

Memorandum

To: Louisa Armstrong – Christchurch City Council

From: Richard Turner

Date: 31 August 2020

Re: **Further Information Request – Ryman Park Terrace**

1. INTRODUCTION

The purpose of this memorandum is to provide Ryman Healthcare Limited's ("Ryman") response to the further information requested by Christchurch City Council on 4 August 2020, pursuant to section 92 of the Resource Management Act 1991 ("RMA"), and in relation to the resource consent applications for a comprehensive care retirement village ("Proposed Village") at 78 Park Terrace and 100 Park Terrace, Christchurch.

Responses to the further information requested are provided in the following sections, with the relevant appendices noted as appropriate.

2. HERITAGE

The further information request seeks the following with respect to heritage matters:

Please confirm the dimensions for the retaining walls for the basement, and provide a brief assessment against Rule 9.3.4.1.3 RD2 for new buildings in a heritage setting.

Please confirm if the proposed access ramp for the chapel is attached to new fabric (e.g. pergola or planter box) or the heritage fabric of the chapel to assist in Council's assessment of the impacts of the Heritage Upgrade Works on heritage fabric under Rule 9.3.4.1.2 C1.

The retaining walls for the basements at the Peterborough and Bishops Park sites will have a permanent retained height of approximately 3 and 3.5 m. During construction of the Proposed Village, the retained height will be up to approximately 1.2 m greater than for the permanent retaining walls to allow for the construction of the basement slab and underlying compacted hardfill. Careful staging of the excavation will be undertaken with regular displacement monitoring of the wall and surrounding area.

Tonkin & Taylor advise that in the event that measured displacements exceed expected displacements for the relevant stage of construction, appropriate contingency measures (such as propping) will be implemented to ensure that displacement is managed and the effects on adjacent

properties are within normally accepted tolerances. These contingency measures will be specified during detailed design.

A drawing detailing the retaining walls proposed in the vicinity of the Bishops Chapel is attached as **Appendix A** to this memorandum.

With respect to the assessment matters in Rule 9.3.4.1.3 RD2, the following commentary is provided in relation to the proposed retaining walls:

ASSESSMENT MATTER	COMMENTARY
The nature and extent of damage incurred as a result of the Canterbury earthquakes of 2010 and 2011 including the costs of repair and reconstruction.	The damage suffered to the Bishops Chapel during the Canterbury earthquakes is documented in the Heritage Assessment by Dave Pearson Architects, which is attached as Appendix I to the Assessment of Environmental Effects.
The level of intervention necessary to carry out the works, including to meet the requirements of the Building Act and Building Code, and alternative solutions considered.	The extent of works required within the heritage setting of the Bishops Chapel in order to establish the retaining walls and construct the Proposed Village is documented in the Assessment of Environmental Effects and the previous further information responses.
Whether the proposal will provide for ongoing and viable uses, including adaptive reuse, of the heritage item.	The retaining walls are part of a package of works that are necessary to provide for the restoration and reuse of the Bishops Chapel, as part of the Proposed Village.
<p>Whether the proposal, including the form, materials and methodologies are consistent with maintaining the heritage values of heritage items and heritage settings, and whether the proposal will enhance heritage values, particularly in the case of Highly Significant (Group 1) heritage items and heritage settings and in particular have regard to:</p> <ul style="list-style-type: none"> - the form, scale, mass materials, colour, design (including the ratio of solid to void), detailing (including the appearance and profile of materials used), and location of the heritage item; - the use of existing heritage fabric; - the extent of earthworks necessary as part of the proposal; - the necessity of the removal or transplanting of mature trees; - the impact on public places; and 	The establishment of the retaining walls will not affect the heritage values or heritage setting of the Bishops Chapel. The permanent retaining wall sections will be located below ground level and are necessary to ensure the integrity of the chapel during the construction works on the site.

<ul style="list-style-type: none"> - within a heritage setting, the relationship between elements, such as layout and orientation, form and materials. 	
<p>The extent to which the works are in accordance with the principles in Policy 9.3.2.2.3(b), and whether the proposal:</p> <ul style="list-style-type: none"> - is supported by a conservation plan or expert heritage report; and - the extent to which it is consistent with the Heritage Statement of Significance and Conservation Plan and the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value (ICOMOS New Zealand Charter 2010). 	<p>The resource consent application is supported by a Heritage Assessment by Dave Pearson Architects, which is attached as Appendix I to the Assessment of Environmental Effects. In addition, a draft Temporary Protection Plan has been proposed by Ryman to manage potential heritage effects during construction.</p>
<p>Whether the proposed work will have a temporary or permanent adverse effect on heritage fabric, layout, form or heritage values and the scale of that effect, and any positive effects on heritage fabric, fabric, form or values.</p>	<p>The establishment of the permanent retaining walls will not affect the fabric, layout or form of the Bishops Chapel. They will be located below ground level and are necessary to ensure the integrity of the chapel during the construction works on the site.</p>
<p>The extent to which the heritage fabric has been damaged by natural events, weather and environmental factors and the necessity of work to prevent further deterioration.</p>	<p>A description of the heritage fabric of the Bishops Chapel, and the extent of weathering, is documented in the Heritage Assessment by Dave Pearson Architects, which was attached as Appendix I to the Assessment of Environmental Effects.</p>
<p>Whether Heritage New Zealand Pouhere Taonga has been consulted and the outcome of that consultation.</p>	<p>Consultation has been undertaken with Heritage New Zealand Pouhere Taonga regarding the upgrade of the Bishops Chapel. During the consultation they noted that the setting of the chapel has changed since the earthquakes with the demolition of the Bishop's residence, but that the Chapel retains significant heritage values.</p> <p>Heritage New Zealand Pouhere Taonga undertook a site visit with Ryman and Dave Pearson Architects on 18 March 2020, and they confirmed their support for the work proposed to repair and strengthen the chapel.</p>
<p>Whether the site has cultural or spiritual significance to Tangata Whenua and the outcome of any consultation</p>	<p>The Bishops Chapel is not considered to be of cultural or spiritual significance to Ngai Tahu.</p>

<p>undertaken with Te Rūnanga o Ngāi Tahu and Papatipu Rūnanga.</p>	
<p>The extent to which mitigation measures are proposed to be implemented to protect the heritage item. Such mitigation measures include but are not limited to the use of a temporary protection plan.</p>	<p>The mitigation measures proposed to protect the heritage item during the construction of the Proposed Village, including the retaining walls, is documented in the draft Temporary Protection Plan that has already been provided to the Christchurch City Council.</p> <p>Furthermore, and as previously advised, the permanent retaining walls proposed for the three sides of the basement will be sufficient to ensure the overall stability of the ground around the Bishops Chapel during construction of the Proposed Village.</p>
<p>The extent of photographic recording which is necessary to document changes, including prior to, during the course of the works and on completion, particularly in the case of Highly Significant (Group 1) heritage items, the need for a high level of photographic recording throughout the process of the works, including prior to the works commencing.</p>	<p>As noted in the draft Temporary Protection Plan, a comprehensive photographic record will be undertaken by the heritage professional overseeing the works at Bishops Chapel. Ryman will also have the chapel electronically scanned prior to any work being carried out.</p>
<p>For new buildings, structures and/or features in heritage items which are open spaces, whether the building, structure or feature will:</p> <ul style="list-style-type: none"> - be compatible with the heritage fabric, values and significance of the heritage item including design, detailing and location of heritage item(s) within the open space; - impact on views to or from the heritage item(s), and reduce the visibility of heritage item(s) from public places; and - the relationship between elements, such as the layout and orientation, form, and materials within the open space. 	<p>The Bishops Chapel is noted located in an open space, given that it is located in a private residential environment. Notwithstanding this, the proposed establishment of the retaining walls will not comprise the heritage values or views of the Bishops Chapel as they are located underground (effectively as part of the basement carpark).</p>
<p>For the relocation of a heritage items:</p> <ul style="list-style-type: none"> - whether the new location and orientation of the heritage item will maintain the heritage values of the heritage item; - whether alternative solutions have been considered, including repairs, reconstruction, heritage upgrade works, and restoration in situ; and 	<p>N/A – the proposal does not involve the relocation of any heritage items.</p>

<ul style="list-style-type: none"> - the potential damage to heritage fabric during relocation and whether repairs will be required, and what mitigation measures are proposed, including the use of temporary protection plan. 	
<p>For temporary event structures in heritage items which are open spaces and in heritage settings:</p> <ul style="list-style-type: none"> - the duration the temporary event structure will remain within the heritage item or heritage setting; and - whether the temporary event structures will impact on views to or from the heritage item(s) or heritage setting, and reduce the visibility of heritage item(s) from public places. 	<p>N/A – no temporary event structure are proposed.</p>
<p>For signage on heritage items and in heritage settings:</p> <ul style="list-style-type: none"> - whether the sign (including its supporting structure and methods of attachment to the heritage item) is compatible with the architectural form, features, fabric and heritage values of the heritage item or heritage setting; - the extent to which any moving, or flashing signs detract from the heritage values of the heritage item and/or heritage setting; and - whether the sign is temporary or permanent, and if temporary, the duration of the signage. 	<p>N/A – no signage is proposed as part of the establishment of the retaining walls in the heritage setting.</p>
<p>For utilities the functional need to be located in or in proximity to heritage items and heritage settings.</p>	<p>N/A – no utilities are proposed as part of the establishment of the retaining walls in the heritage setting.</p>

A drawing illustrating the proposed attachment of the ramp to new fabric at the Bishops Chapel is attached as **Appendix B**. The planter shown in the cross-section abuts the chapel, but is not attached to it.

3. EARTHWORKS

The further information request seeks the following with respect to earthworks matters:

In terms of the groundwater aspects of the geotechnical report, please provide an assessment of the possible effects of permanent diversion/damming of groundwater.

Tonkin & Taylor advise that on a local scale the groundwater flow direction of the shallow unconfined (water table) aquifer is inferred to be toward the Avon River to the west.

Construction of the basements will interrupt the local shallow groundwater flows towards the Avon River. Groundwater flow will re-establish following completion of the basement along an altered flow path around the basement. Whilst the basement structure will be an impermeable barrier to groundwater flows, the sub-grade materials and earth materials surrounding the basement will allow groundwater flows around and below the structure. The basement will not affect flow directions in the confined Riccarton Aquifer located at depth below the site.

Based on Tonkin & Taylor's conceptual model of the site ground conditions, there is some variation in the permeability of the shallow soils (i.e. within 10 m depth). The shallow ground conditions of sand and silt underlain by peat and silt are expected to have generally lower permeabilities than the deeper sand and gravel at depth. Hydrostatic pressures are observed in these layers above the Riccarton Aquifer and Aquitard.

The installation of the basements is within these soils of lower permeability and will result in a small increase in hydrostatic pressures (i.e. groundwater level) on the east side of the basements, which will result in slight mounding as the groundwater flows across the site from east to west. Tonkin & Taylor expect any groundwater mounding on the eastern side of the basements to be no more than 50 to 100 mm to occur in the soils above the Riccarton Aquifer and Aquitard. This is based on their experience at other sites with similar hydrogeological conditions. This amount of mounding is expected to be difficult to measure given the seasonal variation in shallow groundwater levels. The effects of this mounding will be negligible.

4. LANDSCAPE

The further information request seeks the following with respect to landscaping matters:

*Concern is still raised about the size of the tree species (*Quercus robur* 'Fastigata') and the size of the containers on the Salisbury Street frontage, and the 2.0m setback provided for these trees. There will be insufficient room for these trees in these locations. An adequate space for these trees would be approximately 4m or more.*

There is also still some uncertainty about the eventual height of the trees. The Planting Plans gives "Estimated 10 year Height". The Landscape Management Plan specifies that the 10 year "minimum" height is to be maintained as the minimum height, and must not be topped unless they exceed the specified minimum height. Does this mean that they will not be allowed to grow to their natural height, but will be topped so that they remain at the specified minimum height? For example the Planting Plan shows the Fastigate Oaks on Salisbury St to have an Estimated 10 year height of 8.0m. If the trees are to be continually topped and maintained at 8m (for example) this will impact on their growth form, health and vitality.

Concern is raised about the ability of trees to grow on the Westwood Tce frontage (Gingkos), the Dorset St frontage (only about 800mm provided), and the Park Tce frontage (trees right about against front fence). There will be insufficient room for these trees in these locations.

Many of the trees will have rather small soil volumes, in the containers such as 3m³, which will restrict their growth and are not likely therefore to reach their natural

potential size/heights. As an example, the Ginkgo trees and Tulip trees along the boundaries of 100 Park Terrace will be very restricted with very little space to grow.

Further to the discussions between Sean Dixon and Jennifer Dray, Design Squared note that the *Quercus fastigiata* along Salisbury Street will be maintained by Ryman at a minimum height of 8 m, the back of the trees closest to the building will be maintained at 300 mm off the building and the other sides will be allowed to form a wider tree of a minimum of 1 m radius from the trunk. The trees will be trimmed annually by Ryman's landscaping staff to maintain and resemble their natural form. The tight branching structure of this tree allows this to be trimmed and maintained at this size.

Design Squared also note that there are many examples throughout Christchurch where these trees are being maintained at 2 m diameters and at a height of 8 – 10 m (as proposed for this application).

The *Ginkgo* along Westwood Terrace are proposed as a sculptural element. These will be maintained at a height of approximately 6 m and will topiaried as 1.2 m cylinders along the laneway. The Ginkgo has a dense branch structure with the feathery leaves that allows this tree to be topiarised along the laneway. And have stunning yellow dense columns.

All trees will have irrigation and with being trimmed will be in ideal conditions, so the stress on them will be minimal. Ryman also considers that the trees can be maintained within a planted space of approximately 3 m³ – which again is consistent with many other planting examples around Christchurch. The planted spaces could potentially be slightly increased if deemed necessary, but this not currently considered to be the case given the trees role as a sculptural element.

Finally, it is noted that Ryman will maintain these trees (and replace any that perish) as part of the ongoing operation of the Proposed Village and in order to remain consistent with the consent conditions – which will presumably require the Proposed Village to implement and maintain the landscape plan provided with the resource consent application. As such, it is considered that the landscaping value provided by these trees can be retained over time.

5. TREES

The further information request seeks the following with respect to the scheduled tree at the Peterborough site:

Detailed scaled plans of the protected trees in relation to the building and basement, including cross sections, are still required. You will also need to include areas that are to be excavated as part of the construction of the buildings, not just the footprint of the buildings.

Please provide a detailed methodology showing precisely how you will do the proposed deep excavation work for the basement in close proximity to the tree, without damaging the roots etc.

The location of the basement walls in relation to the protected tree are shown on the resource consent drawings (such as Warren and Mahoney Peterborough Drawing .S02.A0-040) and on the Design

Squared Drawing SK102. A further drawing showing the proximity of the basement to the scheduled tree is attached as **Appendix C** to this memorandum.

In general, excavation will not be required outside of the basement footprint shown on these plans as allowance has been made for a 900 mm wide system. Utilizing systems such as clutch tubes or interlocked CFA piles, we expect that the retention system will be in the order of 900 mm wide (maximum).

Clutch tubes, if used, will be installed using low vibration techniques and pre-drilling where required. If interlocked CFA piles are used, these will be installed using standard CFA methodology whereby the auger is drilled into the soil to the required depth and the drilled material is removed as concrete is pumped through the hollow auger stem. Reinforcing steel is then lowered into the wet column of concrete (if used).

This construction methodology is also noted in the updated response from the project arborist, which is attached as **Appendix D** to this memorandum.