



THOMPSON BERRILL
LANDSCAPE DESIGN

Amendment C218glen Glen Eira Planning Scheme Public Open Space Contributions

Prepared for the City of Glen Eira under instruction from Jackson Lane Legal

**Expert Witness Statement to:
Planning Panels Victoria**

Open space planning

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1. Details and experience

1.1 Name and address

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1.2 Qualifications and Experience

1.2.1 Qualification:

BA Landscape Architecture with Honours

1.2.2 Affiliations:

Registered Landscape Architect with the Australian Institute of Landscape Architects

1.2.3 Experience:

I worked in a range of landscape architectural practices from 1986 to 1992 prior to establishing Thompson Berrill Landscape Design Pty Ltd (TBLD) with the other Director Glenn Berrill in 1992. As a Director of TBLD, I lead diverse open space planning and landscape design projects for local and state government agencies and for the private sector. These projects include open space strategies and open space assessments for suburbs or precincts including activity centres and high density precincts. Other project experience has included landscape estate-wide landscape masterplanning and implementation of open space and streetscape landscape works across a number of new residential communities in the urban growth areas, along with strategic waterway design and management plans, shared trail designs and landscape masterplans and for a range of open space reserves including sites of environmental significance. I have given expert evidence at Planning Panels Victoria and VCAT previously in relation to a number open space planning matters, including open space contribution rates.

Of specific relevance I was engaged by Glen Eira City Council to prepare the 2014 City of Glen Eira Open Space Strategy. This Strategy was the basis for and included the 5.7 per cent open space contribution rate that is currently in Schedule 53.03 of the Glen Eira Planning Scheme and which this Amendment seeks to update. I appeared for Glen Eira City Council at the Planning Panel Hearing for Amendment C120 which supported the introduction of the 5.7 per cent rate into the planning scheme. I have relevant experience preparing open space strategies for a range of other inner city and middle ring municipalities which support and include open space contribution rates that have been supported through the planning panel process to be incorporated in the Schedule 53.03 of the planning schemes. This includes the Cities of Melbourne, Maribyrnong, Yarra, Moonee Valley and Whitehorse.

1.3 Statement identifying the Experts area of expertise

- 1.3.1 I have worked for more than 20 years in the area of open space planning, leading the TBLD project team in the preparation of open space strategies including the City of Glen Eira Open Space Strategy Refresh 2020 which is an update to the City of Glen Eira Open Space Strategy 2014 that we prepared. Other strategies I have prepared include the Yarra Open Space Strategy 2020, the Technical Report for the City of Port Phillip Public Space Strategy 2020, the City of Melbourne Open Space Strategy 2012, the City of Maribyrnong Open Space Strategy 2014 including an update to the Strategy in the form of an Addendum in 2020, the Moonee Valley Open Space Strategy, the Whitehorse Open Space Strategy, the Boroondara Open Space Strategy, and the City of Whittlesea Open Space Strategy.
- 1.3.2 Recent precinct based open space planning work includes for the Caulfield Structure Plan for Glen Eira City Council, Braybrook Urban Renewal Area for Maribyrnong City Council, Box Hill Metropolitan Activity Centre for Whitehorse City Council, Fishermans Bend Urban Renewal Area for the Minister for Planning and the Cranbourne Activity Centre and the Fountain Gate - Narre Warren Activity Centre for the City of Casey.

1.4 Other significant contributors to the report

- 1.4.1 I am the principal author of both the *City of Glen Eira Open Space Strategy, 2014* (2014 Strategy) and the *City of Glen Eira Open Space Strategy Refresh 2020* (Strategy Refresh 2020), which is an update to the 2014 Strategy. In the preparation of both these documents, I have been assisted by other qualified personnel from TBLD for the Strategy Refresh 2020, which included assistance with mapping the updated the open space network, quantifying the new open space, site assessment work and the assembly of the updated precinct analysis and recommendations.
- 1.4.2 The other main contributor to both the 2014 Strategy and the Strategy Refresh 2020 is Esther Kay of Environment & Land Management Pty Ltd (ELM). Esther Kay has co-authored sections of the Strategy Refresh 2020, particularly in relation to the strategic context, forecast population growth, forecast change, open space contributions, municipal-wide recommendations where they relate to the acquisition of new open space, the open space contribution rate and planning related recommendations.
- 1.4.3 I have relied on the Strategic Planning area of Glen Eira City Council to source and prepare the forecast population breakdown across the different precincts, which have been used to inform the precinct based open space needs assessment.
- 1.4.4 I have relied on the City of Glen Eira for assembly and supply of the valuations data to calculate the cost of land for new open space in the Strategy Preliminary Opinion of Probable Cost (referred to as the Strategy POPC).
- 1.4.5 I have relied on the Recreation and Open Space Team and the Parks Services Team for input to the design and management guidelines in both the 2014 Strategy and the Strategy Refresh 2020. They also reviewed and provided input to the Average Park

Costings that were used in the preparation of the Strategy POPC for both the 2014 Strategy and the Strategy Refresh 2020.

1.5 Instructions that define the scope of this report

I have been instructed jointly with Esther Kay of Environment & Land Management Pty Ltd by Jackson Lane Legal to:

- 1.5.1 review the exhibited material for Amendment C218;
- 1.5.2 review all submissions received; and
- 1.5.3 consider and express opinions about whether you support Council's position in pursuing the Amendment in their exhibited form. Specifically you are asked to consider:
 - the method used to calculate the proposed rate;
 - the estimate of the land area that will redevelop during the 15 year planning period; and
 - the site value of the land and estimated costs of upgrade to existing open space.

Further instructions were provided on 28 April 2022 following the Directions Hearing and Esther Kay and myself were instructed to review the panel directions. Of particular relevance to my evidence, this included:

- prepare an expert evidence statement describing your earlier work for Council and responding to the Panel's directions that go beyond the earlier work you both undertook for Council and responding to submissions received in response to exhibition of the Amendment.

1.6 Other tests or experiments on which this report is based

This is not applicable.

2. Facts, matters and assumptions

2.1 The facts, matters and all assumptions on which this report proceeds

- 2.1.1 Council contacted TBLD and ELM in mid-2017 to discuss the implications of the updated population forecasts on the 2014 Strategy. The new forecasts were higher than those used for the 2014 Strategy. In addition to the updated forecasts, Council advised they had commenced preparation of an updated growth framework to guide future planning for accommodating the increased forecast growth. As part of the planning, Council had also commenced preparation of three structure plans for the major activity centres of Carnegie, Elsternwick and Bentleigh. Changes in these centres was being partly driven by the recently announced Level Crossing Removal Project. The combination of these changes to the population growth forecasts, the Level Crossing Removal Project and the new growth framework for the municipality led to the conclusion that there was a need to update the 2014 Strategy so that it could provide Council with appropriate recommendations for the future planning for open space in response to these changes in forecast growth.
- 2.1.2 In late 2017, the City of Glen Eira engaged TBLD in association with ELM to prepare an update to the 2014 Strategy, which is called the *City of Glen Eira Open Space Strategy Refresh 2020* (Strategy Refresh 2020). The Strategy Refresh 2020 was adopted by Council on 9 June 2020.
- 2.1.3 The update involved a review of the revised population forecasts and the growth framework; an update to the existing open space network by adding new open space that has been acquired since the adoption of the 2014 Strategy; a review and updates to the strategic context; a revised open space needs analysis based on the changes at both a municipal-wide and precinct level; updates to the recommendations; updates to the Strategy POPC; revised open space contribution rate calculation and prepare the Strategy Refresh 2020.
- 2.1.4 I led the project team as the open space planner for both the 2014 Strategy and its update called the Strategy Refresh 2020. The project team comprised myself, Esther Kay, Director ELM and an in-house TBLD support team of qualified personnel. The project was guided by the Council officer project working group who also provided data inputs that were used in the project as described in Section 1.4 of this statement.
- 2.1.5 I am the principal author of the Strategy Refresh 2020, updating from the 2014 Strategy for which I was also the primary author. I relied on other contributors to the report. Esther Kay contributed specifically to the strategic context, future growth planning for Glen Eira, open space contributions, methods to acquire/secure additional open space, changes to forecast population and development over the strategy timeframe, guidelines for development interface with adjoining or nearby public open space, revised open space contribution rate and the implementation section. Appendix A of the report was

authored by the in-house TBLD project team in 2013 for the 2014 Strategy. I have referenced and used the outcomes of this report to inform the Strategy Refresh 2020 including in the preparation of the open space needs analysis undertaken for each precinct.

- 2.1.6 I relied on information supplied by the City of Glen Eira during the project, including:
- The growth framework for the City of Glen Eira as shown in the *Activity Centre, Housing and Local Economy Strategy 2018* and the *Housing and Local Economy Plan - Glen Eira: Available land, capacity and demand analysis prepared by SGS Economics, 2018*.
 - Residential forecasts by .id Consulting, November 2018.
 - Background reports and information as listed in the References in the Report.
 - The status on the recommendations commenced and/or completed since the 2014 Strategy was adopted so these could be updated in the Strategy Refresh 2020.
 - Information about the open space management and maintenance issues so these could be incorporated into the updated Strategy Refresh 2020.
- 2.1.7 The open space contribution rate calculation used the same methodology as the calculation for the open space contribution rate in the 2014 Strategy. My role in relation to the open space contribution rate calculation component of the project was in the preparation of the Strategy POPC. I updated the inputs to this from the one used for the 2014 Strategy, including the Average Park Costings in consultation with Council, the average CIV supplied by Council and the recommendations based on the updated list in the Strategy Refresh 2020. Further information regarding the Strategy POPC is in Section 3.7 of this Statement.
- 2.1.8 Following the adoption of the Strategy Refresh 2020, ELM was engaged to prepare the *City of Glen Eira Open Space Strategy Refresh 2020 Update of the Public Open Space Contributions Program (Open Space Contributions Report)*. I provided input to the report, specifically in relation to the Strategy POPC.
- 2.1.9 I adopt these reports in full where I am responsible for their content and to the best of my knowledge the reports are accurate and complete.

2.2 Reference documents and materials

- 2.2.1 This statement is based on the 2014 Strategy, the Strategy Refresh 2020 and the Open Space Contributions Report along with the documents and materials supplied for the preparation of the above-mentioned reports.
- 2.2.2 Other reference documents and material that have informed my statement include:
- References listed at the end of the Strategy Refresh 2020.

3. Summary of opinion

3.1 Summary of what the Strategy Refresh 2020 sets out to achieve

3.1.1 The purpose of the Strategy Refresh 2020 is outlined on page 3 of the Strategy:

The purpose of the Open Space Strategy Refresh is to provide a strategic direction for the future planning, provision, design and management of open space in Glen Eira over the next 15 year planning period based on the 2016 to 2031 forecasts. The Strategy Refresh is based on the Glen Eira Open Space Strategy, Adopted by Council on 8 April 2014, and updated to take account of the substantial changes that have occurred over the past five years since its adoption. These changes include:

- *Level Crossing Removal Project along the Frankston and the Pakenham/Cranbourne Railway Lines. This has impacted on the provision and accessibility to open space.*
- *Higher rates of population growth than those forecast at the time the 2014 Strategy was prepared.*
- *Change in Council's strategic growth framework.*
- *Preparation of Structure Plans for three Major Activity Centres of Carnegie, Bentleigh and Elsternwick.*

3.2 The key changes between the 2014 Strategy and the Strategy Refresh 2020

3.2.1 Given the project was an update to the 2014 Strategy rather than a new Strategy, it was agreed with the council officer project working group to continue to use some of the original research that was undertaken for the 2014 Strategy. The main data that continued to be relied on was the site assessment work and the household survey outcomes. Updated site assessments were undertaken in the precincts where changes to the forecast population were identified and where changes were made to the existing open spaces. In other locations, we relied on the site assessments prepared and documented in the 2014 Strategy. The household survey data has been used to inform the assessment of the open space needs of the existing population. Given the updates were mainly in relation to changes to the open space needs of the forecast population, it was not considered necessary to update the data inputs to the assessment of the needs of the existing population.

3.2.2 Below is a summary description of the key changes made to the 2014 Strategy which has been updated to the Strategy Refresh 2020:

- **Section 1** – the importance of open space in the City of Glen Eira is updated to reference its importance to offsetting negative impacts of increased urban densities, the positive benefits of open space to community health and wellbeing, the importance of urban greening including the protection of mature canopy trees and its role in mitigating urban heat island effect.
- **Section 2** – strategic context is updated to reflect the new and updated strategies and plans.
- **Section 3** – this is updated to reflect the changes in the open space framework since the 2014 Strategy including references to more recent research available, particularly in relation to the importance of open space to urban greening and mental health and wellbeing.
- **Section 4.1** – the quantity of open space is updated to reflect the changes to the open space network since the 2014 Strategy was prepared. This included the loss of open space along the rail corridors and new open space added to the network as part of implementing the 2014 Strategy.
- **Section 4.2** – the distribution of open space is updated to take into account the changes to the railway corridors as a result of the Level Crossing Removal Project. The main changes are associated with the elevated rail corridor along the Dandenong railway line through Caulfield East, Carnegie and Murrumbeena. The open space distribution is also updated at the request of the council project working group to include signalised crossings over major roads and adjusted walking catchments in the gap analysis plans.
- **Section 4.3** – the issues are updated to include consideration of the impacts of increased urban densities and urban heat island effect in relation to the design and role of open space. It includes the need for a well distributed green open space network that contributes to the overall sustainability and liveability of the municipality.
- **Section 4.4** – future growth planning is updated with the new resident and worker population forecasts, along with the strategic framework guiding future change. This includes summaries of the recent and forthcoming structure plans. The updated growth framework is illustrated in the updated Figure 4B.
- **Section 4.5** – open space contributions are updated to refer to the 5.7 per cent contribution rate being included into the Glen Eira Planning Scheme in March 2015 and the review of the open space contribution program and rate as part of the Strategy Refresh 2020.
- **Section 5.3** – Table 5-2 is updated to include new sunlight controls given the higher density developments being proposed in the activity centres.
- **Section 5.5** – the guidelines for development adjoining open space are updated to include new sunlight access to open space controls to reflect the updates described in Table 5-2.
- **Section 5.6** – a revised open space contribution rate is included, which is calculated as part of the Strategy Refresh 2020.
- **Section 6** – the precinct analysis and recommendations were updated to reflect the changes in forecast growth and change and open space distribution. This included

adding a summary table of the open space needs assessment in each precinct with reference to the updated growth framework and activity centres. The recommendation tables kept the same numbering from the 2014 Strategy and where relevant, the priority was updated.

- **Section 7** – the open space design and management guidelines are updated to incorporate mitigating urban heat island effect, the importance of retaining the natural character, protecting and improving biodiversity values and universal access.
- **Section 8** – the implementation section is updated to be consistent with the proposed changes to the open space contribution rate.

3.2.3 In the Strategy Refresh 2020, Section 1.1, the Importance of open space in the City of Glen Eira has been updated to include a stronger reference to the consideration of the impact of urban densities on the open space provision. As urban densities continue to increase so will the reliance on public open space increase as more of the community have little or no access to private open space. This will increase the diversity of reasons people use open space in the future, particularly the types of uses they would typically undertake in private open space. This includes socialising with family or friends, being outdoors as a short break to enjoy the fresh air or natural sunlight, reading or playing informal games with children. Recognition of the future increased levels of use of public open space is considered throughout the Strategy Refresh 2020, along with the important role open space has in the mitigating urban heat island effect, particularly as urban densities increase and there is a loss of urban greening on private land.

3.2.4 The Strategy Refresh 2020 recognises that there are gaps in the open space network in Glen Eira, meaning that not everyone in community is able to easily and safely walk to open space. These gaps were identified in the 2014 Strategy and continue to be identified as a key issue in the Strategy Refresh 2020. Greater emphasis in the Strategy Refresh 2020 has also been placed on recognising that some areas may not necessarily be gap areas, but have a limited number and diversity of open space that will not be able to easily accommodate the forecast levels of use. The Strategy Refresh 2020 includes a series of prioritised recommendations to expand and improve the open space network to both address the gaps, as per the 2014 Strategy, and also to cater to the open space needs of the forecast community in the higher density settings where there is a limited amount and diversity of open space.

3.2.5 The methodology used to prepare the Strategy Refresh 2020 included:

- Review of the updated background reports including the updated growth framework and recent Structure Plans
- Analysis of the updated population forecasts, including the changes that have occurred since the 2014 Strategy was prepared
- Update the existing open space network including adding new areas of open space and removing areas that have changed
- Updated analysis and issues identification based on the new material supplied. This included updates to the municipal wide and precinct assessments and recommendations.

- Preparation of the Draft Strategy Refresh report for council officer review and feedback
- Preparation of the Draft Strategy Refresh 2020 for community comment.
- Community consultation on the Draft Strategy Refresh 2020 (conducted by council officers).
- Preparation of the Final Strategy Refresh 2020 for adoption by Council in June 2020.

3.2.6 A Council officer project working group met at regular intervals through the project, providing input and comment at each stage. The different discipline across Council were represented on the working group and other areas were consulted as required.

3.3 Changes to the strategic context between the 2014 Strategy and the Strategy Refresh 2020

Implications of the Level Crossing Removal Project on open space planning

3.3.1 In the 2014 Strategy, the railway lines were identified as a barrier to safe and easy access to open space. At the time that Strategy was prepared, the timing for and design of the level crossing removals program had not been finalised and there was no indication that substantial changes to the rail corridor would be occurring in the near future. Subsequent to the 2014 Strategy being finalised, the Victorian government released the designs for an elevated rail line on the Caulfield to Dandenong railway line, removing nine level crossings and building five new railway stations. By elevating the railway line it has improved access across and along the railway reserve, adding ancillary open space to the network and increasing safe and easy cycle and pedestrian access to open space for the local communities north and south and of the elevated railway line. While there have been positive open space outcomes from the project, there have been negative impacts on the natural values and greening with a significant loss of mature tree canopy cover along the railway corridor, an increase in the prominence of built form and infrastructure in the activity centres. The changes to safe and easy access to open space through Carnegie, Murrumbeena and Hughesdale are illustrated in the Figure 4B of the Strategy Refresh 2020.

3.3.2 The change in access to open space has been considered in the context of the other proposed changes in Caulfield East, Carnegie and Murrumbeena. This includes the changes to forecast population growth in the activity centres associated with the new stations which is strategically supported by the Victorian government in Plan Melbourne 2017-2050. Since the 2014 Strategy, Council prepared an updated growth framework plan, *Activity Centre, Housing and Local Economy Strategy, July 2017*, to guide future growth and change associated with activity centres. The implications of the forecast change on the Strategy Refresh 2020 are described in paragraphs 3.3.4 and 3.3.5 below.

- 3.3.3 Three level crossings were removed on the Frankston Line at North Road in Ormond, McKinnon Road in McKinnon and Centre Road in Bentleigh. Grade separation was achieved by lowering the railway corridor along this section of rail line which resulted in a loss of ancillary linear open space and loss of mature canopy trees along the railway corridor. A further two level crossings are planned for removal on the Frankston Line at Glen Huntly Road and Neerim Road. Similar to the other three stations on this line, the grade separation will be achieved by lowering the rail line, which will not provide any substantial improvement to access to open space. The loss of the ancillary open space along the railway line has been addressed in the precinct recommendations for Bentleigh in Section 6.2 of the Strategy Refresh 2020.

Implications of higher levels of population growth on open space planning

- 3.3.4 The higher levels of population growth results in more people using open space. With increased urban densities, it also means that the new population often has less or no private open space resulting in increased reliance on public open space to meet all their open space needs. This has been recognised in the recently prepared *Open Space Strategy for Metropolitan Melbourne 2021 - Open Space for Everyone*, prepared by the Victorian Government. On page 20, it says *with more people living in higher-density housing with no private open space, our existing open space will see more people using it, more often and for longer*. Increased urban densities also results in an increased dominance of built form and loss of greening on private land. This was measured and reported on in the *Living Melbourne: Our Metropolitan Urban Forest Strategy* prepared by Resilient Melbourne, which identified the decline in canopy vegetation cover in many parts of Melbourne including in Glen Eira. The loss of urban greening impacts on the existing neighbourhood character that the community cherish and protect. A number of the submissions to this Amendment raise the loss of greening and increased urban densities as a key issue.
- 3.3.5 Open space can assist with urban greening to counter-balance the loss of greening on private land, along with other key roles that open space has. This includes places for people to exercise in a structured and unstructured way, places for people to socialise and meet their neighbours and friends, places for people to relax and unwind and immerse themselves in nature, places for biodiversity improvement to support habitat for native wildlife and places to protect and plant new large canopy trees for shade and urban cooling.
- 3.3.6 In order to understand the implications of the increased population growth and update the 2014 Strategy, I needed to first understand what had changed between the forecasts we were working with from 2013 and the new population forecasts commencing at 2016. This change was supplied to me by Esther Kay who compiled the work completed by .id Forecasts and the Council. This change is shown in Table 4-8 of Strategy Refresh 2020, showing the comparison of the forecast population change between the 2013 and 2016 and the actual change on page 68. The implications from this table showed that in some precincts, the total residential population that was forecast to arrive by 2026 had already

been exceeded by 2016. In other areas the growth was occurring faster than originally forecast with only one precinct having a slower rate of growth.

- 3.3.7 I also needed to understand the forecast change in the new planning period from 2016 to 2031. As shown in Table 4-9 in the Strategy Refresh 2020, on page 69 of the report, the quantum of residential population change relative to the existing population is shown. In addition to the residential population, Council also provided us with forecast employment population change by precinct over the same time period of 2016 to 2031. This is shown in Table 4-10 on page 70 of the Strategy Refresh 2020. The employment population within each precinct is to be located in the employment nodes, activity centres, strategic commercial redevelopment sites, health and education facilities. There was no sub-precinct breakdown of these forecasts so they were treated the same way they were in the 2014 Strategy.
- 3.3.8 I then reviewed the open space needs analysis based on the new information available and adjusted the recommendations in each precinct to suit the context of the increased level of growth and change. St Kilda East was the only precinct with minimal change to the recommendations. In other precincts, the changes included additional open space and additional upgrades to existing open space.

Implications of the change in Council's strategic growth framework on open space planning.

- 3.3.9 The main implications of the change in the strategic growth framework for the Strategy Refresh 2020 was changes to the locations of where forecast growth will occur compared with the 2014 Strategy. The key changes to the growth framework were the designation of activity centres, some of which were upgraded in their level of importance to accommodate addition change. Centres such as McKinnon and Glen Huntly illustrate the change where the forecast change in McKinnon has changed from negative to growth to a 12 per cent increase and Glen Huntly from 4 to 16 per cent growth. The larger centres of Carnegie and Bentleigh have more than doubled the percentage of growth that was forecast in 2014. The implications were addressed with the analysis of increased population growth, described in paragraphs 3.3.4 to 3.3.8.

Implications of the preparation of structure plans for the three Major Activity Centres on open space planning

- 3.3.10 The preparation of the structure plans provided a direction for the overall extent of changes in land use, built form and public realm proposed for each of the centres. This informed the open space needs analysis and recommendations for those centres in the Strategy Refresh 2020. The changes in land use, proposed building heights and increased urban densities were key factors that informed the recommendations for new open space in the activity centres.

Implications of climate change and tree canopy loss on open space planning

- 3.3.11 Since the 2014 Strategy was prepared, research into and understanding of the extent and implications of tree canopy loss is better understood. The Strategy Refresh 2020 has included reference to the *Living Melbourne: Our Metropolitan Urban Forest Strategy, 2019* which quantifies tree canopy loss across different parts of Melbourne. It identifies that there has been a loss in tree canopy cover in the south-eastern municipalities including Glen Eira. Following the Strategy Refresh 2020, the City of Glen Eira has prepared the Glen Eira Urban Forest Strategy, Adopted by Council June 2021. The Urban Forest Strategy identifies priorities to reverse the decline in canopy vegetation cover and the has set targets for increasing tree canopy cover on public land. This is combined with an increased acceptance of the importance of urban greening to liveability and to our mental health and wellbeing. While the 2014 Strategy did include and consider these principles, the urgency and magnitude of the issue was not quantified the same way that it has in *Living Melbourne: Our Metropolitan Urban Forest Strategy* and as a result the Strategy Refresh 2020 has more emphasis on the issues of urban greening in the context of climate change and increased urban densities.
- 3.3.12 For the Strategy Refresh 2020, the implications of the loss of urban greening and impact of built form in activity centres has been considered during the updated open space needs assessments and recommendations. This includes the consideration of greater weight being given to the need for new open space to address the loss of private open space and associated greening and tree canopy cover, in addition to the need for open space to be within a safe and easy walk of everyone and to provide adequate space for structured and unstructured recreation, informal uses and biodiversity protection.

3.4 Overview of the method used to determine the future open space needs of the existing population

- 3.4.1 The Strategy Refresh 2020 uses the same method used for the 2014 Strategy to assess the open space needs of the existing population. This includes the outcomes of the household survey, site visits to open space, background research and feedback from council officers via the project working group and council officer workshops held for the project. The household survey results are summarised in Section 2.4 of the Strategy Refresh 2020 and remain unchanged from the 2014 Strategy. A summary of the results for each precinct are included throughout Section 6 of the Strategy. The full report on the survey outcomes is attached as Appendix A to the Strategy Refresh 2020 and remains unchanged from the 2014 Strategy.
- 3.4.2 In relation to site visits, I visited all the new open space reserves that had been established since the 2014 Strategy was prepared, along with the open space reserves that had been upgraded and changed since the 2014 Strategy. I visited the activity centres and associated open space where significant levels of population change had either recently occurred or is forecast to occur. I then relied on my previous site assessment work that was undertaken for all open space for the 2014 Strategy for the remainder of the municipality.
- 3.4.3 The combination of the site assessment work, the research and the input from the Recreation and Open Space along with the Parks Services teams at Council combined with the analysis of open space distribution all formed the basis of documenting the existing situation and informed the open space needs assessment and recommendations to meet the open space needs of the existing population.
- 3.4.4 Community consultation was undertaken by council officers on the Draft Strategy Refresh in early 2020.

3.5 The method used to determine the open space needs of the forecast population

- 3.5.1 The method used to determine the open space needs of the forecast population is the same as was used for the 2014 Strategy. I relied on the updated projected population forecasts provided by Council and assembled and included in the Strategy Refresh 2020 by Esther Kay. The resident population figures including the breakdown by precinct are prepared by .id Consulting, November 2018. The employment population was sourced from the *Glen Eira Housing and Local Economy Growth Assessment, December 2018* prepared by SGS for the Council as explained and included in Section 4.4 of the Strategy Refresh 2020.
- 3.5.2 The updated growth planning framework is spatially illustrated on Figure 4D in the Strategy Refresh 2020.

- 3.5.3 There are a number of factors that influence the open space needs of the forecast population including:
- The existing open space within the precinct
 - The hierarchy, character and condition of existing open space
 - The spatial distribution of open space
 - The location, density and magnitude of the forecast population growth.
 - The existing urban layout including the presence of physical barriers to safe pedestrian access to open space.
 - The proposed urban form. In locations where higher densities and concentrations of the forecast new population are proposed, I have assumed there will be greater demand placed on open space in the immediate vicinity of the new population. The increased population in combination with lower levels of private open space and increased dominance of built form exacerbating urban heat island have been factored into the open space needs assessment. The increased population will create additional demand for facilities such as paths, fitness equipment, picnic facilities, seating areas, playgrounds etc.
- 3.5.4 For each precinct, I reviewed and assessed:
- The location and magnitude of forecast future resident and worker population growth
 - The existing open space within the precinct
 - The existing level of use and satisfaction with the open space.

3.6 Apportionment of costs between the existing and forecast population

Strategy Preliminary Opinion of Probable Cost (POPC)

- 3.6.1 As for the 2014 Strategy, the costs for the land area for new open space were based on the average land area size of the hierarchy (type) of open space. The average land size of open space is described in Table 3-4 in the Strategy Refresh 2020. For example, a new Local open space with a minimum land area of 0.26 hectares and maximum size of 0.99 hectares has an average size of 0.62 hectares. This average land area is multiplied by the Capital Improved Value (CIV) for the relevant sub-precinct in which the new open space is proposed. The Capital Improved Values for the sub-precincts were supplied to the project by Council.
- 3.6.2 The costs for the capital works projects are for both the establishment of new open space and for the upgrade to existing open space. The costs are based on:
- Average park costings which are prepared for each hierarchy (type) of open space. These average park costings were developed using the typical features and works that would be undertaken to design and construct a new open space in each hierarchy type. These were developed by TBLD in consultation with the Recreation and Open Space and Park Services teams at the City of Glen Eira. Upgrades to existing open

space were based on a proportion of the total establishment cost. The proportion varied according to the scale of works required.

- These average park costings were assigned to all capital works projects in the Strategy Refresh 2020. This includes upgrades to existing open space and establishment of new open space.
- The costs allocated to capital works upgrade in Municipal open space are only for neighbourhood level facilities and not the structured (organised) sporting facilities. Neighbourhood level facilities typically include play areas, seating, picnic areas, outdoor fitness equipment, garden bed planting, trees and open grassed areas for informal use.

3.6.3 Council has other costs in relation to the ongoing provision, management and maintenance of the open space network outside those included in the Strategy POPC. These include the capital work costs associated with the provision of structured (organised) sport and recreation facilities and the ongoing operational budgets associated with maintenance and management of open space. None of these costs are included in the Strategy POPC and the costs for those works are funded from other council revenue.

Apportionment of the Strategy POPC costs

3.6.4 As per the 2014 Strategy, the apportionment was done on a project-by-project basis, with a proportion of the cost for each project assigned to the existing and forecast population. The proportion changed according to the need for and the benefit derived from each open space project.

3.6.5 The open space needs assessment for each precinct is described in Section 6 of the Strategy Refresh 2020. It explains the need for each recommendation, including whether the need is primarily generated by the existing or forecast population, or a combination of both. The proportions are represented by a percentage amount in the Strategy POPC. In locations where there is an existing shortfall in open space and new open space is to be provided, the costs are attributed based on the range of factors described in paragraph 3.5.3. This typically ranges from an 80/20 to 50/50 split depending on the location and proportion of need and benefit generated from each. In some locations where the projects are primarily for the existing population then a 90/10 split between the existing and forecast population is applied.

3.6.6 Based on the apportionment of the costs to the existing and forecast population for every project including the new land area for open space and capital works, a total dollar value of what is required to be raised from the forecast population via open space contributions is determined. This is distinct from the total dollar value to implement the works to meet the needs of the existing population.

3.6.7 Esther Kay has prepared the calculation of the open space contribution rate and the method to do this is described in the Open Space Contributions Program Report. The figures calculated by TBLD in the Strategy POPC were supplied to Esther Kay for use in the contribution rate calculation. These figures are shown in Appendix A, Table A-1 Public open space contribution rate calculation.

3.6.8 The Strategy POPC includes the cost of new open space (land area) and capital works improvements to new and existing open space only. It does not include any ongoing maintenance and operation costs as noted in paragraph 3.7.3. The maintenance, operation costs and structured sport and recreation facilities costs are funded from other revenue.

3.7 Impact of COVID-19

3.7.1 The submissions raised the issue that the impact of COVID-19 has not been considered in the Strategy Refresh 2020. All the research, analysis and recommendations contained in the Strategy Refresh 2020 was undertaken prior to COVID-19. Council placed the Strategy Refresh on exhibition for community comment in early 2020. Minor changes were made to the Strategy Refresh in early 2020 in response to the community feedback and also additional edits from the Council officer project working group. It was then finalised and adopted by the Council in June 2020.

3.7.2 The potential impacts from the COVID-19 pandemic on the use of open space is currently unknown. The COVID-19 is continuing and is likely to continue to change during 2022. In the first eighteen months of the pandemic it appeared that people were outdoors and using open space more. Some of the factors influencing perceived increased levels of use open space during the six lockdowns in Victoria and Greater Melbourne include:

- Temporary closure of indoor recreation, leisure and entertainment facilities
- Temporary closure of non-essential retail
- Temporary closure of non-essential workplaces
- Closure of international, interstate and at times intrastate borders meaning people could not travel
- Stay at home orders with one of the only reasons you could leave home was to exercise. With all indoor and many outdoor recreation facilities closed, the public realm and public open space were the only places people could exercise and socialise safely
- Working from home and remote school learning
- 5 kilometre travel limit imposed during some of the lockdowns.

3.7.3 The Parliament of Victoria *Inquiry into environmental infrastructure for growing populations* (February 2022) includes discussion regarding the increase in demand for open space during the COVID-19 pandemic. Finding 22 notes that there has been a significant increase in the demand for green infrastructure, particularly public open space across Melbourne and the demand has been accelerated by the COVID-19 pandemic. The discussion associated the finding recognises that it is difficult to determine at this stage whether impacts of this will lead to a sustained increase in the use of the open space once the pandemic is over.

- 3.7.4 Now that the restrictions have lifted and lockdowns have ended, all non-essential shops have reopened, indoor recreation facilities are fully open, competitive community sport has recommenced, the state and international borders are now open so people can travel again, I have informally observed some reduction in the number of people using public open space within my local area since the peak of the lockdowns. I agree with the discussion in the *Inquiry into environmental infrastructure for growing populations* that it is too early to determine if the increased patterns of use of open space experience during COVID-19 will lead to permanent increased levels of use in the future.
- 3.7.5 In relation to consideration of changes to population forecasts as a result of COVID-19. My understanding is that there are currently no published changes to the population forecasts used in the Strategy Refresh 2020. I have checked the .id Forecast website for the City of Glen Eira and the forecasts match those shown in Table 4-9 of the Strategy Refresh 2020. The methodology I have used to determine the recommendations regarding future provision and design open space in the Strategy Refresh 2020 is based on the existing situation analysis and forecast population growth described in the Strategy. Given there is no change to the forecast population, the only impact could be that the growth occurs at a slower pace. If this occurs, it will not change the Strategy recommendations, it will only mean that the recommendations would be delivered at either at a later date.
- 3.7.6 Based on my research into the impacts of COVID-19 on the use of open space and the changes to the population forecast in the Strategy Refresh 2020, I do not see there is any reason to change the recommendations. The delivery timeframe may change and potentially occur at a slower pace, however the recommendations will ultimately be required to meet the open space needs of the forecast population.

4. Response to issues raised in submissions relevant to my area of expertise

4.1 Submissions supportive of the amendment

Total of five submissions supported the amendment. Below is a summary of the key issues raised in the submissions relevant to open space planning.

No.	Summary of issue	Response to issues
4.1.1	New open space is required to offset the impacts of increased urban densities resulting in the new population relying on and using open space more as they have less private open space.	The Strategy Refresh 2020 acknowledges and addresses the need to off-set the impacts of increased urban densities. This is taken into account as an integral part of the open space needs assessment that informs the recommendations for new open space, upgrades to existing open space and also the design and management guidelines. Refer to Section 4.3.1b of the Strategy Refresh 2020, which identifies and describes the issues associated with increased urban densities. Section 6 - Precinct Analysis and Recommendations describes the open space needs assessment and what the Strategy recommends which includes a number of new open spaces. I also note that the previous 2014 Strategy identified the need for new open space and Council have already implemented some of these recommendations and have added new open space to the network.
4.1.2	Purchase of new land area as open space is to be prioritised over capital works improvements.	As described in Section 3.6 of this Statement, the costs that have formed the basis of the open space contribution rate calculation include both land purchase and capital works improvements to open space. While the provision of new land area is important and is a large component of the cost of the future works, the improvements which includes provision of facilities and planting are important to ensure that the new open space is accessible and forms a valuable part of the open space network meeting the principles outlined Section 1.4 of the Strategy Refresh 2020.
4.1.3	The policy (22.12) does not note what size of land triggers a land contribution.	A minimum land size has not been specified in the policy because an open space land contribution is not always a stand-alone new open space. The land contribution in some situations will form part of an assembly of different land parcels that combined make up an open space. For example, a land contribution from a development site may be added to an existing open space reserve or may be added to a future land contribution in adjoining development site

No.	Summary of issue	Response to issues
		or a road reserve. Refer to Section 5.3.3 of the Strategy Refresh 2020 which describes the methods to acquire/secure additional open space.
4.1.4	The Strategy needs to include guidelines for development on private land including landscape set-backs and more green space.	<p>The Strategy Refresh 2020 deals with the public open space network and not the private open space network. Public open space is defined on page 4, Section 1.3.2a of the Strategy Refresh 2020.</p> <p>On page 5, Section 1.3.4 of the Strategy Refresh 2020, includes a description of 'publicly accessible private open space', and clarifies that these spaces are not included in the definition of public open space for this Strategy. In summary, publicly accessible private open space is land that can be used by the public such as forecourts to buildings and outdoor spaces around apartment buildings where they are not fenced. The Strategy notes that these spaces can complement the public open space network but do not replace the need for public open space.</p> <p>Guidelines for development of private land which directly adjoins public open space are included in the Strategy Refresh 2020 on page 99. The guidelines apply for development sites where the amenity and function of the open space is influenced by the land use, design, layout, built form and landscaping treatment of the adjoining site.</p>

4.2 Submissions requesting a higher contribution rate

10 of the 27 submissions requested a higher contribution rate. Below is a summary of the key issues raised in the submissions relevant to open space planning.

No.	Summary of issue	Response to issues
4.2.1	The proposed rate of 8.3% is inadequate to address the shortfall in existing open space.	<p>The Strategy Refresh 2020 recommends the provision of additional open space across the municipality to address the key gaps in the open space network. Implementation of the Strategy recommendations will increase the provision of open space within the context of what is practical to achieve in an established urban area and within the program of works that council can reasonably resource and deliver in the context of the forecast growth that is being planned for.</p> <p>The recommendations are based on an assessment of the existing and forecast population needs for open space, as explained in Section 3.4 to 3.6 of this Statement. The open space contributions are one source of funding for implementation of the Strategy on behalf of the forecast population. Council revenue and other methods of contribution such as converting council owned land will be required to fund the open</p>

No.	Summary of issue	Response to issues
		space program on behalf of the existing population. Open space contributions can only be collected and spent on open space projects for the future population and cannot be used to make up shortfalls in open space for the existing population. Therefore, it is correct that the 8.3% will not make up all the deficiencies in the network as this will be funded by both the open space contributions on behalf of the forecast population and by other Council revenue and means on behalf of the existing population.
4.2.2	The 8.3% is inadequate to address the significant population growth and impacts from the increase in urban densities.	Noted. The Strategy Refresh 2020 has considered the impacts of increased urban densities as part of the analysis and recommendations. Refer to my response to submissions 4.1.1 in this Statement.
4.2.3	Increased urban densities is causing tree canopy loss and exacerbating urban heat island effect with additional open space required to redress the balance.	Noted. The Strategy Refresh 2020 has considered the impacts of the loss of greening on private land in the provision of additional open space. Section 5.2 contains a series of recommendations regarding the design and quality of new open space including urban heat mitigation, sustainable water use, trees, biodiversity values etc. Section 7 of the Strategy Refresh 2020 includes design and management guidelines supporting improved environmental and sustainability outcomes in open space. Specifically, Section 7.1 and 7.2 refer to incorporating natural features including, large canopy trees, sustainable water reuse infrastructure to irrigate open space and assist to mitigate urban heat island effect.
4.2.4	Loss of permeable surfaces on private land as urban densities increase exacerbating flooding issues.	Refer to my response to 4.2.3, however I cannot comment on flooding issues as this is outside my area of expertise.

4.3 Submissions that do not support the amendment

12 submissions objected to the proposed amendment and 8.3% open space contribution rate. Below is a summary of the key issues raised in the submissions relevant to open space planning.

No.	Summary of issue	Response to issues
4.3.1	The Strategy is based on outdated data including the community survey from 2012	The community survey was undertaken in 2013. Refer to Section 3.2.1 of this Expert Witness Statement for an explanation of the data used in the Strategy Refresh 2020.

No.	Summary of issue	Response to issues
4.3.2	Lack of justification in the Strategy Refresh 2020 for the proposed 8.3% open space contribution rate.	Refer to the Sections 3.4 to 3.7 of this Expert Witness Statement for an explanation regarding the justification for the open space contribution rate.
4.3.3	Council to convert land it owns such as car parks and roads into open space.	The Strategy Refresh 2020 has identified the type and sub-precincts in which new open space is required. These are all described in Section 6 of the report. The final location of the new open spaces will be determined via the sub-precinct open space assessment work to be completed for each location where new open space is proposed. Refer to Section 5.3.2 of the Strategy Refresh 2020 which describes the sub-precinct analysis for additional open space. Section 5.3.3 of the Strategy describes the methods to acquire/secure additional open space. This includes the recommendation for conversion of land owned by Council, for example roads if it meets the criteria for new open space and is in a location where new open space is required.
4.3.4	Open space needs to be large enough to cater to structured and unstructured sport and recreation activities.	<p>The proposed new Local open spaces will be large enough to cater to unstructured recreation activities including level open grassed areas large enough for informal games, along fitness equipment, or play facilities or multi-use hard court areas. The new open spaces will be designed to complement the other larger open spaces within the broader catchment to cater to the different open space needs. The new Small Local open spaces will be able to accommodate informal uses and small scale unstructured recreation facilities such as small play facilities or fitness equipment. They will also be able to include small open grassed areas, but the size of these may limit the informal games - for example they would be able to accommodate activities such as bocce which require a smaller area. Section 5.1.1, Table 5-1 in the Strategy Refresh 2020 includes a table of the different types of facilities that are appropriate for the different sized areas of open space.</p> <p>In relation to structured (organised) sporting facilities, the Strategy Refresh 2020 recommends that Council continues advocate for the inclusion of structured sporting use in the centre of Caulfield Racecourse Reserve. Refer to Recommendation No. 5.1B in the Strategy Refresh 2020.</p>
4.3.5	Impacts of COVID 19 on the Amendment have not been considered.	Refer to Section 3.7 of this Expert Witness Statement for a description of the recent impacts of COVID 19.
4.3.6	Do not agree with the Strategy approach to add smaller areas of	Refer to responses to submissions - item 4.2.3.

No.	Summary of issue	Response to issues
	open space to the network - this is not ambitious enough.	

Statement

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.



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