SUMMARY STATEMENT

1. My name is Toby Chapman. I am employed as the Urban Forest Manager for Parks at the Christchurch City Council. At the time of providing my earlier evidence, my role was City Arborist.

2. I prepared evidence on behalf of the **Christchurch City Council** in respect of matters arising from the Significant and Other Trees Qualifying Matter, and the financial contributions/tree canopy cover provisions.

3. My evidence will cover both the importance of the significant trees qualifying matter (Part A); and the financial contribution provisions related to tree canopy cover (Part B).

4. My summary also contains a number of appendices:

   Appendix A: Increasing soil volume through engineered design

   Appendix B: Christchurch City Council tree species list

   Appendix C: Ferrymead planting design with Tree Canopy Cover projections.

PART A: Significant Trees QM

5. The current District Plan's Chapter 9.4 contains a list of trees designated as significant, accompanied by various rules to govern both the trees themselves and any works conducted near them.

6. In summary, I present four points supporting the retention of current protection for these trees as qualifying matters, along with the importance of the rules for their long-term sustainability. Protecting significant trees within the city is crucial for the following reasons:

   (a) Trees directly mitigate many negative impacts associated with urban development and intensification. Given that the magnitude of these benefits often correlates with tree size (e.g., water interception or air quality improvement), it's essential to recognize that the listed significant trees are mature and generally large, thus offering greater benefits than average trees.

   (b) Numerous trees listed in the register are over 100 years old and serve as a historical link to the city's early development, particularly its early European settlement.

(c) As part of the assessment for tree inclusion, a Comprehensive Tree Evaluation Method (CTEM) assessment was conducted, evaluating tree health and structure. This assessment confirms that the trees are in a healthy state and not reaching the end of their lifespan.

(d) Older trees are more vulnerable to damage likely to occur during nearby development. Damage such as loss of root environment, physical harm to the tree, root removal, and soil compaction can lead to tree death or decline. Implementing adequate protection measures is crucial to prevent such occurrences.

7. Various engineering and design solutions exist for constructing around trees. In my professional opinion, while tree protection may pose challenges to site development in some cases, in most instances, simple solutions can ensure development and tree retention can coexist.

8. In my evidence, I respond to submission points in respect of a number of specific trees. I would be happy to answer any questions about those particular trees.

PART B: Financial Contributions / Tree Canopy Cover

9. As detailed in the testimony of Justin Morgenroth and Colin Meurk, trees offer a wide array of benefits, further expounded upon in the Council's Urban Forest Plan.

10. The latest tree canopy cover survey conducted by the Council revealed that 57% of the city's canopy cover is on private land, with 35% situated in residentially zoned areas. These statistics underscore the significance of privately owned and residential trees to the city's Urban Forest.

11. Christchurch's tree canopy cover is notably low, recorded at 13.56% in 2018/19, in comparison to national figures such as Wellington's 30% and Auckland's 18%. An academic report by the University of Canterbury highlighted that Christchurch's canopy cover was below average for similar cities internationally. The same report recommended that a city like Christchurch should aim for a canopy cover of 20%, based on targets set by other cities and their existing canopy cover. Achieving this goal will heavily rely on private landowners maintaining and increasing canopy cover.

12. Through the proposal, the Council will offer developers the option to either plant trees on-site or provide funding for the Council to carry out tree planting

on their behalf. The preferred approach is for tree planting to occur within the development site, with the Financial Contribution provision offering an alternative option to developers.

13. As our city intensifies, it will become increasingly difficult to incorporate trees into the environment without forward planning and adequate protection. Council will continue to find solutions that make it easier to incorporate trees and to work with developers and designers to ensure that it is simple to measure and assess.

Responses to submissions

14. In my evidence I responded to a number of submission points on the provisions, and in particular the implementation of the tree canopy cover requirements.[1] Key points I wish to reiterate include:

    (a) Council should (and will) commit to continuously updating and maintaining its website to ensure species tree heights at maturity reflect the urban environment;

    (b) I do not think the potential use of 'structural soil' makes a 20% canopy cover target too ambitious;

    (c) I am comfortable with the approach in the provisions to impervious surfaces beneath planted trees;

    (d) minimum soil width requirements should be included in the provisions (as sought in the Council's submission) s to ensure the soil volume remains viable for tree sustenance. Without these standards, there is a risk of soil volumes being too narrow or lengthy, rendering them unsuitable for supporting trees.;

    (e) the $2,037 excl GST figure for the cost of planting each tree (when financial contributions are paid) is reasonable, and likely understates the true cost to Council; and

    (f) the Council is developing and progressively implementing tools to monitor tree canopy cover levels.

[1] At [69] to [107].

Expert witness conferencing and related updates

15. During expert witness conferencing concerns were raised, in particular by Ms Strachan on behalf of Kainga Ora, regarding the challenges of incorporating an adequate number of trees on a site and how to assess this accurately and efficiently.[2]

16. **Appendix A** presents an example of how trees can be integrated into a built environment through straightforward engineering solutions, enabling infrastructure to be constructed near trees without risking damage to either the tree or the infrastructure in the future.

17. Following conferencing, the Council has undertaken various initiatives to address these challenges, including updating the Council's Tree Planting Guide webpage[3]with more information on soil volume measurement and engineered solutions for tree incorporation.

18. The Council also acknowledges errors in the original Tree Species list regarding size classes, which have been rectified, and additional details such as canopy shape have been included[4]. This list is updated on a regular basis and new trees are added. Council will be also provide a process for new tree to be added on the webpage.

19. Concerns were raised regarding the web calculator's tendency to overstate canopy cover within a site, as it may include canopy extending over property boundaries or overlapping with other trees. It is important to note that the webpage serves as an indicator only to assist developers in their applications, and further information will be added to clarify these limitations.

20. Difficulties in measuring canopy cover of mature trees were also raised. Since expert conferencing, the Council has begun developing planting plans for its parks, which include assessments of mature canopy and factors such as overlapping canopy (**Appendix C** provides an example of such plans, demonstrating their feasibility).

Date: 17 April 2024

Toby Chapman

[2] Joint-Expert-Witness-Statement-of-Landscape-and-Arboriculture-Experts-Proposed-Tree-Canopy-Cover-and-Financial-Contribution-Rules-9-October-2023.pdf (ihp.govt.nz)
[3] https://ccc.govt.nz/environment/trees-and-vegetation/urbanforest/tree-planting-guide
[4] https://ccc.govt.nz/assets/Documents/Environment/Trees/Tree-species-list-March-2024.xlsx