

**BARNSELY CIVIC HALL ,ELDON STREET , BARNSELY
FAÇADE, ROOF , DRAINAGE AND TILED FLOORING CONDITION
SURVEY**



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**BARNSELY CIVIC HALL FAÇADE, ROOF, SURFACE DRAINAGE SYSTEM AND TILED FLOOR
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1 INTRODUCTION

1.1 *Origin of the report*

- 1.1.1 Quadriga were commissioned by Evolve 2 Consult Ltd on behalf of Barnsley Civic Enterprise Ltd to undertake a survey of four elements of the Barnsley Civic Hall on Eldon Street Barnsley.
- 1.1.2 The four elements of the survey are, a condition survey of the front masonry façade to Eldon St, a condition survey of the Roof Coverings to the Historic element of the building facing Eldon Street, a condition survey of the water drainage system to the front façade and a condition survey of Tiled and Mosaic flooring to the ground floor
- 1.1.3 The survey is based upon a Specification for a survey issued by BB heritage Studio Conservation Architects document P0219_SS_REP003 issued August 2021. This was followed by a quotation from Quadriga Contracts Ltd dated 10th September 2021 and followed by a formal order to proceed on 25th November 2021.
- 1.1.4 The purpose of the surveys being to establish the current condition, record any items that may be of danger to the public or tenants, compile a schedule of defects and offer budget costings for any remedial works.
- 1.1.5 The building is a Grade 2 listed constructed 1887 in a Baroque style. Built in a Buff Pennine Sandstone (quarry not known at time of survey) with a brick backing. The roof is of natural Blue Welsh slate. Originally built as a public hall and reading rooms.
- 1.1.6 The building has been extensively restored and renovated in the early 2000's with major insitue repairs to the masonry and a a full re roof of the building and halls to the rear.
- 1.1.7 The building is located on Eldon Street Barnsley with a postcode reference of S70 2JL.
- 1.1.8 Revision 1 issued 1st February 2022, with revision to comments on Mosaic tile budget cost .



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1.1.9 The visual and tactile survey was carried out over a period during late January 2022.

1.1.10 This report is broken down into the 4 no elements

- Façade to Eldon Street
- Original Roof element to Eldon St
- Surface water drainage system to the Eldon St elevation
- Encaustic Floor tiling and Mosaic tiling to the ground floor.



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2 Masonry Survey

2.1.1 The survey was requested to record current defects to the stonework and jointing mortars.

2.1.2 The survey was predominantly visual, hammer tests were carried out to areas suspected of being loose or failing.

2.1.3 Access to the perimeter of the building was via a 37m truck mounted MEWP.

1.1.1 The type of defects requested to be recorded were:

- *Loose or dangerous sections of masonry*
- *Defective pointing*
- *Metal Fixings*
- *Vegetation*
- *Cracking/fractures /fissures/joint movement*
- *Previous repairs if in a poor condition*
- *Any items which may be detrimental to the natural water shedding of the façade*
- *Any defects which may allow moisture penetration into the structure.*
- *Surface staining*

2.1.4 A schedule of defects has been prepared listing the defect types See Appendix 1. Each defect has been given an item number, which is cross referenced for location on elevation drawing, see Appendix 2. Where practicable and not repetitive, defects have been photographed, each photograph being numbered and identified against an individual repair item, see Appendix 3.

2.1.5 Suggested repair methods are made based upon minimal intervention with conservation of as much of the original fabric as possible being the principal guide to repair methods.

2.2 Inspection procedures and Limitations

2.2.1 The inspections were carried out on site, during January 2022 with submission of this report made in February 2021.

2.2.2 The building was occupied throughout the survey period.



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- 2.2.3 All works were carried out in accordance with the method statements submitted by Quadriga Contracts Limited, and in compliance with statutory, company and client safety policies and regulations.
- 2.2.4 Conditions during the survey were damp and cold.
- 2.2.5 All sizes and dimensions offered are approximate. Costings offered are based upon the defect sizes noted within the schedule. Contingencies should be allowed for further costs should defects extend beyond those stated and identified in the schedule close access is gained.
- 2.2.5.1 The full extent of repairs will not be established until cleaning works are complete. Moss algae and loose deposits will be removed by the cleaning process which will highlight further defects.
- 2.2.5.2 The repairs proposed are based upon the view of the attending surveyor. Differing repair methods could be considered by the Conservation Authorities. Further discussions with Conservation Authorities should be undertaken to establish and agree all repair methods.
- 2.2.5.3 This report is limited in its scope to that as listed in previous paragraphs. Parts of the property or defects that are not relevant or outside the boundary of the report are not included within the scope of the report. The report has been commissioned for Barnsley Civic Enterprise Ltd for a particular purpose, this report is not intended for other parties other than the client's representatives.
- 2.2.5.4 This report does not offer any view on structural defects. Where the surveyor has suspected possible structural movement, a comment has been added to the schedule, requesting that the view of a Conservation Structural Engineer is sought.



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2.2.5.5 The classification of some defects can in some instances be subjective. Other parties may have differing views / opinions on the definition of a defect or the necessity for a defect to be made good. The criteria for defect repair is based upon Quadrigas opinion and experience with other similar projects.

2.2.5.6 A bird deterrent netting system is installed on the façade. This was not removed during the survey. A decision was made by the attending surveyor to leave the netting in place based on the additional information that could be gained with its removal, versus the costs involved in removal and reinstatement. Also, the majority of areas could be reached through the netting and the netting offers an element of public protection from failing previous repairs and potentially loose finial details.

2.3 General comment

2.3.1 Many of the defects noted around the façade area are repetitive, with similar defects being highlighted in most areas.

2.3.2 The most common defects are.

- Failing mortar joints
- Failing previous mortar repairs
- Surface delamination of the stone
- Cracks, fractures or natural fissures in the stone
- Chips / mechanical damage to stonework (many from the installation of the netting system)
- Loose finial details
- Redundant fixings
- Damage /staining due to moisture ingress
- General surface erosion from previous abrasive cleaning
- Structural movement

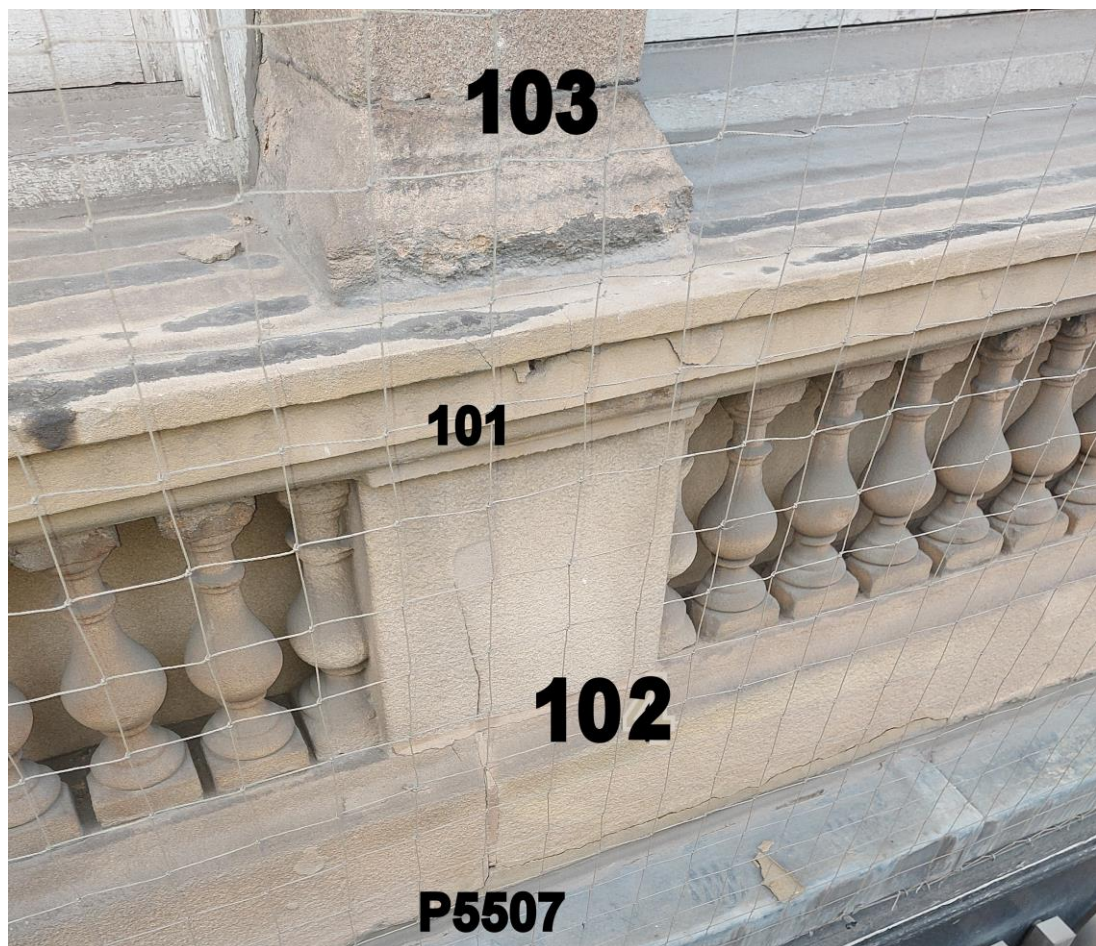
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2.4 Detailed comments on defects

2.4.1 Failing previous repairs

2.4.2 The façade has been extensively repaired with in situ mortar. Many of these repairs are still sound to a hammer test. Some show signs of crazing (fine cracking) but are still soundly bonded to the host stone. Where this is the case, the repairs have not been considered for any further intervention. See Photo 5507

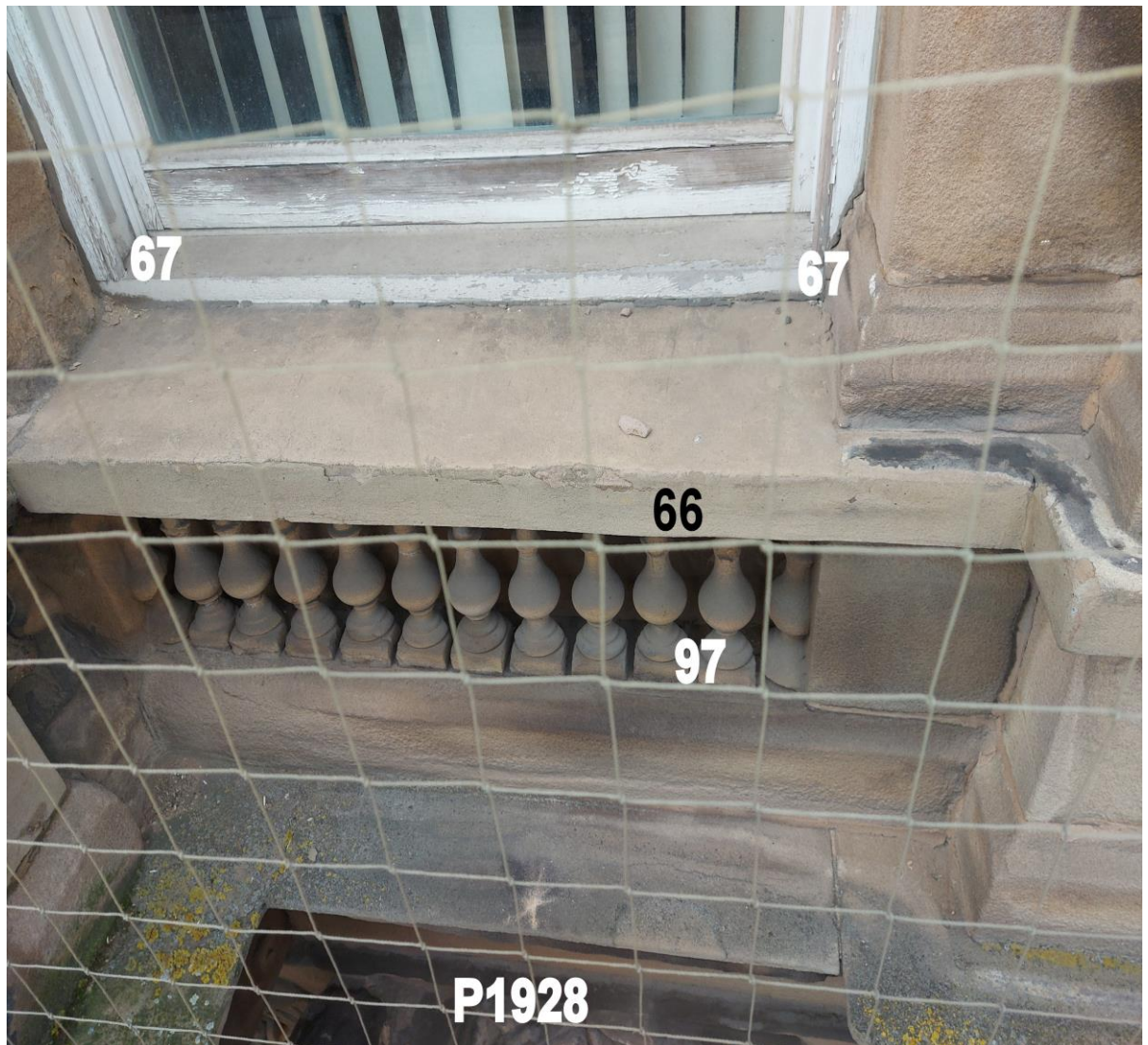
2.4.3





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- 2.4.4 Some repairs are noted as failing and coming loose. The Bird netting system has contained the larger sections that have become loose. The cause of failure is noted as a number of reasons. The repair being too shallow. In some cases, as thin as 2 or 3 mm, insufficient cutting out at the perimeter resulting in feather edges and insufficient keying (cutting into the surface to increase the bonding qualities). See Photo 1928.



2.4.5



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- 2.4.6 Where repairs are noted as failed or failing the decision to re-restore needs to be considered. It was noted in some locations where no cutting into the stone for a key had been performed that the revealed face was sound and could be considered for redressing rather than re – restoring. The façade has been Abrasive cleaned likely in the 1980's. During this period course abrasive mediums and high air pressure were commonly used, resulting in surface erosion and loss of finer detail (i.e. edges to arris's). With this in mind reforming damaged details to a 'crisp' detail becomes less significant. Any insitu repair has a limited life expectancy dependant on number of issues such as exposure, the base stone, preparation and the quality of the mortar. Also to affect a 'good' repair it may be necessary to remove more of the original stone to enable a minimum depth of repair (around 10mm). Most conservationist believe in retaining as much of the original fabric as possible.
- 2.4.7 Given the above, consideration should be given to redressing areas of failed repair by hand rubbing loose and friable surfaces to a sound base suitable for water runoff. Where suitable water run off cannot be achieved or the extent of erosion or decay is a major visual disfigurement restoration could be considered. Where the depth is excessive indentation with new stone may be required.
- 2.4.8 **Surface delamination or erosion**
- 2.4.9 Areas of the stone have become friable resulting in either crumbling or flaking of the surface. Generally, very shallow surface loss is noted (1 to 3 mm). See Photo P0537.
- 2.4.10 In most instances removal of the loose surface by combined use of a bronze bristle brush and handheld masons drags will reform a hard weathering surface (redressing).

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2.4.11



2.4.12

There is a large area of surface erosion to the lower 3-4 courses to the right-hand side of the main entrance. The extent and manner of any remedial works is a debatable and subjective issue. Differing opinions will be offered by many as to whether the decayed areas should be cut back, thus removing more of the original stone, with the aim of replacing it with new detailed stone sections. Alternatively, the area is prepared for restoration reforming the original design in an insitue mortar. This would preserve much of the original stone. The last option being to stabilise any loose areas by re dressing and repoint any defective joints. This preserves the original stone, and it is accepted in its weathered state as being part of the history of the building. This discussion needs to be held with the local Conservation authorities and funding parties. For the purpose of budgeting a provisional cost is offered for stone replacement. An agreement as to which individual units are to be made good (if any) needs to be agreed prior to determining this cost accurately.

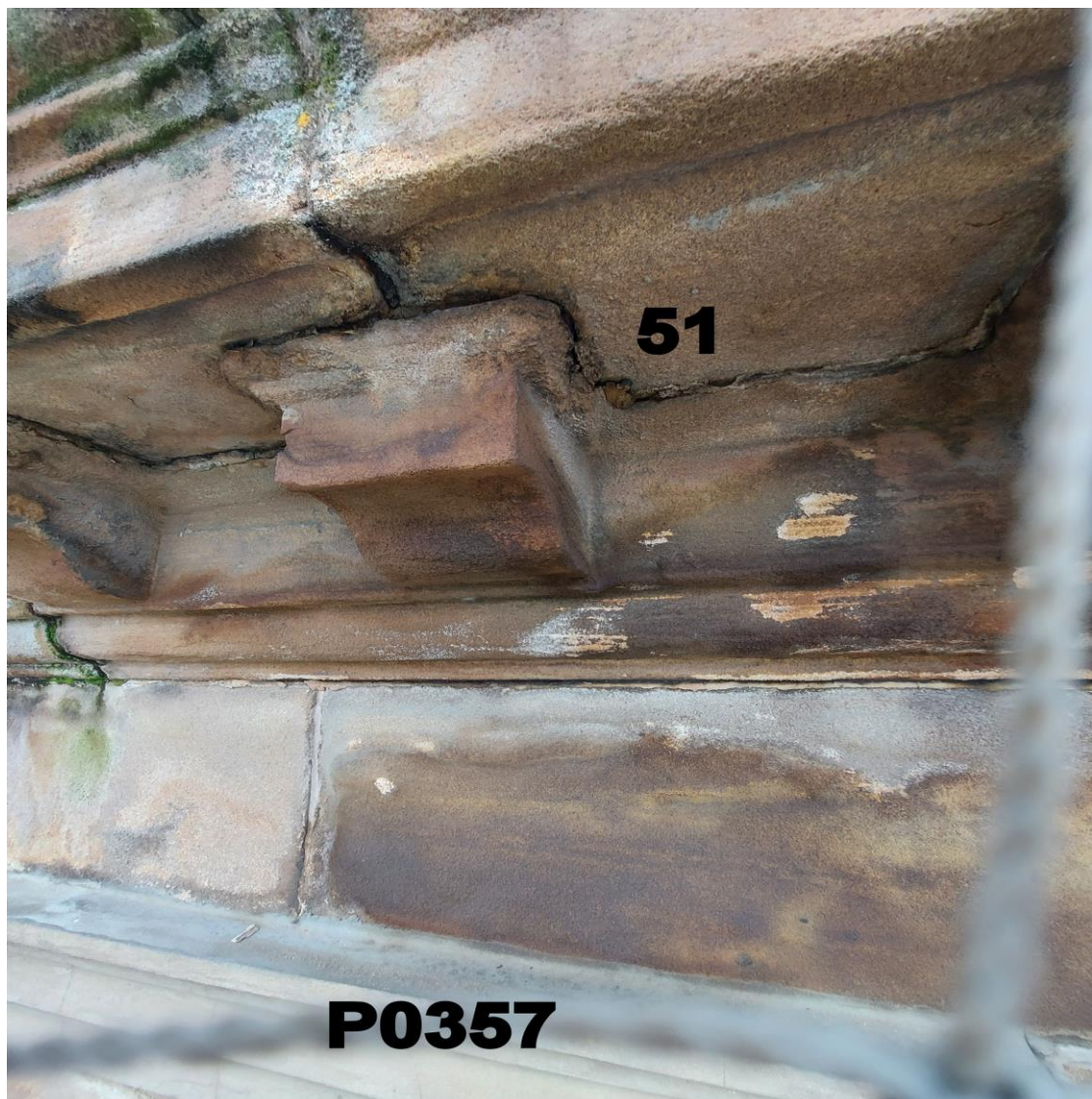


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2.4.13 **Mortar Joints**

2.4.14 In general, the mortar jointing is sound. Much would appear to be cementitious mortar. This is not causing any issue with accelerated decay of the adjacent stone or appear to be having any effect on moisture movement. Removal of the mortar would result in damage to the adjoining masonry. It is therefore suggested that existing mortars where there is no failure noted are left intact.

2.4.15 There largest area of failing mortar is to the cornice over the 2nd floor. The perpendicular joints and 2no bed joints are showing some erosion and moss growth This full section will require repointing. See Photo P0537.



2.4.16



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- 2.4.17 The copings at parapet level also show signs of decay and moss growth.
- 2.4.18 There are numerous odd open / decaying / eroded joints which would be 'patch pointed' These are too numerous and spread out to be individually marked on the schedule. A provisional quantity is therefor offered to cover such patch pointing.
- 2.4.19 Cleaning works will highlight additional faulty mortar joints.
- 2.4.20 Where there are larger specific areas of failing mortar joint these are listed as a specific item on the schedule.
- 2.4.21 **Cracks or Fissures**
- 2.4.22 There are a number of natural fissures in the stone where surface erosion has further exposed or made them more evident. In general, these are not deep and are of no detriment to the stone or its stability. In most cases such defects would not be addressed.
- 2.4.23 There are a small number of cracks to individual masonry units. Where these may result in a section of stone becoming loose these would need to be 'pinned with a fine stainless-steel rod and polyester resin, with the crack being made good in restoration mortar. Many will only require repointing.
- 2.4.24 A number of finial details have cracks in their stems (narrow section). Some where noted as loose (wobbly)but not unstable as to be in danger of falling imminently. Removal with access from a MEWP would not be considered sake so the units where left undisturbed during the survey. The Bird netting system offers an element of protection if a finial detail where to become dislodged.
- 2.4.25 **Redundant fixings**
- 2.4.26 There are a number of redundant fixings on the façade these should be removed and made good with restoration mortar.
- 2.4.27 There are two sets of metal 'loop' fixings which appear to be quite 'old' if not original. These do not appear to be of any detriment and are not considered for removal in this report. See image P1050.

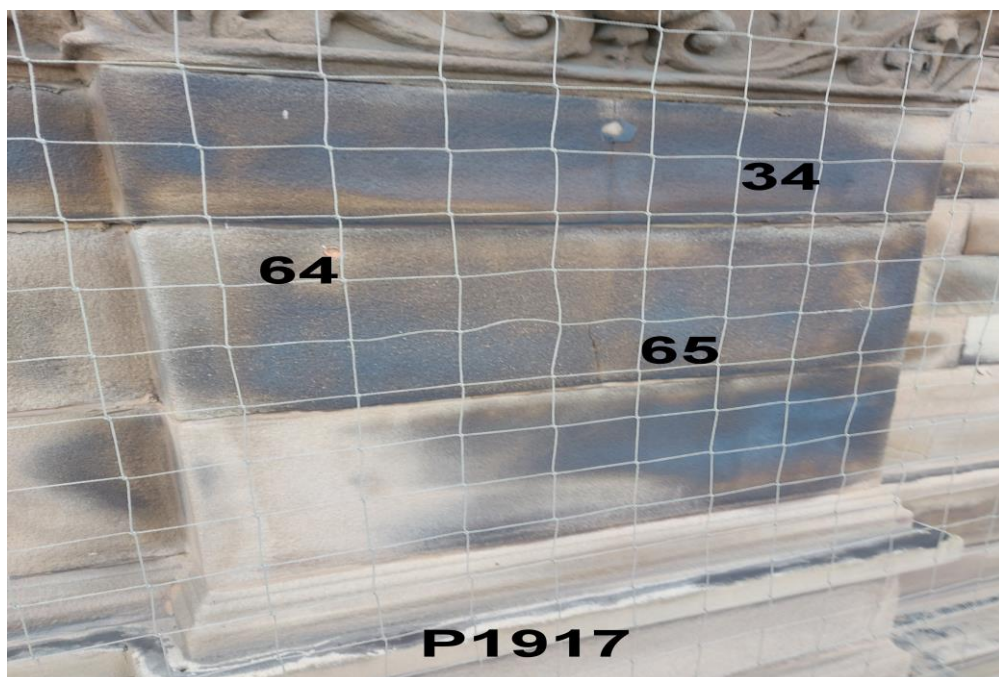
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2.4.28

2.4.29 **Surface Staining**

2.4.30 There are a number of areas particularly at high level with heavy black staining. It is difficult to offer a view as to the cause. These stains are typical of carbon staining, common on such buildings of its age due to industrial smogs of the early 20th century. Indeed, it is likely that the building was almost black, and this is the reason abrasive cleaning was considered at some point as the cleaning medium. See photo P 1917



2.4.31



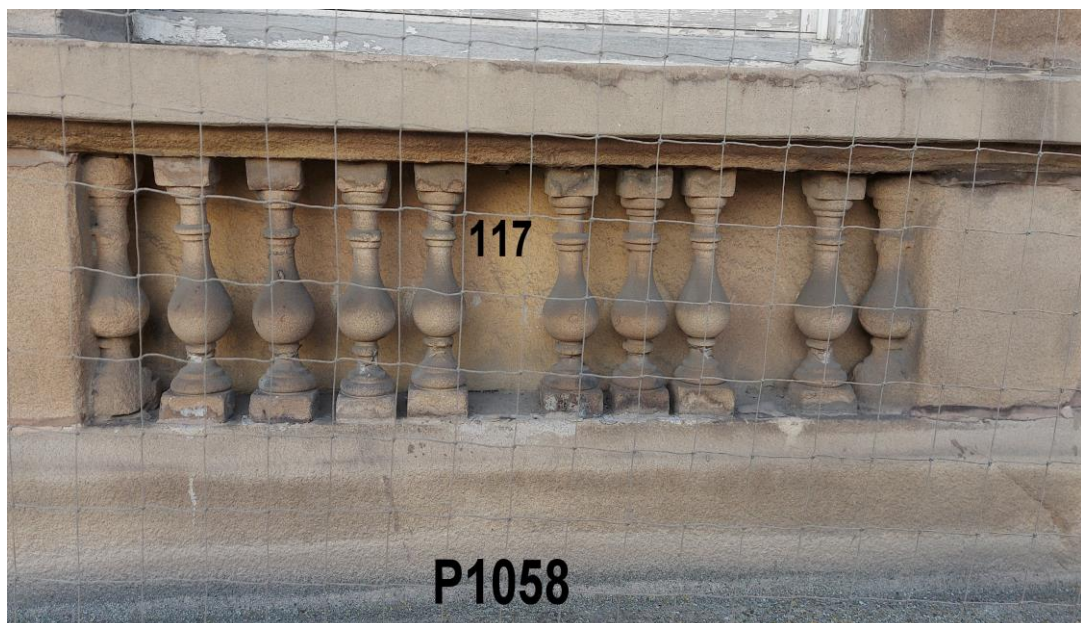
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2.4.32 However, images taken in 2004 show the building in a 'clean state. Thus, these markings have appeared over the last 17 years. Similar staining could be identified with damp penetration. However, as the roof area was totally refurbished during the early 2000's and there are no current signs of water damage this would appear not to be the case.

2.4.33 The extent to which these areas will improve after cleaning will not be known until samples of cleaning are undertaken. The methods of cleaning are now very restricted. Chemical cleaning and abrasive cleaning are generally not acceptable to Conservation Authorities. Systems such as Doff and Thermotec will have limited results on such markings. Consideration may be offered to newer light abrasive techniques such as Joss system or similar. Again, this would be subject to discussion with the local Conservation Authorities.

2.4.34 **Missing Stonework**

2.4.35 There are a few missing small baluster rails to the mock balcony areas at second floor level. These should be considered for replacement. See Photo P1058.



2.4.36



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2.4.37 **Minor Chips and Spalls**

2.4.38 Where relatively small chips or spalls occur these have been ignored as repair items unless they are in a significant location (ie one over the main entrance) or they effect water runoff.

2.4.39 Many of these spalls have occurred during the installation of the bird netting system where pins have been drilled through too close to leading edges.

2.4.40 **Structural Movement**

2.4.41 One area of cracking was noted (item 60) . Although not considered significant by the surveyor the projects structural engineer should review the item for comment. See photo P1306.



2.4.42

2.4.43



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2.4.44 **Plant Growth**

2.4.45 There are a couple of instances of small plant growth on the façade. One area of light fern growth to the underside of the main cornice, and one to the rear of the parapet. It is important that items such as these are dealt with on regular maintenance schedules. Significant damage can occur very quickly from root systems if left unattended resulting in serious water ingress.

2.5 RECOMMENDATIONS / SPECIFICATION

2.5.1 **Masonry Repairs.**

2.5.2 In the interest of preserving as much of the existing fabric of the structure we would recommend the following series of operations

2.5.3 A method of repair for each common defect is listed below.

2.5.4 Repairs should only be carried out by competent Restorers and Masons.

2.5.5 **Defective joints**

2.5.6 Open or defective joints are to be cut out to a minimum depth of 15mm or not less than twice the width of the joint. Small mechanical tools may be used by skilled operatives only and only when it can be shown that no damage by overcutting into the terracotta or brick can be achieved.

2.5.7 Joints should be brushed and flushed out with clean water to remove any loose dust.

2.5.8 A test panel of pointing mortar is to be offered prior to the works to establish a suitable lime-based mortar.

2.5.9 A previously approved mortar mix is to be carefully hand tooled into the joint taking care not to smudge on to the face of the stone. Finishing with a neat mason's joint.

2.5.10 All constituents of the pointing mix shall be clean and free from contaminants and obtained from the same source throughout the works.



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- 2.5.11 Mortars should be colour matched with existing to avoid a patchy appearance. Companies such as Masons Mortar Ltd or Womersley's offer colour matched pre mixed mortars. This would maintain mix qualities are maintained throughout the project.
- 2.5.12 **Restoration to failed previous repairs**
- 2.5.13 To be reviewed after full removal of existing mortar with a view to considering redressing in lieu of restoration
- 2.5.14 Carefully cut out areas of decayed or defective stonework using mechanical hand tools to leave a sound keyed surface.
- 2.5.15 Edges to repairs should be slightly undercut to assist a key and attain a minimum depth of 10mm to avoid feather edges. Repairs to be squared off to mimic the appearance of an indent repair.
- 2.5.16 Introduce non-ferrous reinforcing rod and wire to deep areas or where repairs are projecting securing reinforcement with an appropriate polyester resin, according to need and the extent of repair.
- 2.5.17 Introduce any preformed supports according to need and the extent of repair.
- 2.5.18 Restore forward in layers in specialist lime-based Stone Restoration Mortar compressing well on to a pre dampened surface and around any reinforcement. For continuity and mix control pre bagged restoration mortar from companies such as Masons Mortar or Womersley's are available. Or mixes should be developed on site and installed by only experienced Mason Restorers.
- 2.5.19 The finish is to be worked with wooden profiles to match the original profile.
- 2.5.20 Should it be found that upon cutting away that the depth of decay precludes achieving a sound mechanical base on which to apply the repair mortar it may be necessary to affect a new stone replacement.



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2.5.21 Removal of old Metal fixings

2.5.22 Old metal fixings are to be removed by core drilling around the fitting using the smallest core drill diameter to cover the fixing.

2.5.23 The residual hole is to be made good/ restored in the approved restoration mortar.

2.5.24 Indenting or Replacement

2.5.25 Prior to commencing of the works a detailed drawing is to be produced of each unit to be manufactured

2.5.26 New stone blocks to the recorded detail and sizes should be sourced from a previously agreed quarry which can offer a good match for the existing stone type

2.5.27 Carefully cut out defective stone ensuring that the arises of the aperture are clean, square and undamaged.

2.5.28 Cut out to a suitable depth to ensure a secure base for the proposed new unit.

2.5.29 Bed on a mortar bed previously approved as the pointing mix incorporating stainless steel rods secured with an appropriate polyester resin.

2.5.30 On completion of the fixing, beds and joints are to be carefully pointed to match as near as possible the surrounding stonework.

2.5.31 Pinning Fractures or Cracks

2.5.32 Drill a hole to achieve a right-angled intersection across a fracture. The diameter of hole is to be determined by the size of the dowel pin which will be determined by the location and size of the fracture.

2.5.33 Drill to penetrate into the backing masonry to a suitable depth to ensure a ridged fixing, depth to be determined on location and size of the fracture.

2.5.34 Carefully blowout all dust from the hole and set in a stainless-steel threaded rod in a suitable polyester resin.

2.5.35 Make good the drill hole with approved restoration mortar.



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2.5.36 Point up the fracture with pointing mortar. It may be necessary to widen the fracture to ensure a sound key for the pointing mortar.

2.5.37 Long fractures may require 2 or more pins along their length.

2.5.38 **Cleaning**

2.5.39 The façade should be thoroughly cleaned down using the Doff or Thermotec or similar cleaning system.

2.6 BUDGET COSTS

2.6.1 Budget costs are offered as a guide to assist in project budgeting. See Appendix 4.

2.6.2 Costs relating to stone replacement are provisional subject to agreement on the extent of replacement required.

2.6.3 Costs are based upon works being undertaken in the year 2022, works after that date would be subject to inflationary costs.

2.6.4 Costs do include scaffolding, hoisting or cranage, skips etc and a provision for prelims

2.6.5 It would be assumed welfare, storage and office facilities would be available within the building for the works

2.7 APPENDIX 1 REPAIR SCHEDULE

2.7.1 Excel and PDF document listing all repairs record, item number, relevant photo image number, provisional quantity and unit of measure

2.8 Appendix 2 GENERAL ELEVATION DRAWING

2.8.1 Drawing indicating location of each defect/ repair as listed in the Repair Schedule

2.9 APPENDIX 3 PHOTOGRAPHS

2.9.1 Images are identified by last 4 digits of JPG number .

2.9.2 Folder 1, containing images of individual repair items as listed on the schedule in Appendix 1 .



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2.9.3 Folder 2. General images of the facade

2.10 APPENDIX 4 BUDGET COSTS

2.10.1.1 Copy of Schedule from Appendix 2 with inserted budget costs.



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3 Roof Condition Survey

3.1 Extent of Survey

- 3.1.1 The survey was requested to record current defects to slate coverings, lead detailing and flat roof areas.
- 3.1.2 The survey was predominantly visual with limited safe access to a small area to the rear of the building.
- 3.1.3 Access to the perimeter of the building was via a 37m truck mounted MEWP.
- 3.1.4 Access to inner roof areas was limited to those safely accessible from roof access doorways only.
- 3.1.5 Drone video survey was requested as part of the report commission, however due to Civil Aviation Authority permission to fly was not granted on the day of the planned survey. However, a previous and recent drone survey has been undertaken and these images have been used to assist in the production of this report.
- 3.1.6 For the extent of the survey was to the front elevation pitched roof and dormers. A general overview was made of the remaining roof over the main hall without a detailed internal inspection.



3.1.7



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CONDITION SURVEY

3.2 *Inspection procedures and Limitations*

3.2.1 The inspections were carried out on site, during January 2022 with submission of this report made in February 2022. All works were carried out in accordance with the method statements submitted by Quadriga Contracts Limited, and in compliance with statutory, company and client safety policies and regulations.

3.2.2 The building was occupied throughout the survey period.

3.2.3 Conditions during the survey were damp, cold and freezing resulting in limited safe access to flat roofs due to ice.

3.2.3.1 An internal inspection was made at ceiling level of to establish any water staining and thus identify likely areas of defects to the roof. Given that the internal decorations were in very good order defects where easily identifiable.

3.2.3.2 Access was via a 37m truck mounted MEWP to view the main section of the roof.

3.2.3.3 Limited access to the front pitch and dormer roofs was possible due to the bird netting system extending over the roof area.

3.2.3.4 No tactile or opening up was possible or accounted for within the scope of the survey.

3.2.3.5 General photographs of the roof area taken from the elevated position of the MEWP and the drone images are included in Appendix 5.

3.2.4 **Survey Limitations**

3.2.4.1 Access for visual inspection was restricted due to the limited safe access points on to the roof.

3.2.4.2 Bird Netting to the front elevation restricted close access.

3.2.4.3 All survey work was carried out under appropriate RAMS for working at height.

3.2.4.4 A number of assumptions have had to be applied to the roof construction.



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CONDITION SURVEY

3.3 General comments

- 3.3.1 The roof appears to have been fully refurbished circa early 2000's, to a good standard.
- 3.3.2 Slates where sound, none were noted as slipped or missing. A small number were noted as having corners missing, likely from installation and these are not detrimental to the ability to the roofs performance.
- 3.3.3 Ridge and hip tiles where in place with pointing mortar in good order.
- 3.3.4 Lead work to valleys, box gutters and flashings appeared sound with no damage, sag and tears identified.
- 3.3.5 No comment is available regarding the condition of the slate battens , nails or roofing felt as no opening up works where undertaken . However, there is nothing to suggest any issues when external viewed or from internal finishes.
- 3.3.6 Outlets to box gutters appeared clear and unobstructed.
- 3.3.7 The gutter to the adjoining property on the North side appears to me out of alignment and slipped. This is resulting in excessive discharge on to the roof of the Civic Hall. This however does not appear to affect the integrity of the roof. The adjoining landlord should be notified, and access granted for them to remedy the defect.



3.3.8



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3.3.9 Gutters to the East face of the main hall had some moss growth. These should be regularly cleaned and maintained.

3.3.10 The remaining roof area over the main hall is in good condition with no obvious defects from a general overview noted. Full drone image photographs are available

3.4 Internal Inspection.

3.4.1 A walk around the upper floor revealed no water staining from potential leaks Except for 2 locations around the small access hatches between the dormer window sections. Staining suggested water ingress around the frames. Internal surfaces were dry. Externally it appears that additional mastic has been applied around the frames. Although untidy (due to the awkward access) these repairs appeared to be functional. The area would need to be inspected after a period of heavy rain to fully assess the watertightness of the repairs.



3.4.2

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3.5 **Appendix 5**

- 3.5.1 Folder 1 Containing images of the roof over Eldon Street elevation
- 3.5.2 Folder 2 Containing Drone images of full roof to Civic Hall



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4 Drainage System Report

4.1 Extent of Survey

- 4.1.1 The survey was requested to record current defects to water discharge system to the Eldon Street elevation.
- 4.1.2 The survey was visual only. No video drain survey was commissioned for this report.
- 4.1.3 Access to the concealed drainage system was through a number of access hatches at 3rd floor level and down the façade at either end of the facade.

4.2 Inspection procedures and Limitations

- 4.2.1.1 The inspections were carried out on site, during January 2022 with submission of this report made in February 2022. All works were carried out in accordance with the method statements submitted by Quadriga Contracts Limited, and in compliance with statutory, company and client safety policies and regulations.
- 4.2.1.2 The building was occupied throughout the survey period.
- 4.2.2 Conditions were dry with no running water in the system.
- 4.2.2.1 General photographs of the pipework exposed where taken images are included in Appendix 6.

4.3 Survey Limitations

- 4.3.1.1 Access for visual inspection was restricted spot locations due to all pipework being enclosed in stud walling and boxing.
- 4.3.1.2 No access was available to review outfall into sewer system

4.4 General comments

- 4.4.1 The drainage system appears to be in good order. Joints inspected appeared sound with no evidence of water egress or water marks from drips or floods.

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- 4.4.2 Pipe work is 100mm plastic. Each section between the roof dormers has a single outlet, with a hold drain through the box gutter into a pipe running to fall set internal above the 3rd floor.



- 4.4.3
- 4.4.4 The internal pipe work is continuous across the front elevation but has a 'break back' on the falls at centre point. I.E. the pipe falls in two directions. This obviously provides a benefit in that if one outlet from the building is blocked discharge water can back flow to the second discharge point.
- 4.4.5 Externally each box gutter between the dormers has a 'holed outlet'. All appeared clear and clean.

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4.4.6

4.4.7

There are two discharge points at either corner of the Eldon Street elevation, each boxed into the full height. These pass into the basement area and out through the basement wall to Eldon Street assuming into the surface water drainage system.



4.4.8



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4.5 *Appendix 6*

4.5.1 Folder Containing images of drainage system.

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CONDITION SURVEY**

5 Encaustic tile and Mosaic Condition Report

5.1 Extent of Survey

- 5.1.1 The survey was requested to record current defects to the Encaustic tiling at the ground floor level below the main staircase and Mosaic tiling to the main entrance lobby area.



5.1.2

- 5.1.3 The survey was predominantly visual combined with a 'tap' test to check for hollow areas.

- 5.1.4 Access to the ground floor Encaustic tiles at the base of the staircase involved the removal and relaying of existing carpets and underlay.

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- 5.1.5 Photographs of the floors and damaged sections are in a folder in Appendix 7.

5.2 Survey Limitations

- 5.2.1.1 Access for visual inspection to sections of the mosaic at the main entrance and lobby were hindered by an area being used as a storage room. A further area at the entrance door is covered with a large entrance mat which it was not possible to remove as the entrance was in constant use.



5.2.1.2

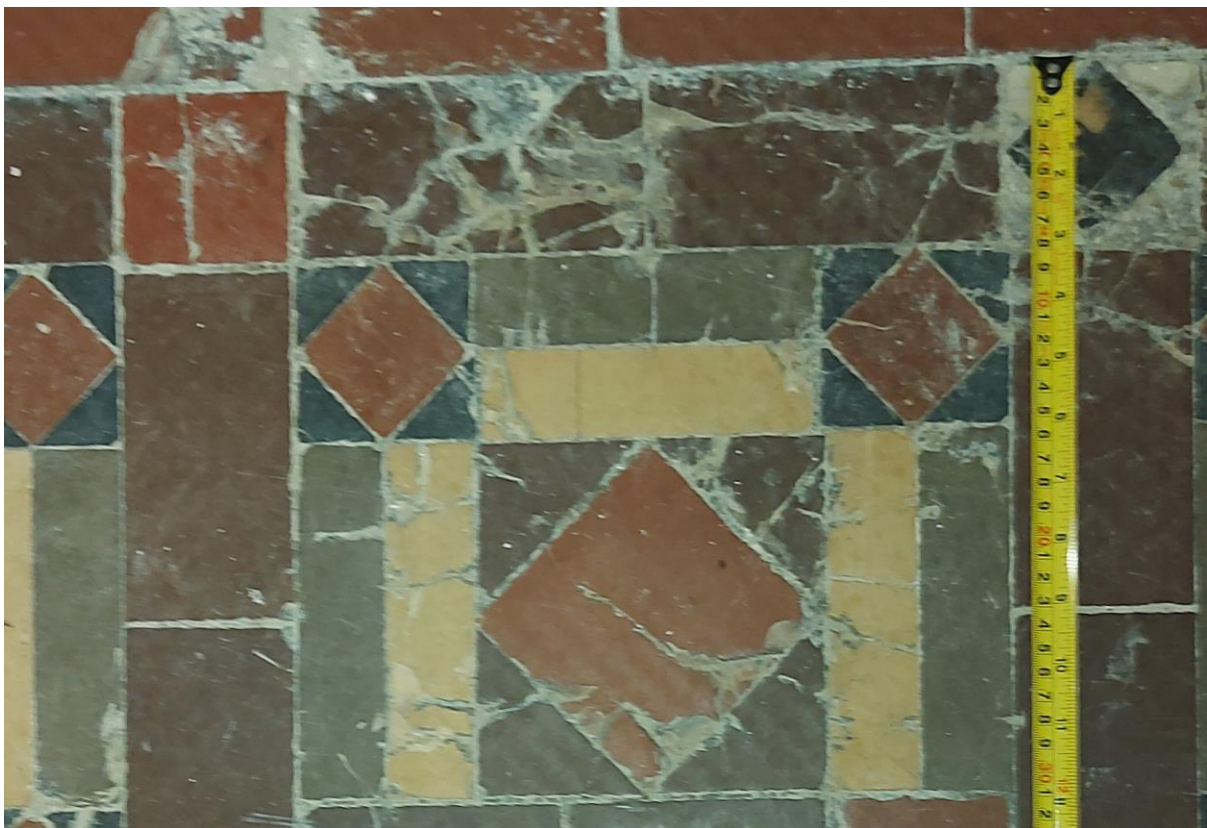
5.3 Encaustic Tiling Comments

- 5.3.1 The tiling has had a number of inappropriate patch repairs where the pattern and tile type do not match the original design.

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5.3.2 There are a large number of cracked or crazed tiles



5.3.3 There are areas where cementitious and 'other' coatings have been roughly applied and areas infilled with screed / mortar.

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5.3.4

5.3.5

Within the pattern of through coloured tile there are printed tiles with ornate designs. In what were previously heavy trafficked areas these prints have worn, some to the extent of being 'very faint,' or now invisible.



5.3.6



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CONDITION SURVEY

5.3.7 No areas were found to be hollow.

5.4 Remedial works Encaustic Tile area

5.4.1.1 The extent to which the floor is repaired is subject to further discussions with Conservation Authorities and budget restraints.

5.4.1.2 The replacement of inappropriate /mis-matched tiles and infilled areas would be a minimum.

5.4.1.3 Replacement of cracked or crazed tiles would be subjective as to the severity of the crazing / cracking and the visual disfiguring affect. Also, the factor of preserving as much of the original fabric as possible needs to be considered.

5.4.2 Surface coatings, paint splashes and general grime need to be cleaned from the surface. Whilst the general tiling is quite robust to cleaning methods the printed tiles would further loose detail if to vigorous a cleaning process where to be applied.

5.4.3 A sketch is provided in Appendix 8 showing the approximate locations of the areas of most extensive damage and are letter refenced A to L (reference I not used). A brief description of each defect is listed below.

5.4.4 There are many individual damaged or cracked tiles. Repair of these individual tiles is not considered as it is likely that further damage to adjacent sound tiles may occur. Repairs to Encaustic tiling is a specialist skill and there are a limited number of craftsman available for such works

5.4.5 Photographs of each defect are located in Appendix 7 and are referenced with the letter assigned to that specific defect.

5.4.6 Item A. Large area approx. 2.43x400mm, of damaged and mismatched tiles. Image P2144, P2833

5.4.7 Item B. 2 no areas of 6 damaged tiles. Image P2144, P2821, P2457, P3457

5.4.8 Item C. Area of heavy mortar staining approx. 900mm x 300mm. Image P2151

5.4.9 Item D. Area of mortar staining. Image P2151, P3745.



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- 5.4.10 Item E. Area of heavy mortar staining approx. 2mx 300mm Image P2144, P3627
- 5.4.11 Item F. Mortar patch approx. 300X 350mm. Image P0944, P1155.
- 5.4.12 Item G. Timber infill panel approx. 1.6m x 350mm. Not tiling pattern changes across main landing area and side passage. Some redesign of the tiling pattern will be required to match the two sections together. It is possible in previous floor plans that this was a separate room. Image P0944,
- 5.4.13 Item H. Large area of screed infill approx. 3.3m x 300mm Image P0944.
- 5.4.14 Item J. Damaged infilled tile. Image P1210.
- 5.4.15 Item K. Screeded tile area approx. 200x 300mm. Image P1305
- 5.4.16 Item L. Large screed area approx. 1.3m x 800mm. forming ramp re design of tile pattern will need to be agreed.

5.5 Budget costs Encaustic Tile Repairs.

- 5.5.1 It is difficult to fully assess costs without a definitive client and Conservation Authorities brief. Certainly, a full cleaning operation should be undertaken prior to those final decisions. Based on the above list Budget costs could be circa £12,000.

5.6 Mosaic Tile Comments

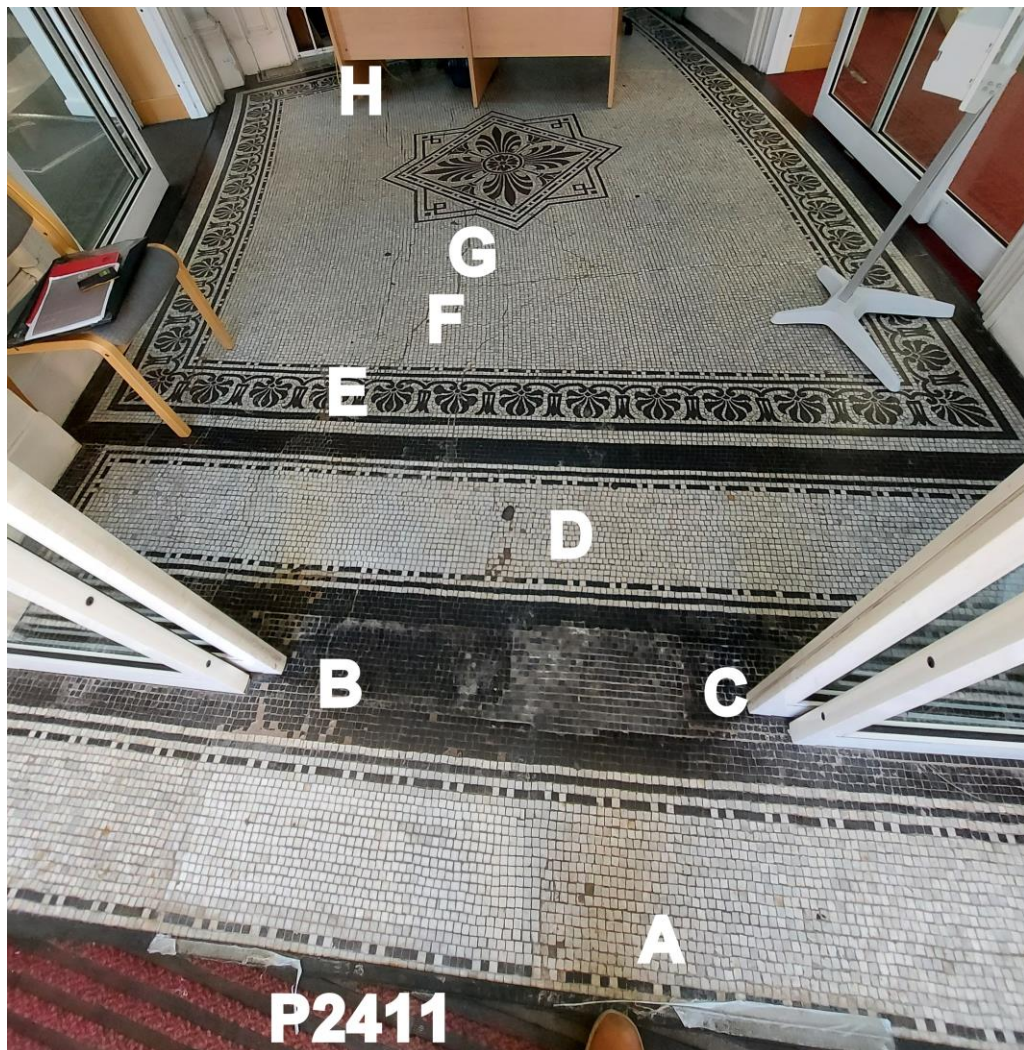
- 5.6.1 The mosaic tiling has a small number of previous repairs, missing tiles and cracks.
- 5.6.2 Repairs to cracks are difficult to undertake as a wider section of tiling has to be removed and made good to 'work out' the width of the crack. The cause of the cracking can often be in the subbase. Therefore, there is always the possibility of the crack returning. It is therefore usually the recommendation that fine cracks are filled as they have been previously in this case.
- 5.6.3 No hollow areas were identified.

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- 5.6.4 The storage area to the rear was inaccessible due to stored materials, however the tiled surface which was visible appeared sound.

5.7 Repairs To Mosaic areas

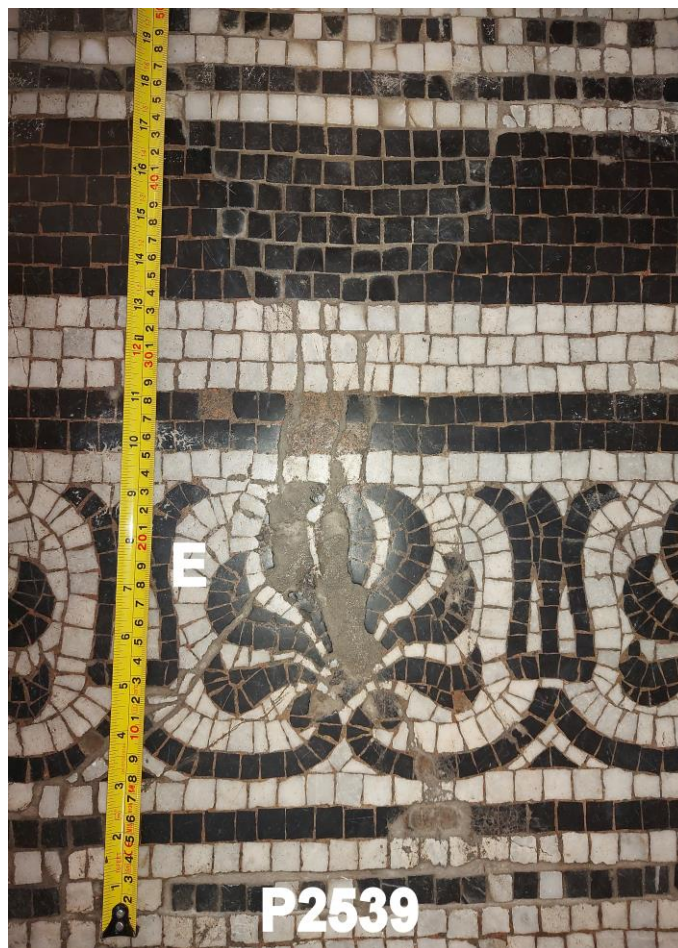
- 5.7.1.1 The extent to which the floor is repaired is subject to further discussions with Conservation Authorities and budget restraints.
- 5.7.1.2 The extent of repairs is subjective and open to differing interpretations the emphasis of these repairs is to preserve as much of the original fabric as possible needs to be considered.



- 5.7.1.3
- 5.7.2 Photographs of each defect are located in Appendix 7 and are referenced with the letter assigned to that specific defect.
- 5.7.2.1 Item A.4 no white mosaic tiles missing. Image P2411 and P2850.

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- 5.7.3 Item B. 30 no individual black tiles missing poorly repaired. Image P2411 and P3423.
- 5.7.4 Item C. large previous patch repair in lighter black (dark grey) tiles. Image P 2411 and P2859.
- 5.7.5 Item D. 6 white tiles missing / patched. Image P 2411.
- 5.7.6 Item E. Patch repair to pattern band. Image P2411 and P2539.



5.7.7

- 5.7.8 Item F .5 no individual white tiles missing. Image P2411 and P2512
- 5.7.9 Item G. Multiple cracks approx. 5ml. No works proposed. Image P2411 and P2512.
- 5.7.10 Item H. Multiple cracks total approx. 2.5 ml. No works proposed. Image P2411.



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5.8 *Budget Costs Mosaic Repairs*

- 5.8.1 Its is difficult to fully assess costs without a definitive client and Conservation Authorities brief. Certainly, a full cleaning operation should be undertaken prior to those final decisions. Based on the above list Budget costs (excluding crack repairs) could be circa £4,000. If the crack repairs where to be undertaken Budget costs could be circa £7,000.



**BARNLEY CIVIC HALL FAÇADE, ROOF, SURFACE DRAINAGE SYSTEM AND TILED FLOOR
CONDITION SURVEY**

6 Appendices

6.1 Appendix 1 Masonry Repair Schedule

6.1.1 PDF Copy

6.1.2 Word Copy

6.2 Appendix 2 Masonry Defects Marked Up Elevation Drawing

6.2.1 PDF copy

6.3 Appendix 3. Masonry Defects Photographs

6.3.1 Folder 1 Repair Schedule Photographs

6.3.2 Folder 2 Non-Specific Façade Photos

6.3.3 Folder 3 Full Façade Photos

6.4 Appendix 4, Budget Costs Façade Repairs

6.4.1 PDF Copy

6.4.2 Excel Copy

6.5 Appendix 5 Roof Photographs

6.6 Appendix 6 Drainage System Photographs

6.7 Appendix 7 Flooring Photographs

6.7.1 Folder 1 Specific Encaustic Tile Defect Photographs

6.7.2 Folder 2 General Encaustic Tile Photographs

6.7.3 Folder 3 Specific Mosaic Tile Defect Photographs

6.7.4 Folder 4 General Mosaic Tile Photographs

6.7.5 Appendix 8 Flooring Defects Locations

6.7.6 Sketch for Encaustic Tiling

6.7.7 Photograph Mosaic Tiling