



Carlton Gardens, September 2017

5. Setting priorities

The City of Melbourne is one of the fastest growing municipalities in Victoria. Significant growth began in the 1990s within the urban renewal areas of the Docklands and Southbank. Local area planning undertaken in the past 5-10 years has identified additional urban renewal areas, such as City North and Arden-Macaulay. This planning has introduced new development controls in these areas which support development intensification. When this work was prepared the accepted practice was to ensure that sunlight access to open spaces was provided for the equinox months of March and September.

In the past 2 years, the accepted practice has shifted as awareness of the importance of sunlight within high density urban environments has increased. Winter sunlight access controls have recently been introduced for parks into the Central City (via Amendments C270 - Central City Built Form Review, and C245 - Queen Victoria Market). This demonstrates that supporting significant redevelopment while providing winter sunlight access is achievable.

The overall objective of this study is to establish appropriate sunlight levels for public parks across the remaining areas within the municipality (outside of the Central City area).

Key questions

This report considers sunlight access from a user's perspective. It asks the following key questions:

- What levels of access to sunlight do people need to lead healthy, active lives?
- What are the appropriate policy settings for sunlight access that can meet people's needs?
- How can the provision of good sunlight access be balanced with the need to accommodate development intensification to support population growth?

These questions have been considered through:

- Analysis of existing policy controls
- Analysis of the modelling
- Evidence on health needs
- Modelling of specific parks to understand potential future overshadowing
- Review of VCAT case studies
- Review of international and Australian case studies

This has led to the establishment of the following 5 priorities:

1. Support healthy, active living by providing access to winter sunlight
2. Balance sunlight access to parks with the need to support development intensification in these areas
3. Maximise opportunities for people to access sunlight through the day for a variety of uses
4. Update the Melbourne Planning Scheme to establish a simple, easy to use policy that removes current inconsistencies and deficiencies
5. Identify locations for new parks within the municipality

Considering policy options

The following six case studies have been reviewed, in addition to the City of Melbourne, to investigate alternate approaches into managing sunlight access in central city environments through planning mechanisms:

	Cities and jurisdiction reviewed	Current policy approach
1	City of Sydney (Central City)	Prescriptive and performance-based with identification of specific public spaces
2	New York City	Performance-based but for amendments to the Zoning Resolution rather than for each individual development application
3	City of London, Towers Hamlet	Performance-based
4	Brisbane City Council (City Centre)	Performance-based with consideration for sunlight and shade
5	City of Toronto (Downtown)	Performance-based with identification of a hierarchy of public space and some flexibility
6	City of Melbourne	Performance-based planning mechanisms that are either mandatory or discretionary depending on the hierarchy (tier 1, 2 or 3) of public space
7	City of Port Phillip	Performance-based with identification of specific public spaces

These cities demonstrate a range of policy approaches in managing sunlight access to open space. The key variables within each policy and the key tools for managing sunlight access to open spaces are as follows.

Variables in sunlight policies

Time of day

Sunlight access policies typically nominate a period of time within a day in which an overshadowing impact needs to be assessed. The time of day varies however, in general, is centred on middle of the day. This is based on both a practical response (the sun is highest in the sky) and assumptions about when the use of these spaces occurs and therefore when the sunlight is most valued.

Time of year

The application of varying dates within the year determines the extent to which the surrounding development will be constrained by the need to protect spaces from overshadowing. Setting sunlight protection controls to winter ensures that the public spaces will remain protected throughout the remainder of the year when the sun is higher in the sky.

Consideration of existing overshadowing

The existing degree of overshadowing must be considered. There is no benefit in introducing a new sunlight access control for a particular time of day or year if the public space is already overshadowed at these times. The only exception would be if there was a reasonable expectation and clear guidance in the planning scheme that the buildings which are causing the overshadowing were to be demolished at some point in time and replaced with lower built form.

Types of activities that occur

The level of protection (dates and times of the year) often varies to respond to the types of activities that occur in that place that are considered to benefit from sunlight. This is typically based on an understanding of how spaces are currently being used.

Extent of park which is protected

Overshadowing controls can apply to a portion of an open space. This could occur as a percentage of the open space, or to a specified distance measured from the boundary of a park.

Planning tools for implementing protection for sunlight access

The most commonly used methods of implementing sunlight protection include the following:

No overshadowing control

This precludes the development of a building that overshadows a park at all within specified times and dates. It requires the developer to undertake 3D modelling assessments to test whether they are complying with the nominated control.

Solar Access Planes (SAP)

Solar Access Planes (SAP) are planar surfaces at the same angle to the sun at specific dates and time of the year. In effect they deliver the same outcome as a no overshadowing control as they protect the whole park from overshadowing. They provide prescriptive guidance on the built form envelope that can be achieved within a site and therefore determine the maximum height that buildings can reach before they exceed the SAP.

No Additional Overshadowing (NAO) Control

A No Additional Overshadowing (NAO) control protects existing sunlight (including that which passes between gaps of existing buildings) to public spaces surrounded by existing development. They explicitly acknowledge that parks may be already overshadowed to a degree. They allow new buildings to be constructed within the shadow of existing buildings as long as they do not further reduce sunlight access to the park.

Mandatory height limits

While not explicitly a sunlight access control, mandatory height limits can provide certainty that open spaces will not be overshadowed if they are set at heights that protect sunlight access. This is not the case with discretionary controls, where, if no other guidance on sunlight protection is provided, frequently result in very limited protection from overshadowing.

‘Sunlight and shadows affect people and their use of open space all day long and throughout the year, although the effects vary by season. Sunlight can entice outdoor activities, support vegetation, and enhance architectural features, such as stained glass windows and carved detail on historic structures. Conversely, shadows can affect the growth cycle and sustainability of natural features and the architectural significance of built features’

City Environmental Quality Review (CEQR), New York City

Priority 1: Support healthy, active living by providing access to winter sunlight

Enabling people to receive their required ‘dose’ of sunlight each day is critical to their overall physical and mental health.

While the importance of avoiding overexposure to the sun is well understood, the health impacts of insufficient sunlight exposure are not. Over 50% of Victorians are Vitamin D deficient in winter. This can have significant physical and mental health impacts. Providing people with the opportunity to lead healthy lives means providing them with the opportunities to access sunlight and shade as they need. A growing body of health research indicates that access to sunlight in winter is as important as access to shade in summer. This does not diminish the need for individuals to take responsibility for moderating exposure to UV.

It’s not reasonable nor desirable to prescribe to people how and when they should do this as people’s individual needs and livelihoods are varied. Rather, opportunities for them to achieve a good level of wellbeing should be provided to them as much as feasibly possible within walking distance of their place of residence or work.

The current policy settings in the City of Melbourne identify a hierarchy of parks in regards to their relative importance for sunlight access. This sets an expectation that residents and workers will not necessarily have access to sunlight within close proximity to the home or workplace. This approach is not aligned with a needs based assessment and does not focus on ensuring that parks provide for the overall health and wellbeing of people within the municipality.

The Open Space Strategy aims to locate open space within 200 metres of all residents and workplaces. To meet people’s needs, access to winter sunlight should generally be provided for to the same level of access. This means, where possible, winter sunlight access controls should be established for all parks.

This represents a shift from the current policy approach that defines parks according to a hierarchy of importance (typically related to the size of the park). Rather it recognises that the park that is closest to the resident or worker is typically the most important and easiest to access in that person's everyday life.

Existing policy position

Access to winter sunlight is only prioritised in the Central City. Elsewhere protection for winter sunlight is not provided.

Proposed policy position

- Revise the current policy position to shift from protecting sunlight access at the equinox to maximising winter sunlight access to all parks across the municipality.
- Revise the current 'tiered approach' to protecting sunlight access to a 'flat' protection policy that maximises winter sunlight protection for all parks. This acknowledges that often the most important park is the one closest to where a person lives or works.

What do they do in other cities?

Time of year

The application of sunlight access controls varies. Sydney, Brisbane, New York and Port Phillip Council incorporate sunlight access controls for parks in winter. London and Toronto's controls are focused on the equinox. The New York shadow assessment provisions refer to the need to '*demonstrate conditions used during cold-weather when people who do use open spaces rely most heavily on available sunlight for warmth*'

Priority 2: Balance sunlight access to parks with the need to support development intensification in these areas

The City of Melbourne is experiencing significant population growth (see Figure 15). This is primarily focused within identified urban renewal areas, including Docklands, North Melbourne (Arden-Macaulay) and Carlton (City North). Development control settings in these areas support significant building heights which are already compromising sunlight access (in the case of the Docklands) or are likely to (in particular in Carlton and Arden-Macaulay area).

The intensification of these areas has been carefully considered through structure planning and is intended to provide for the establishment of mixed-use, walkable and vibrant precincts. The consideration of sunlight

access must be balanced with the need to support growth, while making sure that this growth provides for liveable outcomes and supports people's health and wellbeing, including access to winter sunlight.

The modelling demonstrates that access to winter sunlight in high growth areas is at the greatest risk and yet where sunlight is most needed. As development intensification occurs, overshadowing of existing parks increases at the same time as more people are needing to use these spaces. People living in apartments or working in high density environments generally have very limited access to private green open space. This raises a tension between supporting growth and maintaining winter sunlight access to parks.

Recent introduction of winter sunlight controls to the central city (the Hoddle grid and Southbank), however, demonstrates that supporting significant

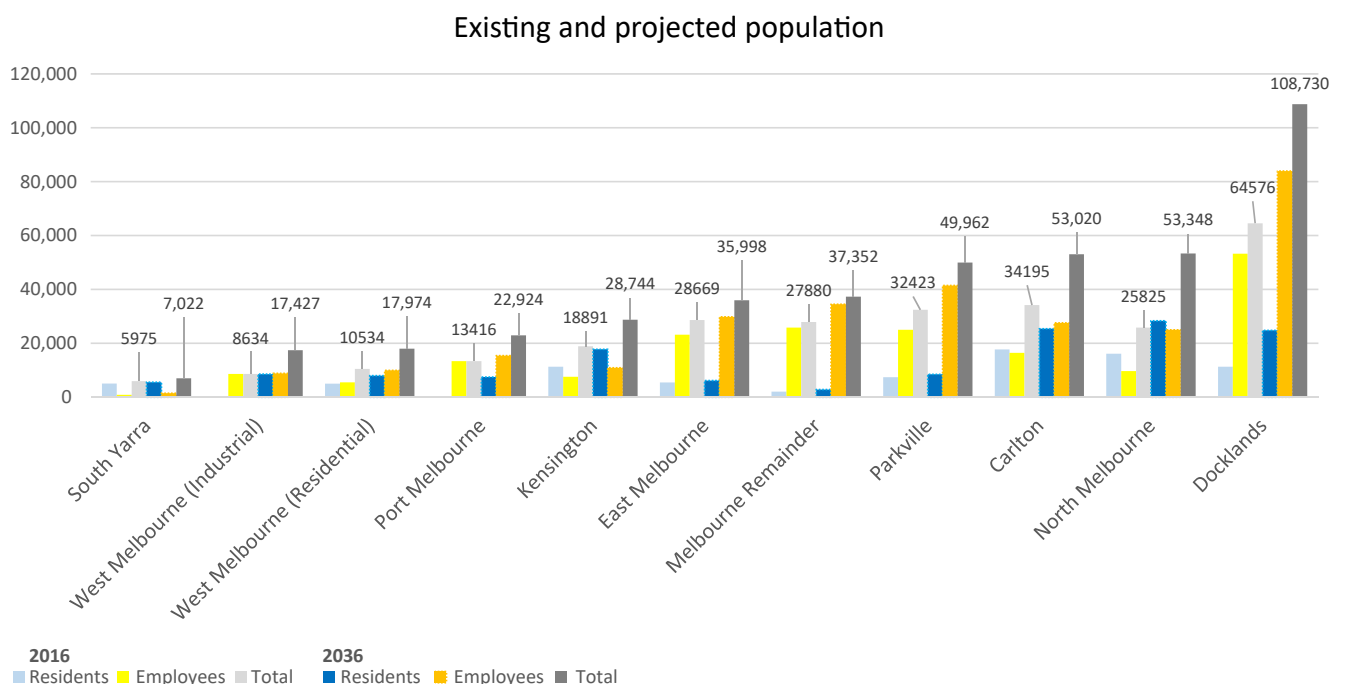


Figure 15 Existing and projected population growth

redevelopment while providing sunlight access is achievable.

Delivering new open spaces is difficult, even more so in high growth areas where land values are high. It is important that the existing spaces retain high levels of amenity to support this population growth.

Three options have been considered:

- A. Retain existing policy settings - current height limits and overshadowing controls
- B. Solar Carve tool leading to reduced height limits
- C. Balanced approach working with existing height limits and introducing winter sunlight access controls

Option A: Retain existing policy settings - current height limits and overshadowing controls

The current height limits will lead to overshadowing of 14 parks within the study area (see table 2 in section 4). This will retain the maximum development capacity identified through the structure plans for each area, however be inadequate to deliver winter sunlight access to these parks. This will diminish the overall amenity of these public spaces in growth areas where they will have the highest levels of usage.

Figure 16 demonstrates the depth of the shadow that would be cast on Lincoln Square if the sites to the immediate north of the park were developed to the building envelope defined in the current planning controls.

Option B: Solar Carve tool leading to reduced height limits

A solar carve mechanism typically applies from the park boundary to ensure that the whole park is protected from overshadowing.

Figure 16 demonstrates the impact on development capacity on the sites north of Lincoln Square if the controls were set to protect winter sunlight access to the entire park. The impact on development yield is significant.

Adopting a solar carve tool across the municipality would have a significant impact on development capacity, particularly in the Central City, Southbank and the Docklands areas.

Option C: Balanced approach working with existing height limits and introducing winter sunlight access controls

The modelling analysis demonstrates that winter overshadowing is typically a problem for buildings over four storeys.

Growth areas with nominated street wall heights

The growth areas across the municipality typically include height controls that are six storeys and higher. These typically, although not always, include street wall height controls that aim to provide a human scale of development that is in proportion to the street. This is the case for 9 of the 14 'vulnerable' parks identified in Map 9 which include:

- University Square
- Lincoln Square
- Buncliff St park / North Melbourne Recreation Centre
- Canning St and Macaulay Rd Reserve
- Clayton Reserve
- Gardiner Reserve
- North Melbourne Football Ground / North Melbourne Recreation Pool
- Bedford Street Reserve
- Courtney Street Reserve

Figure 16 demonstrates the depth of the shadow that would be cast on Lincoln Square if an overshadowing control was in place that allowed shadow to be cast by the street wall height only. Any additional storeys above the street would need to be setback to ensure that no additional shadow is created.

Figure 16 also illustrates the extent of development capacity affected by the introduction of such a control. It is confined to the properties immediately fronting the park and has a minimal impact of yield. This example shows the potential setback required on each level,

however a 'wedding cake' design as shown is not a preferred design outcome. The building should be designed to consolidate the steps in the building into one or two steps.

Additional 3d modelling illustrates that this balanced approach is appropriate (see figures 20-25), where overshadowing that is created by the existing street wall height controls is considered acceptable and the impact on development capacity is minimised to a small number of sites in the immediate proximity to a small number of parks.

A balance between maximising sunlight access to parks to support people's health and wellbeing and supporting policy objectives to intensify land use and activity in urban renewal areas leads to support for a balanced approach.

Growth areas without nominated street wall heights

There are also 5 'vulnerable' parks in growth areas (see Map 9) where adjacent sites do not have a street wall height nominated in the planning scheme. These include:

- Fitzroy Gardens
- Yarra Park
- Stawell Street Park
- Railway Place and Miller Street Park
- Ron Barassi Snr Park

Fitzroy Gardens

The modelling for Fitzroy Gardens (refer Figure 28) demonstrates that partial overshadowing occurs from two sites along Clarendon St if those sites are built up to the maximum preferred height limit. These two sites have existing buildings that are built to these height limits. This overshadowing only occurs between 10am and 11am and is kept to the perimeter of the park. This is considered acceptable in this instance.

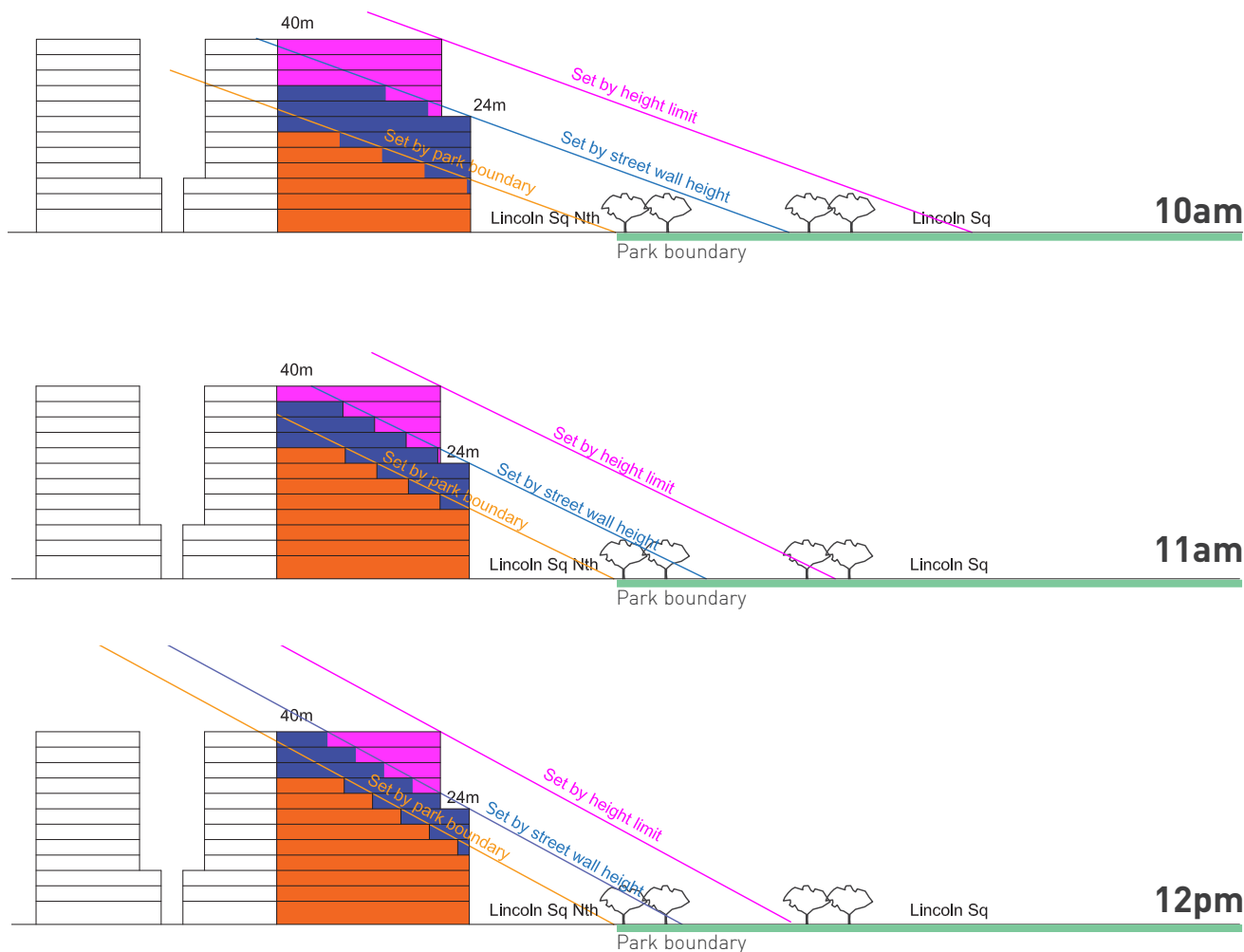


Figure 16 Impact on development capacity of different sunlight access controls in winter

Option A: Shadow cast by existing building envelope controls

Option B: Impact of development if solar curve control was applied at the northern edge of Lincoln Square

Option C: Balanced approach that shows impact on development if shadowing controls are set by the street wall height

Yarra Park

The current height controls north of Yarra Park align with protecting the park from overshadowing at the September equinox. Testing for the proposed winter controls illustrates that the current height limits will result in overshadowing of the park in winter (see Figure 17, Figure 18 and Figure 19). This is caused by two sites on the north side of Wellington Parade between Clarendon and Powlett Streets. As the modelling demonstrates, these two sites already have buildings on them that are built to the existing height limits. Applying an overshadowing control that aligns with the existing building height limits (and planning scheme height control) therefore has limited impact on existing overshadowing within the park. The overshadowing in the model assumes no side or rear setbacks therefore is likely to be less severe than what is illustrated.

Railway Place and Miller Street Park

The current height control of five storeys results in partial overshadowing of the parks in winter. This is exacerbated by the proposed 8 storey height control included in the final West Melbourne Structure Plan (adopted 6th February 2018 - yet to be confirmed through a planning scheme amendment).

There is only one key site, however, which causes the greatest overshadowing impact. This site is already developed as an apartment complex therefore is unlikely to redevelop. This means that this park is already relatively protected from overshadowing in winter. This is demonstrated in Figure 21, Figure 22 and Figure 23).

Stawell Street Park

The Stawell Street Park is a small park that is oriented in an east-west direction. This orientation is most vulnerable to overshadowing. The current 5 storey height control will result in overshadowing of this park. This is exacerbated further by the proposed increase to 8 storeys (see Figure 21, Figure 22 and Figure 23). Importantly, however, the proposed 8 storey control is coupled with a 5:1 plot ratio control. The site immediately to the north of the park has three street frontages and is therefore likely to be designed with 100% site coverage. This means that a 5 storey building is the most likely outcome on this site. While this results in overshadowing on Stawell Street Park, it limits this overshadowing to the current levels of potential impact. This site is effectively an anomaly to the overarching approach in this study.

Figure 17 Yarra Park - Existing shadow and potential overshadowing caused by current height controls [11am, September 22]



Figure 18 Yarra Park - Existing shadow and potential overshadowing caused by current height controls [2pm, September 22]



Figure 19 Yarra Park - Existing shadow and potential overshadowing caused by current height controls (10am, June 21)



Figure 20 Yarra Park - Existing shadow and potential overshadowing caused by current height controls (3pm, June 21)



Figure 21 Railway and Miller Street Park / Stawell Street Park - Existing conditions and overshadowing impact from 5 storey height control shown in yellow at 10am (left), midday (centre) and 3pm (right) for the June 21

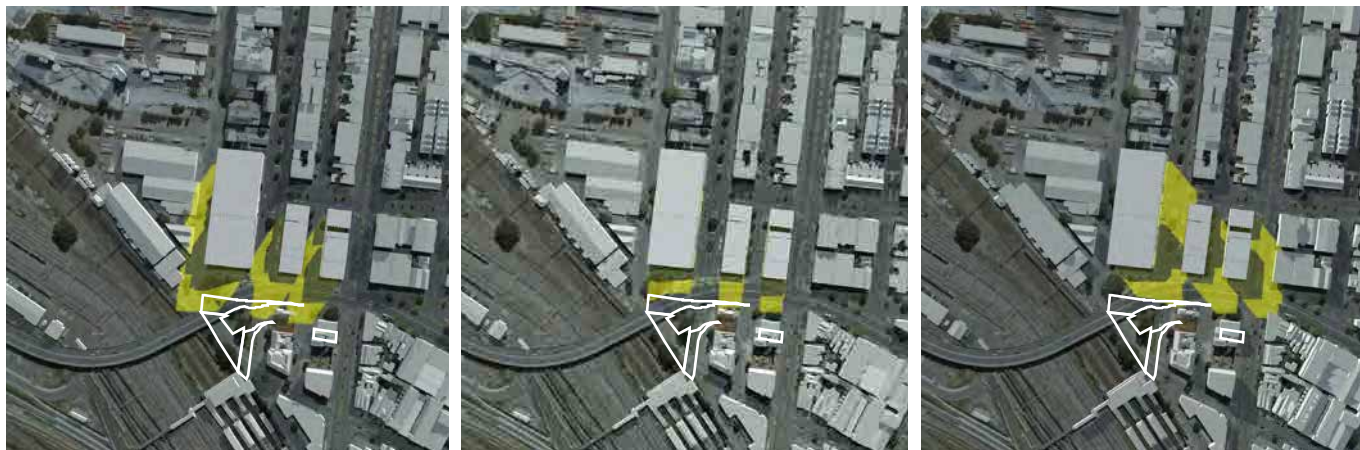


Figure 22 Railway and Miller Street Park / Stawell Street Park - Existing conditions, overshadowing impact from 5 storey height control shown in yellow. The potential additional shadow impact at 3-5 Anderson Street (existing apartment building) has been removed - 10am (left), midday (centre) and 3pm (right) for the June 21

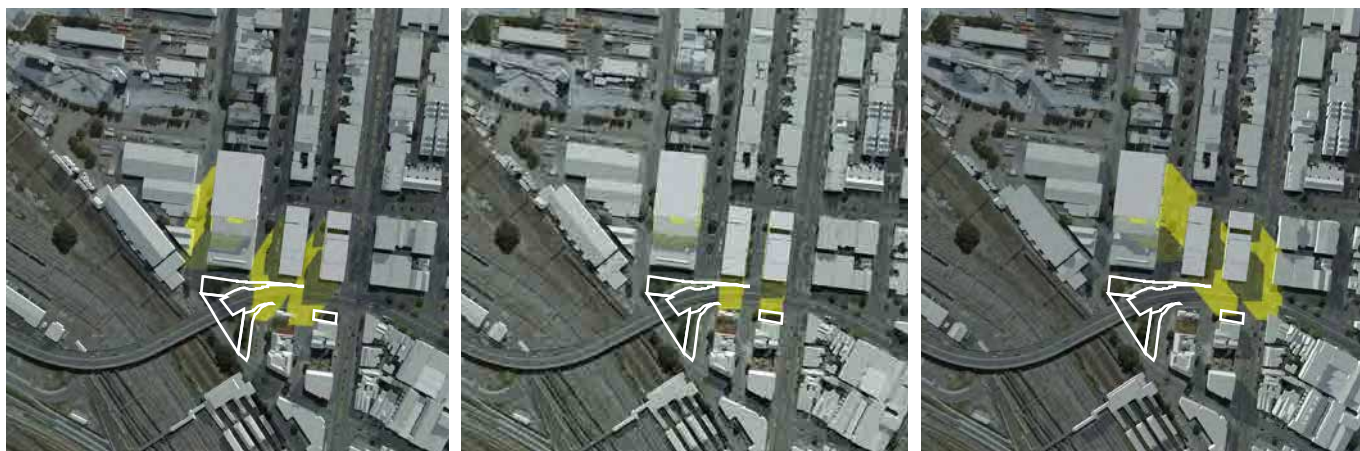
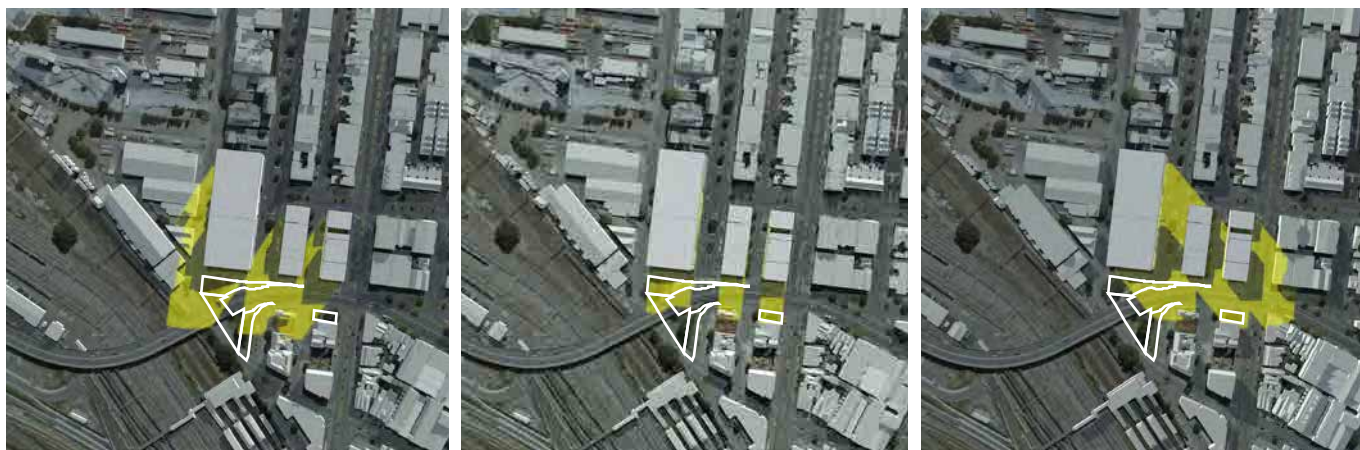


Figure 23 Railway and Miller Street Park / Stawell Street Park - Existing conditions and overshadowing impact from proposed 8 storey height control shown in yellow at 10am (left), midday (centre) and 3pm (right) for the June 21



Ron Barassi Snr Park

This large park is located on the southern side of a large site within the Docklands. This site has a current height control of 45 metres. This would significantly overshadow the park in winter (see Figure 24) which is considered unacceptable. This would significantly reduce the amenity of the park.

Considering the fact that the park is located immediately to the south of the potential development site, some overshadowing is going to occur. A balanced approach is required which limits this overshadowing impact, allows development to occur and balances other urban design objectives.

A three storey street wall height will cast a 40 metre long shadow into the park (measured from the southern boundary of the private land). While this still results in significant overshadowing it enables development to occur on the site boundary that can provide an appropriate and positive urban edge to the park. The development site is large and taller elements will be possible further to the north of the site. This must not increase the potential overshadowing beyond the 40 metres (see Figure 25).

Figure 24 Ron Barassi Snr Park - impact of existing height controls which allow a building 45 metres high

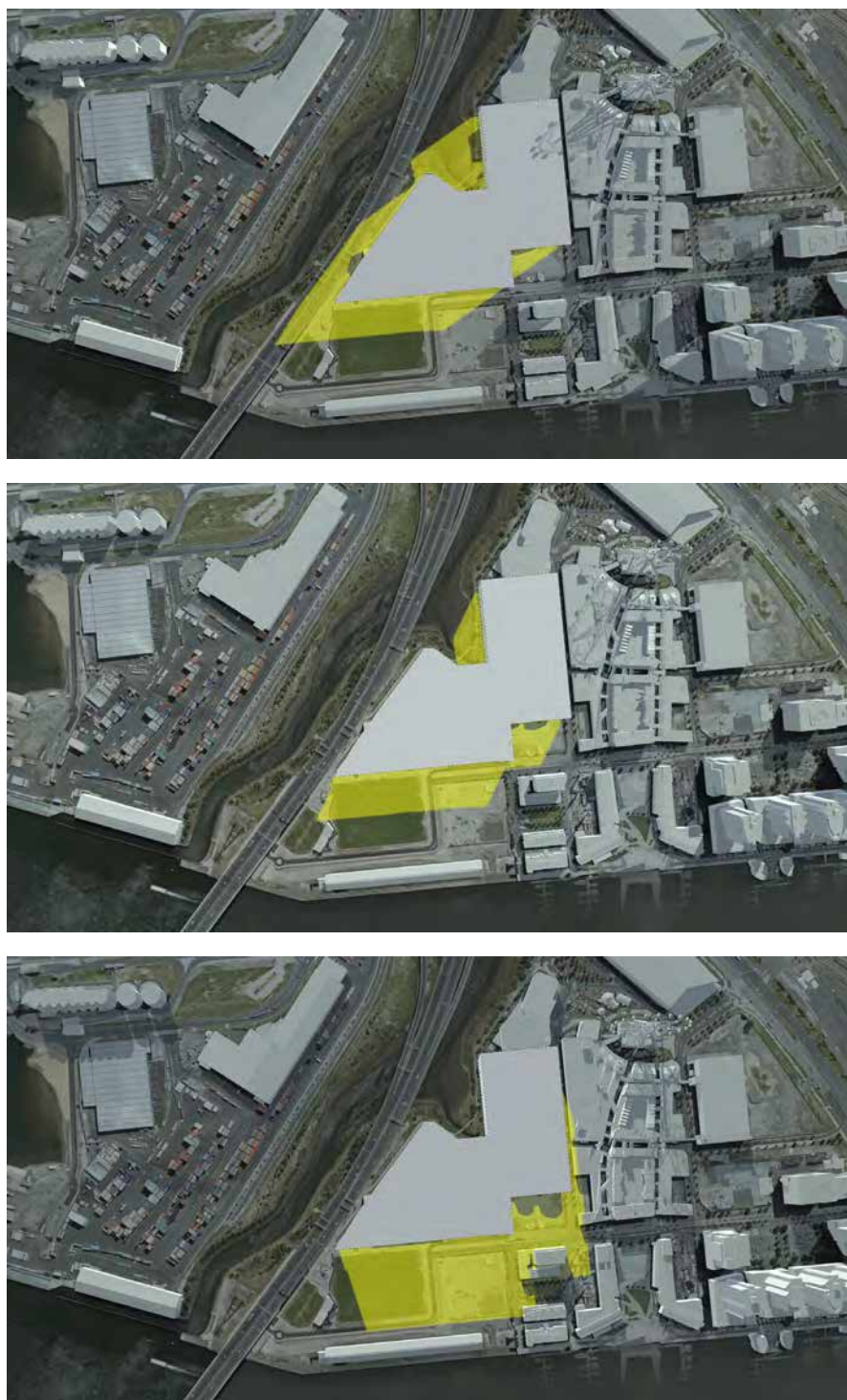


Figure 25 Ron Barassi Snr Park - Degree of overshadowing if a maximum of 40 metres (measured from the southern boundary of the site to the north) is allowed. This depth of shadow only occurs at 3pm.



Further 3d Testing

The following testing illustrates the cumulative effect of overshadowing of the proposed balanced approach. The parks include a range of locations across the municipality incorporating different height limits, park size and park orientation.

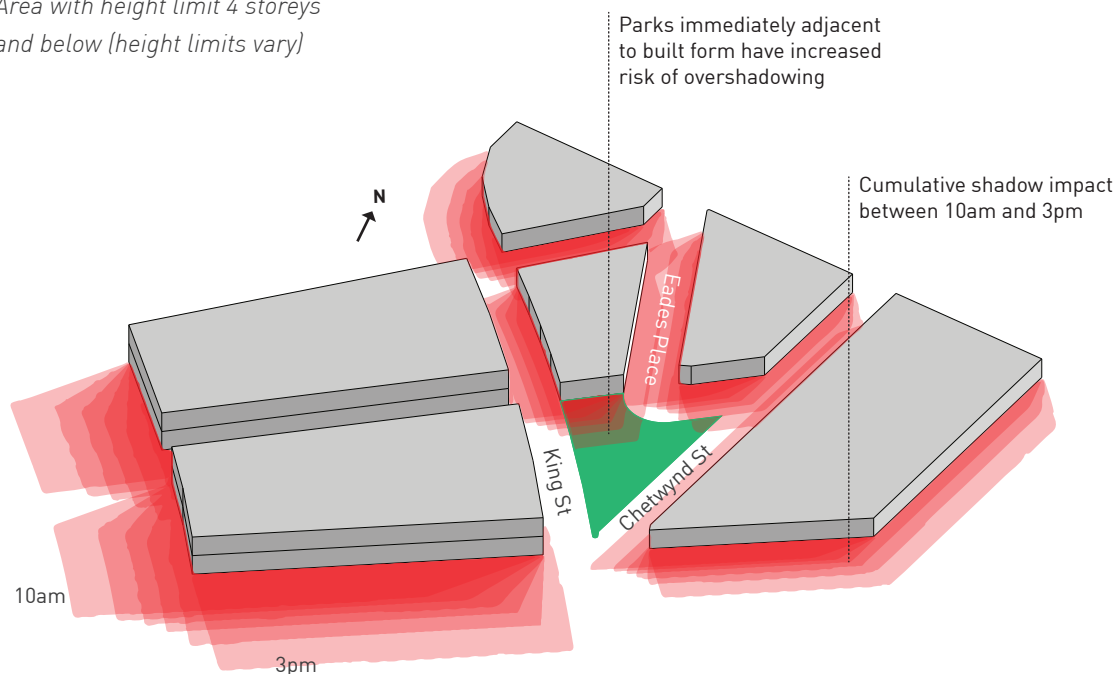
In each case the existing height limits are modelled and the cumulative overshadowing impact between 10am and 3pm is illustrated.

If the existing height limits significantly compromise winter sunlight access, option 3 (overshadowing limited to the impact of the street wall) has been tested.

Eades Park

Existing controls

Area with height limit 4 storeys and below (height limits vary)

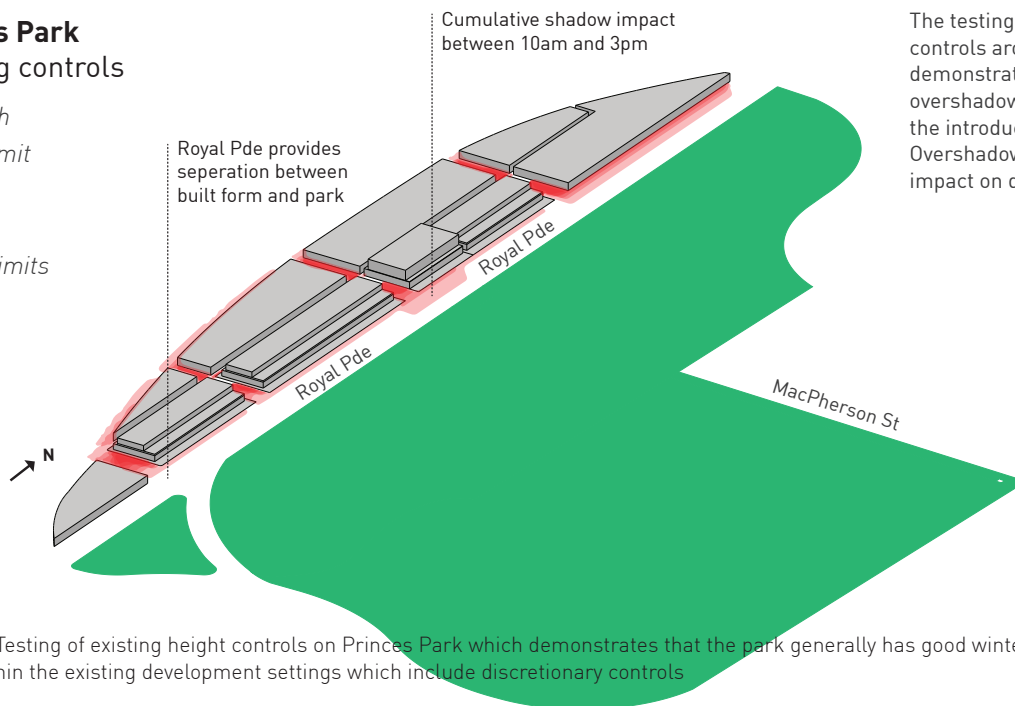


Eades park is located immediately on a property boundary.

Figure 26 Testing of existing height controls on Eades Park which demonstrates that the park is partially overshadowed by the existing development settings which include mandatory controls

Princes Park Existing controls

Area with
height limit
above 4
storeys
(height limits
vary)

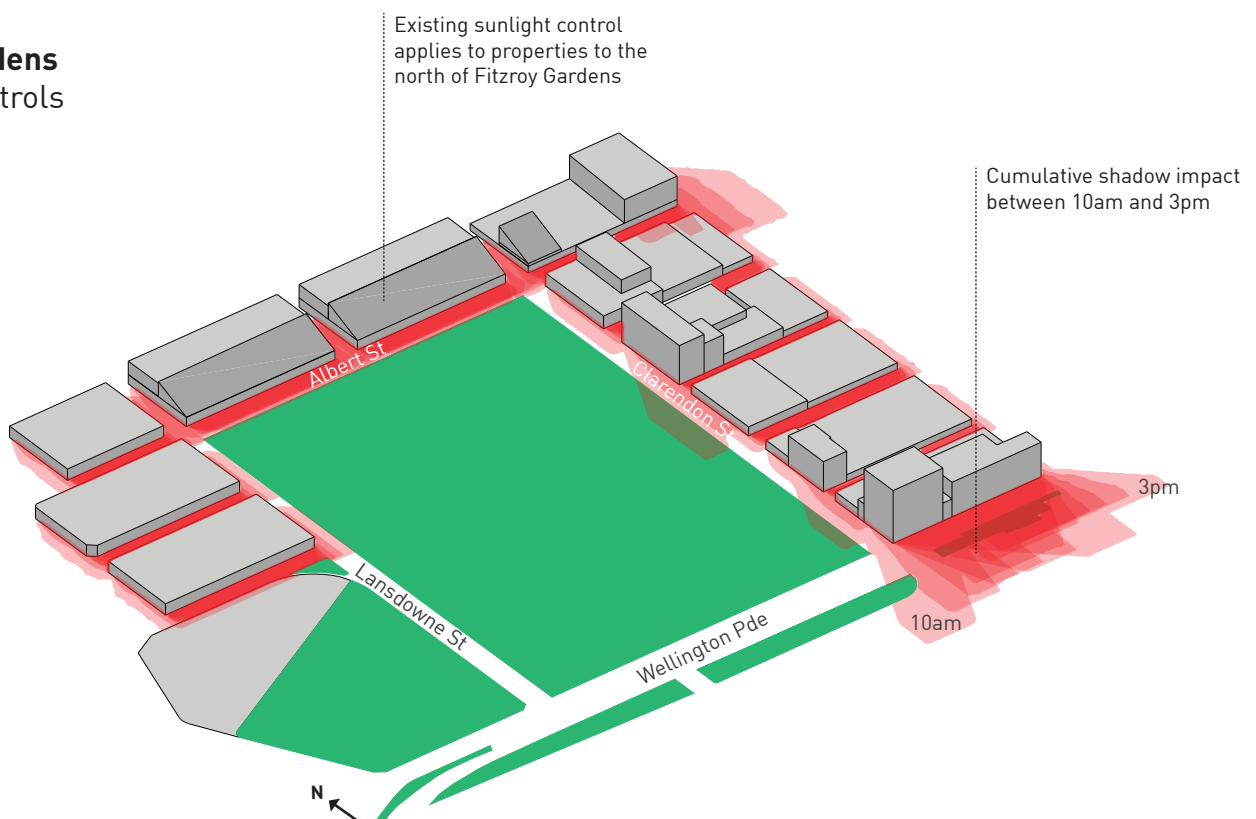


The testing of the height controls around Princess Park demonstrates that there is no overshadowing impact. Therefore the introduction of a No Additional Overshadowing control will have no impact on development capacity.

Figure 27 Testing of existing height controls on Princes Park which demonstrates that the park generally has good winter sunlight access within the existing development settings which include discretionary controls

Fitzroy Gardens Existing controls

Area with
height limit
above 4 storeys
(height limits
vary)



The testing of the height controls around Fitzroy Gardens demonstrates that there is a partial overshadowing impact. The introduction of a No Additional Overshadowing control will affect two development sites only, however these are both multi-storey apartment buildings which are unlikely to redevelop.

Figure 28 Testing of Fitzroy Gardens which demonstrates that if the existing discretionary controls are adhered to, the park is well protected for winter sunlight access

Gardiner Reserve Existing controls

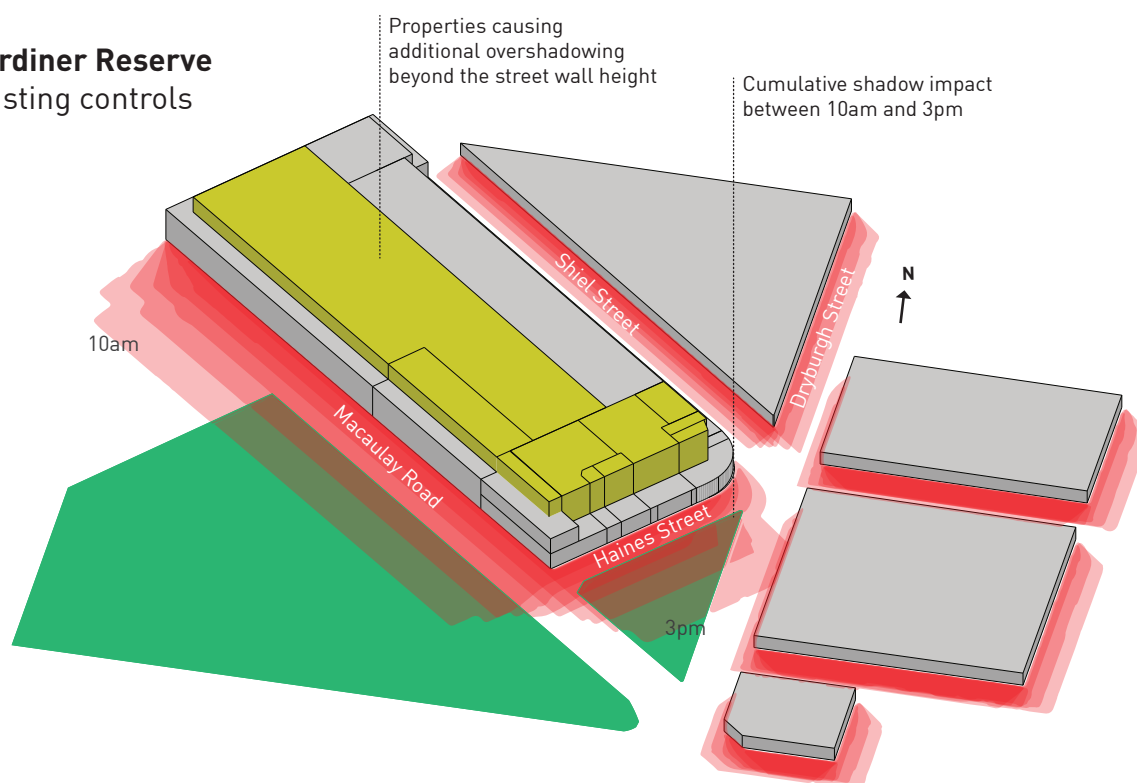


Figure 29 Testing of existing height controls on Gardiner Reserve which demonstrates that the proposed controls included within C190 do not provide good sunlight access to the park in winter

Gardiner Reserve Proposed controls

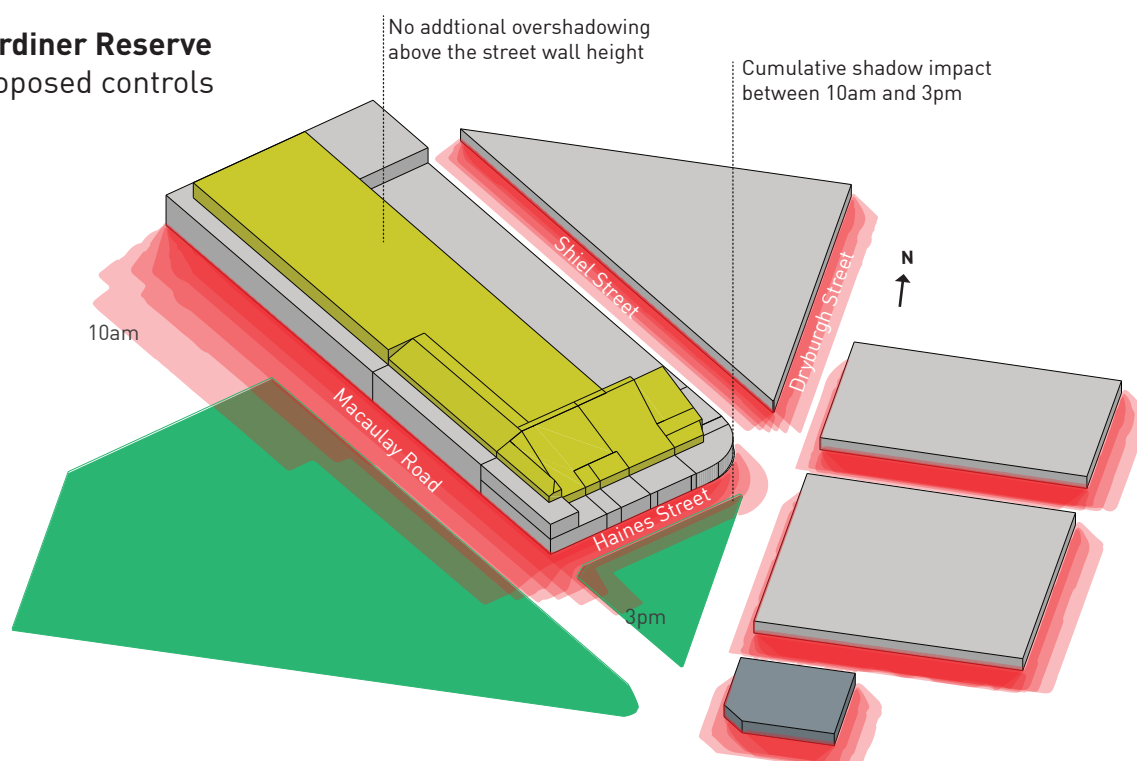


Figure 30 Testing of impact on development capacity around Gardiner Reserve and North Melbourne Recreation Pool with development set back above the street wall to limit overshadowing. This has a significant impact on all sites along Haines Street and Macaulay Road (shown in yellow) however achieves a substantial improvement in winter sunlight access

Lincoln Square Existing controls

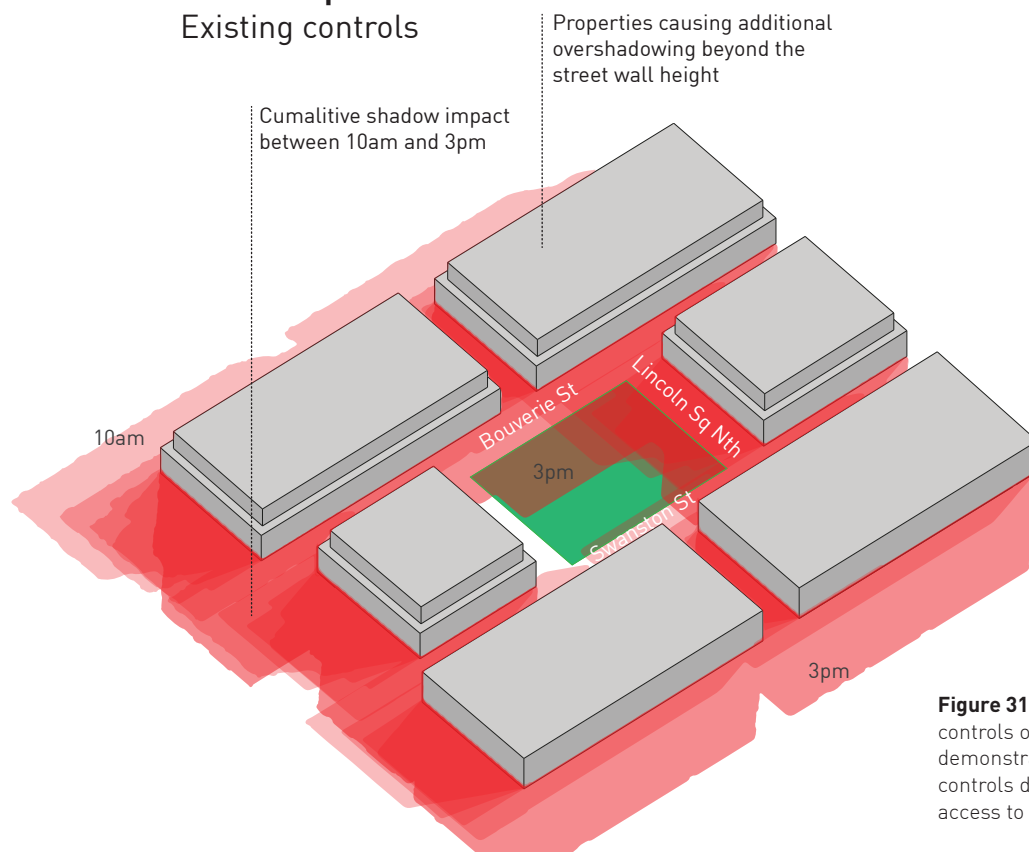


Figure 31 Testing of existing height controls on Lincoln Square which demonstrates that the existing height controls do not provide good sunlight access to the park in winter

Lincoln Square Proposed controls

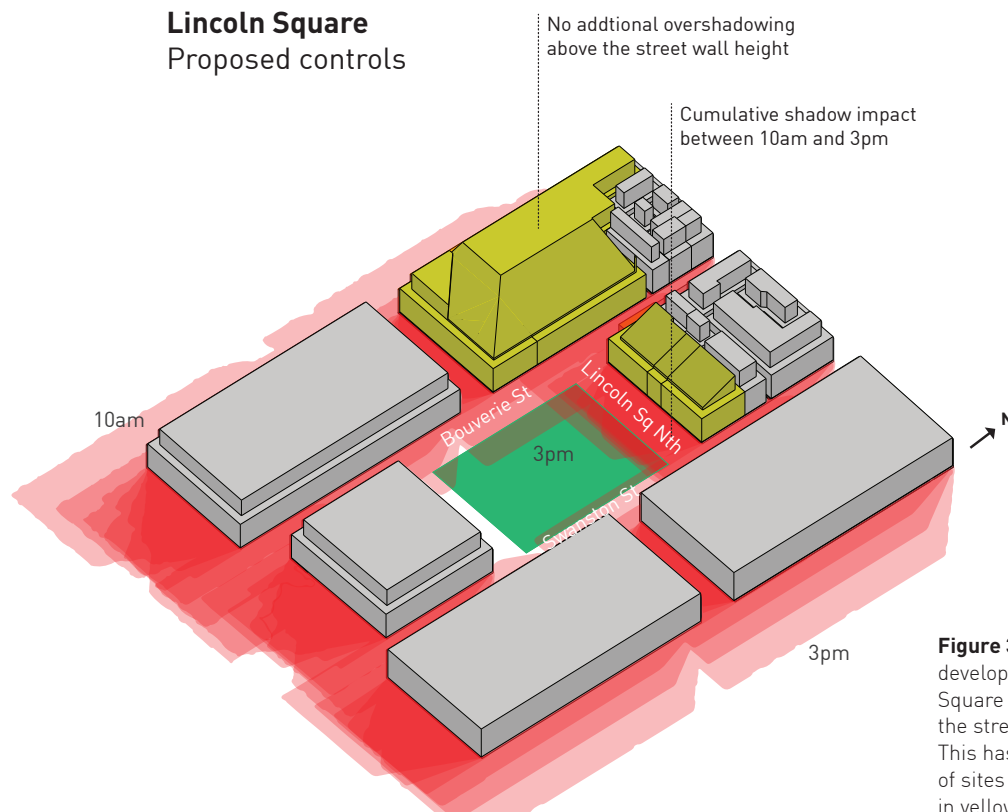


Figure 32 Testing of impact on development capacity around Lincoln Square with development set back above the street wall to limit overshadowing. This has an impact on a limited number of sites adjacent to the park (shown in yellow) and achieves a substantial improvement in winter sunlight access

North Melbourne Community Centre Existing controls

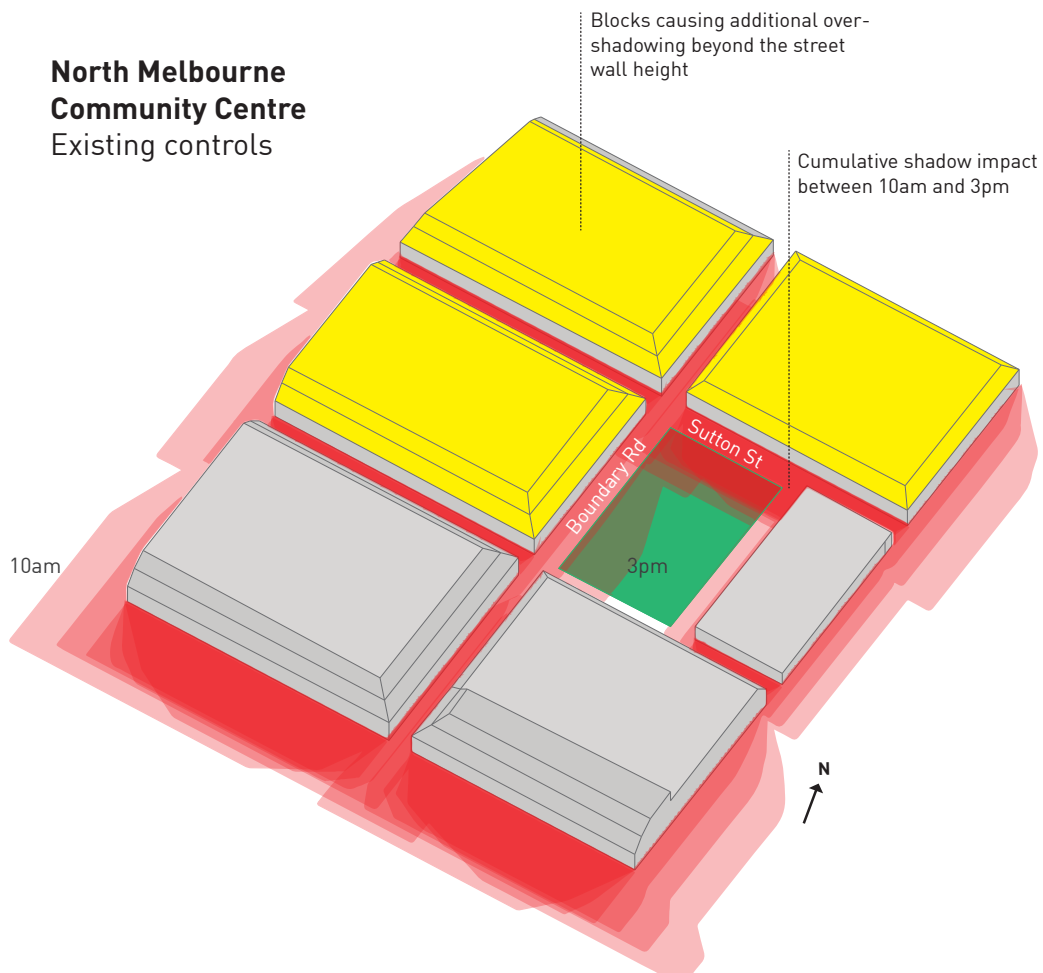


Figure 33 Testing of existing height controls on North Melbourne Community Centre which demonstrates that the existing height controls do not provide good sunlight access to the park in winter

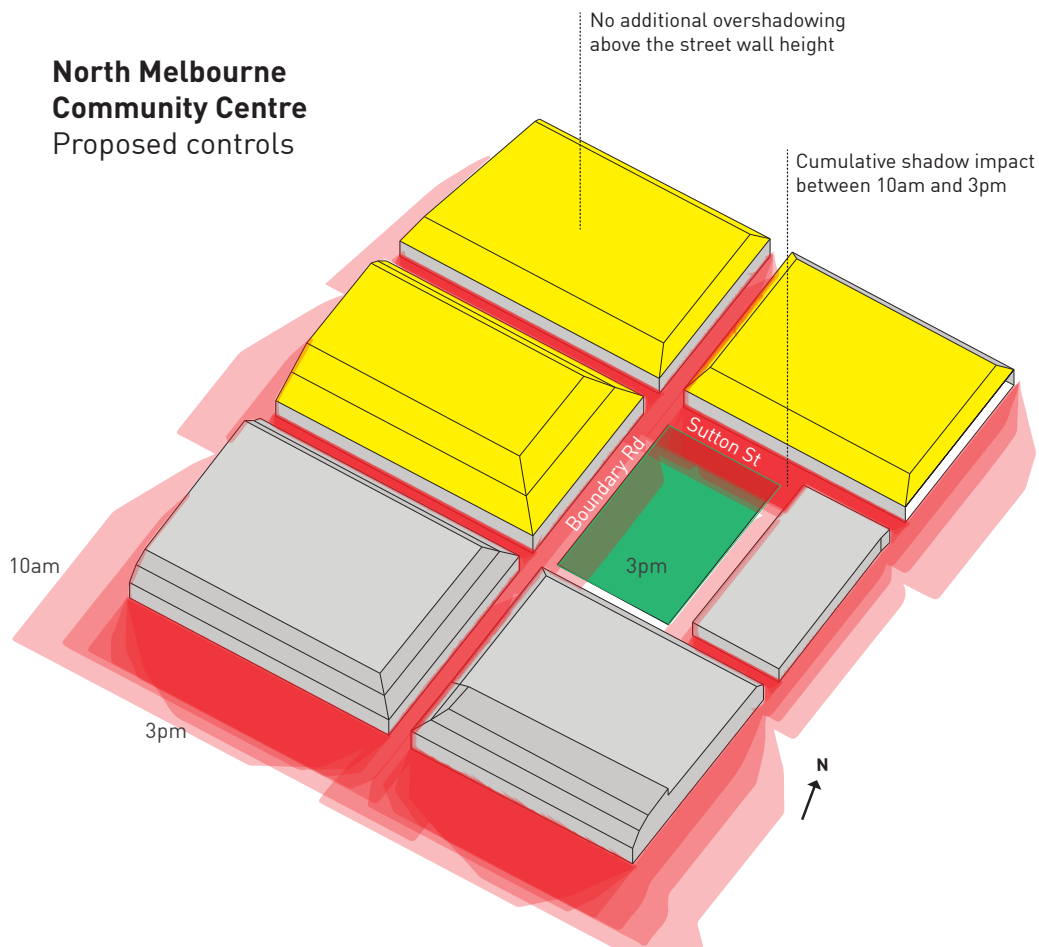


Figure 34 Testing of impact on development capacity around North Melbourne Community Centre with development set back above the street wall to limit overshadowing. This has a moderate impact on a limited number of sites (shown in yellow) and achieves a substantial improvement in winter sunlight access

Existing policy position

Current sunlight access protection is based around a tiered approach that nominates a hierarchy of spaces with graded levels of protection. This is generally related to the size of the park and is unrelated to the scale of development adjacent to the park.

Proposed policy position

Introduce sunlight protection policy that is directly related to the scale of development that has been considered appropriate for the area. This enables a tailored approach that can balance sunlight access with support for development intensification.

A mandatory No Additional Overshadowing control in winter is proposed. This can be moderated in the following circumstances only:

- Exemption 1: For parks immediately abutting areas with height limits over 4 storeys, limit any additional overshadowing to that cast by the planning scheme street wall height or the overall height limit of adjacent sites (whichever is lower).
- Exemption 2: Ron Barassi Snr Park - Limit additional overshadowing to within 40 metres offset from the southern boundary of the property line abutting the northern edge of the park

Minimise assessment requirements within low-scale areas by not requiring a shadowing impact assessment for buildings 9 metres or lower in height.

This response is focused on working with the existing policy objectives for development intensification. It tempers development capacity only in the immediate vicinity of the 9 identified parks where the overshadowing is limited to the street wall height and in Ron Barassi Snr Park.

What do they do in other cities?

Relationship between sunlight access controls and development intensification

The City of Sydney's sunlight access controls acknowledge the proximity of high density development in the immediate parks through the application of No Additional Overshadowing controls that allow shadows to be cast by the street wall of a building up to a defined height. This is a practical response and allows limited overshadowing of parks within defined circumstances.

Priority 3: Maximise opportunities for people to access sunlight through the day for a variety of uses

An analysis of existing park usage data demonstrates that people choose to use parks in a variety of ways throughout the day. The importance of sunlight to these activities will vary between activities and between different people undertaking the same activity as a result of personal comfort preferences.

The highest levels of park usage were recorded between 10am and 6pm. Usage varied between the weekday and weekend and related to the design of the park and the types of facilities within the park.

Providing sunlight access between 10am and 6pm, however, is not realistic and would have a significant impact on development opportunities across the municipality. An analysis of shadow direction and length in winter demonstrates that there is a significant increase in overshadowing before 10am and after 3pm when the sun is much lower in the sky. While peak usage spans from 10am to 6pm, the proposed sunlight access controls are between 10am and 3pm to address this need for a balanced approach (see Figure 5). Due to the orientation of the city grid, parks east of St Kilda Road should be protected up until 2pm when the shadows of buildings within Southbank would begin to impact the park.

Existing policy position

Sunlight access is generally protected between 11am and 2pm at the equinox.

Proposed policy position

- Maximise the opportunity for people to access and enjoy sunlight in parks by increasing sunlight protection hours from 10am - 3pm in winter.
- Parks east of St Kilda Road are an exception where sunlight protection should be provided between 10am and 2pm.

What do they do in other cities?

Time of day

The time of day varies across the cities with specific locations frequently identified with specific time periods where sunlight access should or must be maintained. In the City of Sydney the times vary but in certain locations are protected as early as 10am and as late as 5pm. Shadow assessments in New York consider shadows occurring between 1.5 hours after sunrise and 1.5 hours before sunset'.

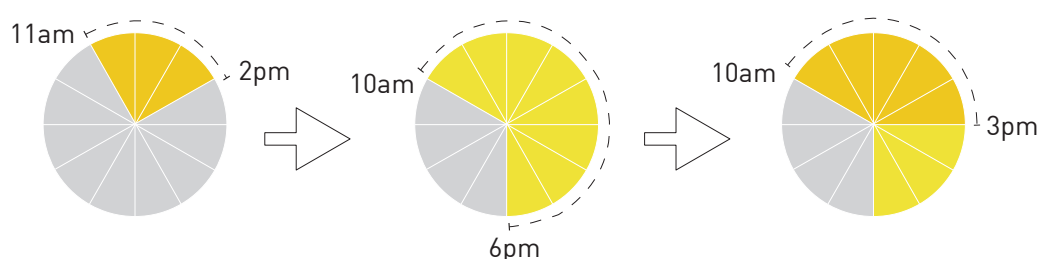


Figure 35 Hours of existing sunlight protection are 11am to 2pm (far left); peak periods of park usage space from 10am to 6pm (centre); taking into account the potential impacts on development capacity, a balanced approach which provides winter sunlight access between 10am and 3pm is proposed.

Priority 4: Update the Melbourne Planning Scheme to establish a simple, easy to use policy that removes current inconsistencies and deficiencies

A number of issues have been identified with the current approach which fragments sunlight access policy controls across the Melbourne Planning Scheme (see figure 6). These are:

- Inconsistent policy approach across the municipality
- The controls have been developed on an incremental basis and are not supported by the evidence of what people need or want
- The method of applying a discrete sunlight access protection control to a bounded area (as defined within a Design and Development Overlay) means that a building can be approved and constructed outside of this area that overshadows a park within the area (as the DDO requirements for overshadowing would not apply). This undermines the intention and effectiveness of existing sunlight access controls.

The current approach to sunlight access across the city varies and is not based on a clear rationale for why higher levels of access should be provided for certain users or spaces.

This, together with the lack of substantial controls for Tier 3 parks, is eroding the importance of sunlight access to parks across the city. A clear overarching policy that outlines the importance of winter sunlight access is needed to set a clear agenda for the whole municipality.

The current practice of including specific sunlight access controls within DDOs can be too easily compromised if a development is proposed outside of that DDO area but which may overshadow a nominated park within the DDO area. This has already occurred

in the central city where developments that aren't triggered by DDO10 are overshadowing parks that are protected only within the DDO10 control. There is a need to ensure that any development that can overshadow a park is considered, therefore the inclusion of sunlight access controls in a series of separate DDOs is not recommended.

Existing policy position

Protection for sunlight access to parks is distributed across a range of policies, zones and overlays.

Proposed policy position

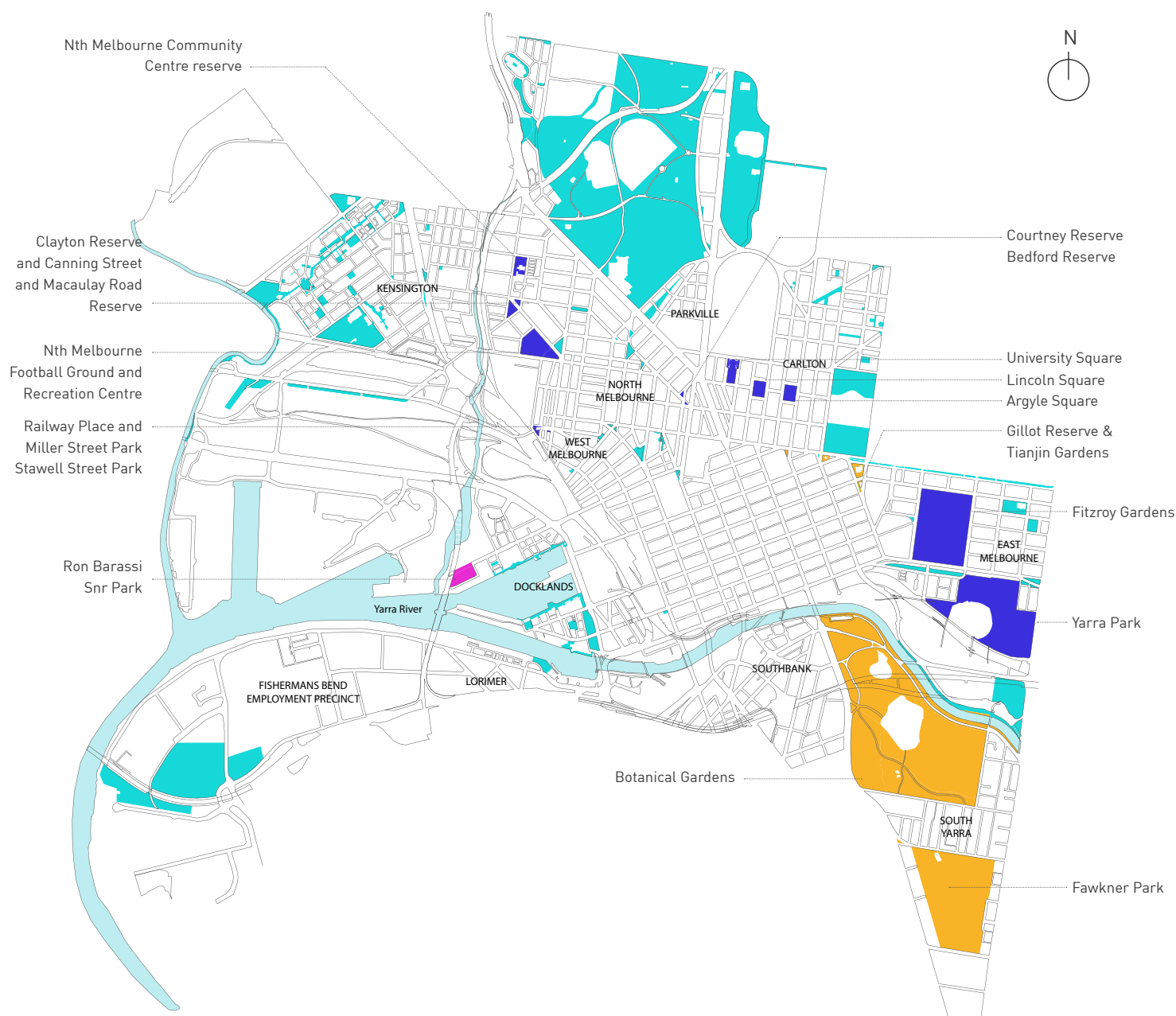
- Introduce a simplified, coherent, defensible and effective sunlight to open space policy that is implemented via an overarching policy and one Design Development Overlay that applies to the whole municipality as per Map 13.

What do they do in other cities?

Certainty of Sun Access Plane and No Additional Overshadowing Controls

Most cities provide a high degree of certainty that parks will not be overshadowed. The strongest controls are Sun Access Planes (SAP) and No Additional Overshadowing controls in central Sydney which provide prescriptive guidance on potential building envelopes. These cannot be varied. Other cities include performances-based controls, however generally provide clear guidance on when and how these can be met.

Proposed sunlight access controls for all parks



Any building 9 metres or below across the municipality is not subject to an overshadowing assessment

Buildings taller than 9 metres will be assessed against the following controls for each park (as identified in the map above):

- Standard condition: No additional overshadowing between 10am - 3pm on June 21
- Exemption 1: Reduced time period - no additional overshadowing between 10am-2pm on June 21
- Exemption 2: Partial overshadowing allowed for shadows cast by planning scheme height control or street wall height control (whichever is lower) between 10-3pm on June 21
- Exemption 3: Rob Barassi Snr Park - Partial overshadowing allows shadow to 40 metres within the park (measured from northern property boundary) between 10-3pm on June 21

Map 13 Proposed sunlight access controls for all existing parks in the municipality

The following priority has been identified to highlight the need to consider sunlight access to all parks within the municipality over the longer term.

It is not required to protect sunlight access to current parks.

Priority 5: Identify locations for new parks within the municipality

The Open Space Strategy identifies the need for a number of new parks across the municipality.

The largest of these parks are located with growth areas, including existing areas where the current height limit controls are likely to lead to overshadowing of the parks in the winter months.

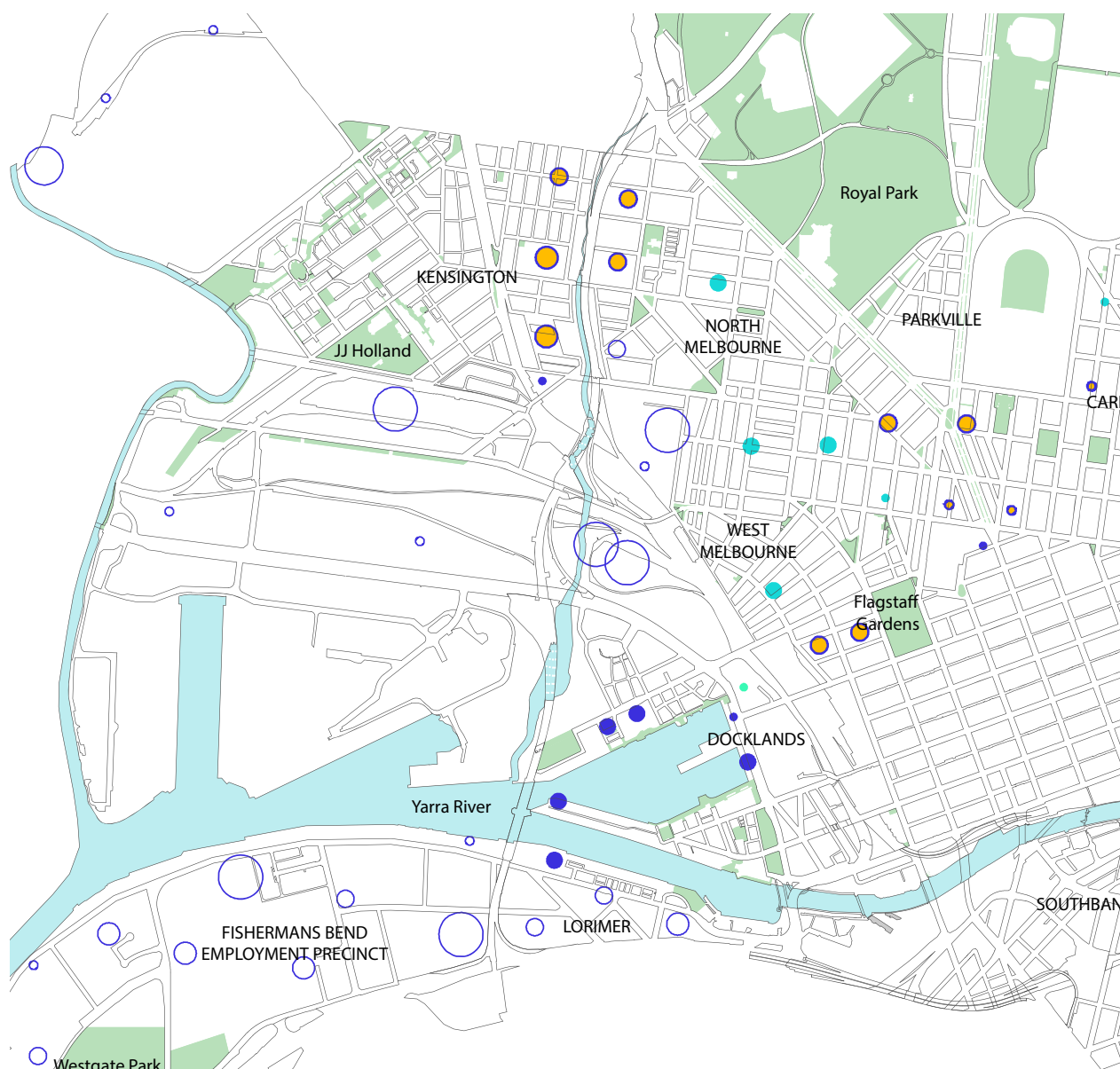
There are 12 parks that are located within urban renewal areas that are in areas where the height limits may compromise sunlight access (see Map 14). This should be investigated and potential locations identified to provide guidance for necessary sunlight access protection otherwise the opportunity to protect winter sunlight access to these parks which are predominantly within high growth areas will be lost.

This needs to focus on providing some certainty so that it can meaningfully influence future development proposals that may overshadow these potential park locations.

Method of drafting policy controls for existing parks

At present, any new park automatically becomes a tier 3 park as it is not mentioned specifically within the planning scheme.

The revised policy controls should be drafted to ensure that sunlight protection for any new public open space is automatically provided based on the context (existing height limits) around that park without the need for a planning scheme amendment.



Map 14 Future park locations according to the Open Space Strategy, 2012 and potential sunlight access protection

No additional overshadowing in winter controls to apply to all future parks

- Blue circle: High growth areas: 10-3pm (determined by street wall height control or discretionary height control whichever is lower)
- Teal circle: 10-3pm determined by existing building height controls
- Light blue circle: Overshadowing controls part of separate state government process (10-3pm protection to be sought where possible)