

ROTORUA LAKES COUNCIL

Mayor
Members
INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

6.5 Te Whare Taonga Strengthening and Restoration Options

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Report approved by: Geoff Williams, Chief Executive

1. TE PŪTAKE PURPOSE

The purpose of the report is to outline to Council the current options for restoring Te Whare Taonga o Te Arawa, and to seek support to commence consultation with the Rotorua community.

2. TE TUHINGA WHAKARĀPOPOTOTANGA EXECUTIVE SUMMARY

A briefing paper is attached (**Attachment 1**) that sets out:

- The early history of the building (including its construction, transfer of ownership to Council, Historic Places Trust significance and re-development in the early 2000s).
- The building's closure in 2016.
- Early project work (including LTP consultation, securing external funding, extensive engineering and design work, actions taken to reduce the project cost, preparing the building for construction).

Prior to COVID-19 it was expected that the project could be completed within a **\$53.5m** envelope without a requirement for additional Council funding.

Following extensive research to understand the complexities of the 100 year old building, detailed design, ground investigation etc, the total project cost is now estimated at \$81.4 million. This is \$28 million above the current project cost of \$53.5m.

There are four possible options for moving the project forward:

1. **Restore the building and reopen it as a museum.** (Estimated to be \$81.4m, which would require an additional \$28m more of funding) - This option involves full building strengthening and restoration, and all internal fit-out to provide for the opening of the doors on a revitalised museum service offering. Due to the complexity and age of the building there is a risk that costs may escalate beyond the estimate and the contingency provided. Therefore it needs to be noted that \$81.4m is not a final project cost. The exhibition design and installation is on top of the construction costs. Under this option, the museum may be completed in late 2025 and re-open in early 2026 (subject to all funding being secured by July 2023 and assuming no delays during construction).
2. **Stage the project.** Stage One would involve all work to strengthen the building, make it watertight and ensure fire protection. Stage One would cost an estimated \$54.0m with a

requirement for a possible \$500k of funding from Council. The current funding available would provide only for stage one to be completed, and Stage Two would include the sourcing of additional funds to complete the fit-out of internal spaces to enable the museum to be opened. This option is subject to all external funders agreeing to a staged approach. Under this option, the museum would not re-open until the internal fit-out can be completed.

3. **Postpone the project – The building remains standing but is closed.** (Cost to stop the project at this stage is estimated at approximately \$10m with an unknown future cost to bring the building up to Building Code requirements). The cost to stop the project could be funded from within the existing council funding envelope which is \$15.5m. This option will require remedial work to be undertaken to make the building safe for passers-by and to prevent trespass. In this option the museum service will not re-open within the Bath House building and will require further work to find alternatives to the provision of a museum service. It must be noted that Council has an obligation under the Building Act to strengthen the building by 2042, meaning that under this option, until that time the building would remain a future liability for Council/ratepayers. External funding already committed would need to be returned to the funders.
4. **Investigate alternative seismic strengthening** to a lower National Building Standard (NBS) percentage, but at least 34%. At this percentage of NBS the building would not be able to be used as a museum and alternative uses (if possible) would be explored. The cost of achieving this is currently unknown and requires further investigation to determine if it is feasible.

3. HE TŪTOHUNGA RECOMMENDATION

1. That the report 'Te Whare Taonga Strengthening and Restoration Options' be received.
2. That Council notes:
 - a) In 2018, Council agreed to strengthen and restore the building with a Council contribution of \$15.5m and external funding of \$38m secured, bringing the total project funding envelope to \$53.5m.
 - b) The final construction cost is now expected to be \$81.4m (including contingency, consultant costs and costs to date), which requires an additional \$28m capital investment. Due to the complexity and age of the building there is a risk that costs may escalate beyond the estimate and the contingency provided. Therefore it needs to be noted that \$81.4m is not a final project cost.
 - c) There are four possible options going forward:
 1. Restore the building and reopen it as a museum. (estimated at \$81.4m, which would require an additional \$28m more of funding) - This option involves full building strengthening and restoration, and all internal fit-out to provide for the opening of the doors on a revitalised museum service offering. This option depends on confirming external funding, as well as RLC providing some additional funding. Note: the exhibition design and installation is on top of the construction costs. Under this option, the museum may be completed in late 2025 and re-opened in early 2026.
 2. Stage the project – Stage one (Strengthen the building) but do not open as a museum until further funding is obtained and internal fit-out carried out (stage two). Stage one is estimated at \$54.0m with a requirement for an additional \$500k

of funding from Council. Commencing a staged project with the current funding available would provide only for stage one to be completed. Stage one would involve all work to strengthen the building, make it watertight and ensure fire protection. Due to the complexity and age of the building there is a risk that costs may escalate beyond the estimate and contingency provided. Therefore it needs to be noted that \$54m may not be a final stage one project cost. Stage two would include the sourcing of additional funds to complete the fit-out of internal spaces to enable the museum to be opened. This option is subject to all external funders agreeing to a staged approach. Under this option, the museum would not re-open until the internal fit-out can be completed.

3. Postpone the project - The building remains standing but is closed and investigation into a new museum/art gallery in an alternative location. The cost to stop the project is estimated at \$10m, which could be funded from within the existing council funding envelope of \$15.5m (external funding already committed would need to be returned to the funders). This option will require remedial work to be undertaken to make the building safe for passers-by and to prevent trespass. In this option the museum service will not re-open within the Bath House building and will require further work to find alternatives to the provision of a museum service. It must be noted that Council has an obligation under the Building Act to strengthen the building by 2042, meaning that under this option, until that time the building would remain a future liability for Council/ratepayers.
4. Investigate alternative seismic solution to strengthen the building to at least 34% National Building Standard (NBS). The building would comply with the Building Code but would not open as a museum. There would be an investigation into a new museum/art gallery in an alternative location. At this percentage of NBS the building would not be able to be used as a museum and alternative uses (if possible) would be explored. The cost of achieving this is currently unknown and requires further investigation to determine if it is feasible

d) External funders are open to providing further funding for Option 1 but request that Council first confirm its share of the additional funding.

3. That the Committee directs staff to commence community consultation on the four options to understand what the level of commitment from the community is to the project and level of support or not, for additional ratepayer funding. Following consultation, the Council will make a decision on which option will be pursued.

4. TE TĀHUHU BACKGROUND

The detailed history is set out in the attached briefing paper (**Attachment 1**). In summary:

- **Significance:** Te Whare Taonga o Te Arawa (Rotorua Bath House) is recognised as a Category 1 (special or outstanding historical or cultural significance) Historic Place. Council's significance and engagement policy defines Te Whare Taonga as a strategic Council asset.
- **Closure:** In 2016, cracks were observed in the building and it was closed. In 2017 a Detailed Seismic Assessment deemed the building earthquake prone.
- **Original decision:** In 2018, Council resolved to strengthen and restore the building with a Council contribution of \$15.5m. The balance (\$38m) has been secured from external sources:
 - **\$17m** Provincial Growth Fund (PGF) (Kānoa).

- **\$10m** Rotorua Trust.
- **\$6m** Lotteries Grants Board.
- **\$5m** Manatū Taonga Ministry Culture and Heritage.
- **Work completed so far:** Geotechnical work, engineering and detailed design are completed; resource consent and building consent have been granted; and procurement for construction is near completion.
- **April 2022:** Council agreed to accept 70% of New Building Standard for ground conditions and noted the project cost was expected to increase. Staff were directed to finalise project costs, work with external funders and report to the incoming council with options for the project.

Current status

The current project cost estimate of \$81.4m is based on costs to date, detailed design, construction tender pricing, and contingency. Due to the complexity and age of the building there is a risk that costs may escalate beyond the estimate and the contingency provided. Therefore it needs to be noted that \$81.4m is not a final project cost.

Indications from funders

Discussions have been undertaken with funders as to the possibility of further funding to support full completion of the project (Option 1). Funders have all indicated a strong desire for the project to be completed, and some funders have signalled their ability to increase their funding contribution subject to a council decision to proceed with Option 1 if Council itself increases its funding contribution.

At this stage, Council has either applied, or are well down the process of applying to Kānoa, Manatū Taonga Ministry of Culture and Heritage, NZCT and Lotteries Environment and Heritage. Collectively, this is targeting \$10.16m for Option 1. Crown decisions on additional funding must be made before 14 July (when the pre-election period for the October general election begins).

Exhibition

This paper relates to the build project only but it is important to note that there is a separate project stream related to preparing the opening exhibitions. The opening exhibition design, development and install is estimated to cost \$9.51m capital with \$4.65m already secured and further external applications underway.

Since 2021, the project team has continued engagement with the community on exhibition content. An exhibition master plan is due in June 2023.

Next steps

Key dates to look ahead to are:

- **10 May:** Council decision to consult.
- **17 May:** Community consultation will open on the options.
- **14 June:** Consultation period closes.
- **5 July:** Council decision on the preferred option.
- **14 July:** Pre-election period commences (ahead of the general election on 14 October).

A Council decision on which option will be progressed will be made following the outcome of the community consultation.

5. TE MATAPAKI ME NGĀ KŌWHIRINGA

DISCUSSION AND OPTIONS

OPTION 1: RESTORE THE BUILDING AND REOPEN IT AS A MUSEUM - (estimated \$81.4m cost, subject to unknown cost escalations resulting from restoration and construction in a complex 100 year old building)

This involves all work to strengthen the building, and fit-out of all internal spaces (excluding exhibitions). Subject to all funding being secured by July 2023 and assuming no delays during construction, it would enable a fully functional Te Whare Taonga o Te Arawa building by late 2025 and full museum services to open in late 2026. Assuming no construction cost increases, this option requires additional funding of \$28m, proposed to be met through \$9m of Council funding and \$19m of external funding.

Implications of Option 1 include:

- **Cost envelope:** The cost envelope at this point is estimated at \$81.4m. However there is an unknown cost escalation component in this that needs to be considered. Until construction commences, costs associated with a complex 100 year old building, associated 500 tonne roof and shear walls can't be fully quantified. Therefore there is a risk that the project envelope could be over the current estimate.
- The increase in the estimated project cost to date could be funded as follows:
 - **RLC contribution** – Increase the Council funding commitment by \$9m, bringing the Council funding to a total of \$24.5m. This would be funded through borrowing. This maintains the current funding allocation of 30% Council, 70% external funding.
 - **External funding contribution:** An additional \$19m would be required from external funders. There is reasonable confidence that funders will support the project but this is still subject to funder decisions. The target for external funding contribution are as follows:
 - Additional **\$5m** from Kānoa.
 - Additional **\$4m** from Manatū Taonga Ministry of Culture and Heritage.
 - Making a successful application to the Rotorua Trust for an additional **\$5m**.
 - Additional **\$5m** of fund raising. This would need to be funded by RLC if it can't be met.
- **Opening date:** If Option 1 is given the go ahead a construction project could commence in late July, construction completion in 2025 and opening of the museum in 2026.
- **Exhibition project:** Work would continue as planned, including community engagement, securing remaining funding, design and installation for the exhibition project.

Risks:

- **Funding:** If we do not secure the necessary external funding, then Council would have to either commit further funding, or stop the project. To mitigate this risk, Council would not award the construction cost until external funding is confirmed.
- **Construction costs:** The project has the benefit of extensive testing of materials and ground conditions, as well as contingency built in to the \$81.4m cost envelope. However, given the age of the building and complexity of the project, there is still a risk of further cost escalations. Once construction has started, any escalations beyond the approved would need to be funded by RLC.

In summary, the total capital funding for the Option One would be **\$81.4m**, which if funders agreed, could be made up as follows:

- **\$22m** - Provincial Growth Fund (PGF) (Kānoa).
- **\$9m** - Manatū Taonga Ministry Culture and Heritage.
- **\$24.5m** - Rotorua Lakes Council.
- **\$10m** - Rotorua Trust.
- **\$5.0m** - Following further applications to the Rotorua Trust.
- **\$6m** - Lotteries Grants Board.
- **\$5m** - Further fundraising required.

OPTION 2: STRENGTHEN THE BUILDING (STAGE ONE) BUT DO NOT OPEN AS A MUSEUM UNTIL FURTHER FUNDING IS OBTAINED AND INTERNAL FIT OUT CARRIED OUT (STAGE TWO)– (STAGE ONE IS ESTIMATED AT \$54.0m)

Option Two seeks to retain as much funding as possible to enable delivery of as much of the build project as possible. Specifically:

- **Stage One:** All of the work to strengthen the building to 80% NBS, make it watertight and ensure fire protection. This includes: all compliance work, ground improvement work, full seismic (structural) work, full replacement of the roof, full remedial work to external envelope, full replacement of fire protection system, and scaffolding. All other services would be retained and repaired to make operational (as opposed to full replacement in option 1) including mechanical (heating/ cooling/ humidity), electrical/ data services and security system.
- **Stage Two:** Fit-out of internal spaces would be postponed to a future Stage Two (and subject to a new fundraising campaign). The museum would be closed at Stage 1, but would re-open when Stage 2 is complete.

The staged approach allows Council more time to work with external funders and to raise the necessary funding for Stage Two.

Implications of Option 2 include:

- **Cost envelope:** The capital cost envelope to strengthen the building (stage one) is estimated at \$54m (an additional \$500k required from Council), with the cost of Stage Two deferred to a later time. This would be met as follows:
 - **External funding contribution:** The staged approach would require external funders' agreement to amend their existing funding contracts to deliver reduced outcomes and a commitment to the same level of investment funding. At this time, external funders have not committed to approving this option.
 - **RLC contribution:** This option assumes an additional Council contribution of \$500k for Stage One. However, if existing external funding is withdrawn, Council would have to make a further decision to either make up the difference or to stop the project.
- In the long run, delaying Stage Two will reduce the immediate cost to the ratepayer, but is likely to increase future costs as build costs are expected to increase, and there will be a loss of contractors/staff with experience and direct knowledge of the building. There will also be increased costs to demobilise/ remobilise, rework, and re-tender. In addition, this option involves retention and repair of building services at Stage One, rather than replacement.
- Cost escalations and unknowns – while this option proposes completing stage 1 within a project envelope of \$54m, it has the same project cost escalation risks as for Option 1. (Until construction commences, costs associated with a complex 100 year old building, associated 500 tonne roof and shear walls the project costs can't be fully quantified. Therefore there is a risk that the project envelope could be over the current estimate).

- While a staged approach may save costs at this time, the project is incomplete and Council will have to continue to work on securing additional funding to complete the project at a later time. There will be future costs associated with this approach.
- **Opening date:** The building would not re-open until Stage Two is completed. There would be limited/no community access to the collection while the building is closed.
- **Exhibition project:** The exhibition project would stop once master plan is delivered in June 2023. Funding agreements for the exhibition project would be cancelled. The master plan could still be used at a later stage but would suffer from loss of consultants/staff with direct knowledge. As with Option 3 (Postpone the project), while the building is closed, taonga will not be accessible to the community (other than by appointment to the off-site storage facility).

Risks:

- **Cost of Stage 1:** This option has a similar risk of cost escalation as for Option One.
- **Cost of Stage 2:** The cost to the ratepayer to complete stage two will continue to increase over time (potentially significantly). There is no indication at this time what stage 2 could cost.
- **External funding:** The key risk to this option is whether all external funders agree to retain their funding for Stage One. There is also no certainty that additional funding would be secured for an internal fit-out (Stage Two). However this option does allow Council time to fundraise for Stage Two.
- **OPEX:** Once Stage One is complete, depreciation (on the Council funding of \$15.5m) would begin to accrue, but the building would not be open and earning income. It would be prudent to begin/complete stage 2 as soon as possible so that the building can open and earn income.
- **Construction costs:** The project has the benefit of extensive testing of materials and ground conditions, as well as contingency built in to the \$54m cost envelope. However, given the age of the building and complexity of the project, there is still a risk of further cost escalations. Once construction has started, any escalations beyond those approved would need to be funded by RLC.

OPTION 3: POSTPONE THE PROJECT - THE BUILDING REMAINS STANDING BUT IS CLOSED AND INVESTIGATION INTO A NEW MUSEUM/ART GALLERY (\$10M COST TO STOP PLUS COST UNKNOWN AT THIS TIME FOR NEW BUILDING)

Under this option, Council would postpone the entire project. Some remedial work would be required to make the building safe for passers-by, to prevent trespass and to close our existing contracts. The building would not be usable. This cost to stop the project now is estimated at **\$10m** (including costs to date), which would come out of RLC's existing funding of **\$15.5m**. No additional Council funding would be required at this time, and external funding would need to be returned to funders.

Legal framework

The Council has a number of legal obligations. Under the Building Act, Council must strengthen the building to at least 34% NBS (so that it is not earthquake-prone) within 25 years, with one possible extension of up to ten years (i.e. by 2042, or 2052). Failure to complete strengthening works within the statutory timeframe is an offence carrying a penalty of a fine up to \$1.5m. It would also seriously damage Council's reputation as a steward of public resources.

Building Act exemption: Council could potentially apply for an exemption (s133AN of the Building Act) if there is a low consequence associated with the building's failure (in terms of life safety and property damage). However, in practice, only a small proportion of earthquake-prone buildings (EPBs) are likely to qualify for exemptions. This is partly because in determining that a building is earthquake prone, the Council has already decided that it is likely to cause at least some injury to people inside or near it, or damage to other property, if it collapsed. A barrier to prevent the public approaching the building would probably be required (and would probably not be visually attractive). An exemption can also be revoked at any time, which does create financial risk if the building must be strengthened at short notice.

Seek consent to demolish the building: If the building is not strengthened within the statutory timeframe, Council must obtain resource consent to demolish the building. This would be difficult, as it is a non-complying activity under the District Plan and an authority under the Heritage NZ Pouhere Taonga Act would be required. It would also significantly diminish the appearance of Government Gardens.

Ensure public safety: At all stages, Council must manage the building to ensure public safety and no property damage. This would mean proactively managing parapets, heavy ceilings/roof, masonry walls and other features to protect visitors to the Government Gardens and the Sportsdrome.

Implications of Option 3 include:

- **Cost envelope:** The cost envelope to stop the project is **\$10m** (made up of **\$8.5m** of cost to date, plus an estimated additional **\$1.5m** to secure the building from trespassers, make it safe for passers-by and close out existing contracts). The future cost to complete the project has not been calculated. The cost would be met as follows:
 - **RLC contribution:** Council would be liable for the **\$10m** cost to stop the project, which would be met out of the Long-term Plan provision of \$15.5m
 - External funding contribution: Under this Option, external funding agreements would be cancelled and \$17.5m received to date would be repaid.
- **Opening:** Under this option a museum offering could not be provided within the Bath House building and therefore further work would need to be commenced to investigate options for a location to operate a museum/art gallery for Rotorua.
- **Exhibition project:** To date, \$109k has been spent on the exhibition project. Under Option 3, the exhibition project would stop once the Master Plan is delivered in June 2023. Funding agreements would be cancelled, with a total of \$254k to close out the project.

Risks:

- **Financial:** Future capital costs for a new museum/art gallery are not known at this time.
- **Reputation risk:** External funding is a major income stream for Council and Council has a good reputation for delivering on significant projects. Cancelling the Whare Taonga funding contracts may negatively affect Council's reputation with funders and / or potential future funding applications.
- **Legal obligation:** If Council decides to postpone the project at this time it will still have to address the legal obligation to strengthen the building to at least 34% of NBS within the next 25 years. A decision to postpone at this point will become a matter for subsequent Council's to address. While applications could be made for an extension, exemption or demolition there is no guarantee that

these would be granted. Accordingly, if the project were stopped at this time, Council would need to take into account the future liability of strengthening the building.

- **Care of and access to the collection:** Under this option, until options for a new museum/art gallery can be investigated, there would be limited access to the collection as is currently the case. There is agreement amongst Te Arawa and RLC that ongoing access must be provided to the taonga Māori collection.

OPTION 4 – BUILDING STRENGTHENED TO COMPLY WITH BUILDING CODE AND INVESTIGATION INTO A NEW MUSEUM/ART GALLERY

An option that could be further explored is to look at restoring the building to achieve 34% NBS. This would mean the building is then classified as earthquake risk and not earthquake prone. Under this option a museum offering could not be provided for from the Bath House building and therefore further work would need to be commenced to investigate options for a location to operate a museum/art gallery for Rotorua.

This option would eliminate the requirements for seeking exemptions or demolition and maintains an iconic facade of the Bath House building in the Government Gardens. The cost of achieving this is currently unknown and requires further investigation to determine if it is feasible.

The project's structural engineers have advised:

- The existing displacement design could be modified to meet 34% NBS. However they have stated that this would be unlikely to reduce costs. A new concept design would need to be designed, costed and consented. This may take at least 8-12 months.
- In further investigating the viability of using a 34% NBS approach, the building is not protected from terminal failure in a sizeable seismic event and heritage values are not protected. The project's structural engineers have indicated that they would likely withdraw under this option. This would require the appointment of another structural engineer. It would may also affect Council's reputation and influence Heritage NZ's view of the project and funder decision-making on whether to retain or withdraw their funding.

6. TE TINO AROMATAWAI ASSESSMENT OF SIGNIFICANCE

The earthquake strengthening, restoration and opening of the Museum is identified as one of the Council's significant projects since the 2018-2028 Long-term Plan. Due to the significance of the project and the levels of funding now required, it is a requirement of the Council's significance and engagement policy to re-engage with the community and assess whether there is still the same level of commitment to the project and support for additional ratepayer funding.

7. NGĀ KŌRERO O TE HAPORI ME TE WHAKATAIRANGA COMMUNITY INPUT/ENGAGEMENT AND PUBLICITY

When consultation was carried out for the 2018-2028 Long-term Plan, there was overwhelming community support for the project. However, the change to the economic environment and the additional RLC investment required to complete the project requires additional consultation.

It is noted that the Gifted Reserves Committee provided support in the funding and resource consenting processes and ongoing discussions have and will continue to occur with the Pūkenga Kōeke

o Te Whare Taonga o Te Arawa, as well as with Friends of the Museum, the Museum Centennial Trust and other stakeholders.

8. HE WHAIWHAKAARO CONSIDERATIONS

8.1 Mahere Pūtea Financial/budget considerations

Capital investment

The Long-term Plan allows for **\$15.5m** investment from Council. Both Option 1 (complete the project in full) and Option 2 (stage the project) require additional Council capital of approximately **\$9m** and **\$0.5m** respectively. Further, Council would be liable for any unknown escalation in construction costs under Options 1 to 4. This is summarised below.

	Original	Complete in full (Option 1)	Stage the project (Option 2)	Postpone the project and investigation into a new museum/art gallery (Option 3)	Reduced level of building restoration and investigation into a new museum/art gallery (Option 4)
Estimated capital cost ¹	\$53.5m	\$81.4m	\$54m (Stage 1) <i>Plus a future Stage 2</i>	\$10m <i>Plus the future cost to comply with the Building Code</i>	Unknown
Current external funding	\$38m	\$38m	\$38m (subject to negotiation)	-	Unknown
Current RLC funding	\$15.5m	\$15.5m	\$15.5m	\$15.5m	\$15.m
Potential extra external funding		\$19m	-	-	Unknown
Extra RLC funding required ²		\$9m	\$500k	\$0	Unknown
Total RLC funding	\$15.5m	\$24.5m	\$16m	\$7m	Unknown
RLC % contribution	29%	30%	30%	100% (potential for 70%)	Unknown

¹These total build costs are estimated and subject to potential construction cost increases;

²Assumes all three external funders commit additional funds

8.2 Kaupapa Here me ngā Hiraunga Whakariterite Policy and planning implications

N/A

8.3 Tūraru Risks

Risk	Mitigation or response
Option 1: The balance of funding required is not secured	Securing a Council decision in June will allow government funding to be finalised before the pre-election period begins 14 July. Options: a) Reduce project scope b) Increase RLC contribution c) Seek other funding partners d) Reduce project contingency
Option 1 and 2: Negotiated price is higher than allowed for	Options: a) Reduce project scope b) Increase RLC contribution c) Revisit with other funding partners d) Reduce project contingency
Option 2: Funders do not support staging and withdraw funding	Options: Revert to Option Three: Postpone the Project Increase RLC contribution
Options 2 and 3: Cost to complete the project significantly escalates.	The best mitigation against future cost escalations is build now (Option One and, to an extent, Option Two), while utilising as much external funding as possible.
Options 1 and 2: Project encounters significant issues during construction	Have completed invasive testing, peer reviews, utilised top quality experts, engaged contractor in design process and building is stripped back to enable visual checks. Monitor contingency closely. Monitor and manage build risks closely.
Option 1: Exhibition funding is unable to be secured	Options: a) Increase RLC contribution b) Reduce scope of exhibitions c) Stage exhibitions
Option 2 and 3: Cancelling funding contracts damages council's reputation with external funders, contractors and consultants, and as a steward of public resources.	Clearly communicate the reasons for the decision.
Options 1 and 2: Project cost escalation during construction. Due to the age and nature of the historic building it is likely costs will escalate beyond the contingency provided.	This risk has been mitigated as best is possible, but a commitment to proceed with this project assumes the financial risk of any unknown escalations. This is due to the nature of the building age, condition and heritage value.

8.4 Te Whaimana Authority

Council has the authority to make the recommended resolutions.

9. **TE WHAKAKAPINGA CONCLUSION**

The Museum Project will be construction-ready in July 2023, i.e. with a construction contract ready for signing and a building consent in place. However additional RLC funding is required to move forward, which requires community consultation.

There are four options for consultation:

1. **Complete the project in full.**
2. **Stage the project.**
3. **Postpone the project and investigation into a new museum/art gallery.**
4. **Reduced level of building restoration and investigation into a new museum/art gallery.**

10. **NGĀ ĀPITI HANGA ATTACHMENTS**

Attachment 1: Museum Briefing Paper.

Attachment 2: Building Zones.

Attachment 1: Museum Briefing Paper

BACKGROUND BRIEFING PAPER: ROTORUA MUSEUM/TE WHARE TAONGA STRENGTHENING AND RESTORATION PROJECT

HISTORY OF THE LAND AND BUILDING

Te Whare Taonga o Te Arawa (also known as the Rotorua Bath House) is registered with Heritage New Zealand as a Category 1 listed Building, located in Rotorua's Government Gardens.

The land was first gifted by Ngāti Whakaue in 1876 for use as a school. In 1880 it was included by Ngāti Whakaue as gifted reserve under the Rotorua Township (Fenton) Agreement. The land and buildings are therefore subject to the Gifted Reserves protocol between Council and Ngāti Whakaue.

The land is registered with Heritage New Zealand (formerly known as the NZ Historic Places Trust) and the Māori Heritage Council as a Waahi Tapu area. Waahi Tapu status is granted to those areas recognised by the Historic Places Act 1993 as sacred to Māori in the traditional, spiritual, religious, ritual or mythological sense.

Te Whare Taonga o Te Arawa building was originally constructed as a Bath House between 1906-1908 by the newly created Department of Tourist and Health Resorts. It opened in 1908 as a thermal spa offering medical and therapeutic treatments. It is valued for its national and international significance, including as the earliest surviving bath house in New Zealand, the first Government tourism investment and as a unique timber-framed, pumice-concrete building. Heritage New Zealand also recognises the building as being "*culturally significant as a visible manifestation of the land gifted by Ngāti Whakaue, and currently houses Taonga of importance to Te Arawa*". In 1963 ownership of the building transferred to the Council along with £60,000 for maintenance and 2.5 acres needed for the Sportsdrome. In 1969 the City of Rotorua Museum officially opened in the South Wing. From 1965 to 1990 the Tudor Towers night club and restaurant also operated within the building.

The Whare Taonga building is one of the most iconic and photographed buildings in the country, featuring in international tourism marketing campaigns for over 100 years and with significant numbers of social media images shared by tourists. Prior to closure, it hosted more than 120,000 visitors per year (approximately 40% local, 25% visitors from other parts of Aotearoa, and 35% international). More than 12,000 school students took part in Learning and Education Outside the Classroom (LEOTC) curriculum-linked programmes led by qualified educators.

The museum collection includes 45,000 items. Of particular importance is the taonga Māori collection and collections documenting the evolution of the Rotorua district (including early tourism and the 28th Māori Battalion B company).

A major fundraising effort led by the Centennial Trust resulted in \$23m for reinstallation of the North Wing viewing platform (2006), extension and air-conditioning upgrade of the North Wing (2008) and South Wing extension (2011). At that time, Government contributed \$7.5m grant to the total project cost.

BUILDING CLOSURE

On 14 November 2016, a magnitude 7.8 earthquake occurred near Kaikoura. Following this event staff discovered additional cracks in the pumice walls and floors of the building. Many of the cracks had largely existed before the event and were well documented with crack maps.

A Rapid Seismic Assessment was completed by structural engineers the following day and concluded that further assessment was required. As a precautionary measure and in the interest of staff and public safety the building was closed on 18th November 2016.

Detailed Seismic Assessment (DSA) work had already commenced earlier in the year with an initial 3D Scan of the building. The closure accelerated further work required to understand the earthquake resilience of the building and risk profile.

In 2017, work continued with the detailed seismic assessment. This took longer than anticipated primarily due to a 3-4 month of wait on geotechnical drilling rigs and lab testing due to the high demand for building seismic assessments across the country. Most of the building was assessed at 33% or less of the New Build Standard (NBS), meaning that the building was considered earthquake prone.

PUBLIC CONSULTATION

In 2018, as part of the Long-term Plan, Council consulted on a project to strengthen and restore the Museum and \$15.5m Council funds were allocated in the Long Term Plan, towards an estimated \$30m project cost. It is important to note this project cost was a high level estimate prior to any investigation, modelling, and integrated multi-disciplinary design being undertaken.

713 submissions were received during community consultation about the Museum. More than 80% of those submissions expressed a preferred option of wanting the building strengthened, fully restored and reopened. Key community feedback in support of the project included:

- The building is a taonga and should be fully restored.
- This should be the Council's top priority project.
- The history of the building needs to be preserved to tell Rotorua's history.
- The Museum is important to the local community and to tourism.
- Feelings that Central Government should fund a significant portion of this project.

Following the closure and subsequent Long-term Plan 2018-28 adoption, a large amount of work has been completed.

THE PROJECT

Complexity

The Te Whare Taonga project is one of the most complex earthquake strengthening projects in the country due to the heavy roof (approx. 500 tonnes), 115 year old wooden frame sitting on unreinforced weak pumice masonry walls, settled on geothermally heated ground with its toxic compounds. This coupled with a number of alterations and different construction methodologies over decades and with many of its connections, bolts nails completely corroded away. It's worth noting that extensive testing of all of these components is required as there are no manuals that provide engineers with the inherent strength qualities of a 115 year old structure in Rotorua's unique environment. Other complex earthquake strengthening projects such as Christchurch Cathedral, Hastings performing Arts Centre and Wellington Town Hall share similar challenges of: developing costs effective design solutions, time to fully understand the problems they are trying to solve, and funding.

FUNDING

The project was initially allocated \$500k in 2017 to complete the DSA, it wasn't until the LTP was adopted in 2018 that sufficient funding became available to continue to detailed design. Sufficient external funding was confirmed in August 2019 to enable construction to start, almost 3 years after closure.

The project has secured **\$53.5m** funding comprising **\$15.5m** (29%) from RLC. The majority of the funding (\$38m) comes from four major funding partners including:

- **\$17m** Provincial Growth Fund (PGF) (Kānoa).
- **\$10m** Rotorua Trust.
- **\$6m** Lotteries Grants Board.
- **\$5m** Manatū Taonga Ministry Culture and Heritage.

PROGRESS TO DATE

Removal of Taonga from the building: Initially it was thought that the Te Manawa exhibition in the south wing would remain in situ as the heritage south wing and extension had recently been completed and upgraded in 2011. The DSA however identified the heritage south wing to be 19% NBS and plans were put in place to remove all of the Taonga from the building. This required considerable planning as temporary propping of floors and additional bracing had to be engineered by the structural engineers to address floor loading concerns. Further complications arose from internal walls that had been built around some of the larger Taonga which had to be assessed before the walls could be removed to allow the Taonga to be removed from the building. A comprehensive plan had to be supplied and approved by Council's insurers and heritage conservators before any removal could take place. Bespoke crates had to be made for each Taonga to ensure their safe transport and specialist riggers were required to remove objects from their mounts. Taonga that were returned to Auckland and Te Papa Museums required special air ride trucks. This work took approx. nine months to complete.

Building Heritage Removal and Preservation: All identified basement heritage items have been cleaned, labelled, relocated to storage and updated in the conservation plan. Several new archaeological finds were also made during this work. These have been recorded and catalogued. A Heritage Impact Statement and Conservation Plan for the building have been prepared, and approved by Heritage NZ which is also a requirement of the resource consent application process.

Design: Extensive investigation, scanning and modelling of the building has occurred to fully understand its structural integrity, and to support careful detailed design.

The original design approach essentially inserted a steel skeleton inside the building walls (a force-based design). The benefit of Early Contactor Involvement (ECI) and project management processes highlighted strong concerns with the economic viability and buildability of this structural solution. In consideration of this feedback, the project steering group put processes in place to seek independent structural reviews including geotechnical reviews. RLC consenting paused the foundation consent (which had been lodged) and requested a technical peer review. An initial high-level structural review by WSP structural engineers confirmed design issues were present, so a detailed independent structural review was commissioned by structural heritage engineers Dizhur Consulting. The terms of reference for this looked not only at design compliance matters but also at the buildability and economics of the proposed structural solution. This review was completed in December 2020 with the geotechnical peer review by Coffey Consultants completed in September 2020. The Dizhur Consulting report found the design solution to be uneconomic and posed a high level of construction risk, identifying the high likelihood of time and cost variations if RLC were to proceed and questioned buildability and efficiency of the design.

Following the thorough and comprehensive review process, the project steering group made the decision to recommend to council to end the structural engineering consultant contract (GDC Consultants) in mid-December 2020 and to move forward with the procurement of new structural engineering consultants.

Opportunities were identified to reduce construction risk, improve buildability, reduce costs and improve heritage preservation. Accordingly, the design approach was re-set.

The design now uses a combination of bracing and strengthening techniques such as CLT panels, structural ply, carbon fibre strips, structural plaster and some steel bracing elements (a displacement-based design). The design re-set was estimated to save **\$10m** in costs.

It is important to note that this design re-set related to structural engineering only and work to date by the many other design disciplines is unaffected.

Geotechnical: In 2011 the ground under the museum was strengthened with grout injection solution. At the onset of this project it was suggested that the ground strength required to support the restored building would need to be 80% New Building Standard (NBS). Initially traditional Cone Penetration Testing (CPT) geotechnical investigation found that the ground strength is equivalent to 40% NBS. This test is compromised once ground temperatures increase above 60°C as the pedometer cannot read ground resistance under these conditions. The ground under the museum can be between 40°C and above 60°C at 4- 6 meter depths. The Geotechnical engineers take a conservative approach in these conditions. At ground strength of 40% NBS significant ground improvements are required and these were estimated at \$20m. It wasn't until mid-2021 that Tonkin & Taylor identified new testing technology that could work in heated soils, initially there was no equipment available in NZ and it took a period of 8 months to complete two sets of tests, lab results and peer reviews. This proved worthwhile as the lab results were able to confirm a ground strength of 70% NBS without the need for substantial ground improvement works across the full site. To accept the 70% NBS required approvals from Heritage NZ and our funding partners (80% NBS was a condition in many of our funding agreements). The 70% NBS was acceptable to all parties and no ground improvements are required. Accordingly, in April 2022, Council agreed to accept 70% NBS for ground works (saving an estimated \$15m in costs).

Technical advice: Throughout the design process, architectural, heritage, fire, electrical and mechanical engineering design, quantity surveyor and project management services have been carried out.

Consenting: Resource consent was granted for the project on 1 March 2019. Building consent was granted on 24 March 2023.

Procurement: A procurement process to identify a main contractor was undertaken. A number of expressions of interest were received, five were invited to participate in Request for Proposals Process. Four provided proposals and Hawkins were identified as the preferred provider. A Council resolution in December 2019 appointed Hawkins for Early Contractor Involvement services only and as preferred contractor. A Council decision will be required to award a final construction contract.

Exhibition: There is a separate project stream related to preparing and opening exhibitions. The exhibition design, development and install is estimated to cost \$9.51m capital of which \$4.65m has been secured with further external applications underway. The project team continue to engage with Te Pukenga Kōeke o Te Whare Taonga o Te Arawa, mana whenua and the community over exhibition content and is currently working on the master plan which is due in June 2023.

PROJECT COSTS – APRIL 2022

Prior to COVID-19 it was expected that the project could be completed within a **\$53.5m** envelope without a requirement for additional Council funding. Due mostly to construction inflation, this envelope is now known to be short of the expected final project cost.

The decision to proceed with a 70% of New Building Standard (NBS) for ground strength removed the need for substantial ground improvement across the full site reducing estimated costs by **\$15m**.

Despite a more cost-effective structural design and assuming 70% NBS for ground improvement, the costs were predicted be in the order of **\$18-\$20m** above the original project construction estimate. This is primarily due to:

- COVID supply chain impacts
- a recommendation to hold a higher contingency in line with Treasury New Zealand recommendations
- targeted groundworks under the atrium gable walls.

In April 2022, it was reported to Council that project construction was estimated at approx. \$73.5m.

In addition to Council accepting the equivalent of 70% NBS for ground works, they directed staff to check with external funders that they remained committed to the project at 70% NBS for ground works and to commence discussion on possible additional funding.

JULY 2022 UPDATE

In July 2022, Council were updated on the positions held by funders. All four major partners had either accepted 70% NBS equivalent for the ground strength or did not have 80% as a funding requirement. All four signalled willingness and pathways to discuss potential additional funding although no one funder was in the position to solely cover the estimated shortfall. Discussion was also held with funders around the possibility of a staged delivery approach should full funding not be obtainable. Staff were directed to complete detailed design, and procurement and to continue to work with funding partners.

POST JULY 2022

Since July 2022, detailed design has been completed plus peer review of the structural design, geotechnical design and weather tightness. The preferred supplier Hawkins Construction Limited have been working on a tender price for which a first submission was received on 6 April. It is expected to take two months of price and terms negotiation before being ready to present a contract recommendation to Council.

Until the tender negotiated, the capital cost to complete the project remains a cost envelope (as opposed to a final contract price).

Additional external funding opportunities for full project

To date there has been positive feedback on the following funding:

- Potential additional \$5m Kānoa.
- Potential additional \$4m Manatū Taonga Ministry of Culture and Heritage.
- Rotorua Trust are open to an application for further funding but have asked RLC to first confirm its decision and contribution.
- Lotteries Environment and Heritage fund \$500k (application has been made with decision outcome due end of May).
- Potential \$600k over 3 years (application to be made in July).

Funders have all indicated a strong desire for the project to be completed. They recognise the shared benefits to Rotorua and New Zealand and the difficult economic environment and hence are willing to share in the further costs versus leaving ratepayers to cover the full shortfall alone.

In addition, the Gifted Reserves Committee provided support in the funding and resource consenting processes and ongoing discussions have and will continue to occur with Te Pūkenga Kōeke o Te Whare Taonga o Te Arawa, as well as with Friends of the Museum, The Museum Centennial Trust and other stakeholders.

Attachment 2: Building Zones

