



LBC Temporary Protection Strategy

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OUR TOWN HALL

Temporary Protection Strategy



OUR
TOWN
HALL
PROJECT



Contents

1. Introduction
2. Protective Preventative Maintenance
3. Our Town Hall Culture
4. General Building Management
5. Temporary Protection Strategy drawings



1. Introduction

The purpose of this document is to outline the philosophy and principles for protection of Our Town Hall during the construction works phase. This document focuses on the overarching strategy for access routes whilst the task specific protection will be an iterative developing strategy once the work packages contractors are on board.

Manchester Town Hall is one of the most iconic landmarks in the city. Regarded for its exceptional craftsmanship and architectural quality, it is renowned as one of the finest examples of Neo-Gothic architecture in the UK. Cherished by the people of Manchester having been the civic, political and administrative centre of the city since its opening in 1877, it is of international significance and one of the most important Grade One listed buildings in the UK.

The Town Hall was 140 years old in 2017. Whilst it has been maintained and remains structurally sound, it is now seriously showing its age, with many elements reaching the end of their natural lifespan. Without significant work to address damage and defects, its condition will deteriorate to the point where it will become unfit for ongoing use and will need to be mothballed.

As such, Manchester City Council (MCC) has commissioned a major refurbishment Project to safeguard and repair the Town Hall and Albert Square for current and future generations. To be known as the 'Our Town Hall' Project, as it belongs to the people of Manchester, the Project concerns the refurbishment of approximately 22,600m² of internal floor space within the Town Hall and 12,065m² of external space including Albert Square and the surrounding public realm.

The Town Hall will be repaired and upgraded to modern safety and accessibility standards, including new lifts and welfare facilities. Detailed specialist survey work has been undertaken to assess the condition of the building and to assess the scope of necessary work to ensure it can continue to play a key role at the heart of the city's future. The work will include structural repairs, including stained glass windows and ensuring all fixtures and fittings are fully restored throughout. Significant work will be carried out to improve the Town Hall's electrics, plumbing, heating, ventilation and lift installations. External repairs are also needed to the roof, stonework and drains. In addition, the Project includes the repair, restoration and conservation of historic features, including all state rooms, the Great Hall and the Lord Mayor's suite.

Lendlease as Management Contractor are required to take responsibility for design management following appointment throughout to completion of design, manage compliance with CDM regulations, risk and programme management. Lendlease will also procure, monitor and manage Works Contractors on and off-site preparation and works, as well as managing the site and quality control throughout the duration of the project.

This document should be read in conjunction with the “LBC Method Statement: Management of Construction Works” prepared by Lendlease which details the management of the Construction Works at the OTH Project in line with the requirements of Listed Building Consent.

2. Planned Preventative Maintenance

Lendlease took possession of the building at 01 May 2019 and manage the continuance of Planned Preventative Maintenance, Statutory, Good Practice and Reactive for Manchester Town Hall during the pre-construction period and up to and including the decommissioning of existing plant during the Construction Phase of the project.

This includes regular maintenance items for the safe running of the building and its occupants. This regime ensures the building does not deteriorate during the pre-construction period. The reactive maintenance ensures the correct specialist supply chain partners are available to respond to building issues if required.

3. Our Town Hall Culture

Our Town Hall project is built upon a collaborative team approach. Lendlease will undertake due diligence to ensure onboarding of the right supply chain partners to live the Town Hall Values.

The onboarding of all project personnel will include an Induction covering the heritage significance of the building. Project personnel will be inducted to become ambassadors of the OTH project, taking ownership and responsibility for their works and actions. The correct attitudes and behaviours are the most significant aspect of protecting the OTH building fabric and assets.

4. General Building Management

During the various phases of construction works, the main building access routes will be protected. The principles of this is to produce designated routes within the building, which are protected and maintained to safeguard the historic fabric. The strategy is that where possible access is through interjoining rooms to reduce trafficking in the higher significance corridors. The installation of the temporary protection routes to corridors will be progressive as the construction phasing progresses. Once temporary protection is installed into a corridor it will remain in place to serve the full construction programme. A monitoring regime to include the ongoing assessment of the building fabric, temporary protection condition and temporary protection suitability will be implemented with maintenance where required.

With regard to environmental controls and protection of the building fabric the measures to control environmental conditions are contained within the Construction Management Plan (CMP). The CMP covers vibration and dust. It is a live document and will be updated as the project moves from PCSA into construction phase and will continue to be updated through the construction phase to suit the programme stage and site conditions. An overview summary of the CMP measures:

Dust & vibration:

A project specific assessment will be conducted on the building to ensure that the planned activities will be within a vibration range that is sensitive to the heritage significant areas of the building. Upper limits will be set in line with BS 7385 and BS5228 with monitoring stations installed at key areas. Where possible, methods of works will eliminate or reduce the amount of vibration generated to ensure that the impact to the Town Hall building. All works will be carried out in accordance with approved codes of practice, with relevant vibration controls, localised monitoring will be installed to ensure vibration levels do not exceed permitted levels.

Water Leak Detection:

Existing service removal

Prior to the removal of redundant MEP services and water systems, the existing system will be isolated and drained down and any retained water discharged. A permit to remove system will be utilised to allow the commencement of strip out of services in any one area to ensure leaks from the existing installation. The strip out of services will commence from the upper levels back towards the main incoming supply and booster tanks to ensure if any residue in the system or dead legs can drain away to the discharge point.

Temporary water systems

The temporary water strategy is designed to be located on the external elevation/scaffold where possible with limited piping routed within the building. Localised bib taps will be

installed on the scaffold platforms at strategic points to support both the external and internal work. A solenoid type valve will be fitted on the incoming water main which will have a volume limiter on it and the volume parameters will be set such that the incoming water supply will be shut-off, should a leak occur. Additionally, a timer will be used to shut off the water supply out of hours, as there is 24/7 security on site the mains shut off valve will not be remotely monitored off site. Due to the nature of the building and the need to adapt the system during the works programme we will not be able to provide any zonal leak detection

We are developing with the proposed supply chain partners if it is viable to introduce a time/flow limiter valve on the rising main and how this can be monitored and controlled.

Installation of new MEP and commissioning

In partnership with the MEP installer and the commissioning engineer we are developing the quality control procedure and verification plan required to energise any new installation system, only complete systems that can be safely isolated will be filled and made live progressively across the building. Leak detection walks and monitoring of the BMS will be continually undertaken during this period to ensure any leaks are detected and rectified straight away. The main MEP installation has a number of safety features such as flow restrictors, solenoid shut off valves and leak detection systems to prevent and control water use and leaks in the building.

Task specific water use & moisture control

It is known that various refurbishment techniques to be used during the works will require the use of water or steam. Control measures and monitoring will be required as part of these works to ensure the building remains protected. Task specific method statements for these works will be produced and agreed by the project team as described within the “LBC Method Statement: Management of Construction Works”.

Internal Fabric Protection

The internal building fabric elements to be protected are shown on the drawings in section 5. Temporary Protection Strategy drawings. The internal building fabric elements will be protected using the following materials:

Mosaic flooring (to corridors)	Twin wall polypropylene board
Timber flooring	Twin wall polypropylene board
Corridor walls	Modular hoarding system (1-1.2m high)
Columns	Modular hoarding system (1-1.2m high)
Doors	Twin wall polypropylene board
Door frames	Foam door frame protection
Staircase handrails	Foam handrail protection

Staircase balusters	Twin wall polypropylene board
Staircase structure (Stone at Spiral Staircase)	Twin wall polypropylene board
Stair treads	PVC Stair Tread Protector
Fireplaces	Bespoke Fire rated timber boxing
Special collection items	Bespoke Fire rated timber boxing

These materials have been selected as appropriate to the building fabric element and fire loading risk in accordance with advice from our Fire Risk Assessment Consultant. All protection materials are compliant to LPS 1207 or Fire Rated to Class 0. The Lendlease proposed temporary protection strategy will minimise the introduction additional fire load into the Town Hall during the construction phase

There will be no mechanical fixing to the building fabric. Methods of fixings will include: pressure fixing, low tack tapes, cable ties, weights, props, etc. Protection materials will be fixed to themselves rather than building fabric. Fireplaces and building assets will be protected via bespoke timber boxings which will be free standing with no fixings to building fabric. During the course of the construction phase further assets may be identified as requiring bespoke protection. Such discoveries will be dealt with on a case by case basis.

The scope document for each work package produced will include hold points for agreement of task specific temporary protection to building fabric not covered within the above scope to facilitate the works. This localised temporary protection to be agreed by the Project Team.

New installations/ restoration works will be protected until project completion by the supply chain partner undertaking the works.

All temporary protection elements installed will be subject to a regime of inspection by Lendlease, to ensure sufficient levels of protection are maintained on site throughout the construction phase.

Example materials:

Class 0 FR Low level Hoarding System:



Modular system with feet and posts. Will be sat on top sheet floor protection.

Twin wall polypropylene board:



Sheets will be laid flat on floor and taped to adjacent sheet.

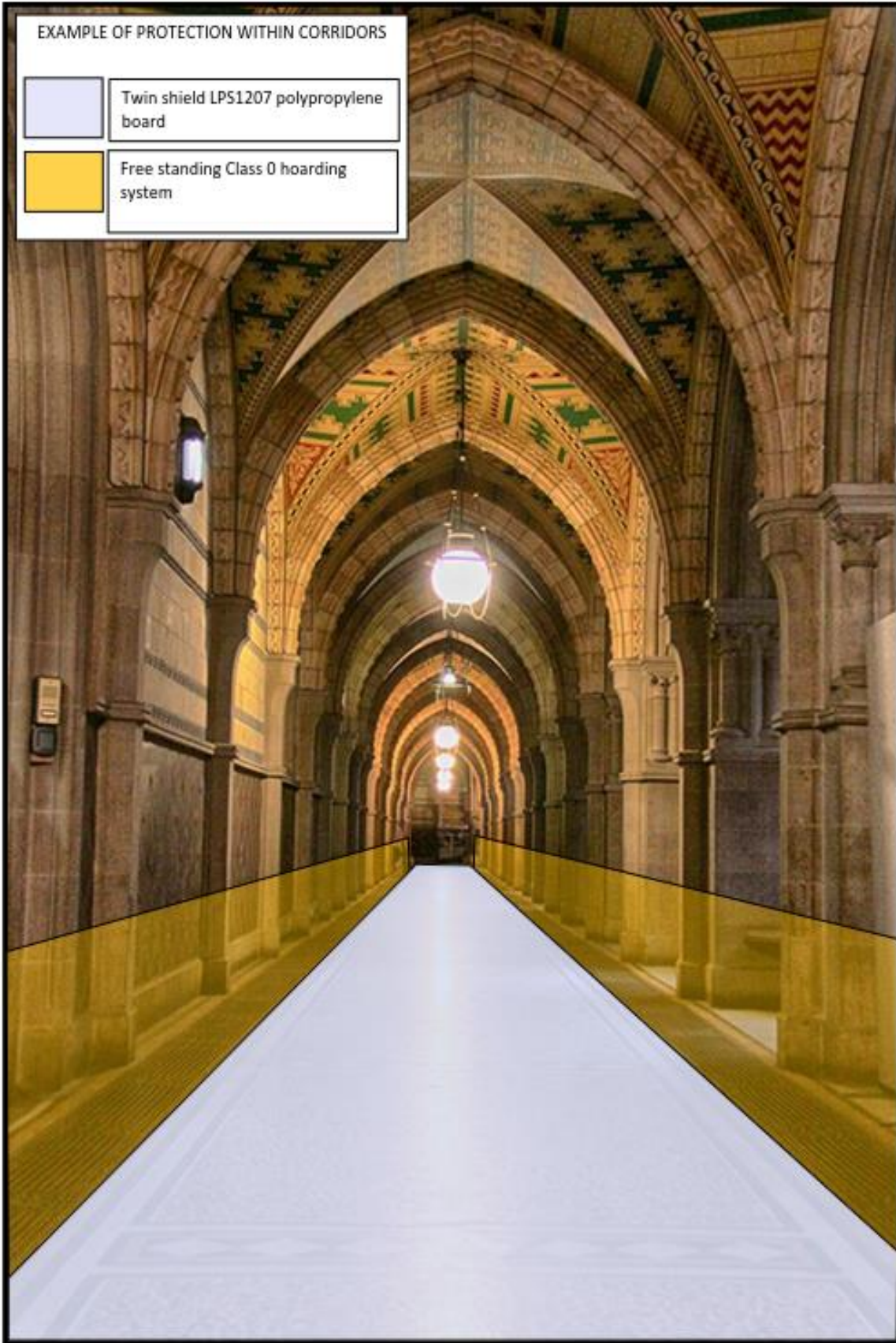
EXAMPLE OF PROTECTION WITHIN CORRIDORS



Twin shield LPS1207 polypropylene board



Free standing Class 0 hoarding system



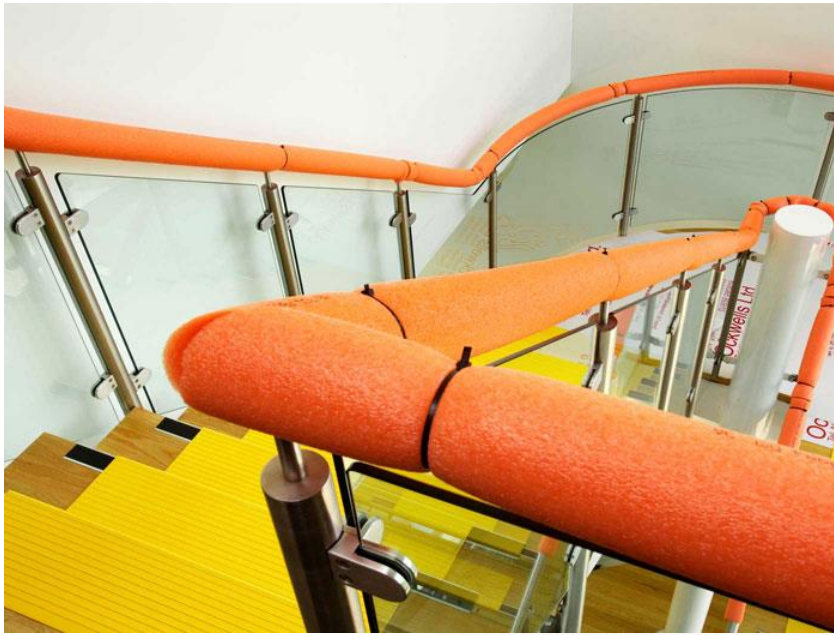
Foam door frame protection:



Wrap around foam sleeves will be used to protect door frames.



Foam handrail protection:



Wrap around foam sleeve, secured with cable tie over sleeve.

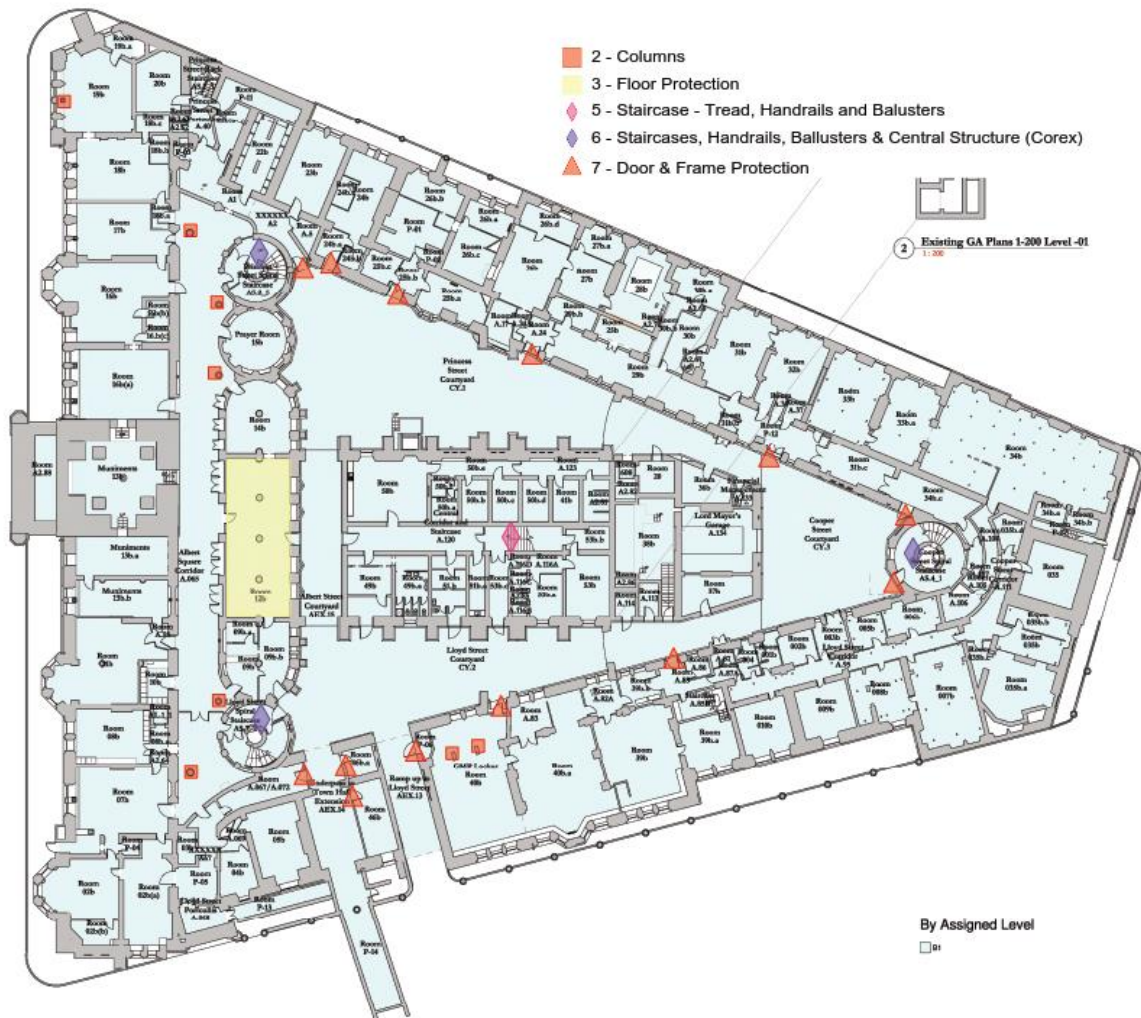
Stair tread protector:



Subject to site measure to facilitate securing of tread protector with wedges to hold in place.

5. Temporary Protection Strategy drawings

Lower Ground Floor:



Note:

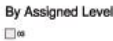
1. Staircases used for access have Tread protection. Spiral staircases are not access routes and therefore no Tread protection is required.
2. Rooms highlighted for Floor protection have existing floor board which will be restored. Rooms with no proposed floor protection receive a new floor finish as part of the fit out works.

Ground Floor:

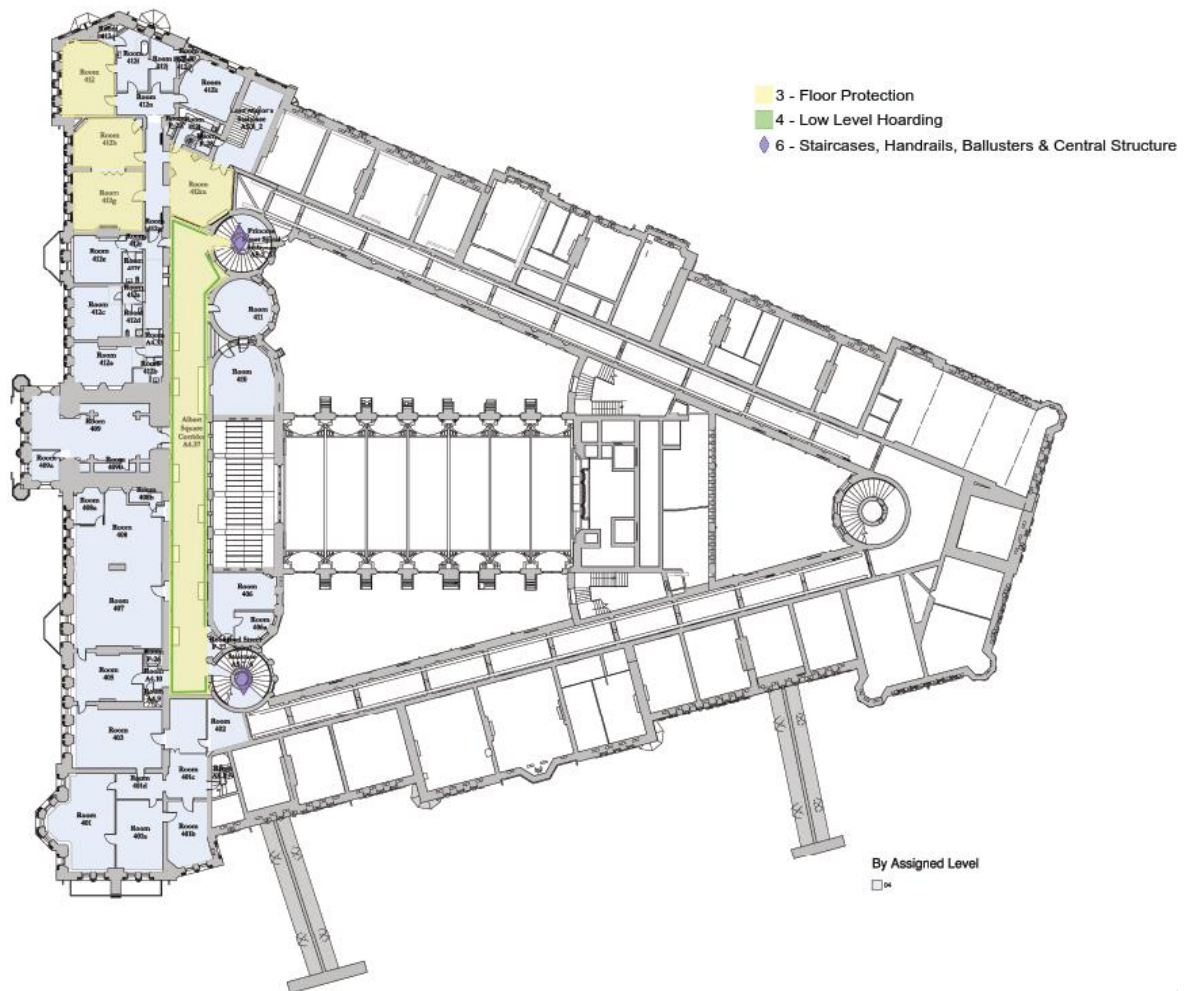


Level 1:

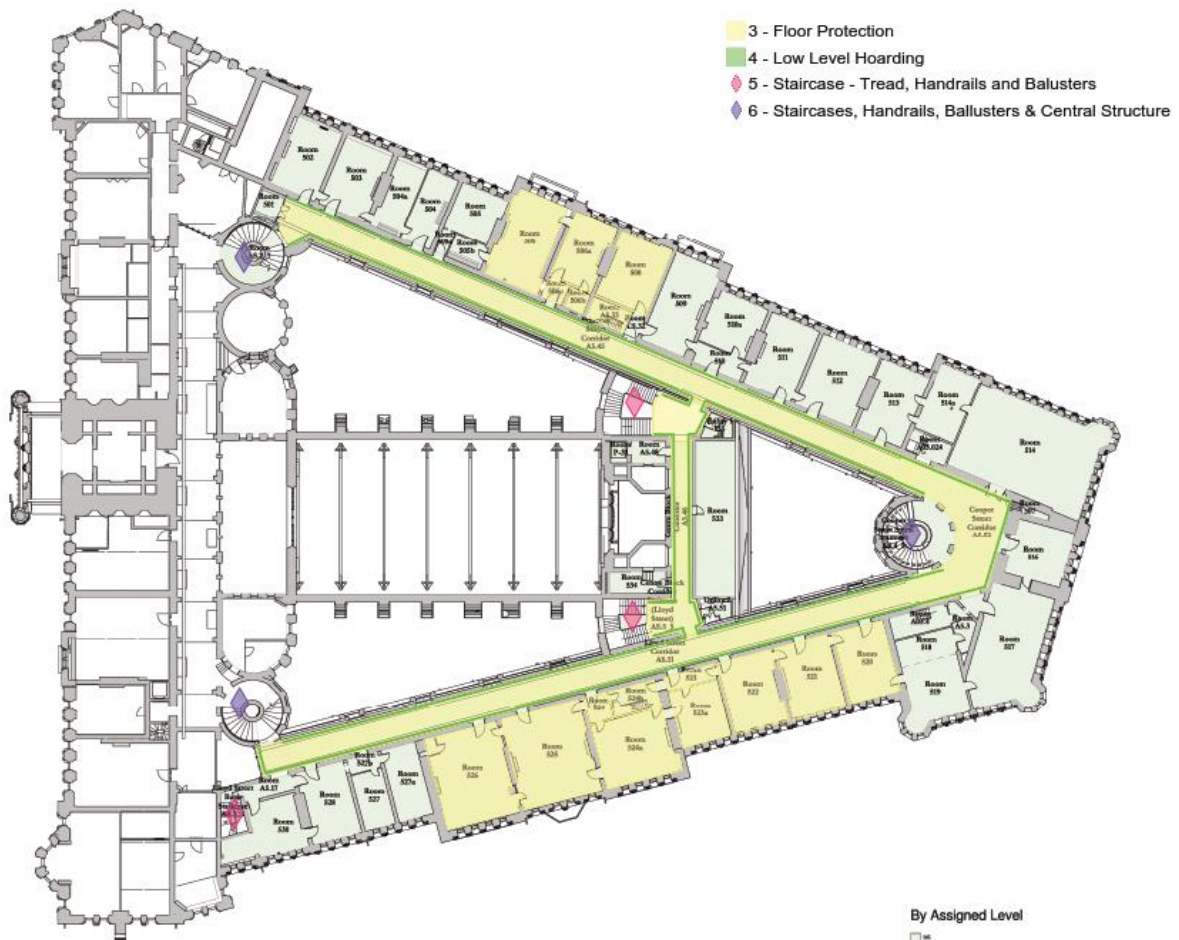




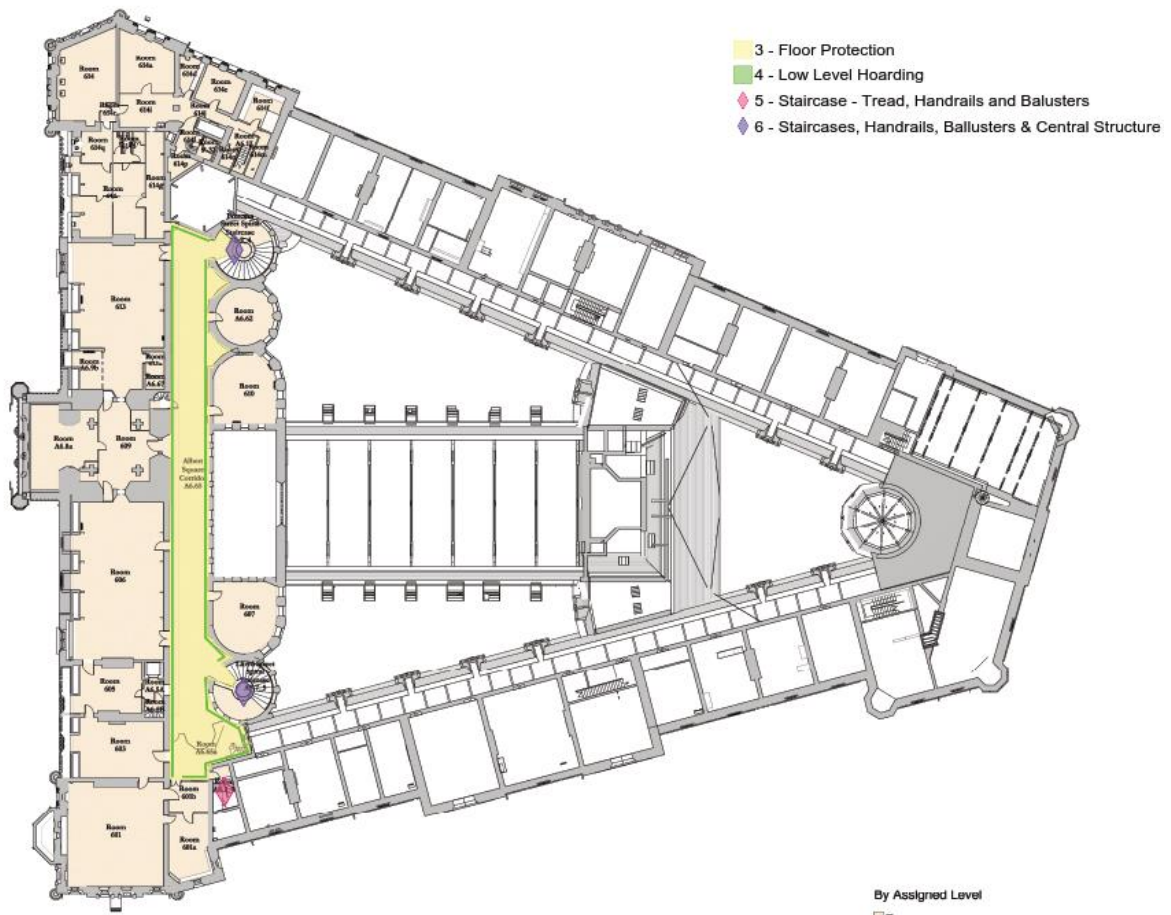
Level 3:



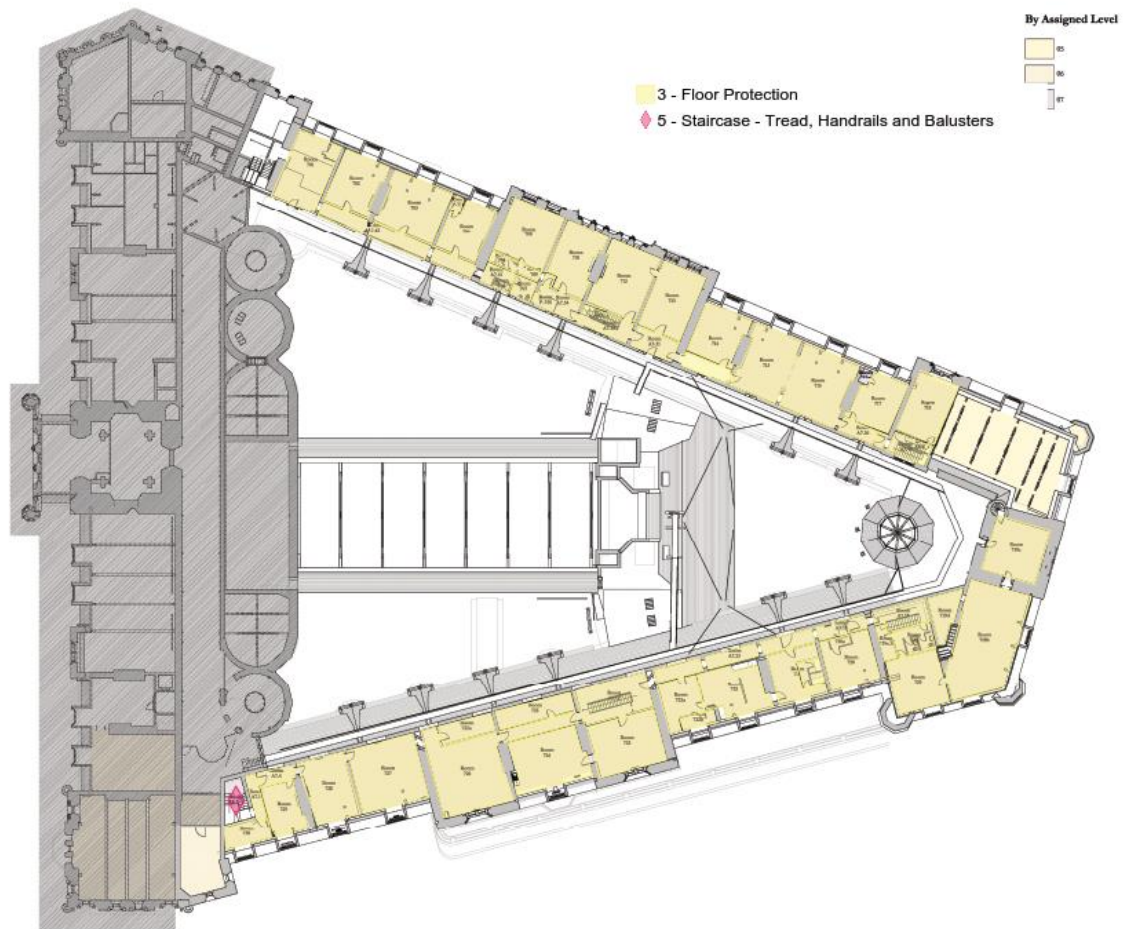
Level 4:



Level 5:



Level 6:



Level 7:

