adapted from TfNSW/TAHE exhibited technical documents 2022



Recommendation: Redesign the stairs from the main terminal to the OSD to preserve the heritage significance of the visual connection between the platforms and the main hall and include a new public space for the station open to the sky.

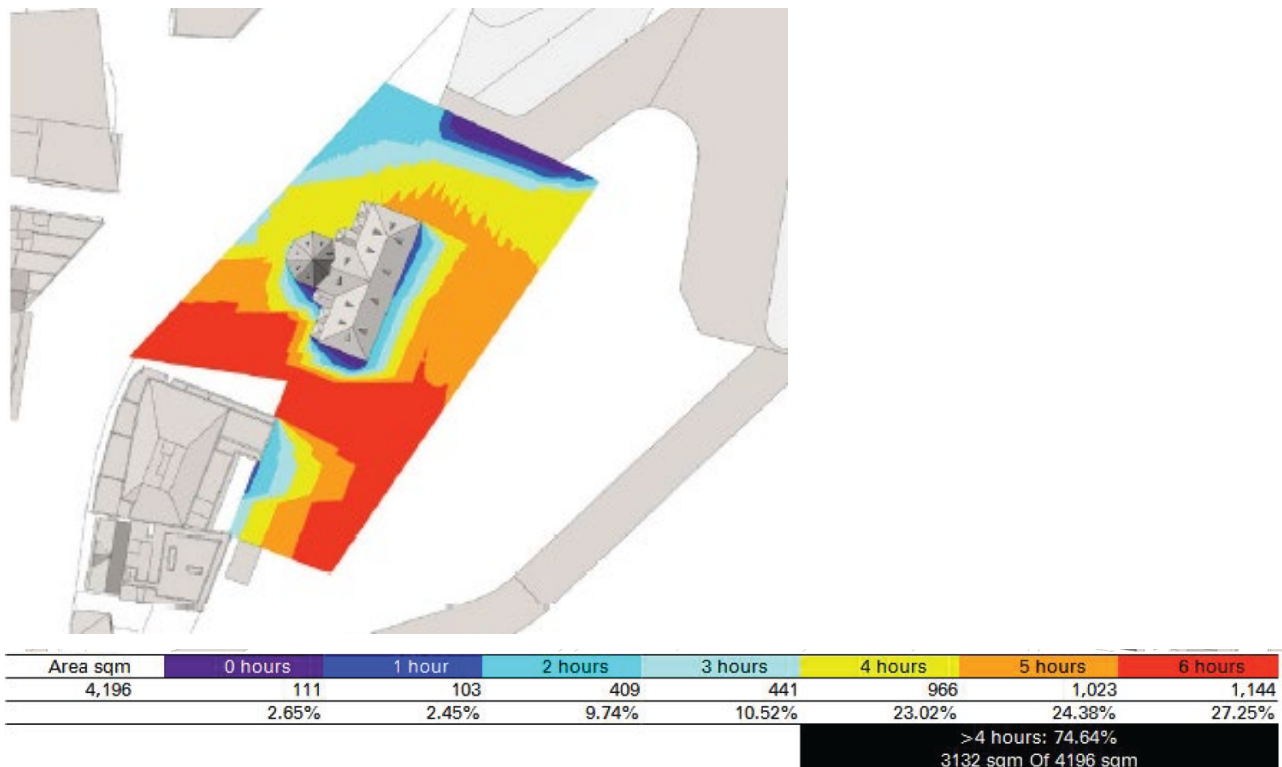
Mortuary Station Plaza

The City supports the revitalisation of the space around Mortuary Station with the following notes:

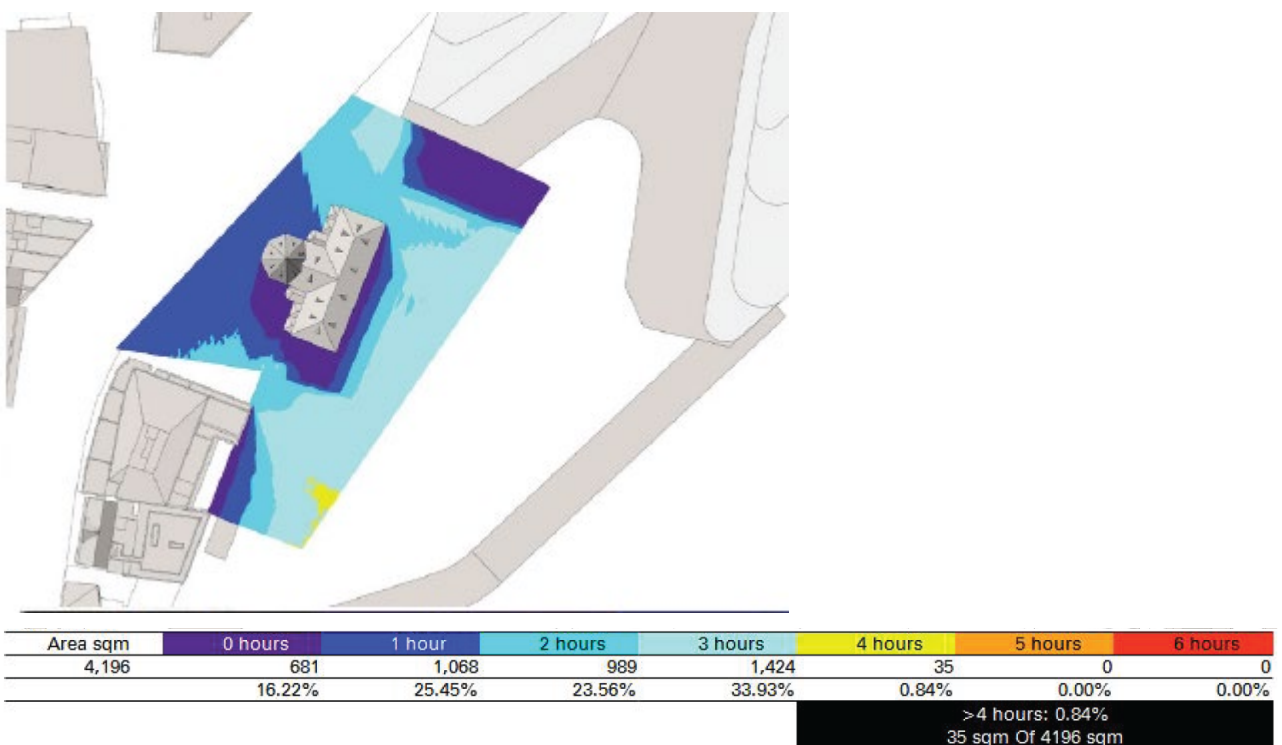
- access from the OSD to the Mortuary station Plaza is awkward
- there is insufficient sunlight for significant tree growth as shown in Figure 10
- the design must accommodate heritage trains into the future.

Figure 10. Sunlight to Mortuary Station Plaza

Source: City of Sydney analysis



74% of public space receives >4hours of sun at the Equinox (March/ September)



0.84% of public space receives >4 hours of sun at the Solstice (June)

Recommendation: Revise the proposal for Mortuary Station Plaza to improve access, ensure sunlight for tree growth and accommodate heritage trains.

Overshadowing of neighbouring residential

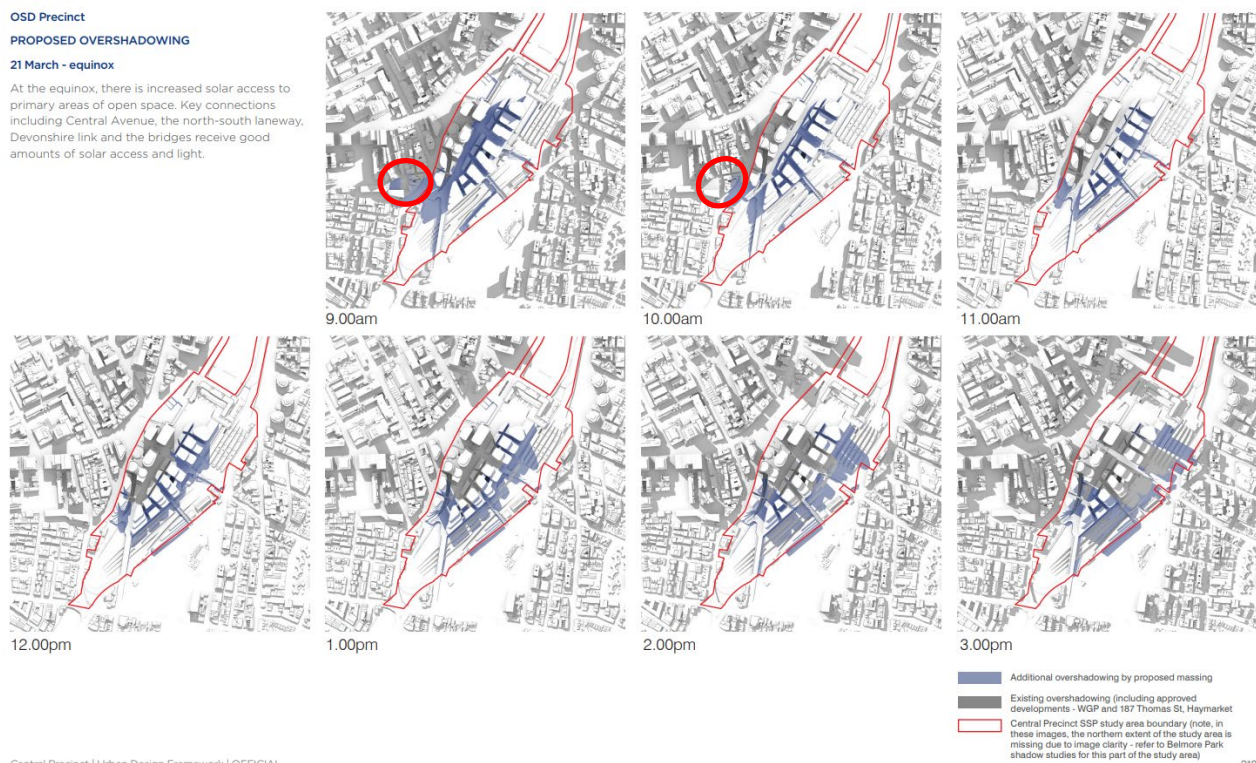
The City is concerned with the overshadowing of residential uses adjacent to and affected by the proposed development as shown in Figure 11 below. This includes, in particular, the area of Chippendale bound by Regent, Meagher, Balfour and O'Connor Streets.

Figure 11. Overshadowing of adjacent residential uses

Source: Adapted from TfNSW/TAHE exhibited technical documents 2022



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Overshadowing analysis

OSD Precinct

PROPOSED OVERSHADOWING

22 December - summer solstice

Within summer, the proposed development, including the planned Western Gateway development provide areas of shade and cooling to various areas of the public domain, particularly along Central Avenue, the north-south lane and east-west links. Within the primary areas of open space, generous canopy cover and planting is required to provide necessary cooling and comfortable places for people to dwell.



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Recommendation: Provide a detailed analysis of the impact of the proposed development on all affected adjacent properties as per SEPP65 ADG.

Recommendation: Consider improvements to St Paul's Place (Regent St and Cleveland St intersection).

Quality public spaces on the OSD deck

The City supports the intent of the development, to provide 15 per cent publicly accessible open space. The following issues need to be addressed to improve quality of the open space and ensure it is attractive and fit for purpose:

- New South Wales Premier's priority for Greener Public Spaces recognises that *quality green, open and public spaces are important to everyone*. The poor urban design of the Central Precinct SSP shows that the intent of the Premier's priority for greener public spaces is not met given the unacceptable wind environments, and streets and parks that receive insufficient sunlight.
- The City supports the aim of excluding any exhausts or emergency access egress within the public space on the OSD deck. The City understands that this may mean that only electric trains can be used under the deck. Further information is required on this issue once consultation has been undertaken with Sydney Trains and Heritage, including what intercity and heritage rail services will be impacted.
- It is unclear whether all the laneways (north south and east west) are open to the sky and truly public space.
- The Design Guide for public space and open space should include the City's strategic plans/policies and codes, such as its Sydney Street Codes, furniture palette, standard public domain

technical details, Legible Sydney Design Manual, City Art Strategy and City Centre Public Art Plan to ensure consistency and continuity across the precinct's public space and its integration into the City's public space fabric.

- All planning for publicly accessible places must ensure universal access.
- Vertical transportation from the tracks to the OSD deck must be located within built form and not in the public space.
- The City does not support the Codes SEPP proposed amendments to enable temporary events in the public space without the need to obtain a development consent (pp 65-66). If the Codes SEPP is the pathway, the City will be unable to guarantee appropriate governance of public spaces and run the risk of public space being colonised by businesses.

Recommendation: Revise the proposal based on the above points

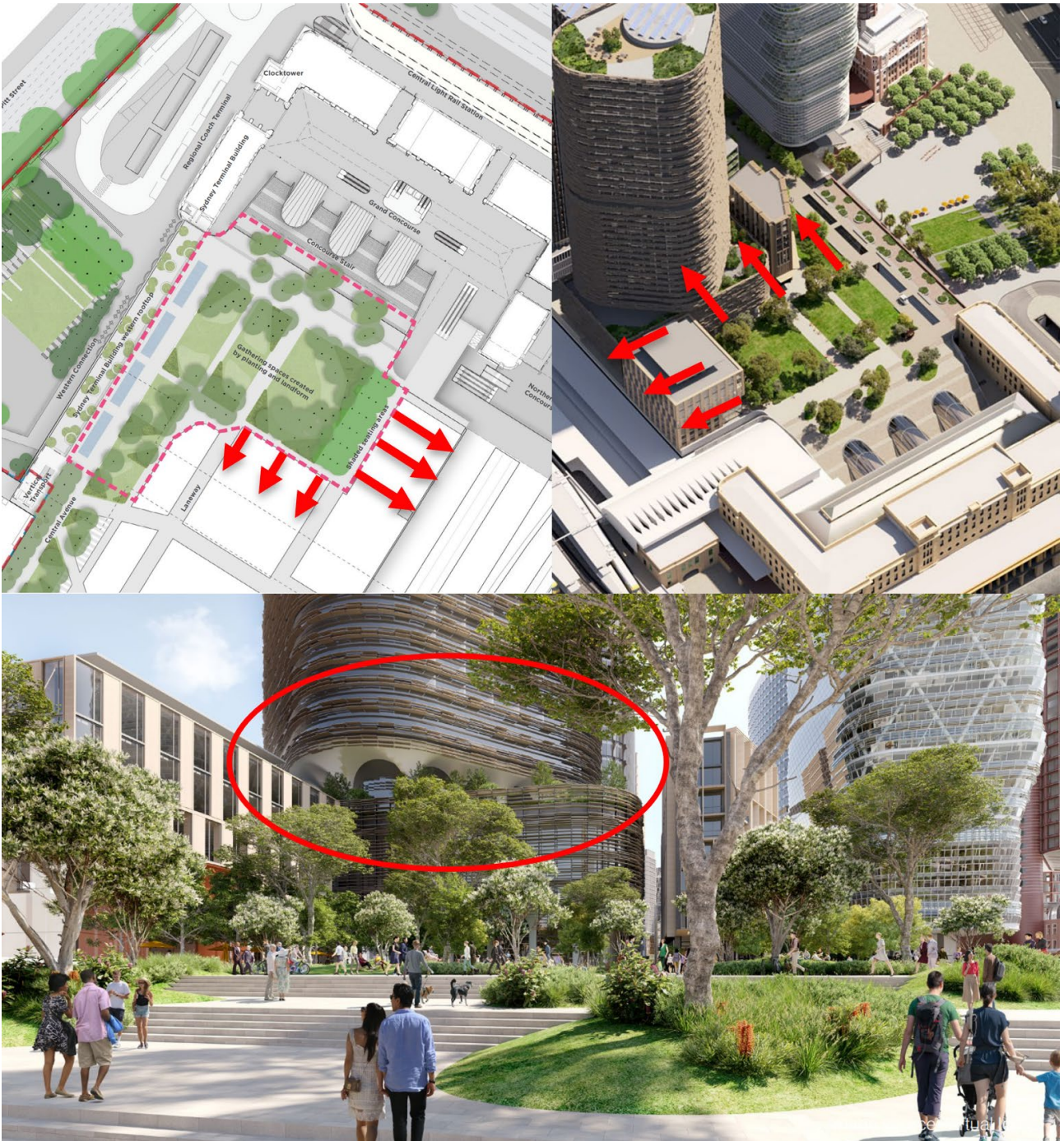
Central Green

The City supports the provision of a green space on the OSD deck to serve the workers with planning control to ensure solar access is provided in accordance with the City's controls for public parks. The City recommends consideration of the following:

- the eastern and southern alignment of central green are poorly defined
- the park requires a street frontage to the south to separate ground floor uses from Central Green and provide for outdoor dining, building entry and the like.
- Enlarging the park to extend across the entire front of the main station by removing the building to the east of the Central Green.
- any overhang of towers fronting the park is unacceptable and must be removed.
- the planting scheme, 'evapotranspiration' appears unrealistic
- wind conditions are unacceptable for sitting in most of the space.

Figure 12. Alignment of Central Green

Source: City of Sydney analysis and TfNSW/TAHE exhibited technical documents 2022



Recommendation: Define the eastern and southern alignment of central green by:

- Providing a street frontage to the south
- Extending the park across the entire front of the main station by removing the building to the east
- Removing all overhanging towers fronting the park
- Ensuring wind conditions are acceptable for sitting for the majority of the space

Circulation and legibility

The City supports the key aims to reconnect Redfern to the City and Harbour, and to reconnect east and west. The proposed street layout does not achieve these aims and results in poor and convoluted access and circulation without destination or purpose.

Visual connection to the broader street network is critical to anchoring pedestrians in place. Without street vista continuity from the deck, separation created by the significant level change on the OSD deck will only be exacerbated.

Level changes from Regent Street up onto the OSD deck are significant, slope is steep and stair widths are mean which will result in poor inhospitable public space outcomes. These connections need significant design consideration and guidance including slope, width, landings etc.

There is only one clear connection through the proposal, aligned with Devonshire Street at the eastern end, and a very poor connection, wedged between the Atlassian and Dexu Frasers buildings in the Western Gateway to the west, requiring significant canopies to mitigate the dangerous wind conditions.

There is no clear connection from George Street Redfern to the western side of the development. At least one other new connection from George Street Redfern to Regent Street is required including a high-quality, regional cycling connection across the railway line between George Street (Redfern) and Lee Street and a connection for people cycling from the OSD deck to the Goods Line.

Cycle access is convoluted and unresolved. Confirmation is required as to the feasibility of using the Devonshire Street tunnel as a bike connection. All local streets on the OSD deck should be designed to accommodate people cycling.

The George St south bridge connection must be designed primarily for people walking and cycling. Basement design must incorporate secondary access for resilience.

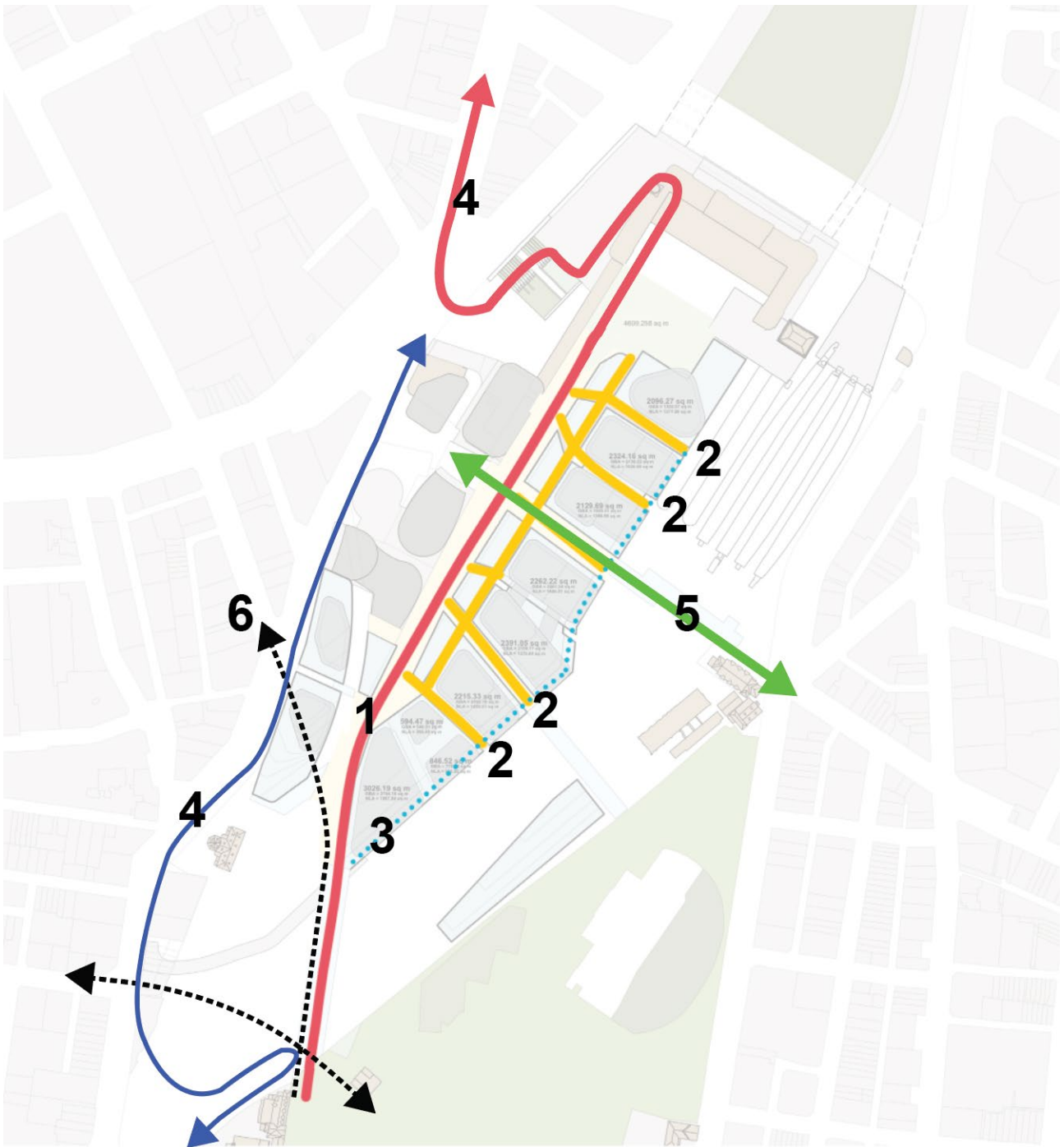
Central Avenue is described as 24 metres in width, but it is less for most of its length. It is too narrow and requires a three point turn for emergency vehicles. Issues with transport circulation are detailed further in the appendix of this submission.

The City recommends reconsideration of the following, illustrated in Figure 14 below:

- Central Ave is too narrow for all parts < 24m (1)
- The east-west streets and lanes lead to dead ends and the lanes are too narrow at 6m (2)
- The eastern arcade has very poor amenity (3)
- The proposed north-south connections are contorted and convoluted (4)
- There is only one clear connection across east west (5)
- At least one more connection is needed, located as per pedestrian movement demand modelling (6)

Figure 13. Poor and convoluted access

Source: City of Sydney analysis

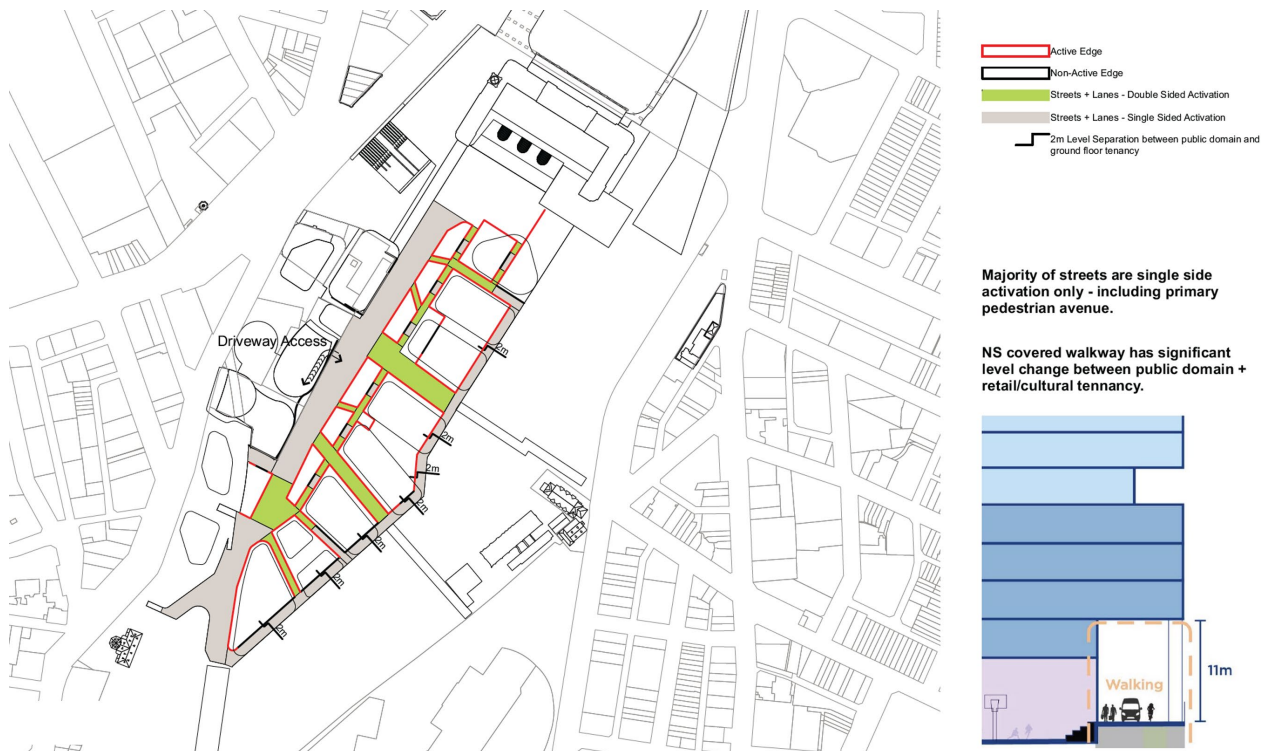


Activation of streets

The City supports the principle of providing active ground floor frontages and the provision of spaces to enable activity day and night, however the majority of the streets are only activated on one side, including down the Central Avenue which will limit activation. The City also notes that the canopy and kiosks required to enable outdoor 'dwell' spaces along the streets, as well as level changes between public space and ground floor tenancies along the Eastern Colonnade will limit activation considerably.

Figure 14. One sided activation of the streets

Source: City of Sydney analysis



North-south laneway

The public domain strategy and urban design framework and planning report all identify Ash Street in the city centre as a good eat street precedent at 6m wide. A far better 'eat street' precedent is Kensington Street (8m wide). Pedestrians on Ash Street have to weave between outdoor dining areas on opposing sides of the street, whereas on Kensington Street, pedestrians have a comfortable clear path with meaningful outdoor dining areas on both sides of the street.

The City strongly recommends increasing the minimum width from 6m to 8m.

Eastern Colonnade

The City strongly recommends that the eastern colonnade be reconsidered as it:

- is fenced and is too narrow for the anticipated users – cyclists accessing hubs, vehicles as shown on diagrams and pedestrians.
- has potential to receive sunlight if open to the sky and shelter from winds
- is disconnected, it is not on any direct path through the precinct or to places within the precinct
- is a poor quality, undercroft space, with no activation, but in the best location for sun and comfortable wind conditions

Figure 15. Eastern colonnade

Source: City of Sydney analysis



Recommendation:

- Ensure Central Avenue be a consistent 24 metres width
- Reconsider the eastern colonnade to improve its poor amenity and take advantage of its location for sunlight and comfortable wind conditions
- Increase the north south lane to 8 metres
- Provide double sided activation to the majority of street frontages
- Ensure that active frontages are not restricted by barriers such as vertical screening and kiosks by improving the building form in relation to wind expert advice to eliminate the need for these cumbersome amelioration devices
- Improve the contorted north south access from George Street Redfern to the west and the north
- Improve vertical access from the OSD deck to the streets, making them wider and more legible
- Include at least one more connection from George Street Redfern to the west, located to address pedestrian desire lines and demand
- Confirm and commit to providing a high-quality, regional cycling connection across the railway line between George Street (Redfern) and Lee Street
- Ensure that people cycling can get from the deck to the Goods Line
- Confirm feasibility of using Devonshire Tunnel as a bike connection, and make it clear on the bike network map

- Design all local streets on the deck to accommodate people cycling
- Remove vehicle access to the basement on Pitt Street, access should be through the consolidated basement in the Western Gateway
- Ensure the Prince Alfred Park Sidings basement contains minimal parking and servicing spaces
- Ensure basement design incorporates secondary access for resilience
- Design the George St south bridge connection primarily for people walking and cycling

Sky View Factor

The City supports the proposal for provision of good daylight and sky view in the streets and open spaces on the OSD deck. The study as exhibited does not use the City's methodology to establish a base case with minimum targets for sky view, from which to assess the proposed scheme. This assessment must be undertaken to enable appropriate comparison of the proposal to the rest of the city.

Recommendation: Undertake a sky view assessment using the City's methodology in the Central Sydney Planning framework.

Sunlight to public places

Sunlight is critical in public spaces to provide good amenity to people and allow for good tree growth throughout the year. Trees assist in ameliorating climate change by absorbing carbon from the atmosphere. The changing climate is increasing with the number and temperature of hot days that would adversely affect people's health and wellbeing. Trees provide relief on hot days through, shade, heat absorption and transpiration.

To promote good growth for street trees, two hours of sunlight every day of the year that the sun shines is an accepted rule of thumb amongst horticulturists. The technical documentation does not include solar insolation, however the City's analysis shows that few, if any, streets will have the sunlight conditions required for good tree growth.

The City's analysis indicates

- only 20% of the streets will receive >2 hours of sun at the Summer Solstice
- only 41% of streets will receive >2 hours of sun at the Winter Equinox
- less than 40% of trees shown in the new public space will receive enough sunlight at the Equinox

The City does not consider it acceptable that less than half the public space has enough sunlight for tree growth.

To promote good grass growth in parks, four hours of sunlight every day of the year that the sun shines is an accepted rule of thumb amongst horticulturists. The City reinforces this with its minimum standards requiring at least 50% of the area of a park to receive 4 hours of sunlight at the winter solstice between 9am and 3pm. The 50% minimum acknowledges that some overshadowing is unavoidable, and the park design is formed around the varying sun access. Implicit in the minimum standard is that areas of the park will receive more than 4 hours of solar access, better than the minimum requirement. The City supports the provision of these solar standards in Central Green and at the Mortuary Station Plaza.

The City strongly implores that the precinct plan be redesigned to provide at least the minimum required amount of solar access in the winter solstice between 9am and 3pm as follows:

- 4 hours to at least 50% of Central Green
- 2 hours to at least 50% of the new streets to promote tree growth

- 2 hours to at least 50% of Mortuary Station Plaza to promote tree growth

Figure 16. Insufficient solar access

Source: City of Sydney analysis

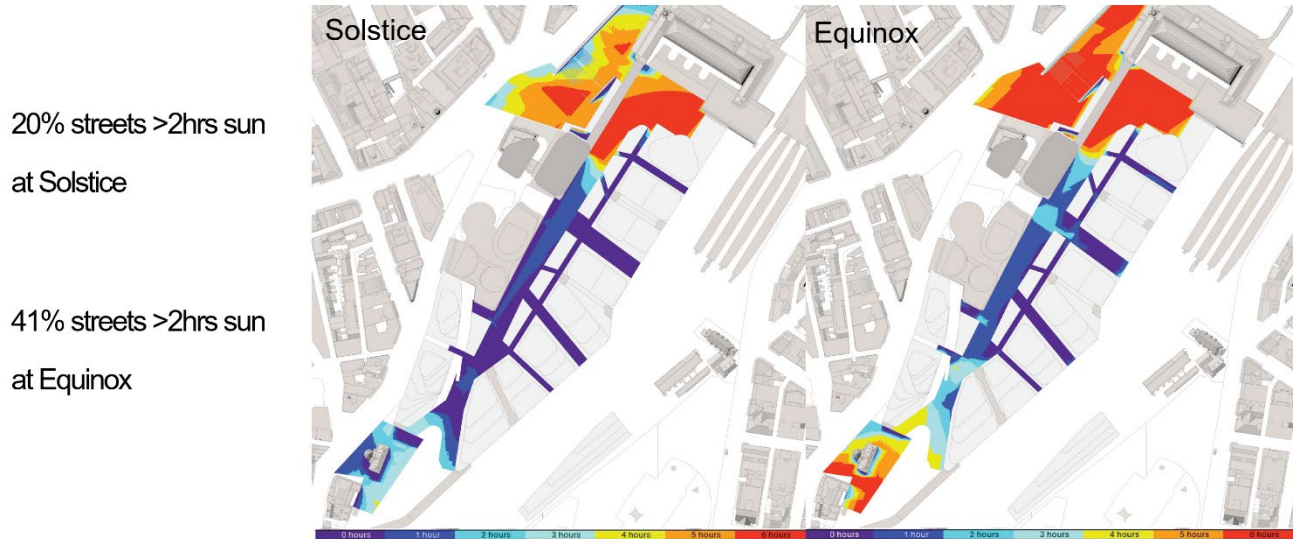


Figure 17. Less than half public space has enough sunlight for trees

Source: City of Sydney analysis



Recommendation: Redesign the streets and open spaces to provide at least the minimum required amount of solar access in the winter solstice between 9am and 3pm as follows:

- 4 hours to at least 50% of Central Green
- 2 hours to at least 50% of the new streets to promote tree growth
- 2 hours to at least 50% of Mortuary Station Plaza to promote tree growth

Ameliorating wind impacts

People's use and enjoyment of public open space requires safety and comfort. The site is exposed to strong winds, in particular, from the north-east and north-west and therefore, careful design of the built form to ensure safe and comfortable environments for people in public space is essential in the design of the masterplan.

It is clear that the built form is derived from a primary aim to maximise premium grade office space. The technical wind report includes evidence of design iterations with adjustments to the built form, made to ensure better wind safety and comfort than it initially produced. However, comfortable pedestrian wind environments are not provided in Central Green, Central Avenue and throughout. The consequences are clearly illustrated in the technical material.

The technical wind report indicates wind mitigation measures: "... to address the limited shielding provided by any surrounding buildings for the prevailing north-east, south and westerly winds." (p.158). Given the modelling shows safety and comfort issues, the City recommends reconsidering the mitigation advice shown on p.158 of the technical wind report:

- *Improve building shapes to reduce wind effects from the northeast and northwest wind directions by encouraging wind to move around the buildings rather than being directed to podium/ground level.*
- *Avoid large continuous building forms so wind can permeate through the development more freely, rather than being directed down to ground.*
- *Round and/or break-up podium corners to reduce local wind speed increases*

The Central Precinct Renewal Wind Analysis 15 July 2022 includes wind tunnel testing for the proposed development without comparison to the existing conditions. It also includes CFD modelling for the proposed development and the existing conditions. The wind tunnel testing results do not accord with the CFD modelling results. It is also noted that the wind analysis has not been undertaken using the methodology stipulated in the Study Requirements and the Sydney DCP. This makes it difficult to assess and compare the results to the rest of the city. These two factors result in mistrust of the wind engineering technical study.

The Central Precinct Renewal Wind Analysis 15 July 2022 highlights those parts of the SSP study area that fail the safety limit and most parts fail the comfort criterion for walking, standing or sitting prior to the addition of devices such as vertical screens. The areas designated in the Design Guide as being 'dwell spaces' do not have appropriate wind conditions including most of Central Green, the eastern side of Central Avenue, the Southern Plaza, Devonshire Link, north-south laneway and all east-west laneways.

The City does not support the requirement for canopies and enclosed kiosks to mitigate wind, as shown in the Design Guide. Wind mitigation devices should be encouraged to be well designed, rather than a dual use as an artwork.

The City strongly recommends that the Precinct Plan must be redesigned to eliminate unsafe and uncomfortable pedestrian wind environments by implementing good design practice.

The City recommends that the wording in the Design Guide, *Wind impacts... are not to be substantially worse than existing wind conditions*, should be replaced with: *Wind impacts... are not to be substantially worse than existing wind conditions*.

Figure 18. Significant wind safety issues

Source: Adapted from the Central Precinct Renewal Wind Analysis 15 July 2022

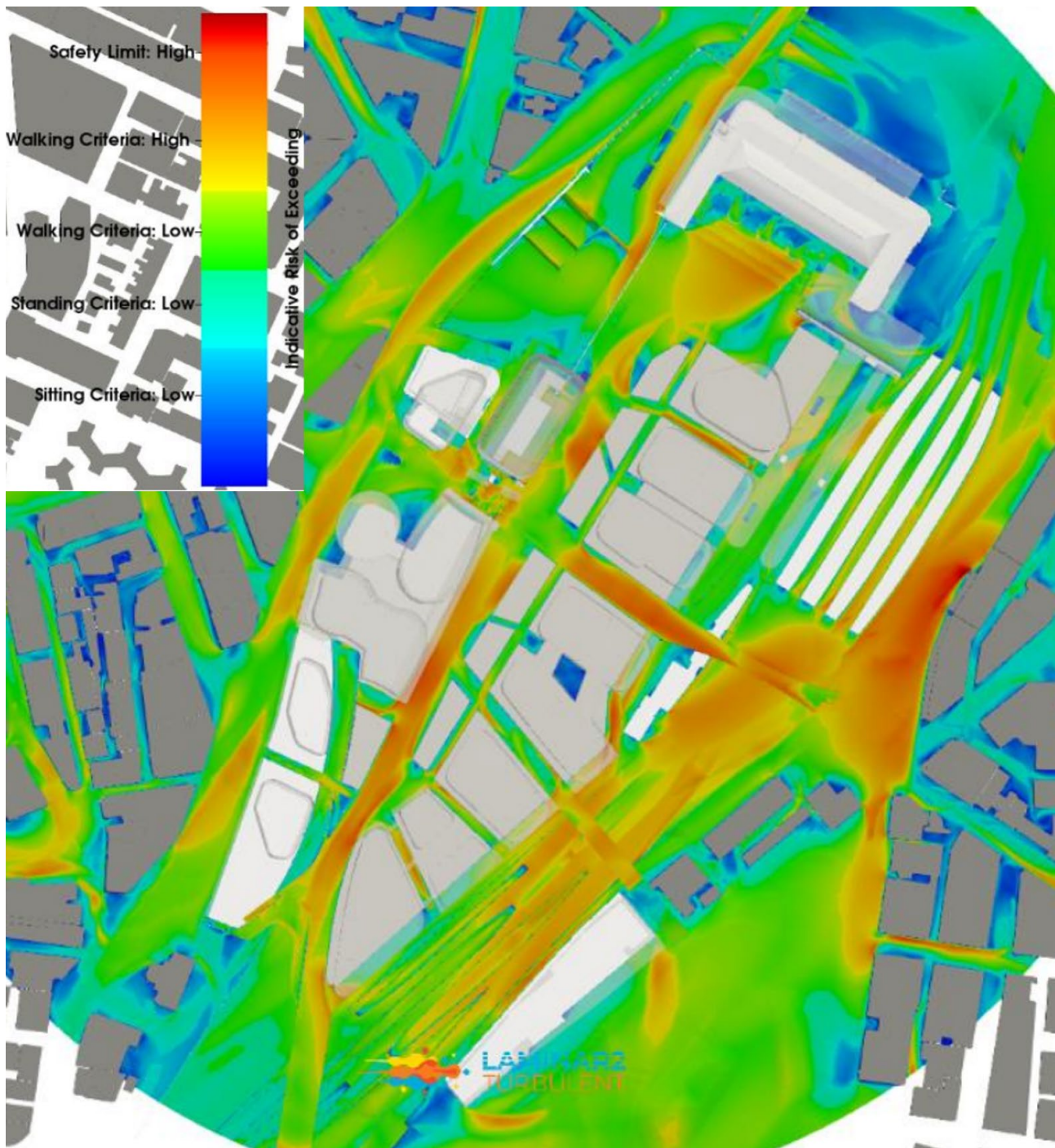
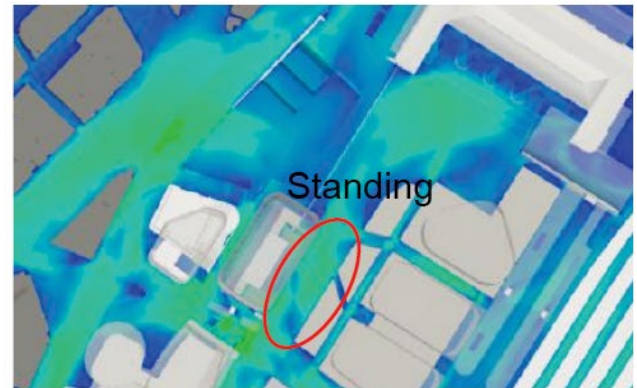
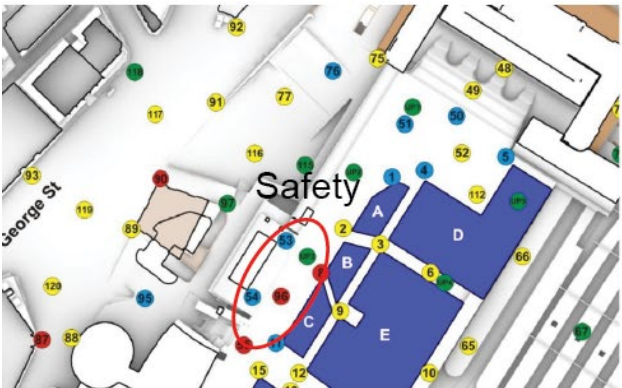
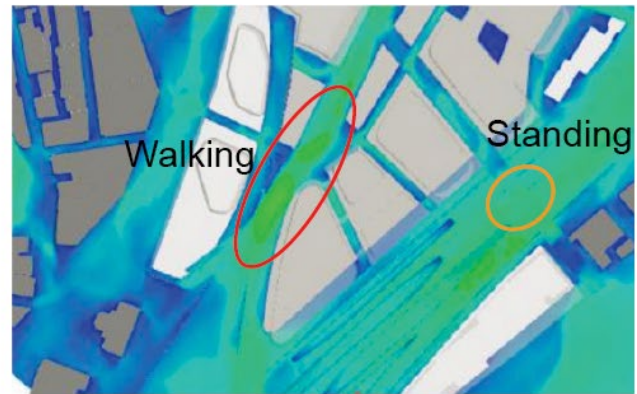
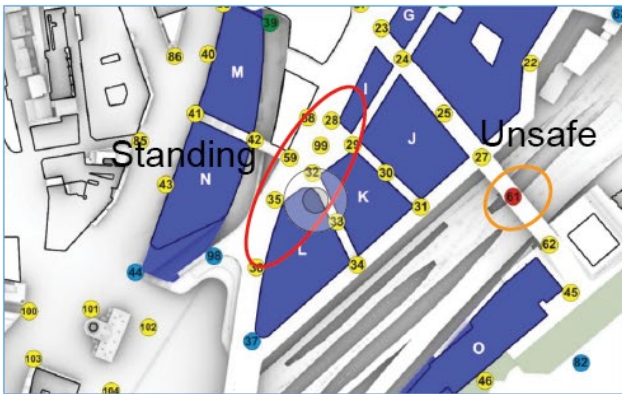


Figure 19. Wind tunnel and CFD models do not accord

Source: Central Precinct Renewal Wind Analysis 15 July 2022



Recommendation: Undertake modelling using the methodology consistent with Sydney DCP 2012 to enable comparison to other parts of the city

Recommendation: Recalibrate the wind tunnel testing with the CFD modelling to ensure they accord and are comparable.

Recommendation: Mitigate the impact of wind from the building envelope, massing and placement without reliance on the requirement for the canopies and enclosed kiosks shown in the Design Guide. Wind mitigation devices should be encouraged to be well designed, rather than a dual use as an artwork.

Recommendation: Redesign the masterplan to eliminate unsafe and uncomfortable pedestrian wind environments by implementing good design practice.

Recommendation: Ensure that all dwell spaces specified in the Design Guide and the majority of all public space, have wind conditions suitable for sitting.

Recommendation: Reconsider the wording in the Design Guide from *Wind impacts... are not to be substantially worse than existing wind conditions*, to be replaced with: *Wind impacts... are not to be substantially worse than existing wind conditions*.

Public spaces are not located in areas of high amenity

The poor wind environment and the lack of sunlight combined challenges the achievement of canopy targets for the precinct. The City's analysis shows that:

- Less than one third of the proposed public space has satisfactory solar and wind conditions.
- More than 30% of trees located in areas of sufficient sunlight are within high wind areas, making growth and establishment problematic
- Less than 40% of trees are located within areas conducive to healthy canopy growth

The City recommends reconsidering the masterplan, to locate public space in the places of best amenity.

Figure 20. Intersection of public places and high amenity

Source: City of Sydney analysis



This diagram overlays the areas of unsafe wind in black, over the solar access. It shows that most of the public space is located with poor sunlight, poor wind conditions, or both.

Figure 21. Less than on third of proposed public space has satisfactory solar and wind conditions

Source: City of Sydney analysis



Recommendation: Reconsider the masterplan, to locate public space in the places of best amenity. This includes enlarging Central Green to the east and to the south and a reconsideration of the main street width.

Green infrastructure

The City welcomes the Central Precinct Green Infrastructure Strategy and Section 13 of the Design Guide, which set out objectives, strategy and guidance to deliver green infrastructure, ecology, urban forest and greening. Further work is needed to ensure the green infrastructure proposed is achievable, particularly given the added complication of over station development.

There has been limited analysis of the site's constraints which inform the planting selection, for example no shade analysis is provided. The selection of plant species needs to be based on an understanding of the site's constraints, to ensure the right plants are selected for the right locations. Based on the information provided, it is questionable whether the planting strategy prioritises the selection of endemic/native species. While the sentiment behind this is appreciated, it should be acknowledged that the conditions created within an over station development are vastly different to those in the historic natural environment. Planting selection needs to respond to the conditions and constraints (soil, sunlight, water, wind) which will be created as the result of the new development in order for the plants to survive.

Recommendation: The planting strategy needs to be reconsidered to ensure the conditions created by the over station development inform the selection of plant species.

A high-water demand planting approach has been proposed which will rely on establishing a water recycling system. Irrigation requirements should be calculated at this stage to determine the minimum water demand. The integration of soils and water systems is critical to achieving the planting outcomes proposed, however there is little detail on how this will be delivered within the planning framework. If this is not implemented, then ability to achieve the greening outcomes will

be limited. Guidance to provide a secure, recycled water supply is recognised, and the City welcomes any future engagement on a potential connection to the George Street recycled water network.

Recommendation: In Section 14.1 of the Design Guide, Guidance #5 to be redrafted to avoid the implication that the implementation of any recycled water scheme is dependent on the outcome of a feasibility assessment and precinct procurement process.

Our community has told us that tree canopy should increase as much as possible. The City is aiming increase its canopy cover by 50% by 2030 from its 2018 baseline. Given the large proportion of land within private ownership, large development sites like Central Precinct are critical to making this happen. There is general alignment between the City's targets and the canopy cover and green cover targets set out in the Design Guide, though where specific areas cannot achieve their canopy and/or green targets, (such as Mortuary Station), an increase should be achieved in other locations (such as Central Avenue, Eddy Avenue Plaza). In addition, we make the following recommendations.

Recommendation: In Blocks A to F the proposed 0% canopy cover and 20% of greening for private property is inadequate. If canopy cover is not achievable at ground, the extent of greening must be increased on these properties to a minimum of 60% of each building's rooftop being a dedicated green roof, offsetting the provision of zero canopy cover.

Recommendation: In the Ibero-American Plaza there is sufficient distance along the side of the station, the light rail platform and overhead wires to increase canopy. It is highly exposed and would significantly benefit from shade and cooled space.

Celebrating heritage

Heritage

The City supports the objectives of the proposal to celebrate the heritage significance of the Precinct and to embed heritage values into the design and development of a unique, place-based destination by demonstrating design excellence and design quality.

The Central Railway Station complex is listed on the State Heritage Register. The precinct has a high degree of heritage significance for numerous reasons, including the following:

- as the site of the first Sydney Terminal and the starting point of the main line, from which the NSW rail network grew;
- previous uses of the site, including the Benevolent Asylum, Carters Barracks and Devonshire Street Burial Ground, evidence of which is likely to be found in the archaeological record;
- high quality architecture, with links to the Colonial and Government Architects, in particular the main terminal, Mortuary Station and Parcels Post Office;
- for the evidence provided of the changing technology of train travel from steam to electric trains;
- for its continuity of railway use since 1855, including a working yard;
- for its landmark status.

Furthermore, the listing on State Heritage Register as Sydney Terminal and Central Railway Stations Group, Central Station is recognised as being of state significance as a **precinct**. While individual components of this precinct have varying degrees of significance (ranging from exceptional to intrusive), the overall significance of the place needs to be the principal priority when considering major change to the place. Any heritage impact assessment needs to consider the impact of any proposed works against the overall significance of the place versus the impact upon the significance of the individual component.

The approach to heritage in the Central SSP development has been piecemeal, focusing on the components, rather than the site **as a whole**. The impact of the proposed Central SSP is the overall diminution of the STATE heritage significance of the precinct. The heritage significance of the place does not preclude major change, but nonetheless it needs to consider potential heritage impact.

With reference to the identified gradings of significance in the Conservation Management Plan (CMP) (Context 2022), the majority of the precinct north of Devonshire Street tunnel and west of the Suburban Platforms are either of 'exceptional' or 'high' significance. Policies 13 and 15 of the CMP reiterate standard guidelines regarding the management of components, spaces, elements and fabric of the Central Station Precinct consistent with their assessed levels of significance, particularly that elements of 'exceptional' and 'high' significance should generally be retained, conserved and maintained, while noting that there is generally more scope for change for the latter. Components of the precinct that are identified as having 'exceptional' or 'high' significance include the Main Terminus Building (Facades & Roof, Clocktower, Main Concourse) and the Country & Interstate Platforms. All of these will be impacted by the proposed development – either due to major change or changing context and physical or visual relationships.

Recommendation: In accordance with recognised heritage management policies, elements of 'exceptional' and 'high' significance should generally be retained, conserved and maintained.

It is noted that there are major works proposed for this precinct, including major over station development, resulting in a major impact on components that are of 'exceptional' and 'high' significance. This inappropriate heritage management is noted in the Non-Aboriginal Heritage Study (Artefact 2022), specifically stating that “overall, the heritage and cumulative impact to the state significant Sydney Terminal and Central Railway Stations Group would be major direct and indirect impacts.” (CMP, p117). Nonetheless, this study then proceeds to justify the individual components of the Central SSP, without considering the cumulative heritage impact of the potentially lesser heritage impact of these individual parts of the development. Furthermore, any mitigation measures recommended in this study are inadequate and focus on any future proposals for smaller developments within the greater precinct.

The proposed development will have a major heritage impact upon the precinct and on individual elements. The Non-Aboriginal Heritage Study (Artefact 2022) notes that other, more sympathetic options were investigated during the iterative design process, but that these were “considered and discounted as part of this process, in a balance of achieving good heritage outcomes and viable development at the Precinct”. This is an inadequate heritage response for a site of State significance.

The proposed Central Precinct is not consistent with the Heritage-related Principles as identified in the Draft Design Guide, which reiterate the state significance of the place, and note that the proposal will “respect and celebrate the heritage significance of the State heritage-listed Central Railway Station Sydney Terminal Group and its individual components and the appreciation of key heritage values including significant view lines and the extensive and prominent use of sandstone” (p10). The scale of the proposal does not reflect this important principle.

The Explanation of Intended Effect (2022) incorrectly notes that “the majority of Central Precinct is listed as having State heritage significance” (p14) and focuses on three individual elements: the whole of the site is listed on the State Heritage Register. The Urban Design Framework (Architectus 2022) reiterates this inappropriate piecemeal approach to heritage, focusing more on the significance of individual elements, rather than the place as a whole, and thereby justifying more change than is acceptable.

Recommendation: Any development of the Central Precinct needs to respect the state heritage significance of the whole site, rather than the heritage significance of the individual components.

Historical visual relationships between components of the site are important to be maintained including views from the concourse to the platforms and trains. The proposal includes oversized stairs between the concourse and OSD deck which significantly reduce these views.

Recommendation: Reconsider the design of the stairs to maintain views between the concourse and platforms.

The proposed approach to Aboriginal Cultural Heritage is commendable, especially the recommendations contained within the Aboriginal Cultural Heritage Study. In particular, the following recommendations are particularly useful to guide the management of Aboriginal heritage significance within the precinct:

- Inclusion of Aboriginal expertise within architectural/design teams in co-design roles
- Ongoing consultation with Aboriginal knowledge holders and establishment of an Aboriginal reference group during and for future planning for development
- Adoption of the Connecting with Country framework (Balarinji 2022)

Similarly, the proposed approach to managing archaeology is supported. The Archaeological Site Plan (Artefact 2022) maps all potential archaeology across the whole SSP precinct (as comprehensively as possible) and provides a long-term management document to guide works planning, site management and heritage assessments, and to minimise the likelihood of unexpected archaeological finds within the Site Plan assessment area. Importantly, this approach provides a grading of significance for any likely archaeological resources, a grading of heritage significance and management recommendations - from avoidance of any impact by development and retention in situ, record and salvage, recording before removal, and complete removal without any other requirements.

Visual impact

Regardless of the strategic vision for this precinct, the proposal will have major visual impacts upon important views of the Central Clocktower, especially towards the south. Historical visual relationships between components of the site are important to be maintained including views to the clocktower from the suburban platforms. Historically, the clocktower at Central was an iconic landmark in the southern part of Central Sydney – this is an important aspect of the heritage significance of the precinct. The proposal reduces the current views of the clocktower against the sky to an extent that is inappropriate. Moving development further south of a similar scale would retain most if not all the important views of the clocktower against the sky.

Recommendation: Reconsider the position of the Block A tower and the wider development, moving it further south to maintain significant views of the clocktower against the sky.

The character of Prince Alfred Park benefits from long views as a result of the rail corridor. The proposed built form presents a wall of development diminishing the historic character of the park. This also diminishes the heritage significance of the place.

Recommendation: Reconsider the built form as viewed from Prince Alfred Park so there are fewer buildings with more separation.

Figure 22. Significant views of the clock tower impacted by the placement of towers

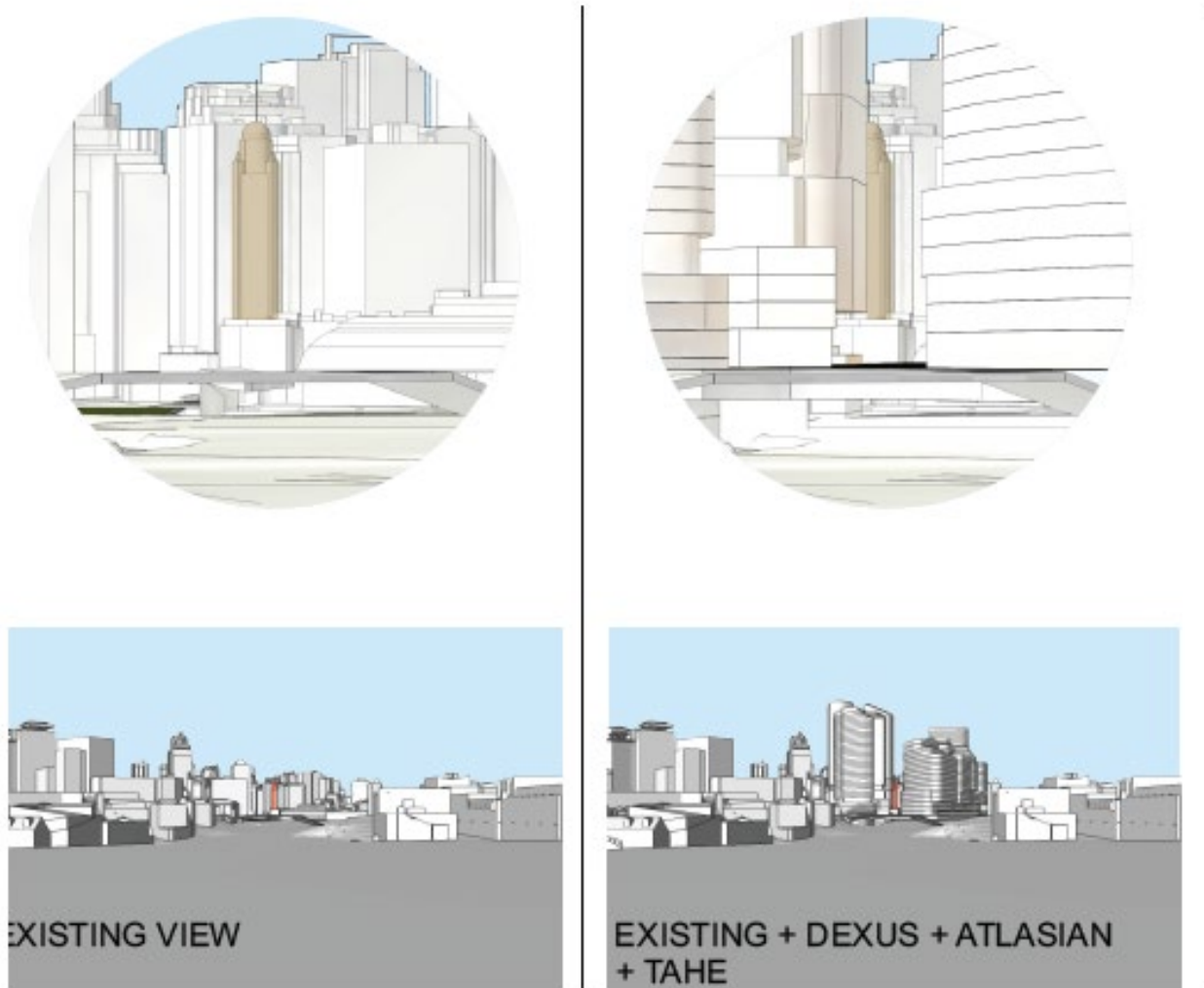
Source: City of Sydney analysis



The diagrams above show the significant long views of the clocktower, and the impact of the proposed development on these views, and the view from Prince Alfred Park.

Figure 23. View of the clock tower from Redfern Station

Source: City of Sydney analysis



Mortuary Station

The Mortuary Station is a particularly distinctive component of the precinct and needs special consideration in any proposal. It is essential that any works associated with the Mortuary Station Plaza ensure that train access to the station is retained. Links to Rookwood Cemetery should be addressed in heritage interpretation, but not replicated in any landscape design in this precinct (as implied in the Central Precinct Design Guide (2022) and the Heritage Interpretation Strategy (Artefact 2022)). Mortuary Station should be able to be used as a functioning platform for heritage trains.

Recommendation: Reconsider the design of the public realm to ensure that Mortuary Station is capable of being used as a functioning platform for heritage trains and identify other opportunities for rail heritage stock to continue operating at Central Station as part of the ongoing interpretation of the precinct's heritage values.

Restorative and carbon negative in every aspect

The City welcomes the proposal's ambition to 'create a low-carbon precinct' and to deliver 'world-leading environmental sustainability outcomes at Central Precinct'. The City shares this vision and would like to work with TfNSW/TAHE to further develop the planning controls to deliver it.

While the proposal includes high-level objectives for sustainability, the guidance needs to be more robust to deliver these principles and to deliver a low carbon and environmentally sustainable

precinct. The language used in the Design Guide is littered with qualifiers and non-committal language ('should aspire to', 'subject to', 'is encouraged to') which negate any real responsibility in delivering on the ambitions for a sustainable district.

Recommendation: The proposed Design Guide must be reviewed in its entirety to replace vague and non-committal language with firm and specific requirements to achieve sustainable outcomes precinct-wide.

The City welcomes the targets for building performance, which meet and at times exceed the City's own policies. In other areas of sustainability, the targets set in the Design Guide fall short of what the City would expect for a 'best practice' precinct. In instances, targets do not align with the City's or the State's own policy.

This is particularly significant given the lengthy 20+ year timescales of the construction period for the precinct. Given the need to scale up emission-reduction and drive circular materials management over time, by the time the precinct is constructed, weak targets will be completely out of sync with industry standards.

The City supports the proposal to deliver precinct-wide systems for water recycling, energy, integrated waste and materials management, and soil systems, which could offer real potential. Delivering these precinct-wide integrated systems, as is proposed, requires oversight and coordination. There is no clarity on who is responsible for delivering these systems, nor at which point in the staged process they will be provided. It is at this early stage of a process when precinct-wide planning can seize these opportunities.

Recommendation: The proposed Design Guide must be reviewed in order to identify the parties responsible for delivering precinct-wide sustainability systems, and to set requirements for investigation and delivery in relation to concept development applications and building development applications.

Climate change

The vision for Central Precinct is to create 'world-leading environmental sustainability outcomes'. However, the proposed controls do not offer a pathway to achieving these outcomes. The requirement to deliver Net Zero from the outset should be unequivocal. The requirement to build an Integrated Utilities Hub should be unequivocal. The objectives on the provision of renewable energy and climate risk and adaptation are supported, but more information is required on who will be responsible for developing such a network, and whether it will be delivered at a building or precinct scale.

Recommendation: Section 12.1 of the Design Guide should be updated to state the precinct will *achieve* net-zero emissions, not just *contribute towards* them.

Recommendation: Section 12.1 of the Design Guide requires additional guidance providing a solid commitment to using 100% renewable energy. Stating that development is not to preclude the provision of 100% renewable energy is insufficient.

Recommendation: Section 12.2 of the Design Guide allows for the *consideration* of an Integrated Utilities Hub. The guidance should instead *require* the delivery of an Integrated Utilities Hub.

Recommendation: Section 12.3 of the Design Guide requires additional guidance on the delivery of an embedded network supplied with 100% renewable energy, and whether it is delivered at building or precinct scale, including a requirement for investigations and a delivery plan prior to any concept development application. Add a requirement under provision 5 to procure 100% renewable energy for the precinct and each building in the event the private network is not established to ensure the commitment to net zero is realised.

Recommendation: Section 12.7 of the Design Guide requires additional guidance for carrying out and implementing the Climate Risk and Adaptation Plan with development applications by stating the first concept development application is to provide a precinct wide plan and each building development application is to implement the Plan.

The proposed controls are not specific enough to provide the intended level of resilience to potential changes in rainfall intensity. In Section 14.2 of the Design Guide, Guidance #4 requires civil drainage to be designed to RCP8.5 climate change scenario. In Section 14.3 of the Design Guide, Guidance #2 requires the impact of RCP8.5 climate change scenario to be considered when setting flood planning levels. However, these requirements do not specify the point in time at which these scenarios are to be applied and this could lead to inconsistency in their application.

Recommendation: Where 'RCP8.5 climate change scenario' is specified in flooding and drainage requirements, this should be accompanied by a suitable future point in time (eg 2100) to allow design parameters to be derived and applied consistently.

The climate adaptation report has successfully evaluated the risks of climate change and identified measures to make the future precinct more resilient to these risks. However, it is unclear how the mitigation measures have been incorporated into the Design Guide.

Recommendation: Identify mitigation measures and incorporate this as prescriptive guidance in the Design Guide to support future developers and planners in creating a resilient precinct.

Water management

The proposed Design Guide controls for water management will not deliver precinct-wide water management goals in a consistent and integrated fashion. The proposal is designed with the intent to follow an integrated water management approach, which considers the various sources and demands for water across the precinct and seeks to balance these in a way that manages stormwater quantity management, flood risk, non-potable water demand and urban cooling. The Water Quality, Flooding and Stormwater Report recommends that an integrated water management plan be prepared at some point in project development, however there is nothing in the Design Guide controls that requires this to happen or for development stages to have reference to this report in their implementation.

The Water Quality, Flooding and Stormwater Report (Section 6.2.1) proposes a 'sub-precinct approach' to stormwater management, in which individual development stages would need to meet bespoke development controls that have been set considering the constraints of each stage and the delivery of the precinct-scale aims. Under this approach each stage is stated to independently manage and discharge stormwater to downstream where feasible. Without a clear, detailed integrated water management plan for the whole precinct, there is a risk that this sub-precinct approach will not deliver the proposal's aims by, for example:

- Opportunities to exceed water quality best practice are not identified and there is no requirement for these opportunities to be taken when relevant sub-precincts are brought forward for development.
- Cumulative minor flood impacts from each sub-precinct will accrue to create a significant change in flooding conditions. Stormwater detention requirements will need to be set at a precinct-scale to allow them to be effectively applied to sub-precincts.
- Discharging water from highly developed sub-precincts that could be used for irrigation in another sub-precinct or for non-potable supply in a precinct-scale supply system.

Recommendation: Create a standalone requirement at the start of the Design Guide for a precinct-wide Integrated Water Management Strategy to be submitted and approved prior to the approval of the first development application for the precinct. This should be based on the existing requirement in Section 14.1 of the Design Guide, Guidance #7, with the scope

increased to include flood risk management, stormwater drainage and water quality management.

The precinct-wide Integrated Water Management Strategy should be required to include as a minimum:

- Identification of opportunities to exceed best-practice stormwater quality targets and how these opportunities will be delivered through development stages.
- A precinct-wide flood study and mitigation strategy, which identifies measures required to mitigate flood impacts from the full precinct and how these will be delivered through development stages.

A firm commitment to provide a reliable recycled water supply must be present in the Design Guide, whether through a private water recycling scheme, a public authority water recycling scheme, or a connection to a shared water recycling scheme. This requirement must be established, with its provision not dependent on vaguely worded guidance for a feasibility assessment or precinct procurement process.

Recommendation: In Section 14.1 of the Design Guide, Guidance #5 to be redrafted to avoid the implication that the implementation of any recycled water scheme is dependent on the outcome of a feasibility assessment and precinct procurement process.

NABERS Water Commitment Agreement mechanism does not currently exist. While it may in the future, currently NABERS water ratings are of lesser value because of occupancy settings that do not reflect the range of user contexts. It is more important to lock in fundamental design requirements, such as high ratings for individual fittings and appliances, non-potable water supply to toilets, irrigation and cooling tower top-up, locking in water savings through the lifetime of the building.

Flood risk management

The proposed Design Guide controls for flood risk management are not sufficient to prevent detrimental changes to off-site flooding. The Water Quality, Flooding and Stormwater Report (Section 6.2.1) identifies increases in flood levels of up to 0.10 m in the 1% AEP event at low points on Lee Street and Broadway. Increases in flood level in the PMF of up to 0.20 m are also predicted in these low points, as well as on streets downstream towards the intersection of Broadway and Wattle Street, and on Chalmers Street upstream.

Controls currently proposed in the design guide will limit changes in flood depth to 0.05 m in the 1% AEP only and only for individual development stages. These controls are insufficient to prevent the predicted flood increases as they adopt a definition of impact that is unreasonably high for a dense urban area, and do not consider the potential cumulative impact of development stages each increasing flood depth by a magnitude less than the limit.

Flood depth increases in the PMF have the potential to increase risk to life downstream of the precinct by flooding existing basements that are protected to existing PMF level (as required by the City's Interim Floodplain Management Policy).

The executive summary of the Water Quality, Flooding and Stormwater Report identifies that the project presents opportunities to further mitigate existing flood risk. It is not clear that this has been considered in the development of the strategy.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, change the requirement to prepare a flood study to require a detailed precinct-wide flood study and mitigation strategy to be submitted and approved prior to the SSI application for the OSD deck, or the approval of the first development application for the precinct, whichever comes first.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, change the definition of flood impact from +/- 0.05m to +/- 0.01m.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, include an additional requirement providing the definition of on-site detention volumes and flow rates required in each development stage or as a rate per hectare.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, include an additional requirement considering the impact of flood level changes in the PMF to be considered in terms of impacts on existing basements and, where an increased risk to life is expected, propose mitigation measures.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, include an additional requirement considering opportunities to reduce existing flood risk as part of mitigating the impact of the precinct, including considering options proposed in the vicinity of the precinct in the City of Sydney's Flood Risk Management Plans (FRMPs) for the relevant catchment.

Recommendation: In Section 14.3 of the Design Guide, Guidance #2, include an additional requirement for flood impact assessments to be submitted with each development stage that consider the cumulative flood impact of the complete precinct and include mitigation measures consistent with the approved precinct-wide flood study and mitigation strategy.

Circular economy and materials

As the authors of the NSW Circular Economy Policy Statement, the State Government should ensure that large scale new developments, especially those with a tech focus such as Central Precinct, are demonstrating leadership in achieving real and measurable zero waste and circular economy outcomes in the built environment. The reports should go beyond identifying opportunities and principles. Prescriptive controls on specific stated outcomes need to be included as requirements for this development. The Design Guide's guidance on circular economy and materials should be specific, providing sufficient detail or specifications to assist developers or planners on how buildings or infrastructure could be designed and constructed to meet the stated objectives. In particular, there is a need to consider how circular economy is incorporated during the design phase of the precinct and not simply the operational phases.

Recommendation: Section 12.9 of the Design Guide should contain additional guidance that considers the following:

- Using design guides for buildings with prefabricated/modular features, providing long-life, flexible and adaptable solutions
- Developing adaptable and reusable infrastructure that can be remodelled as the precinct grows and changes
- Eliminating construction waste with programs with volume builders to encourage waste minimisation in building design
- Using recycled and renewable materials
- Designing out waste in supply chain and manufacturing, and eliminating single-use items
- Designing infrastructure, collection, processing, policy, procurement, pricing, and behaviours to produce high-quality outputs for high-quality inputs to other processes.
- Combining services for transport efficiency (commercial, industrial and residential) around materials rather than land use (eg organics, plastics, residual waste)
- Providing processing and treatment facilities at a range of scales
- Establishing network-based drop-off points in preference of door-to-door collection
- Providing opportunities for reuse and repair, leasing, and sharing facilities, collection points for producer responsibility schemes, storing and reverse logistics facilities.

Operational waste

While the Environmental Study and the Design Guide identify high-level objectives in terms of waste the level of ambition falls short of what the City would expect for a 'best practice' precinct. Central Precinct should not be locked into minimum-standard waste requirements; it should instead seek to deliver beyond them including innovative ways to achieve NSW and City of Sydney targets and minimise waste to landfill and maximise resource recovery. Consideration must be given towards precinct-scale strategic oversight on waste and recycling infrastructure design, space, access and management. Without adequate consideration at the design stage, significant opportunities for precinct-wide resource recovery and best-practice waste management will be missed.

Recommendation: The City does not support the proposed '60% reduction in operational waste to landfill' target. Section 12.10 of the Design Guide should contain targets that match, if not exceed, those set by the NSW Government Waste and Sustainable Materials Strategy 2041 and the City of Sydney's Waste Strategy and Action Plan. In particular:

- A target of a minimum 50% recovery and reuse of organic waste produced within the precinct
- A target of 80% resource recovery rate from all material streams.

Recommendation: Guidance in Section 12.10 of the Design Guide should link and commit to City and State targets and sustainability benchmarks, allowing the precinct to remain up-to-date as relevant standards change.

A centralised waste management network should be addressed in the guidance in order to meet the stated objectives. This network would set the framework for all developments to consider how they integrate into this network for waste storage, transfer and collection. The integrated waste management strategy should be more comprehensive to support the appropriate sizing of infrastructure, storage and loading areas and servicing requirements for waste and recycling management for the entire precinct. The precinct must be designed to accommodate leading source separation of materials including separated organic and inorganic recycling streams e.g. food organics. All developments must demonstrate how they are designed to integrate with the precinct-scale waste management network and strategy. All waste and recycling management systems must demonstrate how they minimise negative impacts of waste management on the streetscape, public space, building presentation and amenity of pedestrians, occupants and neighbouring sites.

Recommendation: Section 12.10 of the Design Guide should include additional guidance to require all developments to provide adequate space within tenancies, buildings and shared waste storage areas for waste infrastructure, source separated streams including general waste, recycling, organics, bulky and problem waste.

Recommendation: Section 12.10 of the Design Guide should include additional guidance on precinct design including space for on-site organics processing infrastructure or storage for off-site processing, sized for the modelled organic waste generation from the precinct.

Recommendation: Section 12.10 of the Design Guide should include guidance requiring all buildings to have collections for all streams of waste, including organics on each floor, within building and mechanisms for the collection and transfer to on-site processing infrastructure or shared collection or processing point.

Recommendation: Section 12.10 of the Design Guide should specify that all residential waste collection areas comply with the City of Sydney's Guidelines for Waste Management in New Developments.

Recommendation: Section 12.10 of the Design Guide should require designated space for reuse and recycling initiatives including but not limited to:

- Eat-in food courts within the precinct must accommodate designated space and requirement for shared re-usable serve ware and cleaning facilities to minimise single use and maximise opportunities for re-usable materials
- Any food retail outlet to have dishwasher to minimise single use and maximise opportunity for re-usable materials
- Buildings to have separate dedicated space such as a room provided for the separate interim storage and management of strip out waste for re-use or recycling.
- Provision is to be made on each floor, and in the waste and recycling storage area or any interim holding area, for the separation and storage of all recyclable items (including mixed containers, cardboard, paper and paper products) likely to be produced from the premises.

Achieving design excellence

The City commends the level of design excellence exhibited in the reference design and is seeking strong planning controls which will ensure that this level will be delivered or exceeded for all public spaces and buildings.

City of Sydney Competitive Design Policy

The City supports the provision of an overarching precinct-wide Design Excellence Strategy to guide the coordination, timing, and delivery of design excellence through masterplan, building and place competitions. However, each individual competition must be run in accordance with the City of Sydney Competitive Design Policy.

In accordance with Section 2.4 of the Government Architect's Draft Design Excellence Competition Guidelines, as the City has its own competition policy, all competitive design processes in the Central Precinct are required to be undertaken in accordance with the City of Sydney Competitive Design Policy.

The planning controls for the Central Precinct will be contained in the Sydney LEP 2012. The definition of "competitive design process" in the Sydney LEP 2012 "means an architectural design competition, or the preparation of design alternatives on a competitive basis, carried out in accordance with the City of Sydney Competitive Design Policy." As such, all competitions in the Central Precinct should be required to be undertaken in accordance with the City of Sydney Competitive Design Policy.

Page 21 of the Design Excellence Strategy refers to "alternative Design Excellence approaches" which will be later developed. All competitions within the Central Precinct are required to be carried out in accordance with the City of Sydney Competitive Design Policy.

The City supports the undertaking of masterplan competitions for the Central Precinct. Masterplan competitions are able to be undertaken following the City of Sydney Competitive Design Policy.

Recommendation: Amend the Design Guide, EIE and Design Excellence Strategy to state that masterplan competitions must be run in accordance with the City of Sydney Competitive Design Policy.

Recommendation: References to "or the NSW Government Architect Competitive design policy" should be removed across from the EIE, Design Guide, Design Excellence Strategy and supporting documents.

Matters for consideration

The EIE states a site-specific LEP provision will be included which will "identify specific matters to be considered when demonstrating design excellence." As the planning controls for the Central

Precinct will be contained in the Sydney LEP 2012, new controls for matters for consideration for Design Excellence should not be introduced. The provisions in 6.21C of the Sydney LEP 2012 which identify the matters for consideration for Design Excellence should be retained.

The Design Guide is the appropriate mechanism for the inclusion of additional matters for consideration.

Recommendation: Remove reference towards a site-specific provision to “identify specific matters to be considered when demonstrating design excellence” from the EIE and include any additional matters for consideration within the Design Guide.

Retention of clause 6.21D of the Sydney LEP 2012 (10% bonus FSR)

The EIE states that no addition floor space will be awarded under the proposed site specific design excellence provision. The Planning Report states the proposed site specific LEP provisions will specify that clause 6.21D of the Sydney LEP 2012 will not apply to development within the Central Precinct. The City recommends that clause 6.21(D) is retained to preserve the incentive for undertaking a competitive process, with the award of up to 10% additional floor space reserved for a building demonstrating design excellence, as defined under the LEP. To accommodate the retention of the incentive for undertaking a competitive design process, the total achievable floor space within the site specific LEP clause should be reduced by 10% to allow for additional height or FSR of up to 10% to be awarded through clause 6.21(D) following the completion of a competitive design process.

If the above advice is not adopted, section 6.9 Development Bonuses in the Design Excellence Strategy should be retained. And a provision included in the site-specific LEP amendment, to specify that no additional floor space or building height bonuses will be awarded for a building demonstrating design excellence within the Central Precinct.

Recommendation: Reduce the total achievable floor space within the site specific LEP clause according to the City’s methodology and update the planning controls to offer the award of up to 10% additional floor space reserved for a building demonstrating design excellence, as defined under the LEP.

Key Building Competitions

Clause 6.21D in the Sydney LEP 2012, stipulates that development consent must not be granted to development which will have a height above ground level (existing) greater than 55 metres on land in Central Sydney, unless a competitive design process has been held. The proposed permissible height limits for the rezoning (with some minor exceptions) range from 55 metres to 204 metres. Competitions should be held for all buildings which have a height of 55m or greater.

Competitions are only identified for select or ‘key buildings’ in the Central Precinct. The Design Excellence Strategy states key building competitions are “for buildings that have a significant impact due to the building location, scale, function or proximity to heritage structures.” The City considers due to the scale, visibility and importance of the Central Precinct, competitions should be undertaken for all buildings which require a competition in accordance with clause 6.21D of the Sydney LEP 2012.

Recommendation: Amend the Design Guide, Design Excellence Strategy and supporting documents to require a competition for all buildings in accordance with clause 6.21D of the Sydney LEP 2012 being those over 55m high.

Key Place Competitions

Section 6.2.3 of the precinct wide Design Excellence Strategy identifies a key place competition to be carried out for Central Square.

The Design Competition boundary for Central Square shown in figure 4 should be expanded to incorporate the Railway Square, the upper square (marked number 4 on the map and designated for rail replacement buses) and the closure of Lee Street to ensure the entirety of Central Square is included in the competition.

In recognition of the multiple landowners of Central Square (TAHE, TfNSW and the City of Sydney), the precinct wide Design Excellence Strategy (attachment 7) and future place-specific Design Excellence Strategy should identify the design competition as a collaboration between the landowners, to be coordinated and run cohesively to deliver design excellence.

Recommendation: Amend the design competition boundary for Central Square to include Railway Square, Lee Street and the Upper Square and clarify that the design competition would be a collaboration between the three landowners.

Jury

In recognition of the precinct's state significance, the City supports the proposed five (5) member jury weighted in the public interest in accordance with part 3.4 of the Government Architect's Draft Design Excellence Competition Guidelines.

All juries are to include a member nominated by the City of Sydney (local authority), in accordance with part 3.4 of the Government Architect's Draft Design Excellence Competition Guidelines.

The Design Excellence Strategy identifies that jury selection is carried out by the Design Governance Panel. This should be removed due to inconsistency with part 3.4 of the Government Architect's Draft Design Excellence Competition Guidelines which clearly sets out what party nominates each jury member.

Recommendation: All juries are to include a member nominated by the City of Sydney (local authority), in accordance with part 3.4 of the Government Architect's Draft Design Excellence Competition Guidelines.

Remove reference to the 'Design Governance Panel' carrying out jury selection as this is inconsistent with the Government Architect's Guidelines.

Design Integrity

Whilst the Design Excellence Strategy makes reference to a design integrity process, this is not clearly mapped out. The City supports the inclusion of the design integrity process detailed in the Government Architect's Draft Design Excellence Competition Guidelines for the Central Precinct.

It is unclear what the role of the Design Governance Panel and the Design Advisory Panel is in the Design Integrity process.

Recommendation: More information is needed on the design integrity process, ensuring alignment with the Government Architect's Draft Design Excellence Competition Guidelines.

Design Governance Panel

The Design Governance Panel must include a panel member nominated by the City of Sydney.

The Design Governance Panel's list of responsibilities written in the strategy conflicts with section 3.4 of the Government Architect's Draft Design Excellence Competition Guidelines. The list of

responsibilities should be updated to exclude jury selection, to ensure consistency with the Government Architect's Draft Design Excellence Competition Guidelines.

The Strategy identifies the review of design development compliance and deviations with jury recommendations, as a responsibility of the Design Governance Panel. This is inconsistent with section 5 of the Government Architect's Draft Design Excellence Competition Guidelines which prescribes the jury or other independent design experts to the design integrity role. It should be clarified if the Design Advisory Panel as independent experts undertake this function.

The Strategy states on page 19 "TfNSW and the delivery partner, in consultation with GANSW, DPE and the City of Sydney will establish a Design Governance Panel." This is inconsistent with page 21 of the Strategy which states the "makeup of the Design Governance Panel will be determined in partnership with the office of the GANSW, TfNSW and the future delivery partner for the Central Precinct Renewal Program." As stated on page 19 of the Strategy, the City of Sydney should be consulted in the establishment of the Design Governance Panel and selection of members.

Design Advisory Panel

The Design Advisory Panel must include a panel member nominated by the City of Sydney.

The Strategy states on page 19 TfNSW and the delivery partner, in consultation with GANSW, DPE and the City of Sydney will establish a Design Advisory Panel. This is inconsistent with page 22 of the Strategy which states the selection of the panel members on the Design Advisory Panel will be by the Design Governance Panel. As stated on page 19 of the Strategy, the City of Sydney should be consulted in the establishment of the Design Advisory Panel and selection of members.

Recommendation: The Design Excellence Strategy should be updated to stipulate that the Design Governance Panel and the Design Advisory Panel must both include a panel member nominated by the City.

Recommendation: The City of Sydney should be consulted in the establishment of the Design Governance Panel and selection of members.

The remit, role and relationship between the Design Governance Panel and Design Advisory Panel is unclear. Section 6.4 of the Design Excellence Strategy refers to additional matters which are not attributed to either panel within Section 7.

Recommendation: The role and responsibilities of each panel should be clearly set out in the Design Excellence Strategy, along with identifying how the panels coordinate and work together.

Observers

The Design Excellence Strategy should include a section on observers. Impartial observer(s) from the City of Sydney and the Consent Authority should be invited to attend all competitive design processes (including jury deliberations and design integrity processes) to ensure the competitive process has been followed appropriately and fairly.

Recommendation: Amend the Design Excellence Strategy to include a section on observers.

Project-specific Design Excellence Strategies

The Design Excellence Strategy makes reference to the preparation of project-specific Design Excellence Strategies for each competition. The approval pathway for these Project-Specific Design Excellence Strategies should be clearly articulated in the overarching Design Excellence Strategy.

Monitoring

Section 6.10 of the Design Excellence Strategy commits the proponent to regular review and refinement of the design excellence strategy which is supported by the City. However, amendments to the Strategy should be prepared in consultation with GANSW, DPE and the City of Sydney.

It is unclear what the approval pathway is following completion of the review and refinement of the Design Excellence Strategy.

Recommendation: Amend the Design Excellence Strategy to specify the process for amendments and the approvals pathway for the refined Strategy, requiring consultation with GANSW, DPE and the City.

Competitive Design Alternatives Report

Section 6.7 of the Design Excellence Strategy 'Competitive Design Alternatives Report' has been partially lifted from the City's Competitive Design Policy and refers to a competition type called the 'Competitive Design Alternatives Process'. It is recommended that terminology in this section is updated to be consistent with the rest of the Design Excellence Strategy, including the following:

- Competitive Design Alternatives Report changed to Competitive Design Process Report
- Selection Panel is changed to Jury

Recommendation: Update the Design Excellence Strategy in the 'competitive design alternatives process' section to make terminology consistent with the rest of the document.

Competition Briefs

In addition to GANSW and DPE, consultation on the competition brief should also occur with the City of Sydney.

Recommendation: Amend the Design Excellence Strategy to specify that consultation for competition briefs should occur with the City of Sydney.

Transport and movement

The City endorses the aim of the proposal to prioritise pedestrians on the OSD deck and encourage cycling, public transport and car sharing as the primary modes of travel within Central, while ensuring accessibility for all.

In addition to the commentary and recommendations about connections above, this section includes further advice regarding transport and movement. An attached appendix provides further detail on these recommendations.

At the point of the exhibition, the City has yet to see the transport modelling due to delays to population and employment forecasts. Without seeing the outputs of the modelling analysis, the City is unable to provide informed comment on the transport strategy and assessment of Central Precinct. As such, all comments relating to transport and access should be taken as preliminary only.

- The City will make additional comments once the completed transport modelling is provided.
- The City will comment on construction traffic management at DA stage once a detailed Construction Transport Management Plan (CMTP) is prepared.

Modelling and assumptions

Upon initial review, there are several areas for which the assumptions and modelling are faulty or inadequate to underpin the proposals:

- The proposal needs to take ownership of cumulative transport impacts.
- The proposal does not correctly assess and acknowledge the significant impacts of the development on people walking in the broader precinct.
- Inconsistencies in the Central Precinct demand distribution need to be addressed.
- The loading strategy must consider all loading needs, not just day-to-day requirements.
- The strategy should specify function before technology in the case of electric and autonomous vehicles.

The planning controls should be amended to take account of the following:

- Specify in the Design Guide that the TfNSW/TAHE Walking Space Guide is to apply to all areas outside the gate line and that Level of Service (LOS) C will be the minimum target.
- Reference, support and align with key strategic transport documents: Camperdown Ultimo Place Strategy (Greater Sydney Commission), Tech Central Place-Based Transport Strategy (TfNSW), South East Sydney Transport Strategy (TfNSW), and Sydney City Centre Access Strategy (TfNSW)
- Commit to reducing speed limit on all roads surrounding and within the Central Precinct to 30km/h
- Commit to not precluding the City's plans for streets and public domain:
 - Reallocating space from vehicles to place, people and planting on Broadway in line with the City's Greening Broadway initiative in Sustainable Sydney 2050 strategy.
 - Harris Street converted to two-way
 - Chalmers Street calmed and narrowed at crossings
 - Elizabeth Street south of Devonshire converted to two-way to calm traffic
 - Foveaux Street and Albion Street converted to two-way east of Mary Street to calm traffic
- Revise the 2036 road network conflict diagram (Fig 5-12) to better reflect the desired safety and place outcomes. The proposal should commit to minimising volumes.
- Amend the plans to show the southern cross-rail cycle route clearly and consistently across all documents on exhibition. Articulate how the southern rail crossing is to function and how it connects to the broader network.
- Show the provision of bike parking and end of trip facilities in Eddy Plaza in Figure 31 of the Design Guide, in alignment with the Transport Assessment
- Mapping of existing bike network should note that Devonshire Street is one-way
- All maps should differentiate between local and regional cycling connections
- Amend documents to be made consistent regarding parking provision and to cap parking at 208 spaces in line with the Transport Assessment.
- The Design Guide should stipulate that all residential parking to provide as unbundled, where the cost of buying or renting an apartment is separate to the cost of buying or renting a car parking space.
- The Design Guide should provide specific requirements for electric vehicle charging, including:
 - 100% of residential and 50% of commercial parking spaces are to be capable of supporting electric vehicle charging

- 25% of visitor parking bays must have Level 2 or higher charger fitted
- All car share bays must have Level 2 or higher chargers fitted
- Loading rates should be amended to reflect DCP
- Remove 7.4.5 so that service vehicle parking is not shared with other parking uses as it will erode the utility of servicing the precinct

Recommendation: Update the planning controls to respond to the above.

Noise and vibration

Long-term background noise measurement

Long-term background noise measurements have not been specifically carried out for this project, with a number of assumptions made in their place. While we acknowledge the impact of the COVID-19 pandemic on human activity and related noise, Central Station remains a commercial and transport hub, and any current reduction in noise levels may be a reflection of long-term changes in work patterns and human movements. The omission of this information makes it hard for any planning authority to evaluate such development in the context of a change to the noise environment.

Construction noise and vibration criteria

The City is comfortable with the proposal for a construction noise and vibration management plan, providing information on how the precinct will be delivered and realised, to be provided at a detailed design phase prior to works beginning. However, it is inappropriate for performance criteria for noise and vibration to have not been established prior to consent stage. Substantial construction noise and vibration will be generated in order to realise the precinct. Performance criteria are vital in order to adequately assess and control the impact of noise and vibration and should be included in any noise and vibration report placed on public exhibition for this precinct.

Alignment with Sydney DCP

Planning controls regarding noise and vibration, and acoustic privacy should be written to ensure alignment with the Sydney DCP, so there is no variation of standards between Central Precinct and surrounding districts. In particular, to limit the transmission of noise to and between dwellings, all floors should have a weighted standardised impact sound level ($L'_{nT,w}$) less than or equal to 55 where the floor separates a habitable room and another habitable room, bathroom, toilet, laundry, kitchen, plant room, stairway, public corridor, hallway and the like.

Recommendation: Provision 10 of Section 4.2.3.11 'Acoustic Privacy' of the Sydney DCP should be adopted and inserted into Section 9.6 of the Design Guide to ensure alignment regarding weighted standardised impact sound level.

Public art

The City has reviewed the Public Art Strategy and endorses the proposed provision of public art, which will be critical to contributing to the character of the place and supporting culture.

The City notes that a Public Art Plan will be developed at an unnamed future stage in response to the currently exhibited Masterplan. In reference to the proposed Public Art Strategy, the City raises the following points:

- The Strategy is unclear as to which of three funding options is being proposed – Government funded, privately funded, or a combination of both. We welcome the proposed budget of 1.5% of the cost of construction, but who is to provide those funds – government or the private sector?
- The annual funding of \$7.5m for a Live Works program is noted and appears to be the most coherent aspect of the strategy based on previous examples successfully implemented elsewhere. However, it is unclear as to who will raise the levy on tenants across the precinct to fund the scheme, and who will administer those funds and coordinate the program.
- In its current form the Strategy suggests multiple artworks, including multiple landmark artworks in a single precinct, and a complex process to achieve them. This is in contrast to an approach where a few key projects are prioritised, with an adequate budget to achieve them at high quality.
- The Strategy lacks a clear rationale for the development and prioritisation of works. It lacks detail on future phases of work, how various framework curators will be engaged and how they will coordinate with privately engaged curators for individual works.
- The Strategy indicates that curators will also assist with the fulfilment of various Connecting with Country and heritage interpretation projects but lacks detail on how that will be facilitated.

Recommendation: The City recommends a developer-funded mechanism, managed by a single authority (TfNSW/TAHE or equivalent) that would allow for the pooling of funds, ensuring a holistic place management approach with oversight of the consultation, planning, delivery, and maintenance of artworks, and addressing the public space in ways that transcend development site boundaries.

Night-time economy

The aspiration for a night-time economy which meets the social and cultural needs of the community is supported by the City.

The Plan of Management section of the Design Guide does not include or refer to any guidance on what should be addressed in a Plan of Management and how they are monitored and reviewed.

Plans of Managements (POMs) are critical compliance documents which address the operational aspects of late-night trading businesses and minimise impacts on neighbouring amenity. They are important documents used by the NSW Police and City of Sydney staff, who may be called to respond to incidents and complaints.

Paras 18-21 of section 17 of the Design Guide do not provide guidance on the content, review and monitoring of these documents. These provisions are required to provide certainty to applicants and ensure that POMs are effective in addressing operational issues and impacts on neighbouring amenity. They should be applied to Central Station without exception.

Section 3.15.5.2 Monitoring and Review and Schedule 3.2 of the Sydney DCP outlines these requirements and should be included within section 17 of the Design Guide.

Recommendation: Include a schedule or include after paragraph 21 of Section 17 Night-time economy of the Design Guide the matters to be addressed in 1(a)-(g) of the Schedule 3.2 of the Sydney DCP 2012.

Include after paragraph 21 of Section 17 Night-time economy of the Design Guide the monitoring and review provisions in section 3.15.5.2 of the Sydney DCP 2012.

The Design Guide currently includes hours for a late-night management area, with extended trading, but does not describe the context and desired character of the late-night management

area. Including a character statement for late-night management areas which describes their desired character, key defining elements, buffer zones, mix of uses, management and trading hours is useful information for applicants that should be incorporated into the Design Guide.

Recommendation: The Design Guide should include an appendix or insert text after Table 17 which provides a character statement for the late-night management area, aligning with the matters included in Schedule 3.1, Section 3.1.1 of the Sydney DCP 2012.

Ownership and governance

Land ownership

The land ownership arrangements at Central Precinct are opaque, with TfNSW and TAHE both being referred to as the landowners within the documentation provided. City of Sydney Councillors made a resolution in June 2022 opposing NSW Government land sell offs through the Transport Asset Holding Entity (TAHE). It is the view of the City that public land should remain in public ownership, to serve public interests now and in the future. A development at Central should be seen as an opportunity to deliver a new precinct which benefits the public through employment growth and the provision of local infrastructure, rather than a capital receipt. On-going land ownership is also important to retain control of and access to state significant infrastructure, namely the station and rail lines. The City seeks reassurance that the 24ha of land within Central precinct will remain in public ownership.

Recommendation: Provide a firm commitment that the 24ha of land within Central precinct will remain in public ownership.

Privately-owned public space

The streets and open spaces created within the development are proposed to be publicly accessible, privately owned spaces. For the precinct to become part of the wider City, it is important that the on-going governance and management of the spaces is considered. It is key that the agency charged with maintaining the space has sufficient resources and experience in public space management.

The City does not support the Codes SEPP proposed amendments to enable temporary events in the public space without the need to obtain a development consent (pp 65-66). If this SEPP amendment were enacted, the City would not be able to ensure appropriate governance of public spaces, and it runs the risk of public space becoming commercialised.

It is also important that the rights and needs of rough sleepers are considered in the design and management of the Precinct, referring to the NSW Protocol for Homelessness People in Public Spaces (NSW 2022).

At a high level, the new spaces created should be managed in a way that makes them feel public and welcoming to all.

Recommendation: More information is needed on the ongoing management and governance of the privately owned public spaces within the proposal.



Appendix 1: Explanation of Intended Effects mark up



This document is an Appendix to the City of Sydney's submission to TfNSW's proposal to rezone the Central Precinct and should be read in conjunction with the main submission. The document is TfNSW's proposed Explanation of Intended Effects, with the City's mark ups. The comments and tracked changes within the document provide suggested wording and alterations to create a more robust planning framework.

Department of Planning and Environment

dpie.nsw.gov.au



Explanation of Intended Effect Central State Significant Precinct

August 2022



Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of Gadigal land on which Central Precinct sits on and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Explanation of Intended Effect Central State Significant Precinct

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1.0 Introduction

The NSW Government is investing in the renewal of the Central Precinct to create an innovation and technology precinct. The strategic underpinning of this proposal arises from the Greater Sydney Region Plan and Eastern City District Plan. These plans focus on the integration of transport and land use planning, supporting the creation of jobs, homes and services to grow a strong and competitive Sydney and the state of NSW.

Transport for NSW has led a detailed master planning process for the Central Precinct in consultation with the Department of Planning and Environment, Government Architect NSW, City of Sydney Council, the Greater Cities Commission, other State Government agencies and stakeholders.

This Explanation of Intended Effect (EIE) has been prepared as part of investigations to rezone Central Precinct. The EIE sets out the proposed planning controls arising from the master planning process and is informed by the Central Precinct Place Strategy, Urban Design Framework, Public Domain Strategy and supporting technical reports. The EIE is being exhibited in accordance with clause 3.30 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to allow the public to make submissions that will be considered as part of the assessment of the proposed planning controls.

The EIE outlines proposed changes to the planning controls for Central Precinct (shown in Figure 1), which will be contained in the *Sydney Local Environmental Plan 2012* (Sydney LEP). Changes are also proposed to *State Environmental Planning Policy (Planning Systems) 2021*, *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (the Codes SEPP)* and *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

The proposed amendments to the planning controls will occur through a State Environmental Planning Policy (SEPP) which will amend these instruments.

1.1 Tech Central

Tech Central is Australia's biggest innovation district of its kind, made up of six connected neighbourhoods near the Sydney CBD (Haymarket, Ultimo, Surry Hills, Camperdown, Darlington North Eveleigh and South Eveleigh). The district is located on Gadigal land in the Eora Nation and brings the voices of First Nations Peoples of Australia front and centre on a global stage, recognising that they have been creating and innovating on this land for at least 65,000 years.

Tech Central is an essential component of the Greater Sydney Region Plan's Eastern Harbour City Innovation Corridor. It aims to leverage the existing rich heritage, culture, activity, innovation and technology, education and health institutions within the precinct as well as the excellent transport links provided by the Central and Redfern Station transport interchanges.

The Central Precinct is located within the Haymarket neighbourhood of Tech Central. Planned to become the CBD for Sydney’s 21st century, the urban renewal of the Central Precinct has been identified as a key project to achieving the vision for Tech Central.

1.2 Central Precinct

With Central Station at its core, Central Precinct is located at the south-east edge of Central Sydney. It is surrounded by Haymarket to the north, Surry Hills to the east, Redfern to the south and Chippendale to the west. It is located within the City of Sydney local government area (LGA).

Central Precinct comprises approximately 24 hectares of NSW Government owned land generally bound by Eddy Avenue, Hay Street and Goulburn Street to the north, Elizabeth Street, Chalmers Street and Prince Alfred Park Street to the east, Cleveland Street to the south and Pitt Street and Regent Street to the west (Figure 1).

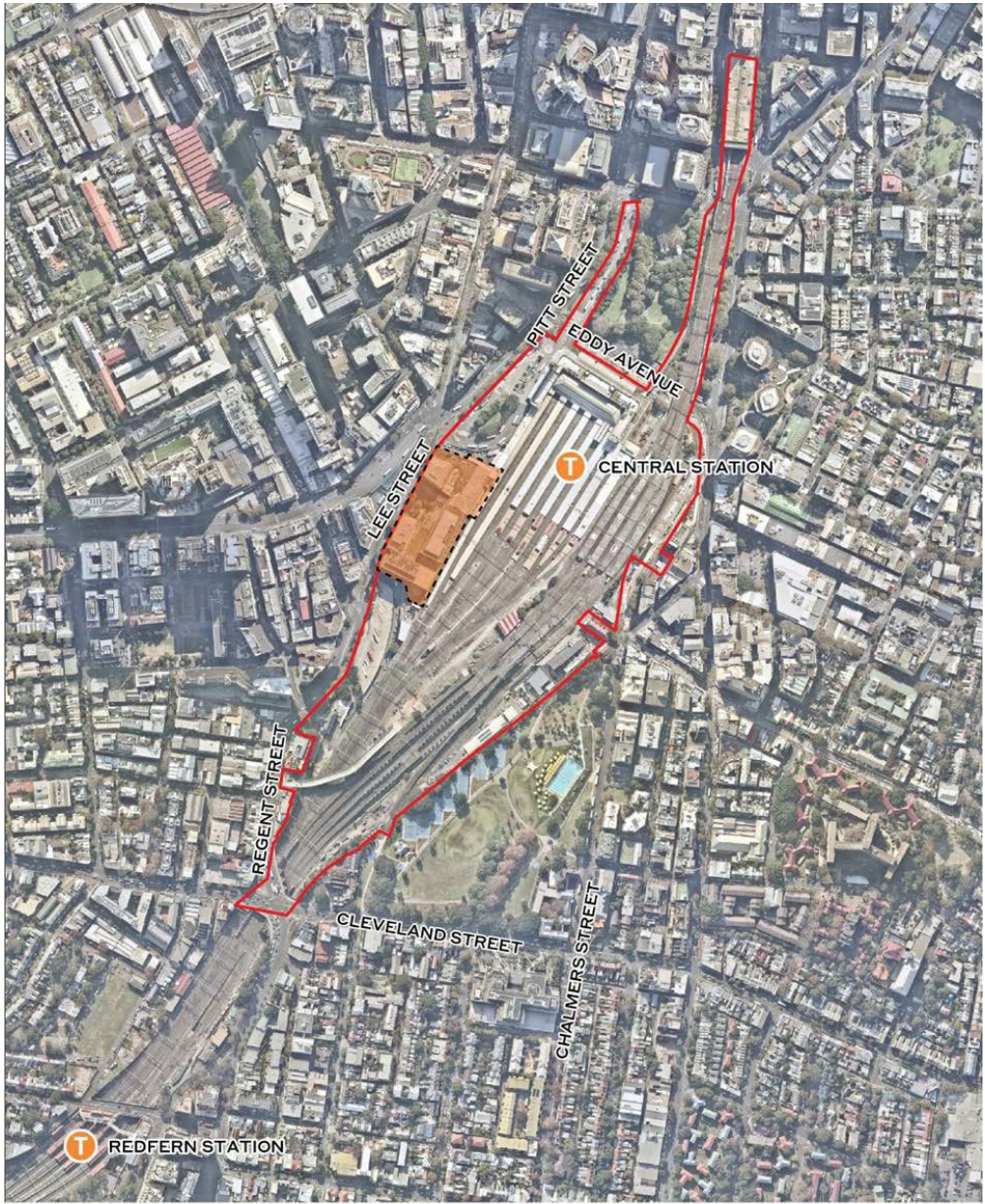
In July 2019, the Minister for Planning announced the investigation of Central Precinct as a State Significant Precinct (SSP). State Significant Precincts are areas which are deemed to have planning significance to the State of NSW because of their social, economic or environmental characteristics. The SSP process allows for planning investigations for the future redevelopment of the station and surrounding area to commence. Transport for NSW (TfNSW) is the applicant for the SSP and is responsible for leading the planning investigations.

As part of the first stage of planning for Central SSP, TfNSW adopted a Strategic Framework in March 2021. To guide planning for Central Precinct, the Strategic Framework set a vision, identified priorities and key planning considerations, established sub-precincts and made a commitment to design excellence. TfNSW also prepared a rezoning proposal for the first sub-precinct within the Central SSP, known as the Western Gateway sub-precinct. The Western Gateway sub-precinct was rezoned in 2020 and 2021.

As part of the Strategic Framework, eight sub-precincts have been defined that reflect and respond to the varying character of the surrounding areas. These sub-precincts are:

1. Central Station
2. Northern Over Station Development
3. Western Gateway (rezoned in 2020-21)
4. Regent Street Sidings
5. Southern Over Station Development
6. Prince Alfred Sidings
7. Eastern Gateway
8. Goulburn Street.

The location of these sub-precincts and relevant boundaries is illustrated in Figure 2.



Central State Significant Precinct Western Gateway sub-precinct

Figure 1: Central SSP and the Western Gateway sub-precinct

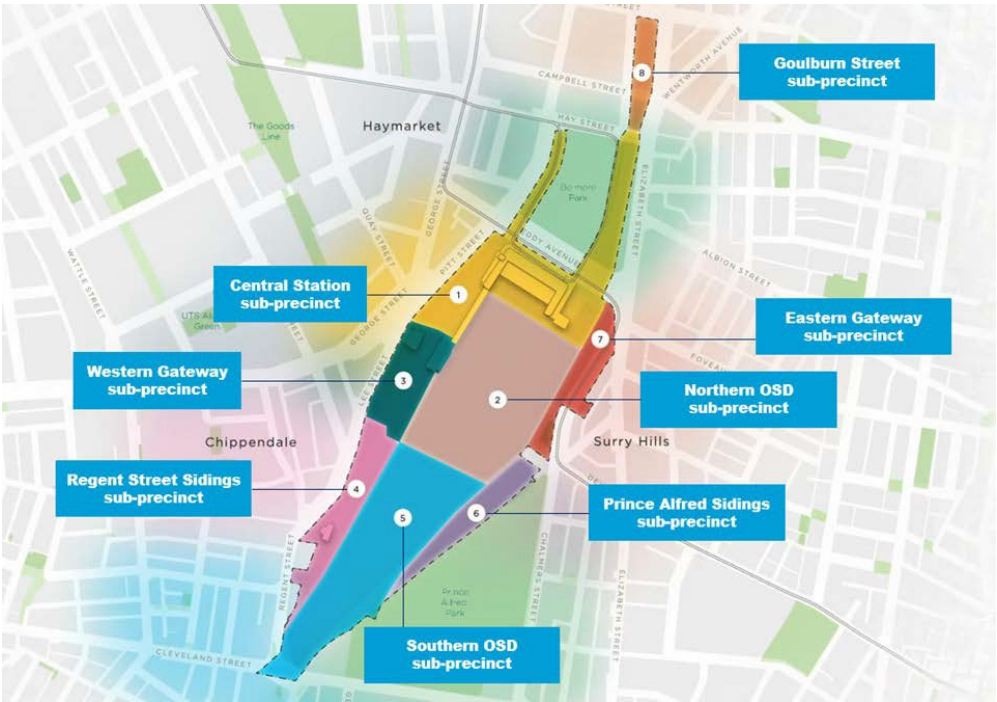


Figure 2: Central Precinct sub-precincts

1.3 Objectives and intended outcomes

New planning controls are proposed to guide future development as part of the renewal program for Central Precinct.

The intended outcome of the proposed SEPP is to amend Sydney LEP to facilitate the future development of Central Precinct as an exciting new destination within Tech Central that which:

- creates an exciting new destination, with ground floor activation, a vibrant mix of uses, cultural and social infrastructure and night time economy,
- celebrates the area’s historical significance and,
- embeds Connecting with Country principles,
- delivers a new globally recognised innovation and technology precinct and contributes towards targets for new jobs:
- creates new high quality public space, with trees, greenery, and comfortable sunlight and wind conditions
- protects solar access to Prince Alfred Park and the future Central Square

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- creates direct and legible connections between existing neighbourhoods to overcome the barrier of the rail corridor
- adopts ambitious sustainability practices in terms of building performance, energy, water, waste, and green infrastructure to achieve a net zero precinct
- delivers affordable and diverse homes and workspaces
- maintains the heritage listing of the precinct and its individual components and enhances the heritage elements
- maintains Central Station's capacity and role as Sydney's main transport interchange
- is supported by local infrastructure commensurate with the scale of the development

Key outcomes of the proposed amendments are to deliver on the Premier's commitment to establishing a globally competitive Sydney Innovation and Technology Precinct and the contribution to strategic State, metropolitan and local policies for jobs, homes and publicly accessible space.

The new planning controls are intended to enable the delivery of:

- approximately 269,500 square metres of commercial gross floor area (GFA).
- approximately 22,850 square metres of retail GFA.
- approximately 47,250 square metres of education/ tech GFA.

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- approximately 14,300 square metres of community/ cultural GFA.
- approximately 84,900 square metres of residential GFA.
- approximately 53,600 square metres of hotel GFA.
- approximately 22,500 square metres of student accommodation GFA.
- 15% of new dwellings to be provided as affordable housing.
- over two hectares of new and improved publicly accessible open spaces, including:
 - Central Square, a new 7,000 square metre publicly accessible square located at the George Street and Pitt Street junction
 - Central Green, a new 6,000 square metre publicly accessible park located immediately south of the Sydney Terminal building
 - Mortuary Station Plaza, a 4,470 square metre publicly accessible plaza (excluding the Mortuary Station building) located at Mortuary Station
 - Sydney Terminal building western rooftop, a 970sqm publicly accessible space above the Terminal building roof
 - upgrades to Eddy Avenue Plaza and Ibero-American Plaza.
- an integrated network of streets, laneways and other movement corridors, including:
 - Central Avenue, as Central Precinct's new main street
 - Devonshire Link, as Central Precinct's main east-west street
 - a north-south link as an intimately scaled, active laneway
 - a supporting network of other open to the sky laneways generally running east-west through the Precinct
 - a number of through-block links to provide further permeability for pedestrians
 - an eastern colonnade, having a generous, double storey height
 - three new active transport over-rail bridges
 - a revitalised Goods Line.

2.0 Explanation of Provisions

2.1 Proposed planning instrument amendments

A SEPP is proposed to amend Sydney LEP 2012. The proposed SEPP amendment will apply to the area known as the Central Precinct (excluding the recently rezoned Western Gateway sub-precinct) as shown in Figure 1.

To support the plans for Central Precinct the proposed amendments include:

- new statutory planning controls within Sydney LEP 2012
- a Central Precinct Design Guide to support and provide more detailed guidance for development at Central Precinct
- other environmental planning instruments to support the intended outcomes for Central Precinct, including:
 - State Environmental Planning Policy (Planning Systems) 2021
 - State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
 - State Environmental Planning Policy (Transport and Infrastructure) 2021.

2.2 Land use zoning

It is envisaged a range of land uses will be supported within the Central Precinct to support a jobs focussed precinct with a mix of commercial, hotel, education, residential, recreation and community/ cultural uses, while also continuing to enable the existing railway and associated uses.

To support this, the following land use zones are proposed:

- B8 Metropolitan Centre for the over station development and Prince Alfred Sidings sub-precinct
- RE1 Public Recreation for Central Square, Central Green, Mortuary Station Plaza and Eddy Avenue Plaza, as these areas will have a predominant recreation function
- B4 Mixed Use for the Regent Street Sidings sub-precinct
- Retain the existing SP2 Infrastructure (Railways) for the suburban rail lines, the Sydney Terminal building (including ancillary areas such as the Western Forecourt) and the Goods Line.

Draft land use zoning maps have been prepared to reflect the proposed zoning (Figure 3 and Annexure 1).

2.2.1 Additional permitted uses

In addition to the above land use zones for Central Precinct, an additional permitted use clause is proposed for the Sydney Terminal Building (proposed to be zoned SP2 Infrastructure (Railways)) to permit commercial premises within the building with consent. This will enable the adaptive re-use of the heritage building for other complementary uses.

2.2.2 Transition to new employment zones

The Department is working to simplify the existing employment zones framework. Existing business and industrial zones will be removed on 1 December 2022. Equivalent employment zones under the new framework will apply to Central Precinct after 1 December 2022, should the rezoning be approved.



Figure 3: Proposed land zoning map

2.3 Height of buildings

The maximum building heights proposed for development blocks in the Central Precinct range from reduced level (RL) 55 metres (Australian height datum (AHD)) to RL 204 metres (AHD). The maximum building heights set for areas of over station development (sub-precincts 2 and 5 in Figure 3) are proposed on the basis that the deck will be at RL30 metres (AHD).

A maximum building height of RL 35 metres (AHD) or 3 metres above the new deck level ground plane, whichever is lower, will apply to the public spaces on the over station development (OSD) deck. This will limit any structural elements from being built on these areas, apart from public amenities and small-scale pavilions associated with community uses or use of the public open space for community activities. A maximum building height of RL 39 metres (AHD)- or 9 metres above the new deck level ground plane, whichever is lower, is proposed for the southern end of the Sydney Terminal Building western rooftop to allow for a taller pavilion in this location.

The Height of Buildings map for the Goulburn Street sub-precinct is proposed to be amended from 60m to no maximum building height. Instead, it is intended that the land will be identified as Area 3 on the Height of Buildings map. As per clause 6.17 of Sydney LEP 2012, no maximum height is identified for land in Area 3 as the maximum height for buildings is determined by the Belmore Park sun access plane (refer below).

For the Sydney Terminal Building, no change is proposed to the existing building height shown on the Sydney LEP Height of Buildings map.

A draft height of building map has been prepared to reflect the proposed maximum building heights (Figure 4 and Annexure 1).

The height of future buildings will also be controlled by the sun access plane and airspace operations clauses, refer below.

2.3.1 Sun access planes for Prince Alfred Park and Belmore Park

Clause 6.17 of Sydney LEP 2012 sets out sun access planes for Prince Alfred Park and Belmore Park and protects sunlight access between 10am – 2pm all year. Clause 6.17 will continue to apply to future development at Central Precinct.

The clause sets out that the consent authority must not grant development consent to development on land if the development will result in any building on the land projecting higher than any part of the sun access plane. As such, the sun access plane will take precedence over the proposed maximum building heights described above.

2.3.2 Airspace operations

The proposed maximum building heights will exceed the prescribed Obstacle Limitation Surface (OLS) in some locations. Building height will be subject to clause 7.16 of Sydney LEP 2012, which prevents buildings from exceeding the OLS without first consulting with the relevant Commonwealth body and receiving confirmation that there is no objection to exceeding the OLS.

In addition to the above, the Regent Street Sidings sub-precinct proposed maximum building height of RL 180 metres will exceed the prescribed airspace of the Radar Terrain Clearance Charts (RTCC). A new provision is proposed to ensure the operation of Sydney Airport is not compromised by any

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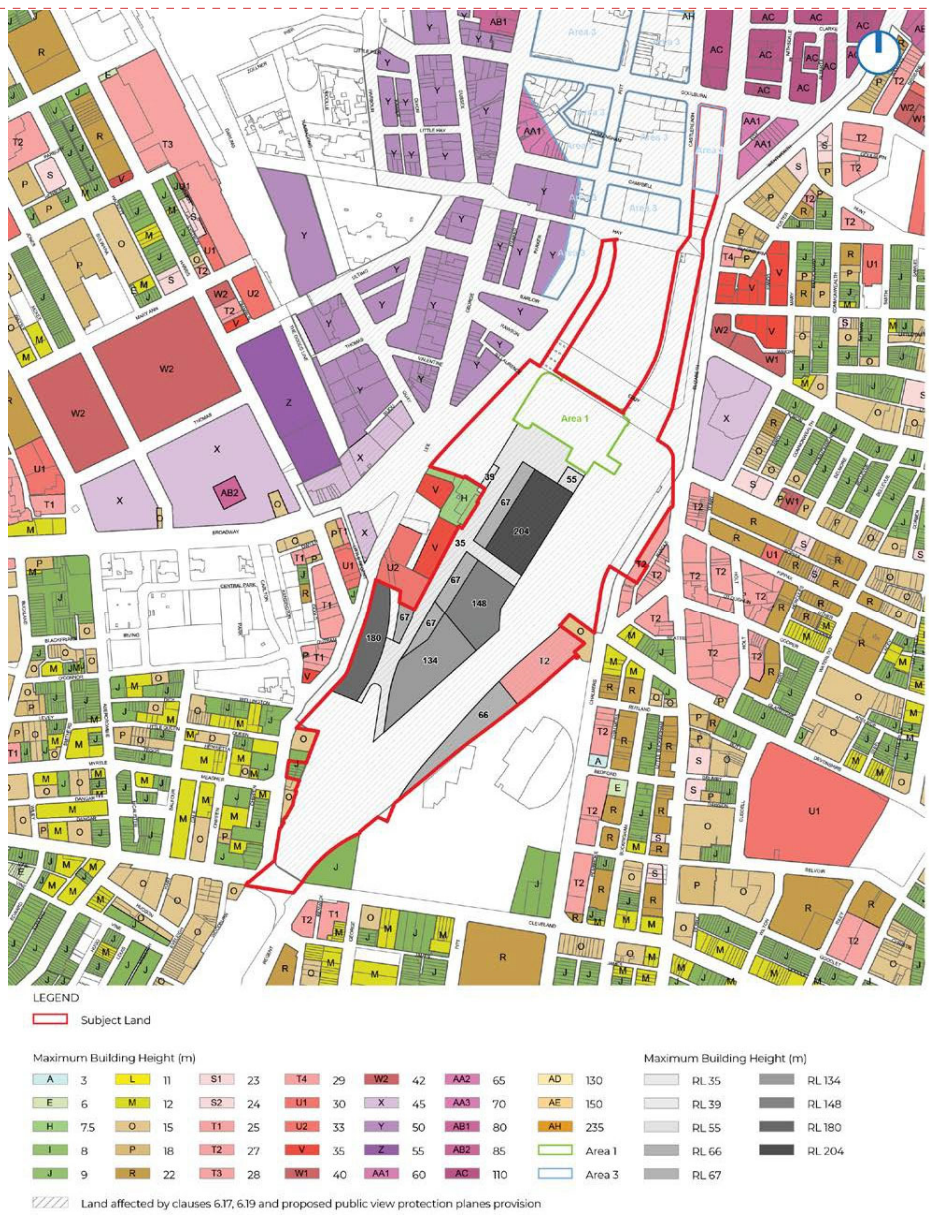
Commented [A2]: Wind conditions should be dealt with through changes to building form in the first instance. It is also misleading that no 9m structures were shown in this area in the visualisations of the scheme, nor identified in terms of visual impact or heritage impact.

Commented [A3]: The Transport and Infrastructure SEPP (Chapter 2, Part 2.3, Division 11, clauses 2.69-2.70) is proposed to apply to this site allowing for exempt development of this type. Recommend that these height controls are not included.

Commented [A4]: Suggest we remove 'on land' to avoid any confusion as to whether this applies to buildings on the deck.

proposed development that penetrates the RTCC surface height. Similar to clause 7.16, the new

provision will prevent buildings from exceeding the RTCC surface height without first consulting with the relevant airspace authority and Commonwealth body and receiving confirmation that there is no objection to exceeding the RTCC.



Commented [A5]: Remove the areas of RL35 and RL39 proposed maximum building heights.

Figure 4: Proposed height of building map

2.4 Floor space ratio

The maximum floor space ratio (FSR) proposed for each of the development blocks in the Central Precinct is:

- Block AG – 12:1
- Block AD1 – 9:1
- Block AD2 – 9.5:1
- Block AE – 10:1
- Block T2 – 2.3:1
- Block W1 – 3.5:1

Further, clauses 6.3 – 6.9 of Sydney LEP 2012 allows for additional floor space to accommodate certain uses. It is proposed this clause will not apply to Central Precinct.

A draft floor space ratio map has been prepared to reflect the proposed maximum FSR (Figure 5 and Annexure 1).

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Further consideration should be given to structuring the FSR in such a way to incentivise a diversity of uses (noting Clause 6.4 of Sydney LEP 2012).

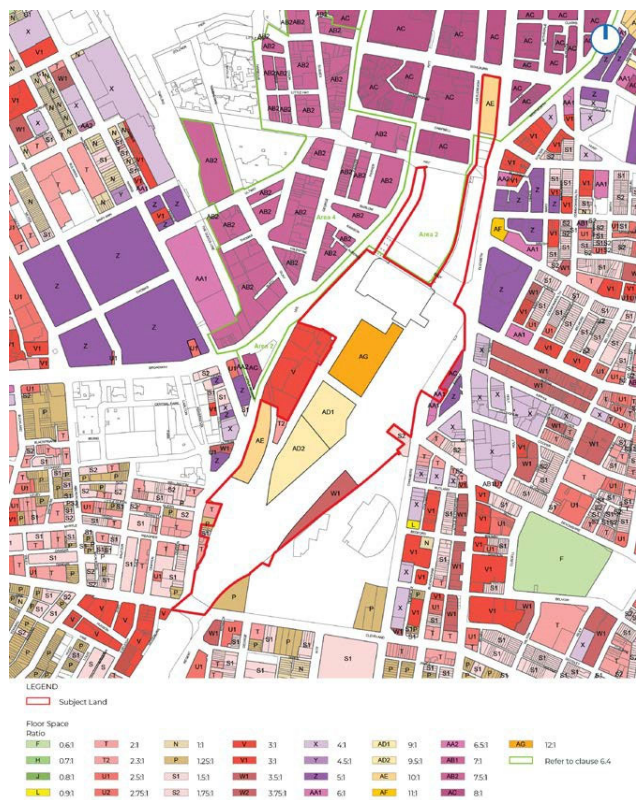


Figure 5: Proposed FSR map

2.5 Heritage conservation

The majority of Central Precinct is listed as having State heritage significance and the Precinct contains three items listed on the NSW State Heritage Register; Central Station (Sydney Terminal and Central Railway Stations Group), Mortuary Railway Station and the Railway Overbridge. Central Precinct is of exceptional heritage significance for the key role it plays as the first Sydney Station and role in the establishment, operation and growth of the NSW railways.

Clause 5.10 of the Sydney LEP contains provisions regarding heritage conservation to conserve Aboriginal and environmental heritage items. The existing heritage conservation provisions will continue to apply to the Central Precinct.

Schedule 5 of the LEP should be updated by removing the asterix denoting eligibility for an HFS award.

2.6 Site specific provisions

A new site-specific provision for the Central Precinct is proposed to be inserted in Sydney LEP to set out the controls that will apply to the Precinct. The following sections outline the provisions which are proposed to be included.

2.6.1 Maximum residential gross floor area

To develop Tech Central as a vibrant innovation precinct, an appropriate amount of residential and non-residential development is required. To ensure an appropriate balance is achieved, it is proposed to include a provision that will ensure no more than 107,400 square metres of the gross floor area on the site will be used for residential accommodation (including build-to-rent and student accommodation).

2.6.2 Publicly accessible space

A new provision is proposed to ensure the delivery of a high-quality network of publicly accessible spaces within Central Precinct. To support this provision a new map is proposed that will define the location of open spaces, streets and laneways in the Precinct. The provision will identify the specific location of the primary open spaces and streets.

The provision also identifies laneways in the Precinct (north-south laneway and the east-west laneways) but will allow some flexibility for these laneways to be delivered within a zone of variation to achieve high quality public space outcomes.

The provision will also include objectives and controls to support the delivery and location of the publicly accessible spaces and will be supported by further controls in the Design Guide.

A draft publicly accessible space map has been prepared to reflect the proposed publicly accessible spaces for the Precinct (refer to Figure 6 and Annexure 1).

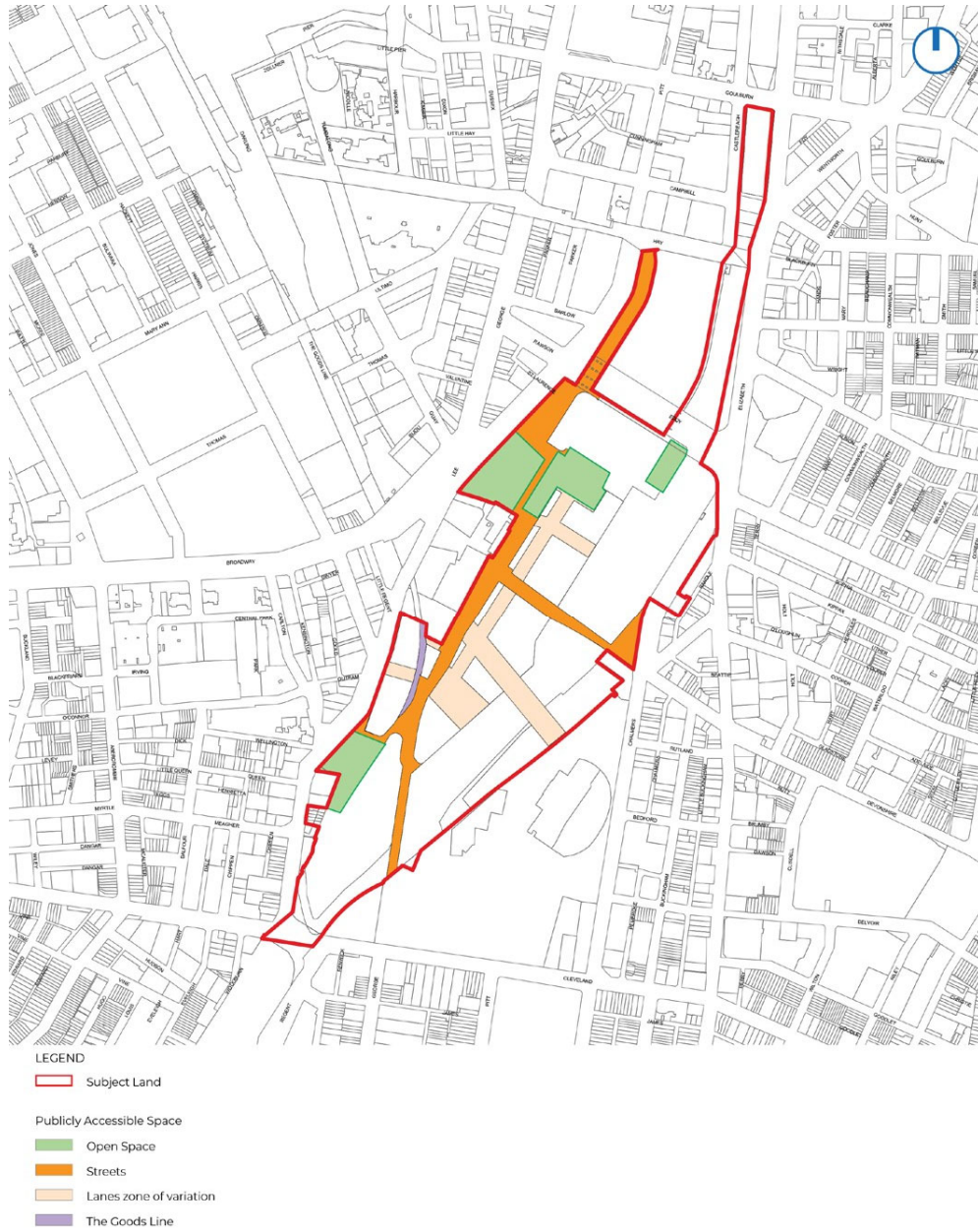


Figure 6: Proposed publicly accessible space map

2.6.3 Airspace operations

A new provision is proposed that will prevent buildings from exceeding the RTCC surface height without first consulting with the relevant airspace authority and Commonwealth body and receiving confirmation that there is no objection to exceeding the RTCC.

The proposed provision would operate similar to, and in addition to clause 7.16 of the Sydney LEP 2012. The provisions are described in more detail in Section 2.3.

2.6.4 Car parking

Part 7, Division 1 of Sydney LEP contains provisions relating to car parking. It identifies the maximum number of car parking spaces that may be provided to service particular uses of land depending on the site’s location.

Residential car parking

Clause 7.5 of Sydney LEP sets out the maximum number of car parking spaces for residential land uses shown as Categories A to C on the Land Use and Transport Integration Map (LUTI Map). The Central Precinct is identified as Category A on the LUTI map and will continue to apply.

Non-residential car parking

Clauses 7.6 and 7.7 of Sydney LEP set out the maximum number of car parking spaces for office, business and retail premises shown as Categories D to F on the Public Transport Accessibility Level Map (PTAL Map). The Central Precinct is identified as Category D on the PTAL map.

Clause 7.9 of the Sydney LEP sets out the maximum number of car parking spaces for other land uses including serviced apartment and hotel accommodation, child care facilities, information and education facilities, health and medical centres and entertainment facilities.

For Central Precinct, a new provision is proposed with lower maximum car parking spaces for certain non-residential uses, as outlined in Table 1. This is intended to further restrict the amount of car parking spaces available and help to achieve sustainable transport objectives for the Precinct. This new provision will take precedence over the existing Sydney LEP clauses for these specific non-residential uses. For any non-residential land uses not identified in Table 1, the relevant clauses of Sydney LEP will apply.

Table 1: Lower maximum car parking spaces for certain non-residential uses

Land use	Rate
Student accommodation	0.1 spaces per room
Hotel or motel accommodation	0.1 spaces per room
Commercial premises	1 space per 2,000 m² GFA
Retail premises	1 space per 2,000 m² GFA
Educational establishments	1 space per 2,000 m² GFA
Community facilities	1 space per 2,000 m² GFA

2.6.5 Design excellence

Mandating design excellence in both the public and private domain is one of the urban design principles underpinning development at the Central Precinct. New works including (but not limited to) buildings, parks and open space at the Central Precinct will be required to exhibit design excellence. Clause 6.21C of Sydney LEP 2012 sets the criteria for delivering design excellence. This applies to all development within Central Precinct.

For the vast majority of elements of the development this will be facilitated/explored by a design competition. Design competitions should be carried out in accordance with:

- A Project-specific Design Excellence Strategy that has been endorsed by the NSW Government Architect; and
- The Precinct-wide Design Excellence Strategy (Attachment 7); and

The City of Sydney Competitive Design Policy, by undergoing a design excellence process in accordance with:

a Design Excellence Strategy that has been agreed with the NSW Government Architect, or the City of Sydney Competitive Design Policy or the relevant NSW Government Architect competitive design policy at the time;

No additional floorspace or building height will be awarded for a building demonstrating design excellence.

A site-specific provision is proposed to address the above and identify specific matters to be considered when demonstrating design excellence. Further guidance is proposed to be provided within the Design Guide.

2.6.6 Affordable housing

Clause 7.13 of Sydney LEP 2012 sets contributions for the purposes of affordable housing and applies to land at Central Precinct. The City's Affordable Housing Program (adopted August 2020) sets contributions rates and outlines that the contribution can be satisfied by dedication of dwellings or an equivalent monetary contribution.

It is proposed that clause 7.13 not apply to land at Central Precinct. A new site-specific provision is proposed that would require a contribution towards the provision of affordable housing equivalent to a minimum of ~~15.25~~ 25% of the total floor area that is intended to be used for residential purposes. The 25% affordable housing requirement should be delivered within each residential development or provided in an early phase.

The affordable housing should be the subject of a planning agreement to deliver housing on-site, or otherwise a contribution should be paid in accordance with the City of Sydney affordable housing program.

Affordable housing is dedicated in perpetuity to a Community Housing Provider.

It is noted that following the public exhibition period, TfNSW will target for the Precinct, a site-specific provision is proposed which would require a further 15 percent of new residential floor space to be delivered as diverse housing (i.e. seniors housing, key worker housing, ~~build to rent~~ etc).

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2.6.7 Design guide

A new provision is proposed to require the consent authority to consider a Design Guide made by the Planning Secretary relating to the design and amenity of the Central Precinct before granting consent to development in the precinct.

The Design Guide, on exhibition along with the EIE, sets out a suite of built form and urban design provisions to ensure that new development in the precinct achieves high quality outcomes for built form, public domain, heritage and seeks to improve the amenity of the precinct and its surrounds. Specifically, the draft Design Guide addresses:

- Public domain
- Amenity, including solar access, wind and views and vistas
- Transport, including vehicle access, parking and active transport
- Land use
- Built form and design

- Design excellence
- Connecting with Country
- Heritage
- Environmental sustainability
- Green infrastructure
- Water quality, flooding and stormwater
- Social sustainability and infrastructure
- Safety and security
- Night time economy
- Aeronautical
- Staging and implementation

Clause 7.20 of the SLEP 2012 requires the preparation of a development control plan for sites over 1,500 square metres in Central Sydney. It is proposed that this clause will not apply to land at Central Precinct. It is intended the Design Guide will provide suitable detailed guidance.

The Design Guide should be kept up-to-date through a review and new revision every five years, as is required for all planning instruments by Clause 3.21 of the EP&A Act.

2.6.8 Infrastructure funding and delivery

Local infrastructure

The Central Sydney Contributions Plan (CSCP) 2020 applies to land at Central Precinct. The CSCP enables the City of Sydney to levy a contribution on new development to generate contributions for local infrastructure works and upgrades in Central Sydney, to support the delivery of infrastructure for growth between 2020-2025 in Central Sydney. The CSCP sets out contributions rates, as well as alternatives to monetary contributions including dedications of land, works in kind or other material benefits.

Consultation regarding infrastructure needs, costs and mechanisms for delivery are underway in collaboration with the City of Sydney, Transport for NSW and the Department.

State Infrastructure

To ensure the consent authority considers the impact of future development on State Infrastructure, a provision is sought to be included to require that consent must not be granted unless the consent authority has obtained the concurrence of the Planning Secretary. In deciding whether to grant concurrence, the Planning Secretary will need to consider:

- the impact of the development on State Infrastructure and the need for additional State infrastructure
- the cumulative impact of the development on existing State infrastructure and the need for additional State infrastructure, and
- any steps taken to address any impacts, including whether a planning agreement is to be entered into.

2.7 Proposed Amendments to Other Environmental Planning Instruments

To support the outcomes intended to be achieved for Central Precinct, amendments are proposed to the following State environmental planning policies:

- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
- State Environmental Planning Policy (Transport and Infrastructure) 2021.

2.7.1 State Environmental Planning Policy (Planning Systems) 2021

The Planning Systems SEPP declares certain types of development and development in certain sites as State Significant Development (SSD).

Central Precinct is within a rail corridor. Under the Planning Systems SEPP, development within a rail corridor or associated with railway infrastructure that has a capital investment value (CIV) of more than \$30 million for any of the following purposes is declared to be SSD:

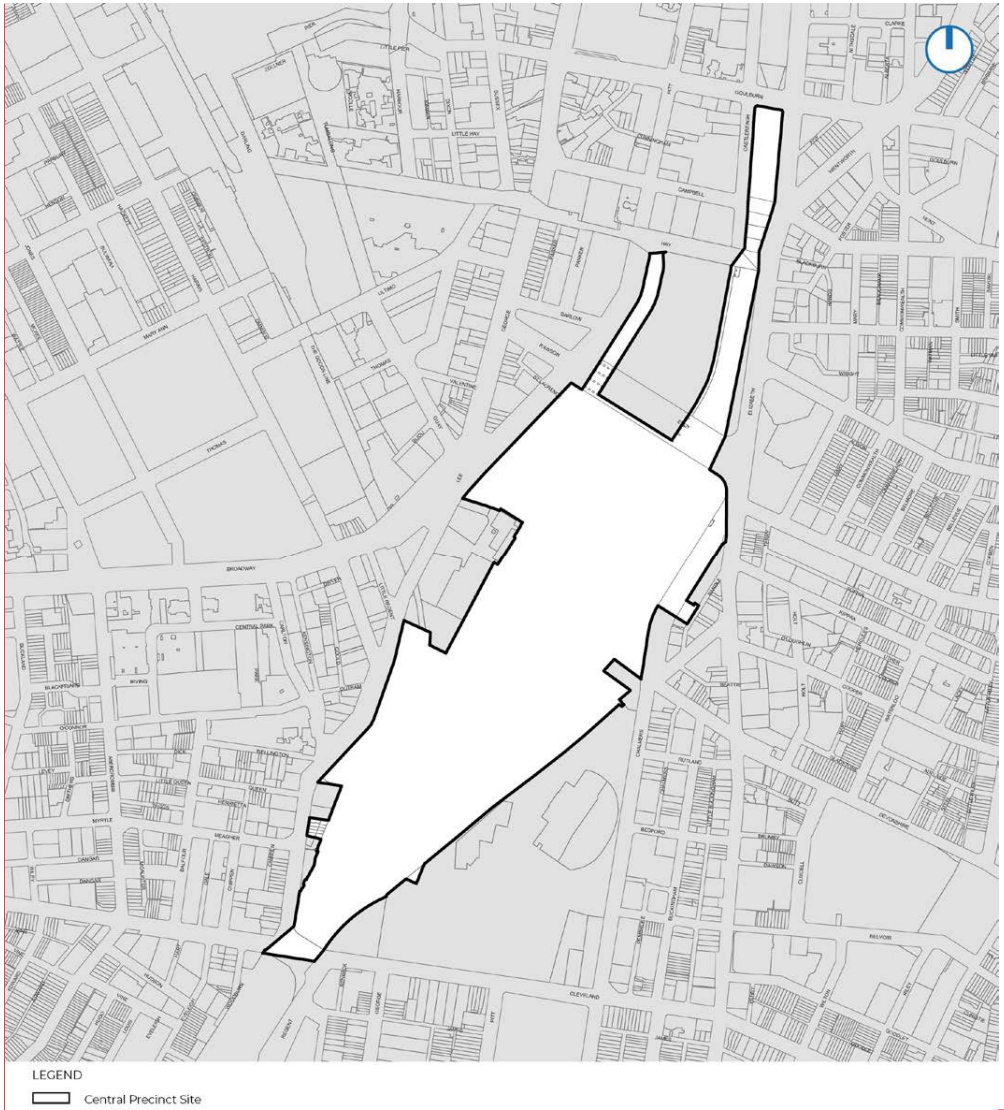
- commercial premises or residential accommodation
- container packing, storage or examination facilities
- public transport interchanges.

This is considered likely to apply to most types of development envisaged by the proposed planning framework.

It is proposed to amend schedule 2 ‘State significant development—identified sites’ of the Planning Systems SEPP to include Central Precinct and make all development with a CIV of more than \$30 million SSD. This will aim to provide a consistent and clear planning approval pathway for proponents by having a single consent authority for all types of development in the Central Precinct with a CIV of more than \$30 million.

A draft Central Precinct site map has been prepared (refer to Figure 7 and Annexure 1).

Commented [A8]: Questionable as to whether this should apply to Regent Street Sidings and Prince Alfred Park sub-precincts, noting the approach to Western Gateway which also adjoins rail infrastructure. There would be benefits to the City acting as consent authority for development that adjoins the deck, in terms of integration with the wider city.



Commented [A9]: Amend to align with above comment.

Figure 7: Proposed State Significant Development Site map

2.7.2 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (the Codes SEPP)

The Codes SEPP (Part 2, Division 3, subdivision 10, clauses 2.125-2.126) enable community and commercial events to be undertaken in certain state significant precincts as exempt development subject to meeting appropriate development standards. These precincts are currently Circular Quay, The Rocks, Darling Harbour, Barangaroo and Sydney Olympic Park.

Clause 2.125 of the Codes SEPP allows development of temporary uses in the public domain, including development for the following purposes, as exempt development:

- a community event
- a commercial event (such as a product launch and sampling)
- trading for retail or other commercial purposes (such as providing a temporary dining and drinking area)
- associated storage areas and truck lay-by areas and the like.

Clause 2.126 stipulates development standards that, along with general exempt development criteria, must be met for the above activities to be undertaken as exempt development. They include matters relating to:

- maximum period and maximum number of days per year over which events may be held
- hours of operation as well as hours for bump in/bump out and cleaning
- pedestrian and emergency vehicle access.

Clauses 2.125 and 2.126 apply to events in the public domain only and do not extend to private sites (refer clause 2.125(2)).

The establishment of new entertainment, events and cultural spaces is integral to the renewal of Central Precinct as a major destination for Central Sydney and a new heart for southern Central Sydney. The holding of events in the public domain is an important element of this ambition. It is therefore proposed to add Central Precinct to the list of state significant precincts in clause 2.125 to enable events to be undertaken in the public domain as exempt development subject to compliance with the development standards set out in clause 2.126.

2.7.3 State Environmental Planning Policy (Transport and Infrastructure) 2021

The Transport and Infrastructure SEPP (Chapter 2, Part 2.3, Division 11, clauses 2.69-2.70) enables public authorities to undertake certain works as exempt development within identified 'public authority precincts'. The public authority precincts are currently Barangaroo, Darling Harbour, Sydney Olympic Park and The Rocks. Development for any of the following purposes is exempt development if it is carried out by or on behalf of a public authority in a public authority precinct:

- roads, cycleways, pedestrian bridges, at grade car parks, ticketing facilities and viewing platforms
- recreation facilities (outdoor), other than grandstands

- amenity facilities, including toilets, change rooms and food preparation and related facilities for persons using public spaces within the site
- information boards and other information facilities (except visitor centres)
- lighting if the lighting minimises light spill and artificial sky glow
- maintenance depots used solely for the maintenance of the land or structures within the site
- environmental management works
- landscaping, including landscape structures or features and irrigation systems (Christmas trees)
- Christmas trees
- demolition of certain buildings.

Similar to the existing public authority precincts, Central Precinct is intended to be a major destination for Central Sydney and a new heart for southern Central Sydney. The State, through TfNSW, will also be active in undertaking infrastructure works consistent with its ongoing role as Sydney's main public transport hub. Considering the aims of the Transport and Infrastructure SEPP, it is proposed to include Central Precinct as a public authority precinct under the SEPP. This will enable any public authority to undertake improvements as exempt development, thereby helping to facilitate the efficient and timely delivery of public infrastructure. The improvements that could be undertaken as exempt development would be the same as those listed above.

Commented [A10]: This wording should align with the SEPP

3.0 Annexures - Proposed Statutory Mapping Amendments

The key draft statutory maps required to implement the proposed controls include the following:

- Land Use Zoning Map
- Height of Building Map
- Floor Space Ratio Map
- Publicly Accessible Space Map
- Central Precinct State Significant Development Site Map

Appendix 2: Design Guide mark up



This document is an Appendix to the City of Sydney's submission to TfNSW's proposal to rezone the Central Precinct and should be read in conjunction with the main submission. The document is TfNSW's proposed Design Guide, with the City's mark ups. The comments and tracked changes within the document provide suggested wording and alterations to create a more robust planning framework.



Design Guide

Central Precinct - State Significant Precinct

Transport for NSW
For exhibition | July 2022

Acknowledgement of Country

We respectfully acknowledge the Traditional Custodians of the Central Precinct, the Gadigal and recognise the importance of place to Aboriginal people and their continuing connection to Country and culture. We pay our respect to Elders past, present and emerging.

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1.0 Introduction

1.1 Name of Guide

This document is the Central Precinct Design Guide.

1.2 Citation

This document may be referred to as the Design Guide.

1.3 Commencement

The Design Guide commences on the day on which it is endorsed by the Secretary of the Department of Planning and Environment.

1.4 Land to which this Design Guide applies

The Design Guide applies to land shown in **Figure 1: Central Precinct land application**.

It is noted that existing active railway infrastructure and street corridors continue to operate through the Central Precinct at different levels.

Note: Western Gateway Sub-precinct Design Guide applies to the Western Gateway sub-precinct.

1.5 Purpose and status of this Design Guide

The purpose of this Design Guide is to support implementation of the Sydney Local Environmental Plan 2012 (Sydney LEP 2012) as it applies to Central Precinct by providing more detailed provisions to guide development.

It is given effect by reference in section **[insert relevant section]** of the Sydney LEP 2012.

This Design Guide replaces the provisions of the Sydney Development Control Plan 2012.

While this Design Guide is not a planning instrument under the Environmental Planning and Assessment Act 1979, Clause **[insert relevant section]** of the Sydney LEP 2012 requires the consideration of the objectives and guidance of this Design Guide as part of the assessment of any future development applications within Central Precinct.

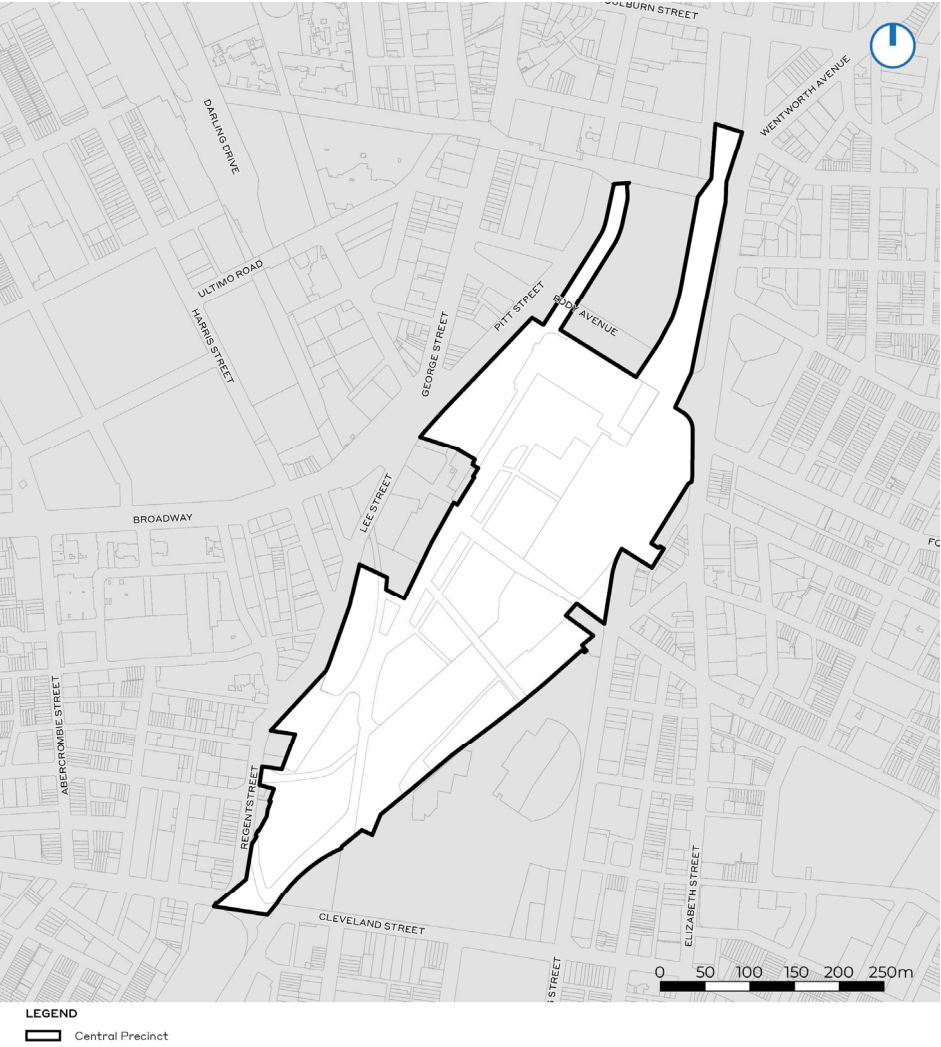


Figure 1 Central Precinct land application

1.6 Relationship to planning instruments and documents

The Design Guide forms part of suite of planning provisions that apply to Central Precinct. This includes Acts, Regulations and State environmental planning policies.

Relevant Acts and Regulations include:

- *Environmental Planning and Assessment Act 1979*
- *Heritage Act 1977*
- *Environmental Planning and Assessment Regulation 2000.*

Relevant State environmental planning policies include:

- State Environmental Planning Policy (Housing) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Transport and Infrastructure) 2021
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

The Design Guide is sub-ordinate to the Sydney LEP 2012 and State environmental planning policies. Where a provision of this Design Guide is inconsistent with a provision in the Sydney LEP 2012 or a State environmental planning policy, the Sydney LEP 2012 or State environmental planning policy prevails to the extent of the inconsistency.

The Design Guide makes reference to a number of other supporting strategies, frameworks, plans and other documents. These documents provide further, more detailed strategies on how objectives and guidance may be satisfied through the design excellence and development application process. These documents are:

- Central Precinct Connecting with Country Framework (Balarinji, 2022)
- Central Precinct Conservation Management Plan (Artefact, 2022)
- Central Precinct Place Strategy (Architectus, 2022)
- Central Precinct Public Art Strategy (Cultural Capital, 2022)
- Central Precinct Public Domain Strategy (Tyrrell Studio, 2022)
- Central Precinct Heritage Interpretation Strategy (Artefact, 2022)

It is noted that the intent of referencing these documents is not to provide one, specific design solution, and a range of design solutions are encouraged to be explored during the detailed design phase.

1.7 How to use this Design Guide

Recognising the significance, complexity and long-term timeframe of development in the Central State Significant Precinct, this Design Guide provides a performance based planning framework.

Development applications (DAs) will be assessed on their individual merit having regard to the Sydney LEP 2012, this Design Guide, other matters listed in Section 4.15 of the Environmental Planning and Assessment Act 1979 and any other adopted and relevant policies that relate to development within the Central State Significant Precinct.

The Design Guide comprises a hierarchy of provisions to guide development as follows:

1. **Vision and principles:** that outline the overall outcomes sought
2. **Sub-precincts intent and development principles:** that describe the place-specific desired future character of each sub-precinct
3. **Objectives:** that describe the objectives for key matters outlined within this Design Guide

Commented [A1]: The following should not be referenced in a planning instrument:

- Central Precinct Place Strategy (Architectus, 2022)
- Central Precinct Public Art Strategy (Cultural Capital, 2022)
- Central Precinct Public Domain Strategy (Tyrrell Studio, 2022)
- Central Precinct Heritage Interpretation Strategy (Artefact, 2022)

Commented [A2]: How do these relate in hierarchy to the Vision and Principles?

4. **Requirements:** outlines required design outcomes to achieve the objectives for key matters
5. **Guidance:** provides guidance on how objectives on key matters can be achieved through appropriate design responses.

Development needs to demonstrate how it meets relevant objectives. The guidance provides benchmarks for how the objectives could be achieved. The guidance does not represent the only way the objectives can be achieved. Where alternative solutions to the guidance are proposed it must be demonstrated how they achieve the objectives.

1.8 Amendments to this Design Guide

Any amendment to this Design Guide will require the endorsement of the Secretary of the Department of Planning and Environment.

Refer to **Schedule 4** for amendment notes to this Design Guide.

1.9 Interpretation

Schedule 1 defines particular terms used in this Design Guide. Other terms have the same meaning as the Environmental Planning and Assessment Act 1979, the Environmental Planning and Assessment Regulation 2000 and other applicable planning instruments.

2.0 Vision & Principles

2.1 Vision

The vision for the Central Precinct is as follows:

Central Precinct is a vibrant and exciting place that unites a world-class transport interchange with innovative businesses and high quality public spaces that foster collaboration. It will connect the city at its boundaries, celebrate its heritage values and become a centre for the jobs of the future and economic growth.

2.2 Principles

The principles for the Central Precinct are to:

Connecting with Country

1. Embed connecting with Country principles into the layout and design of the public domain, landscape and buildings, floor-space and use including recognising the important role of Central Station to first nations people prior to and post European contact.
2. To ensure development is guided, co-designed and informed by the Aboriginal community and their cultural knowledge and practice of caring for Country.
3. Seek to respect the Indigenous cultural and Intellectual Property rights throughout the process. This is to be achieved throughout the entire precinct by developing and maintaining genuine relationships with Aboriginal and Torres Strait Islander peoples especially when there is any reference to First Nations cultures. This should be through employment opportunities, including a diverse range of Indigenous businesses in the various supply chains, and through ongoing decision making and advice platforms for the precinct and/or distinct projects.
- 2.4. Ensure provision of high quality public art is coordinated with connecting with Country objectives and heritage interpretation to create a meaningful cultural contribution to the precinct and broader city centre.

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Heritage

1. Maintain the State heritage-listing of the entire Central Station precinct, Central Railway Station Sydney-Terminal Group and its individual components.
2. Respect and celebrate the heritage significance of the State heritage-listed Central Railway Station Sydney-Terminal Group Central Station precinct and its individual components and the appreciation of key heritage values including significant view lines and the extensive and prominent use of sandstone.

Public domainspace

1. Provide high quality and publicly accessible open spaces that provide high amenity environment for a variety of both passive and active uses appropriate to their location and can respond to community needs and is accessible to all.
2. ~~E~~To ensure publicly accessible open spaces have appropriate microclimatic conditions (i.e. sunlight and daylight access and wind) for their intended purpose.
3. Ensure the public domain-space provides for the continued efficient and safe operation of Central Station as Sydney's main public transport hub, and support the integration of all levels of pedestrian activity, including below ground, at ground and the new over-station level.
4. Reconnect the surrounding streets and neighbourhoods through the creation of a clear and legible network of high amenity, safe and accessible streets, laneways and connections that support pedestrian and cycle access across Central Precinct including to the surrounding Tech Central neighbourhood.
5. Integrate high-quality public art that is coordinated with connecting with Country objectives and heritage interpretation to create a meaningful cultural contribution to the precinct and broader city centre.
6. Work with the City of Sydney to integrate Central Square with Railway Square and the closureincorporation of Lee Street.

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5.7. Revitalise the Goods Line.

Transport

1. Maintain Central Station's transport role as Sydney's main transport interchange, meeting the transport needs of local, regional and international travellers.

4.2. Maintain transport function and flexibility into the future

2.3. P~~To~~ prioritise pedestrians on the OSD deck and encourage cycling, public transport and car sharing as the primary modes of travel ~~within to and from~~ Central, as well as ensuring accessibility for all and embracing future changes in mobility.

Land use and built form

1. Support opportunities for an intensity of primarily non-residential uses and activities that commensurate with Central Precinct's anchor role in Sydney's innovation and technology community, Tech Central.
2. Support the City's night-time economy by encouraging late night trading premises and the 24-hour economy that will contribute to the City's economic growth and standing as a global city.
3. Provide a highly urban type and scale of built form, with variation and diversity to provide for an interesting and engaging city-scape, reduce the appearance of bulk and mass and be responsive to the desired future place character of sub-precincts.
4. Provide for human scale built form between Central Avenue and the north-south laneway that provides for physical and visual separation between the eastern edge of the Western Gateway and taller buildings within Central Precinct, and provides for sky view ~~and~~ daylight access, good solar access, and good safe and comfortable wind conditions to Central Avenue.
5. Establish a co-ordinated process that ensures development demonstrates design excellence in architectural, urban and landscape design.

Urban Greening

1. Establish new greening and canopy cover that ~~is generally aligned~~ is aligned with the City's Greening Sydney strategy now and into the future, that will provide shade, visual amenity, reduce urban heat, enhance biodiversity and soften the urban environment within Central Precinct.

Social sustainability and infrastructure

1. Ensure social and community infrastructure is embedded within the precinct to foster a vibrant, inclusive, diverse and welcoming for all.
2. Deliver a minimum 10% of residential floorspace as affordable housing to support low to middle income households.

Sustainability

1. ~~Achieve~~ Contribute to the NSW Government's objective of halving emissions by 2030 and achieving net zero emissions by 2050.
2. Embed environmental, economic and sustainability into fabric of the precinct, including ~~encouraging~~ delivering the adoption of leading, best practice initiatives and ensuring a green, biodiverse and resilient precinct.
3. ~~Support~~ Ensure a water positive precinct through water efficiency, preservation of non-renewable water resources and reduction in consumption of mains potable water.
4. Establish a precinct-wide servicing approach that delivers a high level of functionality and enables responsiveness to new and emerging practices, including those that contribute to carbon reduction outcomes.
5. Embed and demonstrate the principles and objectives of the NSW government Waste and sustainable materials strategy 2020 – 2041 and NSW Plastics Action Plan.

Commented [A3]: Include principle about the circular economy

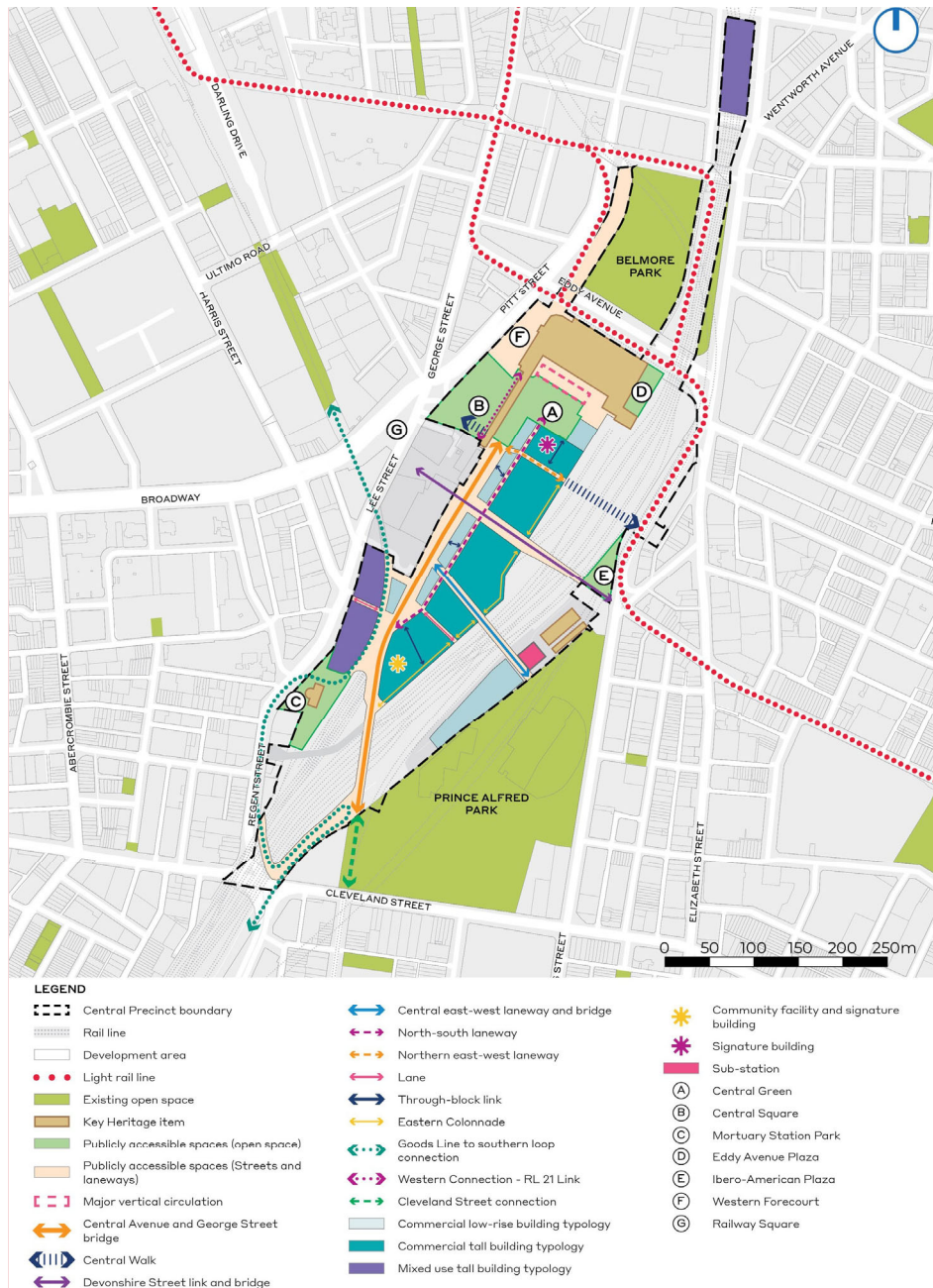


Figure 2 Central Precinct structure plan

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Commented [A4]: •This should be more closely aligned with an urban strategy diagram so that people understand the long term strategy and vision for the site. It should also be supported by objectives. The current Structure Plan doesn't focus on the strategic vision for the precinct, which the community need to understand.

- Use plain English- replace "commercial tall building" with tower
- Entire site to be identified as heritage
- Clarify the beige area between Central Green and the terminal
- Active frontages need to be identified
- "Signature building" is confusing and does not belong on a structure plan.
- Why does the Devonshire St bridge reduce in width?

3.0 Sub-Precinct Intent & Development Principles

The Central Precinct comprises a number of 'sub-precincts' as shown in **Figure 2: Central Precinct sub-precincts**.

This part provides statements of intent place-specific development principles for the sub-precincts. The sub-precincts are:

1. Central Station sub-precinct
2. Northern Over-Station Development sub-precinct
3. Southern Over-Station Development sub-precinct
4. Regent Street Sidings sub-precinct
5. Prince Alfred Park sub-precinct
6. Eastern Gateway sub-precinct
7. Goulburn Street Carpark sub-precinct
8. Western Gateway sub-precinct.

Note: The Western Gateway sub-precinct is covered by the Western Gateway Sub-precinct Design Guide.

Commented [A5]: •Clarify for the end user how these principles link to the previous objectives in Section 2.0.
•The Objectives in Section 2 should be related to the development principles in Section 3.0 and the objectives in future sections.
•The Principles must be ordered: public space first and development second.
•A statement is required: Need to meet objectives and development principles so the end user understands how they are to be applied in relation to the controls in the rest of the Design Guide.
•If the Objectives in Section 2.0 include everything, repetition can be avoided (e.g. tree canopy, ESD, indigenous).

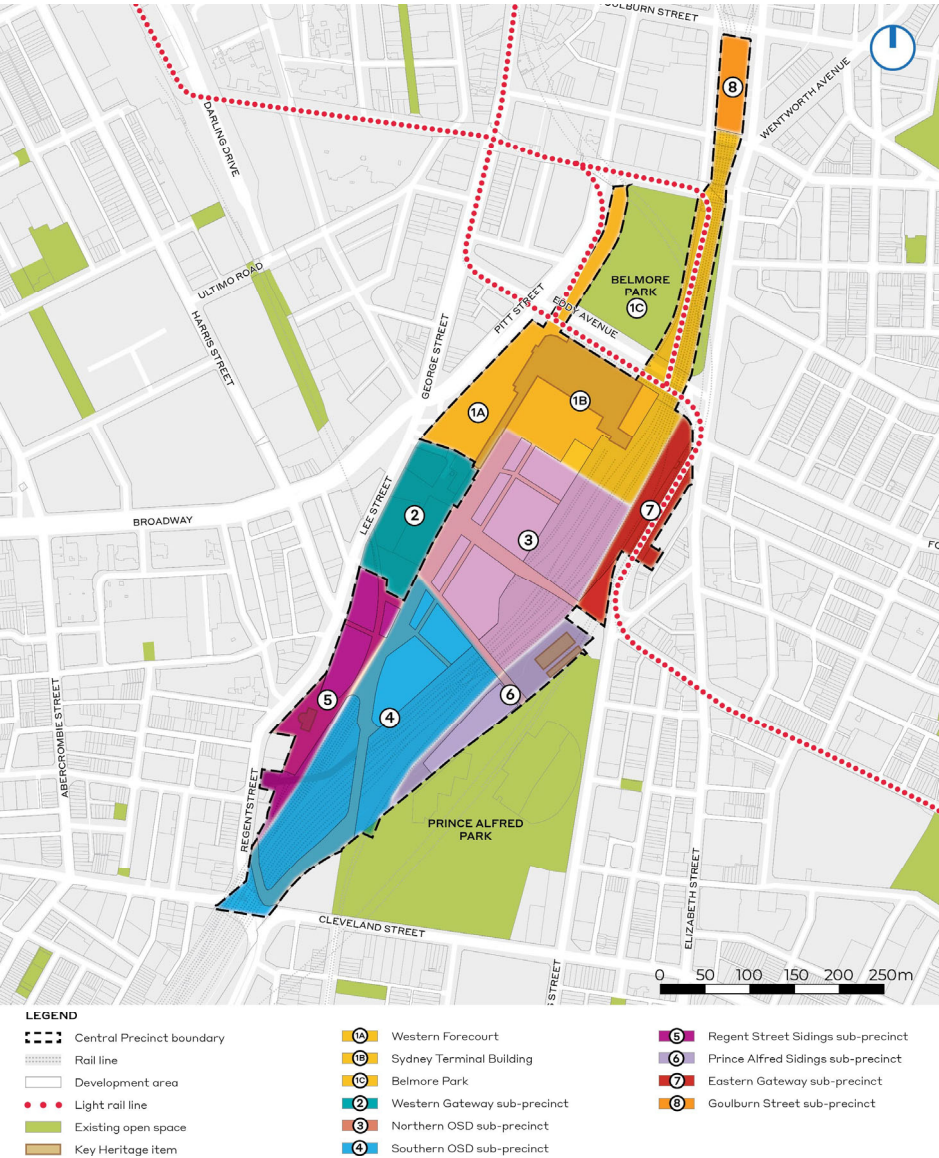


Figure 3 Central Precinct sub-precincts

Commented [A6]: •This diagram should include the sub precinct names- it is very confusing when read with subsequent sections
•Why is Belmore Park a designated area? It is not in the SSP boundary
•1A should be given its own boundary

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3.1 Central Station sub-precinct

The areas of the Central Station sub-precinct are:

1. Sydney Terminal Building area and Central Green
2. Western Forecourt area
3. Belmore Park area.

The development intent for the Central Station sub-precinct will be to recognise its landmark qualities and draw on the wealth of significant built fabric, spaces and its social history to create an enriched destination, be a destination for a vibrant local and global community, re-establish its civic role and retain its role as a world-class public transport interchange. The sub-precinct development principles are:

Sydney Terminal Building and central green area

- Preserve the Sydney Terminal building as a significant heritage and civic landmark, maintaining views and vistas to the clock tower
- Support further integration of Central Station with the surrounding public realm by improving key entrance points to the Sydney Terminal Building, re-imagining the Eddy Avenue and Pitt Street colonnades, and enhancing the Sydney Terminal Building's interface with Eddy Avenue Plaza, the Grand Concourse and the Western Forecourt
- Reorganise the pedestrian network within the station in a manner that relieves congestion, improves accessibility and wayfinding and enhances the overall customer environment with significant tree canopy and greening, good solar access and comfortable microclimate conditions for sitting.
- Adaptively re-use underutilised parts of the Sydney Terminal building for high quality retail, commercial and community uses that will enhance the existing transport uses of the station and transform it into a destination of choice.

Western Forecourt area

- Contribute to the vision for a Central Square ,with the closure of Lee Street, the connection through to the Goods Line and Railway Square, as a new civic heart of southern Central Sydney that is activated at all hours, amenity rich and safe and which promotes social interaction, collaboration, and inclusion
- Establish a new public space that provides a major pedestrian connection to the new platform entrances, retains a grand entrance to the main concourse entry and creates a significant city based public space that connects the station complex to Railway Square and Haymarket
- ~~Acknowledge the history of the Western Forecourt as a landscaped entry leading from Railway Square to the elevated Grand Concourse, defined by the West Wing of the Terminal Building, the stone wall to Pitt Street and the Parcels Post building~~
- Create a high quality, predominantly landscaped space, with significant canopy, comfortable microclimate environments and an accessible path to the OSD
- Facilitate movement of people to and from trains and buses, and a seamless connection to over-station development
- Facilitate and manage accessible, safe and enjoyable east-west pedestrian connections, in particular between Haymarket and Surry Hills
- Create a new entry and station forecourt that links with future east-west connections across the precinct

Belmore Park area

- Utilise the heritage viaducts to strengthen the north-south urban and green links across the city, enhancing visual and physical connections to the wider network of open spaces and key destinations
- Improve the interface between Belmore Park and the Sydney Terminal building across Eddy Avenue, creating a grand front door for Central Station.

Commented [A8]: In the map above this area covers Central Green? This should be called out

Commented [A9]: The Western Forecourt does not belong here, it is 15m below the upper areas

Commented [A10]: Remove as not part of the SSP boundary

Commented [A11]: If the Western Forecourt is included in the sub-precinct, there should be a statement about it here.

Commented [A12]: •Too specific to be an objective and is not consistent with the way the rest of the principles are framed. The principle should be: Landscape is predominant, provides an accessible path.

Commented [A13]: Belmore Park is not part of the SSP boundary- inclusion will impact contributions.

3.2 Northern over-station development sub-precinct

The Northern OSD sub-precinct will be a mixed-use highly urban precinct and commercial hub for jobs of the future and emerging industries above the rail yards forming part of southern Central Sydney, supported by open space and cross-corridor links that reconnect into the surrounding street network.

The sub-precinct development principles are:

- Coordinate a new ground plane above operational rail land that will facilitate the extension of important connections and view corridors, particularly the Devonshire Street alignment, enabling the precinct to reconnect

into the surrounding urban fabric and the community while ensuring the ongoing function of the rail and road network

- Create a new central publicly accessible open space that helps to grow and strengthen social networks and that supports collaboration and face to face encounters through the provision of appropriate furniture and smart places infrastructure and through ensuring high levels of amenity, vibrancy, safety and comfort with significant tree canopy and greening, good solar access and comfortable microclimate conditions for sitting.
- Reconnect the surrounding streets and neighbourhoods through the creation of a clear and legible network of high amenity, safe and accessible streets, laneways and connections that support pedestrian and cycle access across Central Precinct including to the surrounding Tech Central neighbourhood
- Create a new mixed use community that activates the precinct day and night, characterised by new commercial and enterprise uses that will be supported by entertainment, retail and cultural uses. The sub-precinct will cater to the needs of transit users, workers, visitors and the surrounding community
- Deliver a variety of buildings that sensitively respond to existing heritage items and important views, particularly the Sydney Terminal Building
- Extend Central Sydney south with taller built form located at the north and west to relate to this expansion and define a new tower cluster as proposed by City of Sydney in the Central Sydney Planning Strategy 2016-2036 while protecting solar access to existing public open spaces, particularly Prince Alfred Park.

3.3 Southern over-station development sub-precinct

The development intent for the Southern OSD sub-precinct is a mixed-use highly urban precinct with a commercial and education focus above the rail yards forming part of southern Central Sydney, supported by open space, recreation, cultural uses and cross corridor links that reconnect into the surrounding street network.

The sub-precinct development principles are:

- Create a variety of new open spaces that connect with and build upon the existing green grid, including plazas, green spaces and high amenity pedestrian links with significant tree canopy and greening, good solar access and comfortable microclimate conditions for sitting.
- Reconnect the surrounding streets and neighbourhoods through the creation of a clear and legible network of high amenity streets, laneways and connections that support pedestrian and bicycle access across Central Precinct including to the Camperdown-Ultimo Collaboration Area and Prince Alfred Park and Cathedral
- Support the future expansion of Central Sydney through the provision of new employment floor space that meets future demand, particularly supporting innovation and technology businesses as part of Tech Central
- Create an authentic city centre environment that includes supporting retail, dining, entertainment, community, health and education uses, and space for small businesses, creative industries and start-ups
- Contribute to residential living within Central Sydney, such as student accommodation and build-to-rent, only where it is supplementary to the sub-precinct's primary employment and/or education function.
- Deliver new buildings that sensitively respond to existing heritage elements, in particular the Bradfield Flying Junctions and Mortuary Station, while protecting solar access to existing public open spaces, particularly Prince Alfred Park

3.4 Regent Street Sidings sub-precinct

The development intent for the Regent Street Sidings sub-precinct will be a mixed-use precinct anchored by Mortuary Station that interacts with and positively responds to the changing urban context of Chippendale.

The sub-precinct development principles are:

- Recognise the heritage value of Mortuary Station and the Goods Line as the earliest remaining elements of Redfern and Central
- Provide public access and create new publicly accessible space that works with the civic form and rail heritage of Mortuary Station Building, with significant tree canopy and greening, good solar access and comfortable microclimate conditions for sitting.

- Create new pedestrian and cycle connections through the sub-precinct that maximise s access through and between Central Precinct and its surrounds. This includes the revitalisation of the unused Goods Line as a new piece of public domain for Sydney, extending the already renewed section of the line and contributing to the existing pedestrian and cycle network that links Central Sydney to the adjacent inner city suburbs
- Establish a diverse mixed-use sub-precinct that can cater for a range of complementary uses. This may include creative industry, health and education, information media and professional services, food and drink and other night-time options to support the needs of the Precinct's future workers, visitors and surrounding community in both Chippendale, Redfern, and Central Park
- Allow residential accommodation as part of mixed use development that includes active ground floor uses and where it responds to the community need and amenity associated with surrounding area
- New development should respond to the existing scale of the neighbouring area and to the unique landmark qualities, scale and setting of Mortuary Station
- Retain the bus layover within the sub-precinct, and ensure it is integrated with development.

Note: This sub-precinct contains the exceptionally significant Mortuary Station and Darling Harbour Dive. These two elements are the oldest structures in Central Precinct, with the Darling Harbour Dive being one of the oldest pieces of infrastructure in the NSW rail system and Mortuary Station forming a significant landmark

3.5 Prince Alfred Sidings sub-precinct

The development intent for the Prince Alfred Sidings sub-precinct is an attractive, lower scale western edge to Prince Alfred Park with a character that activates the park, ensures appropriate solar access, responds sensitively to heritage items of the Railway Institute Building, Prince Alfred Substation and Switch House, Whitton era railway buildings and assists in linking Surry Hills and Prince Alfred Park to Chippendale and Ultimo across Sydney Yards.

The sub-precinct development principles are:

- Retain existing heritage buildings and adapt them to new uses to ensure their continued conservation and use
- Improve Prince Alfred Park as a significant open space and an important green space for the city that supports active and passive recreational functions
- Deliver new uncovered 'open to sky' over-rail connections for pedestrian and cyclists that provide clear links across Central Precinct and facilitates improved active transport connections to Surry Hills
- Development supportsSupport a range of uses including community, commercial (retail, food and drink and office) and strengthens the active recreation function of the western edge of Prince Alfred Park through the extension of active recreational areas at the ground plane
- Facilitate low-scale well-considered development that presents an attractive and activated edge with active recreation and retail uses on the Ground level frontage to Prince Alfred Park and which sensitively responds to the park, particularly in relation to solar access, amenity and key views
- Extend the green landscaped nature of Prince Alfred Park by encouraging design that contributes to the sub-precinct's park setting, enhances pedestrian amenity and improves local biodiversity.
- Setback the building from Prince Alfred Park.
- Minimise retaining walls and awkward level changes between the building and the park.

3.6 Eastern Gateway sub-precinct

The development intent for the Eastern Gateway sub-precinct will be the eastern entry to Central Precinct that will respond to the unique character of Surry Hills.

The sub-precinct development principles are:

- Create a more attractive and functional eastern edge to Central Precinct characterised by better defined station entrances, new east west connections and enhanced pedestrian amenitywith significant tree canopy and greening, good solar access and comfortable microclimate conditions for sitting.
- Deliver a renewed public domain that supports a safe, clear and efficient interchange between the station and

other modes of transport, including light rail and bus services

- Restitch and reintegrate Central Precinct into the adjacent street and lane network, building on the vibrant intimately scaled network of businesses and uses that serve the local community
- Ensure the public domain effectively addresses the changing ground levels from footpath level to any potential future development above the rail yards
- Provide opportunities for smaller scale retail and cafes.

3.7 Goulburn Street sub-precinct

The development intent for the Goulburn Street sub-precinct is an urban block of development with a character that responds to the existing site challenge of the operation rail below, integrates and activates the adjoining public domain and provides a new high quality edge to Goulburn Street.

The sub-precinct development principles are:

- Re-imagine the city block in a manner that better interfaces with the surrounding streets, including improved street activation and pedestrian connections at the ground plane
- Provide opportunities for mixed use development including commercial office space, retail and residential accommodation
- Deliver a design outcome that appropriately responds to the intersection of Elizabeth Street, Wentworth Avenue and Campbell Street
- Deliver larger scale development that reflects the sub-precinct's Central Sydney location, and which can overcome the design and development challenges presented by the underlying operational rail land.

4.0 Connecting with Country

Value statement

Country is not a Western concept; it is an Aboriginal worldview. It is nature at a deeper level, where all things are interconnected and the spiritual underlies the physical. The Aboriginal sense of Country is that past, present and future are not confined by time, they merge into a continuum. Aboriginal thinking therefore embraces what was on Country before, what is there now and what might come back or evolve in the future. It is about a continuum of place too, where borders and boundaries are open to culture crossing Country, and where stories interconnect with surrounding Peoples.

Country commands care and respect. Respect between people, animals, plants and earth is required to keep Country healthy so Country can care for and sustain life. Aboriginal principles for sustaining Country are embedded in language, stories and Songlines which all reflect physical and spiritual understandings of the land. The diversity of traditional language groups, stories and Songlines reflects the diversity of Country's landforms and ecosystems. The significance of ceremony and lore between language groups ensures caring for Country principles and responsibilities to Country are shared across Australia. All things belong to Country, Country does not belong to anyone.

The Central Precinct Renewal Project Connecting with Country Framework is intended to assist government infrastructure planners, architects and wider design and project teams to understand and implement Connecting with Country principles specific to this Precinct. It aims to provide the project with a basis for co-designing with Country, through embedding continuing local Aboriginal engagement in processes and outcomes. The framework addresses the two-fold intention of GANSW Framework:

1. **Design that places local Aboriginal stakeholders at its centre:** *We will respect the diversity of Aboriginal cultures, but we will prioritise the local, place-specific cultural identity of the Country we're working on. Aboriginal people will determine the representation of their cultural materials, customs and knowledge;* and
2. **Benefits to Country, and its Traditional Custodians:** *We will prioritise financial and economic benefits to the Country where we are working, and by extension to the Traditional Custodians of that Country.*

Importantly, this Framework is intended to be an iterative, living document over the life of the project. It recommends continuing to seek local Aboriginal community voices, perspectives and know-how for Connecting with Country, through best practice co-design methodologies.

There are many Aboriginal cultural groups who identify with the Central Precinct, along with the Local Custodians, the Gadigal. Inner Sydney is a place with a diverse Aboriginal population from around the Country. Tangible and intangible Aboriginal heritage and a rich contemporary culture live in this precinct. Listening, restoring, educating and acknowledging are some of the complementary tools the Connecting with Country Framework describes.

Connecting with Country embraces a co-design intention that is based on deep engagement with Aboriginal stakeholders and community endorsed creative practitioners local to place. It aims to activate an authentic voice to draw out knowledge, protocols, history, culture and the contemporary stories of Aboriginal communities, for co-designed interpretation from the beginning to the end of projects. The objective is transformational design thinking informed by the Aboriginal worldview.

Related planning documents

The objectives and guidance contained in this section should be read in conjunction with the following planning documents:

- 'Central Precinct Connecting with Country Framework', Balarinji, 2021
- 'Better Placed, Connecting with Country Draft Framework', Government Architect NSW, 2020
- 'Our Place on Country Aboriginal Outcomes Strategy 2020–23' (NSW Government, 2020)
- 'Opportunity, Choice, Healing, Responsibility, Empowerment (OCHRE) Plan' (NSW Government, 2013)

Term	Definition
Country	includes land, waters, and sky. It can be tangible or intangible aspects, knowledge and cultural practices, belonging and identity, wellbeing and relationships. People are part of Country' (Government Architect NSW & Dr Danièle Hromek, 2020)

4.1 Connecting with Country strategy

Objectives

- a) To ensure development:
 - i. is guided, co-designed and informed by the Aboriginal community and their cultural knowledge and practice of caring for Country
 - ii. supports the health and wellbeing of Country
 - iii. creates a welcoming and safe place for the Aboriginal community that strengthens Aboriginal identity
 - iv. values and respects Aboriginal knowledge and stories
 - v. connects areas of cultural significance to the Aboriginal community
 - vi. provides ongoing benefits for Aboriginal people through renewal of Central Precinct
- b) To reconnect with natural landscape including topography and native vegetation and caring for Country

Guidance

1. Development applications are accompanied by a Connecting with Country Strategy that demonstrates how the 'Central Precinct Connecting with Country Framework' (May 2022) prepared by Balarinji has informed physical design, in particular consideration of how development responds to the following themes:
 - a. reconnecting Redfern & Sydney Harbour
 - b. a connection to sky Country and cosmology
 - c. a meeting place
 - d. connecting to Country through layers of sandstone
 - e. replacing landmarks of Country
 - f. the legacy of Sydney Trains
 - g. acknowledging and healing
 - h. biodiversity & restoring the sounds of Country.

Note: TfNSW maintains a copy of the 'Central Precinct Connecting with Country Framework'
2. Guided by the 'Central Precinct Connecting with Country Framework' prepared by Balarinji (May 2022) prepared by Balarinji, development ~~provides for~~delivers the following key connecting with Country ~~opportunities~~projects:
 - a. immersive welcome to Country artwork through promotion of living cultural practices
 - b. Platform 1
 - c. the Dune Garden and Sand Circle
 - d. six seasons planting
 - e. sky Country artwork
 - f. 'Tracks and Trade-ways' in the 'Tracks to Connection' public art opportunity.
3. The design of Central Green:
 - a. provides for a welcoming place for the Aboriginal community
 - b. is in collaboration with the local Aboriginal community to connect to a deep sense of time and place

- c. references the natural sand dune landscape of Central Precinct and southern Sydney and its associated wetland landscapes.
4. Landscaping incorporates locally endemic planting species in accordance with **Schedule 2: Species Index** of this Design Guide.
5. Water management infrastructure and processes are responsive to Country and prioritise natural solutions that enhance overall waterway systems condition, function and connections.
6. Development that provides for connecting with Country opportunities is to recognise-adhere to the Indigenous Cultural and Intellectual Property protocols.

4.2 Engagement with the Aboriginal community

Objectives

- a) To ensure development is guided and informed by the Aboriginal community and their cultural knowledge and practice of caring for Country.

Guidance

1. Engagement with the Aboriginal community is required to seek community views:
 - a. on whether the proposed development impacts on existing or recent spaces or activities on the site, or on surrounding properties, that are important for the Aboriginal community
 - b. on whether the proposed development impacts on the wider context of the Precinct being a place of belonging and pride for Aboriginal people
 - c. on how the development may best maximise the presence, visibility and celebration of Aboriginal people, organisations, businesses and living cultures.
2. All engagement is to be carefully designed to:
 - a. be undertaken in a sensitive and culturally appropriate manner
 - b. provide meaningful opportunities for participation
 - c. build on previous conversations and be coordinated with other engagement in the Precinct and wider area
 - d. 'close the loop' by sharing cultural knowledge and information collected
 - b-e. be connected to outcomes
3. Engagement is undertaken with all relevant groups that may be affected by the proposal, including Traditional Custodians, the local Aboriginal community and key Aboriginal stakeholders who have a connection with the precinct
4. Engagement activities are to be designed and led by Aboriginal-owned consultation advisories or by an organisation with Aboriginal consultation experience.
5. Development applications are to be supported by an 'Aboriginal Engagement Report' that outlines:
 - a. pre-lodgement engagement activities
 - b. the outcomes of engagement
 - c. measures to address issues and concerns raised in engagement.
6. Development is to implement the recommendations of the 'Aboriginal Engagement Report' where they:
 - a. have evidence of broad support from those engaged
 - b. are within the capacity of the development to deliver
 - c. are commensurate with the scale of the development.

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4.3 Acknowledging and celebrating Aboriginal language

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Objectives

- a) To enhance and strengthen Aboriginal connection to place through acknowledging Aboriginal language

Guidance

1. Development is to provide opportunities to name publicly accessible spaces and provide wayfinding signage in ~~local traditional language~~ Gadigal language or implement dual naming

Note: for Aboriginal naming and dual naming, the proponent is to consult with the NSW Geographical Names Board, local language subject matter experts and with Aboriginal stakeholder groups

2. Where Aboriginal naming is adopted, consideration is to be given to providing physical material that outlines the pronunciation and history behind the Aboriginal name, where appropriate and agreed to by relevant Aboriginal stakeholders

Note: depending on the result of Aboriginal engagement, signage may need to display multiple spelling and pronunciation of an Aboriginal name or word

3. Aboriginal naming should be in alignment with the City of Sydney's Naming Policy and the Aboriginal Naming Trust's guidance

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4.4 Aboriginal heritage interpretation

Objectives

- a) To create engaging and appropriate Aboriginal heritage interpretation that is responsive to culture and Country.

Guidance

1. Development applications are to be accompanied by a Heritage Interpretation Strategy that demonstrates consideration of the 'Central Precinct Heritage Interpretation Strategy' (Artefact, 2022), addresses Aboriginal cultural heritage and provides opportunities for heritage interpretation media which are:
 - a. responsive to culture and Country
 - b. co-designed with Aboriginal knowledge holders
 - c. integrated within the landscaping and built form.
2. Aboriginal heritage interpretation is to ~~recognise the~~ adhere to the Indigenous Cultural and Intellectual Property protocols.

4.5 Cultural infrastructure

Objectives

- a) To provide for cultural practices and connection to Country through cultural infrastructure

Guidance

1. Development provides for cultural infrastructure that meet the needs of the local Aboriginal community, which may include dedicated places in publicly accessible areas or community facilities for cultural practice, learning and play and places for sharing culture (as defined by the local Aboriginal community).
2. Development provides opportunities for acknowledging and celebrating Aboriginal living cultures through art, performance, architecture, landscaping and other creative expression
3. Cultural infrastructure is to be developed and coordinated within the site's broader context, and is to consider:
 - a. ground level connections to Prince Alfred Park
 - b. existing and future Aboriginal cultural projects within the broader urban and strategic contexts of Redfern North Eveleigh, Tech Central, and Central Sydney
4. Any proposed cultural infrastructure intended to meet the needs of the local Aboriginal community is led by an Aboriginal-led organisation, and is to be co- designed with Traditional Custodians, the local Aboriginal community and key Aboriginal stakeholders who have a connection with the precinct.

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5.0 Public Domain

Value statement

The objectives and guidance in this section describe design outcomes and requirements for the treatment of the public domain and publicly accessible spaces within Central Precinct. These requirements cover existing and proposed publicly accessible open spaces and the configuration and types of movement spaces within the precinct which aim to deliver high quality public domain outcomes.

Public spaces within the Central Precinct are categorised by the following:

- **Publicly accessible spaces (open space):** This refers to publicly accessible open space within the Central Precinct that is owned and managed by either Transport for NSW or the relevant leaseholder, and which is within the area identified in **Figure 4: Publicly accessible spaces**.
- **Publicly accessible spaces (streets and laneways):** This refers to publicly accessible streets and laneways within the Central Precinct that is owned and managed by either Transport for NSW or the relevant leaseholder, and which is within the area identified in **Figure 4: Publicly accessible spaces**.
- **Public domain:** This refers to all other areas that are not identified in **Figure 4: Publicly accessible spaces** in which access to and use of spaces is available for any member of the public. Public domain typically includes parks, plazas, footpaths and streets. **Public domain elements of the City are typically dedicated and controlled by the City of Sydney.**

Related reference documents

The objectives and guidance contained in this section should be read in conjunction with the following documents:

- Public Art Strategy (Cultural Capital, 2022)
- Public Domain Strategy (Tyrrell Studio, 2022)

Commented [A14]: If this is the case, design of public domain must also reference the City's public domain policies and codes - For eg. the Sydney Streets Code.

5.1 Publicly accessible spaces - General

Objectives

- Development provides an integrated, functional, comfortable and attractive public domain and publicly accessible space network comprising places with movement and place functions and that:
 - provides a cohesive yet multi-functional public domain that comprises a variety of individual places, each with a clear and distinct function, including opportunities for passive recreation, active recreation and informal interaction
 - seamlessly connects with the adjoining public domain outside Central Precinct
 - maximises safety for all at all times of the day and night
 - encourages Aboriginal inclusion, comfort and access in the design and operation of publicly accessible space
 - encourages universal access to facilitate creation of democratic public space where people can openly participate in public life
 - reflects the highest standards of design consistent with the role of Central Precinct as Sydney's main transport hub.

Commented [A15]: •The studies are only relevant as background to the process for developing the controls and they should not be referenced in the Design Guide as additional controls.

•It is more relevant to reference the City's relevant strategic visions, plans, policies and design codes including but not limited to Sydney Streets Code (CoS 2021), Public Art Policy (CoS 2016), City Art Strategy (CoS 2011), City Centre Public Art Plan (CoS 2013).
•This section should also reference the CWC Framework

Commented [A16]: •This entire section, 5.1, should be collapsed into the following sections- streets and open spaces

•How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

Commented [A17]: Missing objectives: universal access and amenity

Commented [A18]: e.g.: this is covered in 2.0- avoid repetition

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Guidance

- Publicly accessible spaces are provided in accordance with **Figure 4: Central Precinct publicly accessible spaces**
- Publicly accessible spaces are to be designed to:
 - be publicly accessible 24 hours a day and 365 days of the year
 - be safe and accessible to all

- c. provide a clear line of sight between publicly accessible spaces

- d. be easily identified by users and include wayfinding signage advising of the publicly accessible status of the link and the places to which it connects.
3. Development applications that propose new publicly accessible spaces are accompanied by a Public Domain Plan that demonstrates consideration of the Central Precinct Public Domain Strategy [and the City of Sydney's public domain policies and codes](#) and provides detail on:
 - a. trees and other vegetation
 - b. paving and other hard surfaces
 - c. lighting
 - d. seating
 - e. bicycle parking spaces for share bikes and visitors
 - f. bins
 - g. signages, including wayfinding signs
 - h. public art
 - i. heritage interpretation.
4. Development is to consider Aboriginal inclusion, comfort and access in the design and operation of publicly accessible space, including building forecourts, through-site links, retail spaces and hospitality venues.
5. Development applications are supported by a 'Wayfinding Strategy' that:
 - a. enables pedestrians and cyclists to understand their journeys and find their way about in publicly accessible spaces and at street level with ease and confidence
 - b. applies a consistent design of the signage elements
 - c. reinforces perceptions of safety and legibility
 - d. clearly define the uses of a building
 - e. is accessible to people with a vision impairment or persons who speak a language other than English
 - f. incorporates the use of local traditional language or implement dual naming
 - g. ~~considers~~ [refers to](#) the Legible Sydney Design Manual (CoS, 2019).

Note: for Aboriginal naming and dual naming, the proponent is to consult with the NSW Geographical Names Board, local language subject matter experts and with Aboriginal stakeholder groups.

6. The location of exhausts and servicing infrastructure associated with rail corridor operations below the OSD deck ~~are encouraged to avoid~~ [must not be located in](#) publicly accessible spaces and the ~~public domain and are to be integrated into the design of buildings, subject design feasibility.~~

Commented [A20]: Avoid repetition, this is covered in 2.0 and 3.0

Commented [A21]: "public domain" to be replaced with "public space" throughout



Figure 4 Central Precinct publicly accessible spaces

Commented [A22]: The proposal indicates that the Goods Line will be publicly accessible. It needs to be shown on the diagram.

5.2 Streets, lanes and pedestrian network

Objectives

- a) To establish a high quality, integrated, permeable and accessible network of streets, lanes and pedestrian spaces that perform movement and dwell functions and:
 - i. is aligned with key pedestrian desire lines
 - ii. has generous widths to accommodate the current and future anticipated peak hour pedestrian flows
 - iii. is designed to incorporate opportunities for respite and pause away from primary pedestrian flows
 - iv. seamlessly connects with the adjoining public domain outside Central Precinct
 - v. creates a pedestrian priority public domain that also caters for cyclists and provides for limited and managed vehicles access and circulation in appropriate locations
 - vi. caters for a diversity of people of all ages and abilities, and including for workers, residents, commuters and visitors
 - vii. creates a welcoming and safe place for the Aboriginal community
 - viii. embeds Connecting with Country principles into layout and design, including recognising the important role of Central Precinct to first nations people prior to and post European contact
 - ix. is integrated with adjoining built form and supported by active frontages, where appropriate
 - x. is designed to support access for people of all abilities equitably throughout the Central Precinct
- b) To support the capability of Central Avenue to serve a range of user types, including pedestrians, cyclists and outdoor dining opportunities.
- c) To establish an integrated vertical circulation network that comprises lifts, stairs and other devices that:
 - i. efficiently, comfortably and safely moves people between levels within Central Precinct
 - ii. provides for the forecast large volumes of people who will use Central Precinct, and in particular Central Station
 - iii. encourages people to access over-station development, in particular Central Square and Central Green
 - iv. provides for universal access.
- d) To create a pedestrian focussed Railway Square that is integrated with the Western Gateway sub-precinct.
- e) To create a pedestrian priority public domain that also caters for cyclists and provides for limited and managed vehicles access and circulation in appropriate locations.

Guidance

1. The location of the streets, lanes and pedestrian network is in accordance with **Figure 5: Central Precinct streets, lanes and pedestrian network**.
2. The layout and design of the streets, lanes and through-block links is in accordance with **Table 1: Central Precinct guidelines for movement network areas**.
3. Access for pedestrians to Central Precinct is direct and legible, with access points that are highly visible from main approaches including Prince Alfred Park, Belmore Park and Eddy Avenue, Railway Square and Lee Street, and Chalmers Street.
4. Pedestrian connections between the over station development, the Western Gateway sub-precinct, the Prince Alfred Park sub-precinct and the Regent Street Sidings sub-precinct are accessible, intuitive, easy to navigate and suitable for people of all abilities.
5. Major vertical circulation measures, such as lifts, escalators and stairs, are provided within OSD building envelopes and not in the public spaces, in accordance with **Figure 5: Indicative streets, lanes and pedestrian network**.

Commented [A23]: •How do these objectives relate to the Objectives and principles in 5.1, 2.0 and 3.0? this is very confusing

•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0 and all guidance must satisfy all of these, not just the ones shown here.

Commented [A24]: •Key objectives are missing relating to tree canopy, solar access, comfortable wind conditions.

•Amenity is a core consideration of the public domain and the amenity should be collapsed into this section or at the very least, cross-referenced. This will assist the public to understand the relationship between the amenity controls proposed and the character and intended use of the public domain.

Commented [A25]: •Guidance is required for Lee St as the closure is critical for the making of the square (closing Lee St, making a connection to TGL, opening TGL and fully connecting with Central Square).

•Guidance is needed to be created to support the objective around shared zones, emergency and access vehicles
•Guidance should be included to support the objectives around cycleways



Figure 5 Central Precinct streets, lanes and pedestrian network

Commented [A26]: RL21 link is not supported and should be removed from this diagram

Commented [A27]: Where is ped, cycle and vehicular access from? Are cyclists only permitted to use certain links to avoid user conflicts? Should Lee Street closure for pedestrians/cyclists be identified?



Figure 6 Indicative photomontage of Central Avenue viewing toward Sydney Terminal Building Clocktower



Figure 7 Indicative photomontage of junction between Central Avenue and George Street Bridge



Figure 8 Indicative photomontage of the Goods Line



Figure 9 Indicative photomontage of George Street Bridge

Table 1 Central Precinct guidelines for movement network areas

Name and type	Requirements	Guidelines
Central Avenue Street	<p>Width (min)</p> <ul style="list-style-type: none"> 15m - 24m, including: <ul style="list-style-type: none"> Pedestrian zone – 2m Shared path for pedestrians, cyclists and emergency/service maintenance vehicles (one-way) – 4m Dwell / landscaping zone – 12m Landscaping zone – 6m <p>Height (min)</p> <ul style="list-style-type: none"> Open to the sky <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network 	<p>General</p> <ul style="list-style-type: none"> Alignment is to respond to the position of the clocktower providing new key landmark views to the clocktower which are to be curated through the careful positioning of trees Western edge of Central Avenue to primarily serve as movement space for pedestrians, cyclists and emergency vehicles Eastern half is pedestrian dwell space and outdoor dining space (subject to wind conditions - refer to Section 6.3) Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians Emergency and service vehicle movement is accommodated along the avenue as a shared space along the western edge Is to be lined with active edges and create opportunities for natural surveillance to the avenue Provides a sequence of gardens along the avenue Is to be designed to allow for a western connection that is aligned with the Devonshire Link to Henry Deane Plaza (as part of the Western Gateway sub-precinct) <p>Southern Central Avenue (Southern Plaza)</p> <ul style="list-style-type: none"> Provides a southern arrival and meeting space (Southern Plaza) when coming from Redfern and a key transition to Redfern when coming from the city. This is an important location in the Connecting with Country strategy as it is sited to establish an ideal place for a Welcome to Country. The future design of this space is to integrate public art, space to practice culture that aims to the establish a Welcome to Country to both Central and Redfern Provides an amphitheatre like dwell space a southern arrival and meeting space (Southern Plaza) which incorporates seating and a viewing platform to the rail lines, Mortuary Station Building and Redfern (subject to wind conditions - refer to Section 6.3) Provides a dwell space situated alongside the community and education buildings toward the southern end of Central Avenue Integrates rainforest species to create a green character in an area with low sunlight. Slender rainforest species, such as Cabbage Tree Palms, should be used to create a densely green character with open sky views
Grand Concourse Stairs <i>Vertical connection</i>	<p>Width (min)</p> <ul style="list-style-type: none"> 60m <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Major vertical connection between Central Station Terminal Building (and Quantum Terminal / new tech hub) and the OSD deck Part of re-imagining the Grand Concourse as a civic outdoor room, and connecting the OSD with the street through a series of landscape terraces Opportunity for Sky Country element or artwork to be integrated into the design of the new stairs Designed to be a place within the station precinct to wait for trains or meet people - somewhere welcoming, with planting, places to sit (subject to wind conditions - refer to Section 6.3) Concourse extension to the south made possible through moving platforms south Recognises heritage significance of the Grand

Commented [A29]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A28]: Central Avenue as the main civic spine on the OSD should maintain a consistent width. 15m is inadequate. A consistent width will better maintain and frame views of the clocktower from the Regent and Cleveland Street intersection.

Commented [A30]: All public space guidance should be coordinated with the wind comfort map and testing

Commented [A31]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A32]: Grand concourse stairs should not be 60m wide. The stairs in the reference scheme obscures views to the Country Link and Intercity train platforms from the Grand Concourse (a significant heritage impact). This Design Guide should not list requirements of stairs, this should be through design excellence process for development of an appropriate design.

Commented [A33]: This should not be major

		<u>Concourse and protects views to Country Link and Inter-city platforms.</u>
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Name and type	Requirements	Guidelines
Western Armature Street	Width (min) <ul style="list-style-type: none"> 22.5m, including: <ul style="list-style-type: none"> Light rail carriageway – 6.5m Pedestrian path – 4m Vehicle carriageway (coaches, taxis, ride share and emergency vehicles) – 12m Height (min) <ul style="list-style-type: none"> Open to the sky Location <ul style="list-style-type: none"> Fixed as per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Primarily a movement corridor for public transport, point-to-point services, cyclists and pedestrians to connect from Western Forecourt to Pitt Street Incorporates clear wayfinding signage to access multiple transport modes (light rail, heavy rail, metro, coaches) from this location Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians
Western Connection at RL 21 (RL 21 Link) <i>Through-site link</i>	Width (min) <ul style="list-style-type: none"> 5.9m, including: <ul style="list-style-type: none"> 4.5m shared path for pedestrians only 1.4m skylight zone adjacent to the west wing of the Central Terminal Building Height (min) <ul style="list-style-type: none"> Open to the sky Location <ul style="list-style-type: none"> Elevated at RL 21 along west wing of the Central Terminal Building as per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Provides the efficient movement of pedestrians between the Western Gateway sub-precinct and the Western Forecourt in a manner that respects the heritage significance of Central Station Adequate space available on the RL21 link for heritage engagement with the building (light wells and raised external walkway) RL21 is connected to the west wing of the Central Terminal Building, referencing the original arrangement of crescent-shaped lightwells above each window Retains the pavement lights at RL21 Retains the cellular structure of internal rooms, with adaptive reuse for activation where possible Interpretation of the rooms previous uses as part of adaptive reuse Is to make use of existing openings as much as possible, with minimal new openings to enable adaptive reuse where appropriate Retains a landing outside the floor level of the lower ground floor rooms at 16.15 Materiality of the link is to comprise of reused bricks from the Ambulance Avenue retaining wall
Devonshire Link Street	Width (min) <ul style="list-style-type: none"> 20m, including: <ul style="list-style-type: none"> Two shared paths for pedestrians, cyclists – 2 x 3m Dwell / landscaping zone – 6m Two outdoor dining zones – 2 x 4m Height <ul style="list-style-type: none"> Open to the sky Location <ul style="list-style-type: none"> Fixed as per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Establishes an important arrival point at the intersection between the Central Avenue and Devonshire Link, and the arrival point of the Express escalators from Central Walk Is to be designed to allow for a western connection to Henry Deane Plaza (as part of the Western Gateway sub-precinct) Is to be lined with active edges and create opportunities for natural surveillance to the street Provides outdoor dining opportunities along ground floor frontages (subject to wind conditions - refer to Section 6.3) Provides seating for passive recreation (subject to wind conditions - refer to Section 6.3) Character of tree planting references the street tree planting of Devonshire St, and responds to the solar conditions of an east-west city street. Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians

Commented [A34]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A36R35]: If it does stay in, then width of shared path needs to be reduced to 3m (max) to reduce impact on square below and should be a direct connection into the Atlassian building and zig zag around the façade (as shown in the reference design).

Commented [A35]: This should be removed

Commented [A38]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A37]: The width should vary within a 20-30 metre range to accommodate: Separated bicycle and pedestrian pathways to meet the current relevant guidelines, dwelling areas for sitting at no less than 50 metre intervals, the dwelling areas should include landscape in structures to provide shade and have comfortable for sitting wind conditions and enable both individual and group sitting, at least one food outlet with area for tables protected from rain and sitting wind comfort conditions, the remaining area for pedestrians and people on bicycles must have wind comfort conditions suitable for walking and no areas where the wind safety criteria are exceeded. The entire length of each bridge must contain natural landscaping on structures

Commented [A39]: DELETE mixing walking and cycling on bridges is an unacceptable risk.

Name and type	Requirements	Guidelines
North-south laneway Lane	<p>Width (min)</p> <ul style="list-style-type: none"> 8m, including: <ul style="list-style-type: none"> Pedestrian zone – 3m Two outdoor dining zones – 2 x 2.5m <p>Height (min)</p> <ul style="list-style-type: none"> Open to the sky <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network Location may vary within Lane zone of variation area identified in the Public Domain Overlay Map of the Sydney LEP 2012 	<ul style="list-style-type: none"> Designed to have a clear line of sight between publicly accessible spaces at each end, or to potential courtyard space Considers opportunities for small-scale courtyard space of 10x10m at change in direction / alignment, that provides opportunities (subject to wind conditions - refer to Section 6.3) for: <ul style="list-style-type: none"> seating for passive recreation increased outdoor dining public art installations Provides outdoor dining opportunities along ground floor frontages (subject to wind conditions - refer to Section 6.3) Is to be lined with active edges and create opportunities for natural surveillance to laneway
Northern East-West laneway Lane	<p>Width (min)</p> <ul style="list-style-type: none"> 6m-8m, including: <ul style="list-style-type: none"> Shared path for pedestrians and emergency / service maintenance vehicles (one-way) – 5m Two outdoor dining zones – 2 x 1.5m <p>Height (min)</p> <ul style="list-style-type: none"> Open to the sky <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network Location may vary within Lane zone of variation area identified in the Public Domain Overlay Map of the Sydney LEP 2012 	<ul style="list-style-type: none"> Is to be lined with active edges and create opportunities for natural surveillance to laneway Provides outdoor dining opportunities along ground floor frontages (subject to wind conditions - refer to Section 6.3) Provides seating for passive recreation (subject to wind conditions - refer to Section 6.3)
Central East-West laneway Lane	<p>Width (min)</p> <ul style="list-style-type: none"> 12m, including: <ul style="list-style-type: none"> Pedestrian zone – 3m Dwell / landscaping zone – 6m Two outdoor dining zones – 2 x 1.5m <p>Height (min)</p> <ul style="list-style-type: none"> Open to the sky <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network Location may vary within Lane zone of variation area identified in the Public Domain Overlay Map of the Sydney LEP 2012 	<ul style="list-style-type: none"> Is to be lined with active edges and create opportunities for natural surveillance to laneway Provides outdoor dining opportunities along ground floor frontages (subject to wind conditions - refer to Section 6.3) Provides seating for passive recreation

Commented [A41]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A40]: The north-south laneway minimum width needs to be increased from 6m to 8m. The public domain strategy and urban design framework and planning report all identify Ash Street in the City Centre as a good 'eat street' precedent at 6m wide. A far better precedent is Kensington Street at 8m wide. Pedestrians on Ash Street have to weave between outdoor dining areas on opposite sides of the street. Clear pedestrian footpath widths are inadequate. On Kensington Street, pedestrians have a comfortable clear path of travel with meaningful dedicated outdoor dining areas, while maintaining intimate street proportions.

Commented [A42]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A43]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Name and type	Requirements	Guidelines
Eastern Colonnade Lane	<p>Width (min)</p> <ul style="list-style-type: none"> 9m, including: <ul style="list-style-type: none"> Shared path for pedestrians and emergency / service maintenance vehicles (one-way) – 5m Cycle path zone (bi-directional) – 2.5m Edge and column zone – 1.5m <p>Height (min)</p> <ul style="list-style-type: none"> Vertical clearance of 11m <p>Length</p> <ul style="list-style-type: none"> Maximum continuous under-cover length of 65m <p>Location</p> <ul style="list-style-type: none"> Fixed as per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Primarily a movement space for pedestrians, cyclists and emergency / service maintenance vehicles Provides a safe pedestrian and cycle connection between George Street Bridge to Block A Lined with a range of small and larger tenancies Incorporates public art opportunities
Laneway (General) Lane	<p>Width (min)</p> <ul style="list-style-type: none"> 6m for pedestrians only <p>Height</p> <ul style="list-style-type: none"> Open to the sky <p>Location</p> <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network Location may vary within Lane zone of variation area identified in the Public Domain Overlay Map of the Sydney LEP 2012 	<ul style="list-style-type: none"> Designed to have a clear line of sight between publicly accessible spaces at each end Is to be lined with active edges and create opportunities for natural surveillance to laneway
Through-block links <i>Pedestrian connection</i>	<p>Width (min)</p> <ul style="list-style-type: none"> 6m for pedestrians only <p>Height (min)</p> <ul style="list-style-type: none"> Permitted to pass through or under a building where a minimum vertical clearance of 9m is provided <p>Location</p> <ul style="list-style-type: none"> Location may vary 	<ul style="list-style-type: none"> Provides a clear line of sight between publicly accessible spaces at entrances Is to be lined with active edges and create opportunities for natural surveillance to through-site links Is publicly accessible from 6am to 10pm each day Designed to be safe, and accessible to all Is easily identified by users and include signage advising of the publicly accessible status of the link and the places to which it connects.
Devonshire Link Bridge <i>Over-rail bridge</i>	<p>Width (min)</p> <ul style="list-style-type: none"> 14m, widens at OSD deck and Chalmers St bridge landings. Includes: <ul style="list-style-type: none"> Shared path for pedestrians and cyclists (bi-directional) – 14m Dwell / landscaping zone – varies <p>Height (min)</p> <ul style="list-style-type: none"> Open to the sky <p>Separation (min)</p> <ul style="list-style-type: none"> 6m separation of pedestrian bridge and vertical transport structure to Railway Institute Building 	<ul style="list-style-type: none"> Provides seating for passive recreation (subject to wind conditions - refer to Section 6.3) Allows for temporary activation opportunities to activate the link such as kiosks and temporary merchandise carts Designed to facilitate the level change from Chalmers/ Ibero-American Plaza onto the bridge through alignment and orientation of vertical transport to create a legible pedestrian connection Height of bridge structures at Devonshire St link gateway sit below the ridge line of Railway Institute Building Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians Incorporates public art opportunities

Commented [A45]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A44]: Reconsider the width and function of this colonnade Increase eastern colonnade to provide flexibility in design and allow for two way traffic; to capitalise on the location with the best amenity conditions.

Commented [A46]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A48]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A47]: The link should match the width of Devonshire Street

Name and type	Requirements	Guidelines
Prince Alfred Park Bridge <i>Over-rail bridge</i>	Width (min) <ul style="list-style-type: none"> 12m, including: <ul style="list-style-type: none"> Shared path for pedestrians and cyclists (bi-directional) – 8m Two dwell zones – 2 x 2m Height (min) <ul style="list-style-type: none"> Open to the sky 	<ul style="list-style-type: none"> Provides seating for passive recreation (subject to wind conditions - refer to Section 6.3) Allows for temporary activation opportunities to activate the link such as kiosks and temporary merchandise carts Bridge is to connect at the same natural grade of Prince Alfred Park to be experienced as an extension of the park. Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians Is to build on character of Prince Alfred Park, with the incorporation of meadow planting, and carry zones of connected soil across to the OSD Incorporates public art opportunities
George Street Bridge <i>Over-rail bridge</i>	Width (min) <ul style="list-style-type: none"> 20m, including: <ul style="list-style-type: none"> Shared path for pedestrians, cyclists and emergency / service maintenance vehicles (bi-directional) – 10m Two dwell/landscaping zones – 2 x 5m Height (min) <ul style="list-style-type: none"> Open to the sky 	<ul style="list-style-type: none"> Provides seating for passive recreation (subject to wind conditions - refer to Section 6.3) Allows for temporary activation opportunities to activate the link such as kiosks and temporary merchandise carts Bridge is to connect at the same natural grade of Prince Alfred Park to be experienced as an extension of the park The bridge is aligned to provide a direct extension of George Street, Redfern Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians Is to build on character of Prince Alfred Park, with the incorporation of meadow planting, and carry zones of connected soil across to the OSD Incorporates public art opportunities.
Cleveland Street connection to OSD deck <i>Street</i>	Width (min) <ul style="list-style-type: none"> 16m, including: <ul style="list-style-type: none"> Shared path for pedestrians, cyclists and emergency / service maintenance vehicles (bi-directional) – 6m Landscaping zone – 10m Height (min) <ul style="list-style-type: none"> Open to the sky Location <ul style="list-style-type: none"> As per Figure 5 Central Precinct streets, lanes and pedestrian network Other <ul style="list-style-type: none"> Is to avoid any impact to the Coronation Centre and its courts Is to maintain public access to the Coronation Centre and its courts. 	<ul style="list-style-type: none"> Connects at the same level of the George St Bridge landing Integrates with Prince Alfred Park, and in particular not result in vehicle access being visually dominant when seen from within the park and retain its existing heritage significance. Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians

Commented [A49]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A50]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Commented [A51]: Objectives must include solar access and microclimate conditions to enable significant canopy and greening

Name and type	Requirements	Guidelines
Goods Line <i>N/a</i>	Width (min) <ul style="list-style-type: none"> 7m, including: <ul style="list-style-type: none"> Shared path for pedestrians and cyclists (bi-directional) – 5m Landscaping zone – 2m Height (min) <ul style="list-style-type: none"> Primarily open to the sky outside of the Goods Line tunnel section Location <ul style="list-style-type: none"> Fixed as per Figure 5 Central Precinct streets, lanes and pedestrian network 	<ul style="list-style-type: none"> Primarily a movement space for pedestrians and cyclists to connect to the publicly accessible Mortuary Station Garden and north to the existing components of the Goods line and the Powerhouse Museum Provides opportunities for activation the unveiling of rail infrastructure heritage using lighting and public art installations Provides opportunities to engage the cultural destination of the Powerhouse with the linear park of the Goods Line. This could include curated display or a museum walk. Prioritises safe pedestrian/cycle movement Shared cycle/pedestrian zone is designed to encourage appropriate cyclist behaviour to mitigate potential user conflict between cyclists and pedestrians

Commented [A52]: The Goods Line is roughly 15m below the OSD deck, a significant drop. A terraced edge running along the edge of the Goods Line and proposed Regent Sidings buildings could provide a better interface and break up the large drop.



Figure 10 Central Precinct streets, lanes and pedestrian network cross sections

Commented [A53]: The Prince Alfred Sidings building should be setback at least 3m from the site boundary, with a pedestrian path open to the sky, acting as a buffer between building and active recreation facilities in Prince Alfred Park.

Commented [A54]: The level change from Regent Street up onto the OSD deck is significant. Stair widths appear mean, resulting in poor inhospitable public domain outcomes. The vertical connection needs to be a be a significant public domain design consideration.

Commented [A55]: •Cross sections should be included at the narrow and wider spaces along Central Avenue

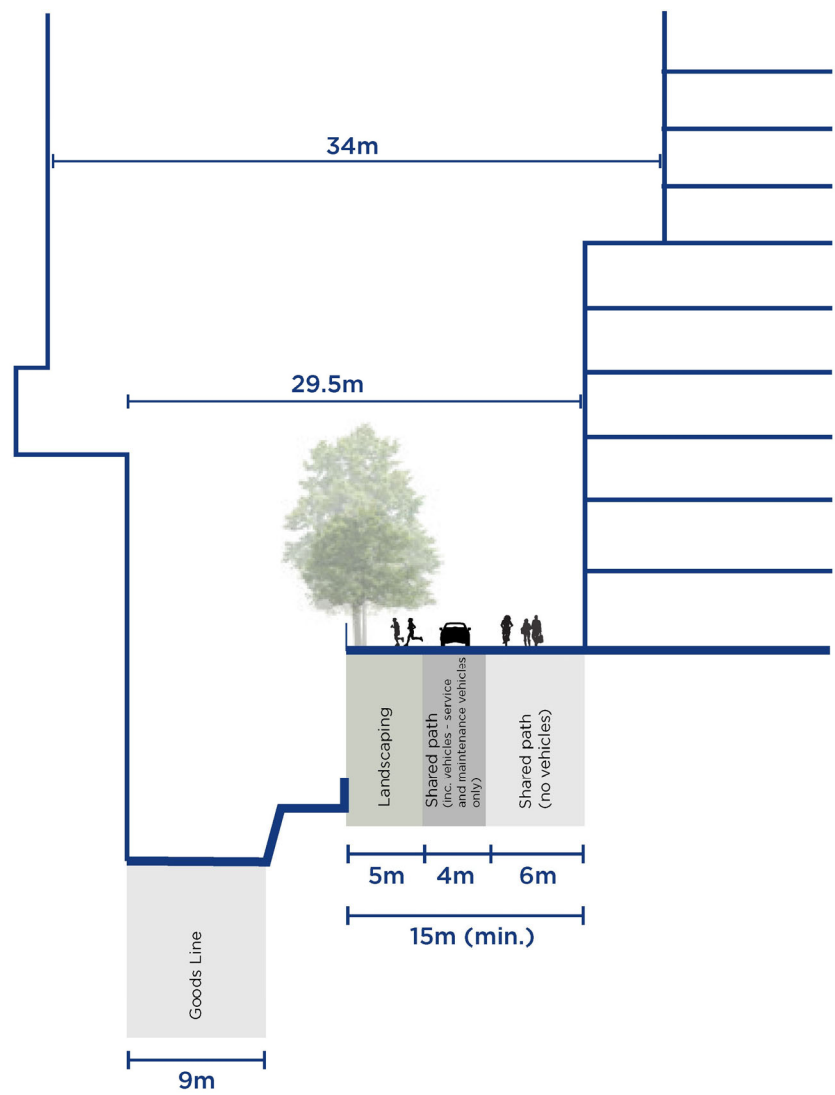


Figure 11 Typical cross-section 1, Central Avenue, south

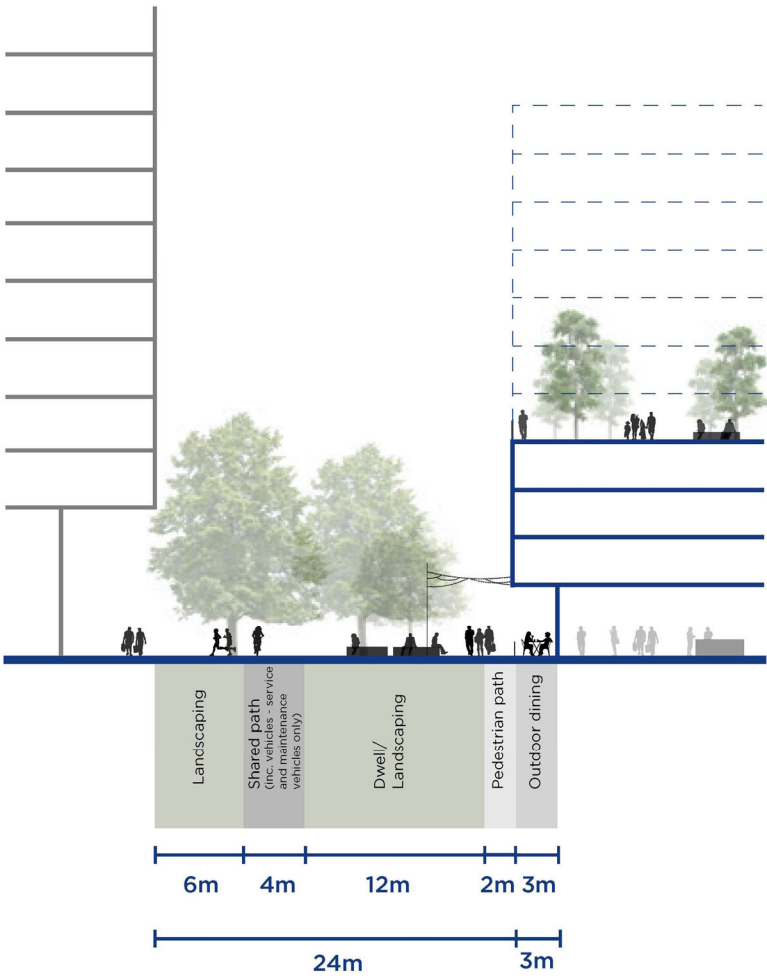


Figure 12 Typical cross-section 2, Central Avenue, north

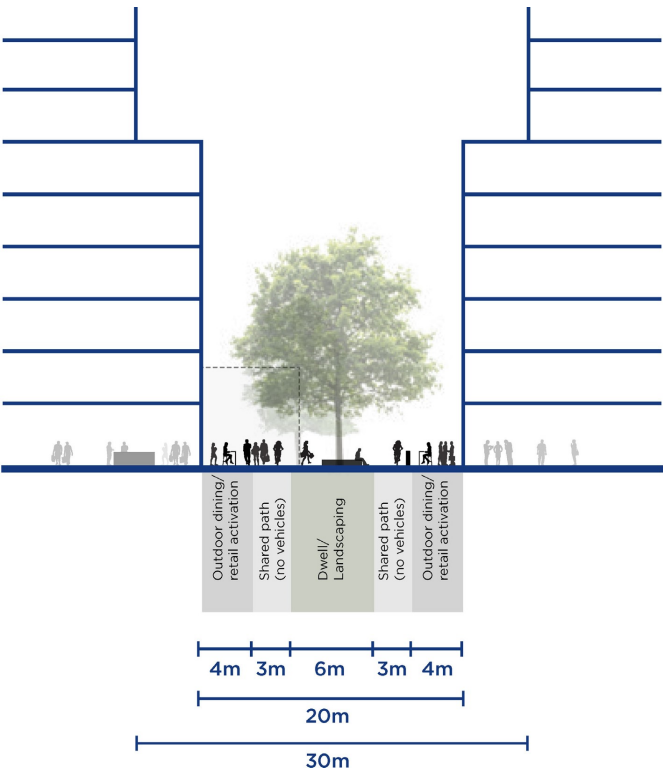


Figure 13 Typical cross-section 3, Devonshire Link

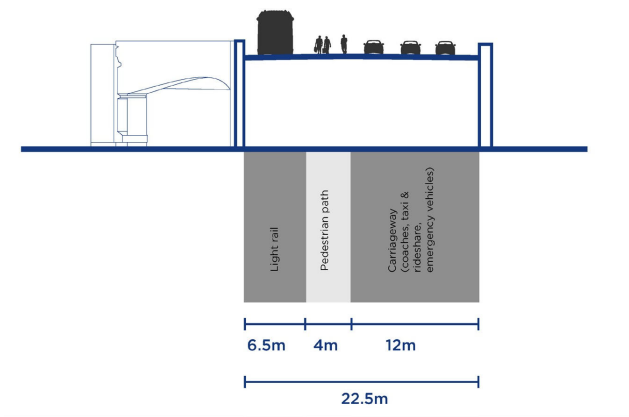


Figure 14 Typical cross-section 4, Western Armature

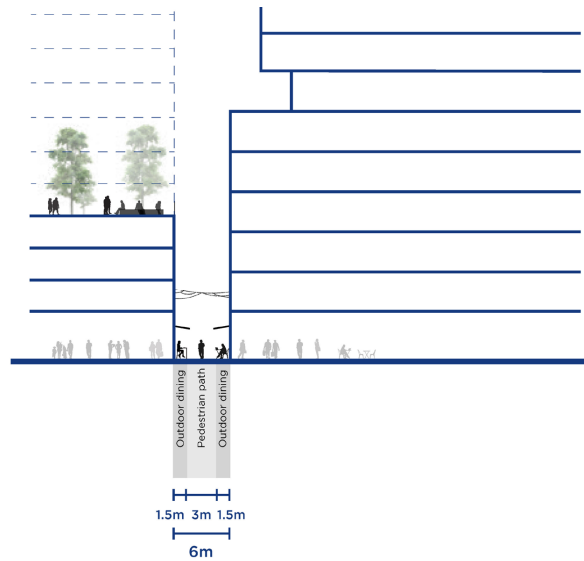


Figure 15 Typical cross-section 5, North-south laneway

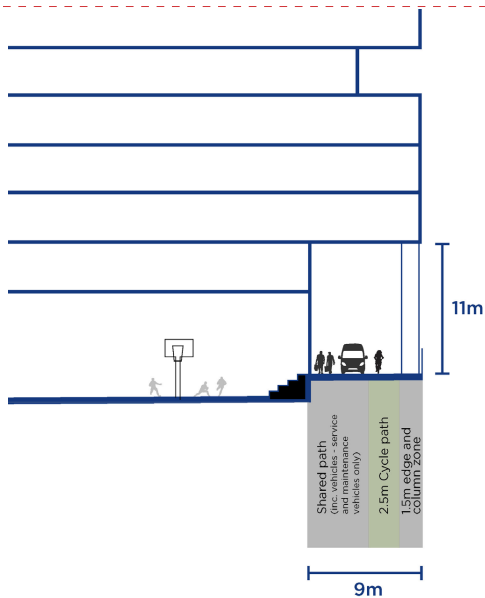


Figure 16 Typical cross-section 6, Eastern Colonnade

Commented [A56]: •Clarify the type of vehicles that will have access to the shared path (e.g. delivery vehicles, emergency vehicles)?
 • Clarify if the cyclepath two-way or one direction only?
 • What other activity/movement may occur along the Eastern Colonnade?
 • How will emergency vehicles turn around?
 • How will building maintenance for the towers adjacent be managed?

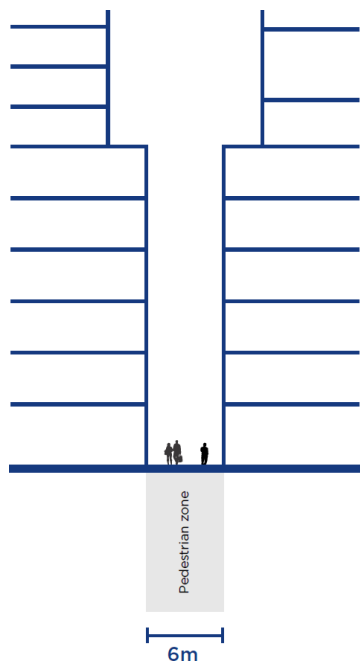


Figure 17 Typical cross-section 7, Laneways (General)

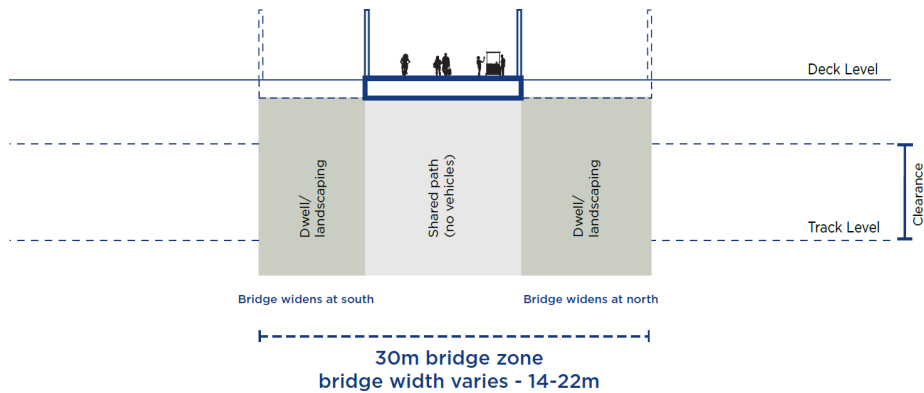


Figure 18 Typical cross-section 8, Devonshire Street Bridge

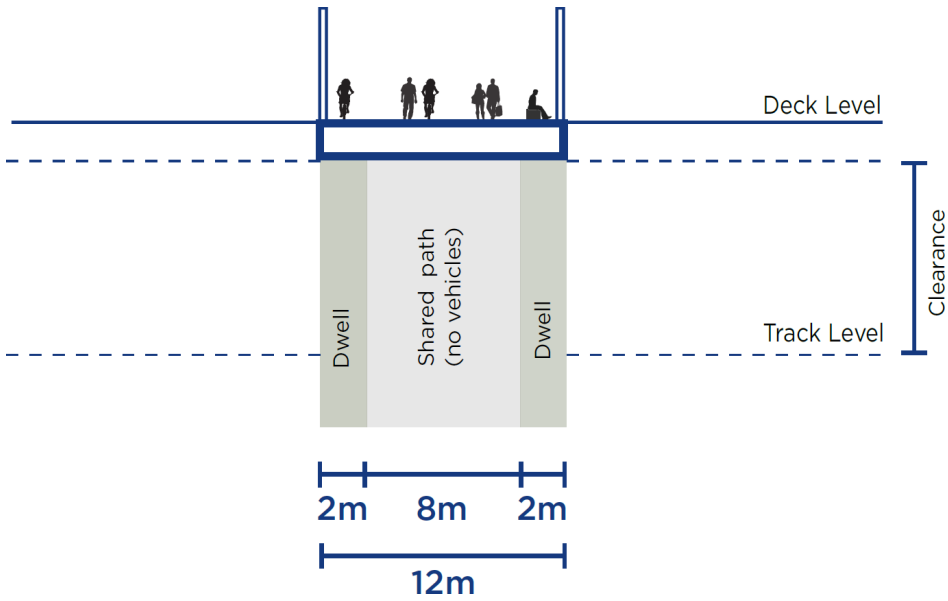


Figure 19 Typical cross-section 9, Prince Alfred Park Bridge

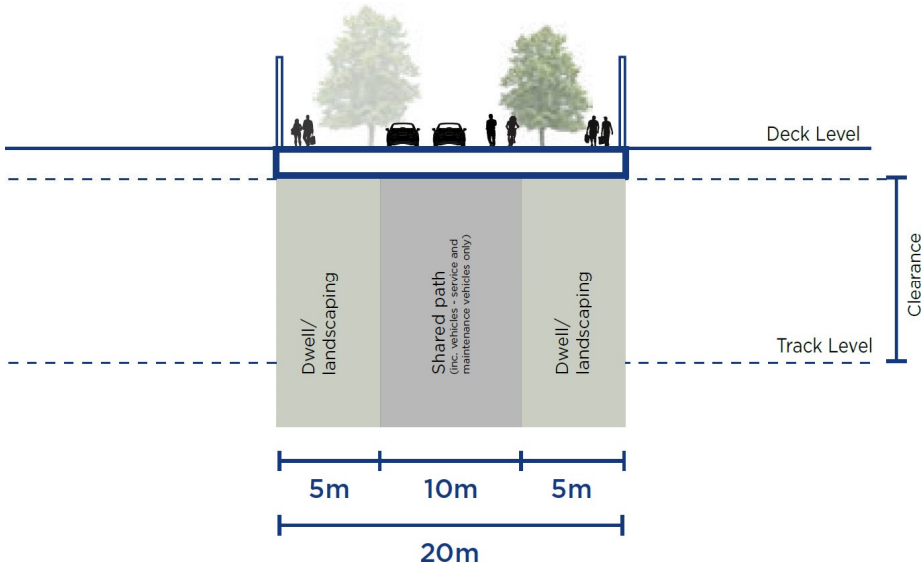


Figure 20 Typical cross-section 10, George Street Bridge

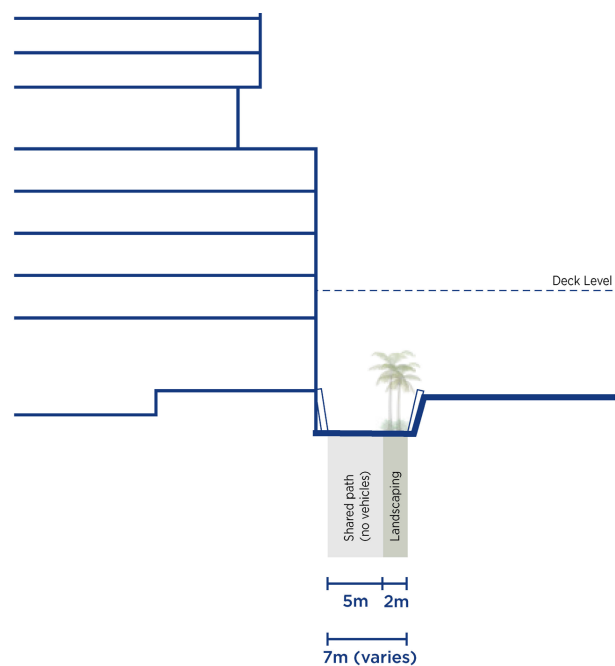


Figure 21 Typical cross-section 11, Goods Line

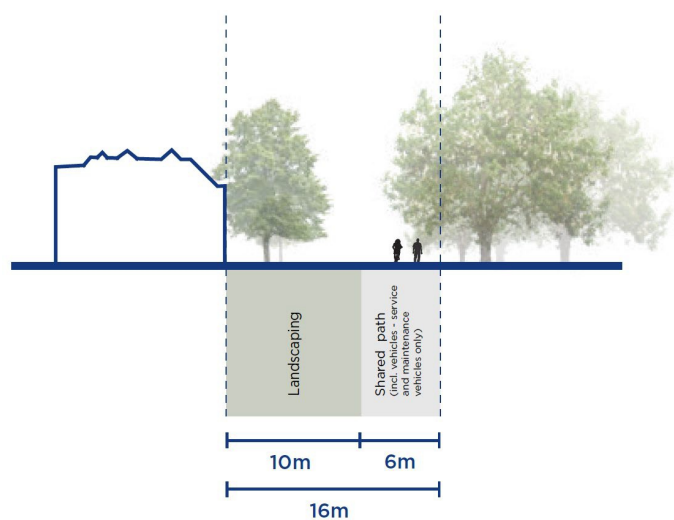


Figure 22 Typical cross-section 12, Cleveland Street connection to OSD deck

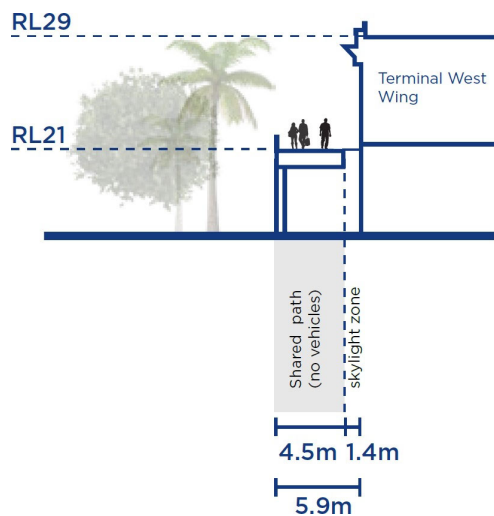


Figure 23 Typical cross-section 13, RL21 Link

5.3 Public open space network

Objectives

- To provide a cohesive yet multi-functional open space network that comprises a variety of individual places, each with a clear and distinct function, including opportunities for passive recreation, active recreation and informal interaction
- To provide publicly accessible open spaces that experience good solar access, comfortable wind conditions and urban canopy and greening
- To provide corridors of locally indigenous vegetation that link major open spaces and water bodies to enhance environmental quality and optimise opportunities for habitat for native flora and fauna species.
- To ensure that open space is strategically located to assist with water sensitive urban design and stormwater management.
- To provide an integrated open space network that:
 - caters for the forecast recreation needs of Central Precinct and the broader Tech Central District, including for children
 - provides for a range of appropriate recreation activities, including exercise, play, nature and heritage appreciation, socialising, picnicking, walking and informal activities
 - have suitable solar access and comfortable wind conditions for their intended uses
 - supports the increase of urban canopy and greening and opportunities for habitat for native flora and fauna species
 - provides for a high level of integration with Prince Alfred Park
 - strengthens the existing active recreation function of the western edge of Prince Alfred Park

Commented [A57]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
 •A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

- vii. contributes to the delivery of Central Square
- viii. provides opportunities for the integration public art and heritage interpretation elements
- f) To provide a pleasant and safe environment for the enjoyment of workers, residents, students and visitors, which encourages interaction and improves the amenity of the area for residents, workers, and visitors through provision of solar access and mitigation of noise in the public domain.
- g) At least 15% of the developable site area within Central Precinct is to be publicly accessible open space.

Guidance

1. The open space network:
 - a. ensures all workplaces and dwellings are within 200m walking distance of an open space having an area of at least 3,000sqm
 - b. is in accordance with **Figure 24: Open space network**.
2. The layout and design of the open space network is to be in accordance with **Table 2: Guidelines for open space areas**.
3. The open space network:
 - a. incorporates at least one (1) accessible play space
 - b. is encouraged to incorporate a 'destination' playground.
4. The open space network is to include public art, including interactive elements where appropriate.
5. The design of the over-rail bridges is encouraged to consider incorporating appropriate noise mitigation measures for dwell spaces that are likely to be affected by noise from railway operations.
6. Where shown as an 'Edge Improvement' in **Figure 24: Open space network**, development in the Prince Alfred Sidings Sub-precinct is to:
 - a. extend the active recreation function of the western edge of Prince Alfred Park into the sub-precinct, either in the form of a recreation area, recreation facility (indoor), recreation facility (outdoor) or combination of these uses
 - b. provide a new ground plane at the sub-precincts edge being at the same level as that in the adjoining part of Prince Alfred Park
 - c. provides co-ordinated paving, vegetation and street furniture
 - d. delivers the Prince Alfred Park Wellness Loop which provides
 - i. additional active recreation opportunities
 - ii. new passive spaces which extend the characteristics of the park up and onto the over station development
 - e. includes measures to ensure high quality amenity and safety outcomes for people who are likely to use recreation facilities and people who may be impacted by the recreation facilities, including appropriate noise mitigation, lighting, signage, hours of operation, security and consistency with Crime Prevention Through Environmental Design principles.

Note: this is subject to collaboration with and the approval of the City of Sydney Council and the managers of Prince Alfred Park



Figure 24 Central Precinct open space network

Commented [A58]: The Goods Line should be shown on this plan and the edge improvement line should be shown on TfNSW land.

Also, the Southern Plaza needs o be identified.



Figure 25 Indicative photomontage of Central Square



Figure 26 Indicative photomontage of Central Green



Figure 27 Indicative photomontage of Mortuary Station Plaza

Table 2 Central Precinct guidelines for open space areas

Name and type	Requirements	Guidelines
Central Green <i>Local Open Space</i>	Area (min) <ul style="list-style-type: none">6.000 sqm	Character <ul style="list-style-type: none">Designed to be the principal open space of the over-station development, and the arrival point of the over-station development from the north, either through the Terminal Building, or the Central SquareProvides areas for commuters to wait for a train, and a new aspect to starting or finishing train journeysIntegrates rolling landform terrain referencing the gentle mounding of a sand dune environment to interpret in a large scale and meaningful way the character of the dune system which was a landmark of CountryIntegrates public art, space to practice culture that aims to the establish a Welcome to CountryProvides hard paving surfaces at the minimum required to cater for pedestrian flows between Central Avenue and the Grand ConcourseIncorporates a diversity and abundance of locally indigenous flora and fauna species consistent with ecological communities that would have naturally occurred in the area, including Eastern Suburbs Banksia Scrub<u>Includes significant tree canopy</u>Incorporates layered planting creating diverse understorey, mid-storey and canopy levels.Mid-storey planting is visually permeable to allow sight lines.Considers opportunities to integrate water featuresImplements the system of evapotranspiration to create cool gardensProvides gathering spaces including a space for Aboriginal Culture- the Sand Circle, as well as softly undulating turf mounds creating spaces with excellent prospect and refugeSoil network is to be sufficient to support trees and connected to assist with WSUD

Name and type	Requirements	Guidelines
		<p>Historic Heritage Interpretation (non Aboriginal)</p> <ul style="list-style-type: none"> Design of the space is to respond to the distinctive heritage setting in particular the terminal building and its clocktower into the experience of the open space Establishes a clear visual and physical relationship with the Grand Concourse through the use of stairs and terraced landscape Extends the sandstone materiality of the terminal building into the public domain <p>Amenity (also refer to Section 6 - Amenity)</p> <ul style="list-style-type: none"> Provide a high level of solar access with 50% of the area attaining at least 4 hours of direct sun between the hours of 9am and 3pm Provides comfortable wind conditions suitable for sitting Considers Provides opportunities for cool, deep shaded gardens compliment the amenity of spaces with excellent solar Ample seating within different microclimatic conditions, including casual seating and gathering spaces created by the mounded terrain offering prospect and refuge (subject to wind conditions – refer to Section 6.3) Incorporates a diverse range of seating types of seating provided, including benches with and without armrests, seating edges where people can sit and view the space, and moveable furniture such as deck chairs, bean bags, café tables and chairs (subject to wind conditions - refer to Section 6.3) Allocates space to work on devices such as laptops or tablets with suitable defensible space and out of direct sun Provides suitable lighting for facial recognition and clear and direct lines of sight Active ground floor frontages are provided by surrounding buildings to support activity to edges of the space, including nights and weekends
<p>Central Square <i>Local Open Space</i></p>	<p>Area (min)</p> <ul style="list-style-type: none"> 7,000 sqm 	<p>Character</p> <ul style="list-style-type: none"> Primarily hardscape in character to cater for important pedestrian desire lines as well as events A major transport plaza connected to the new station entrance and exit, Central Walk A space that responds to commuter demands and able to cater for large volume pedestrian flows The street tree planting scheme of the city extends into the southern half of Central Square to offer shade and carefully located to maintain key views to the Terminal Building Views to the Clocktower are retained and enhanced through strategic framing of the view from Broadway looking north. The centre of the square is free of trees to ensure views to the clocktower are maintained Integrates a terraced landform that follows the original slope and sandstone retaining wall along Pitt Street. This landform should read as a seamless terrain to allow easy pedestrian transition from the square to the Grand Concourse and RL24 level walkway Terrace spaces are to be considered as a garden. The design of these spaces is work with the available fabric and design of the heritage gardens to understand potential for interpretation Consider the original flora of the site including species found on sandstone ridges and in gullies Provide spaces for groups of different sizes to dwell comfortably Space is at a scale that can be programmed and activated through a diverse range of public uses including events Consider the programming and event usage of the space within a wider connected system of open space including Belmore Park, Railway Square, the Grand Concourse and the Central Green Dune Gardens Provide a meaningful spatial relationship with the heritage setting - explore retention of physical form, visual relationships and interpretation of the history of the place Locate a major public artwork embedded in the ground plane to engage the tens of thousands of people who move through the space each day.

Commented [A59]: • Under Amenity, wind comfort is to be included for each open space area so the public understands the relationship between the amenity controls proposed and the character and intended use of the public domain.

Commented [A60]: Objectives must include integration with the City to deliver the full vision of Central Square, including Railway Square and the closure of Lee St

Commented [A61]: Primarily a landscape character, with significant tree canopy

Commented [A62]: Provision of public art should be the subject of a comprehensive public art strategy/ plan for the site. refer to City Art's comments.

Name and type	Requirements	Guidelines
		<p>Amenity (also refer to Section 6 - Amenity)</p> <ul style="list-style-type: none"> • Provide a high level of solar access with 50% of the area attaining at least 4 hours of direct sun between the hours of 9am and 3pm • Comfortable place to move through as part of a large crowd with ample space • Provides places to linger in comfort, meeting points and a defensible space to sit • Provides a suitable level of shade provided through tree canopy • Is to be a suitable scale of spaces for event use. • <u>Have wind comfort conditions suitable for standing, sitting and walking</u>
Mortuary Station Plaza <i>Plaza</i>	<p>Area (min)</p> <ul style="list-style-type: none"> • 4,470 sqm excluding station building 	<p>Character</p> <ul style="list-style-type: none"> • The fabric of Mortuary Station including the building, platform, street garden and fence, railyard and goods line alignment, tracks and walls is to inform the future use, adaptation and approach to this open space. • Is to maintain sufficient space to allow the buildings, elements and rail use to be understood and seen without the pressure of development encroaching on the setting. • Provides public access provided from Regent Street • Explore opportunities to view the complex from Regent Street and the new deck. • Interpretation should highlight Mortuary Station's principal use as part of the early Redfern Station development: that is it is an historic rail site first and foremost. • Overlays other interpretive themes, which may include the physical connection to the Rookwood Cemetery landscape. • Explore connectivity via the goods line as another link between Redfern and Sydney Harbour. • Potential for activation and public use, through links and a direct interface between the public and rail history. • Explore opportunities for the adaptive re-use of the station building. • <u>Enables continued use of heritage steam trains</u> <p>Amenity (also refer to Section 6 - Amenity)</p> <ul style="list-style-type: none"> • Provides direct sunlight each hour between 11am and 1pm for at least 50% of the plaza • Provides good sight lines and pedestrian safety. • Provides a space that creates a cool, green setting including the introduction of canopy trees on the rail side of the Mortuary Station Building • Opportunities for small scale cafe pavilion may be appropriate to assist with activation. • <u>Have wind comfort conditions suitable for sitting</u>
Eddy Avenue Plaza <i>Plaza</i>	<p>Area (min)</p> <ul style="list-style-type: none"> • 1,680sqm 	<p>Character</p> <ul style="list-style-type: none"> • A key pedestrian connection from Central Station north to the CBD. • Maintain a clear and open path of movement north-south between Eddy Avenue and the station entrance • Provide a microforest which provides biophilic impact and biodiversity support. <p>Amenity (also refer to Section 6 - Amenity)</p> <ul style="list-style-type: none"> • Provide comfortable space to dwell all year round through new tree planting (subject to wind conditions - refer to Section 6.3) • Is to be well serviced by retail and activated on all sides of the plaza • <u>Have wind comfort conditions suitable for standing, sitting and walking</u>

Commented [A63]: • Under Amenity, wind comfort is to be included for each open space area so the public understands the relationship between the amenity controls proposed and the character and intended use of the public domain.

Commented [A64]: • Under Amenity, wind comfort is to be included for each open space area so the public understands the relationship between the amenity controls proposed and the character and intended use of the public domain.

Commented [A65]: This is insufficient for significant, deciduous tree canopy

Commented [A66]: • Under Amenity, wind comfort is to be included for each open space area so the public understands the relationship between the amenity controls proposed and the character and intended use of the public domain.

Name and type	Requirements	Guidelines
Ibero-American Plaza <i>Plaza</i>	Area <ul style="list-style-type: none"> As per current size and dimensions 	Character <ul style="list-style-type: none"> Provides an arrival space to Central Station from the East Important station entry to southern concourse, and Devonshire St tunnel, and also location of Central Chalmers St Light Rail Station Maintains recent upgrades including enlarged pedestrian areas due to closing of Devonshire St and part of Chalmers St, new bike lanes, new planting areas and trees Provides vertical transport to the Devonshire Bridge Maintains visibility of the northern facade of the Railway Institute Building from the plaza Incorporates clear wayfinding signage to access multiple transport modes (light rail, heavy rail, metro, buses) from this plaza Maintains legible paths of movement and clear entry and exit points Retains existing public art installations Amenity (also refer to Section 6 - Amenity) <ul style="list-style-type: none"> Incorporates seating areas to wait and dwell as a key meeting point location (subject to amenity conditions - refer to Section 6) <u>Have wind comfort conditions suitable for standing, sitting and walking</u>

Commented [A67]: Under Amenity, wind comfort is to be included for each open space area so the public understands the relationship between the amenity controls proposed and the character and intended use of the public domain.

5.4 Public art

Objectives

- a) To incorporate public art within Central Precinct that:
 - i. promotes a sense of place and identity
 - ii. contributes to understanding and appreciation of cultural heritage, including connecting with Country
 - iii. fosters social interaction and cohesion
 - iv. facilitates engagement of art and culture more broadly, including generating economic opportunities for local artists
- b) To deliver public art that is responsive to culture and Country.

Guidance

1. Development applications that involve the creation of new publicly accessible space and buildings are accompanied by a precinct-wide Public Art Plan that demonstrates how the 'Central Precinct Public Art Strategy' (Cultural Capital, July 2022) has informed physical design, in particular consideration of how development:
 - a. responds to the curatorial frameworks identified by the 'Central Precinct Public Art Strategy' (Cultural Capital, July 2022) that addresses art in the public realm, including its form, purpose, experiential outcome and location
 - b. includes an overarching conceptual approach / curatorial rationale for the selection, commissioning and delivery of public art as part of future development applications in a way that ensures the strategic intent, vision, artistic integrity and quality of all public artworks is maintained throughout the process
 - c. integrates with connecting with Country and heritage interpretation measures (as per Section 4 – Connecting with Country and Section 11.3 – Heritage Interpretation of this Design Guide) and is consistent with the 'Connecting with Country Framework' (Balarinji, 2022)
 - d. includes media types specifically created to be experienced in public space
 - e. provides a variety of media types, ranging from small or ephemeral to large or permanent, and may include sculpture, painting, furniture, signage and lighting, installation, multimedia, sound or performance.

Note: Contact TfNSW to access a copy of the 'Central Precinct Public Art Strategy' (Cultural Capital, July 2022).
2. The City of Sydney Public Art Advisory Panel is to be liaised as part of the preparation of the precinct-wide Public Art Plan for Central Precinct.
3. Where a precinct-wide Public Art Plan is prepared, it is to be consistent with the City of Sydney's Public Art Strategy, Public Art Policy, Guidelines for Public Art in Private developments and Guidelines for Acquisitions and Deaccessions.
4. Where a development proposal has identified the opportunity to deliver public art that is responsive to culture and Country, an Indigenous curator or Indigenous cultural consultant is to be engaged to:
 - a. develop a co-design process to be undertaken with Aboriginal communities
 - b. facilitate the co-design process with Aboriginal communities in relation to the public art
 - c. provide input into the preparation of the public art brief
 - d. contribute to the design of the public art.
5. The procurement and engagement of Aboriginal artists should recognise the Indigenous Cultural and Intellectual Property protocols.

Commented [A68]: The Design Guide has no guidance on who will develop a precinct-wide Public Art Plan, and how it will be funded.
The City made the following recommendation in our submission to public exhibition:
[We] recommend a developer-funded mechanism, managed by a single authority (TfNSW/TAHE or equivalent) that would allow for the pooling of funds, ensuring a holistic place management approach with oversight of the consultation, planning, delivery, and maintenance of artworks, and addressing the public space in ways that transcend development site boundaries.

6.0 Amenity

Value statement

This section outlines objectives and guidance to manage the impact of the proposed built forms on the amenity in the public domain and publicly accessible spaces of Central Precinct. This specifically covers the following amenity-related matters:

- Sunlight access
- Daylight access
- Wind safety and comfort
- Views and vistas
- External lighting.

6.1 Sunlight access

Objectives

- a) To provide acceptable levels of sun access for public open space (and publicly accessible open space) in Central Precinct and its immediate surrounds relative to their intended use, to enable significant tree growth and in particular during the period of the day when they are most used by the workforce, visitors and the wider community.

Guidance

- 1. Development provides sunlight protections in accordance with **Table 3: Central Precinct sunlight access**

Table 3 Central Precinct sunlight access

Public space	Sunlight protection
Central Green	Direct sunlight to 50% of the area for a minimum of 4 hours from 9am to 3pm on 21 June
Mortuary Station Plaza	Direct sunlight each hour between 11am and 1pm for at least 50% of the plaza on 21 June
Eddy Avenue Plaza	Direct sunlight to 50% of the area for a minimum of 2 hours from 9am to 3pm on 21 June
Central Square	As per the Central Square sun access planes identified in the Sydney LEP 2012
Belmore Park	As per the Belmore Park sun access planes identified in the Sydney LEP 2012
Prince Alfred Park	As per the Prince Alfred Park sun access planes identified in the Sydney LEP 2012

Commented [A69]: Insufficient solar access to Mortuary Plaza to enable significant tree growth

6.2 Daylight access

Objectives

- a) To provide acceptable levels of daylight access for publicly accessible spaces relative to their intended use, and in particular during the period of the day when they are most used by the workforce, visitors and the wider community.

Guidance

- 1. Development provides daylight access (as measured by sky view factor) in accordance with **Table 4: Central Precinct sky view factor**.

- 2. The methodology for calculating sky view factor is to apply the following assumptions:
 - a. The sky view plane is to be projected 1.5m above the ground plane then divided into a 1m x 1m grid
 - b. The four corner points of each 1m x 1m grid at 1.5m above ground plane are each to have vectors projected to the sky hemisphere
 - c. A percentage of those that reach the sky hemisphere are to be calculated. Those vectors that do not reach the sky hemisphere have terminated at built form, and therefore are not to be calculated as part of the sky view
 - d. The average of the four corner points of each 1m x 1m grid is then calculated as a percentage of vectors that reach the sky hemisphere.

Commented [A70]: Be consistent with the City of Sydney DCP

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Table 4 Central Precinct minimum and target cumulative average sky view factor for publicly accessible spaces

Publicly accessible space	Minimum cumulative average sky view factor (SVF)	Target cumulative average sky view factor (SVF)
Central Avenue	25%	28%
Devonshire link	15%	25%
Laneways (excluding Eastern Colonnade)	5%	7%

6.3 Wind safety and comfort

Objectives

- a) To ensure the cumulative impact of development on the wind environment does not result in unsafe or uncomfortable wind conditions within publicly accessible space within Central Precinct or in the public domain-space surrounding Central Precinct, affected by the development, taking into consideration the intended primary purpose of that space.

Guidance

- 1. Development applications are to be accompanied by a **Quantitative Wind Effects Report** prepared by and suitably qualified and experienced person that addresses this section of the Design Guide.
- 2. Wind impacts from development on publicly accessible space or the public domain do not exceed the Wind Safety Standard.

Note: refer to the Schedules of this Design Guide for the definition of the Wind Safety Standard.

3. Wind impacts from development on publicly accessible space or the public domain do not to exceed the Wind Comfort Standard for walking, sitting or standing taking into consideration the intended use of the space as shown on **Figure 28: Central Precinct wind criteria for key streets, lanes and through-site links**.

Note: refer to the Schedules of this Design Guide for the definition of the Wind Comfort Standard.

4. Despite Guidance 6.3 (3), the following Wind Comfort Standards apply to certain outdoor uses:
- a. building entrances, bus stops, coach terminal stops, taxi ranks, and light rail stops – standing
 - b. ~~areas proposed for seating, or outdoor dining along Central Avenue and the north-south laneway – sitting.~~
5. Despite Guidance 6.3 (2) (3) and (4), wind impacts from development on the public ~~spacedomain~~, or publicly accessible space that is not on the OSD level, may exceed the Wind Safety Standard or Wind Comfort Standard but only where:
- a. it can be demonstrated that the existing wind speeds in affected locations exceed the standard(s), and
 - b. development does not result in an increase in existing wind speeds as measured by the relevant standard(s).

Note: Guidance 6.3 (5) does not apply to publicly accessible space on the OSD level (i.e. Northern OSD sub-precinct and Southern OSD sub-precinct).

6. Wind impacts from development on surrounding public open spaces outside of Central Precinct including Prince Alfred Park, Belmore Park and Railway Square, are not to be ~~substantially~~ worse than existing wind conditions.

7. Wind mitigation must be addressed at masterplan and building envelope stage.

~~7. Any wind mitigation device (e.g. structure) required to address wind safety or comfort criteria is to be localised and well-designed.~~

~~**Note:** such devices are likely to require detailed design review to ensure high quality outcomes are achieved.~~

8. Any wind mitigation device (e.g. structure) required to address wind safety or comfort criteria in the Devonshire Link:
- a. allows the free and safe flow of pedestrians at ground or OSD level
 - b. considers impact on any sightlines to the Marcus Clarke Building
 - c. is to have a porous surface
 - d. is encouraged to have dual use as artwork.

Commented [A71]: Previous section shows where outdoor dining is encouraged, *subject to wind conditions*. Given the map at Figure 28 does not show any sitting in the streets, the 2 controls contradict each other and these controls will allow zero outdoor dining.

Commented [A72]: Poor wind conditions should be ameliorated through the placement of buildings and manipulation of the built form, not mitigated with devices, especially in the public domain.

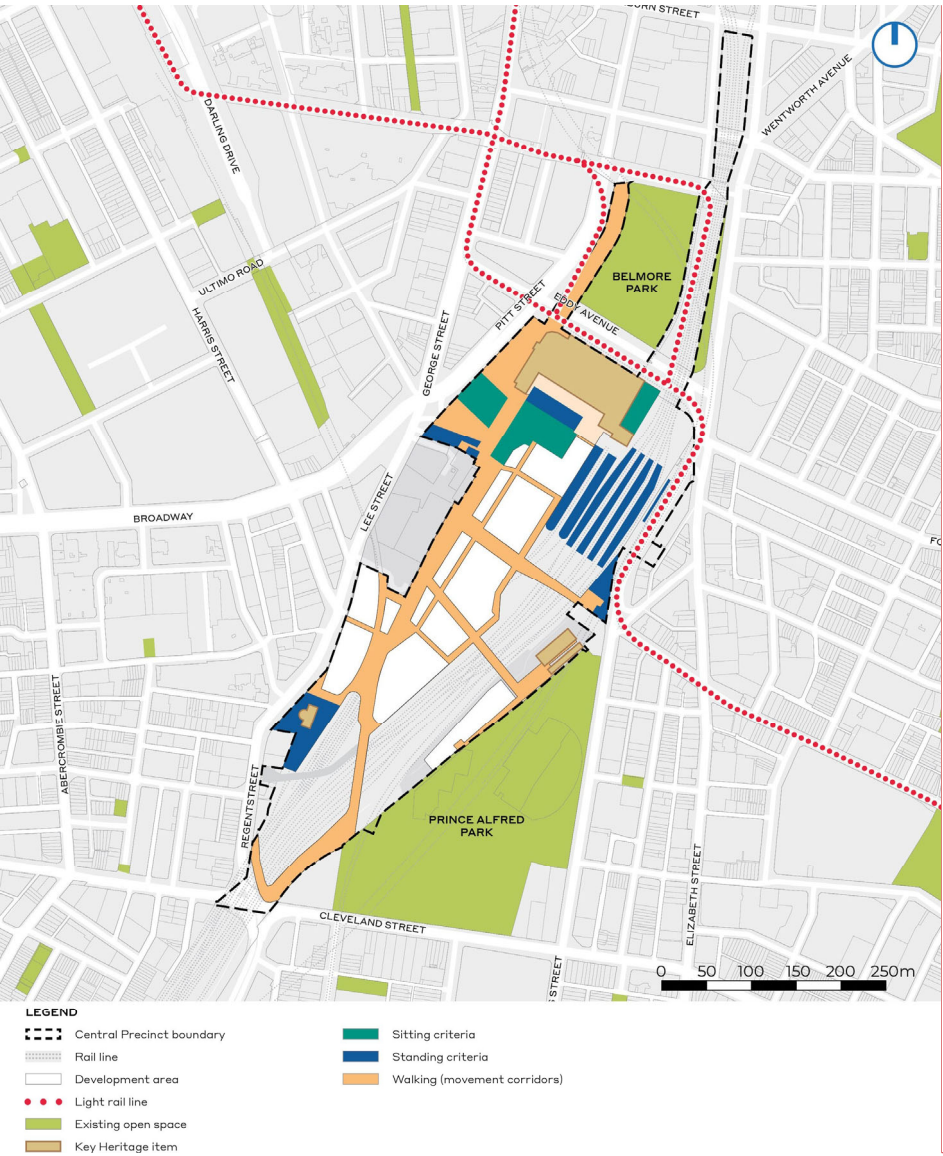


Figure 28 Central Precinct wind criteria for key streets, lanes and through-site links

Commented [A73]: The north-south laneway has been identified as an eat street. It should be identified 'sitting criteria' along with all active frontages on OSD buildings.

6.4 Views and vistas

Objectives

- a) Development:
 - i. protects significant views to important heritage items from the public domain
 - ii. provides new opportunities to see and appreciate the southern elevation of the Sydney Terminus and clock tower

Guidance

1. Development protects the view to the Central Station Clock Tower against the sky when viewed by pedestrians in the ground level public domain as shown in **Figure 29: Central Precinct significant views**.
2. Development gives appropriate consideration to mitigating the impact of new built form on the views identified in **Figure 29: Central Precinct significant views**. Consideration will be demonstrated through the design excellence process. Potential solutions will vary according to the visual characteristics of the view, including elements, features, composition and values. Appropriate solutions may include:
 - a. appropriate size and shape of building footprints
 - b. appropriate form and distribution of massing
 - c. having high quality architectural detailing, including with regard to line and shape
 - d. having high quality, durable materials that are responsive with the heritage item
 - e. having colours that do not detract from the visual prominence of heritage items.
3. The layout and design of Central Walk is to provide a sequence of opportunities for glimpses of the upper part of the southern elevation of Sydney Terminus and its clock tower.
4. The layout and design of Central Green is to provide opportunities for direct views to the upper part of the southern elevation of Sydney Terminus and its clock tower.



Figure 29 Central Precinct significant views

6.5 External lighting

Objectives

- a) To ensure external lighting minimises light spill into the night sky.
- b) To support the character Central Precinct and the sub-precinct in which it is located.
- c) To positively contribute to high quality architecture.
- d) To ensure no reduction in existing residential amenity.
- e) To reduce greenhouse gas emissions and energy consumption.
- f) To ensure external lighting does not adversely affect local fauna.

Guidance

1. External lighting is to be in accordance with
 - a. AS/NZS 4282:2019 Australian/New Zealand Standard, Control of the obtrusive effects of outdoor lighting
 - b. City of Sydney's Public Domain Design Codes – Sydney Lights.
2. External lighting, including fixtures:
 - a. does not visibly intrude outside the building silhouette
 - b. is integrated with the architecture of the building.
3. Any decorative lighting (permanent or temporary) does not include bud-lights and similar festoon lighting on buildings which detract from the architectural qualities of the building.
4. External lighting is located an appropriate distance from and is directed away from residential uses, in particular openings that permit light intrusion.
5. External lighting comprises LED down-lighting.
6. Any decorative lighting (permanent or temporary) does not include:
 - a. broad floodlighting of facades from large light sources located separate to the building
 - b. up lighting of flag poles and banner poles.
7. A night-time lighting masterplan is to be prepared as part of any future development application for new buildings and public domain areas. This is to consider:
 - a. safety and accessibility of publicly accessible areas during night-time
 - b. the implementation of energy efficient lighting
 - c. design measures for external lighting manage potential impacts to fauna habitat and movement corridors, in particular within Central Avenue.

7.0 Transport

Value statement

This section of the Design Guide contains provisions for managing the vehicle access, servicing, waste, cycle network and parking needs for Central Precinct. Leveraging the convenience of existing and planned transport infrastructure and services of Central Station, being Australia's largest transport interchange, Central Precinct will revitalise southern Central Sydney to create a world class transport destination. The objectives and guidance of this section aim to prioritise pedestrians on the OSD deck and encourage cycling, public transport and car sharing as the primary modes of travel within Central, as well as ensuring accessibility for all and embracing future changes in mobility.

Related planning documents

The objectives and guidance contained in this section should be read in conjunction with the following planning documents:

- Future Transport Strategy 2056 (Transport for NSW)

7.1 Vehicle access

Objectives

- To provide co-ordinated, limited and managed vehicle access that:
 - contributes to the activation of the public domain
 - provides universal access to over-station development
 - ensures pedestrian priority within the public domain
 - limits vehicular access on the OSD deck to service and emergency vehicles only.

Guidance

- Vehicle access is provided in accordance with **Figure 30: Central Precinct vehicle network**
- Motor vehicle access and circulation to the Over Station Deck is:
 - limited to service and emergency vehicles only
 - provided by a one-way shared way that ensures pedestrian priority.
- The layout and design of vehicle access from Cleveland Street is to:
 - integrate with Prince Alfred Park, and ensure that vehicle access is not visually dominant when seen from within the park and retain its existing heritage significance
 - maintain significant trees within Prince Alfred Park
 - avoid impacts to the Coronation Centre and its courts
 - d. maintain public access to the Coronation Centre and its courts.
 - d.e. Be designed primarily for walking and cycling, but able to accommodate emergency and maintenance vehicles.
- The layout and design of vehicle access using the Western Armature is to:
 - provide for coaches, buses, taxis and ride share
 - integrate with the Western Armature, and in particular retain its existing heritage significance.

5. The temporary access on Lee Street is to be closed once within one calendar month of the Western Gateway consolidated basement is completed.

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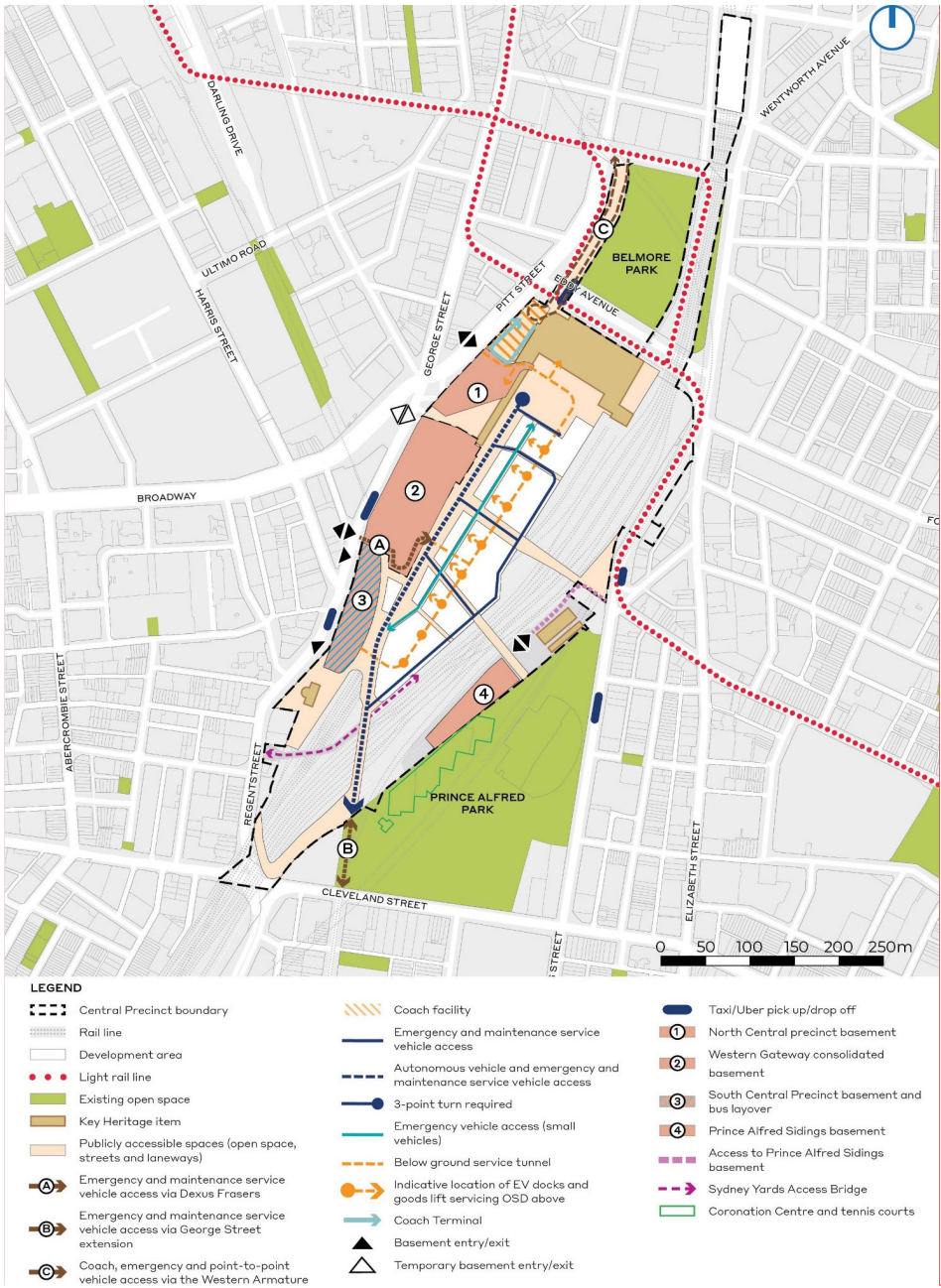


Figure 30 Central Precinct vehicle network

Commented [A74]: The long term use of the temporary basement entry at Lee St is not supported, these controls must state this.

7.2 Vehicle access and footpaths

Objectives

- a) To ensure vehicle access across footpaths and pedestrian thoroughfares provides for the safety and comfort of pedestrian and cyclists

Guidance

1. Where vehicle access to a building and/or the integrated basement is proposed across a major pedestrian thoroughfare or footpath, safety measures are to be provided where required and supported by a Transport Impact Assessment
2. Where vehicular circulation on the OSD deck is proposed across a major pedestrian thoroughfare or footpath, safety measures are to be provided where required and supported by a Transport Impact Assessment
3. Vehicle access and circulation is to cross footpaths at footpath level
4. Vehicle access and circulation is designed so that vehicles do not queue or reverse across pedestrian crossings or footpaths
5. Vehicle access and circulation is designed to minimise impact on existing street trees and to maximise opportunities for new street tree plantings
6. Vehicular access and circulation are to continue the type of footpath material and grade
7. Subject to urban design, heritage and streetscape considerations, access is to be designed to avoid reversing movements into or out of a public street

~~7-8.~~ Footpaths are to be designed to align with Sydney DCP 2012.

Commented [A75]: There must be a provision for closing Lee Street to vehicles north of Little Regent Street.

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7.3 Buses and Sydney Trains access

Objectives

- a) To retain Central Precinct's role as a major transport interchange, while providing capability to accommodate appropriate alternative uses including Central Square over the longer term

Guidance

1. Development provides for a coach facility catering for intercity and interstate travel located at the upper level of the western forecourt adjacent to the main western entrance to the Grand Concourse.
2. Any proposed coach facility is to provide coach parking bays and bus shelters.
3. Development maintains the Lee Street bus layover.

7.4 Vehicle parking rates

Objectives

- a) To ensure vehicle and servicing parking is provided at a rate consistent with Central Precinct's excellent levels of public transport.

Guidance

- ~~4.~~ On-site car parking is provided at a rate in accordance with the Sydney LEP 2012. These rates are identified below.

Table 5 Central Precinct maximum on-site car parking rates

Land use	Rate
Residential	1 bed dwelling
	0.3 spaces/ dwelling
	2 bed dwelling
	0.7 spaces/ dwelling
	3 bed dwelling
	1 spaces/ dwelling
Student accommodation	0.1 spaces per room
Hotel	0.1 spaces per room
Commercial	1 space per 2000 sqm GFA
Retail	1 space per 2000 sqm GFA
Education	1 space per 2000 sqm GFA
Community	1 space per 2000 sqm GFA

2-1 Where development comprises a land use not specified in Guidance 7.4(1), on-site carparking is provided at a rate justified by a Parking and Access Report.

3-2 Development proposing less than the maximum number of on-site carparking is to adjust the number of visitor parking spaces in accordance with the reduction of total car parking spaces.

4-3 In all buildings that provide onsite parking, 1 motorcycle parking space for every 12 car parking spaces is to be provided as separate parking for motorcycles. Each motorcycle parking space is to be designated and located so that parked motorcycles are not vulnerable to being struck by a manoeuvring vehicle.

5-4 Separate parking spaces for service vehicles are to be provided and may be shared with parking provided for any other purpose

1. Provision is to be made within the basement design for charging stations to service electric vehicles at the following rates:
- a. 100% of residential and 50% of commercial parking spaces are to be capable of supporting electric vehicle charging
 - b. 25% of visitor parking bays must have Level 2 or higher charger fitted
 - 6-c. All car share bays must have Level 2 or higher chargers fitted

7.5 Car share and point-to-point services

Objectives

- a) To ensure car share schemes are provided to encourage the reduction of car ownership within Central Precinct.

Guidance

1. The minimum of 1 car share scheme space per 25 on-site car parking spaces is to be made available.
2. Car share parking spaces are to be provided in addition to the maximum number of car parking spaces permitted in the development.
3. All car share parking spaces are to be:
 - a. publicly accessible 24 hours a day seven days a week;
 - b. located together;
 - c. located near and with access from a public road and integrated with the streetscape through appropriate landscaping where the space is external; and

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- d. clearly designated by signs as being for car share scheme use.
- 4. The location of drop-off and pick areas for point-to-point services (i.e. taxis and ride share) is to be in accordance with **Figure 30: Central Precinct vehicle network**.

7.6 Location and design of private and visitor vehicle parking

Objectives

- a) To ensure the location and design of carparking achieves a high quality ground level relationship between buildings and all public domain interfaces

Guidance

1. On-site car parking is provided underground in basement levels.
2. On-site car parking is to be in accordance with the relevant Australian Standards for off street parking.
3. On-site car parking for visitors is to:
 - a. be grouped together in convenient locations relative to car parking area entrances, pedestrian lifts and access points
 - b. are to be separately marked and clearly sign-posted
 - c. be appropriately accessible, including arrangements for access into a secure area if proposed.
4. Basement parking areas and structures do not protrude above the level of the adjacent street or public domain.
5. Vehicle ramps are not visible from the public domain and are to be located inside the building.
6. Car parking areas are:
 - a. well lit, visible, and avoid hidden and enclosed areas to allow for casual surveillance
 - b. include mirrors or similar devices where hidden and enclosed areas such as staircases and lift lobbies cannot be avoided
 - c. well ventilated and provide natural rather than mechanical ventilation where practicable
 - d. subordinate in appearance to the main building.

7. Car parking spaces are not located in areas used for the manoeuvring of service vehicles.

8. Minimal parking should be provided at Prince Alfred Sidings.

7-9.

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Commented [A76]: To minimize traffic through constrained Devonshire / Chalmers

7.7 Location and design of servicing vehicles

Objectives

- a) To ensure the location and design of services vehicle parking supports functional and efficient movement of service vehicles and sufficient space for loading and unloading.

Guidance

1. Service vehicle parking spaces, including spaces for bike couriers are:
 - a. located completely within the boundary of the precinct, clear of parked vehicles and clear of through traffic
 - b. located near vehicle entry points and/or near lifts
 - c. clearly designated and signposted for service vehicles only.

2. Parking spaces for service vehicles may be shared with parking for other purposes, subject to a management plan being prepared that identifies operational procedures to manage the shared use of parking spaces.

3. Each service core must have a loading bay immediately adjacent with adequate vertical clearance along the path of travel leading to the bay.

4. Minimal servicing bays should be provided at Prince Alfred Sidings.

2.

Commented [A77]: To avoid need for cross loading, a common issue in consolidated basements

Commented [A78]: To minimize traffic needing to go through constrained Devonshire / Chalmers intersection

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7.8 Servicing strategy

Objectives

- a) To provide an integrated, precinct wide servicing strategy that delivers a high level of functionality and enables responsiveness to new and emerging practices, including those that contribute to carbon reduction outcomes

Guidance

1. Each development block contributes to the creation of an integrated basement¹ suitable to support the future requirements of the Central Precinct, particularly with regards to:
 - a. service and loading vehicles, with supporting loading dock
 - b. access
 - c. egress
 - d. fire services.

Note: the integrated basement is to also accommodate waste and ventilation outcomes. Refer to Section 12.10 of the Design Guide for further detail.

2. Development applications are to be accompanied by an Integrated Servicing and Basement Strategy demonstrating how the block will be serviced and how in the final configuration it will contribute to and connect with the integrated basement servicing Central Precinct and include details on:
 - a. ongoing servicing of Central Station and associated rail infrastructure
 - b. operation of freight and logistics
 - c. parking and servicing requirements for each block
 - d. future servicing for over and under station developments
 - e. an integrated distribution facility to accommodate deliveries, service vehicles and waste collection away from the public realm and allow for the consolidation of goods for delivery across the precinct to their destination

f. the method and frequency of transfer to waste between the development and collection area.

f.g. How events outside day-to-day uses, such as tenants moving house, will be accommodated.

Note: This may include a consolidated basement with access routes or easements through the site

3. The provision of service vehicle parking is to be in accordance with the following rates:

Table 6 Central Precinct service vehicle parking rates

Land Use	Rate
Residential	<ul style="list-style-type: none"> 1 space for the first 50 dwellings or serviced apartments; plus 0.5 spaces for every 50 dwellings/ serviced apartments or part thereafter.
Commercial	<ul style="list-style-type: none"> 1 space per 3,300 sqm GFA, or part thereof, for the first 50,000 sqm; plus 1 space per 6,600 sqm, or part thereof, for additional floor area over 50,000 sqm and under 100,000 sqm; plus 1 space per 13,200 sqm, or part thereof, for additional floor area over 100,000 sqm.
Hotel	<ul style="list-style-type: none"> 1 space per 50 hotel bedrooms, or part thereof, up to 100 bedrooms; then 1 space per 100 hotel bedrooms; plus 1 space per 400 sqm of reception, lounge, bar and restaurant area GFA, or part thereof, for the first 2,000 sqm; then 1 space per 8000 sqm of reception, lounge, bar and restaurant area GFA thereafter.
Retail	<ul style="list-style-type: none"> 1 space per 350 sqm GFA, or part thereof, up to 2,000 sqm; then 1 space per 800 sqm GFA thereafter.

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Commented [A79]: Should be adjusted so that they give the equivalent of the DCP when applied to the precinct's GFA. Currently, applying these rates to the GFA gives only 88 spaces – lower than what the DCP would require (see Transport Submission). Should also specify size of vehicles required.

¹ An **integrated basement** refers to a consolidated basement that is to service buildings above the OSD deck

4. Despite Guidance 7.8 (3), the provision of service vehicle parking may be reduced where a dock and logistics management system is adopted to manage the loading demand and frequency of service vehicles. The dock and logistics management system is to include:
 - a. an online booking system, which requires drivers to book timeslots to access the site and loading bays; and
 - b. an internal logistics distribution system, which would allow for incoming goods to be processed and distributed to tenants within Central Precinct.
5. Basement parking areas and structures are to:
 - a. be designed to allow for the future connection of abutting basement structures in order to deliver a final consolidated integrated basement arrangement for all blocks
 - b. allow for potential future vertical transportation (goods lift or similar) between the basement level, the proposed over station development deck, and sub-deck level for the distribution of goods and general servicing requirements
6. Freight infrastructure is consolidated and supports emerging transitions in the freight network, including the electrification of logistics systems

6-7. Private vehicle parking may be provided only once the minimum servicing provisions are met.

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7.9 Waste collection and loading

Objectives

- a) To enable the safe and efficient collection and transport of waste and recycling from the precinct.

Guidance

1. Waste collection and loading is wholly accommodated in the Integrated Building Basement
2. Any waste collection and loading point is designed to:
 - a. allow waste collection and loading operations to occur on a level surface away from vehicle ramps
 - b. provide sufficient side and vertical clearance to allow the lifting arc for automated bin lifters to remain clear of any walls or ceilings and all ducts, pipes and other services
3. Vehicle access for waste collection and loading provides for:
 - a. at a minimum, a 9.25m Council garbage truck and a small rigid delivery vehicle
 - b. minimum vertical clearance of 4.0 metres clear of all ducts, pipes and other services, depending on the gradient of the access and the type of collection vehicle
 - c. collection vehicles to be able to enter and exit the premises in a forward direction. Where a vehicle turntable is necessary to meet this requirement, it is to have a capacity of 30 tonnes
 - d. maximum grades of 1:20 for the first 6m from the street, then a maximum of 1:8 with a transition of 1:12 for 4m at the lower end
 - e. a minimum driveway width of 3.6m
 - f. a minimum turning circle radius of 10.5m
4. Where vehicle access is via a ramp, design requirements for the gradient, surface treatment and curved sections are critical and must be analysed at an early stage in the design process

Commented [A80]: As per previous comments the integrated building basement should not be sized according to the DCP for individual developments. It must accommodate a larger design vehicle that matches scale of servicing needs

7.10 Future transport

Objectives

- a) To support future mobility transitions, including vehicle sharing, ride-sharing and connected and autonomous vehicle interfaces

Guidance

1. Development has the capability of allowing for 100% electric recharging of delivery and service vehicles as well as any vehicles parked on site.
2. Each parking bay is to include power supply capable of supporting a single phase Level 2 electric vehicle charger.
3. Development is to include initiatives to promote walking, cycling and the use of public transport, through the submission of a Green Travel Plan.
4. The provision of publicly accessible autonomous vehicles on the OSD deck in accordance with **Figure 31: Central Precinct vehicle network** may be considered to cater for last-mile drop-off and pick up for point-to-point users.

7.11 Cycle network

Objectives

- a) Development provides an integrated, convenient and safe cycle network that makes commuter and recreation cycling attractive to a broad range of people and integrates with and support the cycle network outside Central Precinct
- b) To improve the ability for bicycle riders to interchange between transport modes, including regional, suburban and metro train services, light rail and buses
- c) To provide a legible cycle network within Central Precinct.

Guidance

1. The cycle network is provided in accordance with **Figure 31: Central Precinct cycle network**.
2. **The precinct must deliver a direct, step-free route suitable to be part of the regional cycling network, from George St south cycleway to Regent Street.**
- 4.3. **The precinct must deliver a connection between the deck and the Goods Line for people cycling.**
- 2.4. Wayfinding measures for cyclists are to be provided to support legible cycle movements through and around Central Precinct and access to EOT bike hubs.

Commented [A81]: This should clearly state which vertical transport locations are suitable for people cycling.

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7.12 Location and design of bicycle parking and associated end of trip facilities

Objectives

- a) To ensure bicycle parking and associated end of trip facilities are provided in convenient, accessible locations and are designed in a manner that provides for safety, security, comfortable access.
- b) To improve the ability for bicycle riders to interchange between transport modes, including regional, suburban and metro train services, light rail and buses.

Guidance

1. End of trip (EOT) bike hubs are to be provided at standalone locations identified in **Figure 31: Central Precinct cycle network**.
2. On-site bike parking and end of trip bike hubs are to be designed in accordance with the relevant Australian Standards for the design criteria of bike parking facilities
3. Where bike parking for tenants is provided in a basement, it is to be located:
 - a. on the uppermost level of the basement
 - b. close to entry / exit points
 - c. subject to security camera surveillance where such security systems exist

Commented [A82]: This should identify where access to the facilities is from. The transport study notes access via Devonshire Tunnel but this is not made explicit here.

Also, bike parking and EOT must be provided in Eddy Plaza. This is noted in the Transport Study but not in the design guide.

Map of existing network should identify one-way streets (Devonshire) and distinguish between local and regional routes.

4. A safe path of travel from bike parking areas to entry / exit points is marked
5. Access to bike parking areas are:

- a. a minimum of 1.8m wide to allow a pedestrian and a person on a bike to pass each other and may be shared with vehicles within buildings and at entries to buildings)
- b. accessible via a ramp
- c. clearly identified by signage
- d. accessible via appropriate security or intercom systems

7.13 Amount of bicycle parking and end of trip facilities

Objectives

- a) To provide bicycle parking and end of trip facilities within Central Precinct that encourages cycling and reduces reliance on vehicles for commuting and recreational movement

Guidance

- 1. The number of bicycle parking spaces provided:
 - a. is consistent with forecast demand
 - b. considers **Table 7: Guidance for the number of bicycle parking spaces**

Note: where application of this guidance does not result in a whole number, it is to be rounded up to the nearest whole number

Table 7 Central Precinct guidance for on-site bike parking rates

Land Use	Residents/ employees (long-term)	Customers/ visitors (short-term)
Residential	1 per dwelling	1 per 10 dwellings
Student accommodation	1 per dwelling	1 per 10 dwellings
Hotel	1 per 4 staff	1 per 20 rooms
Commercial	1 per 150 sqm	1 per 400 sqm
Retail	1 per 150 sqm	1 per 400 sqm
Education	1 per 10 staff plus 1 per 10 students	N/A
Community	1 per 150 sqm	1 per 200 sqm
Any other use	To contribute to delivery of Central Precinct's mode share target for trips by bike	

Commented [A83]: Add column specifying rate of showers, lockers and change rooms in line with the DCP

7.14 Secure bike parking facilities

Objectives

- a) To ensure bike parking and associated facilities provide an appropriate level of security from theft or damage appropriate to the needs of the intended use

Guidance

- 1. Secure bike parking facilities are to be provided in accordance with the following:
 - a. Class 1 bike lockers for occupants of residential buildings

Commented [A84]: Residents parking could alternatively be provided as Class 2 cages, with one cage per dwelling. The City engaged with a community of riders a few years ago around in building facilities. The residents prefer class 2 facilities as this provides greater flexibility. For example households with more than one bike can park both securely rather than just one of them.

- b. Class 2 bike facilities for staff/employees of any land use
- c. Class 3 bike rails for visitors of any land use
- 2. For non-residential uses, the following facilities for bike parking are to be provided at the following rates:
 - a. 1 personal locker for each bike parking space;
 - b. 1 shower and change cubicle for up to 10 bike parking spaces
 - c. 2 shower and change cubicles for 11 to 20 or more bike parking spaces are provided
 - d. 2 additional showers and cubicles for each additional 20 bike parking spaces or part thereof
 - e. showers and change facilities may be provided in the form of shower and change cubicles in a unisex area in both female and male change rooms
 - f. locker, change room and shower facilities are to be located close to the bike parking area, entry and exit points and within an area of security camera surveillance where there are such building security systems.
 - g. a repair station with storage space for bike tools, pumps, e-bike battery chargers etc.

7.15 Construction traffic management

Objectives

- a) To manage associated impacts of development construction at Central Precinct.

Guidance

- 1. A Construction Traffic Management Plan is to be prepared for each stage of development that describes:
 - a. the proposed construction works
 - b. the proposed management and access of construction vehicles
 - c. the traffic impacts on the local area and how these impacts will be addressed
 - d. the proposed interim servicing strategy for Central Station and any operating buildings on the OSD deck
 - e. how pedestrian access will be maintained throughout construction activities.

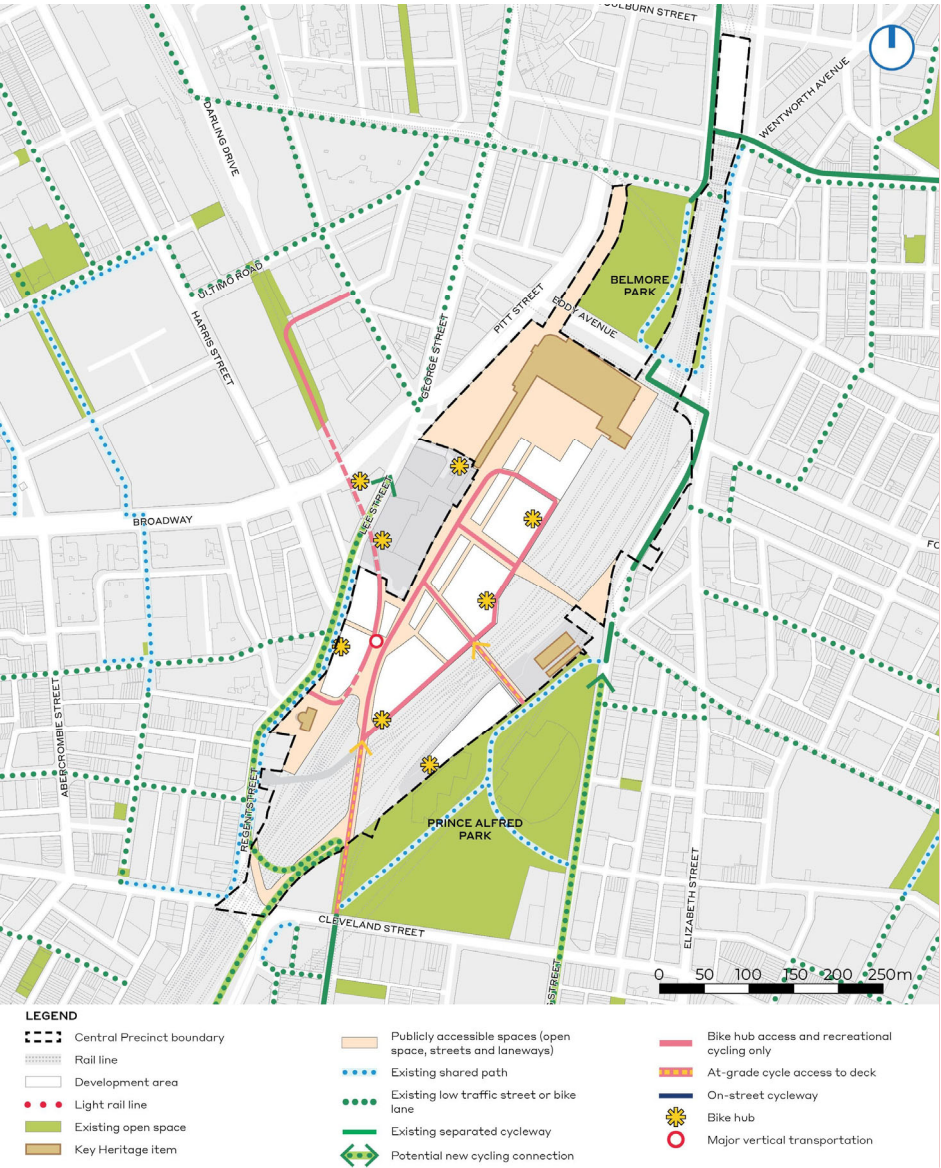


Figure 31 Central Precinct cycle network

Commented [A85]: This is missing a bike hub in the terminal building, which is shown in the Transport Report.

8.0 Land Use

Value statement

This section provides objectives and guidance on the future land use outcomes for Central Precinct. It seeks to encourage a diversity of land uses that will contribute to creating a vibrant and activated precinct throughout the day and night and support the Precinct's role in unlocking the desired innovation and technology outcomes for the Tech Central District.

8.1 Land use

Objectives

- a) To ensure land use supports the objectives of the relevant land use zone.
- b) To ensure land uses does not compromise on the Central Precinct's primary function as a major transport interchange.
- c) To support opportunities for an intensity of mixed uses and activities that commensurate with Central Precinct's anchor role in Tech Central.
- d) To provide a clear path for investment to help rebuild business confidence and support jobs in small and large businesses.
- e) To facilitate jobs and economic growth including new and emerging industries such as innovation and technology, including for cultural and creative uses and start-ups.
- f) To contribute toward the provision of the following floorspace targets for innovation and technology businesses within Tech Central:
 - i. 250,000sqm of net lettable area (NLA) for technology companies
 - ii. 50,000sqm of NLA as affordable workspace for start-ups and early stage companies.
- g) To enable a range of complementary activities in appropriate locations that contribute to a vibrant place that supports both the day and night economies.
- h) To enable development of landmark buildings at key locations within Central Precinct that mark the significance of Central Station within the Central Sydney's urban form.

Commented [A86]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing

•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

Guidance

1. Development complies with section [insert section] of the Sydney LEP 2012.
2. The location of residential accommodation is to be limited to the Regent Street Sidings sub-precinct.
3. Total cumulative GFA for residential accommodation (including build-to-rent and student accommodation) at Central Precinct does not comprise more than 107,400 square metres.
4. ~~Despite Guidance 8.1(2), student accommodation and build-to-rent may be provided within the Southern OSD sub-precinct, where it can be demonstrated:~~
 - a. ~~a positive net benefit to the Central Precinct such as a more vibrant, integrated innovation and technology ecosystem~~
 - b. ~~that these land uses will not compromise the operation of the rail corridor below the OSD deck~~
 - c. ~~that it is not the primary land use within the Southern OSD sub-precinct, being secondary to employment and/or educational land uses~~
 - d. ~~it does not compromise Central Precinct's primary role as a transport hub~~
 - e. ~~ensures any dwellings are located above the ground storey~~
 - f. ~~meets other relevant guidance of this design guide, in particular those related to amenity such as noise.~~
- 5.4. The northern landmark building identified in **Figure 32: Land use and built form typology** is to be designed to:
 - a. provide active retail and cultural uses at ground level that engage with Central Green

- b. respond to view impact considerations identified in **Section 6: Amenity** of this Design Guide
- c. achieve an appropriate relationship with heritage items.

6.5. The southern landmark building identified in **Figure 32: Land use and built form typology** is to be designed to:

- a. support education and tech uses ~~and student accommodation~~
- b. provide active uses at ground level that engage with the Southern Plaza).

7.6. Development provides appropriate floor space for technology, research and innovation, that:

- a. accelerates the growth of a technology, innovation, entrepreneurial ecosystem
- b. encourages and enables collaboration and the exchange of innovative ideas

c. is adaptable to support testing of proof-of-concept products and prototypes,

e.g. offers larger floorplates, easy access for servicing, larger floor-to-floor heights and is able to accommodate more significant ventilation systems

8. ~~Development for the purposes of commercial office are encouraged to~~ must provide a minimum of 15 per cent of total commercial floor space as affordable ~~affordable~~ employment floorspace dedicated in perpetuity to an affordable workspace provider ~~for innovation and technology start-ups and small and medium-sized enterprises.~~

9.7. Development provides community, cultural and creative uses (eg, galleries, workshops, makers spaces) and retail uses (eg, food and drink premises) to activate the precinct at night

10.8. Development provides for a variety of ground floor commercial, innovation and retail tenancies to support a diverse range of business and innovation activities.

8.2 Residential flat buildings, shop top housing or mixed use development with a residential accommodation component

Note: this section only applies to development for these uses within the scope of section 4 'Application of Policy' of 'State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development'

Objectives

- a) To ensure development for a residential flat building, shop top housing or mixed use development with a residential accommodation component has an acceptable impact on the environment.

Guidance

1. Development for a residential flat building, shop top housing or mixed use development with a residential accommodation component complies with 'State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development'.
2. Development for a residential flat building, shop top housing or mixed use development with a residential accommodation component complies with the relevant provisions of the 'Apartment Design Guide' (Department of Planning and Environment, July 2015), as time to time amended.

8.3 Advertising and signage

Objectives

- a) To ensure development for advertising and signage has an acceptable impact on the environment.

Guidance

1. Development for advertising and signage complies with 'State Environmental Planning Policy No 64—Advertising and Signage'.

Note: some advertising and signage is exempt development. Refer to 'State Environmental Planning Policy (Exempt and Complying Development Codes) 2008'.

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2. Development for advertising and signage demonstrates consideration of the relevant provisions of the 'Transport Corridor Outdoor Advertising and Signage Guidelines' (Department of Planning and Environment 2017) as time to time amended.



Figure 32 Central Precinct land use and built form typology

9.0 Building Form and Design

This section provides objectives and guidance on the future building form and design outcomes for Central Precinct. Building form and design objectives and guidance outline the desired future form of Central Precinct, which include:

1. Built form typology
2. Building and podium heights
3. Setbacks and separation distances
4. Building dimensions and articulation
5. Ground storey frontages
6. Noise and vibration
7. Reflectivity.

Commented [A88]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

9.1 Building form typology and design

Objectives

- a) To establish clear, legible street walls and tower typology on the OSD deck.
- b) To establish lower scale and fine-grain built form along Central Avenue.
- c) To ensure built form responds and engages with Prince Alfred Park.
- d) To ensure built form enables good solar access, daylight and comfortable microclimate conditions in the adjacent and affected public spaces

Commented [A89]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

Guidance

1. Built form typology is in accordance with **Figure 32: Land use and built form typology**.
2. Where identified as a lower-rise typology, buildings are designed to visually read in the public domain as a street wall.
3. Where identified as tall buildings, buildings are designed to visually read in the public domain as comprising two parts, being a street-wall (or podium) and a tower.

9.2 Building and podium heights

Objectives

- a) To protect sunlight to surrounding public parks and places throughout the year, and during periods in the day when they are most used by the workforce, visitors and the wider community.
- b) To establish street wall heights that define the edge of publicly accessible spaces.
- c) To establish a variety of building heights for lower-rise buildings along Central Avenue.
- d) To provide floor-to-floor heights that support flexible, adaptable and high amenity storeys.
- e) To ensure built form enables good solar access, daylight and comfortable microclimate conditions in the adjacent and affected public spaces

Guidance

1. Building heights are to be in accordance with the maximum building height and Sun Access Planes (SAP) of the Sydney LEP 2012. **Figure 34: Prince Alfred Park Sun Access Plane A** and **Figure 35: Belmore Park Sun Access Plane** indicatively show the maximum height achievable for land affected by Sun Access Planes.

Note: To determine the actual height of a Sun Access Plane at any point, the description of the Sun Access Planes in Sydney LEP 2012 prevails over the diagrams in this Design Guide, in the case of an inconsistency. When preparing Sun Access Planes care must be taken to adjust for the difference between grid north and solar north.

- 2. Street wall and podium heights are in accordance with Figure 33: Central Precinct street wall and podium heights.
- 3. Building heights of lower-rise buildings along Central Avenue identified in Figure 32: Land use and built form typology are to vary between 25 metres (6 storeys) and 37 metres (9 storeys).
- 4. A maximum 50% of the site area for lower-rise buildings along Central Avenue identified in Figure 32: Land use and built form typology may be built to a building height of 37 metres (9 storeys).
- 5. Minimum floor to floor heights is to be in accordance with Table 8: Central Precinct guidelines for minimum storey height.

Commented [A90]: The upper level setbacks are inconsistent with the SDCP. It must be demonstrated that the reference design must achieve the desired wind comfort criteria.

Commented [A91]: All floor to floor heights to be consistent with the SDCP

Table 8 Central Precinct guidelines for minimum storey height

Part	Storey height (floor to floor) (minimum)
Ground floor level commercial premises	4.2m (5.0m on OSD Deck)
Upper commercial levels in the podium	4.0m
Upper commercial levels in tower levels above podium – commercial premises	3.8m
Hotel	3.1m
Residential	As per the Apartment Design Guide



Figure 33 Central Precinct street wall and podium heights



Figure 34 Prince Alfred Park Sun Access Plane A
Source: City of Sydney

Commented [A92]: Railway Square SAP should be included



Figure 35 Belmore Park Sun Access Plane

Source: City of Sydney

9.3 Setbacks and separation distances

Objectives

- a) To ensure building setbacks and separation distances:
 - i. engage with and activate adjoining publicly accessible spaces
 - ii. contribute to high amenity publicly accessible spaces having regard to daylight and wind outcomes
 - iii. provide an effective step in the built form that reduces the visual scale of tower forms
 - iv. provide appropriate amenity for building occupants having regard to daylight and outlook
 - v. support visual permeability and connectivity
 - vi. mitigate the appearance of building scale and bulk when seen from locations in the public domain.
- b) To ensure that views to the Central Station Clock Tower against the sky are retained when viewed by pedestrians and vehicles as they enter Railway Square from Broadway (see **Section 6.4: Views and vistas**).
- c) To provide appropriate amenity within the development sites and the adjacent publicly accessible open space, specifically Central Green, the Grand Concourse, the Sydney Terminus building clock tower and Mortuary Station Building.

Commented [A93]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
•A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

Commented [A94]: Building?

Guidance

1. Building setbacks are provided in accordance with **Figure 36: Central Precinct setbacks** and **Figure 37: Central Precinct upper level setbacks and separation distances**.
2. ~~Where shown as 'Central Green setback' in Figure 37: Central Precinct upper level setbacks and separation distances, the tower form on Development Block A1 may have a cantilevered building articulation zone along the northern façade as shown Figure 38: North-South Section – Block A interface to Central Green and Figure 39: East-West Section – Block A interface to Central Green, where it:~~
 - a. ~~achieves an acceptable relationship to Sydney Terminus building having regard to its heritage values and significance~~
 - b. ~~achieves an acceptable relationship to Central Green having regard to its intended role, character and amenity~~
 - c. ~~supports the achievement of a wind environment on the ground plane and in affected and publicly accessible spaces that are appropriate for its intended use.~~
3. ~~Any cantilevered building articulation zone along the northern façade of the tower on Development Block A1 is to:~~
 - a. ~~have a maximum depth of 6m from the podium street wall alignment~~
 - b. ~~not exceed a maximum width extent of 24m when measured at the podium street wall alignment~~
 - c. ~~not exceed 15% of the tower floor plate (CBA)~~
 - d. ~~have its underside no lower than RL63m.~~
- 4.2 The minimum separation distance between tower forms in the Western Gateway sub-precinct and tower forms on the eastern side of the north-south laneway is 45m as shown on **Figure 37: Central Precinct upper level setbacks and separation distances**.
- 5.3 The minimum separation distance between the Grand Concourse roof and any tower on Block A1 is 80m as shown on **Figure 37: Central Precinct upper level setbacks and separation distances**.
- 6.4 The minimum separation distance between the Sydney Terminus building clock tower and any tower on Block A1 is 134m as shown on **Figure 37: Central Precinct upper level setbacks and separation distances**.
- 7.5 The minimum separation distance between the Mortuary Station Building and any tower on Regent Street Sidings is 70m as shown on **Figure 37: Central Precinct upper level setbacks and separation distances**.

Commented [A95]: Cantilevered built form over Central Green is unacceptable and should be removed as a control

- 8.6 Above street wall building height, the minimum separation distance between buildings is 6m.
- 9.7 For residential flat buildings, shop top housing and the residential component of mixed use developments, the minimum separation distance between buildings is in accordance with the relevant provisions of the 'Apartment Design Guide' published by the NSW Department of Planning and Environment (July 2015).

Commented [A96]: The upper level setbacks must be consistent with the SDCP. It must be demonstrated that the reference design must achieve the desired wind comfort criteria.



Figure 36 Central Precinct ground level and street wall setbacks

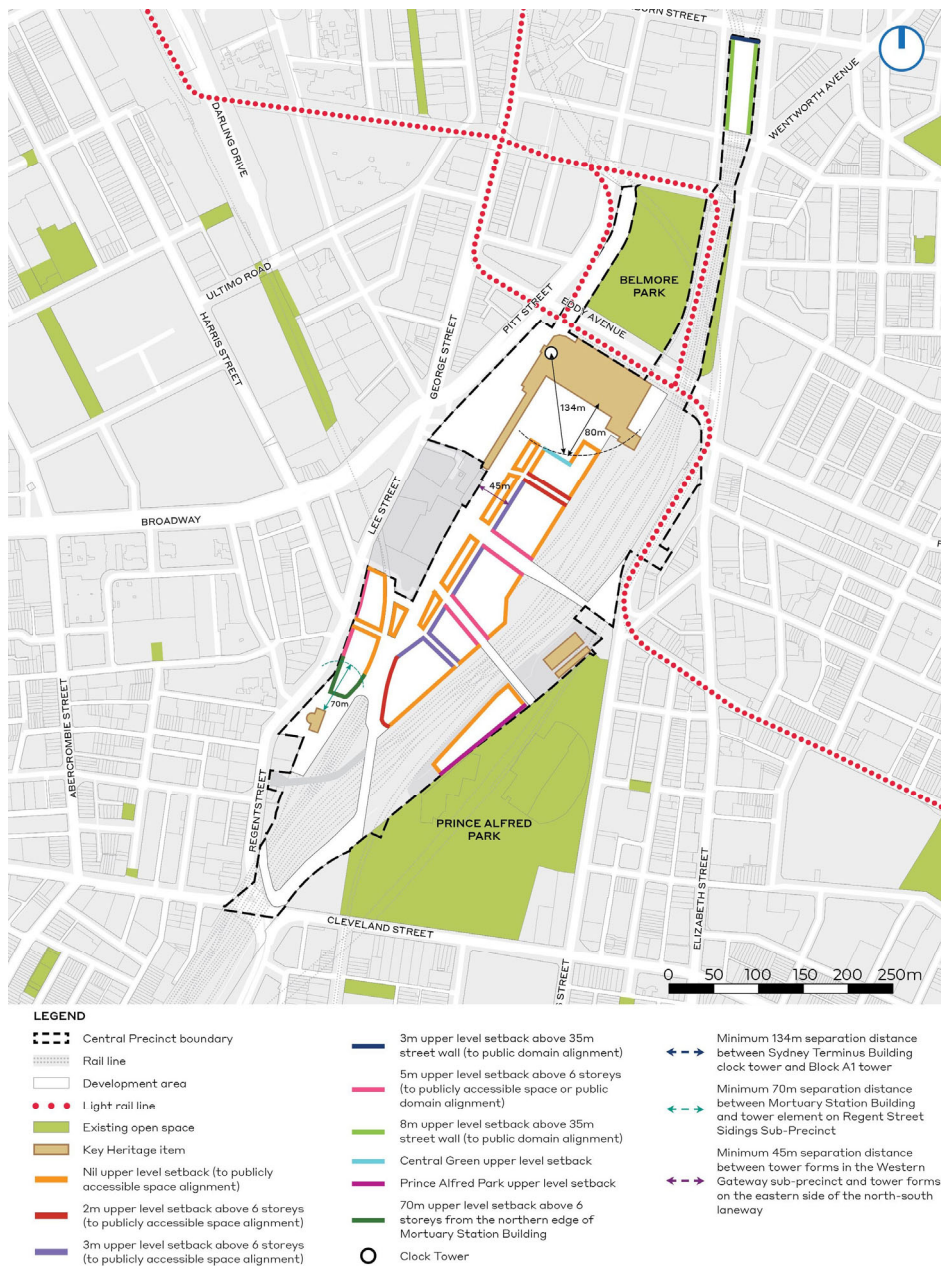
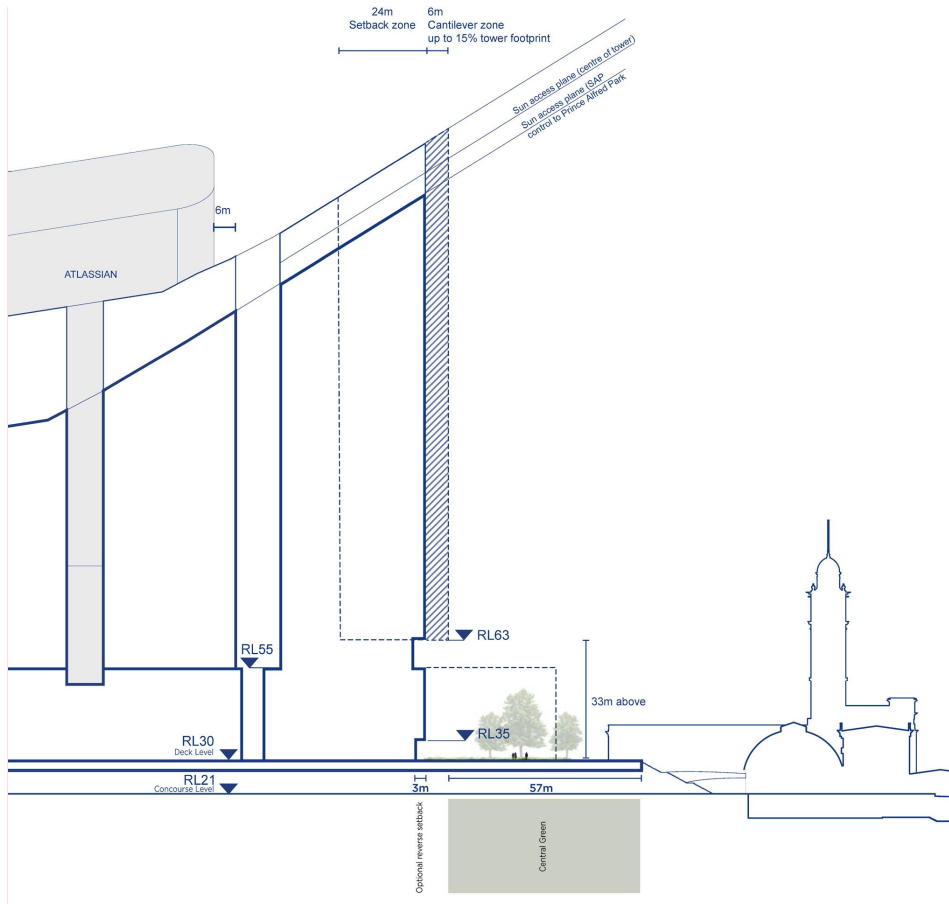


Figure 37 Central Precinct upper level setbacks and separation distances

Commented [A97]: The upper level setbacks are inconsistent with the SDCP. It must be demonstrated that the reference design can achieve the desired wind comfort criteria.



0-6m cantilever zone

Atlassian / Toga (WGP)

Central Green

Site boundary

Figure 38 North-South Section – Block A1 interface to Central Green

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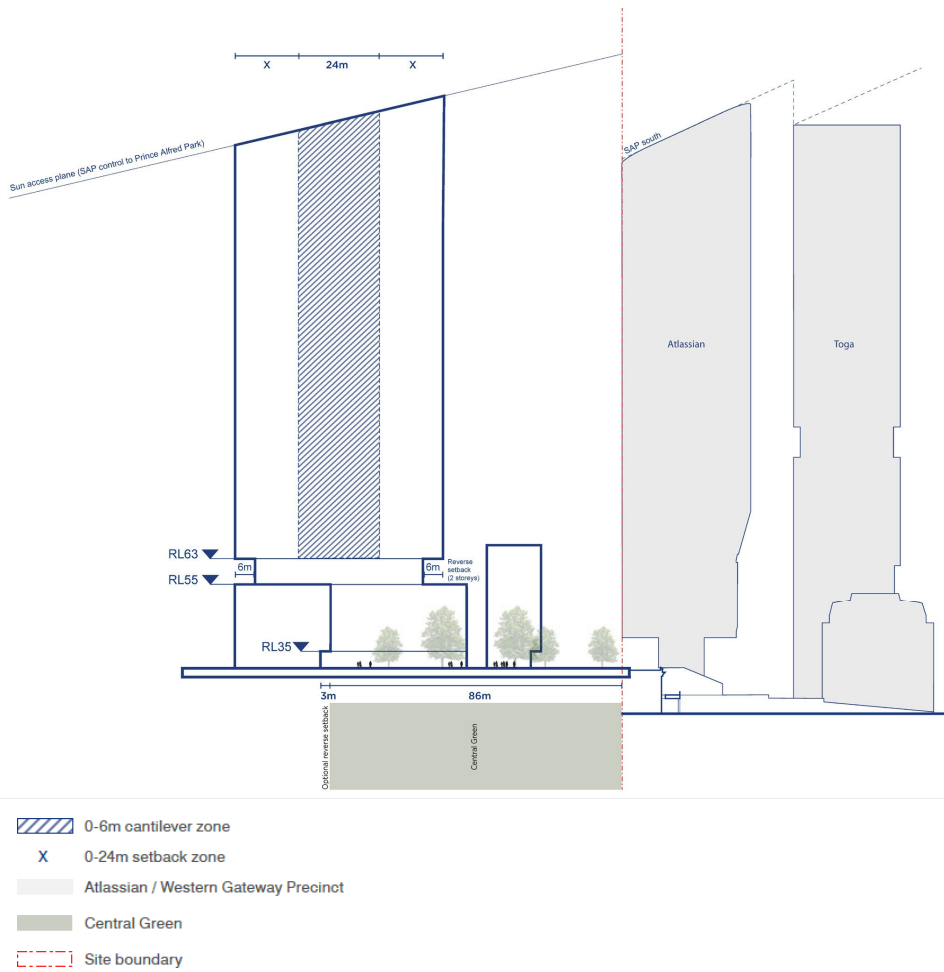


Figure 39 East-West Section – Block A1 interface to Central Green

9.4 Building dimensions and articulation

Objectives

- a) To manage building scale above podium street walls.
- b) To ensure building dimensions:
 - i. support a street wall and tower typology
 - ii. reduce the visual impact of building scale
 - iii. contribute to the creation of high amenity publicly accessible spaces, in particular with regard to daylight access and wind outcomes.
- c) To ensure building elevations provide visual interest and reduces the appearance of building scale and bulk of buildings in Central Precinct.

Guidance

1. Up to and including street wall building height, buildings may have site cover of 100% of the developable part of a block.

Note: the developable part of a block is that which remains following creation of streets, lanes and other publicly accessible spaces that are open to the sky.

Note: setbacks, separation distances and articulation zones will work to reduce the actual amount of the developable part of a block that a building may cover.
2. Above street wall building height, maximum building site cover is 80% of the developable part of a block.
3. Above street wall building height, maximum gross building area (GBA) is 85% of building site cover.
4. Above street wall building height, the maximum horizontal dimension of a building (including all external elements such as horizontal or vertical fins) measured in any direction (including diagonally across the building) is:
 - a. 50m for residential accommodation and serviced apartment developments,
 - b. 100m for all other development (as illustrated on **Figure 40: Maximum horizontal dimension of a non-residential building above Street Frontage Height**).
5. The minimum depth of buildings located between Central Avenue and the north-south laneway is 16m.
6. Podiums are to not exceed a maximum horizontal length of 150m.
7. Building elevations incorporate measures such as:
 - a. modulation of massing in the vertical and / or horizontal planes, including recesses and projections
 - b. elements of a finer grain attached to the main structural framing such as sun shading devices.

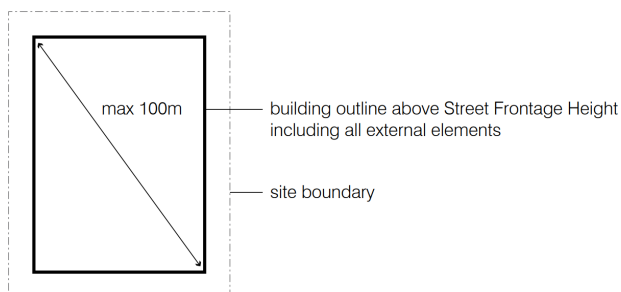


Figure 40 Maximum horizontal dimension of a non-residential building above Street Frontage Height

Source: City of Sydney

Commented [A99]: This section should be consistent with the SDCP

Commented [A100]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
 •A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

9.5 Ground storey frontages

Value statement

This section provides objectives and guidance related to the interface between the buildings and the public domain. This considers matters relating to the use and design of the ground floor frontages and outlining required setbacks and separation distances. This aims to establish a high amenity and activated ground plane at Central Precinct where activities within buildings can positively contribute to the public domain and publicly accessible spaces.

Objectives

- a) To ensure ground storey building frontages:
 - i. contribute to a vital, lively, high amenity and safe public domain
 - ii. provide people oriented and well-designed street frontages appropriate to the role and characteristics of adjoining publicly accessible spaces
 - iii. provide fine grain tenancy frontages to Central Green and the north-south laneway the vitality and liveliness of these publicly accessible spaces
 - iv. allow for active frontages and outdoor dining opportunities
 - v. support the economic viability of Central Precinct and businesses.

Commented [A101]: •How do these objectives relate to the Objectives and principles in 2.0 and 3.0? this is very confusing
 •A note is required stating that these Objectives are in addition to the principles and objectives in 2.0 and 3.0, all guidance must satisfy all of these, not just the ones shown here.

Guidance

1. Ground storey building frontages are provided in accordance with **Figure 41: Ground storey frontages** and **Table 9: Central Precinct guidelines for ground storey building frontages**
2. Fine grain retail tenancies:
 - a. are encouraged to be located along the north-south laneway and fronting Central Green
 - b. include a diverse range of:
 - i. smaller scale business premises and retail premises, including shops, restaurants and cafes
 - ii. creative and cultural spaces
 - c. achieve a density of frontages that provides a high level of variety and pedestrian interest.
3. Where in appropriate locations having regard to amenity outcomes, ground storey building frontages are encouraged to include uses that provides activation during the day and night such as small bars.
4. Ground storey building frontages includes measures such as:
 - a. positioning areas for respite and pause in locations that promote overlooking of the public domain and publicly accessible managed space
 - b. incorporating large doors or windows into building lobbies and spaces
 - c. not locating activities that are sensitive to public view, such as ground level office space, in locations where direct overlooking from the public domain or publicly accessible managed space can occur
 - d. minimising the extent of vents, mechanical plant and other operational requirements in areas that front onto the public domain or publicly accessible managed space through consolidation
 - e. fitting security grilles internally behind the shopfront and designed to be fully retractable and at least 50% transparent when closed.
5. Ground storey building frontages are to be the same level as the public domain or publicly accessible space, subject to existing flooding and heritage constraints.

Note: exceptions may be made to secure adequate protection from intrusion by water or other elements
6. Where possible, ground storey building frontages incorporate adequate protection for pedestrians from wind and rain through the use of elements such as cantilevered awnings.
7. Building entrance points connect at grade to the adjacent public domain and publicly accessible space.

8. Access for pedestrians to each building is direct and legible.
9. **Outdoor dining areas:**
- a. are encouraged to be provided in appropriate locations where they do not conflict with high volume pedestrian movement areas, in particular where adjoining key parks and squares such as Central Green
 - b. have a layout and design that supports the role and characteristics of publicly accessible spaces and adjoining buildings.

Table 9 Central Precinct guidelines for ground storey building frontages

Frontage	Guidelines
Active frontage	<ul style="list-style-type: none">Primarily small units, many doorsLarge variation in functionNo blank walls and few passive unitsLots of character in facade reliefPrimarily vertical facade articulationGood details and material
Mixed frontage	<ul style="list-style-type: none">Large and small unitsModest variation in functionSome blind and passive unitsModest façade reliefFew details
Prince Alfred Park frontage	<ul style="list-style-type: none">Frontage primarily to open active recreational facility space at ground floor frontageMultiple large and small units and building entrance points
Goods Line frontage	<ul style="list-style-type: none">No active frontage at Goods Line frontage level due to level difference and bus layover facilityPassive surveillance measures to be implemented
Goulburn Street Car Park frontage	<ul style="list-style-type: none">Active frontages to be provided along Goulburn Street frontageLobby access to be provided from Goulburn Street and Castlereagh StreetRetains rail infrastructure frontage along Castlereagh Street and Elizabeth Street where elevation change exposes existing rail corridor

Commented [A102]: Must have comfortable wind conditions

Commented [A103]: Prince Alfred Park interface to be coordinated with the City- building to be setback min. 3m



Commented [A104]: The active frontages shown on this diagram are not compatible with the wind comfort controls in the Amenity section

Figure 41 Central Precinct ground storey frontages

9.6 Noise and vibration

Objectives

- a) To ensure an appropriate level of amenity in relation to noise and vibration is provided for workers, visitors and residents.

Guidance

1. A Noise and Vibration Impact Assessment is to be prepared by a suitably qualified acoustic consultant when submitting a development application for a new building at Central Precinct.
2. The Noise and Vibration Impact Assessment is to consider and respond to noise and vibration impacts from the Sydney rail yard and adjacent suburban network, the surrounding road network, mechanical equipment and other systems, construction and other potential noise and vibration sources.
3. The repeatable maximum LAeq(1hour) for residential buildings and serviced apartments must not exceed the following levels:
 - a. for closed windows and doors:
 - i. 35dB for bedrooms (10pm-7am)
 - ii. 45dB for main living areas (24 hours).
 - b. for open windows and doors:
 - i. 45dB for bedrooms (10pm-7am)
 - ii. 55dB for main living areas (24 hours).
4. Where natural ventilation of a room cannot be achieved, the repeatable maximum LAeq(1hour) level in a dwelling when doors and windows are shut and air conditioning is operating must not exceed:
 - a. 38dB for bedrooms (10pm-7am)
 - b. 48dB for main living areas (24 hours).

Note: Residential apartments are to in accordance with Section 4B – Natural ventilation and Section 4J – Noise and pollution of the ‘Apartment Design Guide’ (Department of Planning and Environment, July 2015), and as time to time, amended.

5. Internal noise levels and vibration for non-residential uses are to comply with AS2107 2016: recommended design sound levels and reverberation times for non-residential uses.

5-6. To limit the transmission of noise to and between dwellings, all floors are to have a weighted standardised impact sound level (L_{nT,w}) less than or equal to 55 where the floor separates a habitable room and another habitable room, bathroom, toilet, laundry, kitchen, plant room, stairway, public corridor, hallway and the like.

- 6-7. The overall design and layout of dwellings, where appropriate, is to include the following noise attenuation measures:

- a. a limit on window size and number where oriented towards an intrusive noise source
- b. seals at entry doors to reduce noise transmission from common corridors or outside the building
- c. minimisation of the number of shared walls with other dwelling units
- d. storage, circulation areas, and non habitable rooms to buffer noise from external sources
- e. double or acoustic glazing
- f. operable acoustic screens to balconies.

- 7-8. A Construction Noise and Vibration Management Plan is to be prepared by a suitably qualified acoustic consultant when submitting a development application for a new building at Central Precinct. This management plan is to detail:

- a. the relevant noise and vibration criteria
- b. the planned hours of work

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- c. any significant works that will take place at these times, and any that are likely to exceed noise and vibration criteria
- d. what steps will be taken to mitigate this, including reducing noise levels.

9.7 Reflectivity

Objectives

- a) Minimise the reflection of sunlight from buildings to surrounding areas and buildings. (b) Ensure that building materials do not lead to hazardous, undesirable or uncomfortable glare to pedestrians, motorists or occupants of surrounding buildings.

Guidance

1. A Reflectivity Report that analyses potential solar glare from the proposed building design may be required for tall buildings.
2. Generally, light reflectivity from building materials used on facades must not exceed 20%.

10.0 Design Excellence

Value statement

This section contains objectives and guidance to guide design excellence and urban form at Central Precinct. All buildings contribute to the urban and public domain character of a city. ~~It is important that~~ design excellence is a fundamental consideration in the assessment of development applications. In recognition of this, the design of all new buildings and publicly accessible spaces within the Central Precinct will be required to be the subject of a design excellence process including competitions, design review, design integrity and design governance in accordance with the ~~endorsed~~ Precinct-wide Design Excellence Strategy for Central Precinct (Attachment 7).

Commented [A105]: Consistent with the Precinct-wide Design Excellence Strategy

Commented [A106]: Whilst Attachment 7 is called the 'Design Excellence Strategy for the Central Precinct' It is considered more accurate to call it the 'Precinct-wide Design Excellence Strategy'. This ensures it is appropriately differentiated from project-specific strategies and articulates its' place as an overarching strategy. Otherwise, it could be referring to any endorsed design excellence strategy for the Central Precinct.

Related planning documents

- The objectives and guidance contained in this section should be read in conjunction with the following planning documents:
- ~~Draft Government's Architect's Design Excellence Competition Guidelines (dated May 2018)~~
 - NSW State Design Review Panel Terms of Reference
 - City of Sydney Competitive Design Policy.

Objectives

- a) ~~To establish a collaborative process that ensures development~~ demonstrates exhibits design excellence in accordance with Section 6.21C of the Sydney LEP 2012
- a)b) ~~Deliver the highest standard of~~ architectural, urban and landscape design through the undertaking of competitions design having regard to:
- i. the strategic intent for Central Precinct as a job, innovation, and technology hub
 - ii. its location in Central Sydney
 - iii. Connecting with Country
 - iv. heritage
 - v. public domain
 - vi. streetscape
 - vii. built form scale and massing
 - viii. sustainability (social, environmental, and economic).
- b)c) Encourage First Nations involvement throughout the design excellence process.
- c)d) Deliver building design and landscape outcomes as an expression of Connecting with Country.
- d)e) ~~Delivers~~ design diversity across the precinct in an aesthetically appealing, innovative, participatory, and improved experience.
- e)f) Encourage community participation in the design process.
- f)g) Raise the profile and importance of design.
- g)h) Provide regional, national, and global awareness of the Central Precinct Renewal Program.
- h)i) Recognise the inherent complexity of creating a mixed-use precinct over and adjacent to an active rail corridor and the resulting need for a deep level of coordination between project stages, buildings and the public domain.
- i)j) Establish a design excellence culture throughout the development and delivery team and embed this culture into the future project governance frameworks.
- j)k) ~~Recognising~~ the importance of Central sitting at the heart of the NSW and Sydney Metropolitan transport network and the need for the NSW government to guide the renewal over the long term undertaken by TfNSW with a development partner. (TfNSW will not be selling individual development parcels).
- k)l) Establish a bespoke Design Excellence approach that facilitates coordination and precinct wide site planning and design excellence.
- l)m) Establish a platform for design diversity within the constraints of developing adjacent to and over an active rail

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corridor.

Guidance

- 1) Buildings and publicly accessible spaces within Central Precinct are to be the subject of a design competition in accordance with
 - A Project-specific Design Excellence Strategy that has been endorsed by the NSW Government Architect; and
 - The Precinct-wide Design Excellence Strategy (Attachment 7); and
 - The City of Sydney Competitive Design Policy.
- 2) Any Project-specific Design Excellence Strategy prepared for the Central Precinct is to:
 - Be consistent with the Precinct-wide Design Excellence Strategy (Attachment 7) and the City of Sydney Competitive Design Policy; and
 - be prepared in consultation with the City of Sydney and endorsed by the NSW Government Architect; and
 - give effect to the objectives for Design Excellence (as set out above).
- 3) Updates to an endorsed Project-specific Design Excellence Strategy for Central Precinct may be made, subject to further consultation with the City of Sydney and endorsement of the updated Strategy by the NSW Government Architect.
- 4) Updates to the Precinct-wide Design Excellence Strategy for Central Precinct may be made, subject to further consultation with the City of Sydney and endorsement of the Strategy by the NSW Government Architect.
- ~~1. Buildings and publicly accessible spaces within Central Precinct are to be the subject of a design excellence process in accordance with:~~
 - ~~a. a Design Excellence Strategy that has been agreed with the NSW Government Architect, or~~
 - ~~b. the City of Sydney Competitive Design Policy or the relevant NSW Government Architect competitive design policy at the time.~~
- ~~2. Any Design Excellence Strategy prepared for the Central Precinct is to:~~
 - ~~a. be prepared in consultation with the NSW Government Architect and City of Sydney; and~~
 - ~~b. give effect to the objectives for Design Excellence (as set out above).~~
- ~~3. Updates to an agreed Design Excellence Strategy for Central Precinct may be made, subject to further consultation with the City of Sydney and agreement of the NSW Government Architect.~~

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11.0 Heritage

Value statement

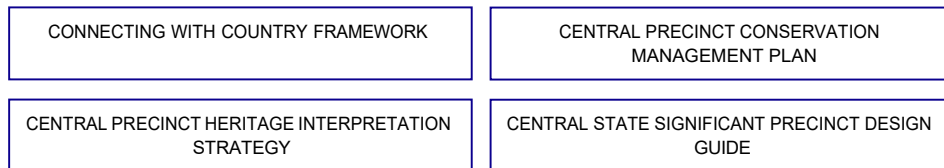
Central Precinct is recognised for its exceptional heritage value at the state and national level. With the Sydney Terminal and Central Railway Stations Group being listed in the State Heritage Register, the Central Precinct is important as a complex set of interrelated heritage structures, buildings and objects, all of which contribute to the overall heritage value of Central Precinct.

The site has a long history of development and change to address the often quickly changing needs of rail and other transport within, and to and from the city. A key aspect of future planning is managing the complex heritage values of the Precinct while accommodating transport upgrades and non-transport related development. One of the principal objectives for heritage planning within the Central Precinct involves the appropriate management of its significant heritage components, and to ensure that these components are respected during any change or development.

Heritage conservation and adaptation does not preclude change but must respond to the heritage values, constraints and opportunities that exist across the Precinct. A key element of the vision and objectives for the Precinct is to deliver future over-station development above the original Country and Interstate platforms. Over-station development will inevitably have an impact on heritage values. Managing how a proposed over-station development would take place, and minimising the potential for major adverse heritage impacts is a main consideration in heritage management of the Central Precinct.

All decisions about the future of the Central Precinct, including the potential for change, must be undertaken with regard to the management of the key heritage values and significance of the place, and the potential for adverse heritage impacts to these values. Where new developments or changes are proposed, the potential adverse impacts to the Precinct and its individual components must be managed, minimised or mitigated. These decisions should be guided by the following heritage documents which form the core heritage framework for the Central Precinct and will guide the preparation of future plans and assessments for proposed works.

HERITAGE FRAMEWORK



The intent of this Design Guide is to ensure that decisions about change are made having regard to the heritage significance of each component and the Precinct as a whole, and that opportunities to improve the understanding and appreciation of significance are taken.

This Design Guide is based on the core heritage principles that:

- change should be based on an understanding of heritage significance,
- the level of change should respect the heritage significance of the item or area, and
- where change is proposed which involves heritage components, ensure that options have been explored and that any potential adverse impacts are managed, minimised or mitigated.

Related planning documents

The objectives and guidance contained in this section should be read in conjunction with the following planning documents:

- NSW Heritage Act 1977
- Australian ICOMOS Burra Charter 2013
- NSW Heritage Office Design in Context 2005
- NSW Heritage Office Better Placed – Design Guide for Heritage 2008
- NSW Heritage Office Principles of Conservation Work on Heritage Places 1999
- Conservation Management Plans for specific buildings in the Precinct and within the vicinity of the proposed development
- Australia International Council on Monuments and Sites (ICOMOS) Charter for Conservation of Places of Cultural Significance (The Burra Charter) 2013
- Central Precinct Conservation Management Plan, Artefact Heritage, 2022
- Central Precinct Heritage Framework, Tonkin Zulaikha Greer, 2021
- Central Precinct Heritage interpretation Study, Artefact Heritage, 2022
- Central Precinct Aboriginal and Non-aboriginal Study, Artefact Heritage, 2022
- Central Precinct Archaeological Management Plan, Artefact Heritage, 2022
- Central Station Lighting Strategy Vols 1 & 2, report prepared for Sydney Trains by Tonkin Zulaikha Greer and Steensen Varming July 2020
- Prince Alfred Substation Adaptive Reuse Strategy, Heritage21, October 2019.

Term	Definition
Conservation	Conservation includes preservation, protection, maintenance, restoration and adaptation. (NSW Heritage Act 1977 definitions)
Heritage item	Heritage item means a building, work, place, relic, tree, object or archaeological site the location and nature of which is described in Schedule 5 of the <i>Sydney Local Environmental Plan 2012</i> (Standard Instrument—Principal Local Environmental Plan 2006) NSW Heritage Act 1977 State heritage significance , in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item. Local heritage significance , in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.
Heritage Interpretation	Interpretation means all the ways of presenting the cultural significance of a place. (Burra Charter, Article 1.17); The cultural significance of many places is not readily apparent, and should be explained by interpretation. Interpretation should enhance understanding and engagement, and be culturally appropriate. (Burra Charter, Article 25)

Note: Definition for other terms used within this section are in accordance with the definitions of the Burra Charter, Article 1)

11.1 Heritage conservation

Objectives

- a) Development should:
 - i. celebrate the heritage significance of the Central Precinct as a major historic transportation hub.
 - ii. embed heritage values into the design and development of a unique, place-based destination by demonstrating design excellence and design quality.
 - iii. promote conservation of the heritage values throughout the Central Precinct.

- iv. aim to enhance the aspects of the place that are intrinsic to its value including design, fabric, built form, spaces, uses, functions, settings, landscapes, views, and intangible values.
- v. be informed by heritage specialist advice and specialist expertise.
- vi. appropriately respond to the historic visual, physical and spatial character of Central Precinct, having regard for the scale, design and materiality of significant buildings and structures.
- vii. remain contemporary in architectural expression but sympathetic in design detail, clearly demarcating historic and new fabric.
- viii. avoid unacceptable visual impacts to identified significant views and vistas.
- ix. prioritise the retention and sensitive adaptive reuse of heritage items, ensuring the protection of their significant features, spaces and fabric and sustaining their long-term viability within the Precinct.
- x. deliver high quality entry points to the Precinct that respond to the existing heritage character and fabric whilst improving connectivity to the surrounding city
- xi. ensure the legibility of the different phases of historic development at Central Railway Station and its place as the centre of the railways in NSW
- xii. incorporate high quality, holistic interpretation integrated within the design and delivery of new public spaces and experiences.
- xiii. ensure interpretation speaks to the diversity, depth, and longevity of the site's history to enrich the visitors experience and understanding of the place.

Guidance

1. Development proposals are to be informed by specialist heritage advice, with heritage input into the design development process and heritage participation through the Precinct Design Excellence Strategy
2. Development is to be informed by the policies and recommendations of the Central Precinct Conservation Management Plan (CMP) prepared by Artefact Heritage and dated May 2022
3. Development applications for new buildings or works are to be accompanied by a Statement of Heritage Impact (SoHI) that:
 - a. demonstrates how the development has been informed by the policies and guidelines of the Central Precinct CMP, and any other relevant conservation management document that may apply
 - b. is prepared in accordance with the NSW Heritage Manual 'Conservation Management Documents'
4. Where the development application proposes the full or partial demolition of a heritage item or element, the Statement of Heritage Impact is to:
 - a. demonstrate why the element, building or part of the building is not capable of retention or re-use
 - b. identify and describe the options that were considered when arriving at a preferred development outcome and the reasons for choosing the preferred option
 - c. include a statement from a quantity surveyor comparing the cost of demolition to the cost of retention if the demolition is recommended primarily on economic grounds
 - d. include a report by a suitably qualified structural engineer if the demolition is proposed based on poor structural condition
5. Prior to the full or partial demolition of a heritage item or element archival photographic recording is required prior to any work being carried out.
6. Proposed development is to be designed with regard to the heritage values of the Central Precinct as a whole, the buildings, elements and spatial arrangements of the immediate and broader site encapsulated in its heritage curtilage. Building forms and design treatments of any new development must consider and positively respond to the heritage values of the place.

7. Commensurate with the exceptional heritage values of the place, new development within the Precinct should aspire to achieve excellence in design and innovation. New elements should be sympathetic to the significance of the site, while offering a creative and high-quality layer of design that is in keeping with the significance of Central Station.
8. Architectural detailing of new developments should consider their interface to heritage buildings within the immediate vicinity, and should have regard to form, colour, materials, and the prevailing character of the heritage setting.
9. Buildings and public domain are to be constructed of durable and robust materials, commensurate in quality with their historic counterparts and in keeping with the relevant policies of the Central CMP. New materials should seek to unify historic elements and remain complementary to the historic character of Central Station.

11.2 Heritage conservation in sub-precincts

The following precinct specific heritage design guidelines are provided in addition to the broader guidance contained within Section 11.1 of this Design Guide.

Guidance for Central Station sub-precinct

1. All buildings of 'Exceptional' and 'High' significance as identified in the **Central Station Conservation Management Plan 2022** should be maintained and conserved, particularly their external presentation, form and scale
2. Vertical additions should be avoided above the Main Terminus Building and the West Wing Extension and guided by the **Central Station Conservation Management Plan 2022**.
3. Alterations and additions to internal spaces of the West Wing Extension and Main Terminus Building are permissible within areas which have been identified as of Moderate heritage significance (or lower) in the **Central Station Conservation Management Plan 2022**. In areas of higher significance, additional care should be taken.
4. Where possible, activate underutilised spaces within the Main Terminus Building, West Wing Extension and Grand Concourse for public use to help create a renewed sense of place, having regard for historic significance and function.
5. Where possible, reactivate historic connections with Eddy Avenue and Chalmers Street as the main pedestrian approaches to Central Railway Station.
6. Where possible, recognise the historic innovation of Central as a multi-level transport interchange innovation in the design of new interventions.
7. The Western Forecourt should remain predominantly open to the sky
8. Where possible, retain internal view corridors between the Grand Concourse and the Country and Interstate platforms. Where significant view corridors cannot be retained, consider opening up new sightlines or delivering new elevated viewing locations within nearby new developments.
9. Internal fit outs are to be bespoke and site-specific and are to avoid obscuring significant features and architectural qualities particularly in spaces of 'Exceptional' and 'High' significance as identified in the **Central Station Conservation Management Plan 2022**.
10. Opportunities to adaptively reuse spaces within the West Wing Extension and Main Terminus Building for new functions where suitable rail or transport functions are not available should be explored.
11. Opportunities to reinstate the former Booking Hall volume and architectural features should be investigated and undertaken as part of any major works to the building or space.
12. Opportunities to enhance public access and the urban setting of the station, which include heritage interpretation, should be explored
13. Opportunities to interpret historic external lighting in this sub-precinct should be explored.

Guidance for Northern OSD sub-precinct

1. New development should seek to mitigate impacts to significant archaeological elements and other subterranean elements of Exceptional and High significance in this sub-precinct including the Bondi Sewer (beneath the Country and Interstate platform area) as identified in the **Central Precinct Archaeological Site Plan 2022**.
2. New development should be designed to respond to the heritage context in terms of character, scale, form, siting, materials and colour, and detailing.
3. Development setbacks should provide adequate separation of potential tower forms to mitigate visual impacts on the heritage context of the Central Precinct and surrounding areas.
4. New development in the sub-precinct should be guided by the Opportunities and Constraints identified in the **Central Station Conservation Management Plan Precinct 3 Inventory 2022**. The development should be set back from the Main Terminus Building and clocktower in order to respect the heritage setting, character, form and scale of the item and its visual connection to other heritage items in the vicinity, in accordance with Section 11.1 of this Design Guide.
5. Where possible retain significant view corridors and vistas to the Sydney Main Terminus Buildings, Central Electric Building and platforms, as outlined in the **Central Station Conservation Management Plan 2022**. Where these significant view corridors cannot be retained, consider opening up new sightlines or delivering new elevated viewing locations within nearby new developments.
6. Opportunity to reuse and enhance the existing baggage subway network for use as public pedestrian access across the Station should be explored.
7. Opportunity for the development of new public spaces and urban settings which include heritage interpretation in this sub-precinct should be explored.
8. Opportunities to interpret the Country and Interstate Platforms including the canopy form and fabric, and access to natural daylight and natural ventilation through design elements within the over station development should be explored.

Guidance for Southern OSD sub-precinct

- 4.1 New development should seek to minimise impacts to significant archaeological elements and other subterranean elements of Exceptional and High significance in this sub-precinct including the Prince Alfred Sewer (beneath the Sydney Yards) as identified in the Central Precinct Archaeological Site Plan 2022.
- 5.2 Development setbacks should provide adequate separation of potential tower forms to mitigate visual impacts on the heritage context of the Central Precinct and surrounding areas.
- 6.3 New development at the southern-most extent of the sub-precinct should seek to mitigate visual impacts on the adjacent Cathedral of the Annunciation of Our Lady including the belltower, and be guided by the **Central Station Conservation Management Plan Precinct 4 Inventory 2022**
- 7.4 New development should seek to minimise adverse impacts on the highly significant fabric and function of the Cleveland Street Bridge
- 8.5 Where possible retain significant view corridors and vistas to the Sydney Main Terminus Building, Central Electric Building and platforms, Mortuary Station and Prince Alfred Substation as outlined in the **Central Station Conservation Management Plan 2022**. Where these significant view corridors cannot be retained, consider opening up new sightlines or delivering new elevated viewing locations within nearby new developments.
- 9.6 Opportunity for the development of new public spaces and urban settings which include heritage interpretation in this sub-precinct should be explored.

Guidance for Regent Street Sidings sub-precinct

1. Conserve Mortuary Station, its platform and remnant tracks in the Sydney Yard. Changes to the overall layout and fabric of the Station should be minimised in keeping with the conservation policies contained in the **Central Station Conservation Management Plan Precinct 1 Inventory 2022** and the **Mortuary Station Conservation Management Plan 2000**.
2. The historic landscape setting of Mortuary Station should closely inform future design and adaptive reuse proposals.
3. New buildings within the SHR curtilage of Mortuary Station should be avoided in accordance with the **Central Station Conservation Management Plan 2022** and the Mortuary Station Conservation Management Plan 2000.
4. Vertical additions to Mortuary Station Building should be avoided in accordance with the **Central Station Conservation Management Plan Precinct 1 Inventory 2022** and the **Mortuary Station Conservation Management Plan 2000**.
5. Interpretation should be included in any proposal associated with Mortuary Station within this sub-precinct
6. Opportunities to adaptively reuse Mortuary Station for viable uses within the existing building and spaces should be explored.
7. New development should be designed to respond to the heritage context in terms of character, scale, form, siting, materials and colour, and detailing.
8. Development setbacks should provide adequate separation of potential tower forms to mitigate visual impacts on the heritage context of Mortuary Station, adjacent heritage items and local Heritage Conservation Area (C9 'Chippendale').
9. New development in the sub-precinct should be guided by the Opportunities and Constraints identified in the **Central Station Conservation Management Plan Precinct 1 Inventory 2022**. The development should be set back from Mortuary Station in order to respect the heritage setting, character, form and scale of the item and its visual connection to other heritage items in the vicinity, in accordance with Section 11.1 of these Design Guide.
10. New development should seek to retain and interpret the remnant railway tracks adjacent to Mortuary Station leading to the Goods Line, and minimise impacts to the extant structures of the Ultimo Railway Overbridge and Darling Harbour Cut where possible as outlined in the **Central Station Conservation Management Plan Precinct 1 Inventory 2022**.
11. Where possible, retain significant view corridors and vistas to Mortuary Station as outlined in the **Central Station Conservation Management Plan 2022**. Where these significant view corridors cannot be retained, consider opening up new sightlines or delivering new elevated viewing locations within nearby new developments.
12. Opportunities to adaptively reuse and create public access to the Railway Square Overbridge should be explored, with links to Mortuary Station and the Powerhouse Museum Precinct reinstated.
13. Opportunities to reintroduce discovered artefacts such as the Lee Street turntable as elements of interpretation in the sub-precinct should be explored.

Guidance for Prince Alfred Sidings sub-precinct

1. Opportunities to conserve and restore the c.1870s workshop buildings and adaptively reuse for a viable function should be explored, as well as a linkage to the surrounding precinct reinstated where possible.
2. Prioritise conservation of the two brick Prince Alfred Substation buildings, restore significant elements, retain and interpret significant moveable heritage onsite and reinstate original fenestration.
3. Vertical additions to the Prince Alfred Substation, Switch House and c.1870s workshop buildings should be guided by the relevant policies of the **Central Station Conservation Management Plan Precinct 2 Inventory 2022** and the **Prince Alfred Substation Conservation Management Strategy 2021**

4. New development should seek to mitigate visual impacts to the Prince Alfred Substation building, Switch House and c.1870s workshop buildings and be guided by the **Central Station Conservation Management Plan Precinct 2 Inventory 2022** and the **Prince Alfred Substation Conservation Management Strategy 2021**
5. New developments should be setback to maintain a heritage curtilage around the significant buildings as set out in Section 8 of these Design Guidelines and Opportunities and Constraints outlined in the **Central Station Conservation Management Plan Precinct 2 Inventory 2022**
6. Where possible, new development should seek to retain significant view corridors and vistas as outlined in the **Central Station Conservation Management Plan 2022**. Where these significant view corridors cannot be retained, consider opening up new sightlines or delivering new elevated viewing locations within nearby new developments.
7. Opportunities for cross connections over the rail corridor within this sub-precinct should be explored to enhance connectivity and appreciation of the Central Precinct
8. Opportunities to adaptively reuse the significant buildings as part of an individual or larger development for the site is encouraged.
9. Opportunities to reintroduce discovered artefacts such as the Chalmers Street turntable as elements of interpretation in the sub-precinct should be explored.

11.3 Heritage interpretation

Objectives

- a) Provide heritage interpretation with the built form and public domain that connects the contemporary experiences of users of Central Precinct with the diverse tangible and intangible heritage values and stories of Central Precinct

Guidelines

1. Development applications for works to parts of the site are to be accompanied by a Heritage Interpretation Strategy that demonstrates how the over-arching '**Central Precinct Heritage Interpretation Strategy**' (Artefact, 2022) has informed the specific proposal, and in particular:
 - a. includes an approach based on the key themes of 'Journeys and Gatherings', together with specific site stories related to the tangible and intangible significance of the heritage item/area
 - b. provides for an integration of heritage interpretation within the built forms and public domain
 - c. includes both Aboriginal and non-Aboriginal heritage interpretation opportunities
 - d. integrates with the 'Connecting with Country' and public art initiatives
 - e. accounts for the archaeological significance of the site and the immediate surrounds
 - f. includes a range of heritage interpretation media that are practically and conceptually accessible, engaging and informative, both on-site and off-site
 - g. is prepared in accordance with the Heritage NSW Interpreting Heritage Places and Items Guidelines

Note: TfNSW maintains a copy of 'Central Precinct Heritage Interpretation Strategy'.

11.4 Archaeology

Objectives

- a) Conserve archaeological relics

Guidelines

1. Where development is likely to affect an archaeological site or a place of Aboriginal heritage significance or potential archaeological site that is likely to have non- Aboriginal heritage significance, development applications are to be accompanied by an 'Archaeological Assessment' prepared by a suitably qualified archaeologist in accordance with the guidelines prepared by the NSW Office of Environment and Heritage
Note: refer to the **Central Station Archaeological Site Plan** (Artefact, 2022) to determine whether the development site has archaeological potential
2. An archaeological assessment is to include:
 - a. An assessment of the archaeological potential of the archaeological site or place of Aboriginal heritage significance
 - b. The heritage significance of the archaeological site or place of Aboriginal heritage significance
 - c. The probable impact of the proposed development on the heritage significance of the archaeological site or place of Aboriginal heritage significance
 - d. The compatibility of the development with conservation policies contained within an applicable conservation management plan or conservation management strategy
 - e. A management strategy to conserve the heritage significance of the archaeological site or place of Aboriginal heritage significance
3. If there is any likelihood that the development will have an impact on significant archaeological relics, development is to ensure that the impact is managed according to the assessed level of significance of those relics

12.0 Environmental Sustainability, Climate Change & Waste Management

Value statement

This section of the Design Guide identifies objectives and guidance for delivering world-leading environmental sustainability outcomes at Central Precinct. This aims to promote action on climate change and contribute to the NSW Government's goal to reduce emissions by 50 per cent below 2005 levels by 2030 and reach net zero emissions by 2050 by setting best practice sustainability and environmental performance measures for the design, construction and operation of public spaces and buildings that will minimise the environmental footprint of Central Precinct.

12.1 Energy and greenhouse gas emissions

Objectives

- a) To create a low-carbon precinct that ~~contributes to~~achieves the NSW Government's target of 50% emissions reduction by 2030 and net zero emissions by 2050.

Guidance

1. Development is to be capable of enabling a wide range of energy systems approaches, and does not preclude:
 - a. a central thermal plant
 - b. embedded energy systems
 - ~~c. the provision of 100% renewable energy for all energy customers.~~
2. New buildings deliver a reduction in embodied carbon of at least 30% compared to a reference building as assessed in accordance with the Green Star LCA criteria.
3. Development is to encourage the reduction of emissions from other sources (e.g. refrigerants and waste), prior to offsetting.

12.2 High performance precinct and buildings

Objectives

- a) To ensure development achieves best practice sustainability and environmental performance measures having regard to energy and greenhouse gas emissions

Guidance

1. Development applications for new buildings are supported by an 'Ecologically Sustainable Development Strategy' that demonstrates how the following requirements will be achieved or exceeded for the relevant area and land use:
 - a. entire Central Precinct: 6 star Green Star – Communities rating
 - b. all uses: 6 star Green Star for Buildings rating
 - c. all uses: 6 star Green Star – Performance rating
 - d. commercial premises: 6-star NABERS Energy rating with a Commitment Agreement
 - e. commercial premises: 5-star NABERS Water rating
 - f. commercial premises: silver core and shell WELL rating (or equivalent industry standard)
 - g. commercial premises: 5.5-star NABERS Waste Whole Building
 - h. residential accommodation (common areas only, not for individual dwelling units): 4.5-star NABERS Energy rating with a Commitment Agreement
 - i. hotel: 4.5-star NABERS Energy rating with a Commitment Agreement,
 - j. hotel: 4-star NABERS Water rating.

2. ~~An Integrated Utilities Hub is to be provided, allowing for the provision of:~~Where provided, the layout and design of a 'Integrated Utilities Hub'² demonstrates consideration of opportunities for:
- a micro grid electrical network, which could include an embedded network retailer, HV infrastructure, smart grid demand controls
 - on site renewable generation, emergency and stand by power supply, and electrical energy storage for the district
 - a district thermal system for building heating, cooling, and thermal energy storage
 - a waste water treatment plant and recycled water supply
 - a digital infrastructure and internet of things platform
 - 5G+ connectivity to support autonomous vehicles in the future.

12.3 Electrical energy

Objective

- To reduce the reliance of fossil fuels within Central Precinct.
- To implement an embedded network that is supplied by 100% renewable electricity.

Guidance

- All normally-operating building services (including for food and beverage tenancies) is to operate using electricity as 100% of its energy source (i.e. no reliance on fossil fuels).
- Design of new development is to be capable of supporting an embedded network that is supplied by 100% renewable electricity.
- Development is to have capability for embedded generation and battery storage sized for equivalent performance to emergency generator requirements).
- The electricity network is capable of:
 - embedded network retail capability for 100% renewable energy
 - embedded generation and battery storage (sized for equivalent performance to emergency generator requirements)
 - smart grid controls (demand control, building information modelling (BIM))
 - sufficient capacity to support electric vehicle charging, stand-alone and alongside multi-function pole design.
- Subject to feasibility and other relevant consideration, a private electricity network is encouraged for Central Precinct. In the event a private electricity network is not established, 100% renewable energy must be procured for the precinct.

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12.4 Thermal energy

Objective

- To be able to treat and re-use 100% of precinct generated waste water for heat rejection and irrigation.

Guidance

- Development is capable of including a Central Thermal Utility that includes centralised heat rejection and an all-electric chilled water and hot-water plant with thermal storage and a 4-pipe thermal distribution network that connects the central plant to all buildings.

² 'Integrated Utilities Hub' is a network of non-BAU infrastructure in the precinct (i.e. waste water treatment plant, on-site energy storage etc.) This may be consolidated physically in a single building, or the OSD basement, or distributed around the precinct.

12.5 Solar gain

Objective

- a) To minimise undesirable solar gain within buildings
- b) To incorporate passive design measures.

Guidance

1. New buildings seek to achieve no greater than 80W/sqm peak solar cooling load within building perimeter zones (4m adjacent to facade).
2. No more than 55% of new building facades have transparent glazing.
Note: parts of Central Precinct will be highly visible to locations to the east. Achievement of this guideline will need to be balanced with considerable of design excellence outcomes.
3. New buildings include suitable self-shading elements.
4. On-site solar photovoltaic (PV) systems are encouraged on roofs that do not function as a green roof.

12.6 Natural ventilation and 'buildings that breathe'

Objective

- a) To provide capability for natural ventilation within parts of buildings suitable for their intended function and use.

Guidance

1. New buildings are capable of having at least 40% of their GFA to be naturally ventilated.
Note: Central Precinct exists in a noise constrained environment. Any passive design measures are required to consider and demonstrate how noise has been addressed, and in particular achieve a comfortable indoor environment suitable for the buildings intended purpose.

12.7 Climate risk and resilience

Objective

- a) To improve resilience to potential shocks and stresses, including flooding, heat, storm and bushfire smoke, events.

Guidance

1. Development applications for new buildings are supported by a 'Climate Risk and Adaptation Plan' that demonstrates how the precinct is capable of functioning effectively under predicted climate change impacts associated with the RCP8.5 scenario (in what year?) (flooding, heat, extreme storm, humidity)-

3. The first concept development application is to provide a precinct-wide plan, and each building development application is to implement the plan.

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12.8 Systems

Objective

- a) To provide for flexible and adaptive systems with the capacity to be changed subject to uncertain future pressures.

Guidance

1. Sufficient space for heating, ventilation, and air conditioning and other building services is to be provided that is capable of accommodating equipment sized for future climate scenarios and designed to manage extreme events like bushfire smoke, hailstorms, etc.

12.9 Circular economy and materials

Objective

- a) To contribute to circularity in the use of resources and materials, including through reducing waste generation and diversion of waste to landfill.
- b) To support building longevity beyond their original intended use.

Guidance

1. Development seeks to maximise re-used material or material from a renewable source in construction.
2. Development is capable of delivering a low-emissions approach to the construction of the precinct and its embodied carbon impacts.
3. Buildings are designed with prefabricated/modular features, developing adaptable and reusable infrastructure that can be remodelled as the precinct grows and changes.
2. Buildings are designed to be capable of accommodating alternative future uses beyond conventional office based workplaces.
4. Development is to eliminate construction waste by minimizing waste in building design, supply chain and manufacturing.
5. Development is to combine services for transport efficiency around materials rather than land use (eg organics, plastics, residual waste).
6. Development is to provide processing and treatment facilities at a range of scales, establish network-based drop-off points in preference of door-to-door collection, and provide opportunities for reuse and repair, leasing and sharing facilities, collection points for producer responsibility schemes, storing and reverse logistics facilities.
3. The provision of space for public place circular economy infrastructure (e.g. return and earn machine) is encouraged.
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12.10 Waste management

Objectives

- a) To meet or exceed NSW government and City of Sydney resource recovery and waste avoidance targets.
- a)b) To apply the City of Sydney's Guidelines for Waste Management in New Developments for development in Central Precinct.
- b)c) To reduce the amount of construction and demolition waste going to landfill

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d) To reduce amount of waste generated in the operation of a development ~~from going to landfill~~ and maximise resource recovery.

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e) To incorporate well-designed, adequately sized and innovative waste and recycling facilities in buildings at the design stage

e)f) To minimise amenity impacts associated with waste storage, transfer and collection

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Guidance

1. Buildings and precinct to demonstrate that proposed design, infrastructure and management can achieve or exceed NSW government and City of Sydney resource recovery targets (Or Minimum 50% recovery and re-use of organic waste produced within the precinct and a minimum of 80% resource recovery rate from all operational material streams)

2. Centralised waste management network must be resolved at early stages of precinct design and all developments must show consideration of how they integrate into this network for waste storage, transfer and collection

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4.3. A Waste and Recycling Management Plan consistent with City of Sydney's Guidelines for Waste Management in New Developments and NABERS Waste is to be submitted with any DA and will be used to assess and monitor the management of waste and recycling during construction and operational phases of the proposed development.

2.4. The Waste and Recycling Management Plan is to include the following with regards to the management of demolition and construction waste:

- a. details regarding how waste is to be minimised during the demolition and construction phase
- b. estimations of quantities and types of materials to be re-used or left over for removal from the site
- c. details regarding the types of waste and likely quantities of waste to be produced

- d. a site plan showing storage areas away from public access for reusable materials and recyclables during demolition and construction and the vehicle access to these areas
- e. targets for recycling and reuse
- f. nomination of the role/person responsible for ensuring targets are met and the person responsible for retaining waste dockets from facilities appropriately licensed to receive the development's construction and demolition waste
- g. confirmation that all waste going to landfill is not recyclable or hazardous
- h. measures to reuse or recycle at least 90% of construction and demolition waste.

3-5. The Waste and Recycling Management Plan is to include the following with regard to the management of operational waste:

a. Estimates of waste and recycling that will be generated, the number of bins and collection frequency to manage the waste generated within tenancy, building and precinct storage/loading area

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a-b. a. plans and drawings of the proposed development that show:

- i. the location and space allocated within buildings to the waste and recycling management systems
- ii. the nominated waste collection point/s for the site

iii. the safe and efficient path of access between tenancies (if applicable), buildings and integrated basement storage and collection facilities

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iii. the path of access for users and collection vehicles

b-c. estimates of waste and recycling that will be generated

c-d. number of bins and collection frequency to manage waste generated

d-e. details of the on-going management of the storage, separation and collection of waste and recycling, including responsibility for cleaning, transfer of bins between storage areas and collection points, maintenance of signage, and security of storage areas

e-f. where appropriate to the nature of the development, a summary document for tenants and residents to inform them of waste and recycling management arrangements

f-g. measures to reuse or recycle waste from industrial, commercial and residential operations, in line with relevant third party certification requirements

g-h. demonstrates capacity to achieve a minimum of 80% resource recovery rate from all operational material streams a 60% quantity reduction (from business-as-usual) in operational waste-to-landfill, including through consideration of:

Commented [A108]: This aligns with NSW State targets

- i. establishment of a Centralised Waste Management Network for storage and collection
- ii. separation and recycling of recoverable waste by type.

4-6. Development is to provide adequate space within buildings for waste infrastructure and accessibility for the safe and efficient collection of waste by waste servicing waste collection vehicles.

5-7. The waste and recycling storage area is to be adequately ventilated by either:

- a. natural ventilation openings to external air. The dimension of the openings are not to be less than 5 per cent of the bin bay or bin room floor area
- b. a mechanical exhaust ventilation system in accordance with relevant Australian standards.

12 Waste and recycling management systems are to provide adequate space within tenancies, buildings and shared waste storage areas for waste infrastructure, source separated streams including general waste, recycling, organics, bulky and problem waste.

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13 Waste management systems are to provide adequate space for on-site organics processing infrastructure or storage for off-site processing, sized for the modelled organic waste generation from the precinct.

14 Buildings in the precinct are to have separate dedicated space provided for the separate interim storage and

management of strip-out waste for re-use or recycling. Each floor, storage area or interim holding area is to have space for the separation and storage of all recyclable items likely to be produced from the premises.

15 Food retail outlets within the precinct must accommodate designated spaces and requirements for shared re-usable serving ware and cleaning facilities to minimize single-use objects and maximise opportunities for re-usable materials.

16 All waste and recycling management systems must demonstrate how they minimise negative impacts of waste management on the streetscape, public domain, building presentation and amenity of pedestrians, occupants and neighboring sites

~~space for the collection of organic waste for offsite processing.~~

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12.11 Digital

Objectives

- a) To embed precinct-wide technology, including the Internet of Things (IoT) sensors, to enable the collection and use of data to support environmental and sustainability outcomes.

Guidance

1. Development applications are accompanied by a 'Digital Strategy' that shows how a digital framework and emerging technologies can be embedded that considers the following attributes:
 - a. is preferably a single data management and operational platform
 - b. includes physical infrastructure (eg, power, fibre, conduit, pits, sensors and multi-function poles) and considers associated soft infrastructure (eg, data collection, storage, management and decision support systems)
 - c. the provision of public Wi-Fi in publicly accessible areas
 - d. provides smart grid controls for demand control and building systems integration
 - e. enables real-time reporting of sustainability metrics relating to whole of life carbon, mobility patterns, water consumption, heat, air quality and waste management
 - f. enables the circular economy and materials reduction strategies to interface with the proposed digital engineering strategy
 - g. enables heritage interpretation within a range of digital amenities
 - h. are digitised applications which are compatible to allow ingesting into NSW data platform (Spatial Digital Twin)
 - i. enables predictive building modelling of sustainability measures to optimise performance
 - j. is compliant with current NSW Government standards and policies including cybersecurity, Internet of Things (IoT) to enable interoperability and cyber security across the precinct.

13.0 Green Infrastructure, Ecology, Urban Forest & Greening

Value statement

This section of the Design Guide identifies objectives and guidance to ensure the delivery of a high quality and resilient green infrastructure network at Central Precinct. Green infrastructure such as urban greening and tree canopy cover will play an important role in enhancing the amenity of Central Precinct by reducing urban heat and improving air quality, while also supporting biodiversity by providing new habitat features. This will also contribute to the City of Sydney's greening and urban forest targets, outlined in the Greening Sydney Strategy. Green infrastructure also contributes to enhanced community health and wellbeing that support sustainable communities.

Related planning documents

The objectives and guidance contained in this section should be read in conjunction with the following documents:

- Urban Green Cover in NSW Technical Guidelines (OEH, 2015),
- Greener Places (GANSW, 2020),
- Draft 'Greener Places Design Guide (GANSW)
- Greening Sydney Strategy (CoS, 2021).

13.1 Landscape character

Objectives

- a) To provide an integrated, connected and multifunctional landscape character including network of greening and canopy cover that:
 - i. connects Central Precinct with natural features and processes
 - ii. enhances people's physical and mental health and wellbeing
 - iii. supports biodiversity and connection and access to nature
 - iv. considers heritage-significant landscape features **where possible**
 - v. reduces urban heat
 - vi. creates microclimates
 - vii. filters stormwater on-site through natural measures
 - viii. provides habitat for suitable fauna
 - ix. reduces pests and weeds
 - x. contributes to cleaner air
 - xi. provides high quality shade
 - xii. provides high rates of evapotranspiration
 - xiii. contributes to delivery of the Sydney Green Grid.

Note: the Sydney Green Grid is outlined in the Region Plan and the District Plan.

- b) To ensure green and canopy cover contributes to the City's greening and urban forest targets outlined in the Greening Sydney Strategy.

Guidance

1. Greening and canopy cover is provided:
 - a. in accordance with **Table 10: Planting character for publicly accessible areas** and the relevant planting species identified in **Schedule 2: Species Index**
 - b. considering microclimatic conditions (i.e. solar and wind), including for green roofs and walls.

2. Development **is-~~to~~must** achieve the tree canopy and greening targets in **Table 11: Central Precinct targets for tree canopy**.
3. Development is required to incorporate greening and canopy cover on rooftops.
4. Vegetation is to be planted to encourage evapotranspiration, including through:
 - a. clustering of planting
 - b. grouping of canopy trees.
5. Evapotranspiration gardens:
 - a. have a minimum of 40% canopy cover
 - b. are preferably planted with species having a high leaf area index
 - c. include layered plantings, comprising a canopy layer having trees with dense canopies and a high leaf area index, a mid-storey layer that is kept relatively clear to increase visibility and permeability and an understorey / groundcover layer that includes forbs that prefer a high moisture environment and enhance humidity such as ferns and rushes
 - d. have planting beds provided with soils having a high level of organic matter to retain higher moisture content
 - e. has access to recycled water of suitable quality stored in the cellular structure of the over-station deck to provide water for evapotranspiration gardens.
6. A landscaping maintenance plan is to be submitted with any development application that proposes for new plantings to ensure successful establishment, structural integrity and ongoing health of canopy trees and planting, as well as managing weeds, pests and diseases.
7. Development is to demonstrate how it has considered 'Urban Green Cover in NSW Technical Guidelines' (OEH, 2015), 'Greener Places' (GANSW, 2020), the draft 'Greener Places Design Guide' (GANSW) and the Greening Sydney Strategy (CoS, 2021).

Table 10 Central Precinct planting character areas for publicly accessible areas

Location	Planting character
Central Green	<ul style="list-style-type: none"> Dune planting with evapotranspiration groves City tree planting
Central Avenue	<ul style="list-style-type: none"> Gully planting
Central Square	<ul style="list-style-type: none"> City tree planting Gully planting City creekline palms planting
Mortuary Station Plaza	<ul style="list-style-type: none"> Mortuary station cultural plantings City tree planting
Eddy Avenue Plaza	<ul style="list-style-type: none"> Sandstone slopes planting City tree planting
Ibero-American Plaza	<ul style="list-style-type: none"> City tree planting
Southern Plaza	<ul style="list-style-type: none"> Gully planting Meadow planting
Devonshire Link	<ul style="list-style-type: none"> City tree planting

Commented [A109]: Reconsider planting strategy on the Over Station Development Deck. Planting selection needs to respond to the conditions and constraints of the site (soil, sunlight, water, wind) in order for the plants to survive.

Location	Planting character
East-West Laneway (extending from Prince Alfred Park Bridge)	<ul style="list-style-type: none"> Gully planting
Prince Alfred Park Bridge	<ul style="list-style-type: none"> Meadow planting
George Street Bridge	<ul style="list-style-type: none"> Meadow planting

Note: Refer to **Schedule 2: Species Index** to find the specific planting species applicable to each planting character and the relevant location on **Figure 5** and **Figure 24** of this Design Guide.

Table 11 Central Precinct targets for greening and tree canopy cover

Location	Land use type*	Tree canopy cover target	Green cover target
Central Green	Iconic Park	40%	65%
Central Square	Civic Open Space	45%	55%
Central Avenue	Civic Open Space	50%	55%
Eddy Avenue Plaza	Civic Open Space	50%	50%
Mortuary Station Plaza	Civic Open Space	20%	55%
Southern Plaza (part of Central Avenue)	Civic Open Space	50%	55%
Western Edge of Central Green (above West Wing for Sydney Terminal Building)	Civic Open Space	0%	10%
Ibero-American Plaza and Chalmers St light rail station	Civic Open Space	40% 40%	16%
Devonshire Link	Civic Open Space	50%	50%
East-West Laneway (extending from Prince Alfred Park Bridge)	Civic Open Space	50%	50%
Devonshire Bridge	n/a	0%	0%
Prince Alfred Park Bridge	n/a	0%	15%
George Street Bridge	n/a	0%	15%
Goods Line	Adaptive reuse of a rail cutting, not a typical land use type	10%	15%
Development blocks	Property	0%	60% 20%

* Land use types based on City of Sydney's Greening Sydney Strategy

13.2 Locally indigenous flora and fauna species

Objectives

- a) To improve the diversity and abundance of locally indigenous flora and fauna species across the Precinct, consistent with ecological communities that would have naturally occurred in the area.
- a)b) To select species which are able to survive, given the constraints of the location (water, sunlight, soil and wind), noting that the conditions of the over station development will be different than the historic natural environment.

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Guidance

1. Greening and canopy cover is provided in accordance with **Schedule 2: Species index**, and includes the following communities:
 - a. Eastern Suburbs Banksia Scrub
 - b. Hawkesbury Sandstone Slopes
 - c. Turpentine-Ironbark Forest
 - d. Swamp Forest
 - e. Swamp Woodland.

Commented [A110]: Reconsider planting strategy on the Over Station Development Deck. Planting selection needs to respond to the conditions and constraints of the site (soil, sunlight, water, wind) in order for the plants to survive.

13.3 Soil requirements

Objectives

- a) To provide sufficient soil volumes to support healthy growth of trees and turfed ground cover.
- b) To establish a connected soil network within the OSD deck that is able to encourage roots to grow laterally, improving tree anchorage where planting above a structure limits the available soil depth.

Guidance

1. Publicly accessible open spaces incorporate areas of turfed and planting on structure with sufficient soil volume, depth and area to support tree planting and growth.
2. The design of publicly accessible spaces is to consider the use of permeable paving or other methods to allow gaseous exchange with soil where trees are planted in paved areas.
3. A connected soil area is to be provided in areas identified in **Figure 42: Connected soil area to support planting on OSD Deck**, to support turf and planting on structure.
4. The connected soil area on the OSD deck is to be connected to the deep soil of Prince Alfred Park.
5. For turfed areas and planting on the OSD structure:
 - a. a minimum soil depth of 1m is to be provided to support the planting of small, medium and large trees
 - b. a minimum of 600mm soil depth for areas of shrub planting
 - c. a minimum of 300mm soil depth for turf planting
 - d. soil volumes for tree planting are to be in accordance with the City of Sydney Landscape Code

Note: soil volume areas may extend underneath paved surfaces where the volumes cannot be provided directly beneath planted areas.
 - e. the soil profile for mass planting above a slab should include a depth of 75mm of mulch, 300mm of organic mix, and appropriate drainage cell and waterproofing
 - f. planting pits are to be designed to encourage roots to grow laterally.
6. Landscaping design in private open spaces (e.g. roof gardens) is to consider the principles and considerations of the City of Sydney Landscape Code with proposed planting design and species being appropriate for the

environmental conditions

7. A Landscape Plan is to be submitted with a development application for new buildings and/or publicly accessible spaces that details the design of soil depths, profiles and type, taking into account tree species, irrigation, size of rootball, placement and environmental conditions.



Figure 42 Connected soil area to support planting on OSD structure

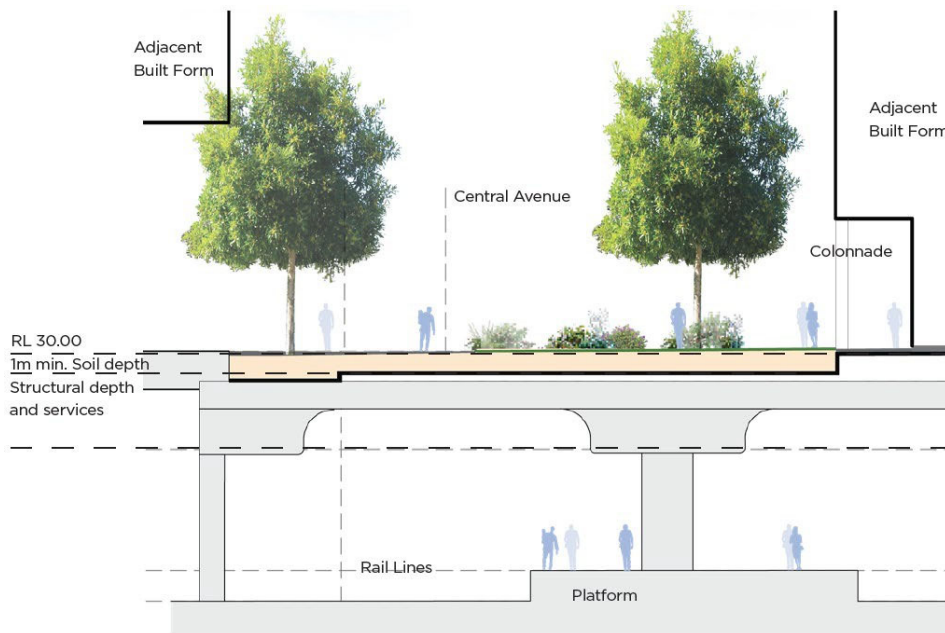


Figure 43 Typical Section through Central Avenue showing deck structure and connected soil depth

13.4 Significant trees

Objectives

- a) To protect significant trees that make a valuable contribution to the environment, culture and heritage of the City of Sydney.

Guidance

1. ~~Where in the Prince Alfred Park Sidings sub-precinct, d~~Development protects all significant trees within Prince Alfred Park.
2. An Arboricultural Impact Assessment (AIA) is to be submitted, in accordance with the Australian Standard for the Protection of trees on Development Sites, with any development applications that may impact on trees. This report is to also assess trees located within adjoining properties (including street trees) where they may be impacted by the proposed works.
3. An AIA submitted with any development application is to be prepared by an Australian Qualification Framework Level 5 arborist who has extensive demonstrated experience in managing significant trees and complex development sites.

13.5 Biophilic design

Objectives

- a) To establish a biophilic environment that provides a material connection for tenants and visitors to natural systems.

Guidance

1. Building design enables the provision of green roofs and green walls (vertical greening) with preference given to green roofs.
2. Buildings are to be designed to provide a minimum 25% of its roof area as green roofs.
3. Planting design as part of new green roofs are to include a diverse range of plants including locally endemic species, including a range of species which are adaptive to RCP 8.5 (in what year?) conditions.
4. Building roofs are to be clear of mechanical plant to provide capability for green infrastructure.

13.6 Biodiversity

Objectives

- a) To ensure development has a net positive impact on biodiversity and protects threatened species inhabiting Central Precinct.
- b) To create new and improve existing urban habitat for the city's ecosystem.
- c) Development provides habitat connectivity for mobile species between:
 - i. Prince Alfred Park and Belmore Park
 - ii. the Domain, Hyde Park and Moore Park.

Guidance

1. Development applications are to be accompanied by a 'Biodiversity Management Plan' that details measures to be implemented prior to, during and post construction for:
 - a. protection of threatened fauna species
 - b. establishment and maintenance of foraging, roosting and/or breeding habitat for highly mobile native species such as microbats, birds and insects.
 - c. establishment and maintenance of aquatic and riparian habitat for native species of amphibians and fish
 - d. control of pests and weeds
 - e. requirements for monitoring and adaptive management to demonstrate an increase in biodiversity
 - f. where impacts are proposed to threatened species habitat, establishment of alternative nearby suitable habitat prior to construction commencing.
2. New buildings are to provide appropriate habitat (including foraging and roosting spaces) for mobile species, such as microbats, birds and insects.
3. The design of new buildings are to consider local and regional flyways in landscape, building and infrastructure design and avoid building design elements that could harm flying fauna, such as highly reflective glass building facades.

14.0 Water Quality, Flooding & Stormwater

Value statement

This section of the Design Guide identifies objectives and guidance related to the management of water within the Central Precinct. This seeks to manage how water is utilised sustainably within the precinct while minimising impacts to the capacity of surrounding stormwater infrastructure.

14.1 Integrated Water Management

Objectives

- a) To manage water for the whole precinct in an integrated way that acknowledges the interactions between stormwater quantities, stormwater quality, rainwater and stormwater harvesting and reuse, and non-potable water demand.
- b) To facilitate coordinated delivery of an integrated water management approach across development stages

Guidance

1. A precinct-wide Integrated Water Management Strategy shall be prepared that illustrates how the precinct will be designed to maximise water efficiency and meet the stormwater quality, stormwater quantity and flood risk management requirements elsewhere in this section. The strategy is to include:

a. Water positivity

- include provision of dual plumbed water systems to enable utilisation of the recycled water network for permitted non-potable uses which may include flushing, irrigation, fire fighting and certain industrial purposes
- identify how rainwater and / or stormwater will be harvested and reused across the precinct to maximise sustainable water reuse
- consider how the development will be designed to enable future connection to the George Street recycled water scheme network
- consider both sewer mining and provision for export of treated water to the George St recycled water scheme network (either in conjunction or separately).

b. Local drainage management

- consider the drainage network required to convey stormwater to and between rainwater and/or stormwater harvesting and stormwater detention storages, and how this will be delivered through individual development stages

c. Flood planning

- a precinct-wide flood study as required in section 14.4 below
- identify potential cumulative downstream flood impacts and any stormwater detention requirements to mitigate these impacts.
- identify how the detention volumes will be allocated to development stages
- consider centralised detention storage and the potential to combine this with storage for stormwater harvesting

d. Stormwater quality

- identify opportunities for water sensitive urban design including green walls and roofs
- identify opportunities for stormwater pollutant reduction in excess of best practice targets and how these can be delivered through development stages
- consider the potential for water sensitive urban design elements to be included in each development stage and identify the minimum quantity of water sensitive urban design

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elements to be delivered in each development stage, such that the completed precinct meets or exceeds best practice stormwater pollution reduction targets

14.14.2 Water positivity

Objectives

- a) To be water positive through water efficiency, preservation of non-renewable water resources and reduction in consumption of mains potable water.
- b) To ensure evapotranspiration addresses water efficiency implications.

Guidance

1. Development targets 50% of water demand being met with non-potable (or recycled) water supply sources, including through:
 - a. use of local and renewable water sources
 - b. best practice water conserving systems, equipment, fixtures, fittings and appliances
 - c. effective water harvesting and re-use
 - d. waste-water treatment and re-use.
2. Development includes precinct-scale water management, including through landscaping and heat rejection
3. Development provides for secure, recycled water supply for use in irrigating trees and vegetation
4. Recycled water of suitable quality (based on its intended purpose) is to be used for:
 - a. irrigation of vegetation
 - b. any proposed aquatic habitat.
5. A reliable recycled water supply to be provided, with the method to be decided with regards to a feasibility assessment and the precinct procurement process~~Subject to feasibility assessment and the precinct procurement process, provide a reliable recycled water supply, including either~~ through:
 - a. private water recycling scheme
 - b. public authority water recycling scheme
 - c. connection to a shared water recycling scheme via the George St recycled water main, with recycled water being supplied by an independent party (either public or private).
6. As part of a private or public authority water recycling scheme (subject to feasibility assessment and the precinct procurement process), development provides a water recycling facility that can treat 100% of the wastewater from the precinct for re-use in buildings systems and irrigation when considered together with an integrated system of stormwater management and rainwater harvesting that includes green infrastructure.
7. All new development is to provide an Integrated Water Management Strategy that illustrates how buildings will be designed to maximise water efficiency and meet the requirements of this section. The strategy is to:
 - a. include provision of dual plumbed water systems to enable utilisation of the recycled water network for permitted non-potable uses which may include flushing, irrigation, fire fighting and certain industrial purposes
 - b. identify how rainwater and / or stormwater will be harvested and reused on site to maximise sustainable water reuse
 - c. consider how the development will be designed to enable future connection to the George Street recycled water scheme network

- d. identify opportunities for water sensitive urban design including green walls and roofs
 - e. consider both sewer mining and provision for export of treated water to the George St recycled water scheme network (either in conjunction or separately).
8. Each building has a rainwater tank that is capable of being 'topped up' by potable water.
9. Where evapotranspiration is selected as a key strategy to address urban heat in accordance with this section, water efficiency implications are considered for maintenance is considered as follows:
- a. the range of cooling benefit that different landscape options contribute
 - b. the range of water intensity of different landscape solutions
 - c. the design implications for landscape location and public amenity.

Note: If high evapotranspiration species are chosen, cooling effect is greater, but so too the need for reliable and low-impact water supply. If low-evapotranspiration species are chosen, the cooling effect is lower, but the drought-resilience of the landscape is greater without any additional water re-use systems.

14.214.3 Local drainage management

Objectives

- a) To assist in the management of stormwater to minimise flooding and impacts to surrounding upstream and downstream areas.
- b) To reduce the effects of stormwater pollution on receiving waterways.

Guidance

1. As part of an Integrated Water Management Strategy (as required by Guidance 14.1(7), a Local Drainage Management Plan prepared by a suitably qualified engineer with experience in drainage design that addresses:
 - a. the hydrology of the locality and its relationship to the drainage system
 - b. the distribution of soil types and the scope for on-site infiltration
 - c. any expected rise in ground water level due to development
 - d. the role of the principal landscape components on the site for water conservation and on-site detention
 - e. the scope for on-site stormwater detention and retention, including collection of water for re-use
 - f. how any detrimental impacts on the existing hydrology and water quality are proposed to be minimised
 - g. how pedestrian safety is to be ensured
 - h. integration of drainage management responses and open space areas.
2. Drainage systems are to be designed for:
 - a. Development on the OSD Deck:
 - i. stormwater flows up to the 1% AEP event are to be conveyed by a minor drainage system
 - ii. stormwater flows above the 1% AEP event are to be conveyed by a major drainage system
 - iii. designed in accordance with applicable Asset Standards Authority (ASA) requirements, in particular T HR CI 12090 ST Airspace and External Developments
 - b. Within the rail corridor:
 - i. stormwater flows up to the 2% AEP event are to be conveyed by a minor drainage system
 - ii. stormwater flows above the 2% AEP event are to be conveyed by a major drainage system
 - iii. designed in accordance with Asset Standards Authority (ASA) requirements, in particular T HR CI 12130 ST Track Drainage

- c. Remainder of the Central Precinct:
 - i. stormwater flows up to the 5% annual exceedance probability event are conveyed by a minor drainage system
 - ii. stormwater flows above the 5% annual exceedance probability event are conveyed by a major drainage system.
- 3. The civil drainage design across the precinct is to comply with relevant Australian standards including 3500.3 (2021) Plumbing and Drainage – Part 3 Stormwater Drainage.
- 4. Civil drainage is to be designed for an RCP 8.5 climate change scenario (in what year?).
- 5. The development proposal is to demonstrate how the major drainage system addresses any site-specific conditions and connects to the downstream drainage system.
- 6. Major drainage systems are to be designed so that ensures that public safety is not compromised.
- 7. Minor flows from a development site are not to be discharged to the kerb if direct connection to an existing stormwater pipe is available, unless it can be demonstrated there is sufficient capacity within the existing gutter and the flow velocity and depth within the gutter will remain below 25l/s.
- 8. Development is not to increase peak flows in the receiving stormwater system in minor and major events by more than 10%. Any increase in the peak flows to the receiving stormwater system will require approval of Sydney Water.
- 9. The post development run-off from impermeable surfaces (such as roofs, driveways and paved areas) is to be managed by stormwater source measures that:
 - a. contain frequent low-magnitude flows
 - b. provide a natural balance between run-off and infiltration
 - c. remove some pollutants
 - d. prevent nuisance flows from affecting adjacent properties
 - e. enable appropriate use of rainwater and stormwater.
- 10. Post-development stormwater volumes entering the downstream drainage system during an average rainfall year are to be:
 - a. 70% of the volume if no measures were applied to reduce stormwater volume; or
 - b. the equivalent volume generated if the site were 50% pervious, whichever results in the greater volume of detention required.
- 11. Stormwater detention devices are to be designed to ensure that the overflow and flowpath have sufficient capacity during all design rainfall events, discharge to the public stormwater system without affecting adjoining properties, and are free of obstructions, such as fences.
- 12. Where filtration and bio-retention devices are proposed, they are to be designed to capture and provide temporary storage for stormwater.
- 13. Car parking areas and access aisles are to be designed, surfaced and graded to reduce run-off, allow stormwater to be controlled within the site, and provide for natural infiltration of stormwater runoff through landscaping.

14.314.4 Flood planning

Objectives

- a) To ensure flood planning:
 - i. manages and mitigates flood risk
 - ii. does not exacerbate the potential for flood damage or hazard to existing development and to the public domain
 - iii. ensures that flood risk management addresses public safety and protection from flooding.

Guidance

1. Development is to manage and mitigate flood risk and must not exacerbate the potential for flood damage or hazard to:
 - a. development within Central Precinct
 - b. to the public domain (including publicly accessible spaces)
 - c. surrounding development upstream and downstream.
2. A detailed precinct-wide flood study is to be prepared by a suitably qualified engineer with experience in drainage design that addresses:
 - a. whether on site detention is required to avoid:
 - i. peak flood level increases in the downstream network for the present day climate conditions 20% AEP, 5% AEP or 1% AEP design rainfall events. The full range of standard duration design rainfall events from 10 mins to 3 hours.
 - ii. where connected to the City of Sydney Council drainage network, increases in the downstream peak flow rate of more than 10%.
 - b. flood impacts, including determining under present day climate conditions, any change as a result of the development in:
 - i. peak flood levels (+/- 0.05 m)
 - ii. flood extents
 - iii. flood risk areas
 - iv. flood hazard categories
 - c. present day climate conditions 20% AEP, 5% AEP, 1% AEP and PMF design rainfall events for the full range of standard duration design rainfall events from 10 mins to 6 hours.
 - d. the impact of the proposed development with a RCP 8.5 climate change scenario (in what year?) is to be undertaken to inform flood planning levels.
 - e. the existing condition flood model is to be refined based on recent detailed ground survey that defines flow paths, storage areas and hydraulic controls.
 - f.
 - o The definition of on-site detention volumes and flow rates required in each development stage or as a rate per hectare.
 - o The impact of flood level changes in the PMF to existing basements and, where an increased risk to life is expected, propose mitigation measures.
 - o Opportunities to reduce existing flood risk as part of mitigating the impact of the precinct, including considering options proposed in the vicinity of the precinct in the City of Sydney's Flood Risk

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Management Plans for the relevant catchment.

- g. Flood impact assessments to be submitted with each development stage, that consider the cumulative flood impact of the complete precinct and include mitigation measures consistent with the approved precinct-wide flood study and mitigation strategy.
- h. The City of Sydney Council's Interim Floodplain Management Policy 2014 is to be used to determine appropriate flood planning levels across the precinct.

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~~e. — storage areas and hydraulic controls.~~

14.414.5 Stormwater quality

Objectives

- a) To provide a net improvement to environmental water quality as a result of development, in particular contributing to improving the health of Sydney Harbour.

Guidance

1. The Integrated Water Management Strategy is to be accompanied by a Stormwater Quality Assessment that demonstrates that the development will achieve the following post-development pollutant load standards:
 - a. reduce the baseline annual pollutant load for litter and vegetation larger than 5mm by 90%
 - b. reduce the baseline annual pollutant load for total suspended solids by 85%
 - c. reduce the baseline annual pollutant load for total phosphorous by 65%
 - d. reduce the baseline annual pollutant load for total nitrogen by 45%.
2. Any Stormwater Quality Assessment is to be prepared by a suitably qualified engineer with experience in water sensitive urban design (WSUD) and include:
 - a. modelling of pollutant load standards with an industry standard water quality model (i.e. MUSIC software)
 - b. the design of WSUD measures used to achieve the post-development pollutant load standards, with consideration of:
 - i. City of Sydney Council Sydney Streets Technical Specifications 2019 A4 Stormwater Drainage Design
 - ii. Transport for NSW Water Sensitive Urban Design Guideline 2017
 - c. maintenance schedules of any proposed WSUD measure that requires maintenance or full replacement including the likely recycling or disposal location of any wastes that may be generated
 - d. integrated water quality management measures incorporated within the over-station deck structure, including green infrastructure in accordance with best practice stormwater management guidelines.
3. Development is to consider inclusion of Water Sensitive Urban Design (WSUD) measures to slow stormwater runoff and improve stormwater quality flowing into waterways such as:
 - a. gross pollutant traps
 - b. passive irrigation
 - c. bio-retention areas
 - d. rainwater harvesting.

15.0 Social Sustainability & Infrastructure

Value statement

This section of the Design Guide identifies objectives and guidance to ensure the delivery of a high quality and resilient social infrastructure, and ensure that adaptable housing is delivered at Central Precinct to accommodate a diverse range of needs and household structures of a buildings lifetime.

Social infrastructure in Central Precinct will include open space, community facilities and spaces to support cultural expression and creative activities, and social and health services for the community. These will provide places and spaces for people to meet, be active, connect, create and learn. They also represent an important touchpoint for service providers to connect with the community through the delivery of services and amenities.

Related planning documents

The objectives and guidance contained in this section should be read in conjunction with the following documents:

- Environmental Planning and Assessment Act 1979
- Disability Discrimination Act 1992 (DDA)
- Building Code of Australia (BCA)
- Disability (Access to Premises – Buildings) Standards 2010 (Access Code)
- Various Australian Standards, including AS4299-1995 'Adaptable housing', AS1428.1 'Design for access and mobility: General requirements for access – New building work'
- Greater Sydney Region Plan – A Metropolis of Three Cities (GSC, 2018)

15.1 Community facilities

Objectives

- a) Development provides for community facilities that:
 - i. promote an inclusive and welcoming precinct
 - ii. facilitate formal and informal community gathering, interaction and celebration
 - iii. cater for the forecast needs of the Central Precinct community, in particular workers and visitors
 - iv. promotes the role of Central Precinct as an innovation and technology precinct
 - v. supports cultural and creative activity
 - vi. celebrates the heritage significance of Central Precinct.

Guidance

1. The location of community facilities:
 1. is in accordance with **Figure 2: Central Precinct structure plan**, or
 2. an alternative location in the Central Precinct, where the following requirements can be achieved:
 1. is easily accessible to the surrounding local communities of Haymarket, Surry Hills, Redfern and Chippendale;
 2. is in proximity to main activation points, key transport entrances and accessible for everyone
 3. is compatible with and complements other key land uses and spaces within its proximity (e.g. café, open space, plazas, retail).

2. The identification of strategic opportunities and local needs for creative and cultural space in the precinct should take place in advance of the first Development Application being lodged.

3. The type, operation, and management model of the community facilities should be identified in advance of the relevant Development Application being lodged.

2.4. The design of community facilities considers **Table 12: Central Precinct guidelines for the community**

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facilities network.

Table 12 Central Precinct guidelines for the community facilities network

Name	Requirements	Guidelines
Integrated, multipurpose community facility	<ul style="list-style-type: none"> Minimum 4,000sqm GFA Caters for the broader local community, with a particular focus on the needs of worker and visitors Is flexible and multi-functional 	<ul style="list-style-type: none"> Provides for a wide range of programming and activation, including as a venue for live public events, private functions or temporary art and/or sound installations <u>A minimum of 1,500sqm GFA of which is creative space, established in alignment with the City of Sydney Creative Spaces Design Guide</u> May include: <ul style="list-style-type: none"> quiet spaces community co-working spaces community lounge areas cultural and creative spaces (including makers' spaces and workshops) performance, exhibition, event, <u>studio</u> and gallery spaces seminar rooms a pick-up/drop-off library travellers aid space which may include a changing places facility, rest rooms, luggage storage etc. This is to be clearly distinguishable from Central Station passenger facilities that support the transport function
Local community facility (tech lounge)	<ul style="list-style-type: none"> Minimum 400sqm GFA Primarily caters for the needs of workers and residents of Central Precinct Is flexible and multi-functional 	<ul style="list-style-type: none"> Is preferably located close to Sydney Terminus May include a tech lounge / community lounge
Community and cultural space	<ul style="list-style-type: none"> Minimum 1,000sqm GFA Is co-located with the integrated multipurpose facility, but with its own distinctive design Is <u>governed by an Aboriginal-led organisation and</u> co-designed with the Aboriginal community 	<ul style="list-style-type: none"> Includes dedicated space for local and visiting Aboriginal and non-Aboriginal community members to meet, father, participate in, experience and share culture, <u>as defined by local Aboriginal people</u> Includes dedicated space for cultural practice, learning and play and places for sharing culture Incorporates indigenous public art Signage and naming should also reflect/consider local traditional language. Note: for Aboriginal naming, the NSW Geographical Names Board, local language subject matter experts and Aboriginal stakeholder groups are to be consulted
Child care facility	<ul style="list-style-type: none"> Primarily caters for the needs of workers and residents of Central Precinct 	<ul style="list-style-type: none"> Provides capacity for approximately 100 places
Social / health services hub	<ul style="list-style-type: none"> Minimum 400sqm GFA 	<ul style="list-style-type: none"> Provides space for services to co-locate representatives and deliver coordinated services in and around the precinct, potentially on a flexible, rotational basis <u>Incorporates a public-facing front desk, consulting rooms and meeting rooms</u> <u>Specific services should include early intervention support for rough sleepers and a bulk billing GP space</u>

15.2 Affordable housing

Objectives

- a) To contribute to the provision of affordable rental housing in accordance with the 'Greater Sydney Region Plan – A Metropolis of Three Cities' (GSC, 2018).

Guidance

~~4. A minimum of 245% of any new residential floor space is to be provided as affordable housing rental, in accordance with City of Sydney affordable housing program housing for very low and low income households.~~

~~1. The affordable housing should be the subject of a planning agreement to deliver housing on-site, or otherwise a contribution should be paid in accordance with the City of Sydney affordable housing program.~~

~~2. A further of 15% of any residential floor space is to be provided as diverse housing, including student housing, aging in place housing, co-living and mixed tenure housing to accommodate creative/live work opportunities. The provision of affordable housing may be delivered on-site and/or through monetary contributions.~~

15.3 Adaptable housing

Objectives

- a) To provide adaptable housing that is designed to be capable of easy modification in the future for occupation and visitation by people with a disability or people who may acquire a disability gradually as they age.

Guidance

~~1. 4. Where residential accommodation is provided, adaptable dwellings are provided in accordance with the target rates shown in Table 13: Central Precinct guidelines for number of adaptable dwellings.~~

~~2. Adaptable dwellings should be designed and constructed in accordance with the National Construction Code's Livable Housing Design Guidelines (LHDG).~~

Table 13 Central Precinct guidelines for number of adaptable dwellings

Total number of dwellings	Number of adaptable dwellings to be provided
Nil – 7	Nil
8 – 14	1 dwelling
15 – 21	2 dwelling
21 – 29	3 dwellings
30 or more	15% of the total number of dwellings (target)

15.4 Accessible design

Objectives

- a) To ensure development, including publicly accessible spaces and buildings, provides acceptable access to persons with a disability.

Guidance

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1. Development complies with relevant legislative requirements for accessible design.

Note: Relevant legislative requirements are contained in various Acts and standards. Of particular relevance to the built environment is the 'Disability (Access to Premises — Buildings) Standards 2010' and 'AS1428.1 Design for access and mobility: General requirements for access – New building work'.

16.0 Safety and Security

Objectives

- a) To create a safe environment for people and property, including minimising opportunities for criminal and anti-social behaviour.
- b) To establish an ongoing operational management of safety and security within Central Precinct.
- c) To ensure the appropriate selection of security treatments for events held at Central Precinct.
- d) To ensure a emergency management plan is in place during the operation of Central Precinct.

16.1 Safety & security management plan

Guidance

1. An operational plan (e.g. a Safety & Security Management Plan) is to be developed for Central Precinct to provide a consistent approach to the day-to-day operational management of safety and security and is to be activated upon commencement of a 'steady state' of Central Precinct operations. The operational plan is to address:
 - a. roles and responsibilities for Central Precinct site management, control room operations and contracted personnel responsible for day to day management of safety and security within the Precinct.
 - b. the roles and responsibilities of Central Precinct landowners and tenants.
 - c. mechanisms for safety and security communications for all entities within Central Precinct relating to business as usual, incidents and emergencies, including but not limited to:
 - i. a Central Precinct safety and security working group
 - ii. systems and fora for sharing of security intelligence and information (including with the rail operation and key external stakeholders, e.g. NSW Police)
 - iii. a framework of Precinct level standard operating procedures
 - iv. incident management guidelines for conceivable emergency scenarios (consistent with AS 3745)
 - v. coordination of stakeholder emergency plans (e.g. emergency services access points, deconfliction of evacuation routes and assembly areas)
 - vi. testing and exercising regime for precinct wide issues and incidents.

16.2 Precinct and shareholder control room integration

Guidance

1. A Security Command Centre is to be delivered within Central Precinct to perform the primary operational functions for the Central Precinct, including:
 - a. coordinating the overall operation to provide and promote safety and security for all users for all areas throughout Central Precinct's public domain
 - b. coordinating the activities of personnel responsible for safety & security on a day-to-day basis
 - c. monitoring and responding to alarms and alerts from installed safety and security systems
 - d. proactively monitoring the site's most vulnerable points. It is expected that Precinct personnel will maintain a highly visible presence to support users' perceptions of support and response
 - e. assist precinct management and stakeholders (e.g. police and emergency services) coordinate incident and emergency management
 - f. working collaboratively (for business as usual and events) with key stakeholders, including Central Precinct Management, NSWPF (specifically the PTC and Surry Hills PAC), Fire and Rescue NSW, Sydney Trains, the

City of Sydney, Sydney Metro and TfNSW, particularly in the areas of traffic and transport management, crowd movements and people flow

- g. provide interoperability and support to local Security Control Rooms within Central Precinct buildings, supported by an integrated security communications network and command, control and coordination framework and protocols
 - h. monitoring of social media for reports and broadcasts of incidents and user feelings about the CPRP in order to proactively respond to safety and security-relevant issues.
2. The Precinct Security Command Centre is to be integrated with other control rooms at Central Precinct (e.g. local building and rail operator control rooms) to enable:
- a. shared monitoring (and potentially, control) of CCTV where the cameras provide coverage of a space of mutual interest to Central Precinct and another stakeholder, but is outside the demarcated boundary of one or both.
 - b. direct communication between control rooms to support sharing of time-critical issues (e.g. tracking of a person, alerting to emerging issues)
 - c. access to automated number plate recognition (ANPR) data held by Central Precinct but which may relate to the user of a building
 - d. coordination of security guarding, patrolling and response activity.
3. The Security Command Centre is to be staffed 24/7 in order to provide a security monitoring and response presence for the CPRP.

16.3 Event management

Guidance

1. For events held at Central Precinct, the selection of security treatments is to be informed by an event-specific security risk assessment (ESRA). The ESRA should pay diligent attention to gender-sensitivity, anti-social behaviour and sexual harassment issues with the most vulnerable event users in mind. Gender-sensitivity training for staff member as well as the inclusion of dedicated safe spaces within the event perimeter should be considered.
2. Event management guidelines specific to Central Precinct are to be prepared and issued to all relevant stakeholders likely to hold public events, defining what constitutes an event and outlining the planning process.
3. Reliance on temporary safety and security overlay to support event requirements is discouraged.

16.4 Emergency management

Guidance

1. A comprehensive emergency management plan shall be developed for Central Precinct, which consider:
 - a. the provisions of the NSW Counter Terrorism Plan, the NSW State Emergency Management Plan (EMPLAN), and the Sydney CBD Safety Sub-Plan
 - b. the special needs of persons experiencing a disability or other mobility issues, who have been identified as a key vulnerable group in emergencies by the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability.
2. The emergency management plan is to be developed in collaboration with TfNSW, potential CPRP operator security team, Sydney Trains, and emergency services including FRNSW, NSWPF, SES, and Ambulance NSW, among others.

16.5 Crime prevention through environmental design

Guidance

1. Locate design features and activities to improve casual and active surveillance of public spaces, to create a perception of increased risk detection for perpetrators of criminal activity and increased safety and security for general users
- 4.2. Active spaces and windows of habitable rooms within buildings are to be located to maximise casual surveillance of publicly accessible spaces, including streets, laneways and through-site links.
- 2.3. Where space is publicly accessible~~provides for public access~~, facilities such as toilets and parents rooms are located and designed to maximise casual surveillance to facility entries.
- 3.4. Blind-corners, recesses and other external areas that have the potential for concealment or entrapment ~~are~~ must be minimised.
- 4.5. Building entries are clearly visible, unobstructed and easily identifiable from adjoining publicly accessible spaces.
- 5.6. Where practicable and appropriate for streetscape activation, lift lobbies, stairwells, hallways and corridors are visible from publicly accessible spaces.
7. Ground floors of non-residential buildings, the non-residential component of mixed use developments, and the foyers of residential buildings, are to be designed to enable surveillance from the public domain to the inside of the building at night.
- 6.8. Building target hardening measures must integrated into building designs and located within building envelopes and not in the public domain.
- 7.9. Hostile vehicle mitigation measures need to consider a whole-of-precinct approach. An appropriate bollard/barrier system should be considered at the precinct boundary to prevent vehicles from entering locations not intended for vehicles (i.e. publicly accessible open spaces). Use of bollards should be minimised to reduce the impact on pedestrian permeability on the OSD and surrounding public domain. A sea of bollards in the public domain is not an appropriate approach.

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16.6 Building maintenance

Guidance

1. Consideration is to be given to how future maintenance of buildings will be undertaken safely, including window and façade cleaning, graffiti removal, painting and building repairs.

17.0 Night-time Economy

Value Statement

The City's night-time economy is an integral part of its commercial, cultural and social fabric. Late night trading premises are an important part of Sydney's social and cultural life and play an important role in contributing to the City's economic growth and standing as a global city. Late night trading supports a 24 hour economy where residents, workers and tourists can access a diverse range of businesses for convenience, leisure and entertainment. Late night trading premises also provide employment and jobs with flexible hours.

This section of the Design Guide assists in encouraging diverse late night trading in Central Precinct and the broader Central Sydney to meet the social and cultural needs of the community, while managing the effects of these uses on the neighbourhoods. Specifically, this applies to development identified as, including where seeking consent for:

- trading hours
- refurbishment, additions or extensions that will result in an intensification of an existing use
- an extension or renewal of trading hours as prescribed in this section of the DCP
- outdoor trading.

These provisions do not apply to Category B and C premises that do not trade after 10pm, and Category A premises trading only between 10am to 10pm. The provisions may be applied to premises that seek approval for outdoor trading beyond 8pm where it is considered the outdoor trading may have an impact on neighbourhood amenity.

Term	Definition
Category A - High Impact Premises	<p>means any of the following premises:</p> <ul style="list-style-type: none"> • a hotel within the meaning of the Liquor Act 2007 that is not designated as a general bar licence • a hotel within the meaning of the Liquor Act 2007 that has a capacity of more than 120 patrons and is designated as a general bar licence • an on-premises licence within the meaning of the Liquor Act 2007 where the primary business or activity carried out on the premises is that of a nightclub with a capacity of more than 120 patrons • a dedicated performance venue, which may be licensed and includes theatres, cinema, music hall, concert hall, dance hall or other space that is primarily for the purpose of performance, creative or cultural uses, with the capacity of 250 patrons or more, but does not include a pub, bar, karaoke venue, small bar, nightclub, adult entertainment venue or registered club • a club within the meaning of the Liquor Act 2007 • a premises that has a capacity of more than 120 patrons where the primary purpose is the sale or supply of liquor for consumption on the premises; or • premises that are used as a karaoke venue where the owner or occupier sells or supplies liquor for consumption on the premises
Category B – Low Impact Premises	<p>means any of the following premises:</p> <ul style="list-style-type: none"> • a hotel within the meaning of the Liquor Act 2007 that has a capacity of 120 patrons or less and is designated as a small bar or general bar licence • premises that have a capacity of 120 patrons or less where the primary purpose is the sale or supply of liquor for consumption on the premises

Term	Definition
	<ul style="list-style-type: none"> an on-premises licence within the meaning of the Liquor Act 2007 any premises where the owner or occupier sells or supplies liquor for consumption on the premises that is not a Category A Premises any other commercial premises, other than Category C premises, which in the opinion of the Council may impact on the amenity and safety of a neighbourhood resulting from its operation at night, including but not limited to, food and drink premises, takeaway food and drink premises, theatres, karaoke venues, convenience stores, entertainment facility and stand-alone gyms and other indoor recreational facilities in buildings with residential accommodation and the like; or a dedicated performance venue, which may be licensed and includes theatres, cinema, music hall, concert hall, dance hall or other space that is primarily for the purpose of performance, creative or cultural uses, with the capacity of up to 250 patrons, but does not include a pub, bar, karaoke venue, small bar, nightclub, adult entertainment venue or registered club
Category C	means any retail premises or business premises which does not sell, supply or allow the consumption of liquor on or off the premises or hold any license under the Liquor Act 2007. This may include premises selling groceries, personal care products, clothing, books/stationery, music, homewares, electrical goods and the like, or businesses such as drycleaners, banks and hairdressers and the like. It does not include convenience stores, food and drink premises, takeaway food and drink premises, gyms and other indoor recreational facilities in buildings with residential accommodation, commercial kitchens, or adult entertainment venue or sex industry premises
Base hours	means standard range of trading hours that a late night trading premises is entitled to if an application is approved
Convenience store	<p>means a shop that:</p> <ul style="list-style-type: none"> primarily offers pre-packaged, processed snack food for sale in addition to soft drinks, cigarettes, magazines and other miscellaneous grocery and convenience items has a floor area generally under 200 square metres located at street level in places with medium to high volume of passing traffic <p>Note: In all cases, the discretion as to what development is considered to be a 'convenience store' for the purposes of this Design Guide shall be solely that of the consent authority and generally in accordance with this Design Guide</p>
Extended hours	means trading hours that may be approved above base hours on a trial basis
Outdoor areas	means any areas that are not considered an enclosed place within the meaning described in the Smoke-free Environment Regulation 2007
Patron capacity	means the maximum number of patrons permitted in a development consent. Outdoor seating is included in patron capacity calculations
Performance, creative or cultural activities	<p>means</p> <ul style="list-style-type: none"> live entertainment, being an event at which one or more persons are engaged to play or perform or pre-recorded music, or a performance at which the performers (or at least some of them) are present in person; or

Term	Definition
	<ul style="list-style-type: none"> production of an artwork, craft, design, media, image or immersive technology; or rehearsal, teaching or discussion of art, craft, design, literature or performance, or display or projection of an artwork, design, media, image or immersive technology in conjunction with live entertainment (as defined above) or presentation of a film or cinema
Sex industry premises	Category A, B and C Late night trading premises do not include sex industry premises
Stand-alone gym	A stand-alone gym is a gymnasium business operation which is not ancillary to residential uses located in a building.

Late Night Management Area – Character Statement

Key defining elements

Late Night Management Areas are places within the City that:

- have historically been the focal points for varied late night social and recreational activity; or
- are places with a distinct late night entertainment character; or
- have an evolving night entertainment character and the Area is considered by the Council to have the capacity for an increase in late night trading premises; or
- are business only zones, able to accommodate performance and arts and cultural uses, with good accessibility to public transport.

These places should be vibrant and multifunctional places where people can go out late at night in safety without affecting the amenity of nearby residents. Patrons of late night trading premises should be able to take advantage of a diverse range of cultural and entertainment opportunities in close proximity to each other; without one particular type of late night use dominating which may usurp the diversity and attraction of the area.

Late Night Management Areas are often regional 'destinations' that have accessible and frequent public transport at night and usually have their focus on main streets or tourist locations where people shop, meet, work and live. Given the likely higher level of visitation and the possibility of long trading hours, it is important that all premises, especially those high impact premises are well-managed and regulated.

Buffer zones

Late Night Management Areas may be of variable size and their physical boundary is defined by clear transitions in the intensity and duration of late night activity compared to lower impact late night trading areas nearby. Late Night Management Areas often share boundaries with places where less intensive night-time activity is evident, such as Local Centre or City Living Areas (i.e. lower intensity classifications of late night trading).

These lower intensity areas act as buffer zones to the more concentrated late night time activity of Late Night Management Areas. Buffer zones are intended to function as a transition zone by providing a lesser intensity of use. These are not 'spill' zones, and are not intended for expansion of Late Night Management Areas.

Mix of uses

Late Night Management Areas should be vibrant places both day and night, and premises that trade late

at night should enhance this vibrancy. The predominant night-time uses in Late Night Management Areas include:

- cafes
- shops
- businesses offering local services, for example: hairdressers and drycleaners
- small bars
- bars
- licensed hotels;
- theatres and performance, creative or cultural space
- restaurants; and
- other like premises.

Many of these premises may trade in the early hours of the morning, particularly on weekends. The Late Night Trading Management provisions aim to achieve a mix of premises in Late Night Management Areas that reinforce the landmark night-time qualities of the area and which capitalise on night-time attractiveness to encourage tourism and economic activity. New premises in Late Night Management areas should contribute to diversity rather than usurp it. At the same time, new late night trading premises should not erode the diversity of retail and local services that operate during the day which service the local community, workers and visitors.

Late Night Management Areas should be places that people visit for a number of reasons and not solely to patronise high impact licensed premises such as pubs and nightclubs. Late Night Management Areas provide opportunities for late night entertainment and have historically been a focus for live music, theatre and electronic and dance music. They are appropriate places for the nurturing of performing arts and other cultural and social activities.

Issues and management

Due to the concentration of late night trading premises in Late Night Management Areas, the cumulative noise levels, generation of pedestrian and vehicle traffic, and activity levels will be an issue, more so than in other late night trading areas.

Whilst it is acknowledged that noise and late night activity is a key characteristic of these areas, it is also essential to manage the cumulative impacts of late night trading premises in Late Night Management Areas and to effectively manage each individual late night premises within the area. Since Late Night Management Areas may be destinations for people that live outside the City of Sydney, particularly on weekends, it is important that this higher visitation is managed effectively in order to minimise the impacts of late trading premises on nearby uses. It is important that proposals for late high impact premises such as hotels and night-clubs premises are accompanied by detailed Plans of Management which effectively address amenity, safety and security.

Trading hours

Extended hours can allow Late Night Management Areas to reinforce their role as centres of activity which offer entertainment, social and cultural opportunities that attract both locals and international visitors. Early morning trading hours may be acceptable for premises located in Late Night Management Areas where proponents can verify over time that noise, safety and amenity impacts can be managed to a level which is at an acceptable community standard. Up to 24 hour trading may be permissible in Late Night Management Areas; but only in circumstances where applicants have a sustained track record of good management, minimising amenity and safety impacts.

17.1 Trading hours and trial periods

Objectives

- a) To enable Central Precinct to make a contribution to a vibrant, diverse, inclusive and safe night-time economy within Central Sydney appropriate to its role as a Global City, in particular for performance, creative or cultural uses in licensed premises and dedicated performance venues and premises that may be patronised both day and night while minimising adverse impacts on the amenity of residential or other sensitive land uses

Guidance

1. Development applications for land uses or activities that are identified in as Category A - High Impact Premises, Category B – Low Impact Premises and Category C in the definitions of this section and propose operating hours greater than the base hours identified in **Table 14** may be approved for the extended hours identified in **Table 14** subject to consideration of the following matters:
 - a. address of the Sydney 24-hour Economy Strategy prepared by NSW Treasury and dated September 2020
 - b. the location and context of the premises, including proximity to residential and other sensitive land uses and other late night trading premises
 - c. the specific nature of the premises, its activities and the proposed hours of operation
 - d. the likely impact on the amenity of surrounding sensitive land uses, including noise, and the ability to manage the impacts
 - e. the provision of indoor performance, creative or cultural use and how this increases the diversity of late night activities in the area
 - f. the provision of indoor space for performance, creative or cultural uses in a licensed premises, including the nature of the space available for the use, programming and entertainment being provided
 - g. the contribution that late night trading proposals make to street activation and vibrancy of an area at night
 - h. the likely impacts arising from the closing times and patron dispersal of the proposed and existing late night uses, including consideration of unlicensed late night trading in an area, such as shops, businesses and food and drink premises
 - i. the existing hours of operation of surrounding business uses
 - j. the size and patron capacity of the premises
 - k. the impact of the premises on the mix, diversity and possible concentration of late night uses in the locality
 - l. the likely operation of the proposal during day time hours, including the potential for street front activation

- m. the diversity of retail and business services within an area and the impact of a late night trading proposal on this diversity
- n. measures to be used for ensuring adequate safety, security and crime prevention both on the site of the premises and in the public domain immediately adjacent to, and generally surrounding, the premises
- o. the accessibility and frequency of public transport during late night trading hours
- p. submission of a Plan of Management that demonstrates a strong commitment to good management of the operation of the business, particularly in relation to managing potential impacts on adjoining and surrounding land uses and premises, as well as the public domain.

Table 14 Central Precinct guidelines for late night trading hours

	Category A		Category B		Category C unlicensed premises indoor
	Indoor	Outdoor	Indoor	Outdoor	
Base hours	6am to midnight	10am to 10pm	6am to 2am	7am to 10pm	24 hours
Extended hours	24 hours	9am to 1am	24 hours	7am to 1am	

2. Any hours that are beyond base hours will be subject to a trial period.
3. Extended trading hours beyond base hours may be permitted at the initial application stage, but only where the consent authority has determined that the premises have been or will be well managed, including compliance with an approved Plan of Management.
4. At the completion of a trial period a new application must be lodged to either renew existing trial hours or to seek an extension of trading hours.
5. Premises seeking extended trading hours may be permitted up to two additional operating hours on the first trial period, and each subsequent trial period if a previous trial period is considered by the consent authority to have been satisfactory. The total extended hours must not exceed the maximum number identified in Table 12,- unless eligible for an additional one trial hour under sections 17.1(13) and (14).
6. Trial periods may be permitted up to the following durations:
 - a. First trial – 1 year
 - b. Second trial – 2 years
 - c. Third and subsequent trials – 5 years.
7. Once the full range of extended trading hours is reached an application must be lodged every 5 years to renew trading hours.
8. Applications for a renewal or extension of trial trading hours should be lodged 30 days prior to the expiry period and applicants will be allowed a period of 'grace' from the termination of the trial period until the new application has been determined. During this period, the premises may continue to trade during existing approved trial hours.
9. If an application is not lodged 30 days prior to the expiry of the trial period, then approved trading hours will revert to base trading hours.

10. A renewal or extension of trading hours that are subject to a trial period may only be permitted if consent authority is satisfied that a late night trading premises has demonstrated good management performance and compliance with a plan of management, following the completion of a satisfactory trial period.
11. When the consent authority is assessing trial period applications, it will consider whether a venue has demonstrated good management performance, based on matters including but not limited to:
 - a. whether the trial period hours have been utilised
 - b. the nature and extent of any substantiated non-compliances with development consent or liquor license conditions, particularly those relating to public safety and impacts on amenity
 - c. responses to substantiated complaints, including complaints recorded on the venues complaints register
 - d. compliance with the approved Plan of Management for the venue
 - e. consideration of complaints to the City of Sydney Council and the State licensing authority under the Liquor Act 2007
 - f. an assessment of inspections by consent authority officers during trial periods
 - g. consideration of any submission made by Police
12. If the consent authority determines that a trial period has been unsatisfactory then trading hours will revert to the base late night trading hours or whatever hours have been approved as the maximum trading hours prior to the commencement of this Design Guide. The consent authority will consult with an applicant prior to making such a determination.

Additional hour for dedicated performance venues

13. Venues which are a Category B dedicated performance venue (identified in the Definitions at Category B (vii)) may be permitted one additional indoor hour at closing time on a trial period basis in accordance with 17.1 (6).

Additional operating hour for venues including performance, creative or cultural uses

14. Category A and B premises, excluding dedicated performance venues, karaoke venues, or adult entertainment venues, which are located within a late night trading area and provide indoor space with the capacity for performance, creative and cultural uses may be permitted an additional indoor operating hour at closing time on the night the premises provides performance on a trial period basis in accordance with section 17.1 (6).

This hour may be in addition to any other extended hours approved as part of a trial period application. To be eligible, venues must demonstrate the capacity to provide performance.

Note: Venues seeking to demonstrate their capacity to provide performance as required by section 17.1 (14) may support their application by submitting information including the following:

- a. a description of the type of music, visual or performance art or other cultural events that may be staged at the premises
 - b. submission of details of the space to be used and permanent or semi-permanent structure(s) and equipment to present live performance and creative and cultural uses. This may include any stage and audience standing or seating area
 - c. arrangements for booking and promoting performance, creative and cultural uses.
15. The performance, creative and cultural use must occur for a minimum of 45 minutes after 6pm.
 16. Venues seeking to apply for an additional operating hour for providing a performance, creative or cultural use are required to update their Plans of Management to reflect the operation of the performance, creative and cultural use and management of the additional hour of trade.
 17. Venues seeking to extend trial periods for an additional hour are to demonstrate that they have provided performance in accordance with the requirements of 17.1 (13) and (14).

Plans of Management Requirements

18. A Plan of Management is required to accompany an application for the following late night trading premises:
- new Category A Premises;
 - existing Category A Premises that seek a renewal or extension of existing approved trading hours;
 - new Category B premises;
 - existing Category B premises that seek a renewal or extension of existing approved trading hours;
 - existing Category A Premises that seek extensions, additions or refurbishment which will lead to an intensification of that use;
 - existing Category B Premises that seek extensions, additions or refurbishment which will result in the premises becoming a Category A premises;
 - applications for outdoor trading on the same lot as a Category A or Category B Premises;
 - Category A or B premises that seek an additional operating hour for the provision of performance, creative or cultural uses; and
 - Category B dedicated performance venues that seek an additional operating hour at closing.
19. Plans of Management must be assessed and approved concurrently with the application for an extension of trading hours.
20. The operators of late night trading premises are required to review their Plan of Management following every trial period and make revisions necessary to maintain a level of amenity and safety in the vicinity of the premises which is at an acceptable community standard.
- ~~21.~~ The consent authority may request that an applicant amend their Plan of Management to provide further information where it is considered necessary.

21.

22. At the termination of a trial period, applicants should consider changes in the nature of the operation that have occurred during the operation of a premises that have given rise to unforeseen impacts on the amenity of the area or have been the basis for a substantiated complaint made to the consent authority or the State licensing authority against the premises.

23. In reviewing a Plan of Management at the termination of a trial period, it will be necessary for this information. This should be in the form of a new Plan of Management which includes a statement of revisions of the previous Plan of Management, if any are required to accompany an application for a renewal or extension of trading hours so that the consent authority can determine whether adequate steps have been taken to resolve any problems that may have arisen from the operation of the premises during a trial period.

24. The consent authority will undertake its own review of the level of compliance with the Plan of Management and whether the current operation has been successful on any application to extend a trial period or on any review. The matters considered by the consent authority will include, but not be limited to:

- consideration of complaints to the consent authority and the State licensing authority under the Liquor Act 2007;

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- (ii) an assessment of inspections by consent authority officers during trial periods; and
- consideration of any submission made by Police.

Schedule X to section 17 Night time economy

Plan of management requirements

(1) A Plan of Management should be in the form of a separate attachment with an application and should be accompanied by a signed declaration from the licensee/manager that they have read and understood the Plan of Management. At a minimum, a Plan of Management should contain the following information.

(i) Site and locality details

- a. A description of the primary use of the premises as well as any secondary/ancillary uses (eg. retail liquor sales, public entertainment, outside trading areas, gaming areas etc). This may be in the form of a floor and/or site plan that indicates the use of all areas within the building or site;
- (ii) Identification of any 'active areas' adjacent to the boundaries of the site used in association with the use of premises (eg. Outdoor seating, footway dining, queuing areas, parking etc);
- (iii) A floor plan that indicates the proximity of external doors, windows and other openings to residential and other sensitive land uses. The floor plan should also indicate the proposed layout of all areas of the premises, such as internal queuing areas, seating, dining, gaming, dance floors, entertainment, lounge, etc;
- (iv) Details of the maximum capacity of the premises and the maximum number of patrons that will be standing and/or sitting at any one time;
- (v) The location of waste storage areas;
- (vi) Location of air conditioning, exhaust fan systems and security alarms;
- (vii) Identification of the most commonly used pedestrian routes to and from the premises, including any safety corridors.

(ii) Operational details

- (i) An overview of the organisation in the form of a brief statement that provides details about the company/licensee/proprietor that includes information regarding:
 - the number and type of staff (including security);
 - other similar premises within the company's portfolio (if relevant);
 - any Liquor Licenses for the premises;
 - a description of any actions that the proprietor/licensee has
 - taken to co-operate with NSW Police, the local community and
 - incorporated resident groups regarding the management of the
 - premises;
 - membership of a Licensing Accord within the City of Sydney
 - (please refer to the City's website for details of Licensing Accord
 - operating within the City).

(iii) Hours of Operation

- (i) For existing premises seeking a renewal or extension of trading hours, a schedule of the current trading hours showing the range for each day. For example; this should be expressed in the following format:
 - 9am Friday to 2am Saturday
 - 9am Saturday to 2am Sunday
 - 9am Sunday to 1am Monday

- 9am Monday to midnight Monday
- 9am Tuesday to 11pm Tuesday
- 9am Wednesday to 2am Thursday

a. A schedule of the proposed operating hours for each day of the week for all areas of the premises (eg. courtyards, rooftop, balcony, footway, gaming room etc.) showing the range of hours proposed for each day in the format above. If the nature of an area changes, for example, a dining area becomes a dance floor after the kitchen closes, then this should be noted and operational hours for the different uses detailed and

b. If applicable, a schedule of proposed entertainment hours for each day of the week in the format above.

(iv) Noise

- (i) The identification of all likely noise and vibration sources associated with the operation of the premises. This may include such sources as:
- i. Live entertainment and amplified sound;
 - ii. external (outside) areas such as courtyards, rooftops, balconies etc;
 - iii. patrons leaving and entering the premises;
 - iv. the operation of mechanical plant and equipment;
 - v. waste disposal, sorting and collection of bottles etc
 - vi. in stand-alone gyms in buildings with residential accommodation, background music, air conditioning and the use of exercise machines and free weights.
- b. Details of all noise and vibration attenuation measures related to the use and operation of the premises.
- c. A statement outlining the premises' compliance with all relevant noise and vibration standards, guidelines and legislation (eg. Australian Standards, Protection of the Environment Operations Act 1997, EPA Industrial Noise Guidelines, etc.);
- d. Details of how management will address complaints relating to noise, and any noise control strategies that will be implemented to minimise the potential for complaints (eg. liaison with neighbours and local police, maintaining a complaint register etc);
- e. Details of any measures that will be taken to minimise noise from outdoor areas such as rooftops, courtyards, balconies or designated smoking areas etc; and
- f. Details of any noise limiting devices to be installed;

(di) Security and safety – may only be applicable for licensed premises or takeaway food and drink premises located close to late night licensed premises.

- a. A description of any arrangements that will be made for the provision of security staff. This is to include (but is not limited to) the following:
- i. any recommendations from Local Licensing Police regarding
 - appropriate security provision and a statement outlining the extent
 - of compliance with police recommendations;
 - the number of security personnel that will be patrolling inside and
 - outside the premises including the frequency of security patrols;

- Identification of the physical extent of any patrolled areas outside the premises;
- Hours that security personnel will be on duty (including the period after closing time);
- Staff security training, weapons detection, and other security response methods.
- b. Details of CCTV surveillance camera installation that identifies both indoor and outdoor areas monitored by cameras, and camera technical specifications (eg. recording capacity, frames per second etc.)
- c. Details of signage that is to be erected providing advice to patrons to maintain quiet and order when leaving and entering the premises;
- d. Details of any liaisons or outcomes of any meeting with local NSW police; and
- (iv) Details of any complaints associated with the operation of the premises must be recorded in a Complaints Register which includes:
 - Complaint date and time;
 - Name, contact and address details of person(s) making the
 - (i) complaint;
 - (ii) Nature of complaint;
 - (iii) Name of staff on duty;
 - (iv) Action taken by premises to resolve the complaint;
 - (v) Follow-up; and
 - (vi) Outcome.

(f) Management Measures

General Amenity:

1. Details of all measures that will be taken to ensure that amenity impacts that may result from the operation of the premises are minimised.
2. Details of all actions that will be taken to respond to complaint made about the operation of the premises (including but not limited to consultations with residents, discussions with Council Officers, liaison with Police, public access to Plans of Management, review of existing Plan of Management etc.);
3. A waste management plan that outlines the procedures for minimising and managing waste that is generated by the premises. This should address such matters as disposal of bottles, how and when waste will be removed, details of waste management facilities, waste collection and storage areas etc;
4. Details of methods that will increase patron awareness of public transport availability (eg. signage, availability of timetables) as well as a description of any other measures that will assist patrons in using public transport (eg. provision of a shuttle service, taxi assistance etc.); and
5. Details of methods that will increase patron awareness of responsible disposal of cigarette butts;
6. Any other measures that will be undertaken to ensure that amenity impacts that may arise from the operation of the premises are addressed.

Security and Safety (where applicable):

1. Measures that will be taken by security personnel to ensure that the behaviour of staff and patrons when entering or leaving the premises will minimise disturbance to the neighbourhood.

2. Any provisions that will be made to increase security in times where higher than average patronage is expected (eg. during public entertainment, peak periods on weekends, New Years Eve, following large sporting events in the locality, during special events and functions etc.);

3. Liaison that will be undertaken with other licensees or operators of late trading premises in the locality/area to improve security at night;

4. Detail procedures and provisions that will be implemented to improve premises security. This could include:

- (vii) emergency procedures;
- (viii) crowd control;
- (ix) search procedures;
- (x) maintenance of an incident register;
- (xi) monitoring of patron behaviour;
- (xii) monitoring of numbers of patrons within the premises;
- (xiii) recording of complaints and reporting of incidents to Police;
- (xiv) membership of the proprietor/licensee to a Licensing Accord (see

1. the City's website for details of Licensing Accords operating within

2. the City);

3. dress codes;

4. staff security training;

5. distinctive security attire;

6. availability of cloak rooms;

7. internal and external security patrols;

8. measures to prevent glass being carried from the premises by

9. patrons;

10. measures to ensure safe capacities (eg. electronic counting of

11. patrons, occupancy limits, signage); and

12. actions to be taken during 'wind down' periods prior to closing

13. time.

5. If queuing outside the premises is to occur, a description of any measures that will be taken to ensure that queuing is controlled in a manner that will not adversely impact the amenity of the neighbourhood and that the footpath will not be unreasonably impeded. This description may address such matters as:

14. A description of how and how often security guards will monitor

1. queues (e.g. security guards will monitor queues every 10 minutes

2. to identify inappropriate behaviour before patrons enter); the use of

3. temporary ropes and bollards;

4. maximum queue numbers;

5. actions taken to minimise loitering; and

6. actions ensuring the fast and efficient movement of a queue.

Optional issues that may be required in relation to an application for a liquor license

6. Methods employed to implement harm minimisation and the responsible service of alcohol (RSA) requirements such as:

7. employee training and awareness regarding RSA and harm

1. minimisation;

2. approaches that will be used to manage intoxicated and/or

3. disorderly persons;

4. promotion of non-alcoholic beverages and provision of free water;

5. display of the premises' house policy;

6. assisting patrons in accessing safe transportation from the

7. premises (eg. arranging taxis, public transport timetable

8. information);

9. encouraging responsible drinking;

10. number of RSA marshalls employed for each shift and details on

11. how they will monitor RSA; and

12. actions taken to discourage drug use and to manage drug related

13. incidents.

7. Detail emergency and evacuation procedures in accordance with the relevant Australian Standard and provide details of staff training in those procedures.

(g) Performance, creative or cultural uses (where applicable)

1. A description of the music, visual, performance, creative and cultural events that may be staged at the premises;

2. Details of the capacity of the space to host performance, creative or cultural uses including the location and dimensions the space, stage audience (standing or seating area) and equipment to present the performance, creative or cultural use;

e. Arrangements for booking and promoting performance, creative and cultural uses;

(iv) Procedures for notifying neighbours about the nights when operating hours are extended to provide for performance, creative and cultural uses.

18.0 Aeronautical

Value Statement

This section of the Design Guide outlines guidance to ensure the consideration of the operation Sydney Airport.

Objectives

- a) Development ensures the operational safety of the Sydney (Kingsford-Smith) Airport.

Guidance

1. Where a proposal will penetrate the Obstacle Limitation Surface, the Procedures for Air Navigation Services Operations Surface or Radar Terrain Clearance Charts (RTCC) for Sydney (Kingsford-Smith) Airport, the consent authority is to consult with the body responsible for development decisions relating to the Sydney (Kingsford-Smith) Airport under Commonwealth legislation.

19.0 Staging & Implementation

Value Statement

A coordinated sequencing of development of the OSD deck and the buildings and publicly accessible space is an important element to the project. The proposed staging outlined within this design guide is considers the rail operating constraint that requires a minimum of ten (10) operational platforms/rail lines to be available for customers at all times in order to maintain current rail operations. This has been the key driver in proposed three (3) stage approach to construction of the OSD and rail systems elements.

Objectives

- a) To ensure where development is staged, it:
 - i. occurs in a co-ordinated manner
 - ii. ensures the ongoing efficiency and safety of rail operations at Central Station
 - iii. minimises adverse impact on the broader city, including having regard to function and visual considerations

Guidance

1. Development applications are accompanied by a Staging and Implementation Strategy that identifies and describes intended development staging, including for publicly accessible space identified in **Figure 4: Central Precinct publicly accessible spaces**.
2. For delivery of each project stage that includes new buildings, a proportionate amount of the publicly accessible space (open space, streets and laneways) is also to be delivered as part of that stage.
3. Throughout the project stages, all new buildings are to be easily accessible by pedestrians from the Central Station transport interchange or a public street.
4. Where there is significant difference in the timing of delivery between stages, constructed stages are to incorporate temporary measures to mitigate visual impact on land outside Central Precinct in the interim period.

Schedules

Schedule 1: Definitions

The following table defines selected key terms used in this Design Guide.

Term	Meaning
Advertising and signage	has the same meaning as advertisement and signage in the 'Standard Instrument—Principal Local Environmental Plan'
Active frontage	means where all premises on the ground floor of a building facing publicly accessible areas are used for the purposes of business premises or retail premises, excluding areas required for entrances and lobbies (including as part of mixed use development), access for fire services or vehicle access
Affordable workspace	Workspace accommodation that is leased below market rate
Building envelope area	is the area including all internal and external built elements and enclosed voids between that floor level and the next floor level measured in plan
Central Walk East	means the underground paid pedestrian connection, currently under construction, that is to be delivered by Sydney Metro City and South West. Once complete, it will be a link between the new station entrance on Chalmers Street, the Eastern Suburbs Railway concourse, suburban platforms 16-23 (via escalators and lifts) and the new Sydney Metro north-south concourse
Central Walk West	means the potential future western extension of Central Walk East, connecting to the west of the Central Station building
Country	includes land, waters, and sky. It can be tangible or intangible aspects, knowledge and cultural practices, belonging and identity, wellbeing and relationships. People are part of Country' (Government Architect NSW & Dr Daniele Hromek, 2020)
Design excellence	is a term that exists in statutory planning to refer to the design quality of a building or project and to a variety of requirements intended to lift design quality. The description of Design Excellence is broadly consistent across planning legislation where it is often summarised as 'the highest standard of architectural, urban and landscape design.
Integrated basement	refers to the use of a dock and logistics management system as part of the overall servicing of the precinct. This incorporates an online booking system, which requires drivers to book timeslots to access the site and loading bays, and an internal logistics distribution system, which would allow for incoming goods to be processed and distributed to tenants within the OSD and terminal building.
Integrated Utilities Hub	A network of non-BAU infrastructure in the precinct (i.e. waste water treatment plant, on-site energy storage etc.) This may be consolidated physically in a single building, or the OSD basement, or distributed around the precinct.
Gross building area	means the total enclosed and unenclosed area of the building at all building floor levels measured between the normal outside face of any enclosing walls, balustrades and supports that could be achieved within the defined planning envelope inclusive of any cantilever zone to meet the required qualitative and performative standards. The unit of measurement for building areas is the square metre
Open to the sky	means a space that directly opens to the sky without any structures above.

Term	Meaning
Residential accommodation	has the same meaning as in the 'Standard Instrument—Principal Local Environmental Plan'
Residential flat buildings	has the same meaning as in the 'Standard Instrument—Principal Local Environmental Plan'
Shop top housing	has the same meaning as in the 'Standard Instrument—Principal Local Environmental Plan'
Sky view factor (SVF)	means the extent of sky observed above a point as a proportion of the total possible sky hemisphere above the point. SVF is calculated as the proportion of sky visible when viewed from the ground (as an abstract horizontal surface) up. SVF is a dimensionless value that ranges from 0 to 1. A SVF of 1 denotes that the sky is completely visible to the horizon in all directions; for example, in a flat terrain. When a location has topography or buildings blocking view to any part of the sky, it will cause the SVF to decrease proportionally
Wind comfort standard for sitting in parks	is an hourly mean wind speed, or gust equivalent mean wind speed, whichever is greater for each wind direction, for no more than 292 hours per annum measured between 6 am and 10 pm Eastern Standard Time of 4 metres per second and applies to Public Places protected by Sun Access Planes and/or No Additional Overshadowing Controls
Wind comfort standard for walking	is an hourly mean wind speed, or gust equivalent mean wind speed, whichever is greater for each wind direction, for no more than 292 hours per annum measured between 6 am and 10 pm Eastern Standard Time (i.e. 5% of those hours) of 8 metres per second
Wind comfort standards for sitting and standing	is hourly mean wind speed, or gust equivalent mean wind speed, whichever is greater for each wind direction, for no more than 292 hours per annum measured between 6 am and 10 pm Eastern Standard Time of; 4 metres per second for sitting; and 6 metres per second for standing
Wind safety standard	is an annual maximum peak 0.5 second gust wind speed in one hour measured between 6am and 10pm Eastern Standard Time of 24 metres per second

Schedule 2: Planting species index

Planting Character Area	Species	Common Name
Dune planting with evapotranspiration groves	<i>Banksia aemula</i>	wallum banksia
	<i>Banksia ericaefolia</i>	lantern banksia
	<i>Banksia serrata</i>	old man banksia
	<i>Eriostemon australasius</i>	pink wax flower
	<i>Lepidosperman laterale</i>	variable sword sedge
	<i>Xanthorrhoea resinifera</i>	grass tree sp.
	<i>Montoca elliptica</i>	tree broom heath
	<i>Leptospermum laevigatum</i>	coast tea tree
Gully planting	<i>Livistonia australis</i>	cabbage tree palm
	<i>Cyathea cooperi</i>	lacy tree fern
	<i>Cyathea cunninghamii</i>	slender tree fern
	<i>Dicksonia antarctica</i>	soft tree fern
	<i>Asplenium australasicum</i>	birds nest fern
	<i>Christella dentata</i>	soft fern
	<i>Lastreopsis acuminata</i>	shiny shield fern
	<i>Asplenium bulbiferum</i>	hen and chickens fern
	<i>Pteris tremula</i>	Australian brake
Sandstone slopes planting	<i>Angophora costata</i>	sydney red gum
	<i>Xanthorrhoea resinifera</i>	Grass tree sp.
	<i>Doryanthes excelsa</i>	Gynea Lily
Meadow planting	<i>Scaevola aemula</i>	fairy fan flower
	<i>Brachyscome multifida</i>	brachyscome daisy
	<i>Themeda australis</i>	kangaroo grass

Planting Character Area	Species	Common Name
	<i>Rhodanthe anthemoides</i>	Chamomile Sunray
	<i>Chrysocephalum apiculatum</i>	yellow button/ everlastings
	<i>Bulbine bulbosa</i>	bulbine lily
	<i>Thysanotus tuberosus</i>	Common fringe lily
	<i>Calotis lappulacea</i>	yellow burr-daisy
	<i>Calotis scabiosifolia</i>	rough burr-daisy
	<i>Poa labillardieri</i>	Tussock Grass
	<i>Lomandra congestifolia ssp rubiginosa</i>	lomandra mist
	<i>Lomandra longifolia</i>	lomandra verday
	<i>Microlaena stipoides</i>	weeping grass
City tree planting	<i>Zelkova serrata</i>	Japanese elm
	<i>Liriodendron tulipifera</i>	tulip tree
	<i>Cupressus sempervirens</i>	pencil pine
City creekline palms planting	<i>Livistonia australis</i>	cabbage tree palm

Schedule 3: Development application submission requirements

The following table identifies information that may be required to be submitted as part of a Development Application for any land in Central Precinct.

Requirement	Section of this Design Guide
Aboriginal Engagement Report	Section 4.0
Arboricultural Impact Assessment	Section 13.6
Archaeological Assessment	Section 11.4
Biodiversity Management Plan	Section 13.6
Climate Risk and Adaptation Plan	Section 12.7
Connecting with Country Strategy	Section 4.0
Construction Noise and Vibration Management Plan	Section 9.4
Construction Traffic Management Plan	Section 7.15
Digital Strategy	Section 12.11
Ecologically Sustainable Development Strategy	Section 12.2
Emergency Management Plan	Section 16.4
Event-Specific Security Risk Assessment (ESRA)	Section 16.3
Heritage Interpretation Strategy	Section 4.4 and 11.3
Integrated Servicing and Basement Strategy	Section 7.8
Landscape Plan	Section 13.0
Local Drainage Management Plan	Section 14.2
Night-time Lighting Masterplan	Section 6.5
Noise and Vibration Impact Assessment	Section 9.4
Operational Waste Management Plan	Section 12.10
Plan of Management	Section 17.1
Public Art Strategy	Section 5.4
Public Domain Plan	Section 5.0
Quantitative Wind Effects Report	Section 6.3
Reflectivity Report	Section 9.5
Safety & Security Management Plan	Section 16.1
Staging and Implementation Strategy	Section 19.0

Requirement	Section of this Design Guide
Statement of Heritage Impact	Section 11.0
Stormwater Quality Assessment	Section 14.4
Wayfinding Strategy	Section 5.1

Schedule 4: List of amendments

Central Precinct Design Guide – List of Amendments			
Date	Page	Section	Amendment
n/a	n/a	n/a	n/a

Appendix 3: Transport and movement



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Appendix 3: Transport and movement

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1. Introduction

On 4 May, TfNSW/TAHE met with City officers to advise that the release of the population and employment forecasts that were to underpin the modelling were delayed. This meant that the modelling would not be able to be completed before exhibition.

The most current advice the City has received from TfNSW/TAHE is that it is expected to be available in September/October. Instead, the agreed way forward was for TfNSW/TAHE to:

- Release SSP transport assessment for exhibition, with high level transport analysis and a caveat that the modelling is draft and does not capture the full impact of the development on the surrounding walking environment, and that consultation with the City on this issue has not been undertaken.
- Continue with detailed modelling in parallel which would be released during public consultation or response to submissions phase
- Provide the City with advance details of results / reporting.

Given the scale of the development and the high level of walking demand generated by the station and surrounding precinct, pedestrian modelling will be a critical element of the study. The Study Requirements require that the transport study “identifies and assesses the impacts resulting from the proposal with an appropriate level of pedestrian and traffic analysis”, and without the modelling, the exhibited documents do not meet these adequacy criteria. The modelling needs to inform the design of the public realm, pedestrian infrastructure and mitigation measures needed to achieve good place outcomes and a safe and comfortable environment for people walking.

Without seeing the outputs of the modelling analysis, the City is unable to provide informed comment on the transport strategy and assessment of Central Precinct. As such, all comments that follow relating to transport and access should be taken as preliminary only.

The City has, therefore, summarised our preliminary comments within the submission and provided this separate appendix which is likely to be updated once the transport study is updated to include consideration of the modelling outputs.

Summary of recommendations

Table 2 below is a summary of all transport recommendations from the City.

Table 1 Summary of recommendations

2. General	
2.1	The City will make additional comments once the completed transport modelling is provided
2.2	Use the TfNSW Walking Space Guide to assess walking within the Central Precinct.
2.3	TfNSW/TAHE needs to take ownership of cumulative transport impacts
2.4	Include mitigation measures and enabling works within the project and not as part of the public benefit offer.
2.5	The Planning Report and Transport Assessment should reference, support and align with key strategic transport documents (that it currently does not)
2.6	The City will comment on construction traffic management at DA stage once a detailed CTMP is prepared
3. Street network	
3.1	TfNSW/TAHE must ensure Lee Street is closed to vehicle traffic to realise the Central Square vision
3.2	TfNSW/TAHE must provide a contraflow bus lane on Regent Street (Broadway-Lee St) to enable the closure of Lee Street
3.3	No part of the development is to preclude the City's plans for streets and public domain
3.4	TfNSW/TAHE must commit to reducing speed limit on all roads surrounding and within the Central Precinct
	Revise the 2036 road network conflict diagram (Fig 5-12) to better reflect the desired safety and place outcomes
4. Impacts on people walking	
4.1	Correctly assess and acknowledge the significant impacts of the development on people walking in the broader precinct
4.2	The City supports upgrades to intersections identified in the proposed mitigation measures mechanisms
5. Impacts on people cycling	
5.1	Confirm and commit to providing a high-quality, regional cycling connection across the railway line between George Street (Redfern) and Lee Street
5.2	The southern cross-rail cycle route should be shown clearly and consistently across all documents on exhibition
5.3	People cycling should be able to get from the deck to the Goods Line

Appendix 3: Transport and movement

5.4 Confirm feasibility of using Devonshire Tunnel as a bike connection, and made clear on the bike network map

5.5 Provide bike parking and end of trip facilities in Eddy Plaza

5.6 Mapping of existing bike network should note that Devonshire St is one-way

5.7 All maps should differentiate between local and regional cycling connections

5.8 Local streets on the deck should be designed to accommodate people cycling

5.9 City supports bike parking rates above DCP rates

6. Parking

6.1 Parking must be capped at 208 spaces consistent with Transport Assessment

6.2 Residential parking should be unbundled

6.3 The Design Guide should provide specific details for electric vehicle charging requirements

7. Shared basement and vehicle access

7.1 Transport Assessment must provide expected vehicle volumes by access point

7.2 There should be no vehicle access to the basement on Pitt Street

7.3 Prince Alfred Park Sidings basement should have minimal parking and servicing spaces

7.4 Loading rates need to reflect DCP

7.5 The loading strategy must consider all loading needs, not just day-to-day requirements

7.6 Clarify Design Guide guidance on shared parking spaces

7.7 Basement design must incorporate secondary access for resilience

7.8 George St south bridge connection must be designed primarily for people walking and cycling

8. Demand modelling

8.1 The City supports the adopted mode share targets

8.2 Address inconsistencies in the Central Precinct demand distribution

9. Technologies

9.1 The City supports higher car share provision

9.2 Electric and autonomous vehicles: Specify function before technology

10. Goulburn St

10.1 Clarify the transport implications and constraints for Goulburn Street site

2. General comments

2.1. The City will make additional comments once the completed transport modelling is provided

As noted above, due to delays to the release of the population and employment forecasts the City has yet to see the transport modelling for the Precinct.

Given the scale of the development and the high level of walking demand generated by the station and surrounding precinct, pedestrian modelling will be a critical element of the study. The Study Requirements require that the transport study “identifies and assesses the impacts resulting from the proposal with an appropriate level of pedestrian and traffic analysis”, and without the modelling, the exhibited documents do not meet these adequacy criteria. The modelling needs to inform the design of the public realm, pedestrian infrastructure and mitigation measures needed to achieve good place outcomes and a safe and comfortable environment for people walking.

Without seeing the outputs of the modelling analysis, the City is unable to provide informed comment on the transport strategy and assessment of Central Precinct. As such, all comments that follow relating to transport and access should be taken as preliminary only, and the City reserves the right to comment fully once the transport study is updated to include consideration of the modelling outputs.

2.2. Use the TfNSW Walking Space Guide to assess walking within the Central Precinct.

TfNSW/TAHE must confirm that it will apply the TfNSW Walking Space Guide to all areas outside the gate line and that LOS C will be the minimum target.

2.3. TfNSW/TAHE needs to take ownership of cumulative transport impacts

Central Precinct is a rare case where the landholder, developer and operator are all part of the Transport cluster. This means that there is clear responsibility and excellent opportunity for holistic planning to address cumulative impacts in a way that is more complicated when there are more stakeholders at play.

However, despite this clear responsibility and opportunity, the transport assessment largely attributes the additional trips to the new Metro, rather than the over station development. Development of the scale proposed attracts a lot of trips and attributing these trips and their impact to the Metro rather than the Precinct fails to adequately address this issue. Regardless of whether trips are considered to be generated by Metro or the Precinct, responsibility for both are within the transport cluster. The transport cluster should collectively take ownership of the problem and address it holistically rather than avoiding responsibility by shifting it between divisions.

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A trip is generated by **both** the Metro and the OSD – and responsibility must be shared between them

2.4. Include mitigation measures and enabling works within the project and not as part of the public benefit offer.

The infrastructure contribution schedule as seen most recently by the City included items such as the bridge connecting George St (southern extension) to the OSD deck. Any infrastructure required to make the development work effectively is considered enabling works and is not part of the offer to the broader community. Equally, the City will not accept mitigation works to fix problems directly created by the development as part of the public benefit offer.

2.5. The Planning Report and Transport Assessment should reference, support and align with key strategic transport documents (that it currently does not)

The suite of documents needs to align with all current strategies affecting the area.

The Planning Report (and contributing documents including the Transport Report) should reference and support the following documents.

- Camperdown Ultimo Place Strategy (Greater Sydney Commission)
- Tech Central Place-Based Transport Strategy (TfNSW)
- South East Sydney Transport Strategy (TfNSW)
- Sydney City Centre Access Strategy (TfNSW)

2.6. The City will comment on construction traffic management at DA stage once a detailed CTMP is prepared

The City does not typically comment on construction traffic management plans until later in the design process when a builder is involved. The City's Traffic Operations team will then be able to provide detailed comment and recommendations.

3. Street network

3.1. TfNSW/TAHE must ensure Lee Street is closed to vehicle traffic to realise the Central Square vision

The City's vision for Lee Street is for it to become part of the planned Central Square, a public space linked to Town Hall Square and Circular Quay by the pedestrianised George Street. The City's vision for Central Square have been widely publicised, and should be incorporated into the Central Precinct plans.

The reference design in the Urban Design Report shows Lee Street as closed which the City supports. However, The Transport Study has several diagrams showing Lee Street being used for vehicle access, including bus routes. The City would not support anything within the Precinct that would prevent the vision for Central Square from being realised.

In Section 7.2 Proposed Mitigation Measures, the study refers only to allocating additional space to people walking. This should explicitly acknowledge the need to pedestrianise all of Lee Street. This means the following elements of the Reference Design need to be changed.

- No bus routes should use Lee Street. Only three routes currently use Lee Street (310, N11, N20), and so these services could easily be rerouted and accommodated on the other side of Railway Square providing a contraflow bus lane is installed in Regent Street (see Item 3.2).
- No drop off and pick up areas on Lee Street
- Temporary vehicle access on Lee St must be removed and the date, or development milestone, specified in the transport assessment
- References to reallocation of road space on Lee Street (for example in the mitigation measures in transport assessment) must explicitly state that Lee Street is to be closed to vehicle traffic

3.2. TfNSW/TAHE must provide a contraflow bus lane on Regent Street (Broadway-Lee St) to enable the closure of Lee Street

Regent Street is currently one-way southbound. To close Lee Street and create Central Square, buses would need to be diverted up on to George Street, which would require a contraflow bus lane as pictured in Figure 2.

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Figure 1 Contraflow bus lane on Regent St required

Given that this is a key enabler of the creation of Central Square, this work should be considered part of the development.

3.3. No part of the development is to preclude the City's plans for streets and public domain

The City is currently investigating the possibility of the following changes to the street network, and no part of the development should preclude their implementation:

- Reallocating space from vehicles to place, people and planting on Broadway in line with the City's Greening Broadway initiative in Sustainable Sydney 2050 strategy.
- Harris Street converted to two-way (as per TfNSW's Tech Central Place Based Transport Strategy)
- Chalmers Street calmed and narrowed at crossings
- Elizabeth Street south of Devonshire converted to two-way to calm traffic
- Foveaux Street and Albion Street converted to two-way east of Mary Street to calm traffic

3.4. TfNSW/TAHE must commit to reducing speed limit on all roads surrounding and within the Central Precinct

The transport study notes that there is "an opportunity to investigate lowering the speed limit around Central Precinct to align with surrounding land uses and support a safe and integrated network" (RN3). Identifying the opportunity is not enough; the City requires a clear commitment to reducing vehicle speeds to 30km/h. It should be included as a mitigation measure to offset the safety risks associated with people driving in an area with such high levels of –walking.

3.5. Revise the 2036 road network conflict diagram (Fig 5-12) to better reflect the desired safety and place outcomes

The figure below shows conflict points between 'high pedestrian flows' and 'high vehicle flows' expected in 2036. While the City supports the intent of this image is to identify locations where amenity and safety for people walking need to be prioritised, presenting vehicle volumes as fixed like this is not helpful. Traffic responds to the network, and both Eddy Avenue and Broadway have been identified in TfNSW's Tech Central Transport Strategy as opportunities to reallocate road space thus reducing their traffic function.

At this level of plan development, road safety can be considered in terms of avoiding where high traffic volumes intersect with high volumes of people walking and cycling. The SSP should commit to minimising volumes (especially through traffic) and reducing speeds to 30km/h as per Item 3.4.

We recommend that the diagram instead shows *existing* high movement function overlaid with future pedestrian flows in order to identify potential conflict locations that would occur if no changes were made to the road network.



Figure 2 2036 Road network conflict diagram (Source: Transport Assessment Fig 5-12)

4. Impacts on people walking

4.1. Correctly assess and acknowledge the significant impacts of the development on people walking in the broader precinct

The Central SSP is a major, precinct-scale development with yields similar to Barangaroo South, but located at the Central transport hub. The Transport Study (page 88) incorrectly assesses the Precinct development as having ‘minimal’ impact on walking activity. This is incorrect because it assesses the projected growth in walking against current walking in the precinct combined with transfers between transport services (predominantly train-train).

Table 5-10 and the related text in the Transport Study (below) show the walking trips generated by the development account for 4% of total walking trips in the precinct. This figure is misleading as it includes a large number of people interchanging within the station who don’t interact with the development or even the surrounding streets (pink circle). If we exclude transfers (second column) and assume the first column is people who start or end their trip walking on streets outside the station, then 18% (i.e. 1286/6034) of the walking trips on City streets coming from the precinct is generated by the precinct – which certainly is not “minimal”.

	Walking only trips	Public transport transfer trips	Total pedestrian trips	
			Pedestrian trips	Proportion (%)
CPRP development	1,286	1,906	3,192	4%
Central Precinct	6,034	61,874	67,908	96%
Total	7,320	63,780	71,100	100%

Figure 3. Central Precinct trip generation 2036 AM peak hour (Source: Transport Assessment Table 5-10)

As stated above in Item 2, **TfNSW/TAHE need to take ownership of the impacts** of both the over station development and the metro holistically, and not shift responsibility for impacts between internal divisions.

4.2. The City supports upgrades to intersections identified in the proposed mitigation measures mechanisms

The Transport Assessment identifies as the following intersections for upgrades to improve pedestrian capacity.

- Lee Street (whole length)
- George / Lee / Pitt
- Pitt / Eddy
- Mid-block on Eddy
- Elizabeth / Foveaux

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- Broadway / Harris

The City agrees that these intersections should be the focus for improvement and that their upgrades should fall within the scope of this project. However, as noted in Item 1.1, we reserve the right to revisit these comments once the pedestrian modelling is released.

5. Impacts on people cycling

Figure 5-10 in the Transport Assessment shows the future cycling network around Central Precinct. There are multiple issues with the proposed network. The spatial issues are shown below in Figure 5, with explanations and additional non-spatial issues following below.



Figure 4 Issues with proposed cycle network

5.1. Confirm and commit to providing a high-quality, regional cycling connection across the railway line between George Street (Redfern) and Lee Street

The Transport Assessment correctly identifies the existing issue of lack of cycle connectivity across the rail line but then does little to address it. The proposed cycling network on exhibition includes a new cycle route at the southern end of the precinct. However, the alignment as proposed has several issues.

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- It is indirect and includes a large switch back taking people in the opposite direction to where they are trying to go.
- It does not align with the desire lines between Meagher Street and Belvoir Street, nor the desire line between George Street Redfern and Regent Street/Harris Street
- It does not resolve the issues of east-west connectivity across Regent Street
- It is shown inconsistently throughout the exhibition materials, making it difficult to ascertain what is proposed (See Item 5.2).

The City recommends that a direct cycle connection is created which meets the following specifications should be adopted.

- The route should connect to the George St south separated cycleway on the southern side of the rail line and to Regent Street on the northern side, allowing for cyclists to travel along desire lines
- The route should be a regional connection, that is, allow for fast cycling speeds without need to dismount.
- A separated cycleway should be provided along the eastern side of Regent Street and Lee Street (through reallocation of existing road space) between the new cross-rail connection and the new Central Square.
- Grades should be consistent with Austroads Guide to Road Design Part 6A (Figure 9).
- The route should be as direct as possible and avoid long switchbacks that take people out of their way.

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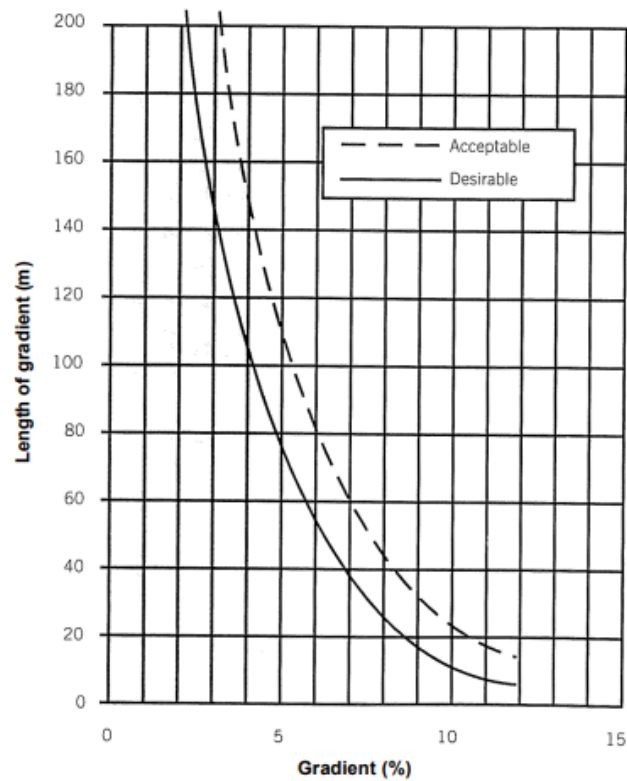


Figure 5 Desirable uphill grades for ease of cycling (Austroads Guide to Road Design Part 6A)

5.2. The southern cross-rail cycle route should be shown clearly and consistently across all documents on exhibition

The documents as exhibited do not clearly articulate how the southern rail crossing is to function and how it connects to the broader network.

TfNSW/TAHE must resolve the discrepancies between the documents should be resolved, and clearly articulate form and function of the connection.

The design of the crossing must conform to the specifications set out in Item 5.1.



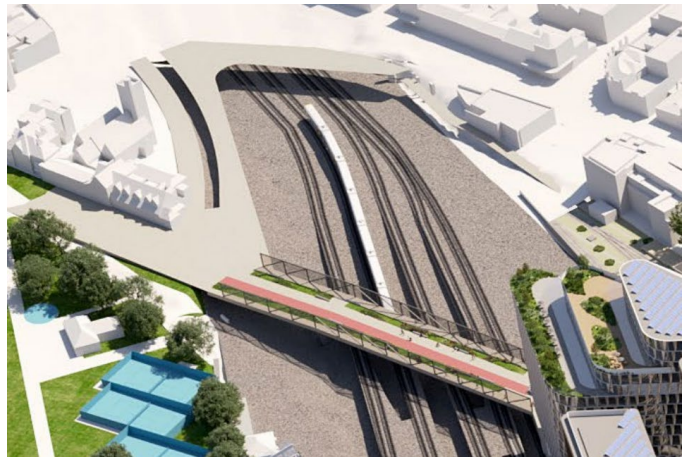


Figure 6 Discrepancies with southern cycleway

- a) Structure Plan Figure 10 does not show it connecting to Regent St*
- b) In the Transport Study Figure 5-10 the connection appears to use the northern footpath of Cleveland St*
- c) Design Guide Figure 31 shows the route on a separate bridge structure*
- d) Render on page 6 of Urban Design Framework shows connection from George St North bridge*

5.3. People cycling should be able to get from the deck to the Goods Line

There is no connection from the deck to the north or west in the proposed Reference Design. The Goods Line extension and the streets on the deck do not connect due to level differences. The Transport Assessment refers to vertical transport between them but it is not clear if this will accommodate bikes (including cargo bikes). The Design Guide should specify which vertical transport is meant to be used by people cycling and set minimum dimensions for those that are.

The City notes that the actual benefits of Goods Line connection for people cycling is not clear. The feasibility is compromised due to significant height differences and there are safety and CPTED issues with the underground connection. Our preference is for the cycle connection discussed in 5.1 and 5.2 to function as the main regional connection across the rail line.

5.4. Confirm feasibility of using Devonshire Tunnel as a bike connection, and made clear on the bike network map

The Transport Assessment notes that end of trip facilities will be provided underneath the precinct with access from Devonshire Tunnel. However, the cycle network diagrams in both the Design Guide and Transport Assessment omit this link and it is not clear how this is meant to work. The study should clarify the following:

Planning must confirm:

- that the Devonshire Tunnel will be a cycle-only connection under the precinct
- that people will not be required to dismount to ride through
- how cyclists will access the tunnel from the east side. The Urban Design Report Figure 292 (below) shows a combination of lifts, escalators and stairs. Lifts generally provide poor connectivity on major cycling routes, and must be able to accommodate cargo bikes

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- how staging will work For Devonshire Tunnel to function as a bike connection, the west half of Central Walk will need to be complete and able to act as the main pedestrian connection. It is unclear what will happen in the interim

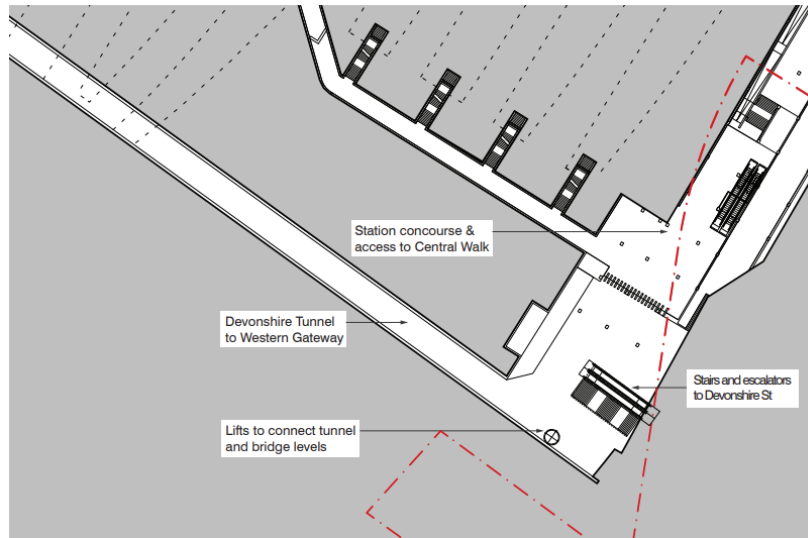


Figure 7 Devonshire tunnel east entrance (Source: Urban Design Report, Figure 292)

5.5. Provide bike parking and end of trip facilities in Eddy Plaza

The Transport Assessment shows a bike hub in Eddy Plaza which is not included in the Design Guide. The City supports the Eddy Plaza location and requires it be included in the Design Guide.



Figure 5-10: Future Cycling network around Central Precinct

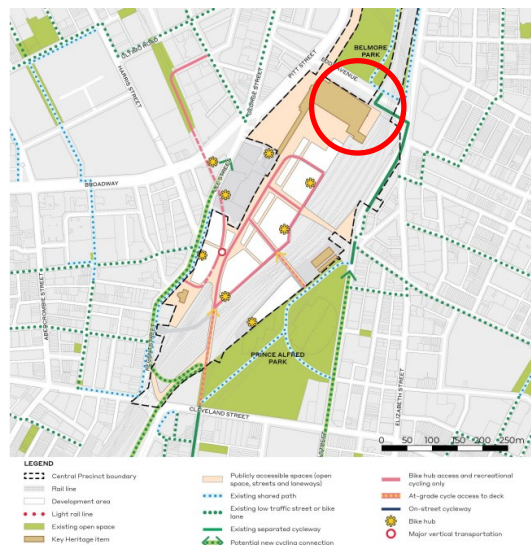


Figure 31 Central Precinct cycle network

Figure 8 Design guide (right) is missing bike hub in Eddy Plaza shown in the Transport Assessment (left)

The remaining bike parking and EOT locations shown in the Design Guide and Transport Assessment are supported in principle. The City will comment in more detail as the design progresses.

5.6. Mapping of existing bike network should note that Devonshire St is one-way

The bike network maps show Devonshire St as an existing low traffic street. However, since it is one way eastbound only with no way for people to legally ride westbound, it does not serve as a full connection to the rest of the network. This map should show there is no feasible westbound cycling route.

5.7. All maps should differentiate between local and regional cycling connections

A regional cycling connection should ideally consist of separated infrastructure to allow large numbers of people to ride at higher speeds and for people cycling to pass one another comfortably. Local cycle connections are to serve the last part of the trip and should be designed to accommodate slower speeds and local access. These local routes can be a combination of separated cycleways combined with low-traffic on-road quiet routes, bike lanes and shared paths (noting shared paths are not preferred).

The Transport Assessment and Design Guide must differentiate between the types of cycle routes. This will make it clear the types of facilities will be provided and help us understand how the precinct contributes to the connectivity of the regional network rather than just providing local access.

5.8. Local streets on the deck should be designed to accommodate people cycling

While the bike parking and end of trip facilities are meant to be accessed via Devonshire Tunnel (See Item 5.4) there will still be a number of people cycling who will want to access buildings on the deck directly – notably bike couriers and Deliveroo deliveries as well as visitors who will park outside buildings.

As such, all streets on the deck must accommodate bike access. This means streets must:

- Provide adequate width to allow people walking and cycling to safely and comfortably share the space
- Use surface treatments such as paving or cobbles to encourage slow speeds where local bike access is expected
- Clearly indicate that cycling is legal and acceptable.

If any of the local streets on the deck is to form part of the regional network, then the route needs to include infrastructure to allow large numbers of people to ride at higher speeds and for people cycling to pass one another comfortably.

5.9. City supports bike parking rates above DCP rates

The proposal includes a higher bicycle parking rate for long-term users than the Sydney DCP requires to support the target mode share. This is supported.

6. Parking

6.1. Parking must be capped at 208 spaces consistent with Transport Assessment

There are inconsistencies between the Design Guide, Transport Assessment and the Urban Design Framework in terms of how parking is addressed.

- The **Reference Master Plan** proposes 377 parking spaces across the precinct.
- The **Transport Assessment** states that a maximum of 208 spaces should be allowed in order to meet the target car mode share.
- The **Design Guide** sets out parking rates but does not set a maximum quantity across the precinct. Under the current GFA schedule, the proposed parking rates could permit as many 900 spaces to be provided in the precinct; almost four times as many as recommended by the Transport Assessment (See Table 2).

Ultimately the Design Guide will be the instrument that will control the parking provision, and so the combination of the proposed GFA and the parking rates as it currently stands is completely unacceptable and is not supported.

The City recommends either (a) adopting the rates in the Design Guide but adding a cap of 208 spaces across the precinct in line with the Transport Assessment OR (b) reducing the rates so that the maximum 208 spaces is not exceeded when applied to the proposed GFA.

The transport report should also make clear whether these rates are to be applied to Block F (Goulburn St Carpark).

Table 2 Maximum parking calculated by applying rates to proposed GFA

Use	Rate	GFA	Dwelling / rooms	Total parking
Commercial	1 space per 2000m2	269500	-	135
Retail	1 space per 2000m2	22850	-	11
Education	1 space per 2000m2	47250	-	24
Community	1 space per 2000m2	14300	-	7
Accommodation*	0.1 spaces per unit	22500	296	30
Hotel*	0.1 spaces per unit	53600	705	71
Residential - 1 bed**	0.3 spaces per unit	84,912	255	77
Residential - 2 bed**	0.7 spaces per unit		467	327
Residential - 3 bed**	1 space per unit		127	127
				807

* Assuming 76m2 per room as per indicative area schedule

** Assuming average of 100m2 per residential unit and breakdown as per indicative area schedule

6.2. Residential parking should be unbundled

The SSP should require that all (or most) residential parking to provided as unbundled, where the cost of buying or renting an apartment is separate to the cost of buying or renting a car parking space. The Committee for Sydney's recent *Better Parking for Better Places* report (August 2022) recommends unbundled parking as a way of improving housing affordability and allowing the market to give a clear indication of parking demand.

6.3. The Design Guide should provide specific details for electric vehicle charging requirements

The Design Guide specifies only that “provision is to be made within the basement design for charging stations to service electric vehicles”.

The City recommends including the following guidance, which aligns with the City’s new DCP (in draft).

- 100% of residential and 50% of commercial parking spaces are to be capable of supporting electric vehicle charging
- 25% of visitor parking bays must have Level 2 or higher charger fitted
- All car share bays must have Level 2 or higher chargers fitted
-

7. Shared basement and vehicle access

7.1. Transport Assessment must provide expected vehicle volumes by access point

The Transport Assessment does not give any indication of the expected number of vehicles entering and exiting each of the basement access points or the types of vehicles expected to be using each one. For example, the Urban Design Report Reference Design indicates that Regent Street Sidings basement will contain resident parking, but this is not made clear in the Transport Assessment.

The Transport Assessment must include:

- A summary of the number and type of parking and servicing spaces accessible from each basement access location
- The expected number of vehicle movements each access location will generate per day and in peak hours, broken down by vehicle type (for example heavy vehicle / passenger vehicle)

7.2. There should be no vehicle access to the basement on Pitt Street

The City does not support the basement entrance shown on Pitt Street. Basements should be consolidated with the northern basement accessed via the same entrance as Western Gateway. The Reference Design shows an internal connection between these two basements, so it seems feasible.

7.3. Prince Alfred Park Sidings basement should have minimal parking and servicing spaces

Access to the Prince Alfred Sidings basement is via Devonshire St / Chalmers St, which is a very constrained part of the network. It is not clear from the reference master plan how many private parking spaces the basement is likely to include (the Sidings were omitted in the typical basement level plan (page 324 of Urban Design Framework).

It is also not clear what land use is expected in the Sidings. The area schedule in Urban Design Framework (Page 329) shows a mix of commercial and community use, while the Transport and Mobility Strategy (page 112 of same report) notes that the Prince Alfred Sidings basement will house private vehicle parking.

The City requires that parking volume at the Prince Alfred Sidings basement is clarified, and that it should be kept to a minimum to minimise vehicle movements from Devonshire St. The current vehicle movements at this location already impact on the safety and amenity of this area with high levels of walking.

7.4. Loading rates need to reflect DCP

The Reference Master Plan currently proposes 197 loading and service vehicles across the precinct, which is higher than the 120 spaces the DCP would require or the 106 spaces that logistics model presented in the Transport Assessment recommends. The City's position is that the DCP rates present a minimum, and any provision above this is supported.

However, similarly to the issue with private parking (See section 6.1), applying the proposed rates in the Design Guide yield a very different number of spaces than what is provided in the Reference Design. In this case, applying the Design Guide rates gives a minimum of 88 spaces, much lower than the DCP minimums. Given that the Design Guide is the instrument that is locked in at this stage rather than the specific Reference Design, **the City requires that the Design Guide rates are adjusted so that they give the equivalent of the DCP when applied to the precinct's GFA.**

The City also insists that private parking is only to be provided once loading minimums are met, since loading is a higher priority use than private parking.

Use	Rate	GFA	Dwelling / rooms	Total servicing spaces
Commercial	1 space per 3300 for first 50k 1 space for 6600 for next 50k 1 space for 13200 thereafter	269,500	-	36
Retail	1 space per 350 for first 2000 1 space per 800 thereafter	22,850	-	32
Education	Not included	47,250	-	0
Community	Not included	14,300	-	0
Accommodation*	1 per 50 rooms for first 100 rooms 1 per 100 rooms	22,500	296	4
Hotel	Plus extra for reception etc	53,600	705	8
Residential	1 space for first 50 dwellings 0.5 spaces thereafter	84,912	849	9
				88

* Assuming hotel rates apply to student accommodation

7.5. The loading strategy must consider all loading needs, not just day-to-day requirements

The City has had experience on many precincts with consolidated basements and offers the following advice.

- In addition to daily deliveries, the strategy and design need to accommodate every-so-often events such as residents moving house or office fit-outs. In the case of residents moving house, a typical removal truck is larger than a typical MRV.
- The waste strategy should inform the design of the loading areas. The City's waste guidelines and DCP waste vehicle requirements are not written to apply to developments/precincts of this scale and complexity. Inclusion of the city's waste truck specifications (i.e. 9.25m vehicle) are inappropriate. The design of loading and integrated basement facilities requires a bespoke

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design solution that includes modelling of waste flows, number of vehicle movements and assessment to adequately size loading area for precinct. An example is the likely need for large compactors for waste streams which could require large hook lift trucks to collect.

- Each service core needs to have a loading bay right near it, with adequate vertical clearance along the whole path of travel up to the bay.
- The entire path of travel needs to accommodate largest vehicle. Often basements get ceilings too low or only low enough over loading dock itself so large vehicles can go in but not traverse the basement which can lead to inefficiencies and unplanned cross loading.
- The loading dock management system needs to be simple and user-friendly. If the system gets too convoluted deliveries end up loading on street which will not be acceptable around Central Precinct.

7.6. Clarify Design Guide guidance on shared parking spaces

Design Guide 7.4.5 states that “Separate parking spaces for service vehicles are to be provided and may be shared with parking provided for any other purpose”. This is unclear – should they be separate, or may they be shared with other uses?

The City recommends the following wording: “Parking spaces for service vehicles may be shared with parking provided for other purposes in order to reduce overall parking requirements, subject to a plan of management”.

7.7. Basement design must incorporate secondary access for resilience

Large basements should have a secondary access point to allow for emergency situations or even times when maintenance is required. In the reference design, it is unclear whether vehicles could use the service tunnels to exit via another basement (Design Guide Figure 30) or whether this would be not allowed due to security constraints. For example, the North Central precinct basement has a single access point from Pitt Street. In the case of emergency, vehicles should be able to use the service tunnel to exit via another basement.

7.8. George St south bridge connection must be designed primarily for people walking and cycling

While the bridge connection will need to accommodate occasional emergency and maintenance service vehicles, it will mostly be used as the key access point for people walking and cycling from the south. In particular, the bridge connection is only cycle-able connection to the deck from the regional bike network. As such, the design of the bridge should read more like an active transport link that is possible for vehicles to use than a vehicle link that is possible for people walking and cycling to use.

8. Demand modelling

8.1. The City supports the adopted mode share targets

The City acknowledges and supports the 'vision and validate' approach taken by the transport assessment, where mode share targets are chosen and interventions selected in order to reach those targets. The ambitious 'car free precinct' targets of 1% and 4% car trips for employees and residents respectively are supported.

8.2. Address inconsistencies in the Central Precinct demand distribution

Figure 5-7 in the Transport Assessment shows the vast majority of trips departing Central Precinct in the evening peak use light rail (see Figure 9 below). This seems odd; one would expect that it should mirror the AM peak where most people arrive via train. The City requests that this analysis is reviewed.

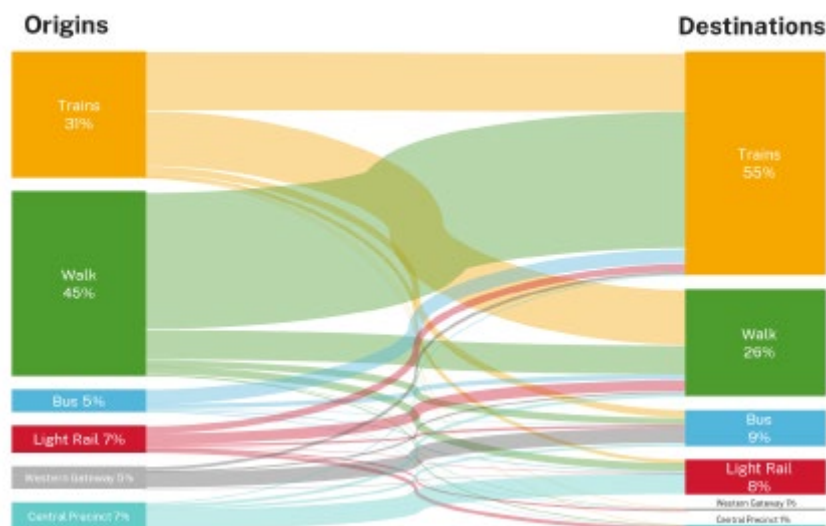


Figure 9 2036 PM Central Precinct Demand (Source: Transport Assessment Figure 5-7)

9. Technologies

9.1. The City supports higher car share provision

The transport assessment and design guide propose to include a higher rate of car share than specified in the Sydney DCP. This is supported as a way of encouraging alternatives to private vehicle ownership for residents, and possibly an alternative to pool cars for commercial tenants.

9.2. Electric and autonomous vehicles: Specify function before technology

The Transport Assessment and reference design refer to an autonomous vehicle connection on the deck above the station and EV docks as part of the loading strategy.

The City requires more clarity on the function and outcome that the proposal will deliver (and the problem that it will address) rather than tokenistic reference to the technology that might be used.

For the proposed autonomous vehicle connection, the plan needs to justify why a vehicle shuttle is required, what frequency it will operate at and how many people per hour it will transport. It also needs to address the impact it will have on the people in the places it operates. The feasibility (safety, technology, cost etc) also needs to be considered before a solution is proposed.

Similarly, instead of specifying that the loading docks are “EV”, the Transport Assessment should provide information on how these docks will perform their roles. For example, they need to be multipurpose spaces capable of fitting 2 MRVs with manoeuvring space, and that vehicles need to be able to back up to the lift core to allow easy transfer of goods. Charging could be part of the specification (for example to control exhaust in an enclosed space) but one among many.

10. Goulburn St

10.1. Clarify the transport implications and constraints for Goulburn Street site

The Goulburn Street site forms part of the SSP and is a constrained piece of land over a live rail environment.

The area schedule in the Urban Design report notes around 13,500m² commercial and 36,000m² residential floor space. It is unclear what the transport implications of this part of the development are; the maps of the transport networks do not show any detail about parking, servicing, vehicle access or bike facilities. The land use, parking and transport provisions associated with the Goulburn Street site (Block F) should be made explicit in the master plan and Transport Assessment. The transport report should also make clear whether the parking rates in the Design Guide are to be applied to Block F (Goulburn St Carpark).

11. Rail operations

11.1. Clarify how the development will impact existing train operations

The documents on exhibition do not explain how the deck over the station will impact on rail operations. In particular:

- Shunting: The wider platforms proposed under the State Government's 'More Trains More Services' program imply that the third rail between each intercity platform will be removed (See Figure 11. However, it is not made clear how this will impact on train operations. For example, some longer trains use these third rails or Sydney Yard for shunting operations. It needs to be stated whether this will still be possible, and what provisions will be made for these services if not.
- Air quality: there are regional services that use diesel rolling stock (e.g. Indian Pacific). The Urban Design Framework notes "localised collection of smoke allows a vaulted ceiling with concealed cavities for ventilation exhausts and other services" but does not comment on whether this is sufficient to allow diesel services to remain operating.

The *More Trains More Services* program includes

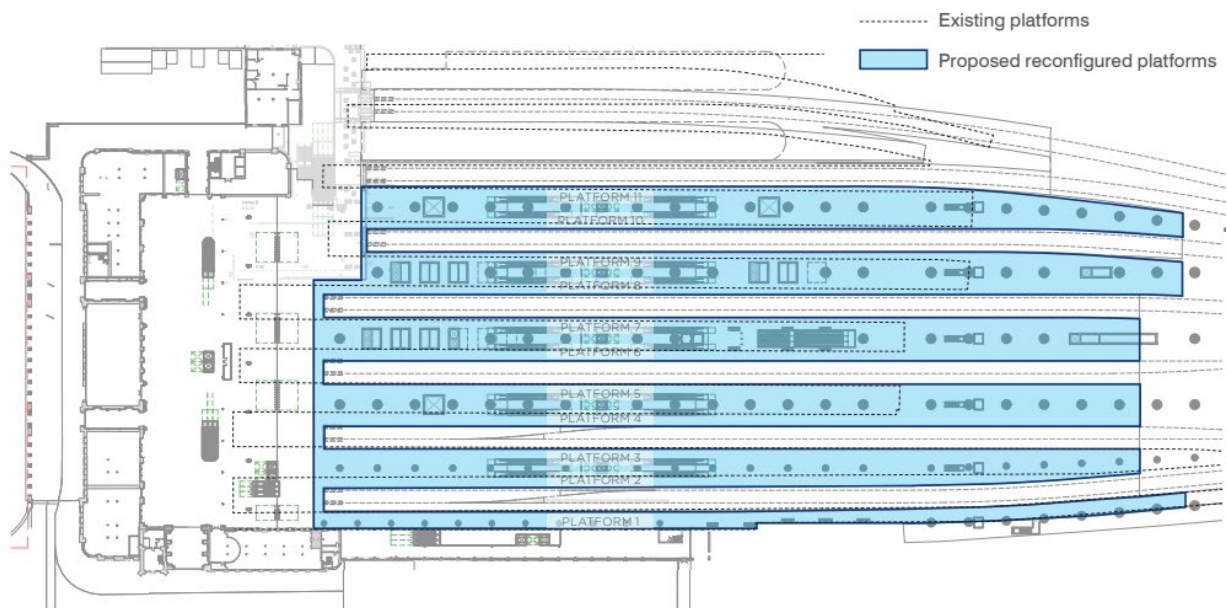


Figure 10 Proposed platform realignment (Source: Urban Design Framework, Fig 194)

11.2. Clarify how the development will impact on Central's ability to accommodate High Speed Rail

High Speed Rail (HSR) is defined by the National Faster Rail Agency (NFRA) as interstate rail linking capital cities with each other, with travel speeds of 350km/hr or greater. NFRA have been investigating the feasibility of an east coast HSR to connect Sydney, Brisbane and Melbourne.

Appendix 3: Transport and movement

The City understands that technical work previously done as part of the Phase 2 High Speed Rail Study indicated that changes to infrastructure at Central would be required to accommodate HSR. What is not clear in the exhibition materials is whether these requirements have been accommodated in the design. If no allowance has been made for HSR requirements, then the development would be precluding HSR from stopping at Central in the future, should the project go ahead.

11.3. Clarify whether the development precludes future upgrades to Central Station

Rail technology is evolving, and the infrastructure required to support new technologies in the future may change. Building a deck over the station would make substantial changes to Central Station very difficult in the future and act as a barrier to adopting new technologies as they emerge. While this may be an acceptable outcome when weighed against the benefit of the development, it the issue of precluding future changes to the station is not clearly acknowledged as a cost anywhere in the exhibition materials.

