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FORMER BISHOP'S CHAPEL, 100 PARK TERRACE, CHRISTCHURCH
SITE SPECIFIC TEMPORARY PROTECTION PLAN

Ryman Healthcare is proposing to construct and operate a comprehensive care retirement village at 100 Park Terrace, Christchurch. The site was formerly the location of the residence of the Bishop of Christchurch and the chapel was erected for his personal use. The residence was damaged by the Christchurch earthquakes and was later demolished. The chapel was also damaged but was propped and has survived.

Ryman Healthcare intend on retaining the chapel which will be structurally upgraded and refurbished. The chapel will then be made available as part of the village amenities for use by residents and their guests.

The chapel is the only remaining structure on the site that was previously occupied by the bishop and has high heritage values. The building is scheduled in the Christchurch District Plan as a "Highly Significant" Category 1 historic heritage place. There is an associated "Setting" extending out from the building which indicates the area surrounding the chapel that is also protected.

Prior to the earthquakes, the chapel and the adjoining residence were listed by Heritage New Zealand Pouhere Taonga as a Category 1 Historic Place. The chapel retains its Category 1 listing.

A Heritage Assessment has been prepared by DPA Architects. This records all significant fabric that makes up the building and assesses its heritage value. A separate inventory will be prepared indicating fabric to be removed and to be later reinstated in its original location, as well as fabric that will be removed and either stored or disposed of. The Contractor shall familiarise himself with these documents.

The nature of the proposed work to the chapel and the site at large will inevitably involve a degree of risk to the building and the fabric of which it is comprised.

This Temporary Protection Plan has been prepared by DPA Architects. The purpose of the table in the TPP is to identify potential risks to heritage fabric while the chapel is being seismically upgraded and refurbished and to determine ways of reducing, mitigating or eliminating those risks. The Contractor shall provide a Construction programme for the building identifying key dates/milestones to enable site visits for monitoring purposes to be undertaken at the appropriate times.

The contractor will be required to make every effort to ensure that any potential damage is identified and either avoided or limited. The contractor will also be required to undertake his own risk analysis on a day to day basis. Any additional risks foreseen by the contractor and not identified in the following table shall be bought to the attention of the heritage professional. Measures to be taken to mitigate the perceived risk shall also be identified.

This document shall also be read in conjunction with a methodology statement prepared by the engineer.

General Requirements	
Potential Risk	**Mitigating Measure**
Recording Information could be lost if the building is not fully recorded.	The potential arises for information to be lost regarding the form of the building and for any information that comes to light during building operations regarding earlier materials and construction techniques that were used in its construction to then again be lost. This also may include original finishes to timber work and paint colours. Ryman Healthcare will arrange for the building to be electronically scanned prior to any work being carried out, including removal of items. A comprehensive photographic record will also be undertaken by the principal or heritage professional and maintained showing areas of the building affected by building works before, during and after that work has been completed. The Contractor shall also maintain his own photographic record. Copies of all images will be provided to the Christchurch City Council Heritage Team and Heritage New Zealand at project completion.
Heritage Briefing A heritage briefing will be carried out.	Prior to the commencement of works to the building, the contractor and supervising staff shall attend a site briefing by the project's heritage professional who will explain the significance of the building, along with the conditions of the resource consent and the requirements of the TPP.
Existing Condition The condition of the building shall be monitored throughout the construction work.	The Contractor shall familiarise himself with the condition of the building before commencing work, noting, in particular, earthquake related and other damage such as cracks in the building and weather-related damage. The project engineer may also install "tell-tales" and other recording devices to monitor cracks and other defects. The Contractor shall immediately notify the engineer if he becomes aware of any changes in the condition of the building, for example, as a result of vibrations or ground movement during excavations in proximity to the building.
Damage to Heritage Building Inappropriate treatment of building arising from lack of knowledge.	The Contractor shall familiarise himself with the Heritage Assessment and the document showing fabric that shall be retained in place, or removed and reinstated or placed in storage. The Contractor shall take particular care to ensure the safe keeping of significant fabric. Any areas where there is the potential for damage to occur to heritage fabric shall be identified prior to work commencing. Exposed surfaces of heritage fabric shall then be protected from potential damage. The type and method of protection is to be as described later in this TPP and approved by the heritage professional.

Deconstruction and Construction Activities Potential damage from inappropriate methodology	Deconstruction and construction activities shall be in accordance with best practice with methodologies appropriate for a heritage building. The contractor shall provide methodologies for removing and storing the various heritage items shown to be removed. Refer also to the specific conditions in this TPP. Once these methodologies have been agreed to by the heritage professional, they shall be strictly adhered to by the contractor unless a variation to the procedure is authorised in writing.
Installation of temporary supports Potential damage to building fabric by the installation of temporary bracing.	Temporary supports such as steel braces may be required in certain locations where work is being carried out. When temporary propping is being installed care is to be taken to ensure that damage is not caused to heritage fabric. In particular, the roof framing will need to be supported while the wall plates are removed to facilitate the installation of the structural plaster system. The Contractor shall provide a methodology for any structural stabilisation or temporary propping work that may be required to be in place prior to the commencement of work.
Scaffolding Potential damage to heritage fabric from erection and use of scaffold.	Fixed scaffolding shall be erected by a professional scaffolding company. Workmen shall take particular care when carrying scaffolding through the building to avoid damaging heritage fabric. Ensure that protection is in place before carrying scaffolding through door openings and the like. Only in exceptional circumstances shall scaffolding be fixed to any heritage fabric and then only if approved by the Heritage Architect. Timber floors shall be protected from wheels of mobile scaffolding or from scaffold feet by timber blocks and carpet squares. All workmen working on scaffolding shall take care to prevent material or equipment falling. Scaffolding shall be fitted with toe boards.
Damage from Water Ingress Potential for damage to occur to heritage fabric including roof framing, floors and sub floor framing as a result of water ingress.	The existing slates will be removed to enable the installation of plywood diaphragms in the roof planes. Once areas of the roof have been removed, the potential exists for damage to occur to heritage fabric from water ingress. The contractor shall take particular care to ensure that water does not enter the building while work is underway. Consideration should be given to shrink wrapping the building, rather than relying on tarpaulins as heavy tarpaulins can potentially damage heritage fabric.

Compliance with Resource Consent Conditions	The Contractor shall familiarise himself with the requirements of the resource consent and particularly the conditions that relate to heritage. These include requirements to maintain photographic records, protection of fabric from weather and date stamping of new fabric. The nominated heritage professional will undertake regular site visits and prepare heritage monitoring reports to be submitted to the Council's heritage team at the completion of the project.

Specific Requirements	
Potential Risk	**Mitigating Measure**
Damage to the Building During Construction Activities The chapel was damaged in the Canterbury earthquakes and is temporary propped. It remains in a fragile state and could be further damaged by vibration resulting from construction activities including piling and excavation.	A report by Tonkin and Taylor refers to the German standard DIN 4150-3:1999 "Structural Vibration – Part 3: Effects of Vibrations on Structures". The standard makes reference to "structures that, because of their sensitivity to vibration and are of great intrinsic value" … The chapel would fall into this category. The maximum permitted vibrations outlined in the German Standard where work is occurring in the vicinity of a structure of intrinsic value such as the chapel shall be adhered to. This would include activities such the installation of piles or excavation works. In particular, piles shall be drilled and not driven. Construction traffic shall be minimised in the vicinity of the building. The recommendation by Mitchell Vranjes Consulting Engineers that the chapel shall be structurally upgrading prior to any construction works involving piling or excavation is supported.
Damage to Fabric of High Heritage Value While Being Removed Potential for damage to occur to fabric of high heritage value while being removed as a result of inappropriate techniques.	At the start of and during the course of the contract it is proposed to remove items of heritage value from the building prior to the commencement of the major reconstruction work. Special care shall be taken of those items deemed to have high heritage value. Those items may include: • Panelled doors including frames. • All interior timber work including wall panelling, skirtings, architraves, cornices and other trim. • Fixtures and fittings including built in and loose pews and other seating. • T&G floor boards that need to be uplifted to enable structural work to occur. • Steel window joinery. Removal of the timber items shall be undertaken by experienced carpenters to reduce the likelihood of timber splitting and other damage. Where timber floors are being uplifted all care shall be taken to ensure that the flooring can be salvaged and reused if required. This may involve carefully lifting the boards to saw through the nails and then extracting the nails from the rear.

Damage to Fabric of High Heritage Value While Being Removed Potential for damage to occur to fabric of high heritage value while being removed as a result of inappropriate techniques (continued).	All items shall be labelled to indicate their original location and numbered and recorded to enable them to be returned to their original location. The method of labelling shall be as approved by the heritage professional. Architraves, skirtings and the like shall be bundled and taped together with a soft protective barrier between items and then carefully wrapped and stored. Timber doors and panelling that have been removed shall be stored vertically in a rack. Timber elements that have been removed shall be stored in a humidity-controlled environment to prevent cupping, splitting or warping to the satisfaction of the heritage professional. The moisture content of the timber shall be periodically tested to ensure stability.
Damage to Heritage Fabric Remaining in Place Potential for damage to occur to fabric of high heritage value remaining in place as a result of inappropriate techniques	It is proposed that most of the heritage fabric within the building will be removed prior to the commencement of construction activities. However, certain items of heritage value are proposed to remain in place. These may include roof framing and sarking, as well as and floor boards and subfloor framing. All heritage fabric remaining in place shall be appropriately protected. Floor boards shall be protected by foam sheeting and overlaid with plywood. Under no circumstance shall nails, screws or adhesives be used to fix protective elements to any heritage fabric without the prior approval of the heritage professional.
Roofing Slates and Other Items Roofing slates can be unnecessarily damaged if removed by inexperienced personnel	Removal of the roofing slates shall be undertaken by a roofing contractor experienced in the removal and laying of slates to avoid unnecessary damage. The slates shall be carefully stacked in purpose made crates and removed from site. The original roof vent comprising timber louvres and the lead covered roof shall be retrieved and taken to storage.
Steel Windows Damage may be caused to steel windows while being removed.	It is proposed to remove the steel windows as a prelude to the structural upgrading work. This work shall be undertaken by experienced subcontractors familiar with steel window joinery. The methods of installation shall be determined before the windows are removed to prevent unnecessary damage to the windows or the building. Care shall be taken to avoid unnecessary damage to protective coatings.

Internal Plastering Potential for damage to occur to heritage fabric.	A structural plaster system is proposed to be applied to the exterior and interior of the chapel. The plaster ceiling and high-level internal walls will also need to be stopped. Activities such as plastering have the potential to damage heritage fabric. To avoid damage, all heritage fabric such as timber floors within I metre of areas where wet trades are occurring shall be fully protected from moisture and the impact of construction equipment. Protection may include plywood sheets over foam and plastic sheeting.
Reinstatement Work Potential for damage to occur to heritage fabric while being reinstalled.	The potential exists for heritage fabric to be damaged while it is being reinstalled. This may include tongue and groove floors, doors and frames, wall panelling and trim including skirtings, cornices and architraves. All items shall be returned to their original position. The carpentry work shall be undertaken by experienced and skilled carpenters under the direction of a competent foreman. If panelling and the like needs to be adjusted as a result of the structural upgrading work, this shall be done in consultation with the heritage professional.
Installation of Services Damage could be caused to heritage fabric when new services are introduced.	It is likely thar new services and potentially heat pumps will be required to enable the building to function in its new role. The installation of such items shall be carefully considered with input from the heritage professional to reduce unnecessary damage to heritage fabric.
Damage to site Archaeology Potential for damage to occur or archaeological evidence to be lost.	The site of the former bishop's residence includes a recorded archaeological site, being a place of human habitation prior to 1900. An archaeological authority to modify the site may need to be obtained from Heritage New Zealand to allow work to proceed. The contractor shall ensure that all staff and subcontractors working on the site are familiar with and understand the obligations inherent in the Accidental Discovery Protocol should any unexpected archaeological material be discovered. The site works will also be monitored by an archaeologist.

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CCC Recognised Heritage Professional

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