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**HERITAGE IMPACT STATEMENT: CARLTON GARDENS TEN YEAR
TREE REPLACEMENT AND GARDEN BED PLAN**
VHR H1501: ROYAL EXHIBITION BUILDING AND CARLTON GARDENS (WORLD HERITAGE PLACE)



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Issue Register

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City of Melbourne	20.06.24	.docx	version 1
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1. Introduction

This Heritage Impact Statement has been prepared on behalf of the City of Melbourne to support the Heritage Victoria permit application for the 10 year Tree Replacement and Garden Bed Plan for Carlton Gardens. This plan has been prepared in response to the Carlton Gardens Master Plan (City of Melbourne 2022), and the recently updated World Heritage Management Plan by Lovell Chen and is a conservation project. These works are summarised as follows:

- Replacement of the failing Poplar Avenue in Carlton Gardens South (Avenue 6) with *Brachychiton discolor*
- Replacement of the failing Poplar Avenue in Carlton Gardens North (Avenue 9) with *Eucalyptus cinerea* ssp. *cinerea* near the play space (south branch of avenue), and *Flindersia australis* on the north branch of the avenue
- Infill avenue planting for other avenues (within strict parameters)
- Planting of the next generation of specimen tree planting in Carlton Gardens South and Carlton Gardens North, including additional shade trees near the playground
- The reconstruction of new garden beds to Carlton Gardens South in line with the site's heritage value
- Ongoing maintenance and care required to prolong the life of over-mature trees while managing the site safely

In addition to the above works, the plan also provides management guidance for trees across the site, including replacement guidance in the event of unexpected tree losses (e.g. storm damage). This is covered in detail in the accompanying supporting document, *Carlton Gardens Tree Replacement Strategy and Garden Bed Plan 2024 – 2034* (andrea proctor landscapes, 2024). Works will be rolled out slowly over a 10 year period, with a permit being sought for this entire term.

Royal Exhibition Building and Carlton Gardens are one of the most significant post-contact sites in Australia and are World Heritage listed for their role in in the international exhibitions of 1880 and 1888.ⁱ While much of the inscribed Assessment of Significance focuses on the building and the influence of the exhibition movement, the gardens are considered to be “*an integral part of the overall site design and also characteristic of exhibition buildings of this period.*”ⁱⁱ

It is important to note that the World Heritage Registration covers land under the management of two separate bodies – the City of Melbourne being responsible for Carlton Gardens North and Carlton Gardens South and Museums Victoria being responsible for the Royal Exhibition Building, Museum, and surrounding landscaping (see Figure 1). **This application and associated documentation only relate to the land managed by the City of Melbourne (i.e. Carlton Gardens).**

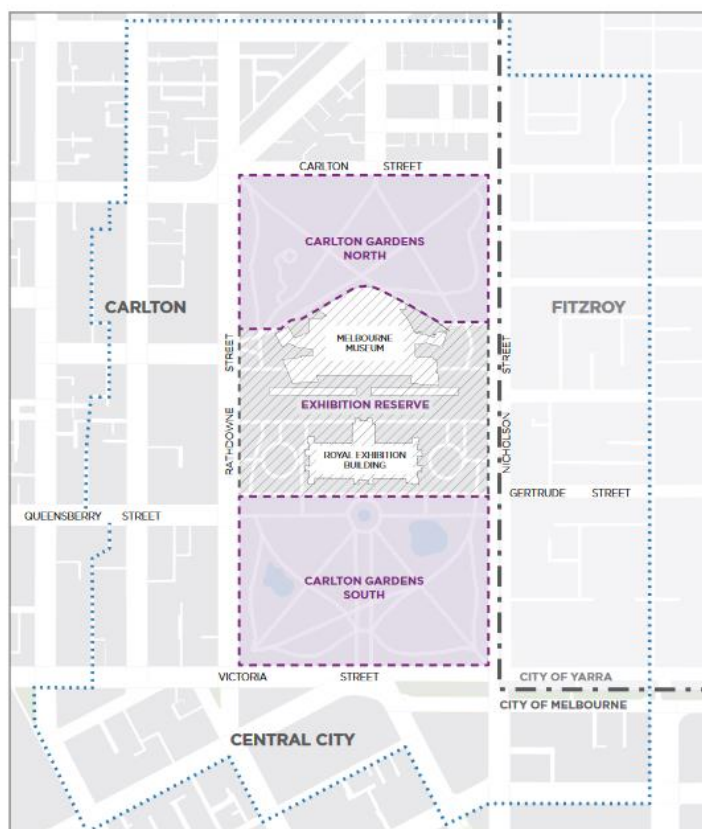
Even without this wider interest, the buildings and gardens are significant at a National level, as the site of the first Federal Australian parliament in 1901, and at a State level as one of Melbourne's ring of historic 19th century gardens and the seat of the Victorian parliament from 1901 to 1927.ⁱⁱⁱ Architecturally, historically and botanically the Carlton Gardens are a fine example of 19th century landscape planning, and are perhaps unique in Australia as the only major city public gardens with a classically derived design.

Central to the aesthetic, botanic and even social value of the Carlton Gardens is its garden setting and tree canopy.^{iv} Like many 19th century gardens, Carlton Gardens are experiencing maintenance and management

complexities that come from having a single age canopy (“...approximately 10 per cent of the total existing tree population is likely to need replacing within the next 10 years.”),¹ difficulties with finding suitable sites for replanting, and a changing macro and microclimate. Once popular species are now no longer suitable, and trees that continue to thrive provide challenges to establishing new garden beds and planting the next generation of trees.

The works proposed in the application address these complexities. Proposals were developed in consultation with the City of Melbourne and were guided by the findings of the two above listed documents, which included broader community and stakeholder consultation. In preparation for this permit application a public presentation of the proposals was undertaken at the Melbourne Museum on 27th August 2024, including an online live stream presentation.

The HIS has been prepared following a pre-application meeting with Jessica Hood and Jessica Antolino of Heritage Victoria on January 31st, 2024 with Heritage Victoria providing a formal written response dated 22/03/24 (P37967). The report which informs these works was also developed in consultation with Heritage Victoria.



Key
- - - - Carlton Gardens Master Plan Area
- - - - Exhibition Reserve Master Plan Area
..... World Heritage Environs Area Buffer Zone (as of 2023)

North

¹ City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan, p 19

Figure 1: Extract from the Carlton Gardens Master Plan 2022 showing the distribution of site management. The Master Plan area corresponds to that managed by City of Melbourne

2. Legislation

Address:	Carlton Gardens, 1-111 Carlton St, Melbourne
VHR Number:	H1501 - Royal Exhibition Building and Carlton Gardens (World Heritage Place)
Alternative Name:	Carlton Gardens
Supporting the Permit application for:	Ongoing tree replacement and planting works to support the aging canopy and reconstruction of garden beds
Date:	June 2024
Prepared by:	Andrea Proctor (PGDipLArch 2008, BHort 2004, <i>University of Melbourne</i>) and Tessa Kum (AssocDegEnvHort 2020, <i>University of Melbourne</i>) andrea proctor landscapes 235 Queens Road Wandin North, 3139 admin@andreaproctor.com.au m: 0411 03 7886
On behalf of:	City of Melbourne
National Heritage:	105143
World Heritage:	1131bis

Adjacent Sites of Significance:

The following sites of significance face the gardens, none of which will be adversely impacted by the proposed works. As all proposed works are conservation based they will strengthen the heritage values of the precinct:

- Carlton Gardens Primary School H1624
- Sacred Heart Catholic Church H0016
- Former Presbyterian Manse H0017
- Royal Society of Victoria H0373
- Royal Australian College of Surgeons H0870
- Osborne House H1607
- Former Cable Tram Engine House H0584
- Royal Terrace H0172
- Convent of Mercy and Academy of Mary Immaculate H0507
- Cairo Flats H1005
- Residence H0539

The Melbourne Museum also holds a number of individually registered objects.

Additional legislation:

The following table summarises the relevant heritage legislation and controls and has been reproduced from the Royal Exhibition Building and Carlton Gardens Heritage Management Plan Volume 1 (page 5 and 6)

Table 1 REB and Carlton Gardens heritage controls

Significance level and jurisdiction	Relevant convention/legislation	Listing status
World (UNESCO)	World Heritage Convention	World Heritage List
National (Australian Government)	<i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and Regulations 2000</i>	National Heritage List
State (Victorian Government)	<i>Heritage Act 2017</i>	Victorian Heritage Register
Local (City of Melbourne)	<i>Planning and Environment Act 1987 (Melbourne Planning Scheme)</i>	Heritage Overlay
Aboriginal cultural heritage	<i>Aboriginal Heritage Act 2006</i>	Victorian Aboriginal Heritage Register: Exhibition Gardens Meeting Place registered as an Aboriginal Historical Place; various VAHR-registered remains and object collections are housed at Melbourne Museum Aboriginal cultural heritage values and aspirations for the site have been recognised more broadly in the <i>Cultural Values Report</i>

Both the EPBC Act and the *Heritage Act* set out particular requirements for the management of World Heritage in Australia, in addition to the requirements for national and state-listed places.

In 2021, Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation was formally recognised as the Registered Aboriginal Party (RAP) within an area that includes the Royal Exhibition Building and Carlton Gardens. Under the Aboriginal Heritage Act, the RAP is a deciding authority in respect to Cultural Heritage Management Plans and Cultural Heritage Permit applications and Cultural Heritage Agreements, and is empowered to provide advice on a range of other matters and to enter into Aboriginal Cultural Heritage Land Management Agreements with public land managers.

3. Existing Conditions and Use

History

The Wurundjeri Woi Wurrung people of the Eastern Kulin lived in and off the land now known as central Melbourne for thousands of years, and their connection to this land continues to this day. Carlton Gardens is situated on land that gently slopes towards the central city, which was originally part of plains of grassy woodlands before European colonisation. The foundation of Melbourne in 1835 led to a complete reorganisation of the land and the dislocation of Aboriginal people connected to the place. The original vegetation was substantially removed and the landscape form extensively modified.²

The present Carlton Gardens were set aside for public purposes and recreation by the Victorian colonial administration of Superintendent Charles J. La Trobe when the Carlton area was released for land sale in the 1850s, and permanently reserved for public gardens in 1873. A plan for Carlton Gardens was developed in the mid-1850s and partially implemented. In 1878, the land was re-acquired for use as the site of the Melbourne International Exhibitions which were held in 1880 and 1888. As part of this arrangement, Carlton Gardens South was further redesigned to form the setting for the Royal Exhibition Building – a layout that remains substantially intact today.³

The main Exhibition Hall was built in the centre of the Gardens (now renamed Exhibition Reserve) with Carlton Gardens North largely used for temporary annexes during both the 1880 International Exhibition and again during the 1888 Centennial Exhibition. After both Exhibitions, the temporary annexes were demolished and the North Gardens reinstated in a revised layout. The North Gardens retain much of the original layout from this circa 1892 reinstatement but also include subsequent 20th century developments such as the tennis courts and playgrounds. Between Carlton Gardens South and North lies Exhibition Reserve, where the Royal Exhibition Building and Melbourne Museum are located.⁴

For a full history of the area and development of the Royal Exhibition Building & Carlton Gardens, refer to the World Heritage Management Plan. A history of the plantings can be found in Section 3.1 of the accompanying *Carlton Gardens Tree Replacement Strategy and Garden Bed Plan 2024 – 2034*.

Existing Conditions

The Carlton Gardens are bound by Rathdowne Street to the west, Carlton Street to the north, Nicholson Street to the east, and Victoria Street to the south. While Carlton Gardens and Exhibition Reserve read as one contiguous site, for management purposes the site is divided into three distinct land parcels:

- the southern section – Carlton Gardens South, managed by City of Melbourne (Figure 2)
- the northern section – Carlton Gardens North, managed by City of Melbourne (Figure 3)

² GML Heritage (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 2 of 5: Traditional Owner and First Peoples' Cultural Values for the Royal Exhibition Building and Carlton Gardens

³ City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan

⁴ City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan

- the central section, where Melbourne Museum and the Royal Exhibition Building are located managed by Museums Victoria and not subject to this application.

The City of Melbourne, as both joint Trustee and Committee of Management, is responsible for the Land Reserve Rs 9990 (Carlton Gardens) – that is the northern and southern sections of the site.

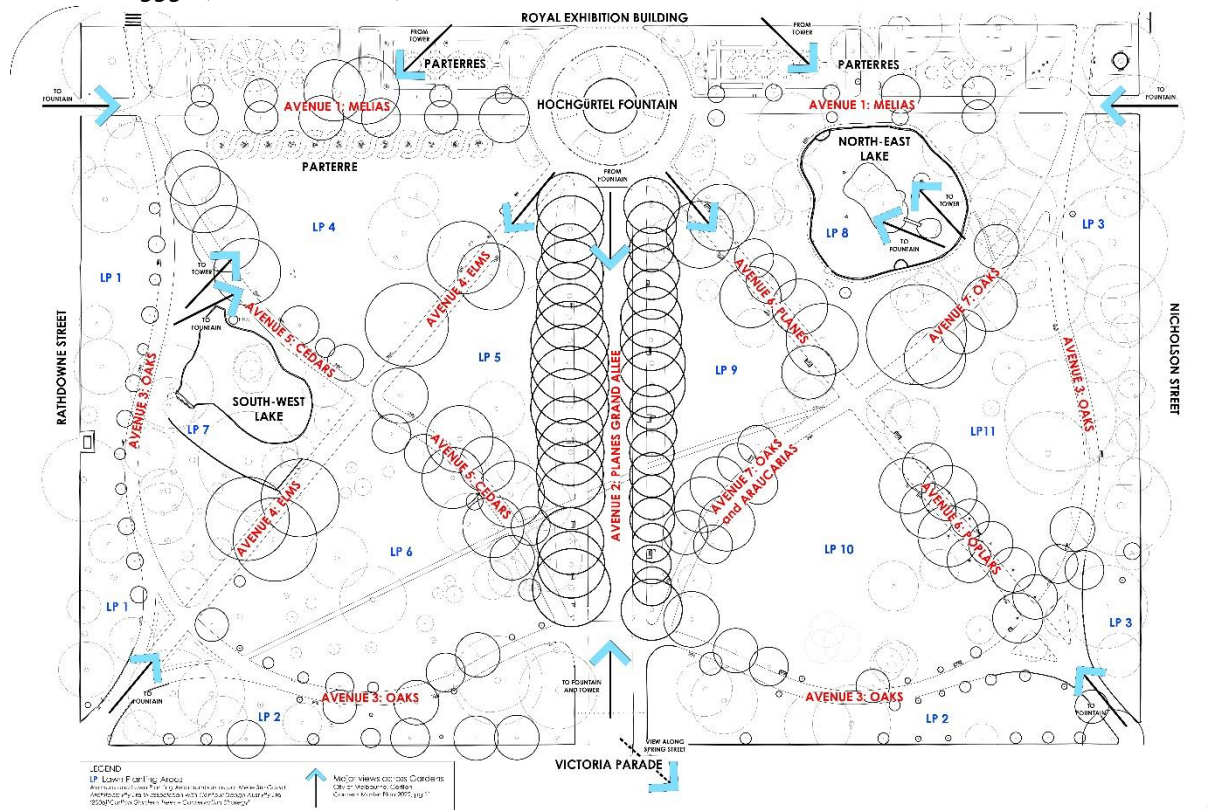


Figure 2: Existing conditions showing Avenues and Lawn Plantings, Carlton Gardens South. Larger format version attached to application.

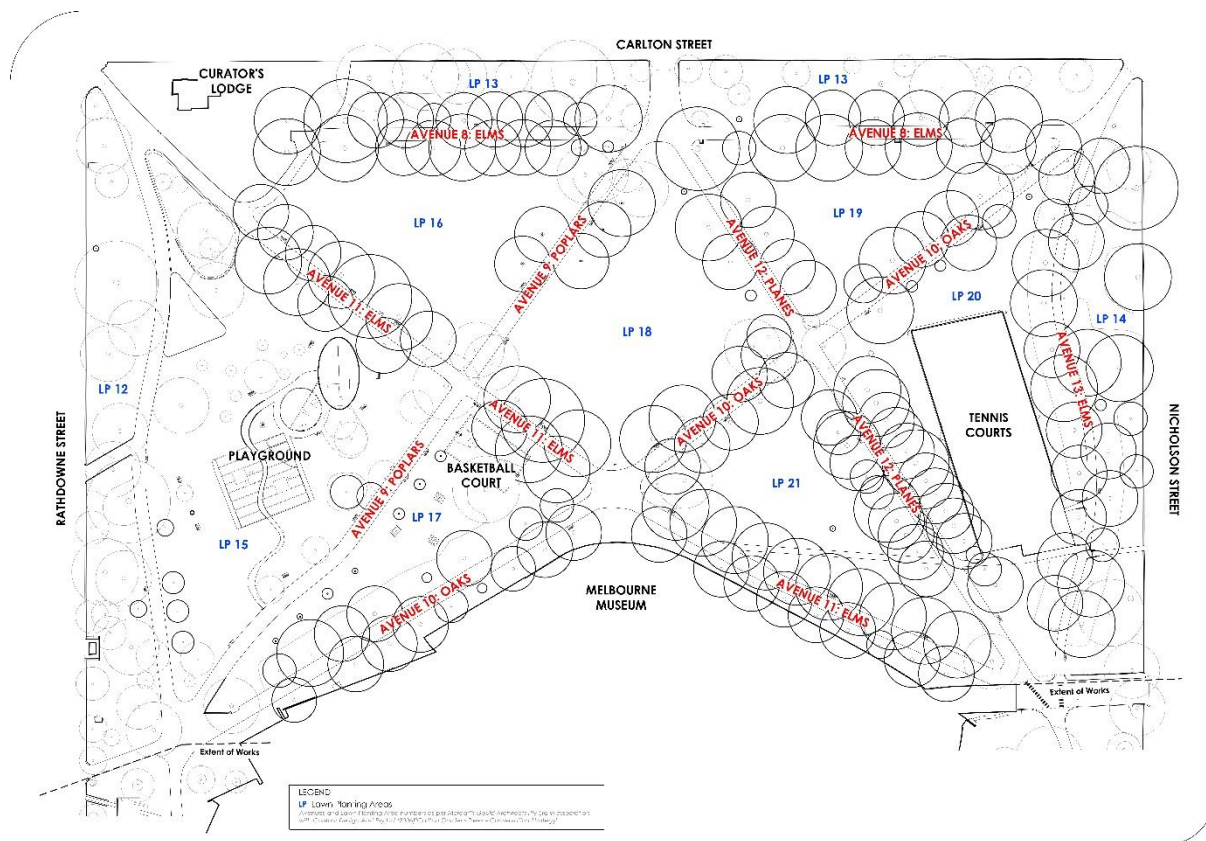


Figure 3: Map of Avenues and Lawn Plantings, Carlton Gardens North. Larger format version attached to application.

Carlton Gardens continue to be a place of connection and gathering for Aboriginal people.⁵

The Gardens are formal in design and execution, providing tree-lined pathways, fountains and lakes as an integral part of the overall site design and setting for the Royal Exhibition Building. The original gardens were developed as a public garden for passive recreation, with later, more classical garden modifications, including 'Gardenesque' elements, made in 1879 to form an appropriate setting for Royal Exhibition Building.⁶

The main garden elements in Carlton Gardens South include:

- the main north-south, tree-lined avenue (the Grand Allée)
- the central Hochgürtel Fountain and surrounding garden beds
- the radial pattern of tree-lined linear pathways converging at the fountain and the serpentine path around the interior edge formal garden beds (parterres) and several informal garden beds
- the ornamental lakes

⁵ "The trees have been used as a meeting place by Aboriginal people since at least the 1930s, and people still use them as a meeting place today." GML Heritage (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 2 of 5: Traditional Owner and First Peoples' Cultural Values for the Royal Exhibition Building and Carlton Gardens, page 74

⁶ GML Heritage (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 1 of 5: Overview Site Management Plan

- the planting of trees in groups or clumps (bosquets) on lawns, and in a denser pattern on the perimeter edge
- the incorporation of axial views and vistas between Carlton Gardens South and the Royal Exhibition Building.

Carlton Gardens North features diagonal, tree-lined paths and mature specimen trees, primarily circa 1890 when these Gardens were reinstated following the removal of various structures erected for the 1888 Centennial Exhibition. Recreational facilities, such tennis courts (circa 1924) and various playgrounds (earliest circa 1910), are longstanding features of Carlton Gardens North.

Throughout both Carlton Gardens North and South, 19th and 20th century plantings include pines, cedar, araucaria, cypress, gums, figs, pepper trees, elms, plane trees, oaks, poplars, Canary Island date palms and Washington palms. Most of these plantings are mature and many are of a significant size.

Carlton Gardens and its specimen trees are maintained by specialist contractors, with clear oversight by the City of Melbourne. Contracts stipulate the highest possible maintenance standards and frequent assessments are carried out by City of Melbourne staff to ensure these standards are met. Exhibition Reserve is maintained by contractors on behalf of Museums Victoria.⁷

4. The Proposed Works

To support the recently updated World Heritage Management Plan^v and Master Plan^{vi} for the Royal Exhibition Building and Carlton Gardens, and on the advice of Heritage Victoria, the City of Melbourne commissioned a Tree Replacement Strategy. This was done to manage the mature tree canopy in a manner that conserves and protects the heritage fabric of the landscape whilst addressing the need to adapt to climate change^{vii} and the complexities surrounding the replacement of avenue plantings and specimen trees in historic landscapes.

The resulting *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* is a 10 year management document which provides guidance and recommendations on the management and replacement of mature trees in the landscape, including locations, approach and species selection for those which are not to be replaced like-for-like.

The report also makes recommendations to allow for the ongoing maintenance and care required to prolong the life of these over-mature trees as much as is possible, as well as plan and prepare for their replacement when necessary. This includes both planned works and reactive remediation works in the case of unanticipated loss or failure.

The report was also written to address Master Plan recommendations for the re-instatement of garden beds to Carlton Gardens South. Garden beds were part of the original Reed and Barnes design for the site and were documented in a considerable number of historic photographs. However, in the intervening years these have been lost, resulting in an open site with little ground level visual interest or protection. Part 4 of

⁷ City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan

the Heritage Management Plan states that "Removal was most likely due to changes in maintenance costs and regimes, an increase in the overall tree canopy in the Gardens, changes in growing conditions, or as a result of public safety considerations. However, detailed investigations show that some of the earlier 19th century garden bed layer could be reinstated in either a full or modified form."^{viii}

The proposed new beds are largely reconstructions, with locations based on historic evidence with minor modifications to respect the current social usage of the gardens, safety concerns and contemporary maintenance challenges.

This permit application is to allow implementation of this report over a 10 year period with works specifically detailed in the attached documentation and summarised as follows:

- Replacement of the failing Poplar Avenue in Carlton Gardens South (Avenue 6) with *Brachychiton discolor* (Figure 4)
- Replacement of the failing Poplar Avenue in Carlton Gardens North (Avenue 9) with *Eucalyptus cinerea* ssp. *cinerea* near the play space (south branch of avenue), and *Flindersia australis* on the north branch of the avenue (Figure 5)
- Infill avenue planting for other avenues (within strict parameters) (Figure 4 and Figure 5)
- Planting of the next generation of specimen tree planting in Carlton Gardens South and Carlton Gardens North, including additional shade trees near the Play Space (Figure 4 and Figure 5)
- The installation of new garden beds to Carlton Gardens South (Figure 6)
- Ongoing maintenance and care required to prolong the life of over-mature trees while managing the site safely

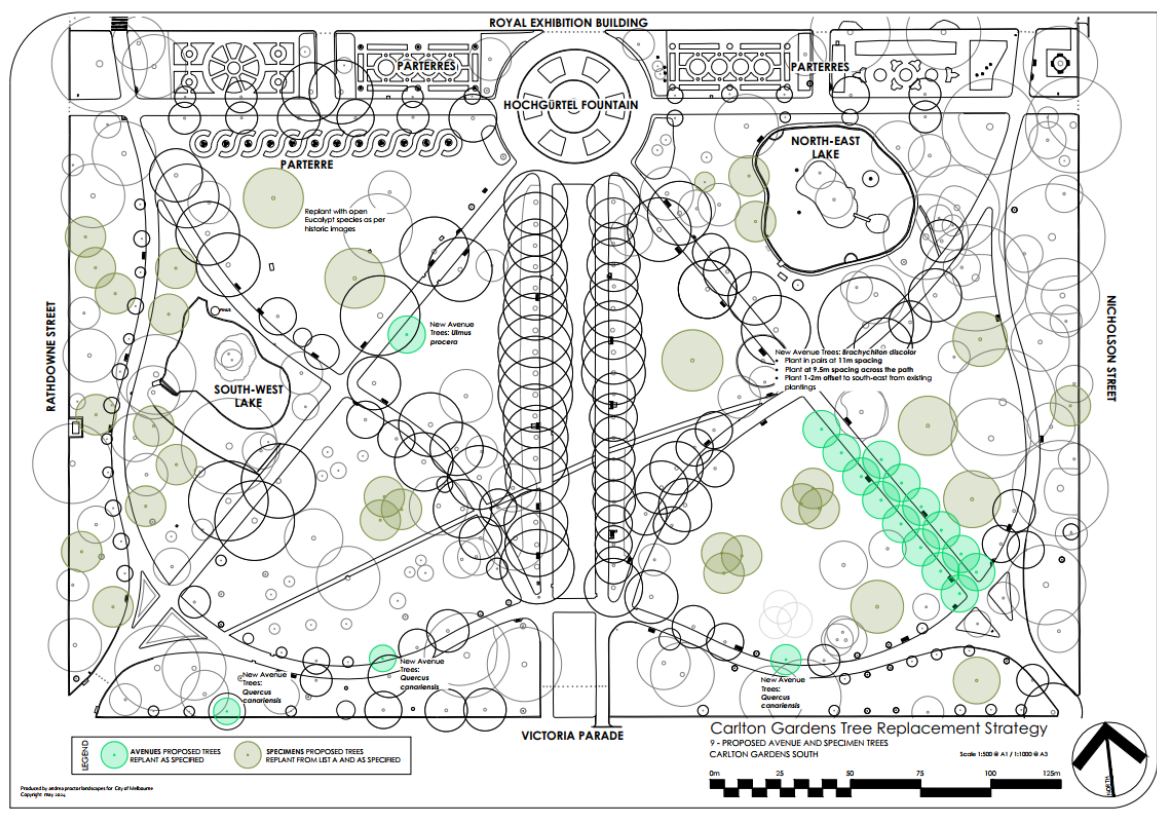


Figure 4: Proposed tree planting and avenue replacement, Carlton Gardens South. Larger format version attached to application.

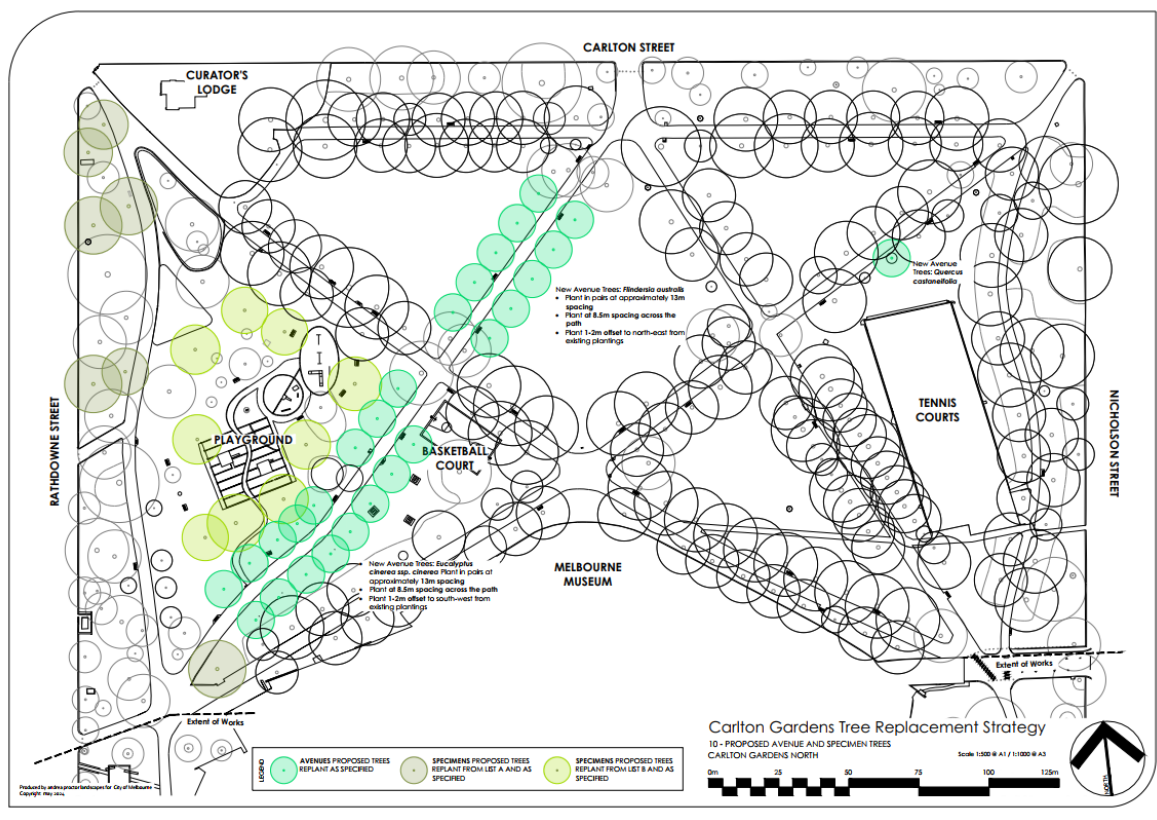


Figure 5: Proposed tree planting and avenue replacement, Carlton Gardens North. Larger format version attached to application.

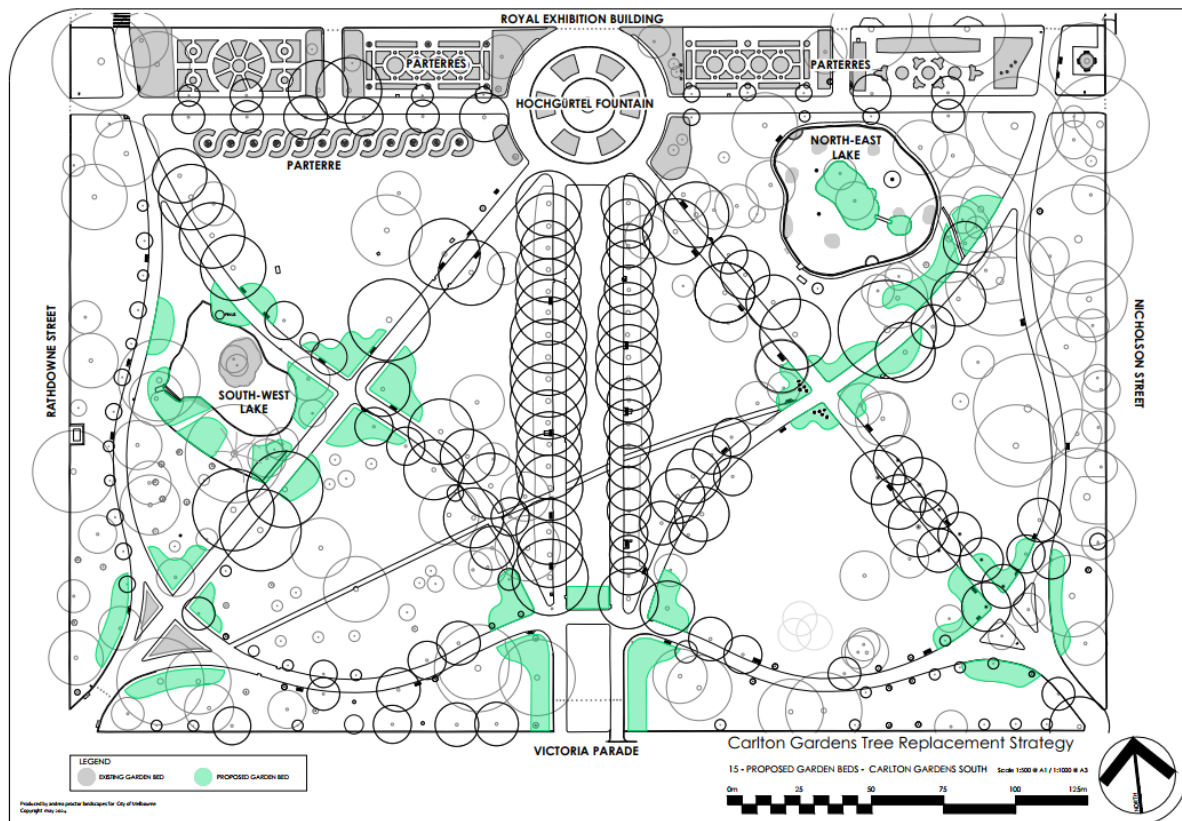


Figure 6: Proposed garden bed locations, Carlton Gardens South. Larger format version attached to application.

5. Reasons for the Activity

Reasons for the activity are addressed in detail in the attached *Carlton Garden Tree Replacement and Garden Bed Plan 2024-2034*, including the rationale behind the works and alternative options considered.

Trees

Carlton Gardens boasts a beautiful mature tree population for which it is well loved by locals and tourists alike. Many of the trees within Carlton Gardens date from the key period of significance for the site, and are in excess of 150 years of age. Whilst the majority are in good health and of robust structure, senescence (i.e. tree decline and death) is a natural part of a tree's life. Climate change, along with their natural age means that many have reached a point at which their end should be anticipated and planned for within the next 10 years. In order to protect the heritage value of the landscape a proactive program of tree care, carefully considered replacement and new tree planting is required.

This is especially important for the avenues, which contribute greatly to the heritage fabric of the landscape. For the majority of these avenues their significance lies not in their individual trees, but in the effect created by a uniform, single age canopy read as a whole. For this reason piecemeal replacement of individuals within an avenue is not recommended, as the uniformity of the size and age of avenue trees is what makes an avenue significant and young trees fail to thrive under the competition of surrounding established trees.

Block replacement of avenue plantings is the only viable solution, and will alter the character of the landscape in the short term, but, given time, replacement trees establish and mature, and in doing so conserve and uphold the heritage value of the place.

In addition to natural, end of life planning, for Carlton Gardens to continue to perform as a World Heritage garden consideration must be given to climate change. This includes both the localised change in climate due to the urbanisation of the surrounding area since the garden was established and the mature tree canopy altering shade and water patterns, as well as the accelerated global phenomenon of climate change. To protect the heritage values of Carlton Gardens it is important that any replacement trees thrive not only in the current climate, but under predicted potential future climate conditions. The Heritage Management Plan^{ix} and CSIRO report on risks to World Heritage Properties^x recognises these challenges and the need to respond to them.

*"...replanting of existing 'like for like' species may still be suitable in some places where there are reliable supporting management actions, such as guaranteed irrigation and improved soil conditions. However, even with this support, some tree species present in the gardens will not thrive. Replanting decisions will need to be assessed on a location by location basis, with the best course of action resolved based on specific species and site information. Where the replacement of climate vulnerable trees is being considered, climate resilient species alternatives should be prioritised over a like for like approach."*⁸

⁸ City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan, p19

Alternative species have been recommended for those which have been identified as either not performing now, or at particular risk of stress and failure in the potential future climate for Melbourne. These species have been selected as not only being better suited to the future climate, but also providing similar aesthetic and amenity qualities to the original species being replaced. Where possible, species which were available at the time the Gardens were first planted were selected.

Of particular note are the Poplar Avenues in both Carlton Gardens North (Avenue 9) and South (Avenue 6). *Populus alba* has a history of poor performance, rot and limb failure, and is not considered suitable for Melbourne's predicted potential future climate.⁹ In addition to this, in line with previous heritage practices, repeated attempts have been made in recent years to replace Avenue 9 with "like-for-like" plantings of the same species with young trees failing repeatedly. As a result, options to continue to use this species have now been exhausted and to do so would be to go against both best-practice horticultural advice and past experience.

It is proposed that Avenue 9 in Carlton Gardens North be replanted with *Flindersia australis* in the northern arm, and *Eucalyptus cinerea* ssp. *cinerea* in the southern arm (closest to the playground). As discussed below, the heritage fabric of Carlton Gardens North has greater flexibility in terms of species selection, and after consultation with Heritage Victoria, these species have been selected as providing the necessary amenity values, being similar in terms of their stature, colour and form, having better climate suitability and respecting the heritage values of the place. The reasons these species have been selected is provided in detail in the attached documentation.

It is recommended that Avenue 6 in Carlton Gardens South be replanted with *Brachychiton discolor*. After consultation with Heritage Victoria, this species was selected as providing the necessary amenity values, being similar in terms of their stature, colour and form, having better climate suitability and respecting the heritage values of the place, particularly so as not to compete with the Grand Allée.

Lists of suitable species for specimen plantings have also been provided. All taxa on these lists have climate and amenity suitability while also having a history of use on the site, or were typical plantings in Melbourne during the period of significance. The exception is the list of trees for use around the playground, which have been selected with a greater emphasis on practical considerations, as is appropriate in this area which has changed considerably over time (see Section 6 Cultural Heritage Values).

⁹ "Within this group of 43 trees, 19 are from two older avenues and one more recently planted row of *Populus alba* (White Poplar). This tree species has been assessed as being climate vulnerable in both moderate and extreme future climate change scenarios.³ An alternative replacement tree should be considered in these locations when being replanted." City of Melbourne (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 4 of 5: Carlton Gardens Master Plan, p19

Garden beds

The number of garden beds in Carlton Gardens South is particularly low compared to other Melbourne Gardens, especially Fitzroy Gardens, the Domain Parklands and Flagstaff Gardens. The Carlton Gardens Master Plan 2022 recommends the reestablishment of garden beds in Carlton Gardens South. This not only enhances the heritage values of the place by returning it to a form closer to that of the 1880 and 1888 exhibitions, but also increases the aesthetic value, shelter and public amenity of the site.

6. Cultural Heritage Values

Cultural heritage values for the site have been comprehensively identified in various documents, and in the interests of brevity, this HIS does not seek to reproduce them here.

The World Heritage Management Plan for the Royal Exhibition Building and Carlton Gardens was established in 2013. A revision of the World Heritage Management Plan was undertaken in 2023, with the revised draft being submitted mid-2023. The revised draft contains a comprehensive review of the site's history, cultural values, titled *Royal Exhibition Building and Carlton Gardens World Heritage Management Plan—Part 1-5 and Appendices (2023)*, by Lovell-Chen with volumes as follows:

- Part 1: Overview Site Management Plan
- Part 2: Traditional Owner and First Peoples' Cultural Values
- Part 3: Heritage Management Plan
 - Appendix 1
 - Appendix 2
- Part 4: Carlton Gardens Master Plan
- Part 5: Exhibition Reserve Master Plan

In addition to the above, the following documents address the heritage values of the place. All these documents are either publicly available, or attached to this application and may be provided by the applicant on request.

- Royal Exhibition Building and Carlton Gardens World Heritage Inscription 1131bis (2004)
- National Heritage Places - Royal Exhibition Building and Carlton Gardens, Melbourne (20 July 2004)
- Royal Exhibition Building and Carlton Gardens Statement of Significance - Victorian Heritage Register Report H1501 (March 2002)

In addition to the above, the attached *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034 (2024)*, provides a detailed assessment of the heritage values of the existing trees, measured against criteria provided in the above documents.

In summary, the Royal Exhibition Buildings and Carlton Gardens are of historical, architectural, aesthetic, social and scientific (botanical) significance to the State of Victoria and meet various criteria at a National and World Heritage level.

In regard to tree management, there is an important distinction between Carlton Gardens North and South, with the South Gardens being more intact than North. With the exception of Avenue 8, the North Gardens date entirely from after the 1888 exhibition, have a history of recreational elements such as tennis courts and the playground, and have changed significantly over time, especially around the playground. This history

and its subsequent impact on heritage values is detailed in depth in the above listed documents. It means there is more capacity for change in Carlton Gardens North, especially around the playground where tree planting can respond to contemporary needs while still respecting the heritage values of the place. This was summarised in the Heritage Management Plan as *"The recommended...approach recognises the changes which occurred in the North Garden even during the 1880s, associated with the two exhibitions, and the fact that there is no fully authentic single or overriding design to use here to inform a new garden design. Consequently, the North Garden offers somewhat greater latitude in engaging with climate adaptation and other requirements with respect to tree selection and other landscape considerations, although congruency with the world, national and state heritage values and the c. 1880s character of Carlton Gardens will remain the primary basis for design and management of the North Gardens."*^{xi}

7. Impacts of the Proposal

The Royal Exhibition Buildings and Carlton Gardens are of historical, architectural, aesthetic, social and scientific (botanical) significance to the State of Victoria. The proposed works are required to protect and enhance this significance and can all be classified as *conservation works* with an overwhelmingly positive impact on the heritage values of the place. Indeed, failure to carry out these works would have a negative impact on the heritage values of the place from a local to world heritage level.

Historical significance

Implementation of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* (2024) is considered to have a positive impact on the historical significance of the Royal Exhibition Building and Carlton Gardens for the following reasons:

- It provides for the long-term canopy tree cover of the site as intended by early designers, including Sangster and Reed and Barnes
- It allows the Gardens to continue to provide a suitable setting for the Royal Exhibition Building, supporting its connection to the exhibition movement
- It is based on the heritage principals of "reconstruction" (returning a place to a known earlier state... by the introduction of new material)
- It strengthens the classically derived layout of the site, especially in replacement of Avenue 6 and Avenue 9 with suitable species
- It pre-emptively allows for forward planting, mitigating against anticipated future losses as trees age and senesce
- It pre-emptively allows for planting trees considered likely to thrive in current and predicted potential future climate conditions while ensuring those used respect the heritage character of the place
- It re-establishes historic garden bed layouts, allowing a better understanding of how the site existed during its period of significance
- It provides a considered, balanced approach to heritage reconstruction backed by extensive historic research and community consultation (through previous documents).

Architectural significance

Implementation of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* (2024) is considered to have a neutral / protective impact on the architectural significance of the Royal Exhibition Building and Carlton Gardens for the following reasons:

- The tree planting and garden bed work are set well back from the Royal Exhibition Building and do not impact any of the inscribed architectural design features in any way
- The monumental scale of tree planting has a positive impact on the way the architecture of the Royal Exhibition Building balances with the landscape, and works seek to protect this feature

Aesthetic significance

Implementation of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* (2024) is considered to have a positive impact on the aesthetic significance of the Royal Exhibition Building and Carlton Gardens for the following reasons:

- It reinforces and protects the Gardenesque and classically derived style of the Gardens
- It reinforces and provides for future specimen tree plantings, with particular consideration given to how to respect the form and seasonality of the trees while maintaining important open lawn areas
- It reinforces and provides for the long term form avenues, with particularly consideration given to respecting the form, seasonality and visual dominance of these features
- It allows for replacement of failing avenues with carefully selected, single age group trees that will reestablish the original aesthetic intent of the planting
- It pre-emptively allows for forward planting, mitigating against anticipated future losses and subsequent impact on the aesthetic value of the Gardens as trees age and senesce
- Garden beds will reinforce the views and vistas which enhance the setting of the Royal Exhibition Building, increase the visual interest of the gardens, and enhance its Gardenesque character
- Garden beds at the terminus of the Grand Allée will shield a lacklustre view out of the Gardens which detracts from the historical experience of the site, without blocking sight lines along the avenue to the Hochgürtel Fountain

Social significance

Implementation of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* (2024) is considered to have a positive impact on the Social significance of the Royal Exhibition Building and Carlton Gardens for the following reasons:

- They support the gardens to continue to be enjoyed by visitors for passive recreation, entertainment and social interaction

Scientific (botanical) significance

Implementation of the Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034 (2024) is considered to have a positive impact on the historical significance of the Royal Exhibition Building and Carlton Gardens for the following reasons:

- It increases the botanical diversity on site while respecting the historic planting character
- It provides a considered, balanced approach to heritage reconstruction, backed by extensive historic research and the latest scientific and horticultural data
- It pre-emptively allows for forward planting, mitigating against anticipated future losses and loss of botanical diversity as trees age and senesce

8. Means of Limiting Impact

Gardens are managed living systems, and every plant within has a finite lifespan. No matter how well cared for a tree may be, death is inevitable and necessary. This can be challenging when attempting to preserve the heritage character of landscape, and some disturbance to this character is inevitable, however only temporary. Best practice heritage management of gardens is changing in order to stay the same.

Extensive work has been undertaken to ensure the recommendations made in the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* have the least possible impact on the heritage values of the place. These are provided in detail in the attached document, and include:

- Identifying the relative heritage value of all trees on site before making recommendations as to their replacement
- Identifying the aesthetic value of the landscape, especially view lines, before making recommendations as to tree planting
- Basing selection and placement on historic evidence – including maintaining current lawn spaces
- Selecting tree species considered likely to thrive in current and predicted potential future climate
- Selecting tree species which are considered to be functional, able to be maintained and supportive of the social use of the place
- Locating garden beds based on historic evidence
- Recommending block replacement for Avenues with infill only occurring in select, limited locations where the design and layout of the Avenue allows

Block Replacement Method

Avenues are defined by the uniformity of the size, age and species of the trees in question. While it is tempting to replace individual trees within an avenue as they fail, thus retaining the bulk of the avenue in the landscape, over time this erodes and degrades the quality of the avenue itself. This is due to a mixed age of trees breaking the uniformity of the avenue, and increased risk of repeated failures as young trees cannot successfully establish under the canopy cover of the remaining avenue specimens.

It has been determined that whole block replacement of avenue sections involves less disruption of the fabric of the landscape in the long term. Further information can be found in section 3.5 of *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* (2024).

The following is proposed to mitigate against the short-term visual disturbance of block replacement include:

- Contract growing of advanced stock so that trees are already of good size when planted
- Approximately 10% excess stock grown and retained, to allow for the replacement of young trees which fail or are inadvertently damaged within the first years (e.g. bird damage)
- Thorough care and management of the replacement trees during their establishment period, including guarding against above damage

Garden Beds

Reintroduction of garden beds in Carlton Gardens South which were originally included in Reed's design will have an overall positive impact on the heritage fabric of Carlton Gardens. The garden beds to be

reconstructed have been selected as bolstering the symmetry of the overall design without interfering with current social uses of the site, nor creating safety concerns about sight lines for surrounding traffic intersections or pedestrians.

New garden bed locations have been guided by the Master Plan and determined based on historic research into former locations, design intent and planting style, with modifications as required to address current maintenance and social use and to respect existing site and environmental conditions. For example, there was a need to preserve the main entrance at the termination of the Grand Allée, which is different to the 1888 layout, and lawn areas around the lakes are important sun traps for visitors. This required some modification from historic locations. Historic beds which have not been selected for reconstruction are largely due to changed site conditions, such as the location now being shaded by mature trees.

One final change to garden bed layout was only the selective implementation of thin, mown lawn edges between garden beds and paths. An extensive review was undertaken of historic photos, and lawn edges are only to be installed where historic evidence suggests they exist and it is currently practical to maintain them (e.g. not under large trees). Lawn edges are to be 1200mm wide to allow for contemporary mowing practices.

The planting palette of these beds is focused on replicating the look and feel of the Gardenesque style from the period of significance, with some substitutions to account for a change in climate and to align with contemporary maintenance requirements.

Further details are provided in the attached *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*.

9. Recommended Permit Conditions

The following have been developed in consultation with the City of Melbourne and based on previous permits issued by Heritage Victoria. Without any prejudice, they provide suggestions for condition monitoring the 10 year permit in a way that protects the heritage values of the place, complies with the Heritage Act and works with City of Melbourne practices.

Recommended General Conditions

1. The permission granted for this permit will expire if one of the following circumstances applies: the permitted works have not commenced within **three (3)** years of the original date of issue of this permit, or are not completed within **ten (10)** years of the original date of issue of this permit unless otherwise agreed in writing by the Executive Director Heritage Victoria.
2. The Executive Director Heritage Victoria is to be given five working days' notice of the intention to commence the approved works.
3. Should further minor changes in accordance with the intent and approach of the endorsed documentation become necessary, correspondence and supporting documentation must be prepared and lodged in accordance with the permit condition for endorsement by the Executive

Director Heritage Victoria. If the Executive Director considers that the changes are not minor, an amendment to the permit or a new application will be required.

4. Approved works or activities are to be planned and carried out in a manner which prevents damage to the registered place/object. However, if other previously hidden original or inaccessible details of the object or place are uncovered, any works that may affect such items must immediately cease. The Executive Director Heritage Victoria must be notified of the details immediately to enable Heritage Victoria representatives to inspect and record the items, and for discussion to take place on the possible retention of the items, or the issue of a modified approval.
5. All works must cease, and Heritage Victoria must be contacted if historical archaeological artefacts or deposits are discovered during any excavation or subsurface works.
6. The Executive Director Heritage Victoria must be informed when the approved works have been completed.
7. Yearly Report to be submitted to the Executive Director, Heritage Victoria, each year and covering the previous financial year. Report to document:
 - a) High level summary of reworked garden beds
 - b) Location plan of garden bed works completed
 - c) Location plan of tree planting works completed including species
 - d) Location plan of tree removal works including species (only covers trees anticipated/planned for removal on Plan 7 or Plan 8)
 - e) High level summary of planned garden bed and tree planting works for the next 12 months
8. Prior to the commencement of works a **heritage Protection Plan** (the plan) must be provided for endorsement by the Executive Director, Heritage Victoria and once endorsed becomes part of the permit. The Plan must include:
 - a) Protection methods for the heritage place during the undertaking of the works;
 - b) A tree management and protection plan prepared in accordance with AS4970 covering all works within Tree Protection Zones. This shall explicitly address soil preparation and planting for garden beds and trees
9. Formative, remedial and reduction pruning is permitted in accordance with the definition provided on page 8,9 and 28 of the Heritage Victoria *General Permit Exemptions* December 2022

Recommended Tree Replacement and Planting Conditions

Tree Planting Actions

The following tree planting actions which will need to be flexibly implemented and supervised through conditions monitoring:

- Action 10: Plant new shade trees around the Playground in Carlton Gardens North.
- Action 8: Plant replacement specimen trees in Carlton Gardens South. Planting to be staged based on removal time frames of surrounding trees

- Action 9: Plant replacement specimen trees in Carlton Gardens North. Planting to be staged based on removal time frames of surrounding trees
- Action 11: Infill plant gap in Avenue 4

Recommended Tree Planting Conditions

10. All completed tree planting works to be in accordance with the locations and lists provided in the endorsed *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*
11. Minor modifications to species and location may be permitted under Condition 3
12. All completed tree planting works to be included in 12 monthly reporting
13. Replacement trees may be replaced like-for-like if required within the first 5 years of planting. Any replacements of this nature to be included in yearly reporting

Recommended Tree Removal Conditions

A limited number of tree removals are anticipated over the next 10 years. Replacement planting for these trees is to take place pre-emptively as per the attached documentation. The following conditions are recommended for tree removal :

14. Trees may only be removed under this permit if listed on Plan 7 or Plan 8 of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*. The Executive Director, Heritage Victoria must be informed no less than five working days' notice prior to the removal of any trees under this condition.
15. Removal of trees on immediate safety grounds is permitted in accordance with the requirements of the Heritage Victoria General Permit Exemptions December 2022 item 9.6. Any trees removed under this condition or lost to natural causes are also to be included in 12 monthly reporting.
16. Replacement of trees removed under condition 15 is to be in accordance with the directions provided in the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* and may be addressed under Condition 3.
17. All tree removals works to be included in 12 monthly reporting

Avenue Replacement

The following avenue replacement actions which will need to be flexibly implemented and supervised through conditions monitoring:

- Action 5: Remove and replace failing *Populus alba* trees in Avenue 6 with *Brachychiton discolor*
- Action 7: Remove and replace failing *Populus alba* trees in Avenue 9 with *Flindersia australis* to the north of Avenue 11 and *Eucalyptus cinerea ssp. cinerea* south of Avenue 11.
- Action 6: Assess the existing *Quercus robur* in Avenue 3 and replace younger trees which are under-performing with *Quercus canariensis*

- Action 12: Remove young *Quercus robur* replacement plantings in Avenue 10 and replace with *Quercus castaneifolia*

Recommended Avenue Replacement Conditions

- c) All completed Avenue planting works to be in accordance with the locations and lists provided in the endorsed *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*
- d) The Executive Director Heritage Victoria is to be given five working days' notice of the intention to commence approved works.
- e) Minor modifications to tree location may be permitted under Condition 3
- f) All completed avenue works to be included in 12 monthly reporting
- g) Replacement trees may be replaced like-for-like if required within the first 5 years of planting. Any replacements of this nature to be included in yearly reporting

Maintenance

The following Avenue Replacement Actions which will need to be flexibly implemented and supervised through conditions monitoring:

- Action 4: Regularly assess the trees and schedule and implement recommended maintenance works, including pre-emptive pest control and irrigation

Recommended Maintenance Conditions

- 18. Formative, remedial and reduction pruning is permitted in accordance with the definition provided on page 8,9 and 28 of the Heritage Victoria *General Permit Exemptions* December 2022
- 19. Works recommended in writing by a qualified arborist are permitted such as bracing, pest and disease treatment, weight reduction works, installation of tree or possum guards, irrigation, removal of suckers or other recommended remedial works provided such works do not adversely affect the health of the tree.

Garden Beds

New Garden Beds

The following new garden bed actions which will need to be flexibly implemented and supervised through conditions monitoring:

Actions

- Action 14: Create new garden beds on the southern bank of the south-west lake
- Action 17: Create a new garden bed near the north-east lake and parallel to Avenue 7

- Action 21: Create new garden beds at the Nicholson Street and Victoria Parade entrance to frame Avenue 6. This should happen at the same time as the replacement of the Avenue 6 trees.
- Action 16: Create a new garden beds framing the south-west lake along Avenues 3 and 5
- Action 20: Create new garden beds framing the Grand Alleé at both the Victoria Parade and Hochgürtel Fountain ends
- Action 22: Create new garden beds at the Rathdowne Street and Victoria Parade entrances to frame Avenue 4
- Action 15: Create new garden beds near the south-west lake at the junction of Avenues 4 and 5
- Action 19: Create new garden beds at the junction of Avenues 6 and 7

Recommended New Garden Bed Conditions

20. Prior to the installation of new garden beds, detailed plans must be provided for endorsement by the Executive Director, Heritage Victoria and once endorsed becomes part of the permit. The plans must be generally in accordance with the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*. The detailed plans must included but not be limited to the following:
 - Layout and location
 - Site work layout plan including specifications to protect the heritage value of the place
 - Planting plans with full plant lists
 - Planting specifications
 - All works within the TPZ of an existing tree (as per AS4970) to include arborist approved tree protection requirements
21. The Executive Director Heritage Victoria is to be given five working days' notice of the intention to commence approved works.
22. Minor modifications to garden bed locations may be permitted under Condition 3
23. All completed garden bed works to be included in 12 monthly reporting

Rework of Existing Planting

- Action 18: Rework planting on the islands of the north-east lake to add structure and foliage interest
- Action 23: Rework existing planting at the Rathdowne Street and Victoria Parade entrance to match new Gardenesque style planting elsewhere

Recommended Reworking of Existing Planting Conditions

24. Reworking of existing planting to be in accordance with the descriptions provided in the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034*. Works may be undertaken gradually as permitted in accordance with the definition provided on page 27 of the Heritage Victoria General Permit Exemptions December 2022
25. All renovated garden bed works to be included in 12 monthly reporting

10. Recommendations

This report makes the following recommendations:

- That a permit be granted for the works
- That permit conditions include those listed in section 9 *Recommended Permit Conditions*, or similar conditions as determined by Heritage Victoria
- That the project be considered *conservation works* and a fee waiver be granted if applied for

11. Conclusion

The implementation of the *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* comprises necessary conservation work and will have a positive impact on the heritage values of this World Heritage Listed Royal Exhibition Building and Carlton Gardens site. Works allow for forward planning to address the complex issue of tree replacement within heritage landscapes – allowing for new, climate suitable trees to be planted without negatively impacting the aesthetic or historic values of the place and supporting the responsible management and care of the mature trees. Reestablishment of garden beds in Carlton Gardens South will increase the visual diversity and aesthetic values of the gardens and recreates a form of the landscape intended by Reed and Barnes in the 1880s.

The report has been prepared in consultation with Heritage Victoria and the City of Melbourne and guided by the findings of the World Heritage Management Plan (2023) and Carlton Gardens Master Plan (2022), which included broader community and stakeholder consultation. Implementation of the proposals made in *Carlton Gardens Tree Replacement and Garden Bed Plan 2024-2034* are necessary conservation works, support the responsible management of the site and accord with horticultural, heritage and urban forest best practice principals. As such it is recommended that a permit be granted for the proposed works.

Endnotes

ⁱ UNESCO, <https://whc.unesco.org/en/list/1131/>

ⁱⁱ UNESCO, <https://whc.unesco.org/en/list/1131/>

ⁱⁱⁱ Parliament of Victoria, *The federal years 1901-1927* <https://new.parliament.vic.gov.au>

^{iv} Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 3 of 5: Appendix D: Heritage Values pD20, D21-D24, D26, D27

^v Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 3 of 5: pp 50-59

^{vi} City of Melbourne (2022) Carlton Gardens Master Plan, garden beds p11, 12, 15 trees p18-23

^{vii} Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 1 of 5: p xiv

^{viii} Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 1 of 4: p 12

^{ix} Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 3 of 5: p 53, 54

^x CSIRO and Department of Climate Change, Energy, the Environment and Water, The implications of climate change for World Heritage properties in Australia, p58

^{xi} Lovell Chen (2023) Royal Exhibition Building & Carlton Gardens World Heritage Management Plan, Part 3 of 5: p 34

CONTACT DETAILS

Andrea Proctor Landscapes
235 Queens Road
Wandin North, 3139
Victoria
Australia

ph: 0411 03 7886
e: admin@andreaproctor.com.au
www.andreaproctor.com.au

abn: 50 948 044 192

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