

# Nenagh Historic & Cultural Quarter, Castle & Prison

## Vol II - Preliminary Conservation Repair Recommendations



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## 1 INTRODUCTION

The conservation and repair of Nenagh’s prison complex aims to conserve the protected structures, to preserve and enhance the character of the buildings and to facilitate the ongoing use of the building, incorporating appropriate modern interventions in order to ensure their sustainable future use.

This preliminary report has been prepared for Scot Tallon Walker Architects to highlight high-level conservation repair needs to inform preliminary costing and to support the Part 8 planning application set of reports. A detailed conservation specification will follow during the detailed design stage. Repairs have been listed as urgent/essential, recommended and desirable. Urgent/essential repairs should be costed and addressed in an early phase of the project, particularly in relation to preventing water ingress. Recommended repairs are advised to be carried out as part of this project. Desirable repairs are advised if the budget allows.

The conservation repair work should be logically phased in conjunction with the architect’s design strategy, and items may be broken down further to localised areas to be carried out in a practical and economical manner.

Repairs to the roof, rainwater and storm water drainage system must be prioritised to improve the water resistance of the building and prevent any further deterioration of fabric from water ingress. Water ingress is often the root cause of visible defects within buildings. Once water ingress is stopped, the building fabric which has been affected by moisture will dry out over time, consequently reducing or eliminating subsequent related defects to the interior (Peeling paint/ boasting plaster/ timber rot).

Further required conservation works will be identified in the process of completing the full Conservation Report and specifications and this should not be considered the complete or comprehensive list.

## 2 STRATEGY FOR REPAIR

This list of conservation repairs is considered a long-term strategy and should not be read as the scope of works for the proposed project. (Please refer to STW's design package for the scope of works)

Due to the scale, complexity and budget of the project, it may be necessary to phase the works. The conservation and repair works should be sensibly phased in conjunction with the architect's design strategy, and items may be broken down further to localised areas to be carried out in a practical and economical manner. However, it is advised that key urgent and essential repairs are addressed as soon as possible.

Proposed repairs that cannot be addressed as part of this project should be incorporated into a Maintenance Plan to be carried out in the long term.

The suggested prioritisation of conservation works are as follows:

**URGENT/ESSENTIAL:** Repairs absolutely necessary to prevent water ingress, in order to protect and preserve the historic building fabric and prevent further deterioration for the ongoing and long-term use of the properties. Some interiors works may be rendered ineffective if the issues of water ingress are not resolved.

**RECOMMENDED:** Repairs recommended for conservation, improved performance and appearance of the structures.

**DISIRABLE:** Repairs that would improve the aesthetic and historical character of the properties and/or would be beneficial to the ongoing performance and protection of the materials, however, are not urgent.

### 2.1 GOVERNOR'S HOUSE

#### 2.1.1 URGENT/ESSENTIAL REPAIRS:

1. Removal of all vegetation located in and around rainwater goods.
2. Localised repairs to slate roof to replace broken or slipped slates using natural slate to match in composition and size.
3. Re-roof central cupola complete using copper.
4. Localised repair of structural roof timbers around chimneys – requires inspection to confirm extent of damage from water ingress.
5. Removal of organic growth to chimney capping complete and lightly clean capping surface by hand.
6. Rake out open joints, cementitious or defective pointing to chimneys and repoint using lime mortar.
7. Reopen 1 no. blocked chimney and replace missing chimney pot with ventilated cap to match existing.
8. Remove flaunching from chimneys and renew using lime render.
9. Renewal of lead soakers and flashings to chimneys complete.
10. Localised repairs to broken timber louvres to central cupola and redecorate all exposed timber joinery on cupola complete.
11. Recalculation and renewal of cast iron rainwater disposal system complete (Refurbish and reusing existing elements where possible and appropriate).
12. Remove any cement strap pointing on all elevations [estimated 50%, further inspection required]. Rake out open joints and repoint using lime mortar.
13. Removal of tarmac surfacing abutting foot of buildings, lowering of ground level and formation of a French drain/moat [dimensions TBC by design team] to full perimeter of building (leave trench open during works to allow foot of walls to dry).
14. Installation and connection of new branch drainpipes from any new downpipe locations to existing stormwater drains as required.
15. Installation of new concrete gullies with cast iron grates to the foot of each downpipe.

### 2.1.2 RECOMMENDED REPAIRS:

1. Opening up of one door at L01 to proposed reinstated gantry. (TBC with Architects. Finishing, detailing and new door to be presented to conservation consultant for comment. Any repairs to door surround to use matching stone and lime mortar).
2. Proposed to reinstate gantry at first level to connect to prison cell block. (TBC with Architects. Materials and design and details to be presented to conservation consultant for comment).
3. Refurbish and draughtproof all existing timber framed windows.
4. Replace 1no. pane glass to transom window above northern entrance door.
5. Refurbish and draughtproof all existing timber external doors and remove modern signage.
6. Localised piece-in stone repair to entrance door surround.
7. Improvement of external surface falls and drainage; laying of new surfacing falling away from the existing buildings to drainage.
8. Clean organic growth from stone sills.
9. Removal of hard cement internal plaster in basement, replaster using a lime plaster and decorate using breathable paint.
10. Remove of cement strap pointing to interior exposed stone wall at L01 and repointing using lime mortar.
11. Redecoration of modern timber stair handrails and balustrade to be in keeping with the character of the building.

### 2.1.3 DESIRABLE REPAIRS:

1. Repair and redecorate external cast iron elements (gates, railings etc.).
2. Removal of external inappropriate modern light fittings and Installation of new approved lighting system.
3. Removal of all external redundant cabling and associated fixings. Consolidate and tidy external cabling to be retained.
4. Removal of all plastic or modern vent covers and replacement, unblocking of closed/blocked floor vents, repair and repainting to historic cast iron vent covers.
5. Removal of stippled ceiling plaster to interiors.
6. Redecoration of interiors.
7. Clean stone paving and steps complete. Rake out open joints and repoint using lime mortar.
8. Clean stone string courses, plinths and parapets.
9. Reinstatement of now-removed steps to allow use of existing northern door. (Present design proposal to Conservation Consultant for comment.)

## 2.2 PRISON BLOCK

The Prison Block has undergone recent repairs and is generally in good condition. The main items for conservation repair relate to improving the drainage and condition of the interiors.

### 2.2.1 RECOMMENDED:

1. Localised repairs to any open joints on the main elevations using lime mortar and finish using lime wash.
2. Remove rust to interior wrought and cast-iron features and rust treat or redecorate. (handrails, balustrades, gates door hardware, window bars)
3. Remove boast lath and plaster finish in all internal rooms and carryout localised plaster repairs using lime.
4. Hand clean floors. Treat timber floorboards with linseed oil.
5. Improve interior lighting system to support gallery / museum function.
6. Opening up of one door at high level to proposed reinstated gantry. (TBC with Architects. Finishing, detailing and new door to be presented to conservation consultant for comment. Any repairs to door surround to use matching stone and lime mortar).

## 2.3 GATE HOUSE

### 2.3.1 URGENT/ESSENTIAL REPAIRS:

1. Removal of all vegetation to rainwater goods and roof.
2. Localised repairs to slate roof to replace broken or slipped slates using natural slate to match in composition and size. (*Drone survey or onsite cherry picker required to confirm extent*)
3. Localised repair of timber roof structure - requires inspection to confirm extent of damage from water ingress.
4. Replace all flashings on roof complete using lead.
5. Clean organic growth from the top of buttresses and rake and repoint using lime mortar.
6. Clean organic growth from the top of coping stones and rake and repoint using lime mortar.
7. Remove all vegetation to elevations complete. (Ridges, pediments, mortar joints)
8. Remove cement strap pointing to front and rear elevations and to chimneys and parapet complete. Rake out open joints and repoint using lime mortar.
9. Removal of tarmac surfacing abutting foot of buildings, lowering of ground level and formation of a French drain [width TBC by design team] to building perimeter (leave trench open during works to allow foot of walls to dry).
10. Installation and connection of new branch drainpipes from any new downpipe locations to existing stormwater drains as required.
11. Installation of new concrete gullies with cast iron grates to the foot of each downpipe.

### 2.3.2 RECOMMENDED:

1. Refurbish and draughtproof all existing timber external doors and remove modern signage.
2. Remove interior gypsum plaster complete. Rake and repoint stone using lime mortar and replaster using lime plaster and lime wash.
3. Rake out vegetation and open joints to internal yard elevations and repoint using lime mortar.
4. Rust treat any existing cast iron features and repaint. (Railings, gates, window bars)

### 2.3.3 DESIRABLE:

1. Remove all interior signage and install new improved/updated information boards.
2. Removal of external lights and Installation of new approved lighting system.
3. Removal of all redundant cabling and fixings. Consolidate and tidy external cabling.
4. Removal of plastic vehicle barrier gate located in the execution gatehouse archway. (Possible replacement with original gates on electric motors. Any new design proposal to be presented to conservation consultant for comment.)

## 2.4 HISTORIC STONE WALLS

### 2.4.1 RECOMMENDED:

1. Stitch large cracks as per structural engineers' specification.
2. Rake out vegetation to capping stones and open joints and localized repointing using lime mortar.

### 3 CONSERVATION BEST PRACTICE

The property and its curtilage are protected structures (RPS 39, NIAH 22305003 & RPS 41, NIAH 22305006) It must be treated with the respect of its listing – all decisions on interventions should follow the ICOMOS, Venice and Burra Charters and all personnel and sub-contractors must have relevant experience in conservation projects. All proposed sub-contractors must be approved by the relevant Inspecting Authority.

NOTE: These are general best practice recommendations and guidance to support this preliminary report and should be updated in full following detailed assessment of the buildings and production of full conservation works specifications.

#### 3.1 ADDITIONAL SURVEYS REQUIRED

Additional surveys are recommended to provide a comprehensive understanding of the site in order to present the most appropriate remedies:

##### 3.1.1 DRAINAGE SURVEY

It is recommended that a drainage survey be carried out for the entire site. Check drains for cracking, blockages and ensure all water flow is directed away from the building. A strategy for improved storm water drainage should be produced based on the results of the survey and include for new branch drains from additional downpipes as specified.

##### 3.1.2 ASBESTOS SURVEY

An asbestos survey must be carried out to locate and identify any potential asbestos materials in order for removal by registered contractor prior to start of conservation works.

##### 3.1.3 ECOLOGY

A bat survey is required to identify any potential bat inhabitation and roosts as these may need to be accommodated for in the proposed works.

##### 3.1.4 TIMBER SURVEY

It is recommended that a detailed survey be carried out by a timber specialist to determine the condition of the roof timbers, particularly in areas where the roof covering, flashings or gutters have failed. Timber repairs to the structure should be localised and measures taken to ensure water ingress is eliminated (as above).

It is recommended that redundant services, such as water tanks that are no longer in use, be removed. Any remaining services to the roof space should be inspected on a regular basis.



### 3.2 SAMPLE PANELS

Prior to commencing works the following sample panels/materials will be presented for the approval of the Design Team & Tipperary Council Conservation Office:

- a) Sample rake out of cement pointing to walls and sample re-point with lime mortar
- b) Sample rake, caulk, seal, and repoint to external stone
- c) Sample maintenance conservation repairs to cast iron railings
- d) Sample masonry repairs
- e) Sample removal of failed or modern cement-based plaster

### 3.3 HERITAGE INDUCTION

- a) All operatives must receive 'Heritage Awareness Training' delivered as part of their site induction - this will include site specific training on the significance and the sensitivities of the work.
- b) All operatives must sign documentation to confirm that the 'Heritage Awareness Training' has been delivered and received.
- c) Only operatives who have undertaken the 'Heritage Awareness Training' will be permitted to work on site (including all main and sub-contractors).

### 3.4 SUPERVISION & PERSONNEL

- a) Adequate site supervision is to be provided by the Contractor at all times, by personnel experienced in all aspects of the conservation and refurbishment of historic buildings. The foreman, supervisor or supervisors, which are to be named at tender stage, are to retain their positions for the duration of the contract unless otherwise stated by the client. Any change in supervision personnel shall be immediately reported to the Design Team, any change of supervisor must be pre-approved by the inspecting authority.
- b) Sub-contractors are to be named and details of relevant experience furnished to the Design Team for approval prior to being engaged.
- c) Only personnel who have the relevant practical experience of the task being carried out are to be employed. Proof of personnel training must be supplied by the Contractor, if requested.
- d) Operatives who receive specific conservation training from the Design Team (e.g. cleaning of stonework/plaster repair) shall remain with these tasks for their duration, maintaining a consistency of approach and knowledge.

### 3.5 MATERIALS & WORKMANSHIP

- a) If the Contractor observes an adverse reaction by any products applied to the fabric of the structure, then this aspect of the work shall be immediately discontinued, and the Design Team's advice sought.
- b) The use of any product other than those specified in this document is to be approved by the Design Team prior to commencement of work. Materials are to arrive on site unopened and bearing both the product and manufacturers name in a legible form.
- c) The Design Team reserves the right to sample and inspect any products and the right to charge the Contractor for any work required to check the suitability of any proposed product changes.
- d) All materials and products will be stored in a clean, dry environment where there is no risk of damage. The product requirements set out by the manufacturer are to be adhered to. NB. site goods and materials



must not be stored against or touching the entrance railings, plinth, piers or the historic walls in the property.

- e) The Contractor shall forward a copy of relevant Product Data and Material Safety Sheets to the Design Team. All personnel are to familiarise themselves with these.
- f) All activities are to be in compliance with the relevant codes and government regulations. It is the responsibility of the Contractor to ensure that this is the case.

### 3.6 WEATHER

Any activities involving the application of water/water-based products to the structure are not to proceed if the air temperature is either 4<sup>o</sup> Celsius or falling. Such activities include those which employ the use of water-based cleaning products.

### 3.7 SAFETY

- a) In order to avoid or reduce risks to health and safety and to ensure that best practice is implemented, all contractors must provide a comprehensive Safety Statement in compliance with the Safety, Health and Welfare at Work Act 2005 and associated legislation.
- b) All work shall be carried out in a safe manner and in compliance with all local authority and government safety regulations. All product safety information is to be available on site and is to be read and fully understood by all personnel assigned to the use of such product.
- c) Operatives are to use the appropriate protective clothing and equipment where required. Public roads, footpaths and the surrounding area are to be protected, as necessary, from chemical run off.
- d) All required first aid and safety equipment is to be stored on site where it is easily accessible to those who may require it. All operatives are to be familiar with the use of this equipment.
- e) All hazardous and polluting effluent is to be disposed of safely and in accordance with the relevant safety regulations.
- f) Clear away all dirt, rubbish, spoil, offensive matter and superfluous materials from time to time or as directed and at completion. Do all necessary scouring, washing and keeping clean as the work proceeds. All drains and gutters are to be kept free from debris at all times.
- g) All site practices must comply with the current Health and Safety initiatives and Regulations.
- h) Site workrooms and temporary sanitary facilities are to be agreed with the client prior to commencement on site.

### 3.8 SEQUENCE OF WORKS

The sequence of conservation repair works shall be agreed during pre-construction discussions and in consultation with the Design Team & TCC Conservation Office.

### 3.9 SCAFFOLDING

- a) The Design Team and PSDP's documentation in relation to the scaffold shall be read in conjunction with the following section for the rear boundary wall on Leinster Place.
- b) All people with responsibilities for supervision of scaffolding work shall be familiar with the HSA Code of Practice for Access and Working Scaffolds and with I.S. EN 12811.
- c) Scaffold poles are to be clean, rust free and neatly capped to prevent direct contact with the building and injury to workers. Rust stains on the building must be prevented.
- d) Where the scaffold abuts the structure, a timber packer must be inserted to avoid physical damage.
- e) The scaffold shall be dressed in a protective weather sheeting to shield the building from the elements and assist in the curing of the lime work when reconstructing the wall.
- f) Scaffolding shall not be tied in or supported from any part of the structure, except at the direction of the Design Team (where approved, fixings must be of stainless steel) all areas shall be made good following dropping of the scaffold.
- g) Scaffolding is to be erected and carefully dismantled so as to avoid all damage whatsoever to the building and historic ancillary structures.