Matter No. 042506001

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BUILDING CONDITION APPRAISAL.

Chateau Tongariro Hotel - State Highway 48, Whakapapa Village, Mount Ruapehu

Prepared for: Department of Conservation

Prepared by: s9(2)(a), s9(2)(a)

Date: April 2023

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Authorisation

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Preface

Report

This report has been produced for the strict and sole use and benefit of the addressee and their legal advisor(s). It is not to be duplicated, disseminated or in any other way replicated without the express consent in writing of Prendos New Zealand Limited. This report has been produced in accordance with our letter of engagement incorporating all terms and conditions stated therein.

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Key Information

Client Name:	The Director General of Conservation
Client Address:	Tongariro District, Central North Island
Report prepared by:	s9(2)(a)
Job reference:	042506001
Reviewed by:	s9(2)(a)

Introduction

Instructions and Brief

Instructions were received from Patrick Harvey of the Department of Conservation (DoC) on 17 March 2023 to undertake a building condition appraisal of the building/s at State Highway 48, Whakapapa Village, Mt Ruapehu ("the Building").

This building condition appraisal is intended to inform the DoC of the Building's general physical condition only. This will include any evident defects and wants of repair. As the appraisal is based on a visual inspection, any evident risks to the condition of the property will be identified along with any appropriate recommendations for further investigations.

Where this report is prepared in contemplation of purchasing or leasing property, it must not be taken to be a substitute for pre-acquisition technical due diligence (i.e. a 'building survey') as it does not provide complete advice in this regard. It is important that the extent and limitations of this report noted at 0 below are read and understood. We would always advise that full technical due diligence be undertaken prior to acquiring any interest in property.

Inspection

The Building was inspected on 20-22 of March 2023 by s9(2)(a) (Drone survey pilot).

The weather at the time of inspection ranged from dry and sunny to heavy rain. The weather in the period preceding the inspection had been changeable.

Terminology

The front elevation of the building is deemed to face North. All references to orientation should be interpreted accordingly. References to left and right should be interpreted as if facing the element or area under consideration. For identification purposes a copy of the building plans with the facades and roof areas referenced is contained within Addendum B of this report.

Documents reviewed

We have been provided with some Council Property File information however we understand from Ruapehu District Council that additional information is available in hard copy. The documents received are:

- 20210412 Plans BC10725 *(March 2003 forty room extension)*
- 20210413 1 of 2 plans – BC679 *(New services and administration wing)*
- 20210413 BC9357 Plans Stage 7C and 7D – The Grand Chateau
- 20210413 Plans – BC7040 *(July 2000)*
- 20210414 Plans – BC 6341 *(August 1999 – café)*
- 20210414 Plans BC 6200 *(July 1999 – kitchen works)*
- 20210514 The Grand Chateau – Initial Seismic Assessment
- Chateau Tongariro Floor Plans (received from DoC)

Important Limitations

The limitations which apply to our inspection and this report are as advised to you within our letter dated 17 March 2023 and as set out below.

Our inspection and the report may be relied upon by the Department of Conservation only, for the specified purposes. Our report must not be used, and cannot be relied upon, by any third party without our prior written consent. We accept no liability to any third party for the contents of this report.

This report is based on a visual inspection of the readily accessible areas to the property only. No steps were taken to expose elements of the structure otherwise concealed or to remove surface finishes for examination of the underlying elements and therefore are unable to report that such parts remain free from defects.

We have not carried out or commissioned any specialist investigation or tests to ascertain whether or not any deleterious or hazardous materials have been used in the construction of or existed in any base building and/or any subsequent refurbishment.

We have not carried out or commissioned any investigations into moisture ingress issues or damage at the site. Should you require such investigations, we can arrange this under separate appointment.

We are unable to advise on asbestos beyond considering and noting any evident risk that may indicate need for specialist investigation. This is identified where such risks were noted on site. However, the absence of comment cannot be taken as assurance that the property or area under consideration is free from asbestos. This would require a specialist survey and materials testing, which we can arrange under separate appointment.

While statutory matters may be noted in our report, this should not be taken as a full audit or risk assessment of the property. For the avoidance of doubt this includes building code compliance, fire safety and disabled access. Should you require a complete risk assessment of statutory compliance then this can be arranged under separate appointment.

We have not carried out or commissioned any formal enquiries or investigations into the potential contamination of the site or neighbouring land. In this respect you are advised

to make your own arrangements, however, should you require any guidance we would be pleased to help. We were not instructed to appoint a Mechanical and Electrical Consultant to undertake a survey of the site installations. As such, we have made commentary from a Building Surveyor's perspective only.

We were unable to gain access into the following areas;

- A number of the roof areas were accessed directly where safe access could be achieved. The other roofs that could not be safely accessed were surveyed using drone photography only. Similarly, areas of the exterior façade were viewed from ground level or via drone photography.
- We were unable to access parts of the main roof attic, particularly the east and west wings.
- 3 bedrooms were unable to be accessed as we were unable to open the doors, (2 (two) to the 2005 wing and 1 (one) to the main building)
- The fitness room to the basement was locked and could not be opened.

Asbestos

The Health and Safety at Work (Asbestos) Regulations became fully effective on the 4 April 2018.

The Regulations place obligations on building owners, occupier and mangers to carry out an audit of the premises and to put in place a management plan to monitor, record and maintain any asbestos containing materials in the premises. Anyone with control of, or responsibility for the management or maintenance of a workplace, must identify asbestos and must have an asbestos management plan in place.

As part of our inspections we have not been provided with an Asbestos Management Survey. An asbestos survey should be undertaken at the property.

Fire Precautions and Means of Escape

As part of our inspection we have not undertaken a detailed fire safety audit of the building, nor has the premises been inspected by a Fire Engineer. The comments below are provided by a building surveyor and are subjected to further advice, if required.

At the time of inspection a fire alarm system was installed and appeared to be in working order. The system includes manual call points at exit points, along with smoke detection throughout the building, and heat detection to the kitchen areas, it was not confirmed if this is monitored.

Illuminated escape signage was noted to be present, and appeared to be in working order.

During the inspection, penetrations, openings and other holes were noted through walls that we would expect to be compartment walls. We have not reviewed the passive fire protection of the building in detail but it is recommended that any penetrations, pipes or cables to compartment walls are inspected.

Access and Provisions for people with disabilities

We have not carried out a detailed Access Audit as part of this inspection. However, the building generally provides poor access and facilities for people with disabilities in accordance with current guidance. This includes lack of level access into and around the building, disabled parking bays close to the main entrance and an accessible WC.

Summary

The Chateau building consists of the original 1929 building, the 1970 conference room extension (Tongariro Room), various 1995 additions and the 2005 bedroom block extension. There have been other various internal alterations and conversions historically. The main Chateau building is of concrete frame construction with a combination of masonry wall construction and timber frame with brickwork external veneer. The conference room extension is masonry block construction and the 2005 bedroom extension is timber framed with polystyrene external cladding. The roofs are finished with a combination of metal roof sheeting, torch on felt membrane and some Butyl type membranes.

The building is an historic building and is listed in the historic places as a category 1 building. The building overall is in a poor state of repair and is suffering from the lack of repair and maintenance over a prolonged period of time. The building requires extensive works to bring it back into a good state of repair. There are numerous deferred maintenance works required, such as complete repainting of external areas, as well as capital expenditure such as roof replacement.

The original chateau building is considered an earthquake prone building and has an initial seismic assessment (ISA) report prepared by WSP dated 16 April 2021 giving it 25% NBS. We do not believe Ruapehu District Council have served an earthquake prone notice on the building however relevant “Earthquake prone building” notices have been displayed at all entrances around the building.

Given the poor condition of the hot water heating system it would be beneficial to have all the heating systems reviewed by a building services consultant, including the forced air ventilation system. In the meantime, we understand the original maintenance person, who is familiar with the systems, will be directly employed by DoC to maintain the operation of the systems in the building.

As the building will potentially be vacant for a period of time, the heating and ventilation systems should be kept operating on a low temperature to ensure the building is ventilated, which will help to eliminate the risk of mould, dampness and will prevent any pipes or seals freezing.

Any BWOF items should also be maintained and inspected for insurance purposes. We understand the current BWoF has expired.

1.0 General Description of Property

1.1. Generally

Building history

The main chateau building was originally constructed circa 1929 and has undergone various extensions, alterations and refurbishments since. Whilst we were not provided with all the details or documents relating to the building consents/permits, we understand from the WSP IEP report and the Heritage New Zealand Pouhere Taonga website that the following works/consents have been undertaken:

- Original construction 1929
- Single storey workshop to west elevation circa 1950
- Extension to existing laundry into a la carte restaurant circa 1959
- Tongariro conference room building circa 1970
- Renovations to main kitchens circa 1976

- Bedroom rehabilitation circa 1976
- Plans for basement pool/spa circa 1980
- Bistro alterations circa 1991
- Upstairs accommodation has undergone two refurbishments circa 1995
- T-Bar, back of house and accommodation circa 1995
- Alteration to café/restaurant and kitchen upgrade circa 1999
- Café/bar extension and staff room circa 2000
- Alteration of offices into rooms circa 2002
- 40 bedroom development to east wing circa 2005

"The Chateau Tongariro Hotel was originally built in 1929 by the Tongariro Park Tourist company as a hotel and destination for the Tongariro National Park. The regional architect was Herbert Hall and the building was built by the Fletcher construction company. The original operation company went into bankruptcy in 1931 at which point the NZ government managed the facility as a resort hotel until the 1980s servicing the park and the developing ski industry". [Source – Heritage New Zealand Pouhere Taonga website]

The original Chateau Tongariro Hotel is listed and registered under the Historic Places Act 1993 and is a category 1 – *"as a place of special and outstanding historical and cultural heritage significance and value. The Chateau, designed in an American Colonial Revival style, stands out as the largest and most architecturally impressive building in the Whakapapa area, and has a national iconographic significance as one of New Zealand's best-known tourist resort hotels".* [Source – Heritage New Zealand Pouhere Taonga website]

Construction

The original building structure comprises a moment resisting reinforced concrete frame from basement to 2nd floor level. The frame supports an insitu concrete slab floor with areas of the Ruapahu lounge having timber flooring supported on piles. The concrete frame is part of the gravity and lateral load resisting structure of the original building. The 3rd floor is timber framed construction and is partly enclosed within the roof structure.

The main roof structure is original cut timber construction with various rafters, purlins and struts which support the external corrugated and trapezoidal roof sheets. The main roof also includes dormer windows to all pitches which are also finished with metal roof sheets. Limited and patchy thermal insulation is provided at ceiling level. Roof access is provided from an access hatch in the third floor corridor which is complete with a fixed timber ladder. The roof space is partly compartmentalised by internal doors.

External veneer masonry walls complete the external envelope of the building from basement floor to 2nd floor level. The upper floors have an external brick veneer finish with, we believe, a cavity construction as weep holes were noted to various locations. We understand from the WSP report that they believe the lower level walls are hollow masonry bricks which have a plastered and painted finish.

The main staircase is concrete and commences at ground floor level and extends to 3rd floor level with intermediate landings. The main basement staircase is located directly under the main staircase and links the ground floor and basement level only.

There are a number of other egress and access staircases, including two original staircases which are now partly enclosed within the 1995 and 2005 extensions, a concrete staircase linking the T Bar and upper levels, a service staircase terminating

in the kitchen staff room area and a new staircase to the 2005 extension. There is also an internal ramp linking the dining atrium and 2005 bedroom extension.

The 1995 new services and administration additional and the 2005 forty-bedroom extension are both constructed from timber frame with polystyrene external insulation at lower level and brick veneer cladding to the upper levels of the 2005 extension. The roof of the 2005 is trussed timber rafter construction, steel framing, LVL joists and plywood decking supporting the torch on felt waterproof membrane finish. The pitched sections of roof are finished with corrugated roof sheets. The dormer windows to the 2005 extension have a torch on felt roof finish and fibre cement external sides. Thermal insulation is provided at ceiling level. The roof space can be access from a drop-down ladder located in the new staircase.

Site Exposure

According to BRANZ, the site is located within climate zone 4, earthquake zone 2, exposure zone B and wind region A.

2.0 Condition Appraisal

Defects Summary

The schedule below sets out the main defects observed following our visual inspection of the building envelope. Where relevant, we have also provided broad advice as to the recommended remedial works required to each defect.

It should be noted that these are based on visual investigation only and that there are a number of items that require further invasive investigation to confirm the findings below.

Priority

Included in the schedule below is a summary of our principal observations. As part of these observations we have included a 'traffic light' system with respect to the importance of their remedial action. The traffic light colours have the following meanings in respect of their priority:

- **Urgent:** cannot be deferred without breaching statutory regulations, Health & Safety, acutely affecting critical operations, functions or security, or potential for major reputational risks.
- **Required:** highly desirable to maintain the condition and utility of the property, possible serious cost implication if not remedied. Moderate inconvenience or disruption, likely to have an effect on occupant use if not remedied.
- **Recommended**: desirable to maintain the condition and utility of the property, possible cost implication if not remedied. Marginal inconvenience or disruption, likely to have an effect on occupant use if not remedied.
- **Desirable:** the works are of a less urgent nature and it is unlikely to immediately impact use of the property if they are not remedied. Further investigation or enquiry may be required and category may change depending on the results of the investigation, or if nothing is done to remedy the issue.

Timeframes

To allow you to forecast and undertake works without a detrimental impact on the buildings performance we have considered the following timeframes:

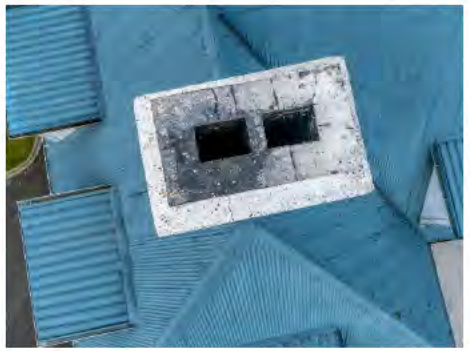
- **Urgent:** to be undertaken following survey
- **Immediate:** within one year
- **Short Term:** one to two years
- **Medium Term:** three to five years and
- **Long Term:** six to ten years.

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.0	**MAIN ROOF (ORIGINAL)**				
1.1	Main roof	Aerial overview of the main roof to the original 1929 Chateau building.	The main roof is constructed from a timber frame with corrugated metal roof sheets to the main pitches and trapezoidal roof sheets to the top section. Dormer windows are provided to all pitches which also have metal roof sheet finish. The main roof was inspected using a drone and limited visual inspection from the roof access hatch.		
1.2	Main roof	Corrugated roof sheets	**Condition:** The corrugated roof sheets are considered to have approached the end of their effective life and are suffering from corrosion and failing paint finish. **Recommended works:** Given the extremely exposed location the roof sheets should be replaced in the medium term if immediate and necessary repairs and overhauling works are undertaken.		
1.3	Main roof	Trapezoidal roof sheets to top section	**Condition:** The trapezoidal roof sheets have approached the end of their effective life and are suffering from localised water ingress, corrosion and failing paint finish. **Recommended works:** The roof sheets will need replacement in the short term, or medium term if immediate repairs and overhauling works are undertaken.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.4	Main roof	Service penetrations and access hatch	**Condition:** Water ingress and stained timber framing was noted at the roof access hatch with corrosion and previous repairs noted externally. **Recommended works:** The roof hatch should be replaced when the roof sheets are being replaced. In the immediate term allow for temporary repairs to prevent water ingress.		
1.5	Main roof	Service and ventilation penetrations	**Condition:** The service and vent penetrations all appear to have sealant repairs around their perimeter. This will fail under UV light and allow water ingress. **Recommended works:** The service and vent penetrations should be replaced when the roof sheets are being replaced. This should include back flashings and correct detailing of the penetrations.		
1.6	Main roof	Service penetrations	**Condition:** The cowl to the roof vent is missing and will be prone to water ingress. **Recommended works:** The roof vent to be replaced when the roof sheets are being replaced. In the immediate term a cowl should be provided to eliminate the risk of water ingress.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.7	Main roof	Water overflow pipe	**Condition:** Staining was noted to the overflow pipe which appears to have been overflowing for a period of time causing localised corrosion. **Recommended works:** Review if hot water is still overflowing and repair/rectify accordingly.		
1.8	Main roof	The valleys and hips are formed from folded metal lining to the valleys and folded metal with soft edge to the hips.	**Condition:** Lifting sections, localised corrosion and loose soft edges were noted over the roof surface. **Recommended works:** Overhaul the valleys and hips in the immediate term to address any loose soft edges and replace when the roof sheets are being replaced in the medium term.		
1.9	Main roof	Valleys and hips	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.10	Chimneys	The chimneys are a combination of original masonry chimneys and a "fake" chimney constructed from metal ducting to the ventilation system.	**Condition:** The rear west chimney masonry construction has been capped off and is redundant. Paint finish is poor, no ventilation is provided to the flue and the flashing detail is poor however appears watertight. **Recommended works:** Repaint chimney, insert vent to the flue and provide new flashing detail when the roof sheets are being replaced. Unreinforced masonry chimneys are a potential hazard in an earthquake event. Provisionally allow for seismic strengthening.		
1.11	Chimneys	Front west chimney – vent duct to ventilation system - Not unreinforced masonry.	**Condition:** The chimney to the front west is metal ductwork with vent grilles. Poor decorative condition. **Recommended works:** Repaint in the short to medium term.		
1.12	Chimneys	Main "live" chimney to the front east roof pitch.	**Condition:** The chimney to the front east is the only "live" chimney. It is in poor condition with cracking noted. It is an unreinforced masonry chimney as per the WSP IEP report. **Recommended works:** Determine remedial works required once the DSA is completed. Unreinforced masonry chimneys are a potential hazard in an earthquake event. Provisionally allow for seismic strengthening.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.13	Chimneys	Main "live" chimney to the front east roof pitch.	As above – note cracking		
1.14	Chimneys	Main "live" chimney to the front east roof pitch.	As above – note cracking		
1.15	Dormer windows to original roof	All roof pitches include dormers windows. The dormer roofs are finished with trough section metal roof sheets with perimeter metal gutters. The dormer side are lined with a sheet material however we cannot identify if th s is metal or an ACM sheet. The windows are original painted t mber.	**Condition:** The dormer roof sheets are in poor condition with corrosion noted and suffering from a lack of maintenance. **Recommended works:** The dormer roof sheets to be replaced when the roof sheets are being replaced in the medium term. *Refer to Window section of this report for additional comments on remedial works to the dormers.*		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.16	Dormer windows	Dormer window gutters	**Condition:** The dormer roof metal gutters are in poor condition with extension corrosion noted. The gutters back flow onto the main roof resulting in a concentrated water flow along the apron flashing. **Recommended works:** The dormer roof gutters to be replaced when the roof sheets are being replaced. Consider installing downpipes to direct water into the lower gutters.		
1.17	Dormer windows	Dormer timber windows	**Condition:** The dormer timber windows are in poor condition with bare timber, peeling paint and decayed sections of framing noted. **Recommended works:** The dormer windows will need to be overhauled, decayed timber cut out and replaced and the windows repainted in the short term. *Refer to Window section of this report for additional comments on remedial works to the dormers.*		
1.18	Dormer windows	Dormer timber windows	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.19	Main roof - rainwater goods	The main roof rainwater goods consist of metal gutters (both original and newer replacement), copper rain heads and copper/metal downpipes	**Condition:** The metal gutters are in poor condition with corrosion noted. The original gutters are considered to be at end of life, are undersized for the roof and were observed to be overflowing during heavy rain. This is also exacerbated by blockages which is preventing correct water dispersal away from the building. **Recommended works:** The original gutters should be replaced with larger gutters and to match original profile when the main roof sheets are being replaced. In the immediate term ensure all gutters and downpipe are clear and free flowing.	●	
1.20	Main roof - rainwater goods	Rain heads	**Condition:** The welded corners to the majority of rain heads were noted to have spilt resulting is water leaking at the corners. **Recommended works:** The rain heads will need to be overhauled and the corners rewelded to ensure they are watertight.	●	
1.21	Main roof - rainwater goods	Rain head connector pipes	**Condition:** The connector pipes between the gutters and rain heads are corroded and overflowing. **Recommended works:** The connector pipes to be replaced when the main roof sheets are being replaced.	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.22	Main roof - rainwater goods.	Overflowing connector pipe	As above – note overflowing/leaking connector pipe		
1.23	Main roof	Leaking dormer	**Condition:** The dormer plasterboard wall lining in room 306 has recently been replaced. Externally repairs appear to have been undertaken to the roof however room 306 still smelt damp at the time of inspection. **Recommended works:** Monitor for signs of water ingress and continued damp/mould smell. Replace roof sheets and flashings when main roof is being replaced		
1.24	Main roof	External repair at gutter/roof sheet junction	As above – note silver coloured repair at gutter/roof junction		

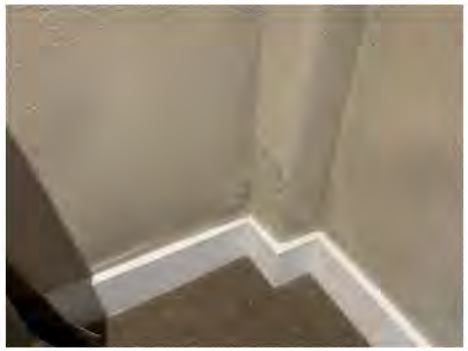
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.25	Main roof	Gutter/roof junction	**Condition:** The gutters are incorrectly detailed to the main roof resulting in overflowing at the gutter/roof junctions. This is also exacerbated by heavier and more intense rain events. **Recommended works:** Install diverter flashing to temporarily direct water into the gutter. Correctly detail the gutter/roof junction as part of roof replacement works.	 	
1.26	Main roof	Roof timbers	**Condition:** The roof timbers are stained suggesting ongoing and historic water ingress. Localised active water ingress was noted **Recommended works:** Carry out temporary repairs to the roof where water ingress noted. Once the roof sheets are replaced ensure all penetrations are correctly detailed.		
1.27	Main roof	Roof timbers	As above – note visibly wet timber		

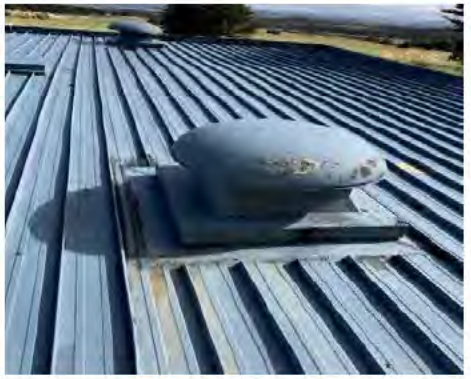
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
1.28	Main roof	Roof space services	**Condition:** The services and water tanks within the roof space are not seismically restrained. **Recommended works:** Allow to seismically restrain all services within the roof space.	●	
1.29	Main roof	Roof space services	As above	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
2.0	**BALCONY ROOF (ORIGNINAL)**				
2.1	General view	The balcony roof is original concrete construction with a waterproof membrane and solar reflective paint finish.	**Condition:** The balcony roof is in poor condition with worn solar reflective paint, cracking to the membrane, vegetation growth and general defects noted. The balcony appears to have a remedial liquid applied membrane finish. **Recommended works:** Remove the existing membrane, thoroughly prepare and apply a new waterproof membrane and solar reflective paint finish.		
2.2	General view	As above	As above		
2.3	Waterproof membrane	Cracking was noted to the waterproof membrane (possibly original asphalt)	**Condition:** Cracking was noted to the waterproof membrane to various areas. Evidence of water ingress was noted internally which can possibly be attributed to the cracking and subsequent water ingress. Subsurface cracking was also noted. **Recommended works:** Correctly repair the cracking with a suitable repair method prior to applying a new solar reflective paint finish.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
2.4	Perimeter flashing detail	Previous repairs	**Condition:** The previous repairs are considered crude and poorly detailed. Gaps and open sections were noted which will allow water ingress. **Recommended works:** Correctly detail all junctions, upstands and roof details as part of the waterproof membrane remedial works.		
2.5	Perimeter parapet wall	A low-level parapet wall encloses the balcony roof. This is finished with a top cap flashing and painted metal balustrade.	**Condition:** A remedial liquid applied waterproof membrane has been applied over the original cap flashing. The membrane is cracking along the wall and may allow water ingress. **Recommended works:** Thoroughly prepare and apply a new liquid applied waterproof membrane and solar reflective paint finish.		
2.6	Perimeter wall	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
2.7	Perimeter wall	Corrosion staining	**Condition:** Corrosion staining was noted emanating from under the perimeter wall capping. **Recommended works:** Investigate cause of the staining, repair and make good during roof repair works.	🔴	
2.8	Perimeter edge capping	Perimeter edge capping	**Condition:** The external side of the perimeter wall top capping has a paint/waterproof membrane finish which has failed, deteriorated and cracked. **Recommended works:** Replace the perimeter wall capping with a new waterproof membrane (or continue the liquid applied membrane over the parapet wall) with suitable cap detail.	🔴	
2.9	Perimeter edge capping	As above	As above	🔴	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
2.10	Northeast corner	Perimeter wall/main wall junction	**Condition:** The corner detail at the intersection with the brickwork is causing damp internally. Moss growth and missing pointing was noted to the brickwork. **Recommended works:** Carry out temporary repairs as necessary to prevent further water ingress. Correctly detail the balcony wall/main wall junction to prevent further water ingress as part of future repair works.		
2.11	Damp internally to northeast corner	Internal view of affected bedroom at northeast corner.	**Condition:** Internal view of damp resulting from poor external detailing. **Recommended works:** Make good wall internally once external repair works are complete.		
3.0	**TONGARIRO ROOM ROOF (CIRCA 1970)**				
3.1	Overview photo to the Tongariro Room roof	The Tongariro Room roof was constructed circa 1970 to create a conference room	**Condition:** The roof overall is in poor condition, has been poorly maintained and the roof pitch is inadequate (1 – 3°). As the roof is over 50 years old it has reached the end of its effective life and is considered due for replacement. **Recommended works:** In the immediate term overhaul the roof to prevent further water ingress, including rust treatment and replacing sealants. In the medium term allow for end of life roof replacement.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
3.2	General view of roof	Service penetrations	**Condition:** There are various service penetrations and vents to the Tongariro Room roof which are in poor condition with evidence of water ingress noted internally. **Recommended works:** In the immediate term overhaul the roof to prevent further water ingress. The service penetration to be replaced when the roof sheets are being replaced.		
3.3	Typical roof service vent	Service penetrations	**Condition:** Corrosion was noted around the service penetration flashings. These has been installed virtually flat which is allowing water to pond at the vents causing the localised accelerated deterioration and corrosion. **Recommended works:** In the immediate term treat the corrosion and reseal the vents. Correctly detail and flash all service penetrations when the roof sheets are being replaced.		
3.4	Corrosion to roof vent	Service penetration flashing detailing	**Condition:** Close up of corrosion to the vent flashing. **Recommended works:** Provide a suitable back flashing to the service vents when the roof sheets are being replaced.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
3.5	Roof perimeter detail together with additional flashing	Roof perimeter flashing detailing	**Condition:** The perimeter of the roof includes a retro fitted "additional flashing" detailing to conceal perimeter lighting. This creates a detail which allows poor water dispersal from the roof allowing discharge onto the main elevations causing damp and failing paint finish. Edge flashings should be angled inwards to prevent water discharging onto the elevations. **Recommended works:** The perimeter detailing to be reviewed and amended to ensure correct water dispersal from the roof when the roof sheets are being replaced.		
3.6	Roof perimeter detail together with additional flashing	Perimeter detail membrane debonded and lifting.	**Condition:** The flashing to the perimeter edge detail has debonded from the substrate. **Recommended works:** Correctly detail the perimeter edge when the roof is replaced.		
3.7	Roof perimeter detail	Sealant repair to edge flashing	**Condition:** Previous repairs have been undertaken using surface applied sealant. **Recommended works:** All edge flashings to be correctly detailed and not reliant on surface applied sealant for weathertightness when the roof sheets are being replaced.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
3.8	Ceiling tiles internally	Water ingress damage internally	**Condition:** Evidence of water ingress to the ceiling tiles directly below the Tongariro Room roof. **Recommended works:** All water damaged ceiling tiles and water damage internally to be prepared and made good once external works are complete.		
3.9	Tongariro wall/main wall intersection	Tongariro Room roof / main building intersection	**Condition:** The junction between the Tongariro Room roof and main building is poorly detailed resulting in decayed timber and water run marks down the main elevation. **Recommended works:** As part of the roof replacement works this intersection should be correctly detailed to prevent deterioration and water running down the wall.		
4.0	**PODIUM ROOF (ORIGINAL)**				
4.1	Original podium roof	The original section of podium roof is located between the Tongariro Room roof and main entrance. This is of concrete construction with asphalt or similar waterproof membrane and solar reflective paint finish.	**Condition:** The original podium roof is in poor condition with deteriorated solar reflective paint, vegetation growth, splits in the waterproof membrane and general deterioration noted. **Recommended works:** The roof membrane will need to be replaced in its entirety to ensure a weathertight finish.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
4.2	Original podium roof	Ponding water	**Condition:** Ponding water was noted to the podium roof indicating poor and inadequate drainage. **Recommended works:** The podium roof should be laid to falls to prevent ponding water which will cause premature deterioration of the roof and ice during winter months.		
4.3	Original podium roof	Vegetation growth	**Condition:** Vegetation growth was noted where the membrane has failed and cracks have developed. **Recommended works:** Remove all vegetation growth prior to replacing the membrane.		
4.4	Original podium roof	Vegetation growth	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
4.5	Original podium roof	General deterioration	As above		
4.6	Original podium roof	Metal handrail	**Condition:** The original metal handrail is corroded and is in poor condition **Recommended works:** Thoroughly prepare, remove/treat the corrosion and repaint the handrails.		
4.7	Original podium roof	Metal handrail/column connection	**Condition:** The handrail fixing to the concrete column is missing or has been removed. **Recommended works:** Make good the handrail/column junction.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.0	**WORKSHOP ROOF (1950s)**				
5.1	Workshop roof	Overview of workshop roof	We understand the workshop roof was constructed circa 1950s. the roof is finished with low pitched metal roof sheets which are both mono pitched and inward pitched to a central valley gutter.		
5.2	Workshop roof	Metal roof sheet finish	**Condition:** The metal sheets are in poor condition and have been previously patch repaired. The paint finish is peeling and corrosion was noted. The roof sheets are circa 70 years old and are at the end of their effective life. The roof pitch is limited, and in some areas, is back falling. **Recommended works:** Allow for end of life replacement of the roof sheets.		
5.3	Workshop roof	Metal roof sheet finish	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.4	Workshop roof	Metal roof sheet finish	As above		
5.5	Workshop roof	Internal gutter	**Condition:** There is an internal gutter to the workshop roof which is limited in size and prevents correct cleaning and maintenance of the gutter. **Recommended works:** As part of roof replacement works the gutter should be designed out or if required increased in size to allow for ongoing periodic repair and maintenance.		
5.6	Workshop roof	Internal gutter	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.7	Workshop roof	Roof pitch	**Condition:** Sections of the roof have been installed with limited or no pitch resulting in localised water ponding. **Recommended works:** As part of roof replacement works the roof will need to be repitched to comply with current codes of practice.		
5.8	Workshop roof	Roof pitch	As above		
5.9	Workshop roof	Roof intersections	**Condition:** The intersection of the various roofs is poorly detailed with the use of surface applied sealants which will deteriorate under UV light. The cap flashing fixings are working loose resulting in an unsealed hole. **Recommended works:** All roof junctions and intersections will require correct detailing to ensure robust and weathertight junctions when the roof sheets are replaced.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.10	Workshop roof	Rainwater goods	**Condition:** The rainwater goods include box section gutters and downpipes. The gutters are generally corroded, holed and leaking and are in poor condition. **Recommended works:** All gutters and downpipes to be replaced as part of roof sheet replacement works.		
5.11	Workshop roof	Rainwater goods	As above		
5.12	Workshop roof eaves	Fibre cement fascias and soffits	**Condition:** The fibre cement fascias and soffits are delaminating, deteriorated and appeared to have suffered from localised impact damage. **Recommended works:** The fascias and soffits to be replaced as part of roof replacement works.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.13	Workshop roof eaves	Fibre cement fascias and soffits	As above		
5.14	Workshop roof	Fibre cement fascia and soffits	As above		
5.15	Workshop roof	Roof timbers	**Condition:** Sections of the soffit have been removed and have exposed visibly decayed timber roof framing. Localised timbers have been replaced. **Recommended works:** Replace all the decayed timber roof framing as part of roof replacement works. The sections of missing soffit to be replaced in the immediate term to prevent bird or rodent access.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
5.16	Workshop roof	Suspected asbestos cement pipe	**Condition:** There are two pipes penetrating through the workshop roof. One pipe (left hand side) is a suspected asbestos containing material (ACM) however it was not tested. **Recommended works:** The pipe should be removed by an appropriately licenced asbestos contractor. *Also see hazardous materials section of this report.*	🔴	
5.17	Workshop roof	Suspected (damaged) asbestos soffit	**Condition:** The section of damaged soffit is a suspected ACM however this was not tested. **Recommended works:** The damaged ACM soffit should be removed by an appropriately licenced asbestos contractor as part of roof replacement works. *Also see hazardous materials section of this report.*	🔵	
6.0	**LEAD ROOF OVER KITCHEN (ORIGINAL)**				
6.1	Lead roof	The small section of roof over the kitchen is considered to be finished with lead or other metal material. Water is discharging onto this roof from the missing section of gutte directly above and downpipes also discharge into this roof causing overloading and overflowing of the gutter.	**Condition:** The lead roof is in poor condition with previous repairs noted and active water ingress identified internally. **Recommended works:** As part of overall roof replacement works this section of roof should also be replaced and the downpipes redirected. In the immediate term the gap/hole which is causing the leak should be repaired.	🔴 🔵	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
6.2	Lead roof	Rainwater goods	**Condition:** The roof and external gutter are being overloaded during rain events resulting in water discharging onto the elevation causing dampness, peeling paint and also water ingress internally. **Recommended works:** The downpipes which discharge into the gutter should be diverted to prevent overloading the external gutter.	●	
6.3	Lead roof	Water damage to main elevation	**Condition:** The section of elevation directly below the gutter is visibly damp stained from the overflowing gutter. **Recommended works:** The downpipes should be redirected to prevent overloading the gutter. Once this is done the elevation should be made good.	●	
6.4	Water ingress	Internal water ingress	**Condition:** Water ingress was noted internally to the doorway between the kitchen and main dining room. We could not identify if the water ingress was from the failed lead roof or the rainwater goods as there was no access directly onto the lead roof above. **Recommended works:** All flashings and junctions to the roof to be correctly detailed to prevent future watering ingress. In the meantime the flashings and roof to be overhauled and sealed to prevent ongoing water ingress. Downpipes to be rediverted as previously recommended.	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.0	**ROOFS OVER THE KITCHEN AND T BAR (1995)**				
7.1	Roofs	Overview aerial photo of the various roofs	We understand the roof of the T-Bar and accommodation above date from 1995. The roofs are a combination of mono pitched, dual pitched and flat roof with waterproof membrane finish The perimeter parapet gutters are lined with a Butyl type membrane.		
7.2	Flat roof	The flat roof over this section of roof is lined with a waterproof membrane complete with solar reflective paint finish.	**Condition:** The flat roof is circa 28 years old and will be approaching the end of its effective life however there were no signs of water ingress internally. The solar reflective paint finish is deteriorating, fading and localised moss growth was noted. **Recommended works:** The solar reflective paint finish should be reapplied in the immediate term to prolong the life of the roof membrane. In the medium to long term the roof membrane should be replaced.		
7.3	Dormer windows	The dormer windows are constructed from timber frame with a waterproof membrane roof finish complete with solar reflective paint f bre cement wall cladding and aluminium windows.	**Condition:** The solar reflective paint finish to the roofs is deteriorating and fading. **Recommended works:** The solar reflective paint finish should be reapplied in the immediate term to prolong the life of the roofs. in the medium to long term the roof membrane should be replaced.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.4	Rainwater goods	The rainwater goods consist of metal gutters which discharge onto the main roof pitch onto the apron flashing.	**Condition:** The metal gutters are in poor condition with corrosion, holes and leaks noted. **Recommended works:** The gutters should be replaced in the short term. In the medium term downpipes should be provided to prevent water discharging directly onto the corrugated metal roof and apron flashing.		
7.5	Staircase window structure	A small structure has been constructed to enclose the rear staircase leading to the accommodation.	**Condition:** The small structure is in poor condition with deteriorated and delaminated fibre cement cladding, inadequate cladding clearances, bare timber and loose section of gutter. **Recommended works:** The small structure should be repaired in the immediate term to include replacing the loose gutter, replacing damaged cladding and re decorating sections of bare timber.		
7.6	Staircase window structure	Wall junction detailing	**Condition:** The small structure junction with the pitched roof and main building has been poorly detailed resulting in water flowing onto the brickwork and claddings below causing damage and staining. **Recommended works:** All intersections and junctions to be correctly detailed to prevent damage to the adjoining building elements. In the immediate term diversion flashings should be installed to direct water into the gutter.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.7	Staircase window structure	Rainwater goods	**Condition:** The gutter to the roof has collapsed allowing water to discharge onto the walls. **Recommended works:** In the immediate term replace the gutter.		
7.8	Mono pitched roof	The section of mono pitched roof between the canopy roof and accommodation is lined with trough section roof sheets which discharge into a Butyl gutter.	**Condition:** The roof sheets are suffering from localised corrosion and localised increased water flow from downpipes resulting in surface deterioration. **Recommended works:** The sheets are circa 28 years old and with correct repair and maintenance their life span can be extended. In the immediate term all corrosion should be treated to prevent further deterioration.		
7.9	Dormers	There are dormer windows overlooking the mono pitched roof. These are constructed from timber framing with fibre cement cladding, aluminium windows and membrane lined roofs	**Condition:** The cladding to the dormers is in poor condition with extensive damage and delamination noted due to inadequate clearance resulting in water penetration into the cladding. **Recommended works:** The fibre cement cladding will need replacement in the short term along with any decayed timber framing.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.10	Dormers	As above	As above		
7.11	Dormers	As above	**Condition:** The cladding to the side to the dormer has limited clearance to the apron flashing which is allowing water to wick into the cladding which is exacerbated by increased water from the gutter discharging directly above. The cladding is in poor condition with delaminated cladding and moss growth noted. **Recommended works:** The gutter from the dormer should be redirected to prevent concentrated water flow along the cladding. The damaged cladding and any decayed timber framing should be replaced in the immediate term. The painted timber should be repainted in the immediate term.		
7.12	Dormers	As above	As above		

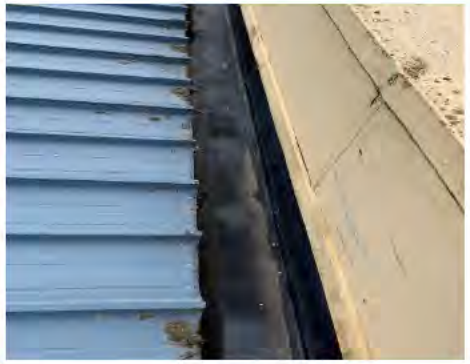
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.13	Dormers	As above	As above		
7.14	Dormers	As above	**Condition:** The sections of cladding between each dormer window has limited clearance to the roof however appears in reasonable condition with only localised damage noted. **Recommended works:** Repaint the cladding in the short term.		
7.15	Dormer fascia	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.16	Dormer fascia	As above	As above		
7.17	Rainwater goods	The downpipes discharge directly onto the apron flashing which is not good practise. Moss growth was noted indicating prolonged moisture exposure.	**Condition:** The gutter discharging onto the lower roof is causing localised damage to the roof sheets and associated moss growth. **Recommended works:** The downpipes should be redirected/extended to discharge directly into the Butyl lined gutter.		
7.18	Gutter / cladding junction	The concentrated water flow from the dormer downpipe is not discharging correctly into the gutter.	**Condition:** The cladding to the side to the dormer is damaged due to incorrect rainwater management. There should be a diverter flashing and correct cladding clearance to prevent this water related damage. **Recommended works:** Once the cladding has been replaced a correct diverter flashing or new downpipe should be installed to ensure rainwater is directed into the gutter and not onto the cladding.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.19	Rainwater goods	Metal gutters	**Condition:** The gutters are in a various state of disrepair with corrosion and holes noted to numerous gutters. **Recommended works:** The gutters should be replaced in their entirety as they are considered beyond economical repair.	🔴	
7.20	Rainwater goods	Metal gutter	As above	🔴	
7.21	Rainwater goods	Metal gutter	As above	🔴	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.22	Roof directly over T-Bar	This is also a mono pitched roof similar to the previous roof which has the same roof detailing.	The defects identified to the previous roof are also applicable to this roof.		
7.23	Roof directly over T-Bar	Cladding detail	Inadequate cladding clearance similar to previous roof.		
7.24	Roof directly over T-Bar	Downpipe detail	Downpipe discharging onto the apron flashing.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.25	Parapet cap flashing	The parapet wall to the T Bar roof is finished with a top fixed metal cap flashing.	**Condition:** The metal cap flashing has been fixed over the parapet wall and is complete with top screw fixings. The flashing is in poor condition with extensive moss and algae growth noted. The use of top fixings is not good practise as it can allow water penetration. **Recommended works:** The cap flashing should be replaced with a side fixed capping in the immediate term.		
7.26	Parapet cap flashing	As above	As above		
7.27	Rear canopy roof	The roof to the rear canopy is finished with metal roof sheets which discharge into Butyl lined gutters all enclosed within plywood clad parapet walls.	**Condition:** The parapet walls have been lined internally with painted plywood which is in poor condition with peeling and deteriorated paint noted. **Recommended works:** The plywood cladding should be repainted in the immediate term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.28	Rear canopy roof	As above	As above		
7.29	Rear canopy roof	As above	**Condition:** The metal roof sheets are in poor condition with localised corrosion and damage noted particularly along the bottom edge. **Recommended works:** In the immediate term the corrosion should be spot treated to prevent further deterioration.		
7.30	Parapet gutter	Butyl lined parapet gutters	**Condition:** The Butyl membrane appears in reasonable condition however the penetrations and outlets have generally been poorly detailed. **Recommended works:** The membrane should be checked annually for signs of deterioration and water leaks.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.31	Parapet gutter	Butyl lined parapet gutters	**Condition:** The membrane has been poorly lapped into the rainwater outlet and has debonded. **Recommended works:** The membrane to be overhauled and adhered to the outlet.		
7.32	Parapet gutter	Overflow outlet incorrectly formed.	**Condition:** One overflow outlet has not been completed and the hole has been incorrectly formed. This will limit the overflow capacity from the roof. **Recommended works:** The membrane to be correctly detailed to form an overflow outlet.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
7.33	Void space between the original building and extension	A small void space has been created between the main building and 1995 extension. This has been partly roofed over and partly open for kitchen services.	**Condition:** The void area is generally in a poor state of repair. **Recommended works:** The void area generally requires ongoing repair, maintenance and cleaning.		
7.34	Void space between the original building and extension	Downpipe	**Condition:** A downpipe was noted to be blocked with debris and it also discharges directly onto an apron flashing which is not good practice. **Recommended works:** The downpipe should be cleaned out to leave free flowing and checked/cleaned annually.		
8.0	**DINING ATRIUM ROOF (2005)**				
8.1	Dining atrium roof	Aerial location ove view of the dining atrium roof	We understand this roof was constructed circa 2005 under building consent BC10725 (however we believe the upper section is older construction). It is a mono pitched roof and features a central step. The roof is finished with metal roof sheets and box gutters both to the central step and edge gutter.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
8.2	Dining atrium roof	Upper section of the roof	**Condition:** The upper mono pitched section is finished with trough section roof sheets which discharges into a box section gutter. The roof sheet finish is in poor condition with localised corrosion and peeling paint noted. **Recommended works:** In the immediate to short term the roof paint should be repainted and any surface corrosion treated to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		
8.3	Dining atrium roof	Lower section of the roof	**Condition:** The lower mono pitched section is finished with trough section roof sheets which discharges into a box section edge gutter. The roof sheets are in reasonable condition with localised corrosion and peeling paint noted. **Recommended works:** In the immediate short term the surface corrosion treated to prevent further deterioration and cleaned to remove contaminate build up.		
8.4	Dining atrium roof	Close up view of the upper roof sheets	**Condition:** The upper roof sheets are peeling, deteriorating and surface corrosion was noted to numerous areas. **Recommended works:** In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
8.5	Dining atrium roof	Close up view of the upper roof sheets	As above		
8.6	Dining atrium roof	Close up of surface corrosion to the upper roof sheets	**Condition:** The roof sheet finish is peeling, deteriorating and surface corrosion was noted to numerous areas and is reaching the end of its effective life. **Recommended works:** In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		
8.7	Dining atrium roof	Close up of surface corrosion to the upper roof sheets	**Condition:** The roof sheet finish is peeling, deteriorating and surface corrosion was noted to numerous areas and is reaching the end of its effective life. **Recommended works:** In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
8.8	Dining atrium roof	The gutters are box section powder coated metal with uPVC downpipes	**Condition:** The gutters are showing signs of deterioration and corrosion. **Recommended works:** In the immediate term the corrosion should be treated to prevent further deterioration. Depending on budget constraints the gutters should be replaced in the medium to long term.		
8.9	Dining atrium roof	Downpipes	**Condition:** The uPVC downpipes discharged directly onto the roof sheet below. This is not good practise as it can lead to concentrated water flow causing premature deterioration. **Recommended works:** In the immediate term the downpipe should be extended into the lower gutter.		
8.10	Dining atrium roof	Downpipe	**Condition:** A downpipe from the upper roof is just charging directly onto the apron flashing which can result in water ingress as well as concentrated water flow causing deterioration of the roof sheet. **Recommended works:** In the immediate term the downpipe should be extended into the lower gutter.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
8.11	Torch on felt roof	A small section of roof over the ground floor corridor has been lined with a torch on felt waterproof membrane.	**Condition:** The roof membrane is currently in reasonable condition with no signs of water ingress noted internally. Two downpipes discharge onto this roof which is not good practise. **Recommended works:** The downpipes should be extended into the lower gutter to prevent moss and debris build up and premature deterio ation of the membrane.		
8.12	Torch on felt roof	As above	**Condition:** Moss, grass and debris build up is occurring between the torch on felt roof and atrium dining room. **Recommended works:** In the immediate term the debris should be removed and the downpipe extended into the lower gutter.		
8.13	Downpipes	The uPVC downpipe from the atrium dining roof discharges directly into underground storm water pipe work.	**Condition:** The downpipe is in good condition however appears to be overflowing and is causing surface algae build-up on the adjacent wall surface. **Recommended works:** In the immediate term the algae should be treated with a chemical treatment to prevent deterioration of the wall paint finish. Investigate if pipe is blocked and rectify.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
8.14	Downpipes	As above	**Condition:** The fixing bracket to the downpipe is loose and should be re fixed. **Recommended works:** In the immediate term the downpipe should be re fixed to the wall.		
9.0	**2005 EXTENSION ROOF**				
9.1	2005 extension	Aerial overview of the 2005 extension roof.	The 2005 extension includes a pitched main roof with corrugated roof sheets, central torch on felt section and dormer windows which also have a torch on felt roof finish. This roof was inspected using a drone and limited access viewed through the roof hatch.		
9.2	Torch on roof membrane	Torch on felt roof membrane with various vent penetrations, roof access and chimney	**Condition:** The torch on felt membrane to the central section was found to be in good condition with no signs of water ingress noted and no obvious defects identified. **Recommended works:** The roof membrane to be inspected annually for signs of deterioration, debonding of joints and water ingress.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
9.3	Chimney	The chimney to this roof would appear to be partly for aesthetic reasons a partly to conceal the gas flue.	**Condition:** The chimney was inspected using a drone and was found to be in reasonable condition. **Recommended works:** Repaint the chimney in the medium term.		
9.4	Dormer windows	The dormer windows are constructed from timber frame with aluminium windows, fibre cement cladding and torch on felt roof membrane. The gutters are metal complete with uPVC downpipes.	**Condition:** The dormer windows were found to be in reasonable condition **Recommended works:** Inspect annually for signs of deterioration or water ingress.		
9.5	Dormer windows	Torch on felt membrane	**Condition:** The torch on felt membrane to the dormers was found to be in good condition with no obvious defects noted. **Recommended works:** Inspect annually for signs of deterioration or water ingress.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
9.6	Anchor points	Anchor points have been provided to the torch on felt membrane. We did not see any safety or testing tags.	**Condition:** Anchor points have been provided to the flat roof with fixings noted internally to the roof trusses. **Recommended works:** Anchor points should be tested annually and re certified.		
9.7	Dormer windows	The windows to the dormers are powder coated aluminium with painted timber windowsills.	**Condition:** The timber windowsills and external timber was noted to be deteriorating with bare timber, peeling paint and moss growth noted. **Recommended works:** In the immediate term the painted timberwork should be thoroughly prepared and redecorated to prevent decay and deterioration of the timbe . *See also Window section of this report.*		
9.8	Dormer windows	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
9.9	Corridor roof	The roof to the link corridor is finished with a torch on felt membrane finish.	**Condition:** The membrane was inspected using a drone and was found to be in reasonable condition with no obvious defects noted. **Recommended works:** Inspect annually for signs of deterioration and repair accordingly.		
9.10	Corridor roof	The link corridor gutter discharges directly onto the apron flashing of the pitched roof.	**Condition:** The gutter discharges directly onto the apron flashing of the main roof causing a concentrated water flow along the apron flashing/cladding junction. This in turn is overflowing from the gutter below causing water discharge onto the brickwork below. **Recommended works:** Ideally the gutter should be diverted into a separate downpipe to prevent water overflowing onto the brickwork which is causing brick damage and possible future dampness internally.		
9.11	Corridor roof	As above	As above - see moisture staining on the brickwork		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
9.12	Seismic joint	The seismic joint has been extended over the roof and flashed with a metal flashing	**Condition:** The seismic joint appeared in good condition with no obvious defects noted. **Recommended works:** No works required.		
9.13	Seismic joint	As above	As above		
9.14	Rainwater goods	The gutters to the 2005 roof are connected into rain heads which in turn discharge into downpipes.	**Condition:** The rain heads and downpipes were generally all noted to be blocked and overflowing causing damage to the brickwork and staining to the paint work. This can allow freezing water on the bricks resulting in spalling brickwork and dampness internally. **Recommended works:** In the immediate term all rain heads and downpipes should be cleaned out to leave free flowing. They should be cleaned out annually to prevent debris build up and subsequent blockages.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
9.15	Rainwater goods	As above	As above		
9.16	Roof space services	There are various ducts and services within the roof space to the 2005 extension.	**Condition:** The ventilation ductwork was noted to be poorly installed with various bends and inefficient installation noted. **Recommended works:** To ensure a more efficient running off the ve tilation system it would be considered worthwh le reviewing all ductwork to ensure there are a limited number of bends which can cause air friction within the ducts thereby reducing efficiency. The system should be balanced to ensure optimal running.		
9.17	Roof space services	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
10.0	**ROOF OVER GROUND FLOOR TOILETS (2005)**				
10.1	Ground floor toilet roof	The roof to the ground floor was inspected using a drone and from the bedroom windows overlooking the roof.	**Condition:** The roof generally appeared in reasonable condition with no signs of water ingress noted internally. **Recommended works:** Monitor roof for signs of water ingress and clean gutters out annually.		
11.0	**RUAPEHU FEATURE WINDOW ROOF**				
11.1	Flat roof over Ruapehu feature window	The roof over the Ruapehu feature window appears to be concrete construction with a waterproof membrane finish. Given the dimensions of the membrane sections we believe it is an asbestos containing material (ACM).	**Condition:** The roof membrane appears in a poor condition with deteriorated solar reflective paint finish. Lichen growth was noted throughout which can cause damage to the roof membrane. **Recommended works:** In the immediate term the membrane should be treated with a chemical treatment to kill off any lichen and a new solar reflective paint applied once the lichen has died off. As the material is a suspected ACM it should not be water blasted.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
11.2	Flat roof over Ruapehu feature window	As above	As above		
11.3	Flat roof over Ruapehu feature window	As above	As above		
11.4	Flat roof over Ruapehu feature window	As above	**Condition:** Brown rust staining was noted on the membrane. This appears to be originating from the leaking gutter directly above as shown in the photo. **Recommended works:** In the immediate term the leaking gutter above should be repaired and the rust stain carefully cleaned, bearing in mind it is likely to be an ACM, prior to the re application of a solar reflective paint.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.0	**ELEVATIONS**				
12.1	Main front elevation	The main original 1929 front elevation is finished with plastered and painted masonry to the lower levels and brickwork to the upper levels.	**Condition:** The main 1929 elevation has generally suffered from a lack of repair maintenance over numerous years causing moisture related issues bubbling and peeling paint work and general deterioration of the building elements. **Recommended works:** All previously painted surfaces will need to be thoroughly prepared, scraped back and repainted in the immediate to short term.		
12.2	Overview - Left hand side main front elevation	The left-hand side elevation consists of the 2005-bedroom extension. This is a full height timber frame construction with polystyrene external cladding to the lower levels brick cladding to the upper levels.	**Condition:** The polystyrene cladding has cracking to localised and random areas as well as algae growth to the paint work. **Recommended works:** The cracking should be fully investigated to identify the cause of the cracking and any associated repairs. In the immediate term the cracking should be sealed with a suitable flexible sealant to prevent water ingress. The paint work wou d benefit from a chemical treatment to kill the lichen and prevent further deterioration of the paint finish in the immediate term.		
12.3	Overview - Left hand side main front elevation	The left-hand side front elevation is the original 1929 construction together with a localised section of 2005 construction.	**Condition:** This elevation is generally in poor condition with deteriorating paint work and moisture related defects. **Recommended works:** All previously painted surfaces will need to be thoroughly prepared, scraped back and repainted in the immediate to short term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.4	Overview - Right hand side of main building	The right-hand side elevation consists of the 1929 original construction and the 1955 workshop extension at ground floor level.	**Condition:** The right-hand side extension is suffering from moisture related defects, damage from overflowing gutters, moss and algae growth from concentrated water from the rainwater goods and general deterioration of the paint finish. **Recommended works:** All previously painted surfaces will need to be thoroughly prepared, scraped back and repaint it in the immediate to short term once the rainwater goods are repaired.		
12.5	Overview - Right hand side elevation (T-Bar extension)	The rear right hand side extension forms the T-Bar and was constructed in 1995. It is of timber frame construction with a polystyrene external cladding.	**Condition:** Polystyrene cladding has known potential inherent defects related to moisture ingress. Cracking was noted to this cladding suggesting possible water ingress resulting in the cracks. This should be fully investigated to determine if the timber framing is also suffering from decay as this can be concealed behind the cladding. **Recommended works:** Investigate causes of the cladding cracking prior to considering any remedial works.		
12.6	Overview - Rear elevation of 1995 extension	The rear extension was constructed in 1995. It is of timber frame construction where the polystyrene external cladding.	Same defect and issues as the right-hand side 1995 extension.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.7	Overview - Rear elevation showing atrium dining extension	The central atrium dining extension was constructed in 2005.	**Condition:** The atrium extension was found to be in reasonable condition. Previous roof and rainwater goods defects have been discussed elsewhere in this report. **Recommended works:** Allow for periodic redecorations to the previously painted surfaces and windows/doors.		
12.8	Overview - Rear elevation of 2005 extension	The rear elevation consists of the 2005 bedroom extension. This is a full height timber frame construction with polystyrene cladding to the lower levels and brick cladding to the upper levels, all on a cavity system.	**Condition:** Polystyrene cladding has known inherent defects related to moisture ingress. Localised cracking was noted to this cladding suggesting possible water ingress resulting in the cracks. This should be fully investigated to determine if the timber framing is suffering from decay as this can be concealed behind the cladding. **Recommended works:** Investigate causes of the cladding cracking prior to considering any remedial works.		
12.9	Overview - Upper level of original building rear elevation (left hand side section)	The upper-level brickwork is original 1929 construction	**Condition:** The original 1929 brickwork was generally found to be in reasonable condition however localised missing or deteriorating pointing, localised cracking and localised water damage were noted. **Recommended works:** In the short term the missing pointing should be replaced with a suitable mortar in keeping with the historic nature and materials used in this building. Once the rainwater goods have been fixed any water related staining on the brickwork can be gently cleaned to remove the staining.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.10	Overview - Upper level of original building rear elevation (central section)	As above	As above		
12.11	Overview - Upper level of original building rear elevation (Right hand side section)	As above	As above		
12.12	Brickwork	Missing pointing to the original brickwork	**Condition:** Sections of missing pointing were noted to the original 1929 brickwork. **Recommended works:** In the short term the missing pointing should be replaced with a suitable mortar in keeping with the historic nature and materials used in this building.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.13	Brickwork	Inappropriate silicone sealant repair to the original brickwork mortar joints.	As above		
12.14	Brickwork	Missing pointing to the original brickwork	As above		
12.15	Brickwork	Inappropriate sand/cement type repair to the original brickwork.	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.16	Brickwork	Missing pointing and inappropriate repair	As above		
12.17	Brickwork	Unsealed old pipe penetrations through the original brickwork (numerous occurrences to most original elevations)	**Condition:** There are unsealed historic pipe penetrations through the original brickwork. A number of the penetrations have been made good with inappropriate sand/cement or sealant. **Recommended works:** Any unsealed holes should be made good to prevent rodent entry or water ingress.		
12.18	Brickwork	Damaged and missing pointing to the front corner of the original building	**Condition:** The mortar pointing to a number of corners was noted to be worn or missing. **Recommended works:** Repoint missing pointing as found necessary.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.19	Brickwork	A missing section of gutter is allowing water to discharge directly onto the brickwork which is causing moss growth and damaging the bricks.	**Condition:** The brickwork is heavily stained and extensive moss growth noted. **Recommended works:** In the immediate term a section of gutter should be installed to prevent water discharging directly onto the wall. The moss growth should be treated with a chemical treatment as moss will cause damage to the bricks and pointing	●	
12.20	Brickwork	As above	As above	●	
12.21	Brickwork	As above	As above	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.22	Brickwork	As above	As above		
12.23	Brickwork	The brickwork at the junction of the original building and 2005 extension has not been sealed or a suitable flashing provided.	**Condition:** There is an unsealed vertical gap which is allowing bird entry and possible water ingress. **Recommended works:** The vertical gap should be flashed or sealed with a flexible sealant material to allow for movement along this line.		
12.24	Brickwork	Close up of the right-hand side unsealed gap and evidence of bird entry (nesting material)	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.25	Brickwork	The corresponding brick joint to the left-hand side is also unsealed.	As above		
12.26	Brickwork	Close up of the left-hand side gap.	As above		
12.27	Painted masonry wall	The plastered and painted masonry section of wall extends from ground level to 2nd floor level where it changes to brick veneer cladding. We understand from the WSP report that the wall is possibly unreinforced masonry.	**Condition:** The paint finish is in poor condition with numerous areas of peeling paint, missing paint, bubbling paint and general neglect noted. **Recommended works:** All previously painted external wall areas will need to be scraped back, thoroughly prepared and repainted with a suitable exterior quality paint.		

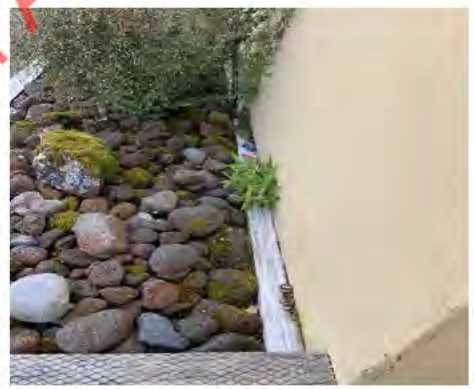
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.28	Painted masonry wall	As above	As above		
12.29	Plastered features	Plastered and painted featured details create the junction between the lower levels and brick upper levels.	**Condition:** As the original building is a heritage building the paint finish will need to be correctly specified to ensure a breathable paint is applied which is in keeping with the historic nature of the building. **Recommended works:** Correctly specify a suitable paint system. Any necessary repairs to the plastered features will need to be correctly specified and detailed		
12.30	Plastered features	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.31	Painted surfaces	Low-level painted surfaces.	**Condition:** The low-level paint is also suffering from water damage along the bottom edge due to inadequate drainage. **Recommended works:** Prior to redecoration the drainage and low-level paint to be correctly treated, the walls allowed to dry out prior to painting.		
12.32	Painted surfaces	Low-level painted surfaces.	As above		
12.33	Juliet balconies	There are Juliet balconies to each side of the front elevation	**Condition:** The Juliet balconies are in various states of disrepair including having poor surface membrane, corroded metal handrails and missing front section to one balcony. It was noted internally that damp staining is occurring directly under the Juliet balconies in the dining room and Ngauruhoe Room which we believe is emanating from the balconies. **Recommended works:** Fully inspect the balcony/wall junction and make good as required to prevent dampness in the rooms below.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.34	Juliet balconies	Close up of Juliet balcony	As above		
12.35	Entrance portico	The entrance portico is formed by the balcony above supported on circular columns and the main walls.	**Condition:** The paint work to the portico is in poor condition with bubbling, peeling and defective paint noted. **Recommended works:** The paint to the portico to be repainted when the main elevations are being repainted.		
12.36	Entrance portico	Large bubbles and stretching of the paint work noted due to trapped moisture behind the paint.	**Condition:** The bubbling paint work confirms years of water ingress and lack of maintenance. **Recommended works:** The paint to the portico to be repainted when the main elevations are being repainted.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.37	Entrance portico	As above	As above		
12.38	West elevation	The West elevation forms part of the 1995 extension. We understand it is timber framed construction with polystyrene exterior cladding.	**Condition:** The paint work is approaching a redecoration cycle and is considered to be in poor decorative condition with algae growth noted. **Recommended works:** In the immediate term the paint work should be treated with a chemical treatment to kill off the algae growth.		
12.39	West elevation	Overflow pipe	**Condition:** The overflow pipe from the roof above does not extend correctly beyond the wall surface. **Recommended works:** Consider extending the pipe work to discharge away from the cladding.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.40	West elevation	Cracking	**Condition:** Cracking was noted to localised and random areas over the West elevation. **Recommended works:** Given the known potential issues with polystyrene cladding, investigations should be carried out to determine the cause of cracking and the condition of the timber frame. In the immediate term the cracking should be sealed to prevent water ingress.		
12.41	West elevation	Cracking	As above		
12.42	West elevation	Ground clearance	**Condition:** The polystyrene cladding has been brought down to ground level with limited clearance provided. This can allow water to wick into the cladding and prevent drainage along the bottom edge. **Recommended works:** In the immediate term remove stones and other materials to create ground clearance to the cladding.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.43	West elevation	As above	As above		
12.44	1955 workshop extension	The West elevation forms the workshop at the entrance to the basement level facilities.	**Condition:** The paint finish to these elevations is in poor condition. Planters have been created along the elevation which can cause moisture ingress internally. **Recommended works:** Consideration to be given to removing the planters and making good the affected wall surfaces.		
12.45	1955 workshop extension	Fibre cement cladding	**Condition:** The workshop has direct fixed fibre cement cladding which is damaged at low level due to inadequate clearances and possible impact damage. **Recommended works:** Make good the cladding at low level and provide adequate ground clearance to prevent moisture wicking into the cladding.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.46	Pipe penetration	Low level masonry block work	**Condition:** A number of pipe penetration were noted through the masonry block walls. These walls appeared to be hollow and unreinforced where inspected. **Recommended works:** Review seismic upgrade recommendations necessary to the reinforced masonry walls. In the immediate term fill the gap to prevent rodent access.		
12.47	Pipe penetration	Close up photo of the hollow masonry block walls	As above		
12.48	Paint finish	The 2005 extension which we understand is full height timber frame construction with polystyrene exterior ladding on a cavity with a painted finish.	**Condition:** The exterior paint work is currently in reasonable condition however algae and green growth was noted on the paint surface. This can cause deterioration of the paint finish if not treated. **Recommended works:** Consider applying a chemical treatment to the paint finish in the short term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.49	Paint finish	Wall mounted light fixings	**Condition:** Localised staining was noted below direct fixed lighting and other wall mounted fixings. **Recommended works:** Consider applying a chemical treatment to the paint finish in the short term.		
12.50	Polystyrene cladding	Polystyrene feature detail to the 2005 extension	**Condition:** Cracking and missing sections of plaster were noted particularly to the front elevation polystyrene cladding along the feature detail. This will allow water ingress and it should be repaired in the immediate term. **Recommended works:** Investigate the cause of cracking prior to repairing. In the immediate term make good the cracks with a suitable sealant to prevent moisture ingress.		
12.51	Polystyrene cladding	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.52	Polystyrene cladding	As above	As above		
12.53	Tongariro Room conference centre	The Tongariro Room conference centre was constructed circa 1970 of masonry block construction with paint external finish.	**Condition:** The external walls are in poor decorative condition with extensive peeling paint, water damage and general deterioration noted. **Recommended works:** External walls will need to be thoroughly prepared, scraped back and re decorated in the immediate to short term.		
12.54	Tongariro Room conference centre	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
12.55	Tongariro Room conference centre	As above	As above		
12.56	Tongariro Room conference centre	As above	As above		
12.57	Wall junctions	The junction of the Tongariro Room conference centre and main portico are poorly detailed resulting in extensive damage to the building structure and associated moisture damage.	**Condition:** Decayed timber and extensive water damage was noted to both the east and west sides. **Recommended works:** Provide a suitable flashing or connection detail between the two buildings to prevent ongoing water damage.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.0	**WINDOWS**				
13.1	Tongariro Room windows	Conference room windowsill flashing detail	**Condition:** The external windowsill detail to the Tongariro Room windows allows water to pond as a small lip has been created which prevents water discharging correctly. **Recommended works:** The windowsill detail should ideally be removed to prevent ponding water. Alternatively, the windowsills to be adapted and drainage slots to be installed.		
13.2	Tongariro Room windows	Conference room windowsill flashing detail	**Condition:** The external windowsill detail has also been incorrectly installed which is preventing water draining correctly. Moss growth and damaged paint finish was noted confirming the presence of moisture over a long period of time. **Recommended works:** The windowsill detail should be reinstalled correctly to prevent future water damage.		
13.3	Tongariro Room windows	Conference room window glazing bead/gasket	**Condition:** The window glazing bead/gasket have shrunk and will allow a direct path for water ingress internally. **Recommended works:** The window glazing bead/gasket to be replaced in the immediate term.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.4	Tongariro Room windows	Conference room window glazing bead/gasket	As above		
13.5	Dormer windows to main roof	Original painted timber windows and surrounds to the dormer windows	**Condition:** The original dormer timber windows to the 1929 building are in poor condition with peeling paint, decayed timber and bare sections timber noted. **Recommended works:** In the immediate term all timber windows will need to be thoroughly prepared, scraped, overhauled and repainted to prevent further deterioration. This to include the timber surrounds and trim details.		
13.6	Dormer windows to main roof	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.7	Dormer windows to main roof	As above	As above		
13.8	Dormer windows to main roof	As above	As above		
13.9	Dormer windows to main roof	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.10	Original west staircase window	The external reveal to the original west staircase window has been removed or is missing.	**Condition:** The external timber reveal to the staircase window is missing which may allow water ingress. **Recommended works:** In the immediate term the missing timber section to be replaced with new section to match the existing profile.	●	
13.11	Original timber windows	The original timber windows are painted timber with opening top casement and fixed lower section.	**Condition:** The original timber windows are in a poor state of repair with peeling paint, corroding fixings, bare timber, missing putty and deterioration noted to the majority of the windows. **Recommended works:** The windows will need to be overhauled to replace missing sections of putty, repaired, thoroughly prepared and repainted. Any decayed sections of timber will need to be cut out and new treated timber scarfed in.	●	
13.12	Original timber windows	As above	As above	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.13	Original timber windows	As above	As above	●	
13.14	Original timber windows	As above	As above	●	
13.15	Evidence of water ingress	Water ingress to the original windows	**Condition:** Actual water ingress, as well as previous historic staining, was noted to the original timber windows. This appears to be originating from the missing putty and through poorly fitting casements. **Recommended works:** The windows will need to be overhauled to replace missing sections of putty. Realign any poorly fitting casements.	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
13.16	Evidence of water ingress	As above	As above		
13.17	2005 extension windows	The windows to the 2005 extension are powder coated aluminium with painted timber surrounds and windowsills.	**Condition:** The aluminium windows were found to be in good condition however the timber sills, and partly the surrounds, are in poor condition. A number of the sills are considered to be flat which is allowing water to pond causing deteriorated paint, moss growth and soft timber (possibly early decay). **Recommended works:** To rectify the flat sills would require the windows to be removed and the sills adjusted which would cause additional damage.		
13.18	2005 extension windows	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
	2005 extension windows	As above	As above		
	2005 extension windows	As above	As above		
14.0	**EXTERNAL AREAS**				
14.1	Low level walls	The external low-level walls are masonry construction with a plastered and painted finish.	**Condition:** The low-level walls are in poor condition with missing paint, cracking and general deterioration noted. **Recommended works:** In the immediate term all external walls to be crack repaired, thoroughly prepared and redecorated.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
14.2	Low level walls	As above	As above		
14.3	Low level walls	As above	As above		
14.4	External light standards	The external light standards are concrete construction with a painted finish	**Condition:** The external light standards are in poor condition with cracking, missing plaster and paint noted. **Recommended works:** In the immediate term all light standards to be made good and redecorated.		

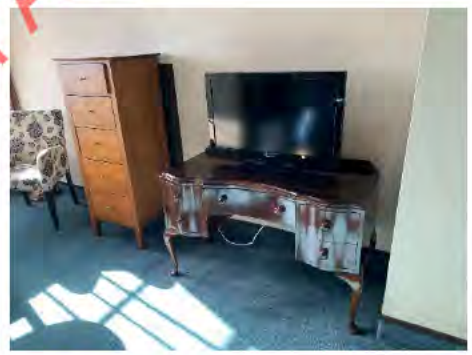
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
14.5	External light standards	As above	As above		
14.6	Concrete external steps	Cast in situ concrete stairs	**Condition:** The 2no. external concrete stairs are in poor condition with spalled concrete, exposed reinforcement bars and missing concrete noted. **Recommended works:** In the immediate term it would be advisable to close off the external concrete staircases to prevent use until such time as the concrete and reinforcement is repaired.		
14.7	Concrete external steps	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
14.8	Concrete external steps	Exposed reinforcement bars to the underside of the stairs	As above		
14.9	External areas	The external areas consist of asphalt car parking and general hard standing areas.	**Condition:** The external asphalt and hard standing are in poor condition with general deterioration, previous poor repairs and frost damage noted. **Recommended works:** Given that the asphalt areas form the main entrance to the Chateau consideration to be given to resurfacing all areas to leave a consistent surface finish.		
14.10	External areas	Previous poor asphalt repairs	As above		

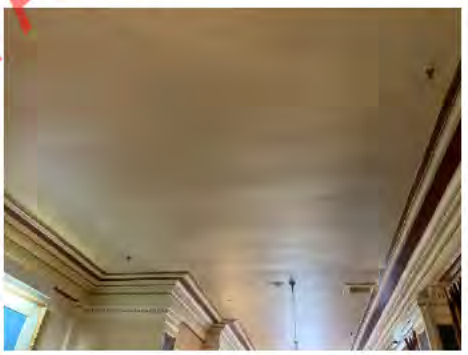
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
14.11	External areas	Previous poor repairs and general deteriorated surfaces	As above		
14.12	External areas	Previous poor repairs and general deteriorated surfaces	As above		
14.13	Drainage	Concealed underground pipe work	**Condition:** We understand there is an ongoing issue with underground drainage and cross contamination of pipe work. **Recommended works:** The underground drainage lines should be CCTV inspected to determine their condition and identify any necessary repair works.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
14.14	Standby generator		**Condition:** A standby generator has been placed at the main entrance to the basement facilities. This is not considered a suitable location for the generator **Recommended works:** Consider relocating the generator or providing suitable screening to conceal the generator.		
15.0	**INTERNAL AREAS**				
15.1	Furniture and general storage	Whilst the furniture and general storage do not affect the repair and maintenance of the building, they should have been removed by the outgoing tenant and they are considered a potential fire loading and risk.	**Condition:** Ideally all internal furniture and storage should be removed by the outgoing tenant as part of their lease responsibilities. **Recommended works:** Remove internal furniture or adequately protect if the furniture is to be reused.		
15.2	Furniture and general storage	As above	As above		

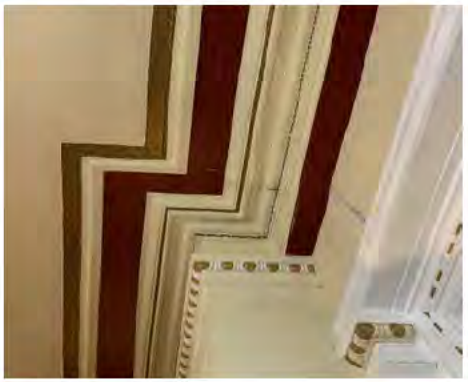
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.3	Furniture and general storage	As above	As above		
15.4	Furniture and general storage	As above	As above		
15.5	Bedrooms	The bedroom furniture has not been removed by the outgoing tenant	**Condition:** The majority of bedrooms still have beds and other furniture which has not been removed by the outgoing operator. **Recommended works:** We have not seen a copy of the lease to determine the outgoing operators responsibilities and make good applications. The stored furniture is a potential fire loading within the vacant building and should ideally be removed or adequately protected for possible future use.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.6	Bedrooms	As above	As above		
15.7	Bedrooms	As above	As above		
15.8	Bedrooms	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.9	Bedrooms	As above	As above		
15.10	Internal wall surfaces	We have not seen a copy of the lease to determine the redecoration liabilities of the outgoing operator.	**Condition:** The internal wall surfaces are generally in fair condition however would benefit from redecoration in the medium term. **Recommended works:** As part of any lease negotiations consideration to be given to redecorating the walls.		
15.11	Internal wall surfaces	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.12	Internal ceilings	We have not seen a copy of the lease to determine the redecoration liabilities of the outgoing operator.	**Condition:** The ceiling to the main Ruapehu Lounge has localised water damage, peeling paint finish and localised potential debonding of the plaster. They are also in poor decorative condition. **Recommended works:** Any debonded sections of ceiling can be repaired using appropriate repair methods to re fix the ceiling back to the substrate.		
15.13	Internal ceilings	As above	As above		
15.14	Internal ceilings	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.15	Internal ceiling	Decorative cornice and beam details	**Condition:** Localised cracking and water damage was noted to the cornice to localised and random areas. We are unsure of the source of the water. However, given these areas are internal, we believe the water is emanating from the rooms above or internal services rather than water ingress. Although water ingress cannot be ruled out. **Recommended works:** Investigate the source of moisture and repair prior to redecoration		
15.16	Internal ceiling	As above	As above		
15.17	Internal ceiling	As above	As above		

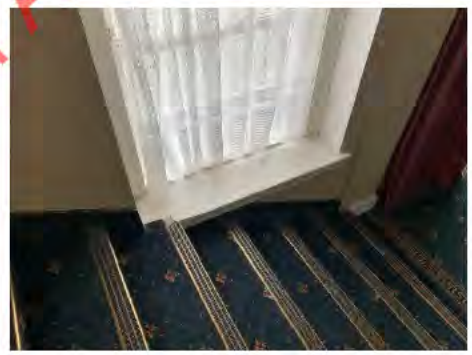
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.18	Internal ceiling	As above	As above		
15.19	Internal ceiling	As above	As above		
15.20	Internal ceiling	Water damage internally above Ruapehu Room and Ngauruhoe Room windows.	**Condition:** As previously mentioned under the Elevation section of this report, water ingress is occurring from the Juliet balconies externally. **Recommended works:** Once the Juliet balconies have been repaired and water ingress abated the internal cornice and walls to be made good and re decorated.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.21	Internal ceiling	As above	As above		
15.22	Juliet balconies externally	General view of the Juliet balconies externally which are causing moisture ingress internally	As above		
15.23	Juliet balconies externally	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.24	Localised water ingress	Localised water ingress to the main staircase external wall	**Condition:** Localised water ingress was noted internally at various locations, such as the balcony roof. We have previously recommended the waterproof membrane to the balcony be replaced. **Recommended works:** Once the waterproof membrane has been placed allow to make good internal surfaces and redecorate.		
15.25	Main staircase	Localised cracking	**Condition:** Localised cracking was noted to the main staircase. This was also commented on in the WSP report. **Recommended works:** Investigate cause of cracking and repair.		
15.26	Main staircase	As above	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
15.27	Ruapehu room beam	Cracking was noted to the Ruapehu Room beam. This was also commented on in the WSP report.	**Condition:** Investigate cause of cracking and make good. This to coincide with seismic remedial works. **Recommended works:** Investigate cause of cracking and repair.	●	
15.28	Ruapehu room beam	As above	As above	●	
16.0	**HEALTH AND SAFETY**				
16.1	H&S	A number of general health and safety and non-compliance issues were identified.	**Condition:** The stained glass to the main entrance and internal doorways is not safety glass and loose panes were noted. **Recommended works:** In the immediate term allowed to carry out a review of the glazing to determine which low-level panes are safety glass, if any.	●	

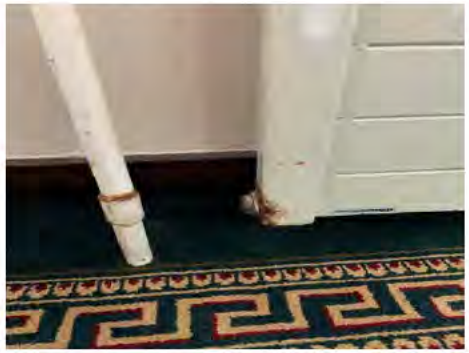
Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
16.2	H&S	As above	As above	●	
16.3	H&S	As above	As above	●	
16.4	H&S	Loose section of glazing	As above	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
16.5	H&S	Low level window adjacent to the staircase	As above	●	
16.6	H&S	Low level, full height glazing to the Ruapehu lounge	As above	●	
17.0	**BUILDING SERVICES**				
17.1	Water tanks	There are a number of water storage tanks located within the roof space of the original building.	**Condition:** The water tanks are not seismically restrained. **Recommended works:** All water tanks should be seismically restrained or braced.	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.2	Water tanks	As above	As above		
17.3	Water tanks	As above	As above		
17.4	Boiler	There is a hot water boiler located within the plant room at basement level. We understand this was installed in 1998 and has subsequently been rebuilt	**Condition:** We understand the boiler is operational and is in working order. **Recommended works:** Allow for annual maintenance to the boiler.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.5	Boiler	Pipe leak	**Condition:** A leak was noted to the boiler pipe work causing ponding on the basement floor. **Recommended works:** In the immediate term allow to repair the leak to prevent further water damage.	🔴	
17.6	Hot water vessels	Original hot water vessels	**Condition:** There are two large hot water vessels in the basement. We are unsure if these are operational or not or whether they are redundant. **Recommended works:** Investigate the hot water vessels	🔴	
17.7	Electrical	Electrical distribution boards	**Condition:** There are various distribution boards located around the building. These are a mixture of modern and dated boards. **Recommended works:** Allow for an electrical inspection and testing of all electrical equipment to ensure it is safe and operational.	🔴	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.8	Electrical	Modern type electrical equipment	**Condition:** There are various distribution boards located around the building. These are a mixture of modern and dated boards. **Recommended works:** Allow for an electrical inspection and testing of all electrical equipment to ensure it is safe and operational.		
17.9	HVAC	Modern plant and machinery locations in the 2005 extension	**Condition:** There is a modern HVAC system to the 2005 extension. **Recommended works:** Allow for annual/periodic inspection, testing and maintenance of the HVAC system.		
17.10	HVAC	Modern plant and machinery located in the 2005 extension	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.11	HVAC	Modern plant and machinery located in the 2005 extension	**Condition:** The air filters to the air handling plant are dirty and blocked. **Recommended works:** In the immediate term allow for full service of the air handling plant to ensure it is running efficiently.	1	
17.12	Radiators	Hot water radiators and heating system	**Condition:** Localised corrosion and evidence of water leaks were noted to the hot water heating system. With old gun barrel pipe work this can rust internally and can fail. They also become blocked and restrict water flow. We understand there are limited valves for isolating the pipe work and replacement of radiators and sections of pipe is difficult. **Recommended works:** Carry out a full inspection of the hot water system to determine its condition and remaining life. Allow for daily inspections for leaks from the radiators and pipe work.	1	
17.13	Radiators	As above	As above	1	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.14	Radiators	As above	As above		
17.15	Kitchen equipment	Water leak	**Condition:** A leak was noted on the kitchen tap and pipe work which is causing localised flooding within the kitchen. **Recommended works:** Allow to fix the leaking tap and pipe connections.		
17.16	Kitchen equipment	Water leak	As above		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.17	Grease trap	Grease traps to void area	**Condition:** We understand the grease trap is located to the void space accessed from the kitchen corridor. This area was generally greasy and dirty and we found no service records for the grease traps to determine if they are cleaned regularly. **Recommended works:** Allow for cleaning the grease traps.		
17.18	Grease trap	As above	As above		
17.19	Grease	Kitchen extractor	**Condition:** The kitchen extract fan discharges into the void space. This is in poor condition with excessive grease emanating from the fan. **Recommended works:** Allow to degrease all wall surfaces.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.20	HVAC system	Ventilation ductwork	**Condition:** The 2005 extension has a ventilation system installed. The duct work within the roof space has a number of bends and poor sections of installation which will make the system inefficient. **Recommended works:** Allow to overhaul the ductwork to standardise the bends and limit 90 degree bends which will reduce air flow.		
17.21	HVAC system	As above	As above		
17.22	Standpipe	Fire and emergency standpipe	**Condition:** The standpipe located adjacent to the conference centre is leaking. **Recommended works:** In the immediate term the valves to the standpipe should be replaced to prevent constant leaking.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
17.23	Standpipe	Fire and emergency standpipe	**Condition:** This standpipe to the ground floor car park area has a hose pipe connected to it. This would not be considered good practice and the hose pipe should be removed. **Recommended works:** Remove hose pipe in the immediate term.		
17.24	Drainage grille	The drainage grille to the planter area of the workshop extension was missing.	**Condition:** Missing grille cover. **Recommended works:** Provide a suitable cover or grille to the exposed gully.		
17.25	Swimming pool	There is an indoor swimming pool with associated pool pump and equipment.	**Condition:** At the time of inspection the pool was drained and the equipment deenergised so it could not be tested. **Recommended works:** Allow for recommission if the equipment is to be reused.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
18.0	**HAZARDOUS MATERIALS**				
18.1	Asbestos containing materials (ACMs)	There were a number of suspected asbestos containing materials (ACMs) located throughout the building. These were not tested however are highly likely to be asbestos.	**Condition:** We have not seen an asbestos register for the building however this should have been done to comply with asbestos management regulations. Damaged sections of suspected ACMs were noted **Recommended works:** In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.	●	
18.2	ACM	Workshop soffit	**Condition:** The soffit to the workshop has been damaged and is a suspected ACM. **Recommended works:** As above	●	
18.3	ACM	Plant room cladding	**Condition:** The high-level cladding around the pipe penetrations is a suspected ACM. **Recommended works:** As above.	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
18.4	ACM	Switch room cladding	**Condition:** The high-level cladding around the pipe penetration to the switchroom is a suspected ACM **Recommended works:** As above	●	
18.5	ACM	Pipe penetration to workshop roof	**Condition:** The pipe penetrating the workshop roof is a suspected ACM. **Recommended works:** As above	●	
18.6	Waterproof membrane	Ruapehu Lounge	**Condition:** The waterproof membrane to the Ruapehu lounge roof is a suspected ACM. **Recommended works:** As above	●	

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
18.7	Basement wall lining	Basement wall lining	**Condition:** The wall lining within the basement is a suspected ACM. **Recommended works:** As above		
18.8	Electrical transformer	There is an electrical transformer located adjacent to the workshop. There are known hazards with oil and PCBs within transformers.	**Condition:** Ownership of the electrical transformer to be determined and whether this poses a safety risk or not. **Recommended works:** Determine ownership of the transformer.		
19.0	**MISCELLANEOUS ITEMS**				
19.1	Non-compliant matters	The entrance ramp at the main entrance would not be deemed compliant	**Condition:** The temporary ramp to the main entrance would potentially not comply with current access requirements. **Recommended works:** Provide a suitable permanent ramp or access arrangement.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
19.2	Non-compliant matters	Reception desk	**Condition:** The reception desk could not be deemed compliant for wheelchair users. **Recommended works:** Review reception desk and provide low level access.		
19.3	Non-compliant matters	Subfloor bracing	**Condition:** The timber bracing to the subfloor was raised in the WSP as non-compliant. **Recommended works:** Provide additional bracing to the subfloor as required to comply with seismic strength requirements.		
19.4	Potential fire risk	Charring wood	**Condition:** Localised charred wood was noted around a pipe to the toilet subfloor void. We believe this is from the original construction however it should be reviewed in case the charring is caused by a hot pipe. **Recommended works:** Review immediately.		

Ref.	Element	Description	Comments on condition/recommended works	Priority	Photograph
19.5	Subfloor insulation	The insulation to the 2005 subfloor is foil insulation.	**Condition:** There are known safety issues with this type of underfloor installation where it can become electrified. **Recommended works:** Ideally remove the installation or install a warning sticker to warn of the safety hazards. Consider replacing.		

Recommended works to be carried out by traffic light priority

Location	Urgent (Black)	Required (Red)	Recommended (Yellow)	Desirable (Green)
Main roof	• Review seismic upgrading to the chimneys. • Replace missing cowl to prevent water ingress. • Review leaking overflow pipe. • Unblock rain heads, downpipes and gutters. • Repair all split and leaking rain heads and connector pipes. • Review and address gutters which are overflowing onto the walls.	• Replace corroded and end of life roof sheets including valleys, hips and flashings. • Water ingress issues to be addressed and repaired. • Service penetrations to be replaced. • Repair and repaint original timber dormers. • Replace dormer window gutters to the original building. • Monitor room 306 where repairs were carried out. • Carry out repairs to prevent water ingress to the main roof. • Seismically restrain all water tanks in the roof space.	• Repaint chimneys	
Balcony roof		• Apply new waterproof membrane and new solar reflective paint. • Replace deteriorated balcony parapet wall cap flashing. • Carry out repairs to the NE corner and make good internally.	• Correctly detail the previous repairs and junction as part membrane replacement works. • Investigate staining to the roof.	
Tongariro room roof		• Replace the roof sheets as they are end of life, including vents. Repitch the roof to comply with modern standards. • Overhaul the roof in the immediate term until full replacement is done.		

		• Replace perimeter edge flashings. • Redetail the Tongariro roof and main building wall. • Make good internally as required.		
Original podium roof		• Replace waterproof membrane and solar reflective paint. • Remove all vegetation growth. • Create adequate falls to the roof. • Paint the metal handrail and make good column junction.		
Workshop roof		• Allow for end of life roof sheet replacement, include repitching the roof to prevent ponding • Redetail the internal gutter or create fall externally. • Redesign the roof intersection junctions . • Replace the corroded external gutters. • Replace the damaged fascias and soffits . • Replaced decayed roof timber. • Remove suspected ACMs.		
Lead roof over kitchen	• Repair leak, overhaul flashings and repair as required to prevent water ingress. • Divert the downpipes to prevent overloading of the lower gutter.	• Replace lead roof as end of life.		

Roofs over kitchen and T-Bar		• End of life replacement of the flat roofs, including dormers. • Repair structure over staircase and replace gutters and junctions. • Adjust and replace corroded gutters and downpipes and redirect as required. • Replace cladding and timber framing to dormers where deteriorated. • Repaint dormers cladding and fascias. • Replace cap flashings to the parapet walls. • Repaint the plywood cladding to the parapets. • Butyl membrane repairs to parapet gutters. • Spot treat corrosion to the roof sheets. • Tidy up void space roof and rain water goods.	• Reapply the solar reflective paint to the dormers. • Replace the gutters to the dormers. • Treat corrosion to the mono pitched roof sheets.	
Dining atrium roof		• End of life replacement of the upper roof sheets, gutters and downpipes. • Treat localised corrosion to the lower roof sheets. • Redirect and extend the downpipes. • Repairs to the torch on felt membrane. • Repairs to the gutters and downpipes.		

2005 extension roof		• Clean out the downpipes to leave free flowing. • Certify the roof anchor points. • Provide diverter flashing to the link corridor roof gutter.	• Monitor for signs of water ingress and leaks. • Paint the windowsills and external dormer timbers.	• Monitor the torch on felt roof membrane (main and dormers) annually. • Repaint the chimney. • Tidy up roof space ducting.
Roof over ground floor toilets				• Monitor for signs of water ingress.
Ruapehu feature window roof	• Test membrane for ACM.	• Treat for lichen growth. • Repair leaking gutter above.		
Elevations	• Replace missing section of gutter to west elevation and treat associated moss growth to the brickwork. • Allow for seismic remedial works once the DSA is completed.	• Thoroughly prepare and repaint all original elevations. Repair elevations as found necessary. • Replace inappropriate repairs and fill holes. • Investigate cracking to the polystyrene cladding and repair as found necessary. • Carry out sealing to the cracking to prevent further water ingress. • Investigate water ingress from the Juliet balconies and make good. • Carry out repairs to the west elevation cladding. • Prepare and repaint the Tongariro Room external walls	• Treat 2005 external elevations with chemical cleaner. • Allow for periodic redecorations to the 2005 elevations. • Repoint missing sections of pointing to the original. • Provide flashing/sealant to the brickwork junctions where gaps noted at the 2005 junction.	
Windows	• Replace missing reveal to the west staircase window.	• Replace/adjust external windowsill to the Tongariro conference centre and replace beads/gaskets.		

	• Repair, prepare and repaint all original timber windows.	• Repair, prepare and repaint all the timber windowsills and trims to the 2005 extension. • Adjust/replace the sills of the 2005 extension to create a fall to prevent ponding.		
External areas	• Close off the external concrete stairs.		• Repair and repaint the low-level walls and columns • Resurface the asphalt carpark, include necessary repairs. • Check the underground drainage and CCTV survey. • Relocate the standby generator or provide screening.	
Internal areas	• Investigate cracking to the beams and staircase.		• Make good water damage to the ceilings, cornice and beams. • Investigate Juliet balcony water ingress and make good as required. • Investigate cracking to the staircase.	• Remove the previous occupiers furniture and storage. • Repaint the internal areas and make good any water damage. • Refix the ceilings.
H&S	• Check internal glass.			
Building services	• Seismically restrain the water tanks in the roof space. • Check FENZ standpipes where leaking or hose connected.	• Annual servicing of the boilers, HVAC and all plant and machinery. • Repair leak to boiler pipework. • Test all distribution boards. • Test the hot water radiator pipework. • Fix leaks to the kitchen sink. • Empty the grease trap. • Degrease all wall surfaces. • Check standpipes (2no.).	• Miscellaneous external services repairs. • Consider relocating the generator or screening.	• Overhaul the ventilation pipework.

Hazardous materials	• Prepare an asbestos register and management plan.			
Miscellaneous items	• Investigate charring to the subfloor timber.	• Ideally remove the foil underfloor insulation.	• Check non-complaint items • Check subfloor bracing.	

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3.0 Conclusions and Recommendations

Conclusions

The building is suffering from a lack of repair and maintenance over a prolonged period of time and as such is in a poor state of repair and has considerable deferred maintenance works required. There are water ingress issues to a number of areas. The building requires considerable investment to bring it into a state of repair, undertake necessary seismic upgrading works (depends on outcome of the DSA) and make it fit for a hotel and hospitality use.

Given the building has historical protection status, the works will need to be considered and approved by both the district council, heritage New Zealand and Department of Conservation. We understand the ownership of the building is currently under lawyer review which is outside the scope of this inspection but potentially relevant for any claim against the previous hotel operators.

We believe the repair works should be undertaken in a staged manner ranging from initial immediate works to prevent further deterioration, seismic upgrading, full external repairs and then internal refurbishment. These can be defined as follows:

- Stage 1 – Necessary immediate works to prevent further deterioration of the building, prevent further water ingress and essentially put the building into a state of hibernation until such time as its future is decided. These are classified as “black” items and can potentially be done using access equipment rather than full scaffolding.
- Stage 2 – Complete necessary seismic upgrading and remediation works so that the building can be safely reoccupied and put back into use. Depending on the extent of seismic works required, which may be considerable. Those works should be identified and completed before extensive refurbishment works are undertaken. This will avoid potentially damaging any new works during the seismic works.
- Stage 3 – complete all exterior necessary repair maintenance works such as, complete repainting of the lower levels, repairing and repainting all the original timber windows and timber windowsills to the newer extensions, end of life replacement of roof coverings and all other exterior works required to put the building back into a state of repair. These are generally classified as “Red” items which can be done in conjunction with stage 1 works.
- Stage 4 – complete internal renovations and upgrading works once a new hotel operator is found. We believe this could be done in sub-stages, such as wing by wing, or area by area, so that the building can be operational and income producing whilst the internal works are being undertaken. This would need to be approved and agreed between the owner and operator.

Once the building has been brought back into a state of repair, a long-term maintenance plan should be prepared to ensure that necessary and critical works are undertaken in a timely manner, such as annual cleaning of gutters, checking exterior roofs, flashings etc for signs of deterioration. It is more cost effective to undertake ongoing regular repair and maintenance works rather than deferring them. Simple defects or issues can be repaired before they deteriorate and potentially cause further damage and become more costly to fix.

In addition to the seismic strengthening works required to the building structure and fabric, it was also noted that the internal services, water tanks and duct work are, generally, not seismically restrained. As there are a number of large water storage tanks

within the roof space, these should be restrained to prevent movement in an earthquake event. These are important to consider as part of an overall seismic plan.

The main roof covering is prefinished corrugated roof sheets. Although we do not believe these are original as evidence of previous roof coverings were noted internally. The roof sheets are approaching the end of their effective life as old lead head nails, corrosion and peeling paint finish were noted. A roof replacement should be considered within the short to medium term. However, the roof would benefit from overhauling in the immediate term to ensure that all holes, gaps and poor details are addressed before the winter season. Given the height of the roof, health and safety and access will need careful consideration.

The rainwater heads to the main roof are original copper with metal downpipes. The majority of these rain heads were noted to have split at the corners and water is overflowing to the elevations, causing dampness and moss/algae growth to the brickwork. This will cause water damage to the structure and mould growth internally and should be repaired in the immediate term.

The other roofs, generally, are showing signs of localised corrosion, peeling paint and poor details. These are slightly newer roofs and with immediate repair maintenance, the life of the roofs can be extended. The majority of flashings, claddings and associated componentry to the dormer windows are generally in poor condition with bare timber fascia's noted, decayed and delaminating fibre cement cladding and cladding clearance issues noted. As this is causing extensive damage, these should be addressed and repaired in the immediate term. Other relatively minor defects such as blocked gutters, downpipes discharging onto lower roofs, inadequately formed scupper outlets etc should all be addressed to prolong the life of the other roofs.

The painted sections of elevations are all in poor condition with extensive bubbling, trapped moisture, peeling paint and delaminating layers of paint noted throughout all original and conference room elevations. The paint finish to the 2005 extension is generally in fair condition, however, is starting to show signs of algae growth which can be treated in the immediate term to prevent deterioration. We are unsure when the 2004 extension was last redecorated, however, it would benefit from re-decorating in the medium term in line with other painted areas.

The Polystyrene exterior insulation finishing system (EIFS) to the West extension (T Bar) is cracking, has limited ground clearance and other defects were noted. Given the known risks around water ingress to EIFS (leaky building syndrome) all cracking should be made good in the immediate term with a sealant as a temporary repair, sources of moisture ingress made good and ground clearance provided. This will prevent further deterioration of the structure prior to a long-term investigation and remediation works.

The original lead roof to the West elevation (small recessed area directly above the kitchen) and adjacent wall surfaces are in poor condition resulting from a missing section of gutter at roof level and overflowing gutters due to overloading from two higher level downpipes. This has caused extensive moss growth on the elevation and water ingress was noted internally to the doorway between the kitchen and dining room which is directly below this roof. Given the defects identified externally, we believe water is penetrating the structure at this point. This area should be repaired in the immediate term, new section of gutter installed and the downpipes cleaned out and/or redirected to ensure that rainwater is correctly managed and dispersed away from the building in an efficient manner.

The original timber windows are generally all in a poor state of repair with decayed timber sashes noted, bare woodwork, missing sections of putty and general peeling defective

paint noted. Water ingress was noted to a number of rooms internally through the window sashes, where the putty has failed, or other gaps noted. Given the historical nature of this building, all window repairs will need to be carried out in an approved manner. The old window sashes cannot be replaced but must be repaired using traditional methods where possible.

Recommendations

Until such time as the future of the building is confirmed, it should be put into a state of hibernation. This will include having the heating and ventilation "ticking over" to prevent dampness, mould and freezing pipes. The Building Warranty of Fitness (BWoF) should be maintained current to ensure the systems are maintained and prevent any potential insurance issues.

It is recommended that the works identified in this report are carried out in a systematic manner, such as the staged method identified. This will ensure the building is not deteriorating further as immediate works and seismic works are completed in the short term and all exterior decorations are completed in the short to medium term. Depending on budgets available, all works can be carried out simultaneously. There will also be alternative staging or sequencing of the works.

As the building is a heritage building, input will be required from the local council conservation officer, heritage New Zealand and Department of Conservation to ensure they approve of our proposed repair methods.

We have made some recommendations for additional investigations, in particular to the polystyrene cladding to the 1995 extension. These additional investigations should be carried to determine if there is wider cladding issue and not just localised cracking as this could have a significant cost implication.

This report is not sufficient to instruct a contractor in the process of repair works. Specific detailing and direction is required to be provided before and during the repair process.

ADDENDUM A

QS Cost Estimate

Chateau Tongariro Hotel

Black items generally immediate works	Red items generally short to medium term

Client: Department of Conservation
Ref: 042506001 **Year built:1929**
Date: 27-Apr-23

Item (corresponnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
1.0	**Main Roof - Original**							
1.2	Main Roof	Corrugated roof sheet	The corrugated roof sheets are considered to have approached the end of their effective life and are suffering from corrosion and failing paint finish.	Given the extremely exposed location the roof sheets should replacement in the medium term if immediate and necessary repairs and overhauling works are undertaken.		$340,544.00	$18,780.00	$321,764.00
1.3	Main Roof	Trapezoidal roof sheets to top section	The trapezoidal roof sheets have approached the end of their effective life and are suffering from localised water ingress, corrosion and failing paint	The roof sheets will need replacement in the short term, or medium term if immediate repairs and overhauling works are undertaken.		$59,740.00	$4,120.00	$55,620.00
1.4	Main Roof	Service penetrations and access hatch	Water ingress and stained timber framing was noted at the roof access hatch with corrosion and previous repairs noted externally.	The roof hatch should be replaced when the roof sheets are being replaced. In the immediate term allow for temporary repairs to prevent water ingress.		$3,200.00	$500.00	$2,700.00
1.5	Main Roof	Service and ventilation penetrations	The service and vent penetrations all appear to have sealant repairs around their perimeter. This will fail under UV light and allow water ingress.	The service and vent penetrations should be replaced when the roof sheets are being replaced. This should include back flashings and correct detailing of the penetrations.		$32,832.00		$32,832.00
1.6	Main Roof	Service penetrations	The cowl to the roof vent is missing and will be prone to water ingress.	The roof vent to be replaced when the roof sheets are being replaced. In the immediate term a cowl should be provided to eliminate the risk of watering ingress.		$4,013.00	$1,013.00	$3,000.00
1.7	Main Roof	Water overflow pipe	Staining was noted to the overflow pipe which appears to have been overflowing for a period of time causing localised corrosion.	Review if hot water is still overflowing and repair/rectify accordingly.		$500.00	$500.00	
1.8	Main Roof	The valleys and hips are formed from folded metal lining to the valleys and folded metal with soft edge to the hips.	Lifting sections, localised corrosion and loose soft edges were noted over the roof surface.	Overhaul the valleys and hips in the immediate term to address any loose soft edges and replace when the roof sheets are being replaced in the medium term.		$71,380.00	$7,525.00	$63,855.00
1.10	Chimneys	The chimneys are a combination of original masonry chimneys and a “fake” chimney constructed from metal ducting to the ventilation system.	The rear west chimney masonry construction has been capped off and is redundant. Paint finish is poor, no ventilation is provided to the flue and the flashing detail is poor however appears watertight.	Repaint chimney, insert vent to the flue and provide new flashing detail when the roof sheets are being replaced. Unreinforced masonry chimneys are a potential hazard in an earthquake event. Provisionally allow for seismic strengthening.				
a				Repaint		$3,240.00		$3,240.00
b				Insert Vent to the Flue		$675.00		$675.00
c				New flashing		$1,461.60		$1,461.60
d				PS Seismic strengthening		$4,725.00		$4,725.00
1.11	Chimneys	Front west chimney – vent duct to ventilation system - Not unreinforced masonry.	The chimney to the front west is metal ductwork with vent grilles. Poor decorative condition.	Repaint in the short to medium term.		$3,240.00		$3,240.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
1.12	Chimneys	Main “live” chimney to the front east roof pitch.	The chimney to the front east is the only “live” chimney. It is in poor condition with cracking noted. It is an unreinforced masonry chimney as per the WSP IEP report.	Determine remedial works required once the DSA is completed. Unreinforced masonry chimneys are a potential hazard in an earthquake event. Provisionally allow for seismic strengthening.		$17,179.00	$17,179.00	
1.15	Dormer windows to originial roof	All roof pitches include dormers windows. The dormer roofs are finished with trough section metal roof sheets with perimeter metal gutters. The dormer side are lined with a sheet material however we cannot identify if this is metal or an ACM sheet. The windows are original painted timber.	The dormer roof sheets are in poor condition with corrosion noted and suffering from a lack of maintenance.	The dormer roof sheets to be replaced when the roof sheets are being replaced in the medium term.		$53,460.00		$53,460.00
1.16	Dormer windows	Dormer window gutters	The dormer roof metal gutters are in poor condition with extension corrosion noted. The gutters back flow onto the main roof resulting in a concentrated water flow along the apron flashing.	The dormer roof gutters to be replaced when the roof sheets are being replaced. Consider installing downpipes to direct water into the lower gutters.		$35,200.20		$35,200.20
1.17	Dormer windows	Dormer timber windows	The dormer timber windows are in poor condition with bare timber, peeling paint and decayed sections of framing noted.	The dormer windows will need to be overhauled, decayed timber cut out and replaced and the windows repainted in the short term.		$78,300.00		$78,300.00
1.18	Main roof - rainwater goods	The main roof rainwater goods consist of metal gutters (both original and newer replacement), copper rain heads and copper/metal downpipes	The metal gutters are in poor condition with corrosion noted. The original gutters are considered to be at end of life, are undersized for the roof and were observed to be overflowing during heavy rain. This is also exacerbated by blockages which is preventing correct water dispersal away from the building.	The original gutters should be replaced with larger gutters and to match original profile when the main roof sheets are being replaced. In the immediate term ensure all gutters and downpipe are clear and free flowing.		$99,144.00	$99,144.00	
1.19	Main roof - rainwater goods	Rain heads	The welded corners to the majority of rain heads were noted to have spilt resulting is water leaking at the corners.	The rain heads will need to be overhauled and the corners rewelded to ensure they are watertight.		$32,400.00	$32,400.00	
1.20	Main roof - rainwater goods	Rain head connector pipes	The connector pipes between the gutters and rain heads are corroded and overflowing.	The connector pipes to be replaced when the main roof sheets are being replaced.		$4,380.00	$4,380.00	
1.22	Main roof	Leaking dormer	The dormer plasterboard wall lining in room 306 has recently been replaced. Externally repairs appear to have been undertaken to the roof however room 306 still smelt damp at the time of inspection.	Monitor for signs of water ingress and continued damp/mould smell. Replace roof sheets and flashings when main roof is been replaced.		$2,025.00		$2,025.00
1.24	Main roof	Gutter/roof junction	The gutters are incorrectly detailed to the main roof resulting in overflowing at the gutter/roof junctions. This is also exacerbated by heavier and more intense rain events.	Install diverter flashing to temporarily direct water into the gutter. Correctly detail the gutter/roof junction as part of roof replacement works.		$8,700.00	$2,700.00	$6,000.00
1.25	Main roof	Roof timbers	The roof timbers are stained suggesting ongoing and historic water ingress. Localised active water ingress was noted.	Carry out temporary repairs to the roof where water ingress noted. Once the roof sheets are replaced ensure all penetrations are correctly detailed.		$8,100.00		$8,100.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
1.27	Main roof	Roof space services	The services and water tanks within the roof space are not seismically	Allow to seismically restrain all services within the roof space.		$13,500.00	$13,500.00	
2.0	**Balcony Roof - Original**							
2.1	General view	The balcony roof is original concrete construction with a waterproof membrane and solar reflective paint finish.	The balcony roof is in poor condition with worn solar reflective paint, cracking to the membrane, vegetation growth and general defects noted. The balcony appears to have a remedial liquid applied membrane applied.	Thoroughly prepare and apply a new waterproof membrane and solar reflective paint finish.		$56,026.00		$56,026.00
2.3	Waterproof membrane	Cracking was noted to the waterproof membrane (possibly original asphalt)	Cracking was noted to the waterproof membrane to various areas. Evidence of water ingress was noted internally which can possibly be attributed to the cracking and subsequent water ingress. Subsurface cracking was also noted.	Correctly repair the cracking with a suitable repair method prior to applying a new solar reflective paint finish.		$6,750.00		$6,750.00
2.4	Waterproof membrane	Previous repairs	The previous repairs are considered crude and poorly detailed. Gaps and open sections were noted which will allow water ingress.	Correctly detail all junctions, upstands and roof details as part of the waterproof membrane remedial works.		$16,200.00		$16,200.00
2.5	Perimeter parapet wall	A low level parapet wall encloses the balcony roof. This is finished with a top cap flashing and painted metal balustrade.	A remedial liquid applied waterproof membrane has been applied over the original cap flashing. The membrane is cracking along the wall and may allow water ingress.	Thoroughly prepare and apply a new liquid applied waterproof membrane and solar reflective paint finish.		$12,180.00		$12,180.00
2.7	Perimeter wall	Corrosion staining	Corrosion staining was noted emanating from under the perimeter wall capping.	Investigate cause of the staining, repair and make good during roof repair		$3,375.00		$3,375.00
2.8	Perimeter edge capping	Perimeter edge capping	The external side of the perimeter wall top capping has a paint/waterproof membrane finish which has failed, deteriorated and cracked.	Replace the perimeter wall capping with a new waterproof membrane (or continue the liquid applied membrane over the parapet wall) with suitable cap detail.		$25,650.00		$25,650.00
2.10	Northeast corner	Perimeter wall/main wall junction	The corner detail at the intersection with the brickwork is causing damp internally. Moss growth and missing pointing was noted to the brickwork.	Carry out temporary repairs as necessary to prevent further water ingress. Correctly detail the balcony wall/main wall junction to prevent further water ingress as part of future repair works.		$5,400.00		$5,400.00
2.11	Damp internally to northeast corner	Internal view of affected bedroom at northeast corner.	Internal view of damp resulting from poor external detailing.	Make good wall internally once external repair works are complete.		$4,050.00		$4,050.00
3.0	**Tongariro Room Roof (circa 1970)**							
3.1	Overview of the Tongariro Room roof	The Tongariro Room roof was constructed circa 1970 to create a conference room.	The roof overall is in poor condition, has been poorly maintained and the roof pitch is inadequate (1 – 3o). As the roof is over 50 years old it has reached the end of its effective life and is considered due for replacement.	In the immediate term overhaul the roof to prevent further water ingress, including rust treatment and replacing sealants. In the medium term allow for end of life roof replacement.		$63,800.00	$5,800.00	$58,000.00
3.2	General view of roof	Service penetrations	There are various service penetrations and vents to the Tongariro Room roof which are in poor condition with evidence of water ingress noted internally.	In the immediate term overhaul the roof to prevent further water ingress. The service penetration to be replaced when the roof sheets are being replaced.		$0.00		

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
3.3	Typical roof service vent	Service penetrations	Corrosion was noted around the service penetration flashings. These has been installed virtually flat which is allowing water to pond at the vents causing the localised accelerated deterioration and corrosion.	In the immediate term treat the corrosion and reseal the vents. Correctly detail and flash all service penetration when the roof sheets are being replaced.		$0.00		
3.4	Corrosion to roof vent	Service penetration flashing detailing	Close up of corrosion to the vent flashing.	Provide a suitable back flashing to the service vents when the roof sheets are being replaced.		$14,000.00		$14,000.00
3.5	Roof perimeter detail together with additional flashing	Roof perimeter flashing detailing	The perimeter of the roof includes a retro fitted “additional flashing” detailing to conceal perimeter lighting. This creates a detail which allows poor water dispersal from the roof allowing discharge onto the main elevations causing damp and failing paint finish. Edge flashings should be angled inwards to prevent water discharging onto the elevations.	The perimeter detailing to be reviewed and amended to ensure correct water dispersal from the roof when the roof sheets are being replaced.		$20,000.00		$20,000.00
3.6	Roof perimeter detail together with additional flashing	Perimeter detail membrane debonded and lifting.	The flashing to the perimeter edge detail has debonded from the substrate.	Correctly detail the perimeter edge when the roof is replaced.		$1,782.00		$1,782.00
3.7	Roof perimeter detail	Sealant repair to edge flashing	Previous repairs have been undertaken using surface applied sealant.	All edge flashings to be correctly detailed and not reliant on surface applied sealant for weathertightness when the roof sheets are being		$2,706.00		$2,706.00
3.8	Ceiling tiles internally	Water ingress damage internally	Evidence of water ingress to the ceiling tiles directly below the Tongariro Room roof.	All water damaged ceiling tiles and water damage internally to be prepared and made good once external works are complete.		$4,050.00		$4,050.00
3.9	Tongariro wall/main wall intersection	Tongariro Room roof / main building intersection	The junction between the Tongariro Room roof and main building is poorly detailed resulting in decayed timber and water run marks down the main elevation.	As part of the roof replacement works this intersection should be correctly detailed to prevent deterioration and water running down the wall.		$6,750.00		$6,750.00
4.0	**Podium Roof (Original)**							
4.1	Original podium roof	The original section of podium roof is located between the Tongariro Room roof and main entrance. This is of concrete construction with asphalt or similar waterproof membrane and solar reflective paint finish.	The original podium roof is in poor condition with deteriorated solar reflective paint, vegetation growth, splits in the waterproof membrane and general deterioration noted.	The roof membrane will need to be replaced in its entirety to ensure a weathertight finish.		$10,556.00		$10,556.00
4.2	Original podium roof	Ponding water	Ponding water was noted to the podium roof indicating poor and inadequate drainage.	The podium roof should be laid to falls to prevent ponding water which will cause premature deterioration of the roof and ice during winter months.		$2,496.00		$2,496.00
4.3	Original podium roof	Vegetation growth	Vegetation growth was noted where the membrane has failed and cracks have developed.	Remove all vegetation growth prior to replacing the membrane.		$1,013.00		$1,013.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
5.0	**Workshop Roof**							
5.2	Workshop roof	Metal roof sheet finish	The metal sheets are in poor condition and have been previously patch repaired. The paint finish is peeling and corrosion was noted. The roof sheets are circa 70 years old and are at the end of their effective life. The roof pitch is limited, and in some areas, is back falling.	Allow for end of life replacement of the roof sheets.		$40,000.00		$40,000.00
5.5	Workshop roof	Internal gutter	There is an internal gutter to the workshop roof which is limited in size and prevents correct cleaning and maintenance of the gutter.	As part of roof replacement works the gutter should be designed out or if required increased in size to allow for ongoing periodic repair and maintenance.		$3,375.00		$3,375.00
5.7	Workshop roof	Roof pitch	Sections of the roof have been installed with limited or no pitch resulting in localised water ponding.	As part of roof replacement works the roof will need to be repitched to comply with current codes of practice.		$18,360.00		$18,360.00
5.9	Workshop roof	Roof intersections	The intersection of the various roofs is poorly detailed with the use of surface supplied sealants which will deteriorate under UV light. The cap flashing fixings are working loose resulting in an unsealed hole.	All roof junctions and intersections will require correct detailing to ensure robust and weathertight junctions when the roof sheets are replaced.		$3,248.00		$3,248.00
5.10	Workshop roof	Rainwater goods	The rainwater goods include box section gutters and downpipes. The gutters are generally corroded, holed and leaking and are in poor condition.	All gutters and downpipes to be replaced as part of roof sheet replacement works.		$6,750.00		$6,750.00
5.12	Workshop roof eaves	Fibre cement fascias and soffits	The fibre cement fascias and soffits are delaminating, deteriorated and appeared to have suffered from localised impact damage	The fascias and soffits to be replaced as part of roof replacement works.		$3,564.00		$3,564.00
5.15	Workshop roof	Roof timbers	Sections of the soffit have been removed and have exposed visibly decayed timber roof framing. Localised timbers have been replaced.	Replace all the decayed timber roof framing as part of roof replacement works. The sections of missing soffit to be replaced in the immediate term to prevent bird or rodent access.		$5,400.00		$5,400.00
5.16	Workshop roof	Suspected asbestos cement pipe	There are two pipes penetrating through the workshop roof. One pipe (left hand side) is a suspected asbestos containing material (ACM) however it was not tested.	The pipe should be removed by an appropriately licenced asbestos contractor. Also see hazardous materials section of this report.		$4,050.00		$4,050.00
5.17	Workshop roof	Suspected (damaged) asbestos soffit	The section of damaged soffit is a suspected ACM however this was not tested.	The damaged ACM soffit should be removed by an appropriately licenced asbestos contractor as part of roof replacement works. Also see hazardous materials section of this report.		$6,750.00	$6,750.00	

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
6.0	**Lead Roof over Kitchen (Original)**							
6.1	Lead roof	The small section of roof over the kitchen is considered to be finished with lead or other metal material. Water is discharging onto this roof from the missing section of gutter directly above and downpipes also discharge into this roof causing overloading and overflowing of the gutter.	The lead roof is in poor condition with previous repairs noted and active water ingress identified internally.	As part of overall roof replacement works this section of roof should also be replaced and the downpipes redirected. In the immediate term the gap/hole which is causing the leak should be repaired.		$11,600.00	$3,500.00	$8,100.00
6.2	Lead roof	Rainwater goods	The roof and external gutter are being overloaded during rain events resulting in water discharging onto the elevation causing dampness, peeling paint and also water ingress internally.	The downpipes which discharge into the gutter should be diverted to prevent overloading the external gutter.		$544.00	$544.00	
6.3	Lead roof	Water damage to main elevation	The section of elevation directly below the gutter is visibly damp stained from the overflowing gutter.	The downpipes should be redirected to prevent overloading the gutter. Once this is done the elevation should be made good.		$1,020.00	$1,020.00	
6.4	Water ingress	Internal water ingress	Water ingress was noted internally to the doorway between the kitchen and main dining room. We could not identify if the water ingress was from the failed lead roof or the rainwater goods as there was no access directly onto the lead roof above.	All flashings and junctions to the roof to be correctly detailed to prevent future watering ingress. In the meantime the flashings and roof to be overhauled and sealed to prevent ongoing water ingress. Downpipes to be rediverted as previously recommended.		$3,510.00	$3,510.00	
7.0	**Roofs over the Kitchen and T Bar (1995)**							
7.2	Flat roof	The flat roof over this section of roof is lined with a waterproof membrane complete with solar reflective paint finish.	The flat roof is circa 28 years old and will be approaching the end of its effective life however there were no signs of water ingress internally. The solar reflective paint finish is deteriorating, fading and localised moss growth was noted.	The solar reflective paint finish should be reapplied in the immediate term to prolong the life of the roof membrane. In the medium to long term the roof membrane should be replaced.		$18,602.00		$18,602.00
7.5	Staircase window structure	A small structure has been constructed to enclose the rear staircase leading to the accommodation.	The small structure is in poor condition with deteriorated and delaminated fibre cement cladding, inadequate cladding clearances, bare timber and loose section of gutter.	The small structure should be repaired in the immediate term to include replacing the loose gutter, replacing damaged cladding and re decorating sections of bare timber.		$4,050.00		$4,050.00
7.6	Staircase window structure	Wall junction detailing	The small structure junction with the pitched roof and main building has been poorly detailed resulting in water flowing onto the brickwork and claddings below causing damage and staining.	All intersections and junctions to be correctly detailed to prevent damage to the adjoining building elements. In the immediate term diversion flashings should be installed to direct water into the gutter.		$2,025.00		$2,025.00
7.7	Staircase window structure	Rainwater goods	The gutter to the roof has collapsed allowing water to discharge onto the walls.	In the immediate term replace the gutter.		$1,218.00	$1,218.00	
7.8	Mono pitched roof	The section of mono pitched roof between the canopy roof and accommodation is lined with trough section roof sheets which discharge into a Butyl gutter.	The roof sheets are suffering from localised corrosion and localised increased water flow from downpipes resulting in surface deterioration.	The sheets are circa 28 years old and with correct repair and maintenance their life span can be extended. In the immediate term all corrosion should be treated to prevent further deterioration.		$8,440.00	$1,000.00	$7,440.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
7.9	Dormers	There are dormer windows overlooking the mono pitched roof. These are constructed from timber framing with fibre cement cladding, aluminium windows and membrane lined roofs.	The cladding to the dormers is in poor condition with extensive damage and delamination noted due to inadequate clearance resulting in water penetration into the cladding.	The fibre cement cladding will need replacement in the short term along with any decayed timber framing.		$29,970.00		$29,970.00
7.11	Dormers	There are dormer windows overlooking the mono pitched roof. These are constructed from timber framing with fibre cement cladding, aluminium windows and membrane lined roofs.	The cladding to the side to the dormer has limited clearance to the apron flashing which is allowing water to wick into the cladding which is exacerbated by increased water from the gutter discharging directly above. The cladding is in poor condition with delaminated cladding and moss growth noted.	The gutter from the dormer should be redirected to prevent concentrated water flow along the cladding. The damaged cladding and any decayed timber framing should be replaced in the immediate term. The painted timber should be repainted in the immediate term.		$8,100.00	$4,050.00	$4,050.00
7.17	Rainwater goods	The downpipes discharge directly onto the apron flashing which is not good practise. Moss growth was noted indicating prolonged moisture exposure.	The gutter discharging onto the lower roof is causing localised damage to the roof sheets and associated moss growth.	The downpipes should be redirected/extended to discharge directly into the Butyl lined gutter.		$3,375.00		$3,375.00
7.18	Gutter / cladding junction	The concentrated water flow from the dormer downpipe is not discharging correctly into the gutter.	The cladding to the side to the dormer is damaged due to incorrect rainwater management. There should be a diverter flashing and correct cladding clearance to prevent this water related	Once the cladding has been replaced a correct diverter flashing or new downpipe should be installed to ensure rainwater is directed into the gutter and not onto the cladding.		$3,654.00		$3,654.00
7.19	Rainwater goods	Metal gutters	The gutters are in a various state of disrepair with corrosion and holes noted to numerous gutters.	The gutters should be replaced in their entirety as they are considered beyond economical repair.		$7,714.00		$7,714.00
7.25	Parapet cap flashing	The parapet wall to the T Bar roof is finished with a top fixed metal cap flashing.	The metal cap flashing has been fixed over the parapet wall and is complete with top screw fixings. The flashing is in poor condition with extensive moss and algae growth noted. The use of top fixings is not good practise as it can allow water penetration	The cap flashing should be replaced with a side fixed capping in the immediate term.		$5,103.00		$5,103.00
7.27	Rear canopy roof	The roof to the rear canopy is finished with metal roof sheets which discharge into Butyl lined gutters all enclosed within plywood clad parapet walls.	The parapet walls have been lined internally with painted plywood which is in poor condition with peeling and deteriorated paint noted.	The plywood cladding should be repainted in the immediate term.		$1,496.00		$1,496.00
7.29	Rear canopy roof	The roof to the rear canopy is finished with metal roof sheets which discharge into Butyl lined gutters all enclosed within plywood clad parapet walls.	The metal roof sheets are in poor condition with localised corrosion and damage noted particularly along the bottom edge.	In the immediate term the corrosion should be spot treated to prevent further deterioration.		$5,616.00		$5,616.00
7.30	Parapet gutter	Butyl lined parapet gutters	The Butyl membrane appears in reasonable condition however the penetrations and outlets have generally been poorly detailed.	The membrane should be checked annually for signs of deterioration and water leaks.		$1,968.00		$1,968.00
7.31	Parapet gutter	Butyl lined parapet gutters	The membrane has been poorly lapped into the rainwater outlet and has debonded.	The membrane to be overhauled and adhered to the outlet.		$3,264.00		$3,264.00
7.32	Parapet gutter	Overflow outlet incorrectly formed.	One overflow outlet has not been completed and the hole has been incorrectly formed. This will limit the overflow capacity from the roof.	The membrane to be correctly detailed to form an overflow outlet.		$1,008.00		$1,008.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
7.34	Void space between the original building and extension	Downpipe	A downpipe was noted to be blocked with debris and it also discharges directly onto an apron flashing which is not good practice.	The downpipe should be cleaned out to leave free flowing and checked/cleaned annually.		$287.00		$287.00
8.0	**Dining Atrium Roof (2005)**							
8.2	Dining atrium roof	Upper section of the roof	The upper mono pitched section is finished with trough section roof sheets which discharges into a box section gutter. The roof sheet finish is in poor condition with localised corrosion and peeling paint noted.	In the immediate to short term the roof paint should be repainted and any surface corrosion treated to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		$7,913.00	$2,000.00	$5,913.00
8.3	Dining atrium roof	Lower section of the roof	The lower mono pitched section is finished with trough section roof sheets which discharges into a box section edge gutter. The roof sheets are in reasonable condition with localised corrosion and peeling paint noted.	In the immediate short term the surface corrosion treated to prevent further deterioration and cleaned to remove contaminate build up.		$6,292.00	$750.00	$5,542.00
8.4	Dining atrium roof	Close up view of the upper roof sheets	The upper roof sheets are peeling, deteriorating and surface corrosion was noted to numerous areas.	In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.		$5,913.00		$5,913.00
8.6	Dining atrium roof	Close up of surface corrosion to the upper roof sheets	The roof sheet finish is peeling, deteriorating and surface corrosion was noted to numerous areas and is reaching the end of its effective life.	In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.				
8.7	Dining atrium roof	Close up of surface corrosion to the upper roof sheets	The roof sheet finish is peeling, deteriorating and surface corrosion was noted to numerous areas and is reaching the end of its effective life.	In the immediate term the corrosion should be treated and the roof repainted to prevent further deterioration. Depending on budget constraints the roof should be replaced in the medium to long term.				
8.8	Dining atrium roof	The gutters are box section powder coated metal with uPVC downpipes	The gutters are showing signs of deterioration and corrosion.	In the immediate term the corrosion should be treated to prevent further deterioration. Depending on budget constraints the gutters should be replaced in the medium to long term.		$3,345.00		$3,345.00
8.9	Dining atrium roof	Downpipes	The uPVC downpipes discharged directly onto the roof sheet below. This is not good practise as it can lead to concentrated water flow causing premature deterioration.	In the immediate term the downpipe should be extended into the lower gutter.		$2,873.00		$2,873.00
8.10	Dining atrium roof	Downpipe	A downpipe from the upper roof is just charging directly onto the apron flashing which can result in water ingress as well as concentrated water flow causing deterioration of the roof sheet.	In the immediate term the downpipe should be extended into the lower gutter.		$675.00		$675.00
8.11	Torch on felt roof	A small section of roof over the ground floor corridor has been lined with a torch on felt waterproof membrane.	The roof membrane is currently in reasonable condition with no signs of water ingress noted internally. Two downpipes discharge onto this roof which is not good practise.	The downpipes should be extended into the lower gutter to prevent moss and debris build up and premature deterioration of the membrane.		$1,350.00		$1,350.00

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8.12	Torch on felt roof	A small section of roof over the ground floor corridor has been lined with a torch on felt waterproof membrane.	Moss, grass and debris build up is occurring between the torch on felt roof and atrium dining room.	In the immediate term the debris should be removed and the downpipe extended into the lower gutter.		$675.00		$675.00
8.13	Downpipes	The uPVC downpipe from the atrium dining roof discharges directly into underground storm water pipe work.	The downpipe is in good condition however appears to be overflowing and is causing surface algae build-up on the adjacent wall surface.	In the immediate term the algae should be treated with a chemical treatment to prevent deterioration of the wall paint finish. Investigate if pipe is blocked and rectify.		$675.00		$675.00
8.14	Downpipes	The uPVC downpipe from the atrium dining roof discharges directly into underground storm water pipe work.	The fixing bracket to the downpipe is loose and should be re fixed.	In the immediate term the downpipe should be re fixed to the wall.		$405.00		$405.00
9.0	**2005 Extension Roof**							
9.6	Anchor points	Anchor points have been provided to the torch on felt membrane. We did not see any safety or testing tags.	Anchor points have been provided to the flat roof with fixings noted internally to the roof trusses.	Anchor points should be tested annually and re certified.		$3,375.00		$3,375.00
9.10	Corridor roof	The link corridor gutter discharges directly onto the apron flashing of the pitched roof.	The gutter discharges directly onto the apron flashing of the main roof causing a concentrated water flow along the apron flashing/cladding junction. This in turn is overflowing from the gutter below causing water discharge onto the brickwork below.	Ideally the gutter should be diverted into a separate downpipe to prevent water overflowing onto the brickwork which is causing brick damage and poss ble future dampness internally.		$3,240.00		$3,240.00
9.14	Rainwater goods	The gutters to the 2005 roof are connected into rain heads which in turn discharge into downpipes.	The rain heads and downpipes were generally all noted to be blocked and overflowing causing damage to the brickwork and staining to the paint work. This can allow freezing water on the bricks resulting in spalling brickwork and dampness internally.	In the immediate term all rain heads and downpipes should be cleaned out to leave free flowing. They should be cleaned out annually to prevent debris build up and subsequent blockages.		$4,800.00	$750.00	$4,050.00
10.0	**Roof over Ground Floor Toilets (2005)**							
11.0	**Ruapehu Feature Window Roof**							
11.1	Flat roof over Ruapehu feature window	The roof over the Ruapehu feature window appears to be concrete construction with a waterproof membrane finish. Given the dimensions of the membrane sections we believe it is an asbestos containing material (ACM).	The roof membrane appears in a poor condition with deteriorated solar reflective paint finish. Lichen growth was noted throughout which can cause damage to the roof membrane.	In the immediate term the membrane should be treated with a chemical treatment to kill off any lichen and a new solar reflective paint applied once the lichen has died off. As the material is a suspected ACM it should not be water blasted.		$4,004.00	$1,365.00	$2,639.00
11.4	Flat roof over Ruapehu feature window	The roof over the Ruapehu feature window appears to be concrete construction with a waterproof membrane finish. Given the dimensions of the membrane sections we believe it is an asbestos containing material (ACM).	Brown rust staining was noted on the membrane. This appears to be originating from the leaking gutter directly above as shown in the photo.	In the immediate term the leaking gutter above should be repaired and the rust stain carefully cleaned, bearing in mind it is an ACM, prior to the re application of a solar reflective paint.		$2,756.00	$650.00	$2,106.00

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12.0	**Elevations**							
12.1	Main front elevation	The main original 1929 front elevation is finished with plastered and painted masonry to the lower levels and brickwork to the upper levels.	The main 1929 elevation has generally suffered from a lack of repair maintenance over numerous years causing moisture related issues, bubbling and peeling paint work and general deterioration of the building elements.	All previously painted surfaces will need to be thoroughly prepared, scraped back and repainted in the immediate to short term.		$36,112.00		$36,112.00
12.2	Overview - Left hand side main front elevation	The left-hand side elevation consists of the 2005-bedroom extension. This is a full height timber frame construction with polystyrene external cladding to the lower levels brick cladding to the upper levels.	The polystyrene cladding has cracking to localised and random areas as well as algae growth to the paint work.	The cracking should be fully investigated to identify the cause of the cracking and any associated repairs. In the immediate term the cracking should be sealed with a suitable flexible sealant to prevent water ingress. The paint work would benefit from a chemical treatment to kill the lichen and prevent further deterioration of the paint finish in the immediate term.		$4,352.00		$4,352.00
12.3	Overview - Left hand side main front elevation	The left hand side front elevation is the original 1929 construction together with a localised section of 2005 construction.	This elevation is generally in poor condition with deteriorating paint work and moisture related defects.	All previously painted surfaces will need to be thoroughly prepared, scraped back and repainted in the immediate to short term.		$24,766.00		$24,766.00
12.4	Overview - Right hand side of main building	The right hand side elevation consists of the 1929 original construction and the 1955 workshop extension at ground floor level.	The right hand side extension is suffering from moisture related defects, damage from overflowing gutters, moss and algae growth from concentrated water from the rainwater goods and general deterioration of the paint finish.	All previously painted surfaces will need to be thoroughly prepared, scraped back and repaint it in the immediate to short term once the rainwater goods are repaired.		$11,102.00		$11,102.00
12.5	Overview - Right hand side elevation (T-Bar extension)	The rear right hand side extension a forms the T-Bar and was constructed in 1995. It is of timber frame construction where the polystyrene external cladding.	Polystyrene cladding has known inherent defects related to moisture ingress. Cracking was noted to this cladding suggesting possible water ingress resulting in the cracks. This should be fully investigated to determine if the timber framing is also suffering from decay as this can be concealed behind the cladding.	Investigate causes of the cladding cracking prior to considering any remedial works.		$1,050.00		$1,050.00
12.9	Overview - Upper level of original building rear elevation (left hand side section)	The upper-level brickwork is original 1929 construction	The original 1929 brickwork was generally found to be in reasonable condition however localised missing or deteriorating pointing, localised cracking and localised water damage were noted.	In the short term the missing pointing should be replaced with a suitable mortar in keeping with the historic nature and materials used in this building. Once the rainwater goods have been fixed any water related staining on the brickwork can be gently cleaned to remove the staining.		$23,751.00		$23,751.00
12.12	Brickwork	Missing pointing to the original brickwork	Sections of missing pointing were noted to the original 1929 brickwork.	In the short term the missing pointing should be replaced with a suitable mortar in keeping with the historic nature and materials used in this		$6,750.00		$6,750.00
12.17	Brickwork	Unsealed old pipe penetrations through the original brickwork (numerous occurrences to most original elevations)	There are unsealed historic pipe penetrations through the original brickwork. A number of the penetration have been made good with inappropriate sand/cement or sealant.	Any unsealed holes should be made good to prevent rodent entry or water ingress.		$2,025.00		$2,025.00

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12.18	Brickwork	Damaged and missing pointing to the front corner of the original building	The mortar pointing to a number of corners was noted to be worn or missing.	Repoint missing pointing has found necessary.		$8,100.00		$8,100.00
12.19	Brickwork	A missing section of gutter is allowing water to discharge directly onto the brickwork which is causing moss growth and damaging the bricks.	The brickwork is heavily stained and extensive moss growth noted.	In the immediate term a section of gutter should be installed to prevent water discharging directly onto the wall. The moss growth should be treated with a chemical treatment as moss will cause damage to the bricks and pointing.		$2,700.00	$2,700.00	
12.23	Brickwork	The brickwork at the junction of the original building and 2005 extension has not been sealed or a suitable flashing provided.	There is an unsealed vertical gap which is allowing bird entry and possible water ingress.	The vertical gap should be flashed or sealed with a flexible sealant material to allow for movement along this line.		$2,530.00		$2,530.00
12.27	Painted masonry wall	The plastered and painted masonry section of wall extends from ground level to 2nd floor level where it changes to brick veneer cladding. We understand from the WSP report that the wall is possibly unreinforced	The paint finish is in poor condition with numerous areas of peeling paint, missing paint, bubbling paint and general neglect noted.	All previously painted external wall areas will need to be scraped back, thoroughly prepared and repainted with a suitable exterior quality paint.		$91,368.00		$91,368.00
12.29	Plastered features	Plastered and painted featured details create the junction between the lower levels and brick upper levels.	As the original building is a heritage building the paint finish will need to be correctly specified to ensure a breathable paint is applied which is in keeping with the historic nature of the building.	Correctly specify a suitable paint system. Any necessary repairs to the plastered features will need to be correctly specified and detailed.		$12,096.00		$12,096.00
12.31	Painted surfaces	Low level painted surfaces.	The low level paint is also suffering from water damage along the bottom edge due to inadequate drainage.	Prior to redecoration the drainage and low level paint to be correctly treated, the walls allowed to dry out prior to painting.		$17,766.00		$17,766.00
12.33	Juliet balconies	There are Juliet balconies to each side of the front elevation.	The Juliet balconies are in various states of disrepair including having poor surface membrane, corroded metal handrails and missing front section to one balcony. It was noted internally that damp staining is occurring directly under the Juliet balconies in the dining room and Ngauruhoe Room which we believe is emanating from the balconies.	Fully inspect the balcony/wall junction and make good as required to prevent dampness in the rooms below.		$5,400.00		$5,400.00
12.35	Entrance portico	The entrance portico is formed by the balcony above supported on circular columns and the main walls.	The paint work to the portico is in poor condition with bubbling, peeling and defective paint noted.	The paint to the portico to be repainted when the main elevations are being repainted.		$17,080.00		$17,080.00
12.36	Entrance portico	Large bubbles and stretching of the paint work noted due to trapped moisture behind the	The bubbling paint work confirms years of water ingress and lack of maintenance.	The paint to the portico to be repainted when the main elevations are being repainted.				
12.38	West elevation	The West elevation forms part of the 1995 extension. We understand it is timber framed construction with polystyrene exterior cladding.	The paint work is approaching a redecoration cycle and is considered to be in poor decorative condition with algae growth noted.	In the immediate term the paint work should be treated with a chemical treatment to kill off the algae growth.		$4,200.00		$4,200.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
12.40	West elevation	Cracking	Cracking was noted to localised and random areas over the West elevation.	Given the known issues with polystyrene cladding, investigations should be carried out to determine the cause of cracking and the condition of the timber frame. In the immediate term the cracking should be sealed to prevent water ingress.		$6,750.00		$6,750.00
12.42	West elevation	Ground clearance	The polystyrene cladding has been brought down to ground level with limited clearance provided. This can allow water to wick into the cladding and prevent drainage along the bottom edge.	In the immediate term remove stones and other materials to create ground clearance to the cladding.		$600.00		$1,620.00
12.44	1955 workshop extension	The West elevation forms the workshop at the entrance to the basement level facilities.	The paint finish to these elevations is in poor condition. Planters have been created along the elevation which can cause moisture ingress internally.	Consideration to be given to removing the planters and making good the affected wall surfaces.		$1,620.00		$1,620.00
12.45	1956 workshop extension	Fibre cement cladding	The workshop has direct fixed fibre cement cladding which is damaged at low level due to inadequate clearances and possible impact damage.	Make good the cladd ng at low level and provide adequate ground clearance to prevent moisture wicking into the cladding.		$4,725.00		$4,725.00
12.46	Pipe penetration	Low level masonry block work	A number of pipe penetration were noted through the masonry block walls. These walls appeared to be hollow and unreinforced where inspected.	Review seismic upgrade recommendations necessary to the reinforced masonry walls. In the immediate term fill the gap to prevent rodent access.		$1,350.00	$1,350.00	
12.48	Paint finish	The 2005 extension which we understand is full height timber frame construction with polystyrene exterior cladding with a paint finish	The exterior paint work is currently in reasonable condition however algae and green growth was noted on the paint surface. This can cause deterioration of the paint finish if not treated	Consider applying a chemical treatment to the paint finish in the short term.		$4,050.00		$4,050.00
12.53	Tongariro Room conference centre	The Tongariro Room conference centre was constructed circa 1970 of masonry block construction with paint external finish.	The external walls are in poor decorative condition with extensive peeling paint, water damage and general deterioration noted.	External walls will need to be thoroughly prepared, scraped back and re decorated in the immediate to short term.		$19,520.00		$19,520.00
12.57	Wall junctions	The junction of the Tongariro Room conference centre and main portico are poorly detailed resulting in extensive damage to the building structure and associated moisture damage.	Decayed timber and extensive water damage was noted to both the east and west sides	Provide a suitable flashing or connection detail between the two buildings to prevent ongoing water damage.		$2,592.00		$2,592.00
13.0	**Windows**							
13.1	Tongariro Room windows	Conference room windowsill flashing detail	The external windowsill detail to the Tongariro Room windows allows water to pond as a small lip has been created which prevents water discharging correctly.	The windowsill detail should ideally be removed to prevent ponding water. Alternatively, the windowsills to be adapted and drainage slots to be installed.		$3,375.00		$3,375.00
13.2	Tongariro Room windows	Conference room windowsill flashing detail	The external windowsill detail has also been incorrectly installed which is preventing water discharging correctly. Moss growth and damaged paint finish was noted confirming the presence of moisture over a long period of time.	The windowsill detail should re-detailed to prevent future water damage.		$1,350.00		$1,350.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
13.3	Tongariro Room windows	Conference room window glazing bead/gasket	The window glazing bead/gasket have shrunk and will allow a direct path for water ingress internally.	The window glazing bead/gasket to be replaced in the immediate term.		$13,775.00		$13,775.00
13.5	Dormer windows to main roof	Original painted timber windows and surrounds to the dormer windows	The original dormer timber windows to the 1929 building are in poor condition with peeling paint, decayed timber and bare sections timber noted.	In the immediate term all timber windows will need to be thoroughly prepared, scraped, overhauled and repainted to prevent further deterioration. This to include the timber surrounds and trim details.		$46,656.00		$46,656.00
13.10	Original west staircase window	The external reveal to the original west staircase window has been removed or is missing.	The external timber reveal to the staircase window is missing which may allow water ingress.	In the immediate term the missing timber section to be replaced with new section to match the existing profile.		$1,080.00	$1,080.00	
13.11	Original timber windows	The original timber windows are painted timber with opening top casement and fixed lower section.	The original timber windows are in a poor state of repair with peeling paint, corroding fixings, bare timber, missing putty and deterioration noted to the majority of the windows.	The windows will need to be overhauled to replace missing sections of putty, repaired, thoroughly prepared and repainted. Any decayed sections of timber will need to be cut out and new section inserted.		$84,664.00	$84,664.00	
13.15	Evidence of water ingress	Water ingress to the original windows	Actual water ingress, as well as previous historic staining, was noted to the original timber windows. This appears to be originating from the missing putty and through poorly fitting casements.	The windows will need to be overhauled to replace missing sections of putty. Realign any poorly fitting casements.		$12,920.00	$12,920.00	
13.17	2005 extension windows	The windows to the 2005 extension are powder coated aluminium with painted timber surrounds and windowsills.	The aluminium windows were found to be in good condition however the timber sills, and partly the surrounds, are in poor condition. A number of the sills are considered to be flat which is allowing water to pond causing deteriorated paint, moss growth and soft timber (possibly early decay).	To rectify the flat sills would require the windows to be removed and the sills adjusted which would cause additional damage. It may be possible to carefully plane the sills insitu to create a fall.		$42,525.00		$42,525.00
13.18	Allow to replace 5% of timber window with new						$60,750.00	
14.0	**External Areas**							
14.6	Concrete external steps	Cast in situ concrete stairs	The 2no. external concrete stairs are in poor condition with spalled concrete, exposed reinforcement bars and missing concrete noted.	In the immediate term it would be advisable to close off the external concrete staircases to prevent use until such time as the concrete and reinforcement is repaired.		$135.00	$135.00	
15.0	**Internal Areas**							
15.27	Ruapehu room beam	Cracking was noted to the Ruapehu Room beam. This was also commented on in the WSP report.	Investigate cause of cracking and make good. This to coincide with seismic remedial works.	Investigate cause of cracking and repair.		$0.00	$0.00	
16.0	**Health and Safety**							
16.1	H&S	A number of general health and safety and non compliance issues were identified.	The stained glass to the main entrance and internal doorways is not safety glass and loose panes were noted.	In the immediate term allowed to carry out a review of the glazing to determine which low level panes are safety glass, if any.		$3,375.00	$3,375.00	

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
17.0	**Building Services**							
17.1	Water tanks	There are a number of water storage tanks located within the roof space of the original building.	The water tanks are not seismically restrained.	All water tanks should be seismically restrained or braced.		$0.00	$0.00	
17.4	Boiler	There is a hot water boiler located within the plant room at basement level. We understand this was installed in 1998 and has subsequently been rebuilt.	We understand the boiler is operational and is in working order.	Allow for annual maintenance to the boiler.		$4,185.00		$4,185.00
17.5	Boiler	Pipe leak	A leak was noted to the boiler pipe work causing ponding on the basement floor.	In the immediate term allow to repair the leak to prevent further water damage.		$2,025.00		$2,025.00
17.6	Hot water vessels	Original hot water vessels	There are two large hot water vessels in the basement. We are unsure if these are operational or not or whether they are redundant.	Investigate the hot water vessels		$2,363.00		$2,363.00
17.7	Electrical	Electrical distribution boards	There are various distribution boards locations around the building. These are a mixture of modern and dated boards.	Allow for an electrical inspection and testing of all electrical equipment to ensure it is safe and operational.		$13,500.00		$13,500.00
17.8	Electrical	Modern type electrical equipment	There are various distribution boards locations around the building. These are a mixture of modern and dated boards.	Allow for an electrical inspection and testing of all electrical equipment to ensure it is safe and operational.		$4,050.00		$4,050.00
17.9	HVAC	Modern plant and machinery locations in the 2005 extension	There is a modern HVAC system to the 2005 extension.	Allow for annual/periodic inspection, testing and maintenance of the HVAC system.		$6,750.00		$6,750.00
17.11	HVAC	Modern plant and machinery located in the 2005 extension	The air filters to the air handling plant are dirty and blocked.	In the immediate term allow for full service of the air handling plant to ensure it is running efficiently.		$6,750.00		$6,750.00
17.12	Radiators	Hot water radiators and heating system	Localised corrosion and evidence of water leaks were noted to the hot water heating system. With old gun barrel pipe work this can rust internally and can fail. They also become blocked and restrict water flow. We understand there are limited valves for isolating the pipe work and replacement of radiators and sections of pipe is difficult.	Carry out a full inspection of the hot water system to determine its condition and remaining life. Allow for daily inspections for leaks from the radiators and pipe work.		$10,800.00		$10,800.00
17.15	Kitchen equipment	Water leak	A leak was noted on the kitchen tap and pipe work which is causing localised flooding within the kitchen.	Allow to fix the leaking tap and pipe connections.		$1,350.00		$1,350.00
17.17	Grease trap	Grease traps to void area	We understand the grease trap is located to the void space accessed from the kitchen corridor. This area was generally greasy and dirty and we found no service records for the grease traps to determine if they are cleaned regularly.	Allow for cleaning the grease traps.		$4,050.00		$4,050.00
17.19	Grease	Kitchen extractor	The kitchen extract fan discharges into the void space. This is in poor condition with excessive grease emanating from the fan.	Allow to degrease all wall surfaces.		$5,400.00		$5,400.00
17.22	Standpipe	Fire and emergency standpipe	The standpipe located adjacent to the conference centre is leaking.	In the immediate term the valves to the standpipe should be replaced to prevent constant leaking.		$2,025.00	$2,025.00	

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
17.23	Standpipe	Fire and emergency standpipe	This standpipe to the ground floor car park area as a hose pipe connected to it. This would not be considered good practice and the hose pipe should be removed.	Remove hose pipe in the immediate term.		$675.00	$675.00	
18.0	**Hazardous Materials**							
18.1	Asbestos containing materials (ACMs)	There were a number of suspected asbestos containing materials (ACMs) located throughout the building. These were not tested however are highly likely to be asbestos.	We have not seen an asbestos register for the building however this should have been done to comply with asbestos management regulations. Damaged sections of suspected ACMs were noted.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		$25,000.00	$25,000.00	
18.2	ACM	Workshop soffit	The soffit to the workshop has been damaged and is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc	$0.00	
18.3	ACM	Plant room cladding	The high level cladding around the pipe penetrations is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc		
18.4	ACM	Switch room cladding	The high level cladding around the pipe penetration to the switchroom is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc		
18.5	ACM	Pipe penetration to workshop roof	The pipe penetrating the workshop roof is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc		
18.6	Waterproof membrane	Ruapehu Lounge	The waterproof membrane to the Ruapehu lounge roof is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc		
18.7	Basement wall lining	Basement wall lining	The wall lining within the basement is a suspected ACM.	In the immediate term asbestos register management plan should be prepared to identify asbestos containing materials in the building.		Inc		
18.8	Electrical transformer	There is an electrical transformer located adjacent to the workshop. There are known hazards with oil and PCBs within	Ownership of the electrical transformer to be determined and whether this poses a safety risk or not.	Determine ownership of the transformer.		$675.00	$675.00	
19.0	**Miscellaneous Items**							
19.4	Potential fire risk	Charring wood	Localised charred wood was noted around a pipe to the toilet subfloor void. We believe this is from the original construction however it should be reviewed in case the charring is caused by a hot pipe.	Review immediately.		$6,750.00	$6,750.00	
19.5	Subfloor insulation	The insulation to the 2005 subfloor is foil insulation.	There are known safety issues with this type of underfloor installation where it can become electrified.	Ideally remove the installation or install a warning sticker to warn of the safety hazards. Consider replacing.		$2,025.00		$2,025.00

Item (correspondnd with report)	Component Type	Component	Description	Maintenance Task Description	Priority	Estimated Total Cost ($)	Estimated Cost ($) (2023)	2024-2027
20.0	**Total**					**$2,079,427.80**	**$436,747.00**	**$1,642,680.80**
20.1	Maintenance Access - 5%					$140,384.04	$58,250.00	$82,134.04
20.2	Scaffolding					$436,800.00	$87,360.00	$349,440.00
20.3	Professional fees					$216,677.72	$52,409.64	$164,268.08
20.4	Council inspection fees					$85,000.00	$25,000.00	$60,000.00
20.5	Location factor - 8%					$166,354.22	$34,939.76	$131,414.46
20.6	Add for transport					$180,000.00	$60,000.00	$120,000.00
20.7	Accommodation for workers					$216,000.00	$72,000.00	$144,000.00
	Sub total					**$3,520,643.78**	**$826,706.40**	**$2,693,937.38**
20.8	**Inflation (assume 3 year period at 7% pa**					**$585,726.85**	**$20,000.00**	**$565,726.85**
20.9	**Contingencies (say 15%)**					**$612,955.60**	**$124,005.96**	**$488,949.64**
	TOTAL excl GST					**$4,719,326.23**	**$970,712.36**	**$3,748,613.87**
	TOTAL incl GST					**$5,427,225.16**	**$1,116,319.21**	**$4,310,905.95**

ADDENDUM B

Plans

CHATEAU TONGARIRO HOTEL
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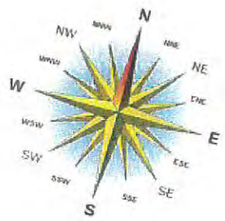
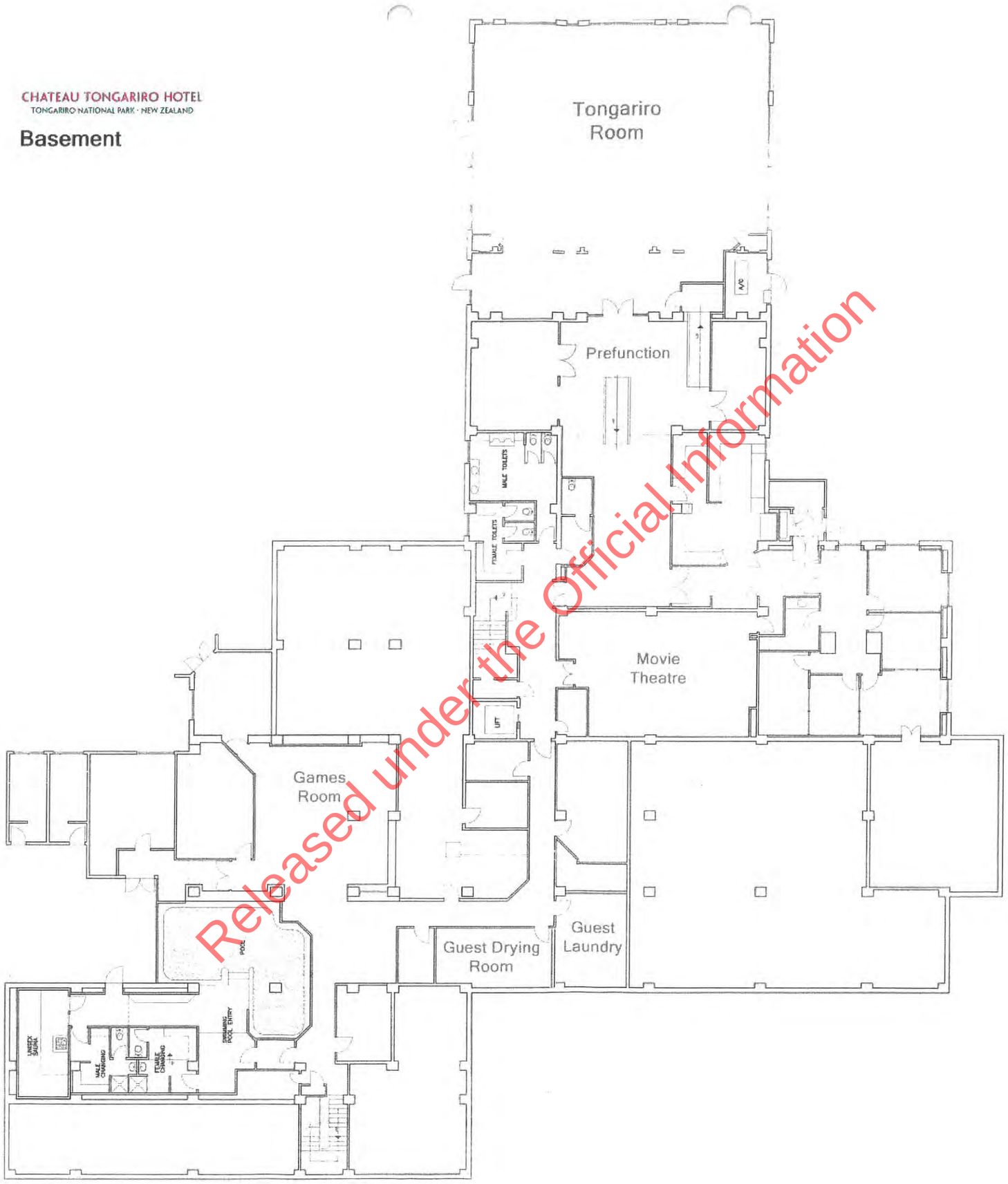
Basement





CHATEAU TONGARIRO HOTEL
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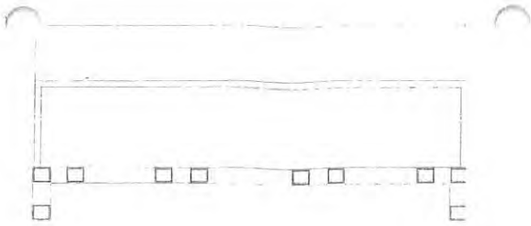
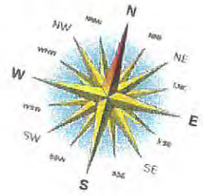
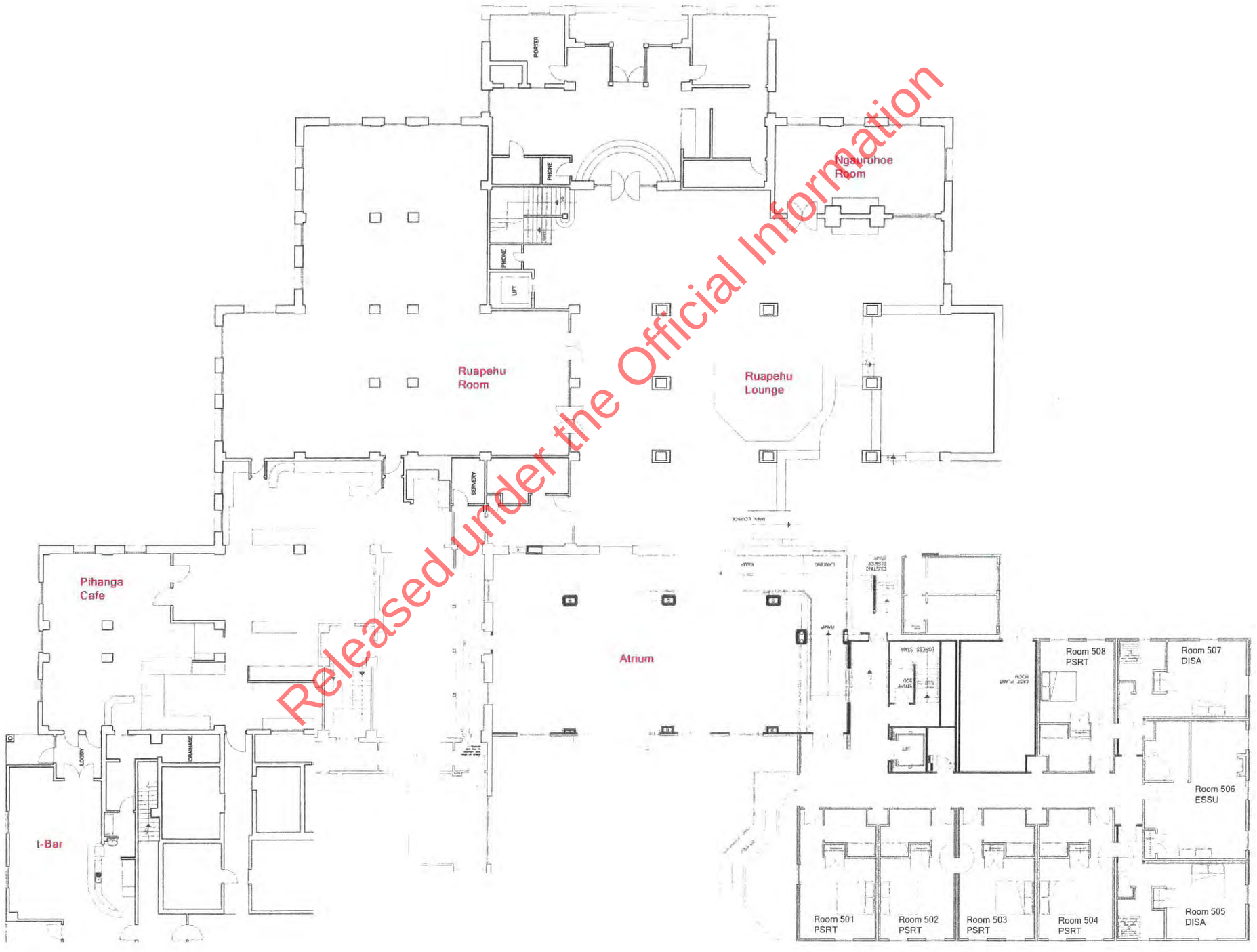
Ground Floor







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Level One

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Level Two

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Level Three