FIRKIN CRANE CONSERVATION MANAGEMENT PLAN

Firkin Crane, John Redmond Street, Shandon, Cork City

Prepared for: Dance Cork Firkin Crane

By Chris Southgate, James Byrne and Dr. Colin Rynne

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EXECUTIVE SUMMARY

This Conservation Management Plan was commissioned by the management team of Dance Cork Firkin Crane in May 2025 to enable a structured approach to the conservation and management of the Firkin Crane, a historic building within an Architectural Conservation Area (ACA), and to develop and outline a vision and policies for its future. The Plan was informed by several survey and recording site visits over the course of 2025 by Chris Southgate, Conservation Engineer, Southgate Associates, and James Byrne, Senior Built Heritage Consultant and Archaeologist, Southgate Associates, and by detailed workshops and on-site meetings with members of the Firkin Crane management and relevant heritage contractors.

This plan addresses internal and external issues while outlining a short-, medium- and long-term vision and approach for the future. It assesses historical, archival, and building fabric evidence to determine the significance of the building, its fabric and construction. It also examines how these significances are currently protected and represented, or to what extent they remain under-acknowledged, misunderstood, or threatened.

The Plan examines the needs of current users and advises on how the building might better meet those needs, while protecting, acknowledging, and celebrating its importance as part of our common community heritage and that of the wider Shandon Area. By outlining building-specific policies, the plan identifies aspects of the building which are crucial to protect, and areas where there could be Tolerance for Change or Opportunities for Change (Croker 2017). In this way, the document assists those managing the building to find flexibility within the restrictions posed by operating in a heritage structure, particularly one with such a unique shape and location as the Firkin Crane.

Throughout this process we liaised closely with members of the artistic, technical and operations management of the Firkin Crane, tailoring our advice to their requirements and wishes. On completion of this plan, it is hoped to engage with Cork City Council Heritage and Planning units to consider the needs of the building and site. Their assistance will be crucial in negotiating with state agencies through which funds can be accessed for the protection and enhancement of Irish heritage, cultural and artistic structures.

The Firkin Crane is a pivotal building not just for the artistic community of users but also for the wider Shandon area, which is undergoing transformation and investment. This Conservation Management Plan aims to clearly outline the significance of the site and establish best practice for its management. It provides options and clarity in decision-making for those involved in future use, repair, and

maintenance. It also supports the management team in identifying priority fundraising areas and uses for funding.

While prioritising maintenance works, the Plan also establishes a cohesive conservation strategy and method of recording repairs and maintenance (A Maintenance Manual) which can be handed from manager to manager over time. It is therefore required to ensure this building is kept in the best possible condition. This document was written using all currently available resources and should be revised every 10 years to address omissions and review technologies used in historic buildings conservation.

Table 1 Table of abbreviations

ACA	**Architectural Conservation Area**
CCC	**Cork City Council**
CMP	**Conservation Management Plan**
NIAH	**National Inventory of Architectural Heritage**
RPS	**Record of Protected Structures**
SIUS	**Shandon Integrated Urban Strategy**

1 INTRODUCTION

Southgate and Associates were appointed by the Board of the Firkin Crane to survey the structure and compile a Conservation Management Plan (CMP) to assist the stewards of the building in decision making operational planning and correct protocol with regard to a Protected Structure on a Zone of Archaeological potential). This CMP will ensure the modern functioning of the building does not negatively impact the heritage significance of the structure and explores ways in which it can contribute to the identity of the place. In addition, the document can support statutory submissions as well as future funding applications. The CMP was funded by the Heritage Councils Community Heritage Fund 2025.

The Firkin Crane is a protected structure listed on the Cork City Councils Record of Protected Structures (RPS) (Record No. PS 963). It stands at the heart of Shandon's historic Butter Exchange precinct, once the world's largest and busiest butter market. Yet its potential as both a landmark heritage asset and a dynamic community hub remains under-realised. Drawing on the Shandon Integrated Urban Strategy (SIUS), this outline vision and management plan sets out to:

- Reaffirm the Firkin Crane's architectural and cultural significance within the architect, John Benson's ensemble of butter buildings.
- Establish a coherent conservation framework for its fabric and setting.
- Unlock its full potential through adaptive reuse, sustainability measures, and public-realm activation.
- Align all interventions with SIUS objectives, ensuring the Firkin Crane becomes both a local beacon and a driver of neighbourhood regeneration.

Sir John Benson's collection of buildings to house the thriving butter industry consist of the Butter Market, Weighmasters House and Firkin Crane share one architectural language and a common history as Cork's mid-19th-century butter exchange. Yet over time material surface treatments (stone infill vs plaster) and divergent colour palettes have visually fragmented the group. Public awareness of the Firkin Crane's role within the precinct is limited and almost forgotten.

This CMP positions the Firkin Crane not as an isolated venue, but as a keystone in a unified Butter Exchange Quarter—reinforcing both individual identity and collective heritage value. The document is structured in the following manner:

This Conservation Management Plan is structured to systematically guide the future of the Firkin Crane. It begins by establishing a **Vision** and stating the **Plan's Purpose (Sections 1-2)**, before undertaking a comprehensive **Assessment** through historical, architectural, and significance analyses **(Sections 3-5)**. This foundational understanding directly informs the **Condition Report and Site Analysis (Sections 6-7)**, which identify the specific pressures and opportunities facing the structure and its context.

The core of the document presents a detailed **Strategy and Recommendations (Sections 8-10)**, organized into five pillars to address conservation, reuse, and activation. This strategic framework is operationalised through a set of **Conservation Policies (Section 9)** to ensure all changes respect heritage value, and a practical **Maintenance Manual (Section 11)** to ensure its long-term preservation. The appendices provide the essential supporting evidence, including detailed surveys, and cost tables.

FRAMING OF A VISION

1.1.1 Heritage as Preservation

The careful conservation of the Firkin Crane's built fabric, respecting original materials, construction techniques, and the architect, Sir John Benson's architectural vision. This ensures the building's physical integrity and its contribution to the historic character of the Shandon area for future generations while meeting statutory conservation obligations.

1.1.2 Heritage as Activation

The transformation of the Firkin Crane into a fully activated cultural venue that serves diverse community needs. Through flexible scheduling, climate-resilient systems, and sustainable operations, the building will host dance, theatre, workshops, and community uses throughout the day and evening, creating immediate employment and integration opportunities.

1.1.3 Heritage as Inspiration

The reimagining of the Firkin Crane as the keystone of a unified “Butter Exchange Quarter” of the city. Through public realm activation, visual cohesion with adjacent heritage buildings, and innovative interpretation, the building will create a unique identity, inspire community pride and become a dynamic cultural nucleus for Shandon's regeneration.

1.1.4 Vision Statement 2030:

By 2030, the Firkin Crane will embody three interlocking ambitions—Preservation, Activation and Inspiration—delivering:

- A fully conserved envelope, managed under a digital cyclical schedule to safeguard original materials and detailing (SIUS LC1).
- A day-to-night cultural venue hosting workshops, performances, youth “third spaces” and micro-butter markets (SIUS CA2, CA6).
- A heritage-sensitive sustainability exemplar, achieving industry-leading energy-efficiency through breathable dry-lining, rooftop renewables and smart controls (SIUS LC9).
- A plaza inspired by urbanist Jane Jacobs that choreographs accidental contacts, informal “eyes on the square” and spontaneous cultural exchange.

  Seamless integration with neighbouring butter buildings via a coordinated palette, harmonised wayfinding and enriched interpretive signage (SIUS H7, CA4).

2 PURPOSE OF THE CONSERVATION MANAGEMENT PLAN

The aim of this Conservation Management Plan is to enhance clarity in future decision making by providing a document to:

- Outline and explain the heritage significance of the totality of the structure including its furniture and fittings, decoration, design and setting within the collection Butter Exchange buildings and identity at Shandon
- Identify issues which are posing a threat to the significance and provide a general overview of the condition of the building
- Establish a conservation framework that enables adaptive reuse, sustainability measures, and public realm activation in alignment with SIUS objectives
- Provide quick-win opportunities for employment and community integration while ensuring long-term preservation
- Develop a policy framework which will provide an outline of best practice methods and appropriate use, repair and maintenance of the building
- Outline the legal requirements for carrying out changes to a Protected Structure located in an Architectural Conservation Area (ACA) and archaeological Zone of Notification
- Establish a scope of works and strategy that positions the Firkin Crane as both a landmark heritage asset and driver of neighbourhood regeneration
- Provide broad budget costings for the conservation works
- Outline a vision for the future of the Firkin Crane including alterations and enhancements and looking at ways of improving the accessibility

3 UNDERSTANDING THE FIRKIN CRANE

Setting and Location

The Firkin Crane is located on the hill on the north side of Cork City in the Shandon Area. This was an area which developed during the late medieval period and later became an important locus for the butter industry. The Firkin Crane formed a keystone element of Sir John Benson's Butter Exchange ensemble of buildings alongside the Butter Market and the Weighmasters House. Despite sharing a common architectural language and history, the original visual cohesion of these structures which created a distinct heritage precinct has been fragmented by divergent material treatments and colour palettes over time.

The landmark rotunda building is a pivotal centrepiece of the Shandon Area and part of the Butter Exchange collection of heritage buildings. Pedestrian access is via steps and a ramp from John Redmond Street with service/stage access also available to the rear of the building.

The Aerial image of location and setting show the Firkin Crane (Plate 1) located on the top of the sloping hill which forms the Shandon Area on the north side of the city.

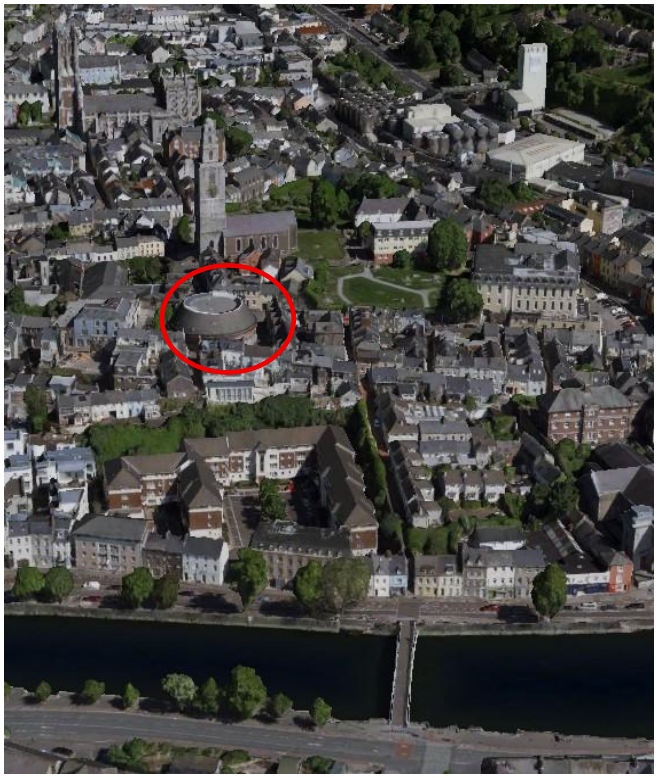


Plate 1 Location of the Firkin Crane on Shandon hill overlooking Cork city to the south (source: Bing maps).

Cartographic and Historic Overview

By Peter Foynes and Colin Rynne, Historic Survey Building Unit, Department of Archaeology, UCC

3.1.1 The Topography of Shandon and early history of the area

The origins of the later medieval suburb of Shandon Castle are relatively obscure. Commanding the northern approaches to the walled medieval city of Cork, it appears to have been sparsely populated into the early seventeenth century based on early modern maps. Philip de Barry is listed as the Anglo-Norman lord of Shandon in 1183, but it is not referred to as a borough until the 1220s.

Cork's northern and southern medieval suburbs were burned during disturbances in both 1374–5 and the early 1380s and were effectively abandoned as settlements in the early 15th century. Not until the late 16th century, during the reign of Elizabeth I, did any attempts at rebuilding the Shandon area occur.

Within two decades of the short-lived siege of Cork of 1690, the Shandon area was already developing into an important suburb. Two new public buildings, the Green Coat School (1716) and Skiddy's Lamphouses (1719) were completed before 1720. Two Protestant churches were to follow; the present St Anne's was completed in 1722 as a "chapel of ease" to the former St Mary's Shandon on Mallow Lane (latter-day Shandon Street) and was financed by subscription.

The original St Mary's church occupied the site of the present St Anne's, but was severely damaged in the siege of Cork in 1690. This church overlooked Shandon Castle, immediately to the south of it, which became a key artillery station for Marlborough's besieging army in 1690. The northern suburbs around Shandon were burnt in September 1690, by the Jacobite defenders of Cork, while Shandon Castle was abandoned early on to the Duke of Marlborough's army. In the aftermath of the siege, it was deemed inadvisable for the successor church to be built at a location that compromised the security of the castle. In consequence, the successor to St Mary's was built on a small eminence overlooking the North Gate Bridge on the former Mallow Lane, where it continued in use until it was demolished in 1879.

The earliest maps of Cork and recent research on the title deeds of the Firkin Crane all clearly indicate that this building occupies the site of the former Shandon Castle. The earliest reference to a castle on or near this site dates to 1531, although later sources indicate that this was in ruins by 1581. However, as depicted on two of the earliest and accurate scale maps of the city, Shandon Castle is shown as a Z-plan fortification.

On present evidence, the distinctive Z-plan arrangement of Shandon Castle, as shown in these maps, are the earliest depictions of this type of castle in Ireland. There can be little doubt that this design was directly influenced by the Munster plantations. Similar castles, such as Burt Castle, County Donegal (c. 1580), were based on Scottish Z-plan fortifications. However, these are rare outside Ulster, where Scottish influences are manifest in elite buildings throughout the seventeenth century.

Thus, while Shandon Castle in late sixteenth or early seventeenth century was clearly not of this type, the design was likely based on existing castles in south-west England. Indeed, in the period 1601–2, when the castle was depicted on the Hardiman maps, the building itself was closely associated with the presidency of the Munster Plantation. Correspondence signed at Shandon Castle survives from Thomas Norris (1556–99), Lord President of Munster, Sir George Carew (from 1601–2) and even from Arthur Chichester (1561–1625), the Lord Deputy of Ireland.

Apart from strategic considerations, the siting of the castle in the northern, lightly populated suburb of Shandon, may also have been a consequence of the Old English population of the walled town's reluctance to sell property to planters. As late as 1640, nearly all the buildings in the city or the suburbs were still in Old English hands. Notwithstanding its construction on the lands of the de Barrys, Old English gentry, its erection marks a significant departure from later medieval tower houses. Its design owes nothing to pre-existing castle forms in Ireland and is very likely to have been built from scratch on the site of the earlier castle.

During the Confederate wars of 1641–52, a contemporary account reported that the city of Cork was invested with two forts, Elizabeth Fort (a star-shaped fort outside the city walls at the south) and Barryscourt (Shandon Castle) in the northern suburbs, each believed to be important elements of the city's defences. An "*old ivey castle*," 15 x 15 ft, is also mentioned to the south of Shandon Castle, in the Civil Survey of 1654–56.

On 25th September 1690, Williamite forces under the command of the Duke of Württemberg took possession of Shandon Castle, which had been abandoned by the Jacobite defenders. The castle was described as a large round tower with 16 artillery pieces and a good entrenchment (enclosing ditch). The officer in command of the castle, Col. Munchgaar, described what he found as follows:

"The enemy had abandoned a redoubt which stood upon a hill so near the town that we could shoot with muskets into the street ... Outside it stood a large tower where he had mounted guns, there was also a ravelin with a good communication trench, and there were batteries for guns made in the ravelin. It was so well provisioned that it could have held us up for a long time."

The ravelin[1] described here is clearly shown on Romer's map of c. 1690. Local tradition asserts that stone from the castle was used in the construction of the present St Anne's Shandon, but there is little evidence to corroborate this.

The castle may have been damaged in the siege of Cork in 1690, but it is clear from a 1693 indenture from the Lord Lieutenant, Henry Sidney, that it was still seen as a viable fortification. This indenture grants the land to the parish of St Mary to build a new church further down Shandon Street, the existing church having been "defaced, razed and demolished by the Irish":

"And whereas, the place where the former parish church stood lyeth so near and contiguous to the castle called Shandon, and toucheth so on the fortifications near the same, that they on building the church on the ground where it formerly stood may be a prejudice to Her Majesty's said castle and fortifications."

However, it appears the castle was allowed to fall into disuse. It might be suggested that the later church tower, with seven-foot-thick walls, overlooking the city, surmounted by a viewing platform, was intended to fulfil the same function as the castle.

In December 1770 Richard, Earl of Barrymore sold "a plot of ground called Shandon Castle" to Samuel Jervois from Brade, County Cork. In 1782 Jervois sold on to Garrett Barry Parker, a gentleman of Blackpool in the City of Cork. It is this lease to which the auctioneers refer in the sale of 1903. In 1783 Barry Parker assigns some part of the site to a Patrick Goold, merchant, of the North Abbey, Cork. An 1805 memorial also records the assignment of the site, or part thereof, from James Barry, Mallow Lane, a butter merchant.

Historical Overview of the Firkin Crane

The Firkin Crane building was constructed in 1855 as part of the Butter Exchange complex. It was designed by Sir John Benson, Cork's City Engineer, who was also responsible for the design of the English Market, the Cork Opera House and significantly the Great Industrial Exhibition in Dublin in 1853 for which he was later knighted. The building was originally used as a weighing house for firkins of butter, one of Cork city's leading industries and which was exported in vast quantities from Cork to

[1] A ravelin is a triangular or V-shaped fortification structure located outside the main walls of a fortress or castle, often serving as a defensive barrier or outpost. It is typically positioned in front of the inner works of a fortress, such as the curtain walls and bastions, and was a common feature in Renaissance and later military architecture. The ravelin helps to protect the main fortifications by absorbing and deflecting attacks.

Britain and beyond. The rotunda form allowed for efficient circulation and weighing of goods, with a central column serving both structural and drainage functions.

The butter trade was central to Cork's economy in the 18th and 19th centuries, and the Firkin Crane played a key role in this industry. The building remained in use for butter-related activities until the early 20th century, after which it fell into disuse. In the 1980s, following extensive fire which destroyed the innovative and distinctive roof, the building was repurposed internally as a dance and performance venue. It now serves as a cultural hub for Cork City, hosting performances, rehearsals, and community events.

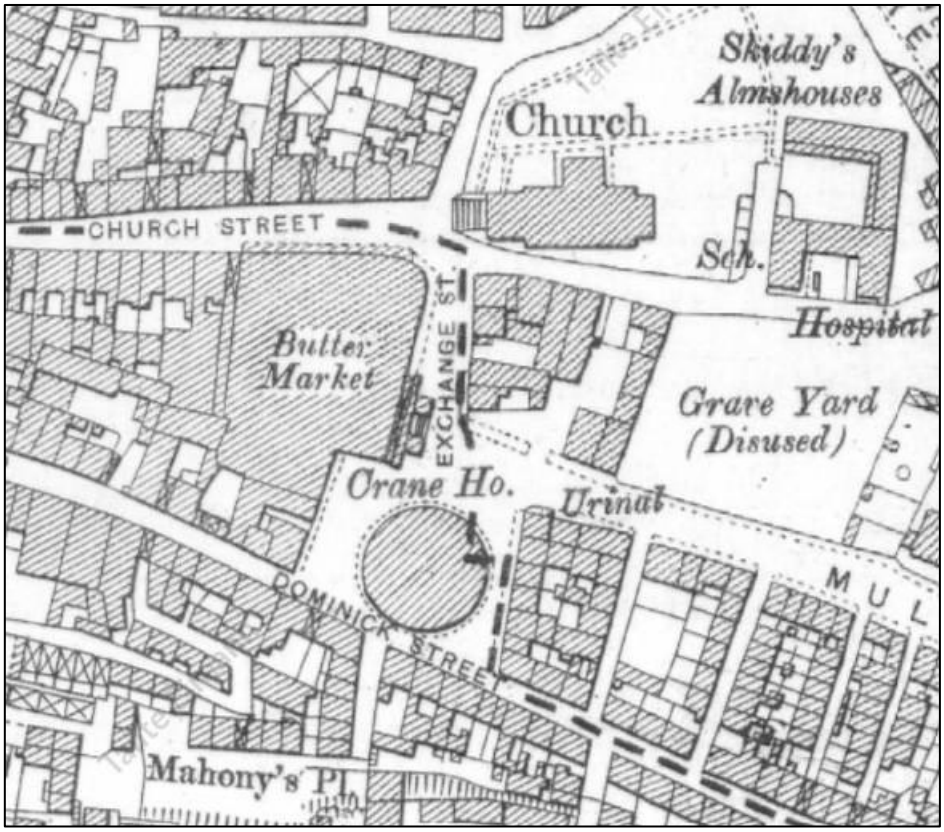


Figure 1 25-inch OS map surveyed 1899 showing the collection of the Firkin Crane (Crane House) and the Butter Market.

3.1.2 Meaning of the name Firkin Crane - What is a Firkin? and was there a Crane?

Benson designed the structure to be circular as an efficient way of dealing with traffic of those coming to sell butter, remember on average over 400,000 firkins (barrels) of butter passed through the market each year[2]. Cork had the largest butter market in the world at the time. The circular building served as a weighing and storage area for firkins before or after sale.

[2] https://thebuttermuseum.com/about-us/the-butter-exchange/

The name literally refers to what happened there: firkins (barrels) being weighed on a crane.

Step-by-Step: The Process of Selling Butter at the Firkin Crane

1. Arrival and Packaging – this took place at the Firkin Crane building

Its name comes from the practice of weighing butter casks—firkins (≈9 gallons / ~80 lb)—on a balance or "crane." Butter arriving from across Munster was weighed, inspected, graded, and branded here before being carted to the quays for export. Farmers and dairy producers sent their butter into Cork from all over Munster (Counties Cork, Kerry, Limerick, and Tipperary). Inside, the building functioned as a kind of weighing house and storage facility, where firkins could be hoisted, checked, and prepared for export. These firkins were made of seasoned oak or ash and lined with salt or brine to preserve the butter for long export journeys.

2. Inspection and Grading

The butter was inspected and graded by official butter examiners, whose job was to taste, smell, and test the texture and salt content. This inspection system was remarkably strict — it was central to Cork butter's international reputation for quality. The graders used tools like a "butter trier", a long metal scoop, to extract a sample from the centre of the firkin without opening it completely. Butter was classified into categories such as: Firsts (best quality), Seconds and Thirds (lower quality)

"The examiners may be seen moving among the casks with their iron triers, taking samples of butter and placing them to the tongue with grave attention. Their judgment is law, for upon their word depends on the value of the whole firkin."[3]

3**. Salting and Repacking (if needed)**

If the butter was too soft, too salty, or of mixed quality, merchants might rework or re-salt it before sale. Some firms employed women known as "butter workers" to mix and repack firkins to improve uniformity.

4. Auction or Private Sale

Once graded, butter was sold through brokers or auctioneers at the Butter Market (which included the Firkin Crane building). Buyers included export merchants who shipped butter abroad, and local traders who supplied the domestic market. Butter merchants and exporters, many of them Quaker families (such as the Pike, Newsom, and Penrose families), dominated the

[3] Cork Examiner 1841

trade. These merchants often bought butter in bulk for shipment to London, Bristol, Lisbon, and the West Indies. Prices were recorded daily, and the Cork Butter Market prices were published internationally, influencing markets in London and Liverpool.

"The scene resembles a stock exchange rather than a dairy market. Brokers shout their bids across the hall; samples of butter are passed from hand to hand, and clerks with ledgers scrawl down prices as fast as the figures can be called."

5. Branding and Marking

Firkins bore marks identifying the producer, quality grade, and inspection seal — essential for maintaining traceability and trust. This system of certification was an early form of quality assurance branding.

6. Export and Shipping

From the market, firkins were transported by cart to Cork's quays, where they were loaded onto ships. Exports mainly went to Britain, continental Europe, and the West Indies, especially to feed navies and urban populations.

Architectural Overview

The Firkin Crane is Cork city's only rotunda-form building. The Firkin Crane stands as a rare survivor of mid-19th-century industrial archaeology in Shandon's Butter Exchange precinct. Designed by Sir John Benson specifically as a butter exchange, it was opened in 1855, its circular rotunda originally housed a mechanised crane that weighed nine-gallon firkin casks of butter (barrels) for international export via Cork's deep-water harbour. A devastating fire in 1980 destroyed the original cast-iron columns and radial timber trusses, leaving the rotunda's shell intact but stripped of its industrial heart.

It has a circular plan and a radial roof. Despite its industrial function, the exterior is rendered with classical detailing, including blind arcading and platbands, the inclusion of such Classical decorative features signifies its importance in terms of the contemporary society. The original roof structure, destroyed in the 1980 fire, was a sophisticated and innovative system of cast-iron and laminated timber, supported by a central column that also served as a rainwater downpipe. A detailed reconstruction of this original geometry is provided in Section 0**.**

The current roof structure, installed in 1985, is a steel frame that replicates the original geometry but lacks its material authenticity. The building however does retain its spatial character and external form, and there is potential for interpretive reconstruction of the original roof through digital media or partial physical reinstatement, as illustrated in the accompanying drawings in Section 0.

Internally, the building has been adapted for performance use, with a sprung dance floor, lighting rigs, and acoustic treatments. These interventions have been sensitively integrated to preserve the building's character while meeting contemporary functional requirements.

History Timeline

- **1531** – Earliest reference to a castle on the site
- **1581** – Shandon Castle in ruins
- **1601–2** – Shandon Castle associated with Munster Plantation
- **1690** – Siege of Cork; Shandon Castle abandoned and damaged
- **1770** – Site sold by Earl of Barrymore
- **1855** – Firkin Crane constructed by Sir John Benson
- **1980** – Fire destroys original roof structure
- **1985** – Building restored and repurposed as dance venue
- **2025** – Conservation Management Plan commissioned AND PHASE 1 ROOF REPAIRS COMPLETED

Description of the Building

The Firkin Crane is Cork city's only round building. It is part of a collection of buildings specifically built to cater for the eighteenth century and nineteenth century butter trade. It is a detached multiple-bay two-storey former butter market building, built 1855, now in use as theatre. Following a period of dereliction and then a fire in the 1980s the building was renovated and remodelled c. 1985. The original circular roof with hollow centre which drained into a central drainpipe had overhanging eaves. This roof was lost in the fire and was replaced with a similar natural slate roof on a steel carcass with rooflights and balustraded parapet. The new roof was set back from the original eaves on a balustraded parapet, and the central hollow roof structure was replaced with a flat roof. The exterior walls are now cement rendered with cement platbands and plinths. Blind arcades to ground floor in-fill what would originally have been open arches into the weighing house. The now blind arcades consist of rendered pilasters with moulded archivolts and render keystones above. Modern multi-paned round arched lunette windows have been set into the upper sections of the arches. The circular limestone paving survives, and timber doors allow access to the front entrance and to the stage at the rear. The entrance is approached via modern steps and a ramp. The interior is entirely modern and consists of a foyer, offices, studio, theatre space and dressing rooms.

Current Social Environment and Context

The Firkin Crane is located in the Shandon area, a historically working-class neighbourhood with strong community ties. The building's transformation into a cultural venue has contributed to the regeneration of the area, providing a space for artistic expression and community engagement. It is used by a wide range of groups, including professional dance companies, amateur performers, artists and local residents.

The building's unique form and location make it a landmark within the city, and its continued use as a cultural venue ensures that it remains relevant and accessible. The Firkin Crane is part of a broader network of heritage and cultural sites in Cork, and its management team works closely with local authorities and community organisations to ensure its sustainability.

4 LEGAL CONTEXT AND ASSOCIATED CONSTRAINTS

The Firkin Crane is a Protected Structure under the Cork City Development Plan 2022–2028 (Record No. PS 963). As such, it is subject to the provisions of Part 10 of the Planning and Development Act 2024 which governs the protection of architectural heritage in Ireland.

Any works that materially affect the character of the structure require planning permission or a Section 57 Declaration from the local authority. This includes alterations, extensions, and certain types of repairs. The building is also located within the Shandon Architectural Conservation Area (ACA), which imposes additional constraints on development and change in the surrounding public realm.

The site overlays the historic footprint of Shandon Castle, (SMR Ref CO10680) which may be considered an archaeological monument under the National Monuments Acts 1930–2014. In addition, the site lies within the Zone of Notification OF the historic town of Cork City (SMR Ref CO074-034001). Therefore, any ground disturbance or subsurface works may require consultation with the National Monuments Service and potentially a Ministerial Consent under Section 14 of the Act.

Due to its significance and presence on the RPS, the building is eligible for funding under the Historic Structures Fund (HSF), Built Heritage Investment Scheme (BHIS), the Heritage Community Fund, Cork City Architectural Conservation Area Grant and Creative Ireland Capital Grants. All conservation works must comply with the Department of Housing, Local Government and Heritage's Architectural Heritage Protection Guidelines (2011) and the ICOMOS Charter for the Conservation of Places of Cultural Significance (Burra Charter).

The Firkin Crane is also subject to health and safety legislation, including the Safety, Health and Welfare at Work (Construction) Regulations 2013. Any capital works must appoint a Project Supervisor for the Design Process (PSDP) and ensure compliance with statutory duties.

5 STATEMENT OF SIGNIFICANCE

Basis of Assessment

Places of cultural significance have been described as those which “enrich people’s lives, often providing a deep and inspirational sense of connection to the community and landscape, to the past and lived experiences” (ICOMOS Charter 2013, 1). The cultural significance of the Firkin Crane is multi-layered and encompasses all of the values set out in the Burra Charter – aesthetic, historic, scientific, social and spiritual (ICOMOS 2013, Article 1.2).

Assessing the significance of a place for a Conservation Management Plan (CMP) involves identifying and evaluating the aesthetic, historical, spiritual, scientific and educational, social/economic values that make the place important. This process typically begins with thorough research into the site's history, physical fabric, and associations with people or events. Field surveys, documentary evidence, and stakeholder consultations help build a comprehensive understanding of the place’s character and meaning. The assessment then considers how these values contribute to the overall heritage significance, these are rated in terms of local, regional, national, or international importance. The resulting statement of significance becomes the foundation for all conservation policies and management strategies, ensuring that decisions about change, use, or interpretation respect and retain what is most important about the place. The criteria for assessing degrees of significance include rarity, quality, integrity, cultural/historical associations and the ability to demonstrate important social or cultural phenomena.

The Firkin Crane embodies architectural, historical, archaeological, cultural, social, and technical values as outlined below here:

Architectural Significance

The Firkin Crane is a building of exceptional regional and national architectural significance, originally constructed in 1855 by Sir John Benson as part of Cork's Butter Exchange complex, its Cork City’s only example of rotunda-form industrial architecture and a keystone of Shandon's civic and commercial heritage.

Designed by Sir John Benson and completed in 1855, the original interior of the Firkin Crane was a masterwork of Victorian industrial engineering, brilliantly reconciling the practical demands of the butter trade with awe-inspiring architectural space. It was accurately described as a "cathedral of butter" for achieving a breathtakingly open and luminous volume through a single, ingeniously integrated structural core.

The Firkin Crane's circular plan, blind arcading, and rendered classical detailing reflect Benson's civic design language. Despite the loss of its original roof in the 1980 fire, the building retains its external form and spatial character, offering opportunities for scholarly restoration and interpretive enhancement.

Following a period of dereliction the interior was lost in a fire in the 1980s. The building as we see it today was subject to renovation by CCC architecture department.

5.1.1 Technical Observations

The Central Structural Spine

At the heart of the building was a sophisticated central assembly that functioned as both structural spine and utility core:

The Central Column: A single, hollow cast-iron column, 24 inches in diameter, rose from the trading floor. Its presence was a recorded feature of the original design, strategically placed to minimize obstruction.

The Radial Hub: From the top of this column, eight radial, cantilevered arms of cast or wrought iron projected outwards. These arms supported a large, laminated timber ring beam, forming a rigid hub approximately 10 feet in diameter.

Integrated Drainage: This hub was capped with a lead-covered, gently sloping flat roof. This entire surface, along with water collected from the surrounding roof lights, acted as a funnel, channelling rainwater directly into the open top of the hollow central column, which served as the primary downpipe.

The Sophisticated Roof and Ventilation System

The roof was a complex, multi-layered system that provided structure, light, and crucial ventilation:

Radial Truss System: From the central timber ring, approximately forty primary radial timber trusses spanned up to 45 feet to the external walls. Critically, these trusses were designed with a horizontal top chord.

The Ventilated Roof: Above this horizontal chord, a separate, shallow-pitched roof was constructed. This created a continuous concealed air space across the entire ceiling of the building. This design allowed warm, humid air from the warehouse below to rise, flow laterally within the roof space, and

be exhausted through vents, providing passive climate control essential for preserving goods in a pre-refrigeration era.

Flood of Natural Light: The structure was illuminated by eight individual roof lights set into this shallow-pitched roof around the central hub. These lanterns bathed the intricate web of timber trusses in daylight, creating a dramatic interplay of light and shadow.

The Spatial Experience

The genius of the design lay in its holistic effect. The solitary, multi-functional central core allowed for an otherwise completely open floor plan. The soaring height, defined by the forty radial trusses, the cleverly ventilated roof that ensured a preservative atmosphere, and the flood of light from above combined to create a sense of grandeur that was both functional and sublime.

The building lost in the 1980 fire was therefore Benson's original 1855 structure—a pinnacle of industrial design where structure, function, climate control, and light were unified into a single, monumental expression of Cork's prosperity.

5.1.2 Sir John Benson: Cork's Visionary Engineer-Architect

Sir John Benson stands as a seminal figure in 19th-century Ireland, whose significance stems from his original architectural vision and a powerful synthesis of engineering and art. His career was defined by an ability to "think anew," a quality decisively demonstrated by his design for the Great Dublin Exhibition of 1853. While others might have followed the model of Paxton's Crystal Palace, Benson identified a fundamental flaw for the Irish context: the risk of solar exposure and overheating from a vast glass envelope.

His genius was to centre the design impeccably on this core challenge of the brief. He engineered a unique structural form that controlled light and temperature, moving beyond mere imitation to create a building that was both aesthetically coherent and environmentally responsive. This practical yet ingenious solution earned him a knighthood and established his holistic philosophy, where art, science, and technology met not as separate disciplines, but as a unified response to a problem.

This same problem-solving ethos defined his transformative impact on his native Cork. In the Butter Market, his pioneering use of laminated timber arches and wrought iron again showcased this combined ingenuity, adapting railway technology to create a space that was structurally bold,

economically vital, and perfectly suited to its function.

Ultimately, Sir John Benson's significance lies in his role as a pragmatic visionary. He consistently moved beyond fashion to address the fundamental challenges of a brief, leaving a legacy where civic architecture was not just built, but intelligently and elegantly solved. As Cork City Architect in the mid-19th century, Sir John Benson (1812–1865) was uniquely positioned to shape the city's civic identity. His official role, however, belied a deeper genius: he was a masterful synthesist of engineering and architectural design. In landmark projects like the Firkin Crane and the Butter Market, Benson used his engineering expertise not just to build, but to define a new aesthetic for the city—one where structural logic gave rise to powerful architectural form.

While the original, magnificent timber and iron roof of the Firkin Crane was lost to fire, understanding its significance is now an act of historical interpretation—a process that reveals how Benson's official role and personal skill converged to create something extraordinary.

His engineering-driven approach, exercised from his position of civic authority, was expressed through several key principles:

Engineering the Unobstructed Civic Space

As City Architect, Benson was tasked with creating functional civic buildings. The core requirement for the Firkin Crane and Butter Market was a vast, column-free interior for public commerce.

· Engineering Solution: Benson designed sophisticated timber trussed roofs with central drainage column

· Architectural Influence: This engineering decision large volumes that defined these buildings. The grandeur was a direct result of the structural system a testament to his vision for civic spaces that were both utilitarian and inspiring.

Interpretive Significance of the Firkin Crane Roof:

Although the original is gone, careful examination of the photos shows 32 radial trusses on a corbelled iron support supported on a 24 in column which also acted as a rainwater discharge pipe. This form rather like a cartwheel demonstrates Bensons ability to adapt to the specific design brief from first principles using a knowledge of the structural properties of materials.

An Honest Aesthetic for a Public Works

Benson's engineering background fostered a philosophy where beauty emerged from logical elegance, not applied decoration—an ideal for pragmatic and proud civic architecture. This can be seen in the Surviving Butter Market which shows robust, repetitive trusses defining the rhythm and scale of the space, creating a sense of ordered, industrial grandeur fit for a public market. This philosophy was also evident in the Lost Firkin Crane where the entire interior was a breathtaking display of this principle which created a vast open internal space. It must be borne in mind that in the pre-steel and concrete era. creating large open internal volumes that we are used to today and is enabled by steel was not commonplace due the constraints of available building materials and was therefore noteworthy. Its form followed its public function, and its structure was its decoration.

A Legacy Forged by Role and Genius

Sir John Benson's legacy is twofold. As Cork City Architect, he had the official capacity to implement his vision across the city. As an engineer-architect, he possessed the unique skill to make that vision both structurally daring and aesthetically profound. The lost roof of the Firkin Crane stands as a powerful symbol of his contribution: an engineered form so elegant that it became the very soul of the architecture, a legacy we must now work to interpret and fully appreciate.

Historical Significance

The building was central to Cork's 19th-century international butter trade, which exported over 500,000 firkin casks annually to Britain, Europe, and the Americas. It functioned as a weighing station and civic hub, contributing to Cork's reputation as the global capital of butter export. The butter industry influenced the road network in Cork and nearby counties with dedicated "butter roads" being built throughout the county of Cork and beyond. "Butter Roads" are found throughout Cork and Kerry with the first purpose built "Butter Road" being opened in in 1748 in Castleisland, 95km away in Co. Kerry. Another is located between Schull and Ballydehob. The nexus of these roads was the Firkin Crane building.

In its heyday, Benson's Butter Market, Weighmasters House, Butter Museum and the Firkin Crane processed up to 500,000 casks of butter annually—one third of Ireland's exports, valued at £1.5 million in 1892. Their unified stone façades, cast-iron detailing and courtyard arrangement testified to Cork's dominance in the global dairy trade. Over time, fragmented infill materials and divergent colour palettes have diminished this ensemble's coherence. By harmonising replacement panels, restoring

traditional detailing and introducing interpretive signage—including a dedicated panel on the lost columns and trusses—this plan reaffirms the Firkin Crane as an individual landmark and the keystone of a unified Butter Exchange Quarter.

Plate 2 The Butter Market, adjacent to the Firkin Crane, in the nineteenth century (London Illustrated News)

Archaeological Significance

The Firkin Crane overlays the site of Shandon Castle, a Z-plan fortification depicted in 17th-century maps and associated with the Munster Plantation and the 1690 Siege of Cork. The site also hosted a Dominican chapel and convent from 1784 to 1840, adding layers of ecclesiastical and colonial history.

By the 18th and 19th centuries, Cork was one of the largest butter-exporting ports in Europe. The Cork Butter Exchange, centred around the Firkin Crane building (completed in 1855), regulated, inspected, and sold butter that came from across Munster and other parts of Ireland. Butter was not just a local commodity — it was shipped to Britain, Europe, North America, and the Caribbean. The trade was so large that the "Cork Butter Market" set international price standards for Irish butter. The Industrial archaeology of Corks butter trade is therefore nationally significant.

Cultural and Social Significance

Today, the Firkin Crane serves as a dance and performance venue, home to Cork City Ballet and Crux Dance Theatre. It is a recognised cultural anchor in the Shandon Integrated Urban Strategy (SIUS), supporting inclusive programming and community engagement. The building is actively used by

diverse community groups and artists. Its transformation into a day-to-night venue reflects Shandon's evolving demographics and the city's commitment to heritage-led regeneration.

Technical Significance

The Firkin Crane is of exceptional technical significance as a rare example of mid-19th-century civic-industrial engineering, where structural ingenuity, environmental control, and architectural clarity were unified in a single, purpose-built rotunda.

Structural Innovation

- **Central Cast-Iron Column:** At the heart of the rotunda stood a single, hollow cast-iron column, 24 inches in diameter, which served simultaneously as the primary structural spine and the main rainwater downpipe.
- **Radial Cantilever System:** From the top of the central column, eight cast-iron cantilever arms projected outward to support a laminated timber ring beam which in turn supports 32 radial trusses.

Environmental Engineering

- **Integrated Drainage:** The central column collected rainwater from the flat roof above the ring beam and from surrounding rooflights, funnelling it downward through its hollow core.
- **Passive Ventilation:** The roof structure incorporated a concealed ventilated cavity above the horizontal truss chords, allowing warm, humid air to rise and escape laterally.

Threats to Significance

1. **Fabric Deterioration:** The 1985 roof membrane has exceeded its design life, caused leaks and compromised internal finishes. This is being addressed in phase 1 in 2025.
2. **Thermal and Environmental Deficiency:** The building lacks adequate insulation and ventilation.
3. **Loss of Original Roof Structure:** The 1980 fire destroyed key elements of Benson's original engineering vision.
4. **Public Realm Fragmentation:** Inconsistent paving, obscuring vegetation, and inadequate bin management diminish the building's visibility.
5. **Interpretive Gaps:** Absence of interpretive signage limits understanding of the building's industrial and architectural importance and uniqueness to the area.

6 CONDITION OF THE BUILDING AND ISSUES TO BE ADDRESSED

Note: most of the fabric dates from 1980's.

The Firkin Crane building is in active use and generally in good condition, but several issues require attention to ensure its long-term preservation and usability. These issues have been identified through visual inspection and consultation with the management team.

Roof structure

- The roof membrane installed in 1985 has exceeded its design life and is showing signs of failure and is to be replaced in 2025
- Water ingress has been observed in multiple locations, particularly around the circular roof and rooflight interfaces.
- The roof structure is stable
- Perimeter gutter lining requires repair, and external flashings are substandard
- Rainwater goods are partially blocked or misaligned, contributing to dampness in external walls.

6.1.1 External Fabric Flat Roof Finishes Proposed Works (2025)

The flat roof currently comprises a steel deck with PIR insulation and an asphalt roof finish. This system has exceeded its design life. In 2025, it is proposed to install additional PIR insulation and overlay it with a high-performance PVC roof covering, backed by a 20-year collateral warranty.

As part of these works:

• Access arrangements to the roof will be improved.

• Redundant service penetrations—breaches in the roof fabric for services that were never used—will be removed.

• Only essential new penetrations for ventilation will be included.

• Four new roof lights will be installed, including one over the chandelier room.

• The new roof build-up will extend to ridge level.

• The ridge will be replaced as described in Section 1.2.

The works will comply with Building regulation standard energy efficiency and drawings are shown in Appendix.

6.1.2 Ridge

The existing Code 5 lead ridge will be replaced on a like-for-like basis during Phase I works in 2025.

6.1.3 Slating

The existing slating is in good condition and requires no remedial work in the foreseeable future. Annual inspections should be carried out to ensure that no slates have been displaced during storm events.

Parapet, Balustrade, and Rainwater Goods

- The building is surrounded by a balustrade with a concrete parapet, string course, and top rail. These elements were reconstructed in the 1980s and are not part of the original historic fabric.

- Despite their later construction, they are now deteriorating and will benefit from a DOFF high-temperature steam cleaning operation during Phase II works.

- The torch-on valley gutter requires repair in certain locations, and all downpipes should be checked for functionality and integrity.

- The flashing to the cornice around the edge of the building currently terminates approximately 5 mm short of the outer face. This has led to staining and water ingress into the concrete, which may accelerate deterioration. It is recommended that this detail be rectified as shown in the accompanying drawings in Appendix

External Envelope

- Rendered surfaces show signs of minor cracking but these are in reasonable condition
- Blind arcading and plat bands require cleaning and minor repair.
- Vegetation is encroaching on the building's base, particularly on the southern elevation. Cleaning with Doff high temperature steam is recommended
- External lighting and signage are outdated and do not reflect the building's significance.

6.1.4 Render

- The building was re-rendered in the 1970s, including the decorative mouldings around the 32 arches, some of which are blind.

- In certain areas, micro-cracking is evident and should be repaired using a proprietary product such as Mason’s Mortar, applied with slurry pointing techniques.

- Once these repairs are completed, no further works are anticipated to the render.

- Vegetation growth is present at the base of the wall, caused by splashback from the public realm. This should be removed using a hot water DOFF cleaning system, carried out by qualified masons.

It is not considered necessary to replace the cement-based render which appears to be performing adequately.

Windows

The 32 arched windows all require reglazing with slim line double glazing and should be redecorated with a durable oil abased paint system

Internal Fabric

6.1.5 Internal Spaces

- Internal finishes are generally sound but show wear in high-traffic areas.
- Acoustic treatments are non-functional causing operational problems.
- The sprung dance floor is in good condition but requires cyclical maintenance
- On the ground floor the layout is operationally awkward
- Storage and backstage areas are cramped and poorly ventilated.
- Poor accessibility to areas and disabled toilet in bad location
- Lack of practicality to layout
- No gallery space
- Dangerous to adjust stage lighting on 1st floor
- Limitations regarding lighting in ground floor
- Too many steps in ground floor area
- Toilet and kitchen facilities outdated
- Lack of daylight in some rooms

6.1.6 Structure and Partitions

The basic structure of the Firkin Crane includes original eternal walls and internally painted blockwork partitions all in a reasonable state of repair. Some areas have been plastered e.g. the mural wall in the Biard room.

Floors and Staircase

These are carried out in concrete and date from the 1980's and are robust and in good condition. There is a sprung suspended floor over in the Smurfit theatre on the first floor. Staircases are concrete and in good condition. Guarding of Staircases

The guarding on the secondary stairs requires upgrading since is not building regulation compliant and there is a risk of a small child falling. Floor Finishes

These are in reasonable condition and are a mixture of one-piece vinyl in reception and functional carpet elsewhere maintenance is required to carpeted steps to the lower ground floor and other remedials are advised a low-quality painted floor is evident in some areas to be upgraded. Tiling in bathrooms and changing area although dated is functional 2.5 Partitions and Sound

Certain partitions on the 1st floor are carried to roof level but have not been fire stopped and sound proofed. This is expensive work and needs to be carefully planned.

Doors – Fire Safety and Sound

Not all doors are correctly fireproofed with smoke strips. These also are required for sound reduction purposes. In particular, office and board room doors need to be addressed and many other doors on escape routes apart from bathrooms require upgrading. Toilets and Kitchen

These are of basic standard only and require upgrading to modern standards Electrical Services

This is a 3-phase system which will be fully tested in the next few weeks. Problems are not foreseen. Fire Detector and Alarm System

A wireless system has recently been installed and commissioned. Emergency Lighting

This appears 90% functional and requires some maintenance.

Security and CCTV

Adequate provision is made

Fixtures and Fittings

Improvements for storage are required and kitchen units and shelving provided throughout the building

Fire escape routes and other fire matters

The escape routes are regularly blocked, and better storage is required for things blocking the escape routes. The building is complicated and requires a fire defence plan. Fire extinguishers are provided but some are not suitable for electrical fires and should be replaced immediately.

Environmental Performance

- The building lacks insulation in roof and walls and retrofit proposals need to be designed to avoid cold bridging

- Ventilation is inadequate, leading to condensation and discomfort.
- Heating systems are inefficient and costly to operate.
- There is no integrated Building Management System (BMS) or environmental monitoring.
- Electrical system installed in the 1980's requires upgrade

Accessibility and Safety

- Step-free access is available via ramp, but internal circulation is limited.
- Signage is inconsistent and lacks sensory accessibility features.
- Emergency lighting and fire detection systems require upgrade.

7 SITE ANALYSIS AND QUESTIONAIRRE SURVEY

The Firkin Crane occupies a prominent elevated site in the Shandon area of Cork City, bounded by John Redmond Street, O'Connell Square, Francis Street, and Dominick Street. The building is set within a fragmented public realm, with inconsistent paving, vegetation overgrowth, and limited interpretive infrastructure. Despite its architectural significance and civic history, the site lacks coherent integration with surrounding urban fabric.

The Butter Exchange Quarter: Ensemble and Opportunity

The Firkin Crane exists within a remarkable ensemble of mid-nineteenth century butter exchange buildings designed by Sir John Benson. However, this collective significance is under-realized due to:

- Material fragmentation, i.e. different surface finishes to each of the buildings of the collection (stone infill vs. plaster treatments across the buildings) as their uses became separated over time
- Divergent colour palettes and architectural treatments
- Lack of coordinated wayfinding and interpretive signage
- Underutilized public realm between the buildings

Opportunity: The Firkin Crane can serve as the catalyst for creating a unified “Butter Exchange Quarter”, reinforcing both individual building significance and collective heritage value through coordinated conservation, materials palette, and public realm design.

Public Realm and Activation Potential

The building's relationship with its public realm presents significant opportunities for activation:

- Blind arches on the exterior offer potential for adaptive reuse as secure storage for event furniture, enabling plaza activation
- Obscuring trees and inconsistent street furniture diminish civic presence; consideration should be given to adjusting the entrance to embrace the plaza more clearly
- Opportunity exists to create a vibrant public plaza for markets, performances, and community gathering
- Current bin placement and paving materials are inconsistent with heritage setting; consideration should be given to a refuse collection pilot scheme based on minimal visual disturbance as seen in historic cities across Europe

Alignment with Shandon Integrated Urbas Strategy (SIUS): This activation directly supports SIUS Actions LC12 (pocket-space network) and CA6 (extend indoor/outdoor art spaces).

Topography and Access challenges

- The building sits atop a hill on the north side of the city, offering panoramic views of the city.
- Pedestrian access is via stepped and ramped approaches from John Redmond Street.
- Service access is available to the rear, but circulation is constrained by narrow lanes and informal parking.
- Current entrance arrangement of steps and ramp with vegetation hinders flow onto the plaza. Removal of the majority of the railings and the continuation of the steps to meet the walls of the building on the east side would be a great visual improvement. A similar treatment on the west side of the steps resolving onto the ramp would also improve the entrance and interaction with the street.

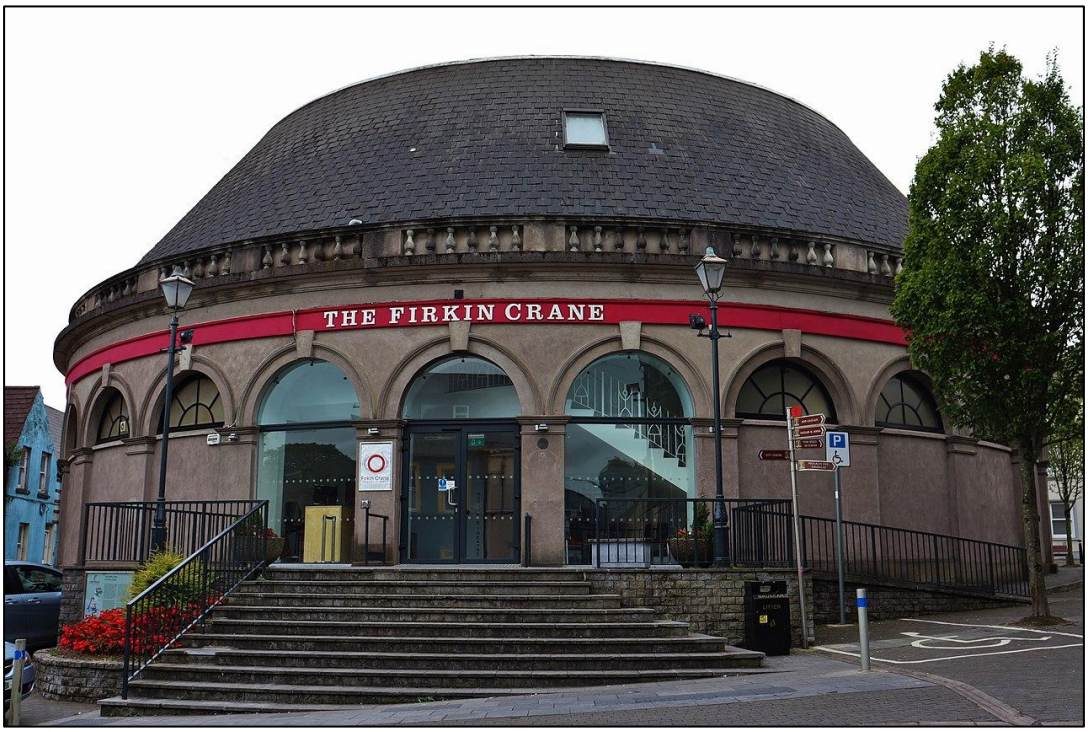


Plate 3 Entrance to the Firkin Crane, the entrance is cluttered by railings and vegetation, small adjustments to the steps could resolve this easily.

Visibility and Wayfinding challenges

- The Firkin Crane is partially obscured by trees and adjacent structures.
- Existing signage is minimal and does not reflect the building's heritage status.
- There is no coordinated wayfinding strategy linking the Firkin Crane to other Shandon heritage assets.

Urban Integration

- The Firkin Crane is included in the Shandon Area Integrated Urban Strategy (SIUS), which identifies it as a cultural anchor.
- The site is adjacent to proposed public realm upgrades and heritage trails.
- However, integration with city-wide cultural programming and tourism infrastructure remains underdeveloped.

Risks and Constraints

- The building's elevated position, historic foundations and sensitive sub-surface archaeology may complicate subsurface works. However, the proposals of this MP do not anticipate significant sub surface works at this stage.
- Archaeological sensitivity due to Shandon Castle footprint requires careful planning as it will impact programme of works.
- Vehicular access is limited, affecting logistics for performances and maintenance.
- The lack of coordinated urban design for the surrounding area limits the building's civic presence and interpretive potential.

7.9 Questionnaire survey - Firkin Crane Stakeholder Feedback Report in Appendix 4

Key Findings & Recommendations:

1. **Critical Building Issues:** The building's poor physical condition is the top concern. The immediate priorities are:
    - Urgent structural repairs to the roof.
    - A complete overhaul of the inadequate heating system to address the extreme cold.
2. **Major Accessibility Problems:** The building has significant accessibility flaws beyond basic compliance. Key recommendations are:
    - Reconfigure the internal layout for step-free access to all key spaces.
    - Relocate the poorly positioned disabled bathroom to a central, accessible location.

3. **Overwhelming Support for a Café:** There is strong, unified support for an on-site café to make the building a public hub. However, its design must carefully manage noise and ensure high visibility from the street.
4. **Heritage and Integration:** Stakeholders want the building's history to be better showcased through permanent displays and to create stronger links with neighbouring sites like the Butter Market. They also desire a more welcoming, car-free exterior with seating and greenery.

In conclusion, the report calls for a **phased approach**, addressing the fundamental structural and accessibility issues first, while strategically developing the café and public realm to realise the vision of a "porous cultural node" for Shandon.

8 RECOMMENDATIONS AND CONSERVATION STRATEGY

The proposed strategy can be broken down into **five** pillars.

Pillar 1: External envelope fabric upgrade

Flat roofs will be replaced with a high-performance insulated roof covering engineered for longevity, invisible waterproofing and ease of future inspection. Inner slopes will be insulated and restructured in timber with a traditional lead roll ridge, reusing original profiles. A full condition survey of the concealed gutter and downpipe network has informed discreet repairs in Phase 2.

The masonry is in reasonable condition externally, but decorative treatment is required to be coordinated with other Benson buildings in the area. Windows require an upgrade for energy performance.

Minor pointing of cracks using '*Masons mortar*', (a proprietary slurry pointing grout) and cleaning with high-temperature steam (Doff system) is recommended.

All interventions and inspections will be recorded in a digital maintenance log to satisfy SIUS Action LC1's proactive upkeep requirements. Specifications should be developed and include a cyclical maintenance schedule.

Pillar 2: Adaptive Reuse & Community Integration

- A space-usage audit was conducted and a management workshop to identify under-utilised areas and times and to reimagine internal space.
- This will aim to encourage flexible scheduling models and staffing arrangements to support daytime cultural classes, youth “third spaces,” and evening performances (SIUS Actions CA2, CA6).
- The client-consultant workshop conducted during the CMP established a more flexible operational framework, allowing evolving community-driven initiatives. In the future partnerships with local artists, schools and migrant-led groups will ensure programming reflects Shandon’s super-diverse demographics.

- A revised layout was developed which served to open up the space for community and visitor use reimagining the ground floor as a welcoming gallery and workshop space with access to a café and interaction with the surrounding public realm. This still allows performance function but within the context of a simplified plan arrangement removing many steps partitions and obstacle to circulation and universal access

Pillar 3: Sustainability & Climate Resilience

- Install high-performance roof insulation beneath the metal deck, alongside daylight-harvesting rooflights to reduce artificial lighting loads.
- Install rooftop-hidden solar PV arrays and an air-to-water heat pump—managed by smart valves and occupancy sensors—to drive energy optimisation in line with SIUS Action LC9. Opportunities for rainwater harvesting to irrigate plaza planting and greywater reuse in restroom fixtures will align with Cork's Living Neighbourhood water-management objectives.
- Commission and fully integrate the renewable energy systems, with the roof structure and finishes designed to support this scheme without negatively impacting the character of the ACA.
- Integrate smart heating controls and occupancy-based monitoring to optimize energy use per person with emphasis on electricity usage for stage lighting as well as heating. The strategy also allows for an adjusted microclimate in perimeter rooms with internal dry lining avoided due to impractical return from cold bridging with concrete stairs and internal partitions.

Pillar 4: Public Realm Activation Heritage as inspiration

Reopen three blind arches as secure storage for event furniture, AV equipment, and bin storage, enabling a new plaza for food markets, art fairs, pop-up theatre, and youth hangouts. This intervention will require planning and approval from heritage authorities but allows for reimagining the Firkin Crane as a facility for sustainable communities.

Urban theorist Jane Jacobs taught that successful plazas function as social condensers, generating chance meetings that build networks of trust and civic oversight. To achieve this, the Firkin Crane forecourt will be encircled by active ground-floor uses—cafés, pop-up galleries, and micro-butter market stalls—ensuring continuous footfall. Human-scale paving zones, loose clusters of lightweight seating, and discreet shelters will invite lingering. Unobstructed sightlines to adjacent streets will create informal "eyes on the square," enhancing safety.

- Relocate or replace benches, lamp standards, and obscuring trees with movable planters.
- Replace wheelie bins with discreet, heritage-appropriate waste points and integrated recycling (SIUS Actions LC12, LC9).
- A purpose-designed storage facility will hide visible bins, preserving an uncluttered ground plane.
- A prominent interpretive panel will recall the lost cast-iron columns, radial timber trusses, and crane mechanism, immersing users in the building's industrial archaeology.
- There are certain constraints regarding the internal layout designed by the City Architects department in the 1980's where consideration to Sir John Benson's rotunda form was not considered as part of the adaptive reuse proposals. Instead, and inflexible masonry and concrete subdivision was proposed. An inspired interior such as the Round House, London could inspire an alternative civic space as discussed later in the CMP.

Plate 4 The Round House, Chalk Farm, London A disused Grade II listed railway structure reimagined as a highly successful performance space. Note: - Benson's designs for the Butter market and the Firkin crane appear to have been influenced by his experience in the UK.

Pillar 5: Visual Cohesion & Wayfinding

- Harmonise infill materials sympathetic to the ACA status of the area and establish a unifying colour palette—drawing on warm greys, muted ochres and Venetian reds from Benson's original stonework—for glazing frames and signage.
- Treat the Firkin Crane, the Butter Market and the Weighmasters house as a coherent collection designed by the same designer for the same industry.

- Coordinate waymarking signage, lighting and street furniture across the four butter buildings to reinforce ensemble identity (SIUS Actions H7, CA4).
- Consistent wayfinding and interpretive panels—featuring stylised firkin icons and concise historical captions—will guide visitors. By night, discreet LED uplighting will animate façades and arches, accentuating heritage character without visual clutter.

Plate 5 Vision for open plan public realm

Plate 6 Creative external lighting concept

Plate 7 Opening up arches for cafe

Plate 8 Developing a unified palette for all Benson buildings

Recommendations

• Pilot pop-up traders in the forecourt to test footfall and trading models.

• Secure an anchor café operator or permanent tenant before finalising plaza construction costs.]

• Target Nearly Zero Energy Building (NZEB) certification for the rotunda retrofit.

• Audit lifecycle carbon impacts of materials to optimise low-carbon choices.]

• Co-design events and programmes with Shandon's migrant associations—e.g., intercultural festivals, food markets.

• Add multi-language QR codes to all interpretive panels, enabling easy translation and digital storytelling.]

8.7 Alignment with Cork City SIUS

The Firkin Crane plan directly supports the Shandon Integrated Urban Strategy (SIUS)—a product of the Town-Centres First Heritage Revival Scheme funded by the Government of Ireland and the EU. This project translates the SIUS from policy into action by delivering on its core objectives: It advances **Heritage Conservation (H7)** through best-practice restoration; fulfils **Living Neighbourhood** actions **(LC1, LC9, LC12)** by embedding proactive maintenance, energy monitoring, and bin-free waste solutions; and meets **Community & Arts** goals **(CA2, CA4, CA6)** through expanded programming, coherent wayfinding, and enriched public art. By weaving these priorities into every pillar, the plan not only safeguards a unique heritage asset but also delivers measurable progress on Cork's neighbourhood-level ambitions for cultural vitality, social integration, and environmental resilience.

9 RECOMMENDED PHASES OF WORKS

This section outlines the practical steps required to deliver the conservation strategy, including phased budgeting, governance, and risk management. It is also designed to support statutory submissions, funding applications, and operational planning.

The conservation strategy aligns with SIUS objectives and creates both immediate impacts and long-term sustainability through four overlapping phases outlined in the table below. These phases break the overall project into realistically fundable and manageable projects prioritising the most urgent in terms of fabric conservation. The Firkin Crane Board will oversee ongoing annual inspections, energy-performance monitoring and programme reviews.

Table 2 Strategic Implementation for CMP recommended works

Key Actions	Primary Lead	SIUS Alignment
Urgent fabric repairs: roof, gutters, eaves; Space audit & management workshop	Heritage Team / Firkin Crane Board	H7, CA2
Insulation (roof & floors), renewable energy installation; Internal conservation works	Facilities Team / Conservation Contractor	LC9, LC1
Public realm works arches adaptation, plaza infrastructure, waste management	City Council / Firkin Crane Board	LC12, CA6
Wayfinding, colour palette implementation, ensemble interpretive signage	Design Consultant / Heritage Team	H7, CA4
Maintenance cycle; energy performance monitoring; programming review	Firkin Crane Board	All applicable

Quick-Win Opportunities

The following actions can deliver immediate community benefits while longer-term conservation planning proceeds:

- **Immediate Programming Flexibility:** Implement revised scheduling to enable daytime community uses and classes
- **Public Realm "Activation Trials":** Test uses of the plaza with temporary seating and pop-up events, such testing was successfully carried out by planners in Mayo County Council for Westport, and it would be worth consulting planner Simon Wall on that testing process

- **Energy Monitoring:** Install basic energy monitoring to establish baseline performance
- **Community Workshops:** Begin stakeholder engagement on interpretation and programming needs

Alignment with Shandon Integrated Urban Strategy (SIUS)

This CMP directly advances multiple SIUS strategic objectives:

- **Heritage Conservation (H7):** Promotes best-practice culture for private/public works through exemplary conservation approach
- **Living Neighbourhood (LC1, LC9, LC12):** Addresses vacancy management through activation, implements energy efficiency measures, and creates new public space networks
- **Community & Arts (CA2, CA4, CA6):** Strengthens cultural networks, expands public art opportunities, and extends indoor/outdoor art spaces

9.3 Budget and Phasing

The conservation and visionary reactivation of the Firkin Crane is structured into five distinct phases. *Note: Public realm enhancements referenced in this plan fall under the remit of Cork City Council and are not included in this budget.*

The total projected future funding requirement is **€3,125,000** This is comprised of the essential works in Phases 1B and 2, and the desirable future enhancements in Phases 3 and 4.

- **Phase 1A (Roof Replacement):** Completed and paid for separately in 2025 (€225,000).
- **Essential Functional Works (Phases 1B & 2): €1,450,000.** This budget is required to secure the building's fabric and core operations.
- **Desirable Enhancements (Phases 3 & 4): €1,675,000.** This budget is for future interpretation and the visionary reconfiguration of the building.

9.3.1 Phase 1B: Urgent Fabric Works 2026 (€250,000)

Timeline: 2026

This phase completes the essential repairs to the building's external fabric, following the roof replacement.

- **Primary 2026 Works:**
    - **Parapet and Gutter Repairs:** Repair balustrades and rainwater systems to resolve dampness. (Ref: Sections 6.1, 6.2)
    - **Window Reglazing:** Reglaze the 32 arched windows with slim-line double glazing. (Ref: Sections 6.4, 8.1)
    - **Minor Repairs:** Address emergency lighting repairs and plaster cracking. (Ref: Sections 6.3.1, 6.12)

9.3.2 Phase 2: Internal Improvements & Climate Resilience (€1,200,000)

Timeline: 2026-2027

This comprehensive phase addresses the building's major deficiencies in services, environmental performance, and internal functionality.

- **Primary Works:**
    - **Internal Improvements:** Essential upgrades including acoustic treatments, resurfacing the sprung dance floor, upgrading bathrooms, fire doors, and reconfiguring storage areas. (Ref: Sections 6.5.1, 6.7)
    - **Building Services & Sustainability:** A full overhaul including Mechanical Ventilation with Heat Recovery (MVHR), air-to-water heat pumps, solar panels, and a Building Management System (BMS). (Ref: Sections 6.11, 8.3)
    - **Accessibility:** Relocation of the disabled WC to a compliant and accessible location. (Ref: Sections 6.12, 7.9)

9.3.3 Phase 3: Interpretation and Access (€175,000)

Timeline: 2027

This phase enhances public understanding and integration.

- **Primary Works:**
    - **Interpretation:** Install interpretive panels, a digital kiosk, and mobile content. (Ref: Sections 5.7, 8.4, 8.5)
    - **Wayfinding & Access:** Implement wayfinding signage and sensory access improvements. (Ref: Sections 7.4, 8.5)

9.3.4 Phase 4: Vision - Civic Space & Café Reconfiguration (€1,500,000)

Timeline: Long-Term (post-2027)

This phase fulfils the inspirational vision, transforming the Firkin Crane into a dynamic public hub.

- **Primary Works:**
    - **Café Installation:** Create new openings and fit out a dedicated café. (Ref: Plate 6, Section 8.4)
    - **Civic Space Creation:** Reconfigure the ground floor Musgrave studio into a multi-purpose public gallery and event space. (Ref: Plate 6)
    - **Final Integration:** Realign the reception and complete external works directly related to the building, such as a new ramp for the café.

Associated with this is a vision for improved public realm as plate 6 which is not in the ownership of the Firkin Crane and therefore not costed

A full itemised breakdown is provided in Appendix 5

Governance and Oversight

The successful implementation of this CMP requires clear governance structures and stakeholder coordination:

- **Lead Body**: Firkin Crane Board
- **Statutory Liaison**: Cork City Council Heritage and Planning Units

- **Technical Oversight**: Independent conservation consultant
- **Community Engagement**: Stakeholder forum and public consultation
- **Reporting**: Quarterly progress reports and annual reviews
- **Procurement**: Competitive tendering with heritage-qualified contractors
- **Compliance**: Adherence to planning, health & safety, and conservation legislation

Risk and Monitoring

A risk register should be maintained throughout the implementation process, identifying potential threats and mitigation strategies.

Key Risks:

- Funding shortfalls or delays
- Contractor availability and capacity
- Planning or statutory consent delays
- Unforeseen fabric deterioration
- Disruption to building users and programming

Monitoring Measures:

- Monthly site inspections and reporting
- Stakeholder feedback and consultation
- Adaptive phasing and contingency planning
- Integration with maintenance and BMS systems
- Annual CMP review and update

10 CONSERVATION POLICIES

Conservation policies are derived from the significance appraisal and identification of key vulnerabilities, as well as from consultation and collaboration during the preparation of the CMP. In order to carry out the four-pillar strategy outlined above it is important that negative impacts are avoided and opportunities to enhance the structure are taken. The following policies are designed to guide all future works, interventions, and management decisions relating to the Firkin Crane. They are grounded in best practice conservation principles, statutory obligations, and the specific needs of the building and its users. These policies are not intended to cast judgement on the maintenance and management of the site to date but rather are intended to represent a vision for how the building can be preserved long-term and enhanced into the future.

Some policies will necessitate the express cooperation between the users of the building and Cork City Council (Architectural Conservation Officer, City Archaeologist, Arts Officer, Area Engineer etc).

General Principles

1. All works should adhere to the principles of minimum intervention, reversibility, and respect for original fabric.
2. Conservation decisions must be informed by a clear understanding of the building's significance.
3. Any proposed changes must be assessed for their impact on architectural, historical, archaeological, cultural, and technical values.
4. Works should be documented thoroughly, with photographic and written records maintained in a central archive.
5. All contractors must be appropriately qualified and experienced in heritage conservation.
6. The building should remain accessible and usable throughout phased works, with clear communication to stakeholders.

Specific Policies

10.1.1 Roof Structure

1. Replace the existing flat roof membrane with a high-performance, conservation-grade system.
2. Inspect and reinforce internal sloping structure as required, using non-invasive techniques.
3. Provide research and drawings of original roof geometry through interpretive media, informed by historical research.
4. Clean and repair rainwater goods and external gutters

5. Install roof-level access for maintenance and inspection.

10.1.2 External Envelope

1. Undertake render repairs using lime-based materials compatible with existing fabric.
2. Remove biological growth and apply breathable protective coatings in specific areas
3. Restore external windows with slim line double glazing
4. Investigate the adaptive reuse of blind arches for secure storage to enable public realm activation, subject to conservation approval and planning permission.
5. Upgrade external lighting to highlight architectural features.
6. Install discreet and professionally designed, interpretive signage and heritage markers.
7. Develop and implement a unified colour palette and material treatment across the Butter Exchange ensemble to reinforce collective heritage significance.

10.1.3 Internal Spaces

1. Reimagine the ground floor layout to allow for exhibition and public engagement as Plate 5 together with café and access improvements
2. Reconfigure entrance area and office accommodation as Plate 6
3. Provide full energy retrofit including breathable dry lining and competed roof insulation
4. Upgrade fire performance
5. Rationalise acoustic treatments to balance performance needs and visual integrity.
6. Improve ventilation and thermal comfort through a climate resilience plan to provide air to water heating and heat recovery ventilation with solar panels
7. Reconfigure backstage and storage areas for efficiency and accessibility.
8. Preserve and interpret surviving historic finishes and features.

10.1.4 Accessibility

1. Commission a universal access audit and implement recommendations.
2. Improve internal circulation with ramps, signage, and sensory supports.
3. Ensure all new interventions meet Part M of the Building Regulations.
4. Engage with disability advocacy groups during design and implementation.
5. Provide accessible digital content and remote engagement options.

10.1.5 Interpretation

1. Develop a layered, professionally designed interpretive strategy covering architectural, historical, and social narratives.
2. Install physical signage, digital kiosks, and mobile-accessible content.

3. Collaborate with local historians, artists, and community groups, as documented in Section **3.40 pg.** 89
4. Develop wayfinding and interpretive signage that emphasizes the Firkin Crane's role within the Butter Exchange ensemble.
5. Use reconstructed drawings (**section 0)** to interpret the building's lost technical features.
6. Integrate interpretation into public realm and programming.

10.1.6 Maintenance

1. Establish a cyclical maintenance schedule with clear roles and responsibilities.
2. Maintain a maintenance manual which is a central record of works, inspections, and interventions. An example template is provided in section 0
3. Train staff in basic conservation awareness and reporting.
4. Budget annually for routine and preventative maintenance.
5. Review and update maintenance protocols every five years.

10.1.7 Emergency Works

1. Identify and prioritise emergency interventions (e.g. roof leaks)
2. Maintain an emergency response plan and contractor contact list.
3. Ensure insurance coverage reflects heritage value and risk profile.
4. Document all emergency works and integrate into long-term planning.
5. Liaise with statutory authorities as required for urgent interventions.

10.1.8 Public Realm and Ensemble Integration

1. Coordinate with Cork City Council to implement public realm enhancements that unify the Butter Exchange Quarter.
2. Replace obscuring tree planting and benches with movable planters and appropriate seating.
3. Relocate waste management to discreet, heritage-appropriate locations.
4. Develop flexible event infrastructure to support markets, performances, and community gatherings.
5. Ensure all public realm interventions reinforce the visual and historical connections between Butter Exchange buildings.

11 MAINTENANCE MANUAL AND PROCESS

This section outlines a practical framework for ongoing maintenance, aligned with best conservation practice and tailored to the building's specific needs. The implementation of a long-term Maintenance Plan based on a Maintenance Manual is recommended for a building of this type and significance to ensure systematic maintenance is carried out regardless of changes/delegation in stewardship etc. An example of an approach to establish a cohesive Maintenance Manual can be found at the Vancouver Heritage foundation Website4. It is recommended that while initially tedious, a labelling convention be created to easily identify areas, rooms, windows (window 1, window 2 etc) etc. to provide accuracy in inspection recording and to avoid confusion as maintenance responsibilities pass from one individual/ group to the next over the years.

Maintenance Objectives

- Preserve the building's architectural and material integrity
- Prevent deterioration through early detection and intervention
- Ensure safety, usability, and comfort for all users
- Maintain compliance with statutory obligations
- Support sustainable operation and energy efficiency
- Provide continuity across changes in management or personnel

Maintenance Schedule

A cyclical maintenance schedule should be implemented, with tasks divided into daily, weekly, monthly, quarterly, annual, and quinquennial intervals:

Frequency	Tasks
Daily	Visual check of public areas; report issues
Weekly	Inspect roofs, gutters; test emergency systems
Monthly	Check HVAC, plumbing; inspect for pests/damp
Quarterly	Professional inspection of roof, structure, services
Annually	Full external/internal inspection; update maintenance log
Quinquennial	Major structural survey; update CMP; review maintenance strategy

[4] https://www.vancouverheritagefoundation.org/wp-content/uploads/2020/12/maintenace_for_heritage_bldgs.pdf (Accessed September 2025)

Documentation and Record-Keeping

- Maintain a central maintenance log, accessible to all relevant staff
- Record all inspections, repairs, and interventions with dates, contractors, and outcomes
- Archive photographic records of condition and works undertaken
- Update CMP appendices with each inspection cycle
- Store digital and hard copies in secure, backed-up locations

Training and Awareness

- Provide induction training for all new staff on heritage sensitivity and maintenance protocols
- Offer periodic refresher sessions and updates on conservation best practice
- Encourage staff to report issues promptly and participate in stewardship culture
- Display key maintenance responsibilities in staff areas

Budgeting and Procurement

- Allocate annual budget line for routine maintenance and minor repairs
- Maintain a reserve fund for emergency works and unforeseen issues
- Procure contractors through competitive tender, prioritising conservation experience
- Ensure all works are supervised by qualified professionals where required
- Review budget annually and adjust based on building performance and inflation

Review and Update

- Review maintenance manual and schedule every five years
- Update in response to new technologies, materials, or statutory changes
- Integrate feedback from users, contractors, and stakeholders
- Ensure alignment with broader organisational policies and strategic plans

12 CONCLUSION

The Firkin Crane, a nationally significant structure, once the focal point of roads across Cork and Kerry, is poised again to become the nucleus of Shandon's dynamic cultural and civic life.

There are three intertwined lenses—

Heritage as Preservation	Heritage as Activation	Heritage as Inspiration

Preservation will present the Firkin Crane as Shandon's cultural nucleus and its connection to the Butter exchange complex. Meticulous conservation work will safeguard the rotunda's roof, clay-ridge tiles, concealed drainage network and historic masonry under a rigorous action plan outlined in Sections 8 and **Error! Reference source not found.**.

Activation will emanate from the adaptive reuse the entire space for multi-cultural activities meeting the needs of sustainable communities. By placing the Firkin Crane at the heart of Cork's regeneration story, we honour its butter-trade legacy, underpin its unique identity, energise its community and ensure its future as a beacon of heritage-led, people-centred regeneration.

Inspiration As this Conservation Management Plan concludes, it is imperative to look beyond the baseline of preservation and previous activation and towards an inspirational future where heritage acts as a catalyst for regeneration. The Firkin Crane, and the wider Shandon area, presents a profound opportunity to enact this principle.

The current configuration of the building, with its 1980s subdivisions, represents a compromised phase in its long history. While it successfully saved the structure from loss, it fragments the very quality that defines its significance: the vast, engineered volume of the rotunda. True conservation in this context is not merely about maintaining the fabric but about reinstating the legibility of its primary spatial experience.

An ambitious option for a vision for the building would be to remove the ancillary 1980s subdivisions, restore the rotunda's monumental space, and rehouse the essential dance studios in a purpose-built facility capable of meeting accessibility sound proofing needs. It is not a rejection of its current cultural use, but a fulfilment of it where the association with the Firkin Crane remains as a performance space. The day-to-day studio and residency needs would be addressed elsewhere. This approach allows the Firkin Crane to function optimally as a world-class performance venue while making its heritage

significance physically palpable. The dance function remains central, elevated within a space that resonates with its original industrial and civic power.

Furthermore, this vision celebrates the building's entire engineering lineage. Following an Irish tradition of Ducart, Gandon Myers and Morrison, the 20th-century space-frame roof by O'Connor Sutton Cronin is not an alien addition, but a continuation of the innovative, problem-solving spirit established by Benson and the architect-engineers of the 28th and 19th century. It represents a new layer of significance, worthy of celebration in its own right.

By reimagining the Firkin Crane in this way, we move from a static model of preservation to a dynamic one of inspirational interpretive reintegration. We can honour the social, economic, and architectural engineering narrative of the site not by freezing it in time, but by returning it to a vibrant, uncompromised civic use. This project can serve as a benchmark, demonstrating that the most inspiring way to honour our past is to boldly re-claim its grandeur for the future.

Next steps

Formal sign-off of this document from key stakeholders, cost-planning, and the launch of a collaborative management workshop to refine schedules, partnerships, and resource models.

By placing the Firkin Crane in the limelight of Cork’s regeneration story, we honour its past, energise its present, and secure its future.

APPENDICES

The following appendices provide the detailed evidence, data, and strategies that support this Conservation Management Plan.

Appendix 1: Photographic Survey - Visual record of the building's condition.

This appendix contains a comprehensive photographic record of the Firkin Crane, compiled from archival research and during multiple site visits in 2025. All images indexed by location, orientation, and date.

Plate 9 Areial photograph showing original roof and central drainage arrangement of the roof of the Firkin Crane. Note additional structure at the ridge and also flat roofed extensions to the north elevation. Also visible is the Butter Market portico and roof over the market. C 1975

Plate 10 Areial photograph during the 1980s refurbishment - note central cast iron rain drainage column (c. 24-inch diameter) still standing. Note open arches,

Plate 11 Photograph of Firkin Crane roof during the 1980s. Note the flat top course of the roof structure. Note also roof extension on the north elevation and the large chimney on the west, presumably a later addition. Bensons original radial roof structure of 32 radial trusses like a cartwheel is clearly visible where slates have been lost.

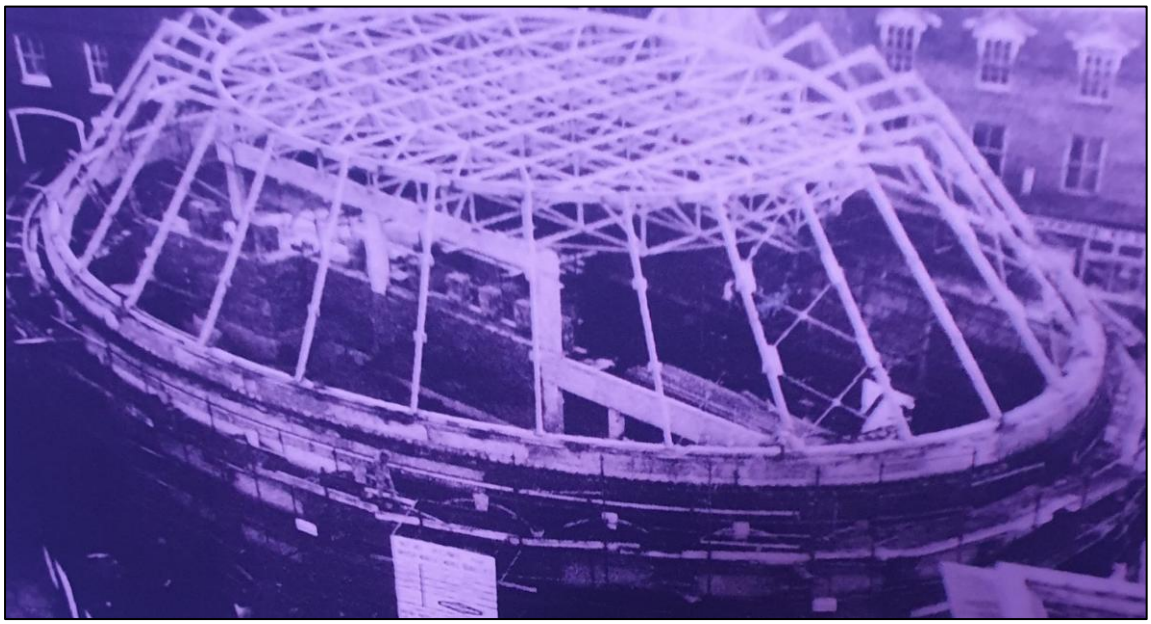


Plate 12 The spider like steel roof structure built during the 1980s during reconstruction after the fire. The central column is not used, a flat internal roof added and the roof pitch in increased.

Plate 13 The Firkin Crane viewed from the north from Exchange Street with the Butter Exchange (also by Benson) in the foreground on the right.

Plate 14 Front entrance steps

Plate 15 Front access showing awkward conflict with parking

Plate 16 Oblique view of front entrance showing important relationship with the Butter Market portico.

Plate 17 the original open arches of the Firkin Crane (Crane House) are now blocked up with non-structural masonry with a few door openings.

Plate 18 View looking northwards showing proximity and relationship with St. Annes Shandon.

Plate 19 Waste bin management in this area is problematic and should be reconsidered generally by CCC for all ACA areas, as collections of bins are unsightly and detract from the historic character of the area.

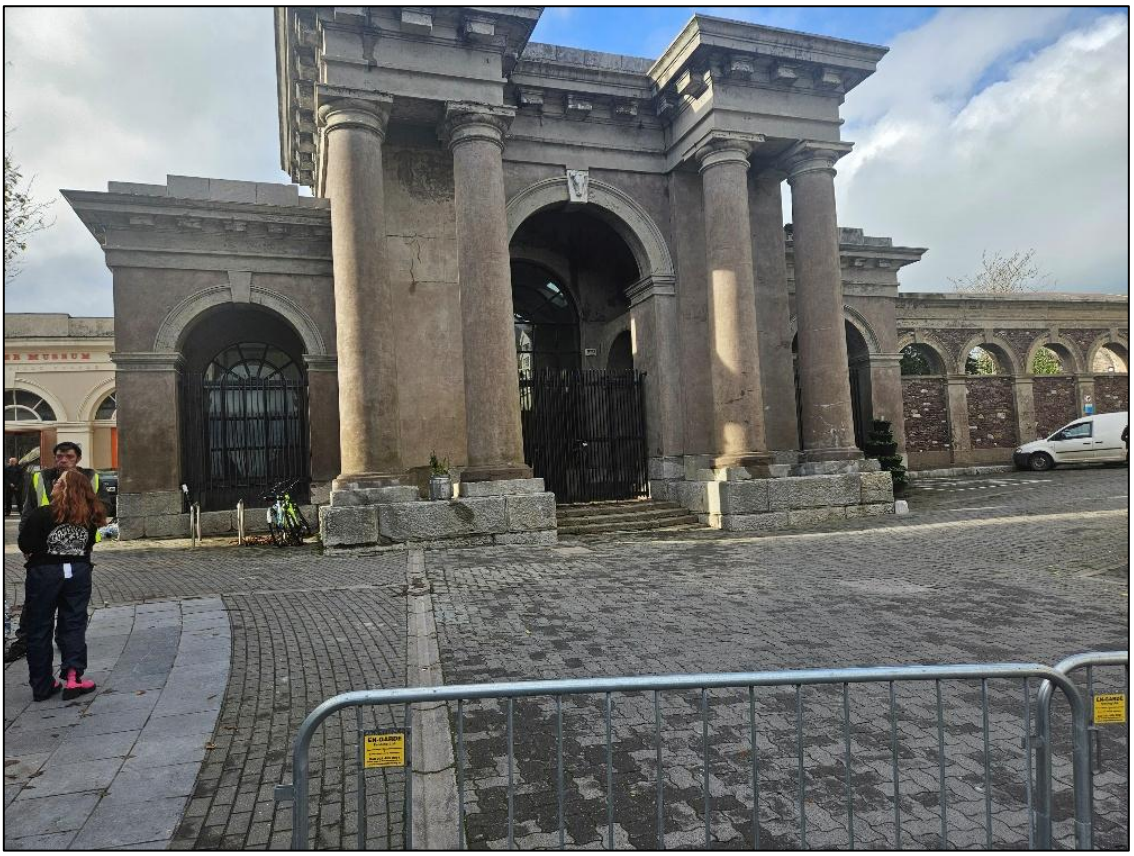


Plate 20 Front elevation of the Butter Market.

Plate 21 Tight proximity to terraced houses on the east side of the building.

Plate 22 The entrance arrangement could be improved; it is unnecessarily complex with parked cars often obscuring the entrance and ramp beyond.

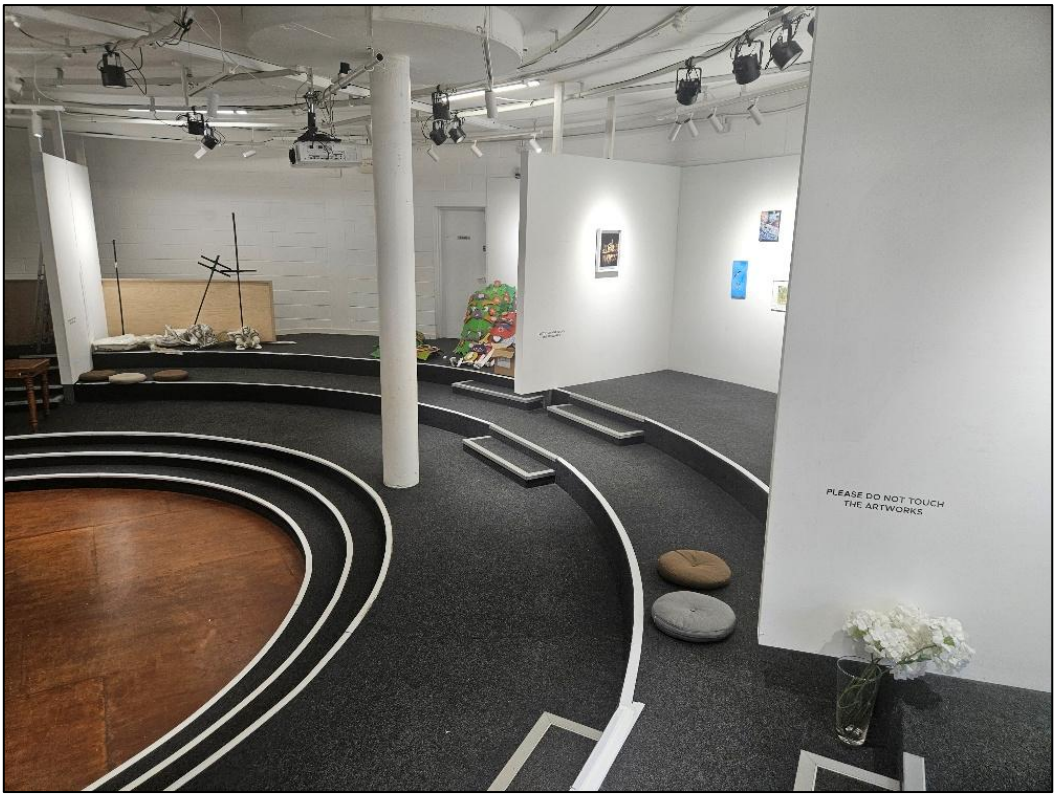


Plate 23 The ground floor studio area is constricted due to changes in level and restructuring has been agreed to allow a flexible gallery exhibition and general space leading to the café

Plate 24 As above

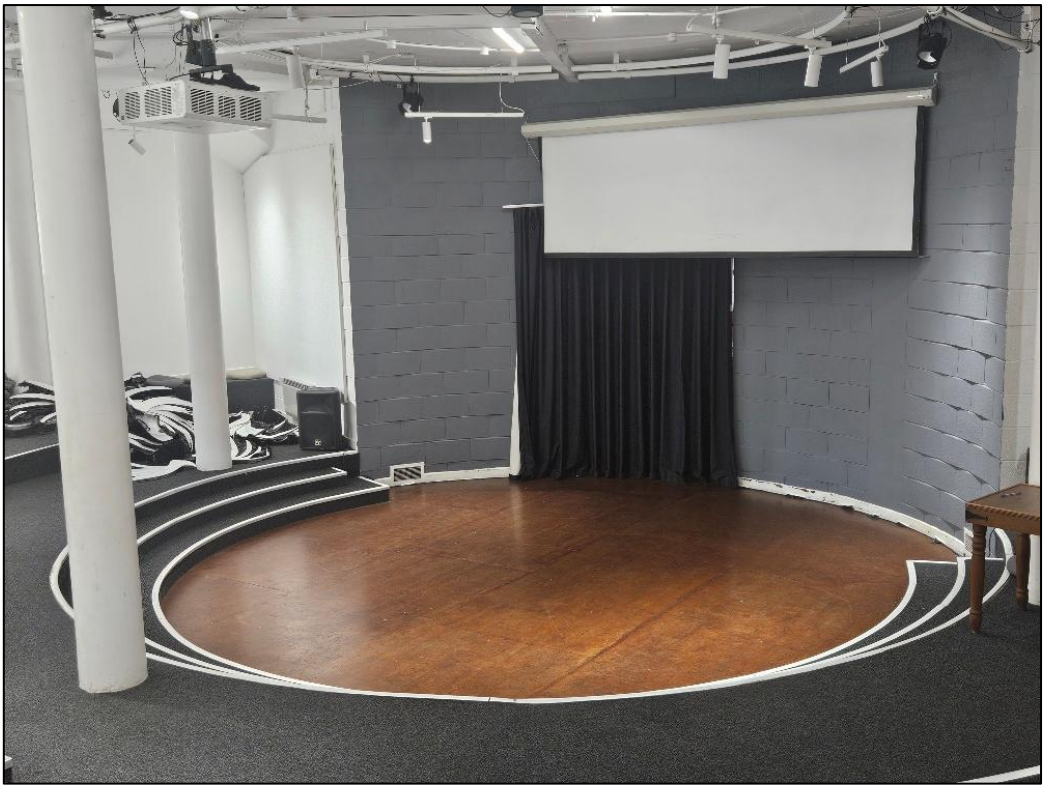


Plate 25 The centra stage will be 3 steps below ground floor entrance level leaving the majority of the space accessible to the public

Plate 26 The changing rooms are at lower ground level with access restrictions for mobility impaired.

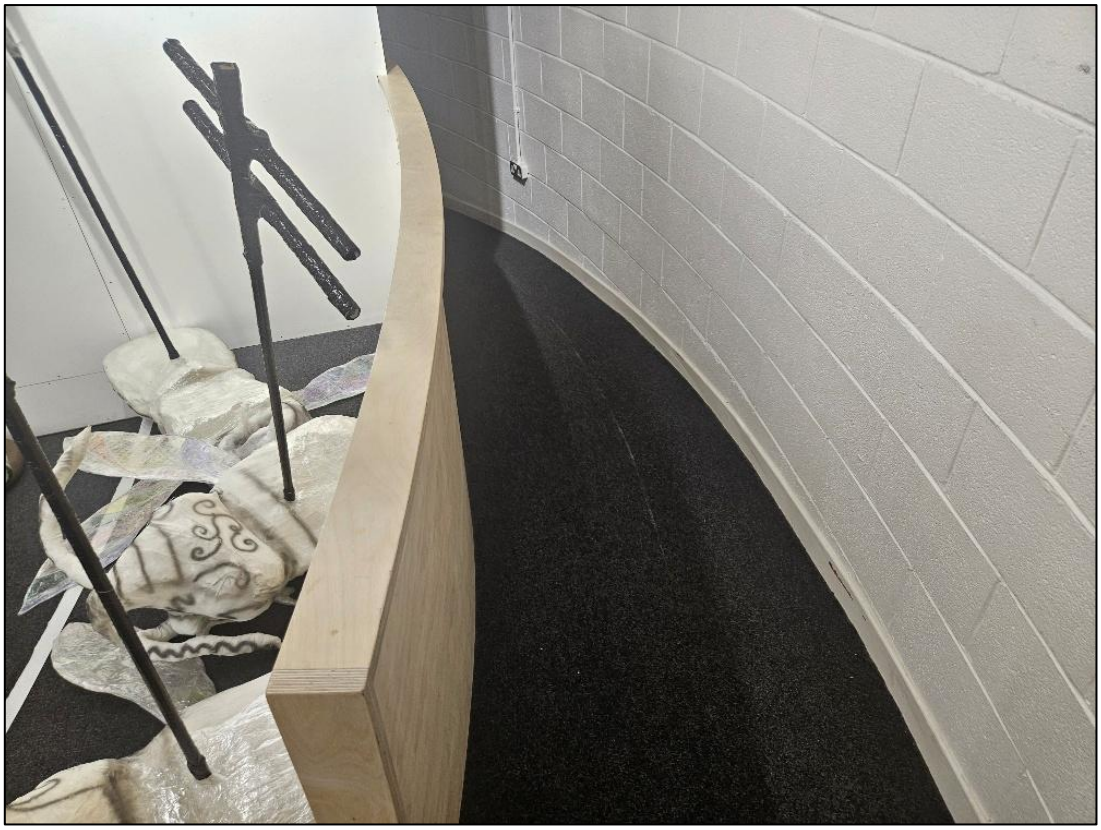


Plate 27 Wheelchair access to lower level is awkward and location accessible

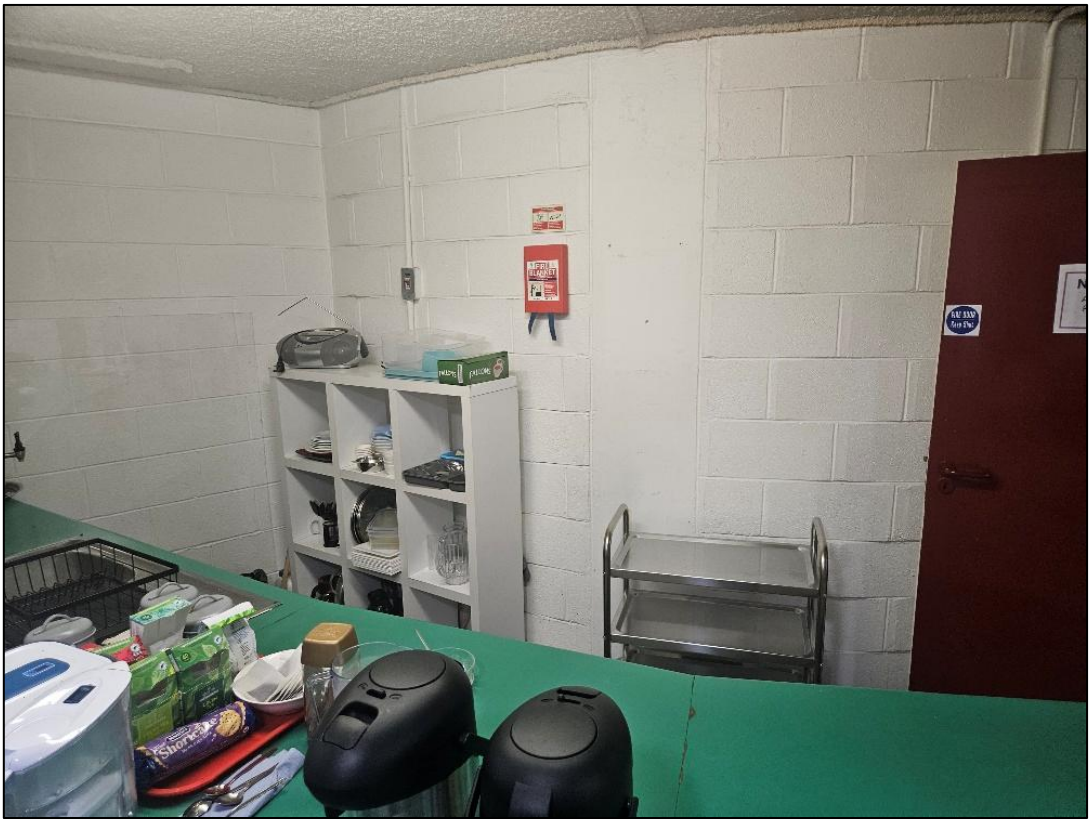


Plate 28 In the proposed alterations the canteen will be converted to provide platform lift for actors wc requires redesign s shown on Plate 6

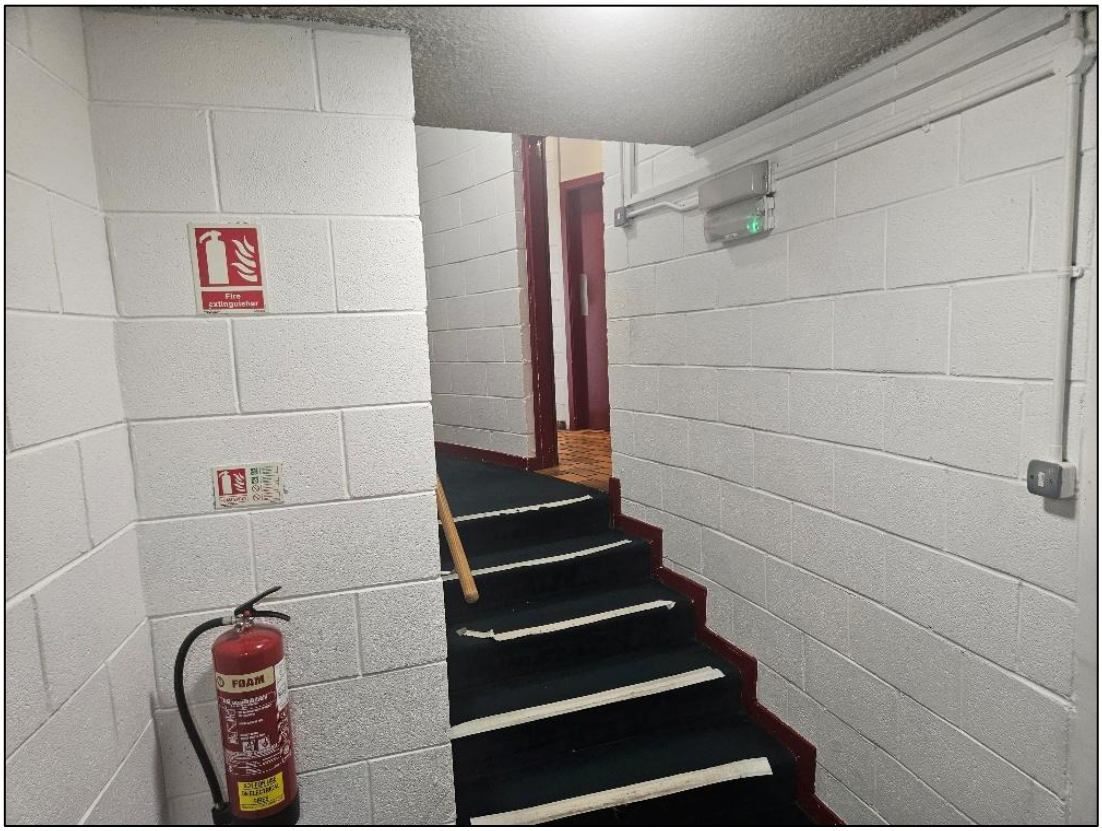


Plate 29 Steps showing the change in level between lower ground and ground floor

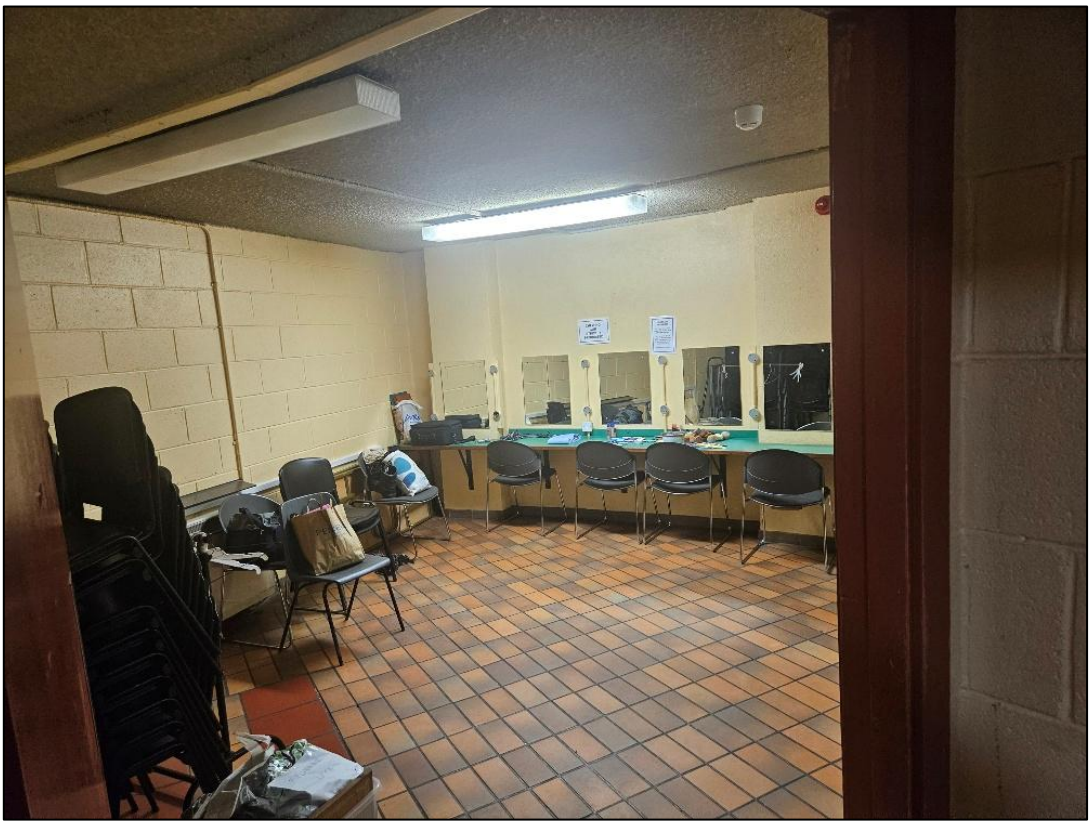


Plate 30 Dressing rooms

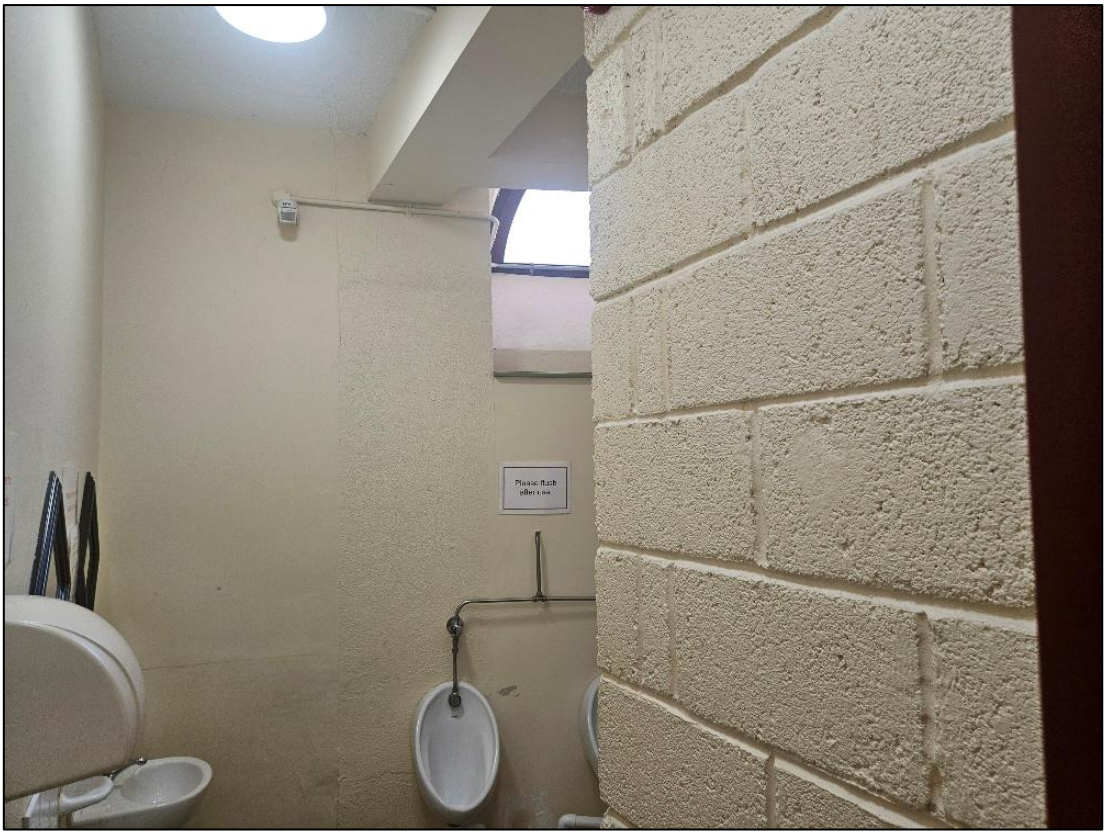


Plate 31 23 at ground floor high level natural light is available to some perimeter rooms

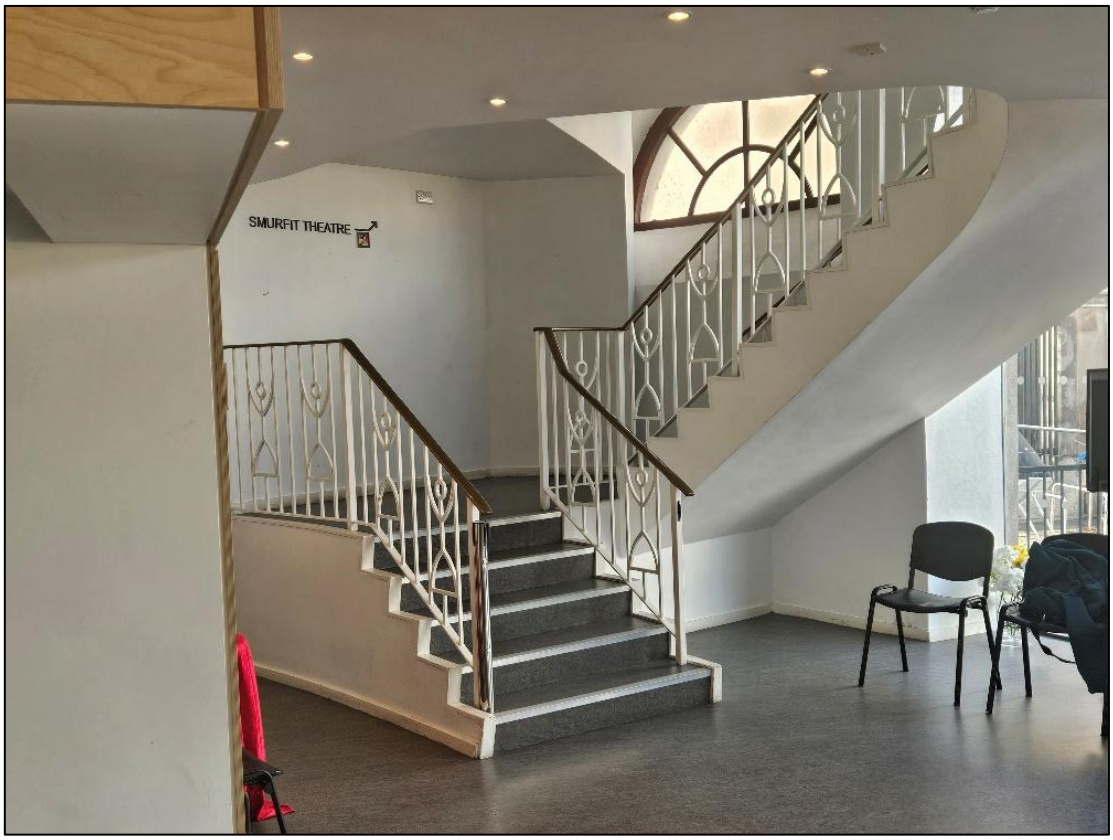


Plate 32 Main staircase

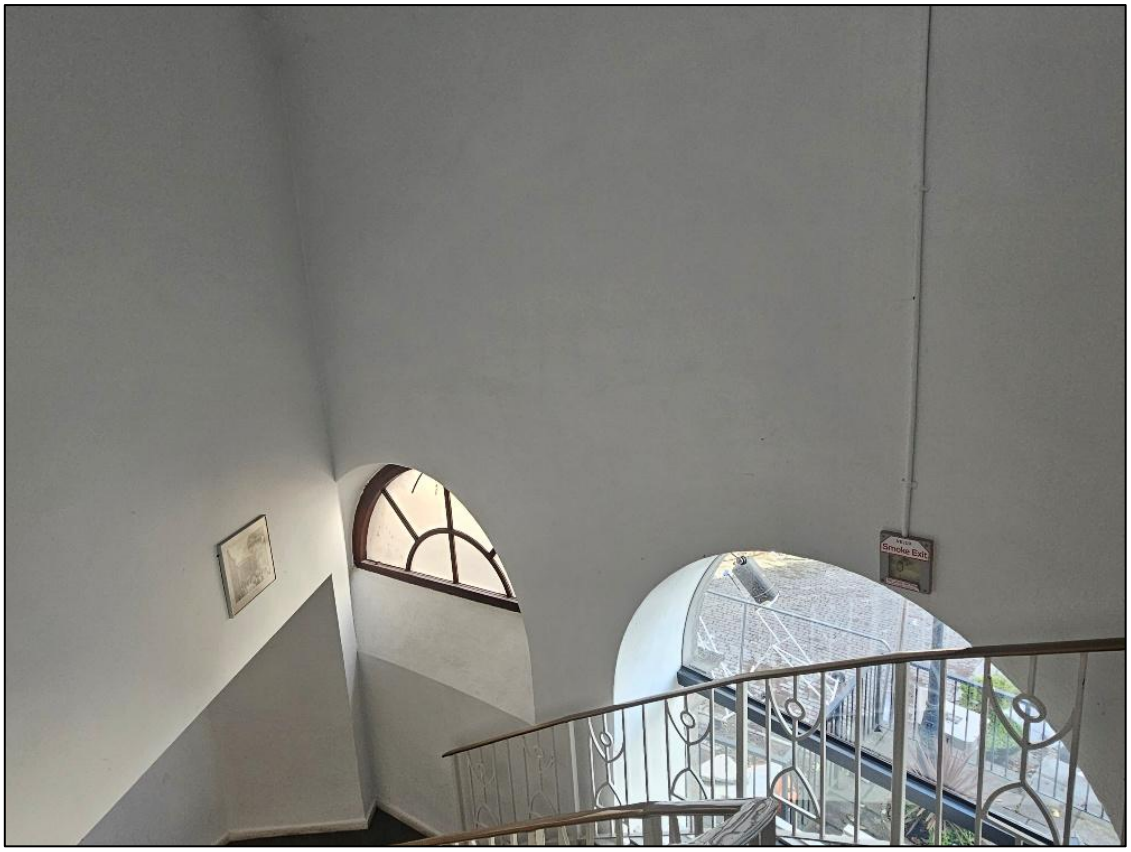


Plate 33 Main staircase from above.

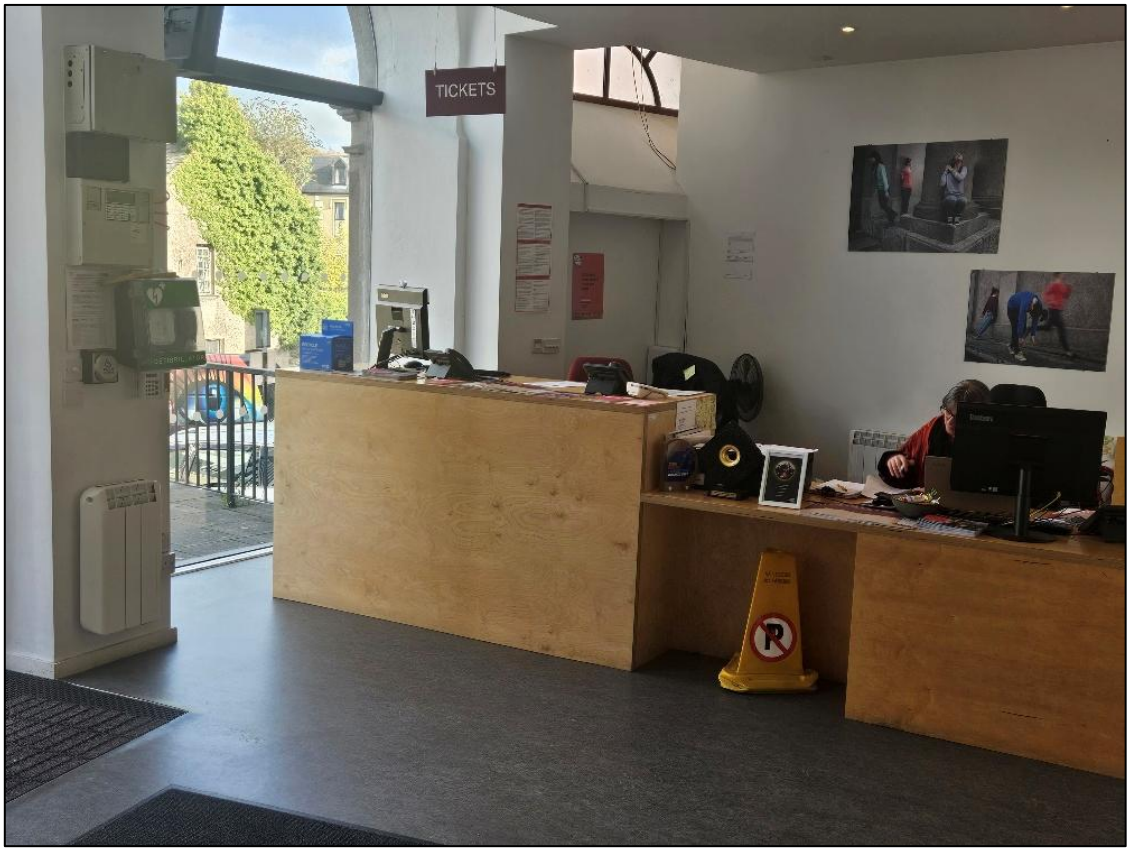


Plate 34 Reception to be realigned to provide additional office space.

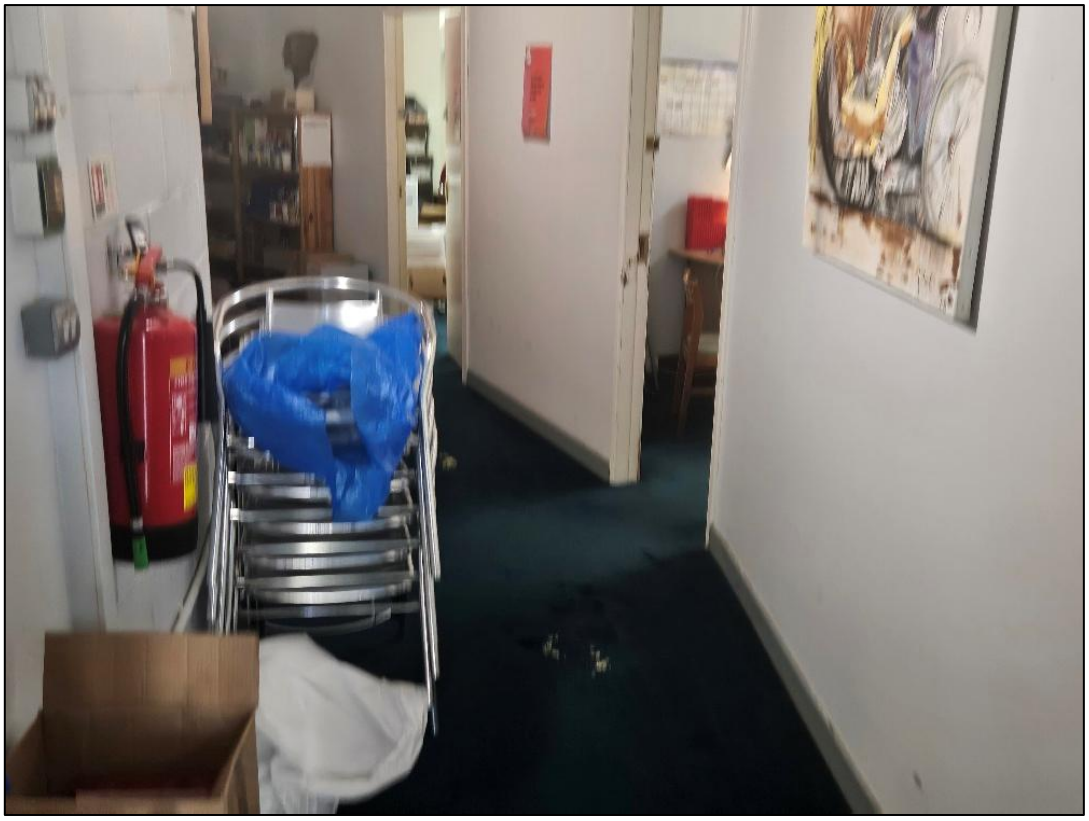


Plate 35 Lack of storage is an issue with corridors being used to store chairs, shelves, boxes etc.

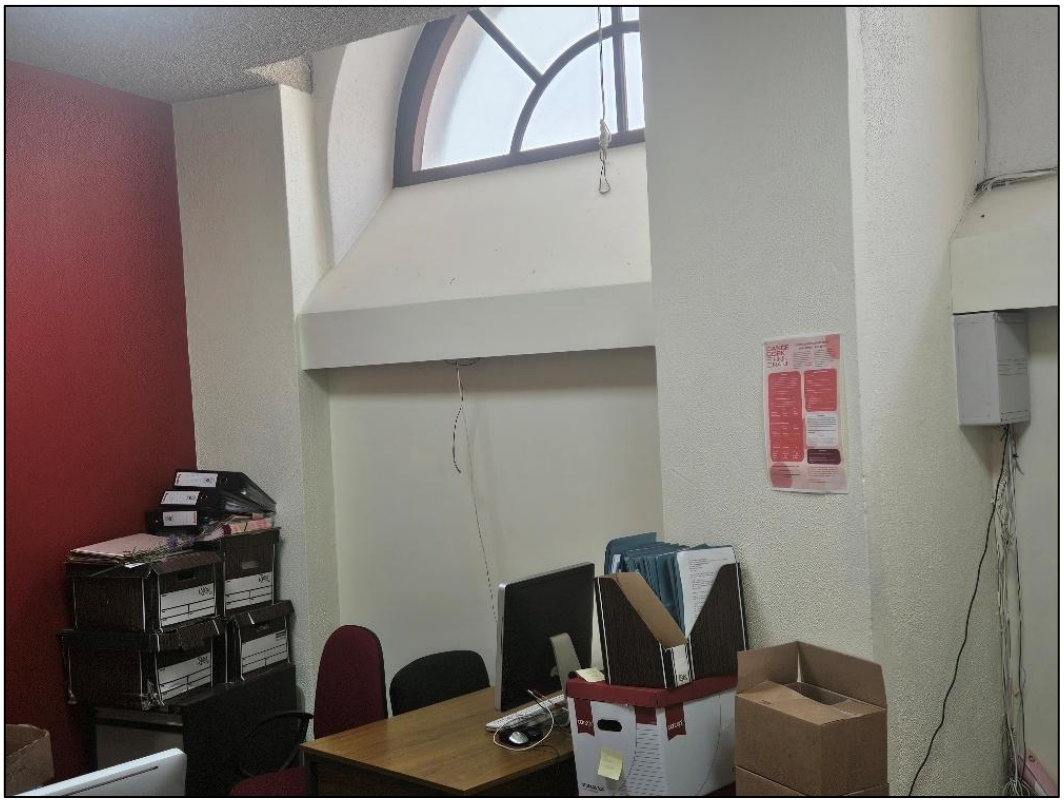


Plate 36 Board room relocated and this are to be developed as café al perimeter walls to be dry lined with breathable insulation and windows upgrade

Plate 37 Roof light to be provided in chandelier room to provide natural light.

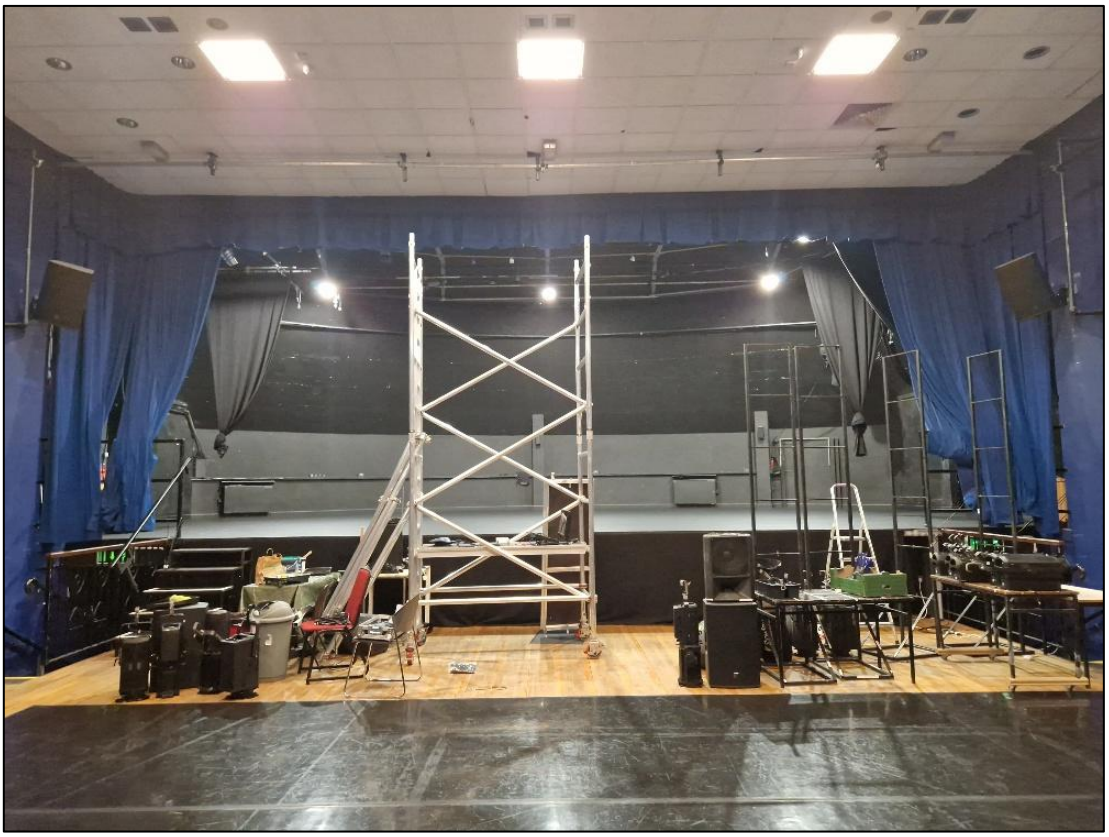


Plate 38 Upper stage with lighting access difficulties and roof leaks.

Plate 39 Roof repairs n 2025 will avoid further risks to dancers.

Plate 40 Folding tiered seating is functional but ladder indicates health and safety issues

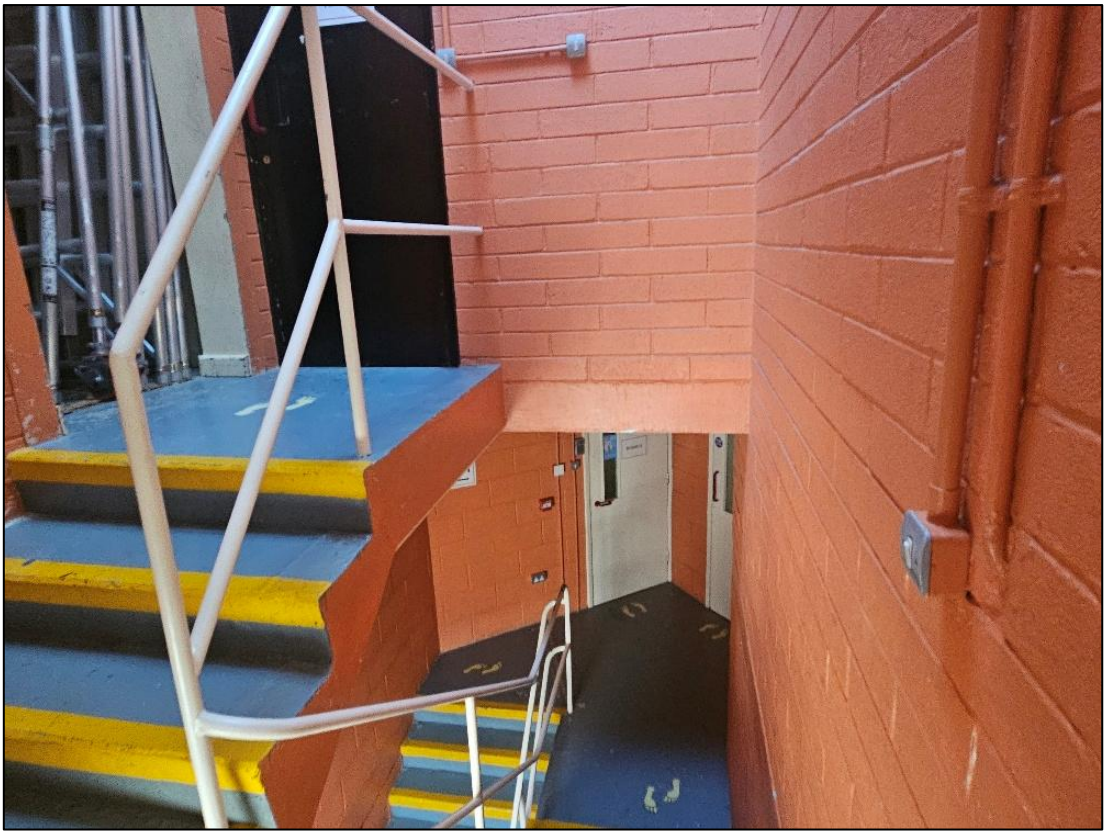


Plate 41 Secondary stairs.

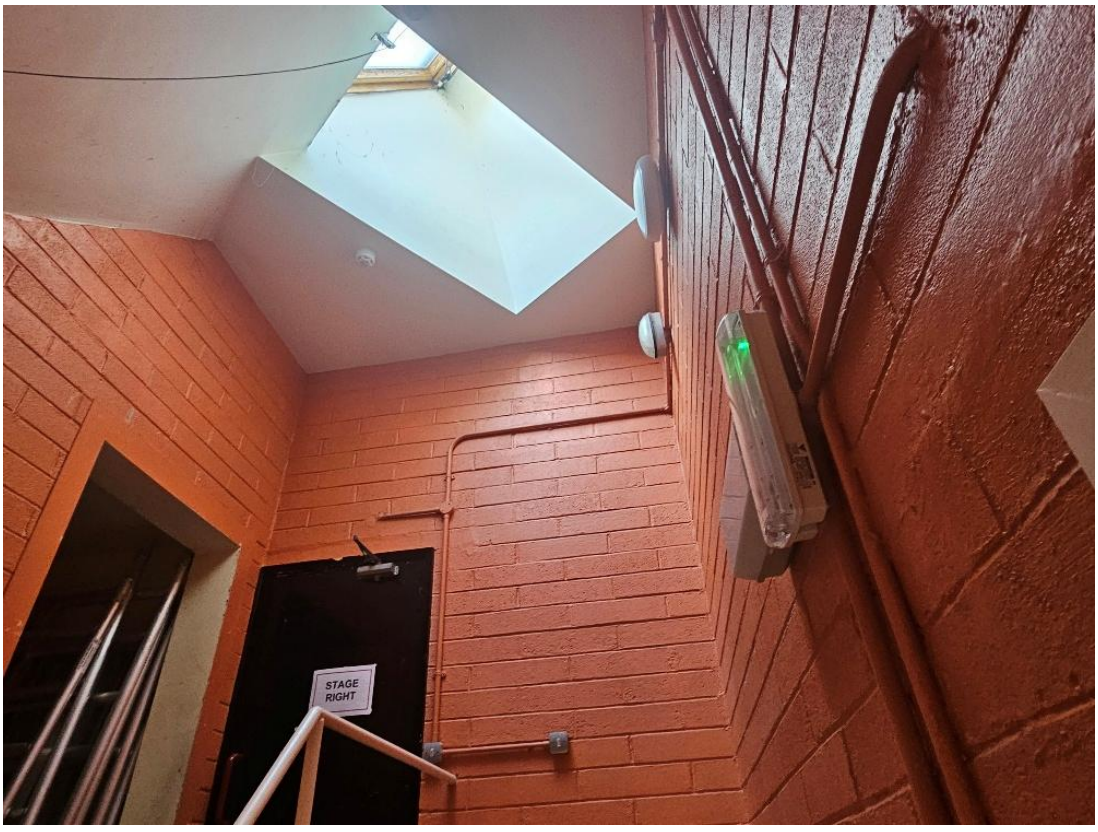


Plate 42 Roof lights to be kept in key locations but careful design requires black out

Plate 43 Walls and sloping roof require dry lining and insulation.

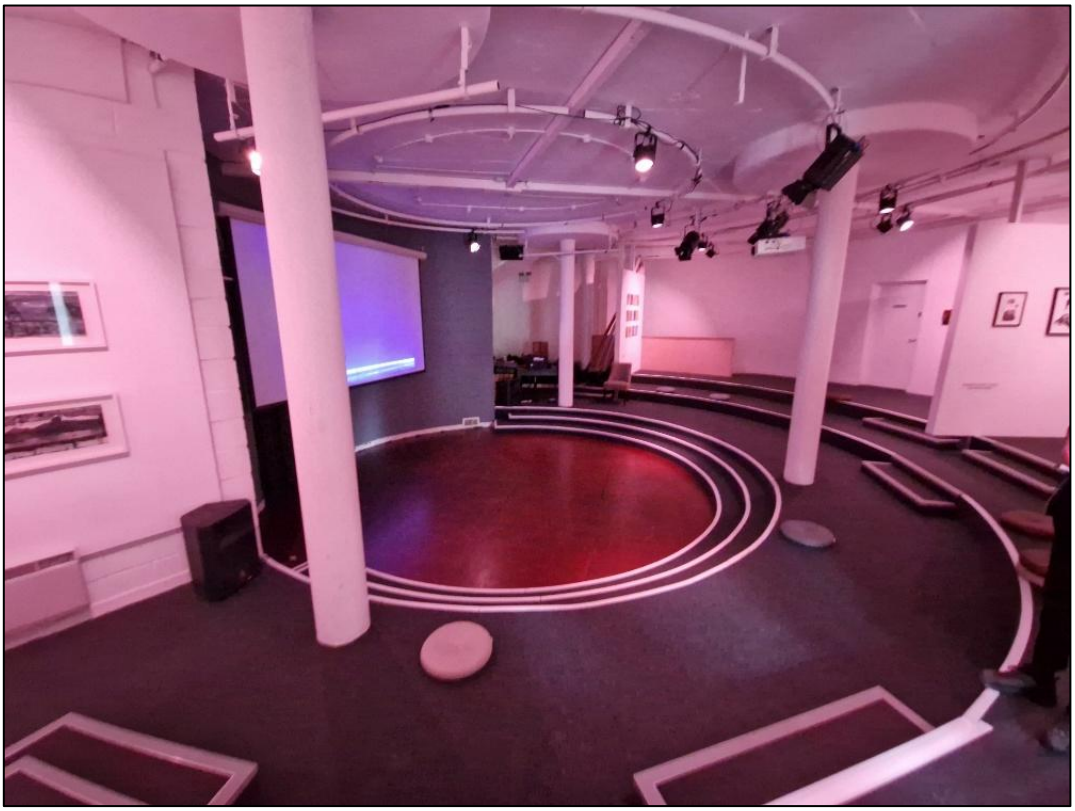


Plate 44

Plate 45 Roof covering and insulation to be addressed

Plate 46 Roof covering and insulation to be addressed.

Plate 47 Inner slope to have new timber structure membrane and insulation maintaining current lead ridge.

Plate 48 Walls are not sound proofed between rooms. Plate 49 Complex roof structure in good condition.

Plate 50

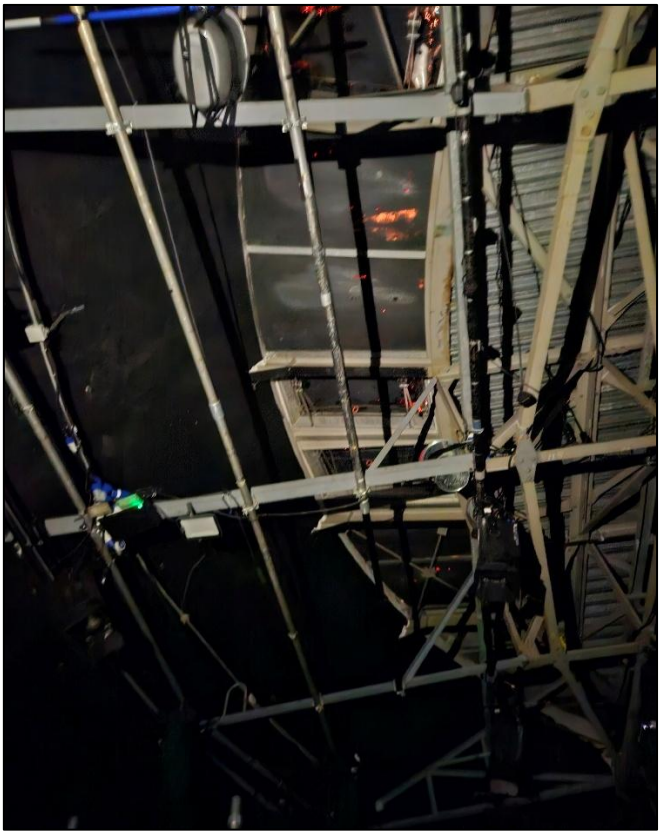


Plate 51 complex roof structure in good condition.

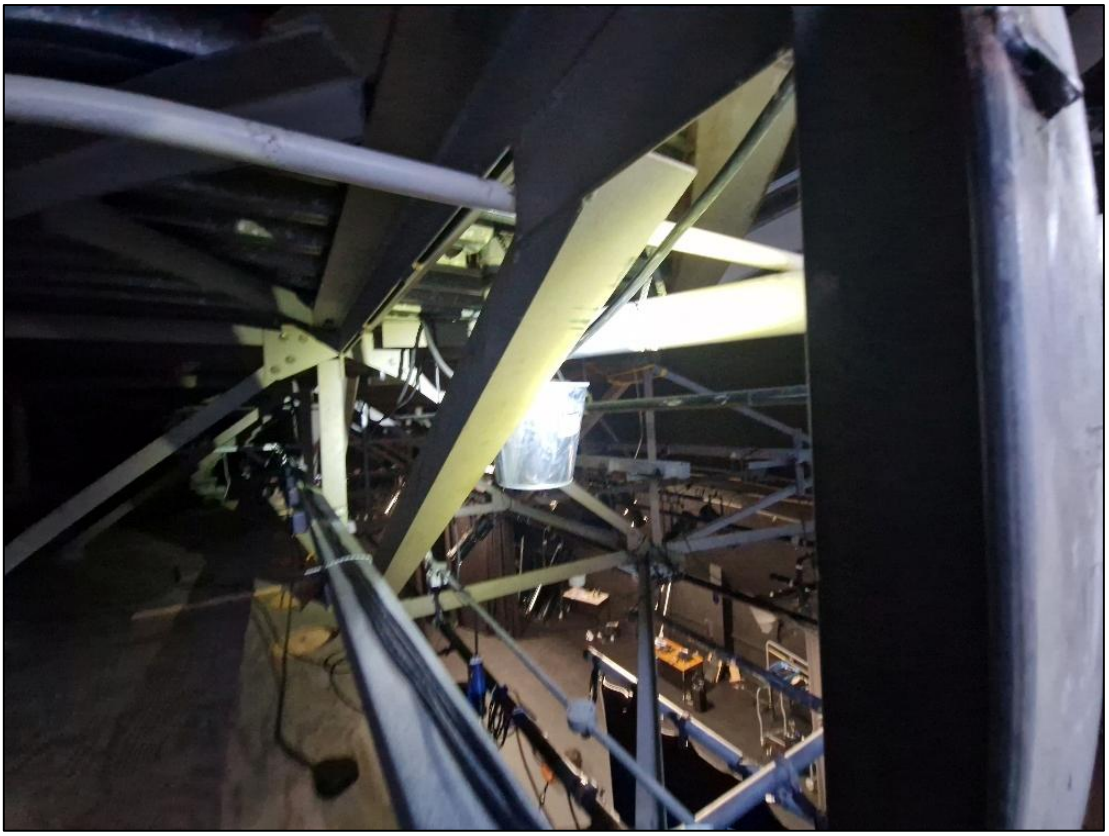


Plate 52 Complex roof structure in good condition.

Plate 53 Shows problems with roof leaks currently being addressed in 2025 repairs

Plate 54 Awkward access to the roof needs to be improved.

Plate 55 Concrete parapet with cast urn pilasters. Parapet is coped with torch on cladding.

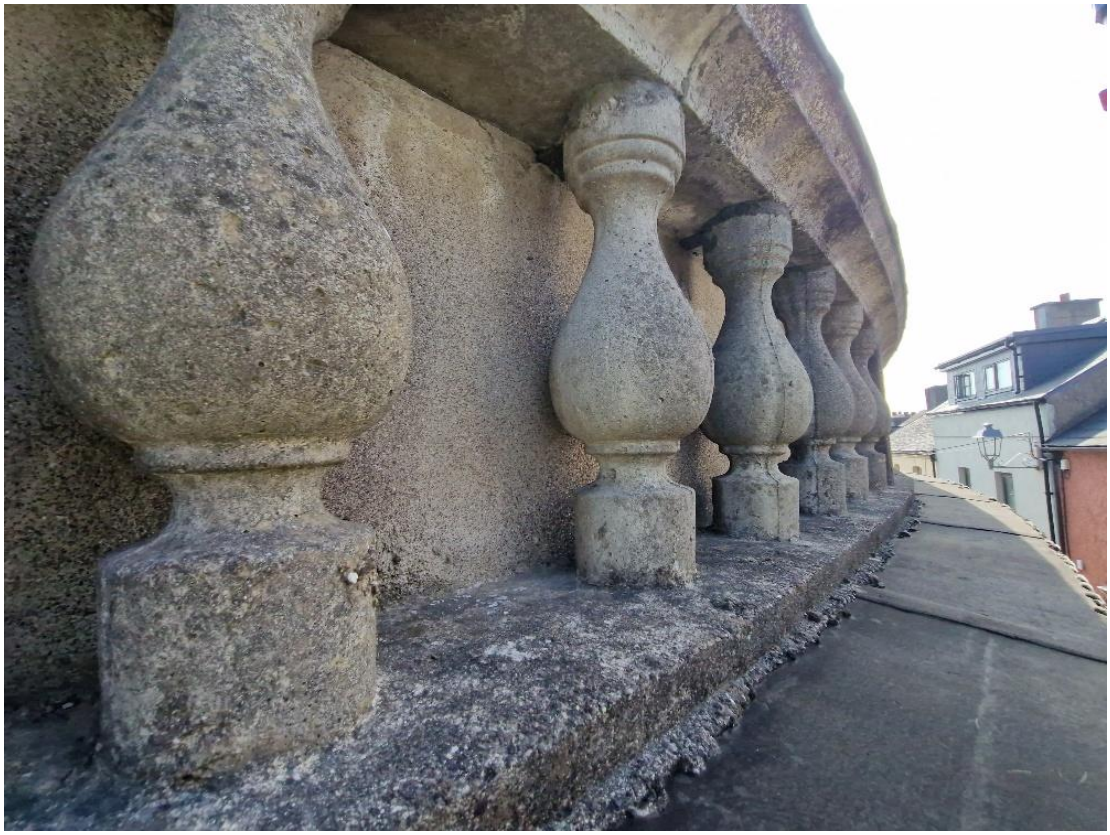


Plate 56 Cast concrete decorative features and ring beam. These were added as part of the 1980s refurbishment.

Plate 57 Cast concrete decorative these were added as part of the 1980s refurbishment.

Plate 58 Crack repair and flashing repair are planned for 2026.

Plate 59 Torch on flashing stops short of the lip edge of the parapet resulting in water staining. To be addressed in 2026.

Appendix 3: References and Cartographic Sources
List of historical maps, archival sources, and key publications.

Cartographic Sources

- Hardiman Maps (1601–1602)
- Phillips Map (1685)
- Romer Map (1690)
- Griffith's Valuation (1852)
- Ordnance Survey First Edition (1842) and 25-inch Series (1897–1913)

Key Published Works

- Croker, M. (2017). *Tolerance for Change: Conservation Strategies in Irish Heritage Buildings*. Heritage Council.
- Rynne, C. (2006). *Industrial Archaeology of Cork*. Cork University Press.
- Ajuntament de Barcelona (2016) *SITRAB pneumatic waste collection system: Technical specifications*. Barcelona: Ayuntamiento de Barcelona.
- Cork Architecture (2019) 'Stories in Stone: Firkin Crane', *Cork Architecture Blog*. Available at: https://corkarchitecture.blogspot.com/2019/05/stories-in-stone-firkin-crane.html (Accessed: 17 July 2025).
- Cork City Council (2022) *Cork City Development Plan 2022–2028*. Cork: Cork City Council.
- Cork City Council (2023) *Shandon Integrated Urban Strategy*. Cork: Cork City Council.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York, NY: Random House.
- Stockholm Stad (2018) *Hammarby Sjöstad waste management: Pneumatic waste stations evaluation*. Stockholm: Stockholm Stad.

Statutory Documents

- Planning and Development Act 2000 (as amended)
- National Monuments Acts 1930–2014
- Cork City Development Plan 2022–2028
- Architectural Heritage Protection Guidelines (2011)
- Shandon Integrated Use Strategy (2025)

Appendix 4: Stakeholder Consultation Summary

Record of engagement with community, statutory bodies, and heritage professionals.

This appendix summarizes stakeholder engagement conducted from May to October 2025.

Consultees Included:

- Firkin Crane Board and Management
- Cork City Council Heritage and Planning Units
- Local Community Groups and Artists
- Heritage Professionals

Key Outcomes:

- Input informed conservation priorities, interpretive themes, and access improvements.
- Commitment to ongoing community engagement and stakeholder liaison.

Full records, including meeting minutes and feedback, are retained in the project archive

Appendix 5: Cost Tables and Funding Strategy Phased budget breakdown and identified funding sources.

Itemised Cost Breakdown

PHASE 1: URGENT WORKS I Duration: 6 months I Total €250,000

Item	Description	Cost (ex. VAT)	Notes
1.1 Roof Works Phase 1 A 2025	Phase 1 works underway	inc	
PHASE 1B 2026			
1.2 Parapet and gutter	Parapets and balustrades	€ 60,000	
1.3 Windows	Slim line double glazing/decoration	€ 85,000	
1.4	Emergency lighting system repair	€ 4,000	Full compliance
1.5	Plaster cracks and cleaning	€ 15,000	
Sub-Total Construction		€ 164,000	
Professional Fees	(Architect, Engineer, QS @ 12%)	€ 20,500	

Sub-Total (ex. VAT & Contingency)		**€ 184,500**	
Contingency	-10%	**€ 24,908**	
VAT	(13.5% and 23%)	**€ 26,855**	On Construction, Fees, & Contingency
PHASE 1 GRAND TOTAL		**€ 236,263**	*Rounded to €250,000 for grant application*

PHASE 2: INTERNAL CONSERVATION I DURATION: 9 MONTHS I Total: €1,200,000

Item	Description	Cost (ex. VAT)	Notes
2.2 Internal Conservation Essential repairs			
2.2.1	Realign internal partitions	€ 50,000	Rotunda space & circulation areas
2.2.2	Acoustic improvements	€ 145,000	Reversible, low-visual impact system
2.2.3	Sprung dance floor resurfacing	€ 25,000	Specialist contractor
2.2.4	Staircase handrail	€ 8,000	
2.2.5	Reconfigure backstage & storage areas	€ 25,000	For efficiency & accessibility

	Carpet treads	€ 1,200	
2.2.6	Fire doors and smoke strips	€ 14,000	
2.2.7	Upgrade bathrooms and toilets	€ 69,000	
2.2.8	Reconfigure disabled wc	€ 22,000	
2.2.9	Shelving		
2,2,10	Storage units		
2.3 Building Services			
2.3.1	Mechanical Ventilation with Heat Recovery (MVHR)	€ 125,000	Low-energy, reversible ducting
	Solar panel installation	€ 45,000	
2.3.2	Heating system upgrade (heat pumps)	€ 140,000	
	builders work	€ 80,000	
2.3.3	Building Management System (BMS) installation	€ 38,000	Basic environmental monitoring
Sub-Total Construction		**€ 787,200**	
Professional Fees	-13%	**€ 98,400**	
Sub-Total (ex. VAT & Contingency)		**€ 885,600**	
Contingency	-10%	**€ 119,556**	
VAT	-13.50%	**€ 128,904**	
PHASE 2 GRAND TOTAL		**€ 1,134,060**	*Rounded to €1,200,000 for grant application*

Phase 3: INTEPRETATION & ACCESS I Duration: 9 months I Total: €175,000

Item	Description	Cost (ex. VAT)	Notes
3.1 Interpretation		**€ 175,000**	
3.1.1	Research & content development	€ 8,000	Historian & community workshops
3.1.2	Interior & exterior interpretive panels (20 No.)	€ 22,000	Powder-coated steel, etched text
3.1.3	Digital kiosk & interactive display	€ 25,000	
3.1.4	Mobile app & QR code integration	€ 10,000	
3.1.5	Archival digitisation project	€ 10,000	
3.2 Public Realm & Access			
3.2.1	Public realm enhancements (paving, planting)	BY CCC NOT IN FIRKIN CRANE OWNERSHIP	Coordinated with SIUS
3.2.2	Wayfinding & heritage trail signage	€ 10,000	
3.2.3	Sensory access improvements (tactile, audio)	€ 10,000	
3.2.4	Inclusive programming & staff training	€ 10,000	
Sub-Total Construction		**€ 105,000**	
Professional Fees	-12%	**€ 18,375**	

Sub-Total (ex. VAT & Contingency)		**€ 123,375**	
Contingency	-10%	**€ 16,656**	
VAT	-13.50%	**€ 18,401**	
PHASE 3 GRAND TOTAL		**€ 158,432**	*Rounded to €175,000 for grant application*

PHASE 4: Vision for the future

Item	Description	Cost (ex. VAT)	Notes
2.2 Internal Activation			
2.2.1	Provide new café openings	€ 85,000	Rotunda space & circulation areas
2.2.2	New alterations and services to provide café	€ 145,000	Reversible, low-visual impact system
2.2.3	Café fit out	€ 45,000	Specialist contractor
2.2.4	Realign ground floor Musgrave studio to multifunction space	€ 98,000	
2.2.5	New openings with closers to reception	€ 55,000	For efficiency & accessibility

	Realign reception and additional office	€ 12,000	
2.2.6	External works ramp to café	€ 48,000	
2.2.7	Upgrade bathrooms and toilets	€ 69,000	
2.2.8	Reconfigure disabled wc	€ 22,000	
2.2.9	Shelving		
2,2,10	Storage units		
2.3 Building Services			
2.3.1	Mechanical Ventilation with Heat Recovery (MVHR)	€ 125,000	Low-energy, reversible ducting
	Solar panel installation	€ 45,000	
2.3.2	Heating system upgrade (heat pumps)	€ 140,000	
	builders work	€ 80,000	

2.3.3	Building Management System (BMS) installation	€ 38,000	Basic environmental monitoring
Sub-Total Construction		**€ 1,007,000**	
Professional Fees	-13%	**€ 125,875**	
Sub-Total (ex. VAT & Contingency)		**€ 1,132,875**	
Contingency	-10%	**€ 152,938**	
VAT	-13.50%	**€ 164,896**	
PHASE 4 GRAND TOTAL		**€ 1,450,709**	*Rounded to €1,500,000 for grant application*

PROJECT SUMMARY

PROJECT SUMMARY					
	Phase 1B Outer envelope	**Phase 2 internal and climate resilience**	**Phase 3 Interpretation**	**Phase 4 Vision**	**Total**
TOTAL	**€ 250,000**	**€ 1,200,000**	**€ 175,000**	**€ 1,500,000**	**€ 3,125,000**

Funding Sources

(This section remains as previously provided, to be adjusted with your specific grant targets)

- Heritage Council CMP Implementation Grant
- Creative Ireland Capital Scheme
- Cork City Council Heritage and Arts Funding
- Cork City Architectural Conservation Area Grant
- Department of Housing, Local Government and Heritage Built Heritage Investment Scheme
- Department of Housing, Local Government and Heritage Historic Structures Fund
- Philanthropic and Community Fundraising
- EU Cultural Heritage Funding (Creative Europe, Horizon Europe)
- Private Sponsorship and Corporate Partnerships

Implementation Notes

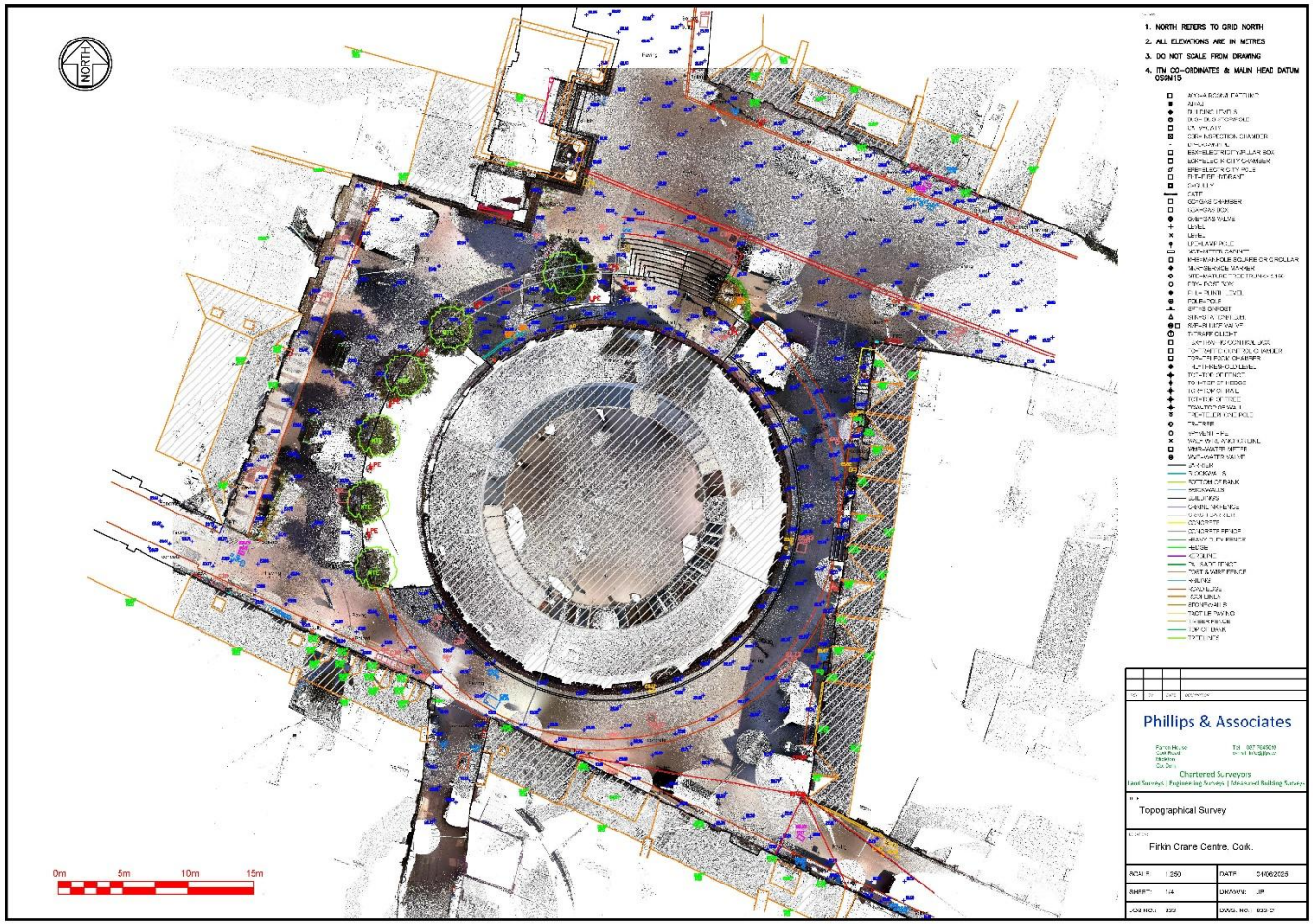
- All works will be tendered in accordance with public procurement guidelines.
- A Project Supervisor for the Design Process (PSDP) will be appointed for all capital works.
- Governance structures will oversee budget adherence, with quarterly financial reporting.
- Phased implementation allows for flexibility in funding and scheduling.

Monitoring and evaluation will be conducted at each phase, with public reporting

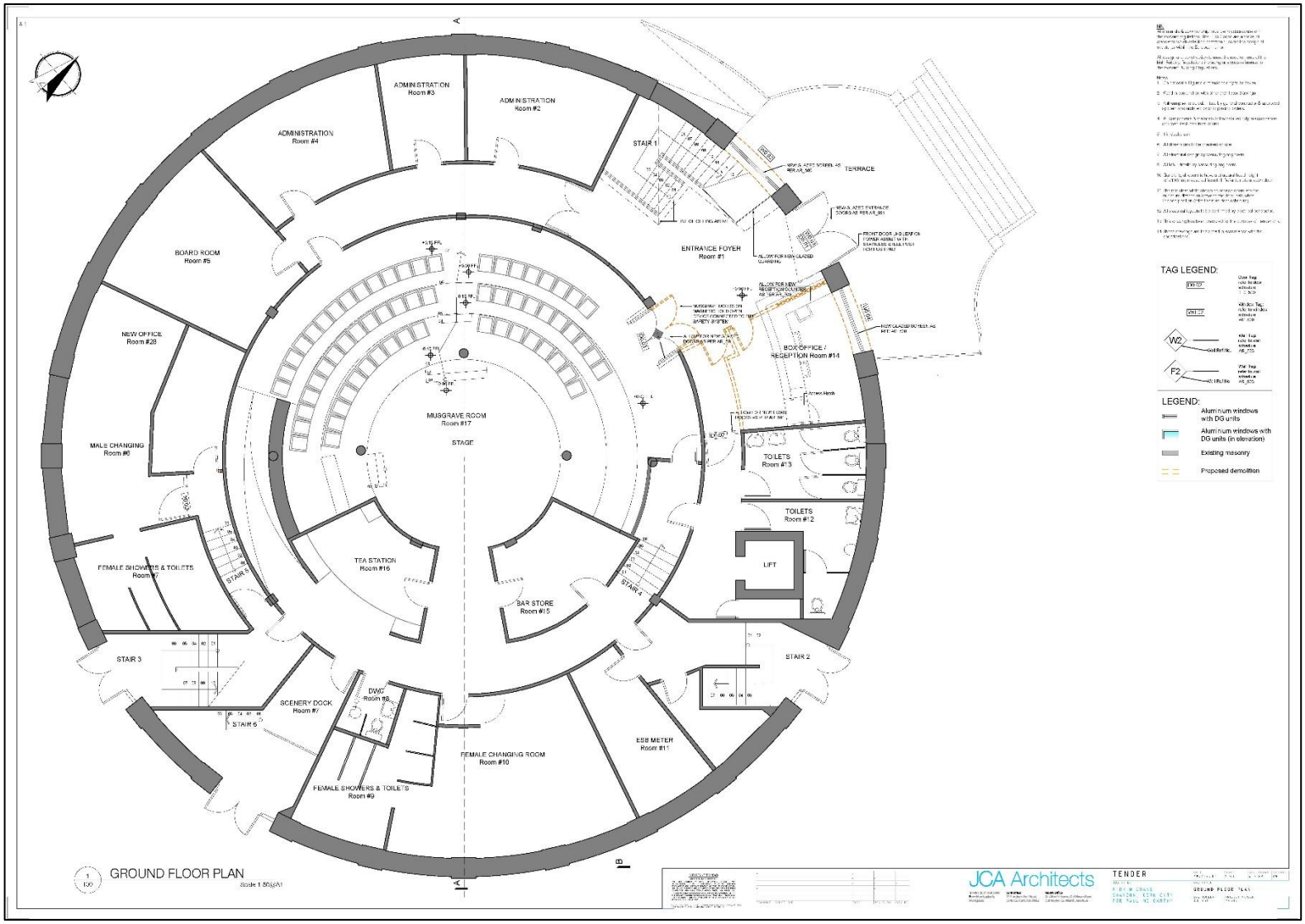
Appendix 6: Technical Drawings and Roof Geometry Reconstruction Scaled drawings of existing conditions and interpretive reconstructions of the original 1855 structure.

This appendix contains a suite of scaled technical drawings that provide a visual understanding of the building's existing condition, its original design, and proposals for conservation and interpretation. These drawings are essential for planning applications, funding bids, and tender documents.

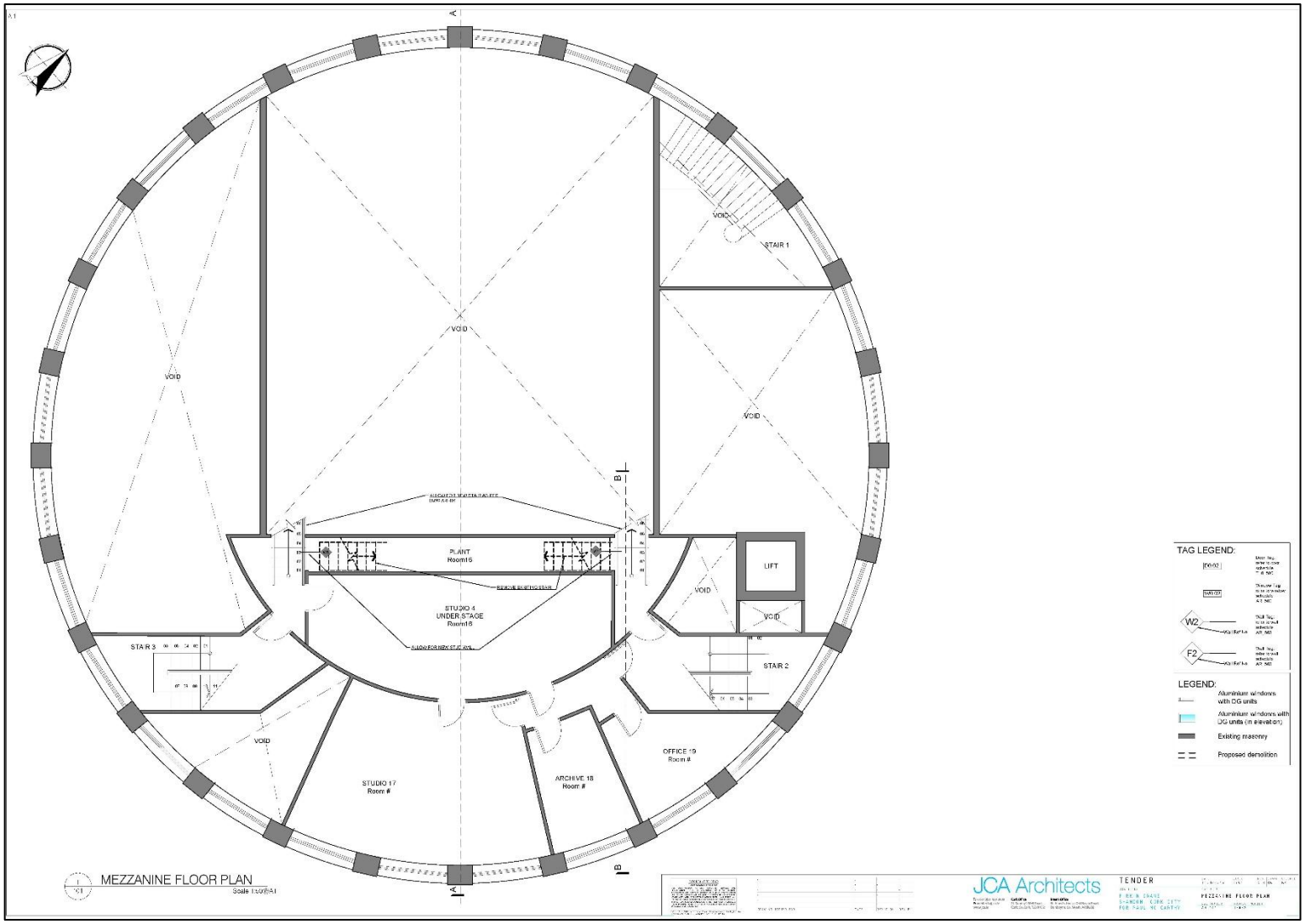
Existing Condition Drawings (As of 2025)



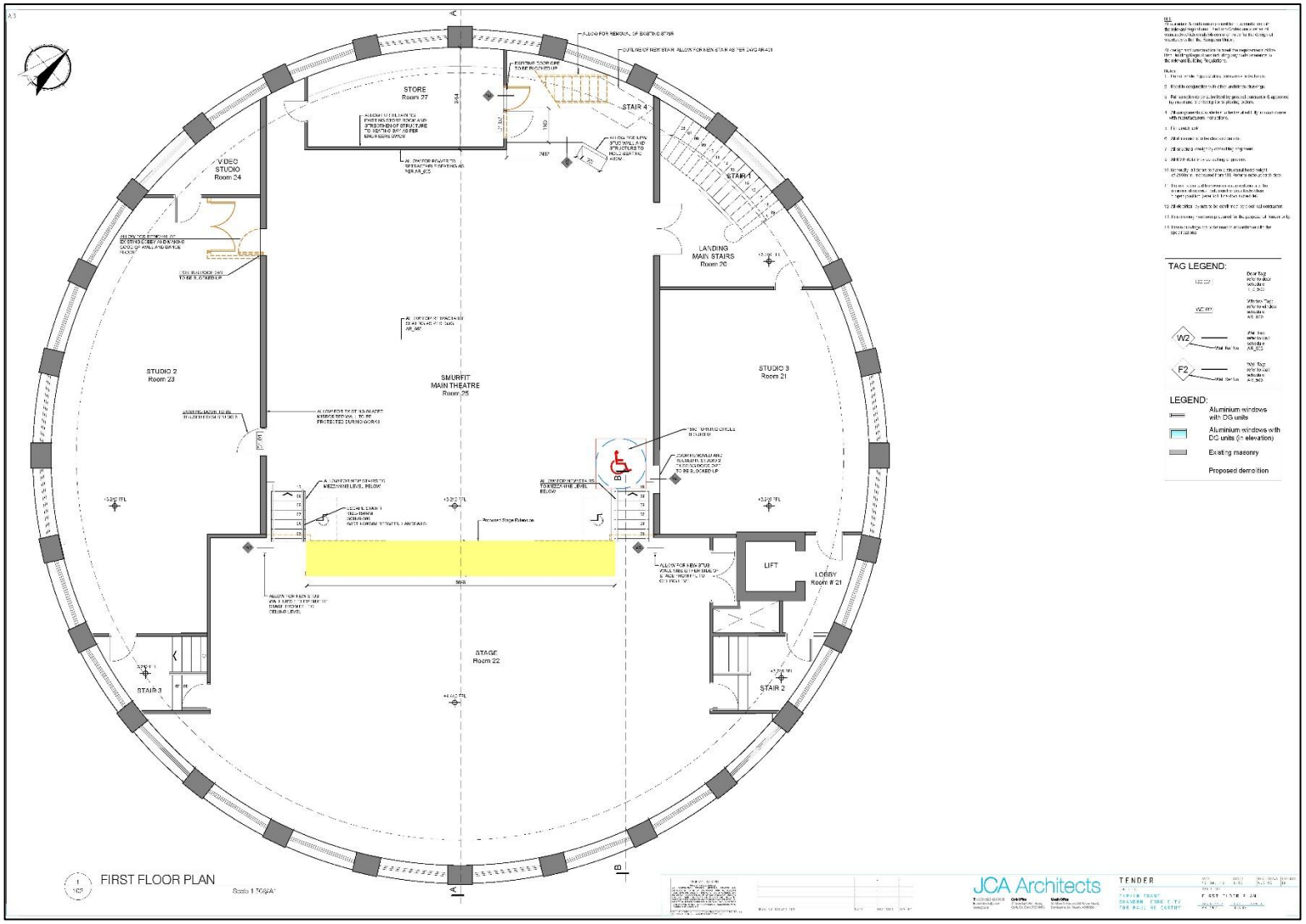
Drawing 1 Topographical Plan view



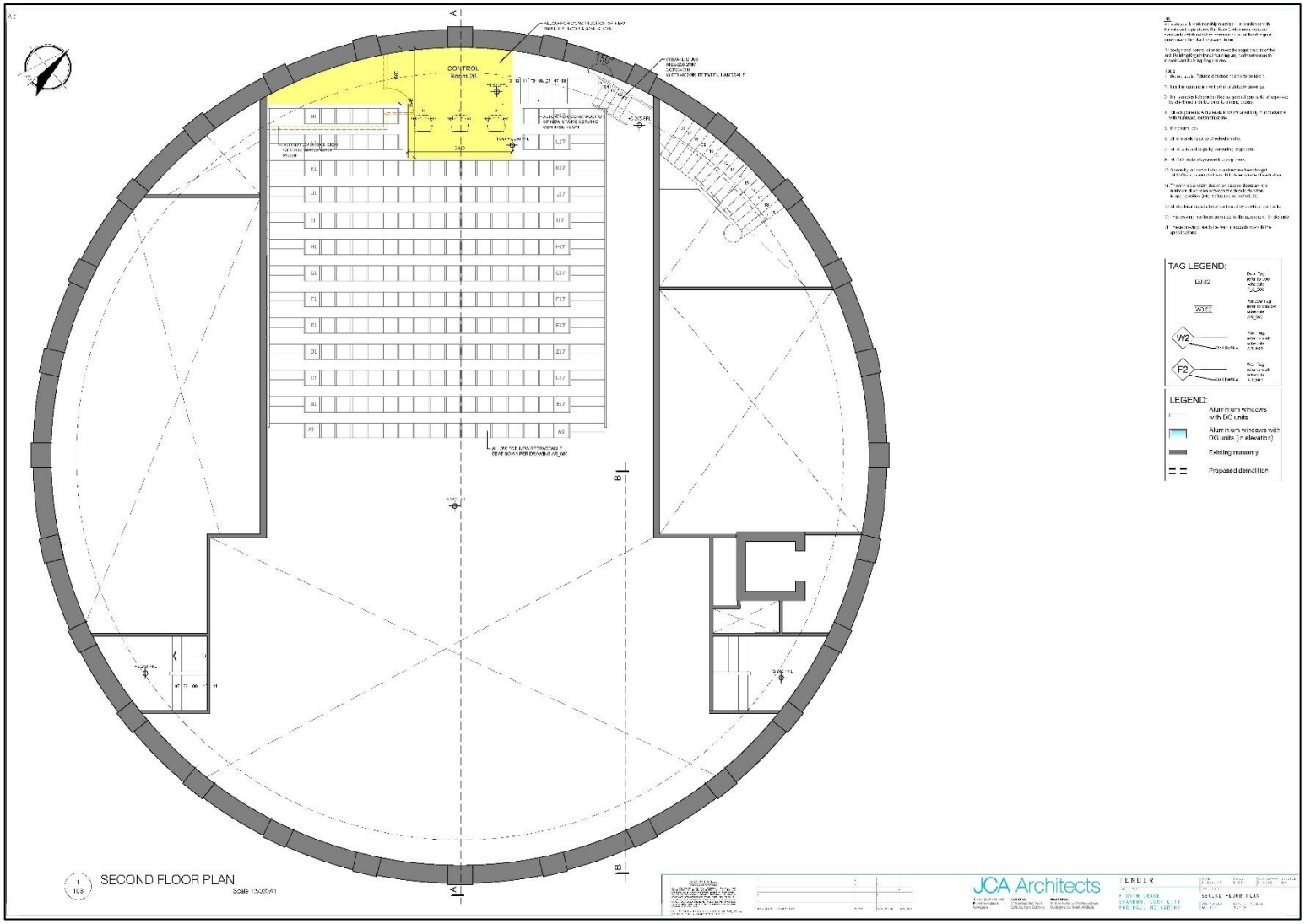
Drawing 2 Ground Floor Plan



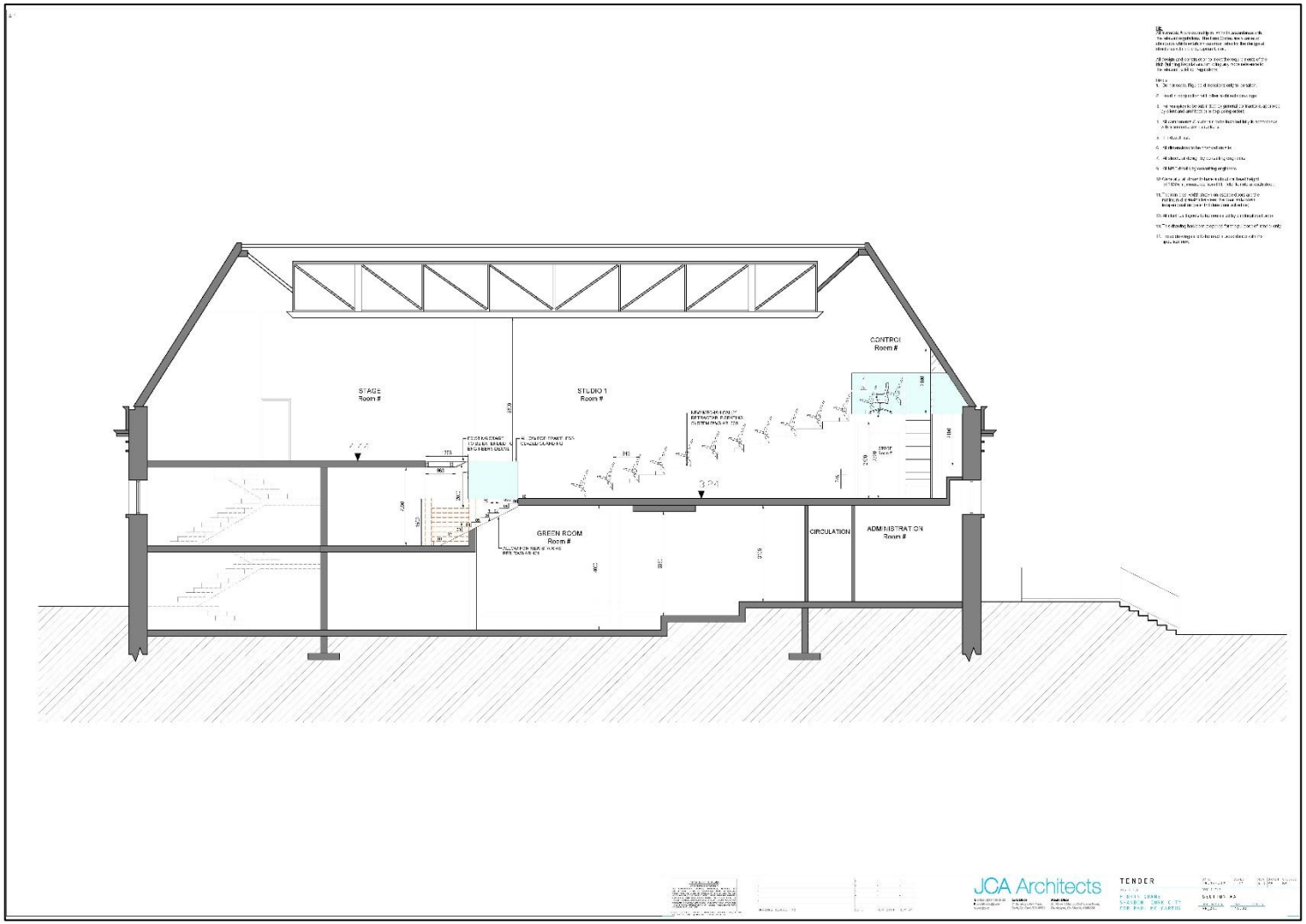
Drawing 3 Mezzanine Floor Plan



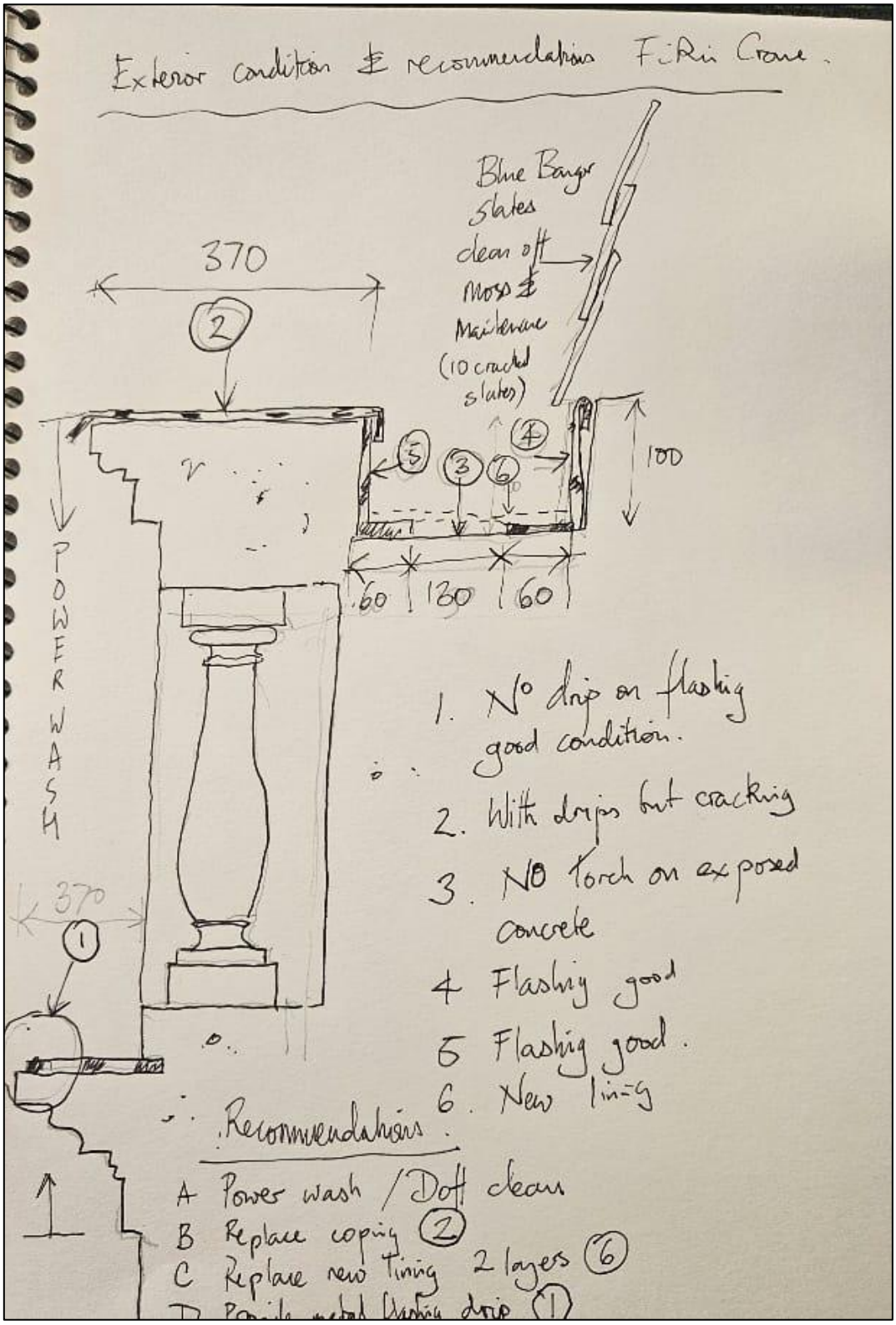
Drawing 4 First Floor Plan



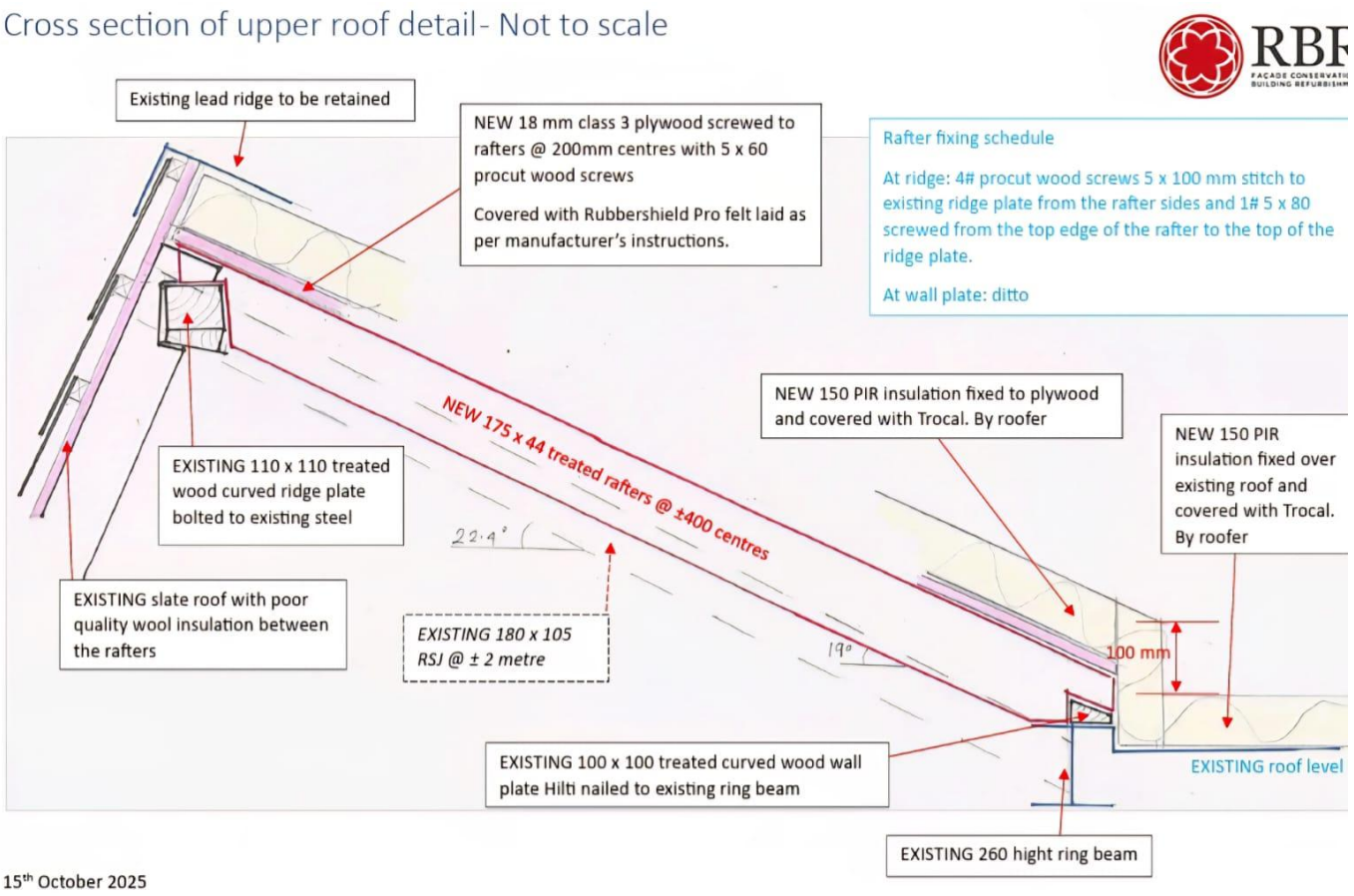
Drawing 5 second Floor Plan



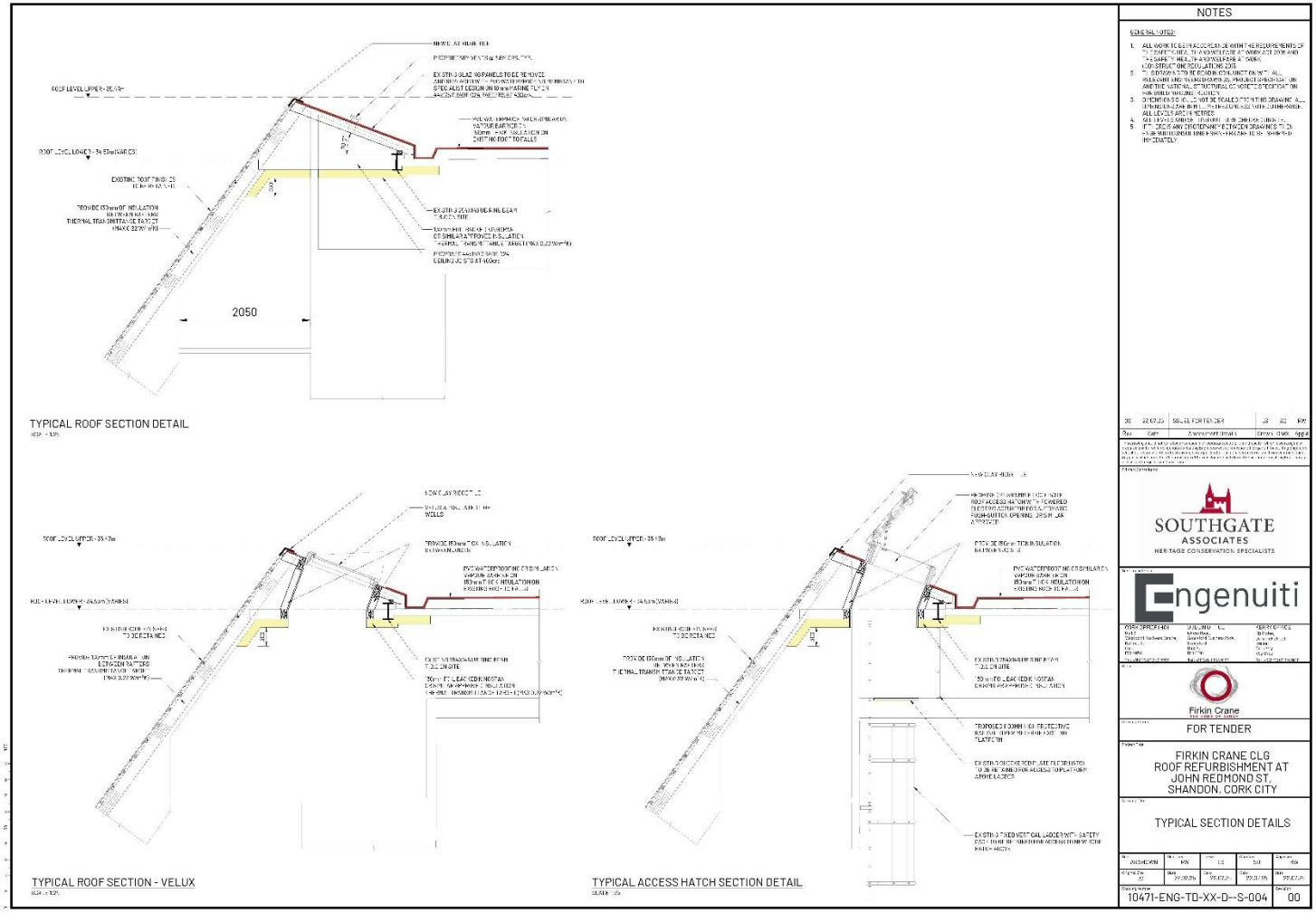
Drawing 6 Section A-A



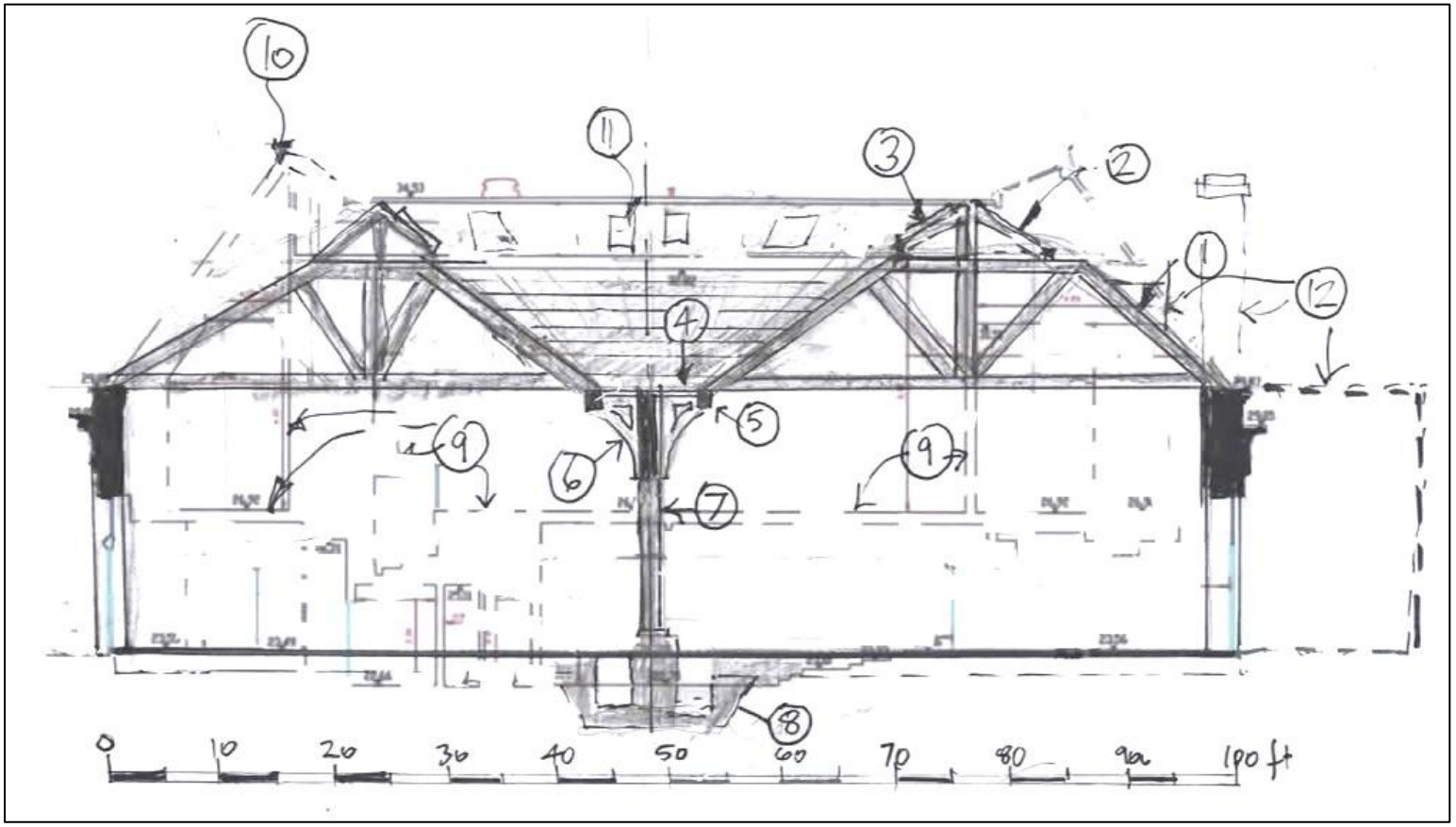
Drawing 7 Parapet Survey Sketch with recommendations



Drawing 8 Proposed conservation and repair drawing - cross section of upper roof detail.



Drawing 9 Proposed conservation and repair drawing – Velux Roof light detail and typical access hatch section detail.



Drawing 10 Interpretative reconstruction of original 1855 roof structure

Key

1. 34 Radial trusses with shallow pitch 2. Shallow secondary truss with ventilation. 3. Rooflights 4. 8-10ft diameter flat roof with central outlet 5. Laminated timber ring beam 6. Cast iron corbel brackets 7. 24-inch diameter cast iron column 8. Rainwater collection pit 9. Modern structure threatens significance of rotunda form 10. Higher modern ridge 11. Probable zinc or bitumen roof 12. Extensions dormers and chimney are probably not part of Benson's concept and are likely to be later additions.

Appendix 7 Maintenance Manual Template

Once a Maintenance Manual is set up, it is recommended that a scheduled inspection take place every year in early spring following winter storms and a more thorough inspection every five years (known as a quinquennial inspection) which would result in regular repair. This may require steeplejacks, experienced in historic buildings often are an effective way of carrying out these inspections at high levels and difficult to access points e.g. roofs and the roof interior. A checklist should include the following and any other features specific to Newport church e.g. the stained-glass windows, organ etc.

Rainwater gutters, channels, hopper heads and pipes

Inspect and clear any debris or blockages after heavy leaf fall, at least every autumn and preferably more often.

Are there any leaking joints?

Does rainwater cascade over the gutter from the roof? Inspect while it is raining and note any leakages. Are the gutters large enough to deal with storm deluges?

Does the water pool in any one area?

- Do the gutters slope correctly towards outlets? You can check this by pouring water into the gutter and checking that it drains away.
- If gutters are fixed to timber fascia boards, check the condition of fascia boards and, at the same time, check the soffit and barge boards.
- Check the rear side of pipes with a mirror and look for cracks and corrosion.
- Are pipes securely fixed to the wall?
- Are there any signs of staining or algae growth, or any washed-out mortar joints, on the wall behind the pipe?
- Fit mesh over the outlets where necessary to prevent leaves, feathers etc. clogging the outlets. Ensure the mesh is cleared regularly especially after storms.

Drainage Gullies

- Inspections should be carried out every autumn (i.e. when there is substantial leaf-fall) and preferably more often.
- Check that drainage gullies are free from silt, debris, vegetation and other objects.

- Make sure that all gully inlets are covered by a grating and that the grates are cleaned regularly especially after storms as moss, feathers etc. can get washed down from above.

Pitched Roof Coverings

- Inspect twice a year and after storms or high winds.
- Debris on the ground will give an indication of roof problems.
- Are there any loose, slipped, broken or missing slates or tiles?
- Is there a lot of moss? This could potentially block gutters and pipes or stop water running off the roof. Retained water in moss can cause thatch to rot.
- Look for signs of dampness on ceilings or in loft spaces as a possible indication of roof leaks.

Flat Roof Coverings

- Inspect twice a year.
- Install mesh over the outlets to prevent debris (leaves, feathers etc) from blocking the outlet. Ensure that these are cleaned regularly.
- Check that gutters and drainage gullies are free from silt, debris and vegetation.
- Are there any splits, tears, cracks or holes in the roof coverings?
- Look for signs of dampness on ceilings or in roof voids as a possible indication of roof leaks.

Ridge, Hip slates

- Are any of the slates missing, lifted or slipped?
- Check to see if there are any open gaps between tiles and arrange for close inspection if necessary.

Flashings

- Are all flashings still fixed into the wall, chimney or roof covering?
- Check to ensure that the joints, where they are fixed, are in good condition.
- Ensure that flashings are dressed down and have not been blown upwards or moved away from the surface of the wall.

Exterior Walls

- Is there deep erosion or missing pointing in the joints?

- Are there any cracks? Is the mortar shrunken?
- Look for defects in stonework, brickwork and rendering such as cracks, deep erosion, missing pointing or crumbling.
- Is there any green staining, algae or vegetation that might suggest issues with drainage systems, flashings or weathering details.

Base of Walls

- Check to ensure that ground levels are at least 150mm below the level of any known damp-proof course or 150mm below internal floor levels.
- Ensure that vents are not obstructed.
- Remove plants and vegetation growing on, or close to, the building if they are causing damage.
- Is there any green staining, algae or vegetation that might suggest issues with drainage systems or ground water?

Windows and Doors

- If made of timber or metal, is the paintwork in good condition and is there any decay?
- Check for bare timber, especially on thresholds, sills and lower and underside areas of window sashes.

Building Services, Pipes and Flues

- Check water and heating systems for leaks.
- Ensure that pipes are lagged.
- Electrical and gas installations should be regularly inspected by certified experts.
- Inspect chimney flues and ensure that they are clear from obstruction and do not leak.
- Check for signs of leaking mains water supply pipes and stop valves near the building.
- Test fire alarms, smoke detectors and carbon monoxide alarms.

Bird and Insects

- Are there any birds' nests that are causing issues either from debris or guano build up in chimneys or roof spaces?
- Are there any insect infestations e.g. woodworm/bees/wasps' nests requiring treatment?

- Block entrances and treat where necessary. Bear in mind that bats (which are protected by law) may be present and access must be kept for them or advice taken on their relocation where necessary.

Vegetation

- Check that vegetation is removed (e.g. briars on the tower roof) and that regular inspections involve removing any newly established vegetation.

Ironwork

- Significant exterior ironwork such as the Lanterns on the plinth and railing should be inspected for any signs of rust. They should be sanded and re-painted every 5 years to prevent rust

Internal floors

- Encaustic tiles in the porches should be inspected for cracks or damage. Replacement tiles can be ordered from Minton and Hollands and cut to the appropriate shape and size. Encaustic tiles should be polished with Johnsons Carefree triple polymer emulsion polish.

Piers on the entrance plinth

- It was noted that mortar has fallen out of some of the mortar joints. This may have been due to a collision with a vehicle. Piers should be inspected annually and mortar replaced where mortar has fallen out.