

University of Manchester
Samuel Alexander Building, Oxford Road,
M13 9PL – Sump pump enclosure

Heritage Statement Supporting an application for
Planning Consent

Ref: PN8232.02

27 July 2023

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1. Executive summary

The purpose of this document is to:

- Introduce the Samuel Alexander Quadrangle steam duct maintenance works project.
- Identify the heritage significance of the surrounding buildings and the quadrangle;
- To undertake a Heritage Impact Assessment of the proposed works in order to assess the impact on the significance of the listed building, and how this can be mitigated.

The Heritage Statement should be read in conjunction with the Design and Access statement enclosed with the planning application document reference PN8232.01_Design & Access Statement.

1.1 Background

The steam services and pump are located in a section of underground duct tunnel within the Samuel Alexander building quadrangle. This is a maintenance project to replace the defective submersible pump within a confined space. The confined space is the steam duct tunnel under a section of the Samuel Alexander quad.

Due to excessive and continuous water levels within the duct tunnel due to a defective pump, the pipework associated with the steam line has corroded and has collapsed. The purpose of this project is to replace this collapsed pipework as well as install new pumps. As the duct tunnel is a confined space (crawling height) it has been determined by the health and safety team due to asbestos implications, confined space conditions and lack of fire escape, the pumps should not be installed within the duct. This project will therefore revert back to housing non-submersible pumps above ground to negate the need for maintenance staff to enter the duct tunnel. Historically there was an above ground pump contained within an enclosure, due to reasons unknown to us, the above ground pump was replaced many years ago with a submersible pump.

The collapsed pipes within the steam duct tunnel are detrimental to the steam services which provide heating to the west side of campus. The steam duct tunnel is reliant on a sump pump to pump water out of the duct tunnel, due to pump failure, this has flooded the duct causing water to build up and trigger corrosion and ongoing degradation to the steam and condensate pipework causing it to collapse. Without this urgent repair work, the university buildings on this side of campus could be at risk of no heating. Therefore, the replacement pumps and condensate pipework are fundamental to the operation of the buildings.

Maintaining the pump has proven difficult due to the duct tunnel being a confined space. This poses health and safety concerns for the operatives who undertake cyclical maintenance work on the pump.

1.2 Proposals and technical note

The proposed works within the Samuel Alexander building quadrangle area are focussed within the duct tunnel situated below ground to one section of the external quadrangle area and the installation of a new pump chamber above ground directly above the sump (sump is contained in the duct tunnel). The works comprise of the following:

- Removal of existing insulation to the steam and condensate pipework contained below ground in the duct tunnel and reinsulate with new (note: asbestos containing materials are

present in the duct and as part of this project asbestos abatement works are being undertaken to clean the duct)

- Removal of damaged condensate pipework and replacement with new pipework, including new bracketry
- Provision of 2No. non-submersible sump pumps (Duty/ Standby) located above ground within weatherproof housing with suction pipework removing confined space working for maintenance operatives.
- The weatherproof housing noted above measures 1650 mm wide x 1650 mm deep x 900 mm high which will be housed above the sump in the locality of the previously known pump enclosure.

1.3 Alternative options

The project originally looked at replacing the submersible pump with 2 new submersible pumps which would be located within the sump in the duct tunnel. However, through rigorous risk assessments during the Construction Design and Management processes undertaken by a specialist team of advisors, it was determined the risks to operatives influenced the design to locate the pumps above ground. The risk assessments were largely due to risk of crush from collapsed walls, unsuitable confined space working conditions (note: that these are crawling height), asbestos inhalation from legacy asbestos containing materials degrading at a faster rate as they are exposed to a damp environment, stagnant water and associated diseases from rodents etc and inadequate means of escape in the event of a fire or needing to evacuate whilst the operatives are in the duct tunnel carrying out maintenance to the pumps.

The design team also appraised alternative locations to locate the pumps in existing plant areas within the building. Unfortunately, the only two plant areas/back of house areas within the vicinity were unsuitable. The first location (identified as B in Drawing nr: 03_Alternative Locations) was deemed unsuitable due to the distance to the sump making the suction pipework inefficient and ineffective. The second location (identified as C in Drawing nr: 03_Alternative Locations) was in a light well adjacent the duct tunnel. Technical advice from the mechanical engineer reported that it was not possible to provide the necessary connections into the sump below ground via 2 x 50mm diameter pipes due to distance again, unable to route through due to complexities with damaging floor slab reinforcement, undermining existing foundations to the 1970's extension and undermining existing highly congested services located below the paved area where the pipes would have to route through to reach the sump (between the building and the sump/duct tunnel).

1.4 Significance of Samuel Alexander Building, Oxford Road

Samuel Alexander Building comprises the original II University Faculty of Arts building. 1911-1919, by Percy Scott Worthington of Manchester architects' practice Thomas Worthington and Son.

Modern extensions were later added in the 1950's and 1970's. The 1950's west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor and are not of special interest. The modern extensions are what have formed and surround the quad which is not of special interest.

The Faculty of Arts building (Samuel Alexander Building), University of Manchester, was a major commission for Percy Scott Worthington, who has a number of listed buildings to his name, built in

1911-19. It is designated at Grade II for due to its architectural interest in the quality of its harmonious neo-classical design, its logical and spacious layout, its craftsmanship specifically of the imposing full-height entrance hall with giant Ionic columns and coffered barrel roof, decorative quality via use of high-quality materials and craftsmanship particularly of the main entrance portico and principal interior spaces. It also possesses a group value for its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus.

1.5 Heritage Impact Assessment

This Heritage Impact Assessment identifies that the work proposed appears to have a neutral effect on the heritage of the premises.

The modern extensions are what have formed and surround the quadrangle which is not of special interest. The pump enclosure would be located within this quadrangle.

There is no direct impact to the listed section of the building or the modern extensions. There are no views in the backdrop to the Percy Scott Worthington building from the pump enclosure.

It is therefore considered to have a neutral effect on the heritage values of this historic building.

2 Introduction

This Heritage Statement has been prepared to support an application for planning consent with regard to the installation of the pump enclosure within the Samuel Alexander quad area which are not of special interest.

This report defines the significance of the premises and provides an assessment of the impact of the works on that special interest.

This report is for the sole use of supporting the Listed Building Consent and Planning Consent on behalf of the University of Manchester, Oxford Road, Manchester and should not be used for any other purpose.

3 The Property

3.1 Site location

The property, known as Samuel Alexander Building, is located on both Lime Grove and Oxford Road. Lime Grove is the statutory address 1 given by Historic England and Oxford Road is the statutory address 2. The building is a grade II listed building and also possesses a group value for its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus.

3.2 Statutory Designations

Samuel Alexander Building is a Grade II listed building and is located on the west side of Oxford Road. These buildings are protected by the Planning (Listed Buildings and Conservation Areas) Act 1990. Under this act there is a duty on the Local Authority to “have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest

which it possesses", and there is a need for the building owner to be sympathetic to this when undertaking any refurbishment works.

3.3 Historic England List Entry Description

Heritage Category: Listed Building

Grade: II

List Entry Number: 1393664

Date first listed: 12-Feb-2010

Statutory Address 1: Samuel Alexander Building, Lime Grove

Statutory Address 2: Samuel Alexander Building, Oxford Road

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 84597 96416

Details

698-1/0/11222 LIME GROVE 12-FEB-10 SAMUEL ALEXANDER BUILDING OXFORD ROAD (Off) SAMUEL ALEXANDER BUILDING

II University Faculty of Arts building. 1911-1919, by Percy Scott Worthington of Manchester architects' practice Thomas Worthington and Son. Red, non-standard Ruabon brick, Portland stone, slate roof.

1950s west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor are not of special interest.

PLAN: E shaped. Central main entrance opening into a full-height entrance hall dividing the building into two halves; each half with rooms opening off long corridors; east and west wings terminating in lecture rooms; a central lecture room located behind the entrance hall and projecting to the rear.

EXTERIOR: Symmetrical front elevation facing north-north-west (hereafter referred to as north for ease of description). Two-storeys and a basement. Central flight of stone steps up to projecting, full-height, Portland stone portico; two Roman Doric columns, entablature with FACULTY OF ARTS inscribed and picked out in gold on the frieze, and triangular pediment above. Door architrave incorporates the date 1919 in Roman numerals, and a relief carving of two putti holding a wreath encompassing a serpent (which features on the university coat of arms), with the university motto ARDUS AD SOLEM (striving towards the sun) inscribed over. Architrave cornice with consoles, empty niche over with console. Projecting stone lion masks on pediment are echoed in the two angular bronze lion masks attached to the double panelled doors, which have part-glazed inner doors beyond. To each side of the portico are five bays with the first floor set back from the single-storey ground-floor sections, flanked by projecting three-bay end pavilions, all built of brick in English garden bond, with the plinth/basement level, entablatures and parapets of Portland stone. End

pavilions articulated by giant brick pilasters, with six-over-nine pane sash windows on ground and first floors. Single-storey ground-floor bays have parapets incorporating stone balustrading, and stone architraves to the six-over-six pane sash windows. Six-over-six pane sash windows to the set-back, first-floor bays.

East and west wings of three-storeys and basement, with eight bays to the east wing and nine bays to the west wing. Brick-built with brick parapets. Five north bays of both wings project slightly, articulated by giant brick pilasters rising through ground and first-floor levels. Portland stone plinths and entablature band over pilasters. Second-floor level of east wing has central brick niche flanked to each side by two windows separated by an oval stone medallion. West wing has five windows at second-floor level, interspersed with oval stone medallions. Six-over-nine pane sashes on ground and first floors, six-over-six pane sashes on second floors.

INTERIOR: Central entrance hall is top-lit with two Ionic columns of Portland stone at either end supporting an entablature and a coffered barrel roof. The floor is paved with stone flags primarily laid diagonally with black stone squares at the intersections. At the south end is a first-floor balcony with white painted metal balustrades incorporating laurel leaf motifs and bronze handrails. It is reached by symmetrical staircases, with similar balustrades, bronze handrails and newels, rising east and west from the hall to half landings before returning to a central doorway opening onto the balcony. To each side of the hall are two doorways with original half-glazed doors flanking a central, tall, round-headed opening, with glazed double doors and fan light, leading through to a wide corridor. To rear of the hall is a round-headed doorway leading through to symmetrical east and west staircases descending to the basement level with two sets of fielded-panel double doors opening into the large, central lecture room from quarter-space landings with ceiling domes containing circular bronze ceiling lights. The lecture room rises through basement and ground-floor levels. Towards the rear of the entrance hall is a bronze bust of Samuel Alexander by Jacob Epstein, dated 1925. It is set on a rectangular marble plinth; the layout of the original stone flags has been altered to accommodate the plinth. Features of note in the entrance hall include four original suspended bronze lanterns, circular bronze ceiling lights above and below the balcony, a copy of a section of the Parthenon Frieze above the entrance doorway, and notice boards. The lecture room has a coffered ceiling with modillion cornicing and original square bronze ceiling lights.

The wide corridors leading off to east and west on the ground floor are lit by high semi-circular windows in circular openings, with round-headed arcades to either side, some openings containing fielded-panel office doors with bottom-hinged opening fanlights, some blind. The corridors on the first floor have rooms on one side only, with similar doors with opening fanlights, and sash windows on the other, interspersed with copies of sections of the Parthenon Frieze. On both floors the corridors return through round-headed archways in a southerly direction. Second-floor corridors are barrel-vaulted and top-lit, also with copies of sections of the Parthenon Frieze. Features of note include the wooden parquet flooring and original bronze ceiling, wall, and suspended lights which light the corridors and staircases.

Individual rooms have parquet flooring, some with wooden corner mantelpieces (all now boarded), and decorative banding to the plaster ceilings. There have been some removals of sub-dividing walls to increase room sizes. Some larger rooms (mostly lecture rooms) have modern suspended ceilings

containing lighting and projection equipment beneath the plaster ceilings, whilst others have modern strip lighting. The basement lavatories have been refitted.

HISTORY: The Faculty of Arts building was a major commission for Percy Scott Worthington, knighted in 1935, who was a partner in the family firm of Thomas Worthington and Son (his father, the architect Thomas Worthington, died in 1909). Work commenced in 1911, but progressed slowly due to the onset of World War I. At the opening ceremony on 7 November 1919, the University of Manchester conferred the degree of doctor of letters upon Worthington. The neo-classical building was subsequently positively reviewed in an article in the 1920 Architectural Review, and, together with his Masonic Temple in Manchester, it was cited as a principal work when Worthington was awarded a gold medal in 1930 from RIBA. In 1925 the sculptor Jacob Epstein produced a bronze bust of Samuel Alexander, Professor of Philosophy at the university from 1893. It stands in the central entrance hall and the building was renamed the Samuel Alexander Building in 2007.

REASONS FOR DESIGNATION The Faculty of Arts building (Samuel Alexander Building), University of Manchester, of 1911-19 by Percy Scott Worthington is designated at Grade II for the following principal reasons: * Architectural interest: For the quality of its dignified and harmonious neo-classical design, logical and spacious layout, and as an expression of civic pride by an expanding provincial university * Architect: A major commission for Percy Scott Worthington, who has a number of listed buildings to his name, and a principal work cited when Worthington received a gold medal from RIBA in 1930 * Craftmanship: Specifically of the imposing full-height entrance hall with giant Ionic columns and coffered barrel roof, precursor of a similarly detailed hall in Percy Scott Worthington's Masonic Temple, Bridge Street, Manchester of 1929 (q.v.) * Decorative quality: Use of high-quality materials and craftsmanship particularly of the main entrance portico and principal interior spaces * Intactness: For the intactness of the original layout and retention of many fixtures and fittings such as doors and light fittings * Group value: For its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus

3.4 Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

3.5 Site Area

A copy of a 1:1250 location plan of the building identifying the perimeter boundaries of the quadrangle is included in the document submission of this application, document reference nr: 01_Location_Plan.

3.6 Description of Samuel Alexander Building

Samuel Alexander Building is a Grade II listed building and was first listed on 12th February 2010.

Samuel Alexander Building comprises the original II University Faculty of Arts building. 1911-1919, by Percy Scott Worthington of Manchester architects' practice Thomas Worthington and Son.

Modern extensions were later added in the 1950's and 1970's. The 1950's west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor and are not of special interest. The modern extensions are what have formed and surround the quad which is not of special interest.

The Faculty of Arts building (Samuel Alexander Building), University of Manchester, was a major commission for Percy Scott Worthington, who has a number of listed buildings to his name, built in 1911-19. It is designated at Grade II due to its architectural interest in the quality of its harmonious neo-classical design, its logical and spacious layout, its craftsmanship specifically of the imposing full-height entrance hall with giant Ionic columns and coffered barrel roof, decorative quality via use of high-quality materials and craftsmanship particularly of the main entrance portico and principal interior spaces. It also possesses a group value for its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus.

4 Analysis of the Heritage Values

The following section explores the heritage values which relates to the property.

4.1 Evidential value

Evidential value is the potential of a place to yield evidence about past human activity.

4.2 Archaeology

As the proposed works at Samuel Alexander Building maintenance works will not involve any excavations, no further enquiries are considered relevant in relation to past site uses.

4.3 Buildings and Arrangement

The current site layout of Samuel Alexander Building is illustrated below in Figure 1. The original Grade II Listed Building is shown in green, the 1950's modern extension (not of special interest) is shown in orange, the 1970's modern extension wings (not of special interest) are shown in purple, the quad is shown in blue, and the location of the proposed pump enclosure is shown in red.



Figure 1: Site plan showing parts of the building with heritage value and those which are 'not of special interest'.

The original part of the building possessing the heritage value, a major commission for Percy Scott Worthington, was built in 1911-19. There are no views in the backdrop to the Percy Scott Worthington building from the proposed location of the pump enclosure.

The proposal appears to have a neutral effect on the heritage of the premises.

4.4 Relationship With Other Buildings

The building possesses a group value for its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus.

4.5 Historical value

Historical value can be described as the ways in which past people, events and aspects of life can be connected through a place to the present - and it tends to be illustrative or associative.

Samuel Alexander Building comprises the original II University Faculty of Arts building. 1911-1919, by Percy Scott Worthington of Manchester architects' practice Thomas Worthington and Son.

Modern extensions were later added in the 1950's and 1970's. The 1950's west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor and are not of special interest. The modern extensions are what have formed and surround the quad which is not of special interest.

The Faculty of Arts building (Samuel Alexander Building), University of Manchester, was a major commission for Percy Scott Worthington, who has a number of listed buildings to his name, built in 1911-19. It is designated at Grade II due to its architectural interest in the quality of its harmonious neo-classical design, its logical and spacious layout, its craftsmanship specifically of the imposing full-height entrance hall with giant Ionic columns and coffered barrel roof, decorative quality via use of high-quality materials and craftsmanship particularly of the main entrance portico and principal interior spaces. It also possesses a group value for its functional relationship with the other listed university buildings on the west side of Oxford Road forming part of the campus.

4.6 Aesthetic value

- The external façade design to The Faculty of Arts building (Samuel Alexander Building), University of Manchester main elevations remain very much intact.
- Internally, much of the original finishes are very much intact.
- Modern extensions were later added in the 1950's and 1970's. The 1950's west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor and are not of special interest. The modern extensions are what have formed and surround the quad which is not of special interest.
- The building is valued by a number of different communities, due to the external imposing appearance of the school buildings and its use as an educational establishment for the neighbourhood in which it is located.

5 Heritage Significance of the Building

The previous section identified the heritage values associated with the property. This section identifies the way in which these values are embodied within the building fabric.

5.1 External Features

5.1.1 Façade

The external façade of the original II University Faculty of Arts building. 1911-1919, by Percy Scott Worthington of Manchester architects' practice Thomas Worthington and Son remains intact. It comprises of the symmetrical front elevation facing north-north with a central flight of stone steps up to projecting, full-height, Portland stone portico; two Roman Doric columns, entablature with FACULTY OF ARTS inscribed and picked out in gold on the frieze, and triangular pediment above. To each side of the portico are five bays with the first floor set back from the single-storey ground-floor sections, flanked by projecting three-bay end pavilions, all built of brick in English garden bond, with the plinth/basement level, entablatures and parapets of Portland stone. End pavilions articulated by giant brick pilasters, with six-over-nine pane sash windows on ground and first floors. Single-storey ground-floor bays have parapets incorporating stone balustrading, and stone architraves to the six-over-six pane sash windows. Six-over-six pane sash windows to the set-back, first-floor bays.

5.1.2 Internal Features

Internally, the structure of the original II University Faculty of Arts building remains as originally constructed. No alterations are proposed to the structure of the building.

5.1.3 Layout of Samuel Alexander Building

The layout of Samuel Alexander Building is illustrated above in Figure 1. The original Grade II Listed Building is shown in green, the 1950's modern extension (not of special interest) is shown in orange, the 1970's modern extension wings (not of special interest) are shown in purple, the quad is shown in blue, and the location of the proposed pump enclosure is shown in red.

6 Proposed Project Works and Approach

6.1 Project Overview

The proposed works within the Samuel Alexander building quadrangle area are focussed within the duct tunnel situated below ground to one section of the external quadrangle area and the installation of a new pump chamber above ground directly above the sump (sump is contained in the duct tunnel). The works comprise of the following:

- Removal of existing insulation to the steam and condensate pipework contained below ground in the duct tunnel and reinsulate with new (note: asbestos containing materials are present in the duct and as part of this project asbestos abatement works are being undertaken to clean the duct)
- Removal of damaged condensate pipework and replacement with new pipework, including new bracketry

- Provision of 2No. non-submersible sump pumps (Duty/ Standby) located above ground within weatherproof housing with suction pipework removing confined space working for maintenance operatives.
- The weatherproof housing noted above measures 1650 mm wide x 1650 mm deep x 900 mm high which will be housed above the sump in the locality of the previously known pump enclosure.

6.2 Background For the Project Works

Currently, the building provides higher education facilities.

The steam services and pump being replaced in this project are located in a section of underground duct tunnel within the Samuel Alexander building quadrangle. This is a maintenance project to replace the defective pipework and submersible pump within a confined space. The confined space is the steam duct tunnel under a section of the Samuel Alexander quadrangle.

Due to excessive and continuous water levels within the duct tunnel due to a defective pump, the pipework associated with the steam line has corroded and has collapsed. The purpose of this project is to replace this collapsed pipework as well as install new pumps. As the duct tunnel is a confined space (crawling height) it has been determined by the health and safety team due to asbestos implications, confined space conditions and lack of fire escape, the pumps should not be installed within the duct. This project will therefore revert back to housing non-submersible pumps above ground to negate the need for maintenance staff to enter the duct tunnel. Historically there was an above ground pump contained within an enclosure, due to reasons unknown to us, the above ground pump was replaced many years ago with a submersible pump.

The collapsed pipes within the steam duct tunnel are detrimental to the steam services which provide heating to the west side of campus. The steam duct tunnel is reliant on a sump pump to pump water out of the duct tunnel, due to pump failure, this has flooded the duct causing water to build up and trigger corrosion and ongoing degradation to the steam and condensate pipework causing it to collapse. Without this urgent repair work, the university buildings on this side of campus could be at risk of no heating. Therefore, the replacement pumps and condensate pipework are fundamental to the operation of the buildings.

Maintaining the pump has proven difficult due to the duct tunnel being a confined space. This poses health and safety concerns for the operatives who undertake cyclical maintenance work on the pump.

6.3 Works Area

The proposed works are located externally. There are no internal alterations proposed. Care will be taken to protect all existing structures both on/adjacent to the site.

The proposed location is dictated by the location of the sump. The sump is located within the duct tunnel located below a section of the quadrangle pavement. The duct tunnel floods and requires water to be pumped out to maintain the integrity of the steam services and prevent them degrading via corrosion. Suction pipework from the pumps will be routed to the sump itself to enable the pumps to pump water out of the duct tunnel. As noted in the technical note in section 1.2, this decision is driven by technical and health and safety reasons.

This project reverts back to housing non-submersible pumps above ground to negate the need for maintenance staff to enter the duct tunnel. Historically there was an above ground pump contained within an enclosure, due to reasons unknown to us, the above ground pump was replaced many years ago with a submersible pump. The siting of the new pump enclosure is in close proximity to the original pump enclosure which is in keeping with what was there before.

The proposed siting has the least impact to the setting and its immediate surroundings as it is surrounded by the modern extensions that are not of special interest according to Historic England. The modern extensions were later added in the 1950's and 1970's. The 1950's west extension is not of special interest. The two c.1970 ranges which run eastwards from the west extension and are linked on the east side by a covered corridor are also not of special interest. The modern extensions are what have formed and surround the quadrangle which is not of special interest. See Figure 1 for an annotated site plan which captures the original Grade II Listed Building shown in green, the 1950's modern extension (not of special interest) shown in orange, the 1970's modern extension wings (not of special interest) shown in purple, the quadrangle shown in blue, and the location of the proposed pump enclosure shown in red.

6.4 Proposals

The proposed works are as outlined on the drawings included with the listed building consent, namely:

Drawing Reference
01_Location_Plan
02_Elevations
03_Alternative Locations

6.5 Conservation Approach

The conservation approach adopted on this project is as follows:

1. Minimum intervention: If possible, leave historic fabric alone and do not interfere unless it is absolutely essential.
2. Maximum retention: Where intervention is required there should be the minimum loss of historic fabric, and modern fabric should be targeted wherever possible.
3. Research and inspection: Decisions regarding what will be altered and how must be based upon detailed inspection of the buildings and an informed understanding of its history, development and character based on research.
4. Materials: Wherever possible sympathetic materials and traditional methods of workmanship should be adopted for carrying out repairs.
5. Reversibility: Where possible any alterations should be reversible
6. Workmanship character: the design of repairs should take note of original/historic patterns of workmanship, character and profile where possible.
7. Skills and trades: Only contractors, trades and craftsmen with the necessary experience and skills working with historic buildings will be permitted to undertake works.
8. Current defects and forward maintenance: The project aims to overcome a backlog of disrepair and defects, by improving the condition of the building fabric to a point where

forward maintenance is at a manageable scale. It does not however negate the need for future maintenance.

9. Timing: the provision of scaffolding and access may guide decisions regarding the extent of what work is done now and where.

7 Summary & Conclusion

7.1 Project Proposal

The project aims to safeguard the condition of the steam services and duct tunnel building fabric by addressing the floods in the duct tunnel. The works comprise:

- Removal of existing insulation to the steam and condensate pipework contained below ground in the duct tunnel and reinsulate with new (note: asbestos containing materials are present in the duct and as part of this project asbestos abatement works are being undertaken to clean the duct)
- Removal of damaged condensate pipework and replacement with new pipework, including new bracketry
- Provision of 2 No. non-submersible sump pumps (Duty/ Standby) located above ground within weatherproof housing with suction pipework removing confined space working for maintenance operatives.
- The weatherproof housing noted above measures 1650 mm wide x 1650 mm deep x 900 mm high which will be housed above the sump in the locality of the previously known pump enclosure.

7.2 Impact of Works on Heritage Significance

No repairs or alterations are proposed to the interior or plan shape of the building.

The choice in materials have been carefully selected in order to be neutral in the setting. There are off white aluminium windows and doors and off-white cladding panels to the aluminium windows to the modern extensions which the enclosure has been matched to in order to blend in rather than draw ones eye to it. The chosen colour for the pump enclosure is off white RAL 9016 or similar, to match the existing concrete planters and infill panels to windows on adjacent elevations, in order to match existing finishes in the immediate setting.

The off-white planters can be seen when looking from the link corridor and these are shaped similar, to the pump enclosure which will also help to blend in with its surroundings.

Furthermore, the portico stone to the original entrance is an off-white colour which is another way neutralising the impact to the heritage features of the original Samuel Alexander Building.

7.3 Conclusion

The project aims to safeguard the condition of the steam services and duct tunnel building fabric. All works are reversible.