

807 Wilmslow Road

Defective Arch Replacement

Schedule of Works & Method Statements
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1.0 Introduction

This document contains a description of the 'work items' that are to be undertaken as part of the project and it is to be read in conjunction with the Preliminaries and Specification.

A **Work Item** is either; a single operation, a series of operations or a complete element of the project and the cost for each 'work item' is to be entered in the Schedule of Works.

The **Schedule of Works** quantifies many of the 'work items' contained in this document; reference should be made to separate accompanying pricing document.

The **Drawings** that accompany the LBC / tender documentation have, where appropriate, been annotated with the 'work item' references used in this document.

1.1 DEFINITIONS

EMPLOYER'S REPRESENTATIVE means the person nominated in the Contract as Employer's Representative, Architect, Contract Administrator or Project Manager.

CA means both Contract Administrator/Accredited Professional. Inspections and approvals are to be dealt with by said representative individual.

REMOVE means disconnect, dismantle as necessary and remove the stated element, work or component and all associated accessories, fastenings, supports, linings, and bedding materials, and dispose of unwanted materials. It does not include removing associated pipework, wiring, ductwork, or other services.

KEEP FOR REUSE means during removal prevent damage to the stated components or materials and clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.

REPLACE means remove the stated existing components, features, and finishes. Provide and fit in lieu new components, features or finishes which, unless specified otherwise, must match those which have been removed. Make good as necessary.

REPAIR means carry out local remedial work to components, features and finishes as found in the existing building, resecure or refix as necessary and leave in a sound and neat condition. It does not include:

- Replacement of components or parts of components.
- Redecoration.

MAKE GOOD means carry out local remedial work to components, features and finishes which have been disturbed by other, previous work under this Contract and leave in a sound and neat condition. It does not include:

- Replacement of components or parts of components.
- Redecoration.

The meaning of the term shall not be limited by this definition where used in connection with the defects liability provisions of the Contract.

EASE means make minor adjustments to moving parts of the stated component to achieve good fit in both open and closed positions and ensure free movement in relation to fixed surrounds. Make good as necessary.

TO MATCH existing means, use products, materials and methods to match closely all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance.

APPRAISE means the contractor is to appraise and carry out own independent assessment of the works detailed here within and update the scope of works as is necessary through consultation with the Architect.

SALVAGED refers to materials that have been *removed* and *kept for re-use* on this job: no second-hand or reclaimed material are to be used on this project.

CONSOLIDATION means the contractor is to make something physically stronger and solid. Returning / combing items into a single / coherent whole. Rake out and repoint / build with an NHL mortar. Return to match original profiles. Rebuild in association with structural ties / wall core gravity grouting etc

2.0 Project Background

The purpose of this project is to resolve a structural defect present and ongoing in the support over the bay window on West façade, which is causing the above façade to drop and crack.

Concealed within the pitched roof of the bay window, the existing structural opening has been formed with a grossly undersized timber lintel and crudely made relieving arch. The awkward packing arrangement present appears to have squashed and progressively slipped.

Given its concealed location and inability to build a sufficiently strong arch within the same space, it is proposed the existing arrangement is removed and replaced with a new steel beam. Existing masonry, cills and lintel should be carefully taken down and rebuilt level from the new beam to lintel level of first floor windows.

The first floor joists in this area have also been found to be bearing on an insufficient trimmer beam which requires replacement with appropriate joist hangers fixed back to new steam steel beams.

The work essentially comprises fabric repairs to address the structural defects however, the proposed solution does involve a change in detail from that currently existing.

Due to the location within a bay window roof void, the bay roof will need to be carefully taken down, and kept for reuse, to allow access and rebuilt/reinstated following completion of the arch replacement and masonry works.

Where new materials are required, they are to match the existing as to have no impact on the external appearance.

3.0 Method Statements – 9298RS

3.1 GENERALLY

- 3.1.1 Not all clauses in the following statements may directly apply to this project, some are included to cover potential items that are at time of writing not understood as required but provide the information if the eventuality required it. If in doubt about the applicability of a clause, obtain instructions.
- 3.1.2 Prior to commencement on site, The Contractor is to provide their own method statements confirming the details of sequencing, method of work and protection for the following items, but not limited to:
- a) Management for the security of the site
 - b) Site setup, including deliveries and parking
 - c) Temporary works and structural propping.
 - d) Protection of all historic fabric during the works
 - e) Photographic recording of historic fabric prior to the works commencing on site
 - f) Control of dust, debris, and noise without causing nuisance to adjoining properties
 - g) Management of the removal of waste
 - h) Safe access for high level works
 - i) Methodology for all fabric repair works

3.2 RS1 – WORK IN LISTED BUILDINGS

- | | | | |
|-------|--|--------|--|
| 3.2.1 | It is the responsibility of the Contractor to ensure that no disturbance of any fabric within the listed buildings takes place unless this is specifically detailed on the Architect's drawings and/or specification. The Architect's information is subject to listed building consent and any deviation from this is an offence under the Planning (Listed Buildings and Conservation Areas) Act 1990. | 3.2.5 | It should be noted that damage to historic fabric cannot be made good in an acceptable manner and that the Contractor is to take all necessary measures to ensure damage does not occur. |
| 3.2.2 | Should the Contractor be in doubt about the extent of works or protection required, they should consult with the Architect prior to those works being carried out. Agreement may also be required from the local authority Conservation Officer in some cases, and therefore the Contractor should make any queries to the Architect in a timely manner. | 3.2.6 | The Contractor is to satisfy themselves that they are in possession of adequate information prior to commencing any work. |
| 3.2.3 | The Contractor is to provide adequate protection to any historic features which are to be retained in order to avoid damage as the works are in progress. The methods for protection should be agreed with the Architect prior to works being carried out. | 3.2.7 | Any discrepancies found within this document by the Contractor should be brought to the attention of the Architect at the time of tendering. |
| 3.2.4 | Should it be the case that it is not possible to protect historic features without causing further damage to the building, it is the Contractor's responsibility to exercise maximum care to avoid disturbing any historic fabric during the course of the works. This may entail an approach of temporary protection with the agreement of the Architect. | 3.2.8 | The Contractor is to be responsible for all on site measurement including setting out for new work, details and dimensions for any replacement or repair work. |
| | | 3.2.9 | All dimensions included on the drawings are to be checked for accuracy on site prior to commencing work and any discrepancies should be reported to the Architect immediately. |
| | | 3.2.10 | No work shall commence until any such discrepancies have been resolved |
| | | 3.2.11 | To be read in conjunction with section RS2 – Protection of Historic Fabric, Elements and Components. |

3.3 RS2 - PROTECTION OF HISTORIC FABRIC, ELEMENTS AND COMPONENTS

3.3.1 This section is to be read in conjunction with section [RS1 – Work in Listed Buildings](#).

3.3.2 WORKMANSHIP GENERALLY

3.3.2.1 Generally, undertake the works as follows:

- a) Prior to undertaking any construction works, all working areas and access routes are to be thoroughly protected for the duration of the contract.
- b) The contractor is to provide adequate protection to any historic features which are to be retained in order to avoid damage as the works are in progress. The methods for protection should be agreed with the Architect prior to works being implemented.
- c) Whilst historic surfaces are often worn, discoloured and out of true level, these imperfections can contribute to the interest and historic value of a building and thus should be thoroughly protected.
- d) The Contractor should be aware that works of opening up which are not carried out in accordance with the specification may contravene legislation requiring Listed Building Consent.
- e) Work which exposes the building fabric to the weather (where protection is not specified) undertake during favourable weather; once such work is commenced, complete it as quickly as possible. The Contractor is responsible for the preservation of the building fabric in accordance with the contract documents.
- f) Cutting away and alteration work generally: undertake with the minimum amount of disturbance to those parts of the building intended to be left undisturbed. The use of power tools should be carefully considered and only used with CA approval. The Contractor is to assume that all opening up will be undertaken by hand.
- g) Opening up of joinery should be undertaken at existing access points, or by removal of complete panels, fascia's etc. to joint lines. Retain, reference and set aside for future refixing any removed panels.
- h) Provide all necessary forms of protection, temporary support and safe access as necessary to allow for inspection of and access to the exposed structure or fabric.

3.3.3 ONSITE RECORDING PRIOR TO WORKS

3.3.3.1 In advance of any works commencing onsite (inc. opening up, demolition, removals, temporary, conservation, restoration works etc) the existing building fabric should be thoroughly recorded to provide a snapshot in time and reference archive material for future usage.

3.3.3.2 The contractor shall provide a full dilapidation survey, covering the area of works, to the CA for wider distribution and should be provided digitally.

3.3.3.3 The contractor shall agree with the CA and clearly label onsite items, fabric and contents that are not to be demolished and/or removed but are to be carefully protected and retained for reuse, conservation and/or restoration works.

3.3.3.4 Subject to approval and prior to commencing removal of detritus, the contractor shall ensure that all items to be salvaged are identified, set aside, protected, labelled (catalogued & tagged), safely stored for reuse and/or retention. Tagging protocol as per item [3.3.4](#).

3.3.3.5 The contractor shall adopt the following strategy for recording onsite items, as follows:

- a) Full dilapidation survey photographs both internally and externally prior to any works taking place.
- b) Photograph each specific asset, component and/or element which are to undergo works (removal, repair, restoration etc), including but not limited to:
 - i) Wall fixed items; wall panelling, dado rails, picture rails, skirtings, inbuilt furniture, lighting etc.

- ii) Ceiling fixed items; cornices, roses, lighting etc.
 - iii) Windows; varying types, surrounds, cills, linings, ironmongery etc.
 - iv) Door set; varying types, door leaf(s), frame, linings, architraves, ironmongery etc.
- c) Take mouldings and profiles (cross-sections/dimensions) of elements and components to allow for reproductions (like-for-like) to be produced.
- d) Where elements of the fabric are loose, carefully remove (retain intact as far as is feasible), tag and store a remnant (of the above) of each instance to assist with future matching within a designated area within the building.
- e) It will also be possible to record areas of the fabric which were previously unseen: offering a unique opportunity to gather invaluable data, previously unavailable.

3.3.4 ONSITE TAGGING AND RECORDING OF OBJECTS

- 3.3.4.1 No direct fix and or permanent marking of items will be acceptable.
- 3.3.4.2 Temporarily mark a unique identification number on each object, component prior to any removal and catalogue accordingly.
- 3.3.4.3 The reference number must be:
- **unique**, none repeating
 - **durable** to remain legible over time.
 - **removable**, should the need arise to make a change in the future.
 - **never cause harm** to the object.
- 3.3.4.4 All items temporarily removed and identified to be reinstated within original locations at a later date, should be thoroughly recorded so that the item is returned to the exact position to which it was removed.
- 3.3.4.5 The exact tagging protocol may differ from object to object but will typically include one of the following methods:
- Cloth binding cord loosely wrapped and tied with solid tag.
 - Brass wire and solid tag, can be used where existing holes or voids exist within the object in question. Choose a strong holding point.
 - Direct paper labels, generated from a computer or hand written.
- 3.3.4.6 If in doubt, discuss in further detail with the Architect.

3.3.5 PREPARATION OF FABRIC

- 3.3.6 Prior to installation of any protective measures. The areas in question must be thoroughly cleaned to remove all loose debris / dust which could lead to scratching / abrasion of the finished surface once protective boards are overlaid.
- 3.3.7 It is important to try to not over wet floors as the substrate could become loosened or efflorescence could be triggered. Surface dirt should be removed with minimal quantities of warm water.
- 3.3.8 Sweep and vacuum existing floors / components prior to laying / fixing of any protective boards.
- 3.3.8.1 Contractor is to photograph and record all areas prior to undertaking any works.

3.3.9 PROTECTION OF FABRIC

- 3.3.9.1 Generally, provide all necessary and suitable protection to all areas of work and areas adjacent to the works in order to enable the least destructive, safe and efficient means of carrying out of the works.
- 3.3.9.2 The element of protection is to encompass the non-destructive shielding of the existing building fabric and finishes against

wear and tear and destructive working methods; the enclosing of working areas and areas of opening up against environmental and climatic conditions; the security of the working area and the site as a whole and the safety of site operatives, visitors and general public.

- 3.3.9.3 The structure, fabric, decoration and contents of the buildings are to be suitably protected by the use of dustsheets, solid protection, sealing of doors, etc.
- 3.3.9.4 All protection is to be loose-laid or pressure-fixed by wedging, bracing, clamping or tying as appropriate in a manner that will not damage the existing fabric of the building, no direct fix will be acceptable. The use of cloth string is acceptable.
- 3.3.9.5 The Contractor is to make allowance for and carry out all necessary modifications and adaptations of all forms of protection, where so instructed or where so required, to enable the safe and efficient carrying out of the works.
- 3.3.9.6 All protective installation should be regularly and routinely checked, with replacement of materials etc where well-worn and/or defective.
- 3.3.9.7 The appropriate method of protection is to be agreed with the CA.
- 3.3.9.8 Equipment and materials must not be propped against decorated surfaces, fittings or furniture.
- 3.3.9.9 Footwear is to be appropriate to the part of the building or structure in which the work is being undertaken to avoid damage to floor finishes and coverings.
- 3.3.9.10 **No** contents or fixture and fittings shall be moved by the Contractor without the written permission of client.
- 3.3.9.11 **No** adhesive tapes or mechanical fixings should be used to secure in-situ protection. If no alternatives can be proposed, each instance of proposed use should be discussed with the Architect and Project Conservator.
- 3.3.9.12 **No** item longer than 1200mm can be carried through the building unsupervised. Materials and objects should be appropriately covered to ensure that damage will not occur to either the fabric or contents of the building. The admission of equipment / materials longer than 1200mm into the building will be considered – however prior consultation must be sought with the Architect / Project Conservator.
- 3.3.9.13 Cutting of boards on site; dustsheets should be laid, and vacuum cleaners must be available at the point of work and used to collect dust as and when created.
- 3.3.9.14 All Contractors must adhere to the restricted walkways through the building / site. These routes **MUST** be clearly visible and identified by the Contractor.
- 3.3.9.15 All contractors must use dustsheets at all times.
- 3.3.9.16 Illustrative prints relating to particularly fragile elements / components, will be located at the site of work. All contractors are required to familiarise themselves with the pictures provided.
- 3.3.9.17 **All** areas of the building / asset are **vulnerable** and **important** and should be protected for the duration of the building works.
- 3.3.9.18 All items protected must be protected by products and materials which are fire retardant.

3.3.10 CONSERVATION WORKING PRACTICES DURING BUILDING WORKS

- 3.3.10.1 It is of paramount importance that the working site is maintained and cleaned throughout the construction works.
- 3.3.10.2 The following measures are to be observed and implemented throughout the duration of the contract to minimize the disruption to the Client and occupier and reduce the time needed for the final clean prior to Client handover.

- Prior to temporary fixing of protection measures, area to be covered should be vacuumed / cleaned to remove all loose debris and dust prior to over-boarding.
- Vacuum cleaners must be used at source where dust is being created. Bags and filters must be regularly changed, and the vacuum cleaners well maintained.
- Contractors should vacuum up after themselves at the end of each working day.
- Insitu protection must be well maintained.
- Keep to walkways of protection.
- Items over 1.2m need to be carried by two people, with ends padded.
- Provide walkways of Antinox covered with hardwood through each room.
- All equipment and materials should be placed on Antinox.
- Loose laid sheets of Antinox should be used by contractors around work areas.
- No access to storage areas or other unauthorised areas outside work site except where accompanied at all times by Client or Project Architect.

3.3.11 MATERIALS FOR PROTECTION GENERALLY

- 3.3.11.1 Dust Sheets: To be linen or cotton-type close weave material to prevent the ingress of dust and paints.
- 3.3.11.2 Polythene Sheet: To be minimum 250-micron polythene, laid with all joints lapped and taped to prevent the passage of dust and moisture.
- 3.3.11.3 Reinforced Polythene: To be heavy duty Sisalite reinforced polythene sheet (860) by British Sisalcraft or similar.
- 3.3.11.4 Fibreboard: To be minimum 12mm Tentest board, loose laid and cut to suit irregular plan shape.
- 3.3.11.5 Underlay: To be carpet felt underlay, minimum 1.36 kilos per m2, loose laid and cut to suit.
- 3.3.11.6 Plywood: To be water- and boil-proof (wbp) plywood to BS 6566. Generally, the following minimum thicknesses will be used:
- 3.3.11.7 Floor protection: 4mm, cut to suit with joints taped.
- 3.3.11.8 Framed protection: 12mm on softwood frame, formed independent of the protected element.
- 3.3.11.9 Rubberized Foam: To be flexible foam-type pipework insulation, i.e. Armourflex or similar, of a suitable diameter and thickness to provide suitable protection.
- 3.3.11.10 Antinox is available from Swiftec tel: 0161 945 1500. Correx 2mm black flame retardant, is available from Cordek Ltd. tel: 01403 799 600.
- 3.3.11.11 Flame retardant bubblewrap FRC120 is available from Euronova Ltd. tel: 0117 944 2061.
- 3.3.11.12 Megafilm is available from Megafilm, tel: 0121 608 6161.
- 3.3.11.13 Flame retardant 5mm Impact Cover-Guard TIG 5MM150, is available from Bainbridge International tel: 01489 776020. Bainbridge International also supply flame retardant bubblewrap.

3.3.12 OPENING UP AND FURTHER ASSESMENT

- 3.3.12.1 It may be necessary in some instances to open up areas of the fabric to provide further insight and assessment of building fabric which is concealed and/or hidden from view, this will help to define and inform the full extent and scope of remedial works and detailed repairs required within these locations. For example, there may be embedded timber members within masonry walls which are showing signs of structural failure, this may require micro-drilling or the use of a resistograph tool.
- 3.3.12.2 Locations identified to be opened up should be kept to an absolute minimum with minimal disturbance to the surrounding fabric. The full extent of the opening up works is to be agreed / marked up with the Architect onsite prior to the

commencement of any invasive works to ensure that there is the absolute minimum of disturbance to the historic fabric, and that all other areas are suitably protected.

- 3.3.12.3 If investigation of spores / fungal decay / mould growth is required, this **MUST** be completed by timber and damp specialist.
- 3.3.12.4 Works specified as requiring opening up for inspection, shall be undertaken only in accordance with the agreed schedule of opening up, and Method Statements to be submitted by the Contractor. The Contractor should be aware that works to open up structure and finishes which are not carried out in accordance with the specification, may contravene legislation requiring Listed Building Consent.
- 3.3.12.5 A full photographic record shall be undertaken before commencement and a record maintained throughout the progress of the works.
- 3.3.12.6 All areas of the fabric opened up for inspection **MUST** be reinstated upon completion of the main works. Reinstatement of the fabric may be required sooner, dependant on the item to which has been opened up. For example, if an area of the external envelope has been opened up, this shall be reinstated and made good following the inspection works to retain a weathertight enclosure.
- 3.3.12.7 All works **MUST** be undertaken by approved and skilled conservation specialist contractors.
- 3.3.12.8 If required, trial holes are to be dug in locations agreed with the Architect or Structural Engineer. In locations adjacent to existing buildings or site features, works are to be undertaken by hand.
- 3.3.12.9 All necessary protection and propping are to be incorporated to ensure the structural integrity of the existing building, the protection of the excavation and building fabric and the safety of the site operatives, occupiers and visitors.
- 3.3.12.10 Lifting of floorboards is to be undertaken using non-powered hand tools only, by skilled craftsmen and in such a way as to allow for the reinstatement of all fabric to its existing state.
- 3.3.12.11 Where there are screw-fixed floorboards these are to be taken up in preference to others. Raised floorboards should be placed carefully on one side such that they do not present a Health and Safety hazard from projecting nail fixings and that these do not damage any existing part of the fabric of the buildings or its contents. Any dust and debris created by lifting of the boards should be vacuumed up as the work proceeds (not only at the end of the working day) to limit the spread of dust, although particular vigilance is required for items of potential archaeological importance.
- 3.3.12.12 Any items of masonry that are dismantled are to be carefully referenced with their original location. Do not scratch references, mark only on unexposed faces. Any dismantled masonry is to be stored on soft, non-staining, material and is to be placed without stone to stone contact.
- 3.3.12.13 Service ductwork is generally to be opened up for inspection at locations of existing access panels, or other locations as agreed with the Architect. Ductwork and services are to be opened up in such a way as to allow for the reinstatement to their proper functioning state of all fabric and services on completion of the work.
- 3.3.12.14 Opening up and investigation of existing services are to be carried out strictly as described within the agreed Contractor's Method Statements.
- 3.3.12.15 Close circuit television (CCTV) investigations where so specified, shall be undertaken by an approved specialist, in accordance with the Architect's instructions.
- 3.3.12.16 The Contractor is to inform the Architect when areas of opening up are safely secured and available for inspection, allowing a minimum of two working days' notice. Following inspection, unless otherwise instructed, backfill, relay, refix all disturbed materials and fabric to the area of the works, and make good surface finishes.

3.3.13 HEALTH AND SAFETY

- 3.3.14 The contractor will provide props, struts, scaffolding and shores, etc as necessary to ensure the stability of the existing structures, including making preliminary investigations and calculations where necessary. The Contractor is responsible for the overall safety of the Works and existing structures unless expressly made the responsibility of others in the Contract Documents. All such methods of temporary support and access are to be clean and isolated from the building fabric by suitable forms of protection.
- 3.3.15 All works are to be carried out strictly in accordance with all relevant legislation and legal obligations currently in force. The Contractor is to have particular consideration of the programming, planning and safe carrying out of operations in respect of other works and site operatives on and about the building.
- 3.3.16 The Contractor is to prepare and submit to the Contract Administrator and Principal Designer, for consideration, Risk Assessments and Method Statements to address the safe carrying out of the works with the minimum of disruption to the existing structure and fabric.
- 3.3.17 All opening up is to be carried out strictly in accordance with the health and safety measures and requirements.

3.3.18 NUISANCE

- 3.3.18.1 Prevent all avoidable nuisance on and about the site with particular reference to fumes, dust and noise. Establish and maintain good relations with adjoining occupiers. Smoking is only allowed on site outside of the building, where it has been agreed with the Client and waste is to be collected and disposed of by the Contractor at the end of each working day.
- 3.3.18.2 Bonfires will not be permitted. All waste materials shall be removed from site and disposed of in a suitable manner and in compliance with all relevant legislation.

3.3.19 RISKS

3.3.19.1 Fire:

Fire is one of the greatest risks as the damage can be so far-reaching. Where a process creates a high risk of fire and is considered unavoidable, it is important to ensure that there is an adequate policy in place to mitigate the risks.

Where possible all hot work is to be dealt with offsite or on the ground well away from the building fabric. Hot work is only permitted only when deemed necessary by the CA.

Where possible prefabrication and Hotwork are to be carried out a minimum distance of 6 m outside the building, on the ground and with no combustible materials within 10m of the Hotwork operation.

The contractor is to advise the CA, in writing beforehand, of the dates when hot work is being carried out, and the details (including method statements) of the work. This is to allow the client and CA to consider whether any further precautions are deemed necessary. A Hot Work Permit System may be introduced.

3.3.19.2 Burglary, theft and arson:

The asset must be thoroughly secured and protected at all times throughout the construction contract. All windows, doors and access points into the asset shall be blocked and/or secured at all times, ensure that the fixings do not, in themselves damage the building if it is forced.

Remove ladders, along with tools and other materials which may pose a risk to the fabric. Consideration should also be given to individual objects of value, this may include fixed assets fireplaces, doors etc which could be easily stripped out or loose portable items. These assets should be security marked with a property ID system (SmartWater or SelectaDNA for example) with assets temporarily over boarded to provide additional protection and hide from view. Details of the property identification system should be displayed at the perimeter if adopted to deter certain individuals.

3.3.19.3 Access routes:

It is important to consider access for equipment, materials and people throughout the asset for the duration of the project.

Prior to undertaking actual building works, access routes and elements and/or components of significance should be thoroughly protected.

Access routes should be carefully chosen to avoid proximity to vulnerable fabric, though this may be difficult for historic fabric. Mitigation measures should be implemented within the interior which may involve the use of foam padding and sheets or plywood or plastic padding for the protection of floors, staircase and balustrades.

Protective measures must be carefully cut to fit and fixed to together to minimise the risk of them becoming trip hazards. Sheets are normally taped together at joints.

Principal trafficked areas need to be checked regularly to ensure that they remain sound and have not moved.

Vulnerable corners and projections may also need to be protected with foam rubber or expanding foam separated from the material by a sheet of polythene.

3.3.19.4 Incidental damage during repair or conservation work:

Identify potential risks and look to reduce the likelihood of occurrence and severity, when undertaking any intervention or conservation works.

3.3.19.5 Water damage:

The exterior envelope of the asset must be maintained and protected at all times to reduce and limit potential water ingress issues.

As well as rain, other sources of moisture could be introduced during pointing, masonry cleaning and other conservation processes.

Gutters and downpipes which are disconnected and/or removed during construction works shall be reconnected immediately or temporary drainage system introduced.

3.4 RS3 – HAZARDOUS MATERIALS

- 3.4.1 From the onsite investigation thus far, and verbal information from the Client/occupier, it is reasonably assumed there are no hazardous materials within the scope of the works, however, it has not been categorically ruled with certified evidence. Be aware that all existing buildings may contain materials which are considered hazardous by current standards. All such materials **must** be flagged and carefully disposed of in accordance with all relevant legislation and safety standards, and relevant authorities informed wherever applicable.
- 3.4.2 The Control of Asbestos at Work Regulations 2002 (CAW Regulations) came into effect in November 2002 replacing the 1987 Control of Asbestos at Work Regulations 1987 (the 1987 Regulations). The new provisions (such as the duty to manage asbestos) have been applicable since 21st May 2004.
- 3.4.3 Regulation 4 of the CAW Regulations relates to the identity of the responsible party/ parties who have a duty to manage asbestos. This onus has been changed from the “employer” – as defined under the Health and Safety at Work Act 1974 – to the “duty-holder” who will have a duty to manage asbestos.
- 3.4.4 The CAW Regulations define a “duty-holder” in Regulation 4 as (a) “every person who has, by virtue of a contract or tenancy, an obligation of an extent in relation to the maintenance or repair of non-domestic premises or any means of access thereto or egress therefrom; or (b) in relation to any part of non-domestic premises where there is no such contract or tenancy, every person who has, to any extent, control of that part of those non-domestic premises or any means of access thereto or egress therefrom”.
- 3.4.5 The definition of a “duty-holder” under the CAW Regulations is therefore different from the definition under the 1987 Regulations (where the duty was placed on the Employer).
- 3.4.6 The CAW regulations require the duty-holder to manage the risk from asbestos in non-domestic premises. The “duty-holder” is required to ensure that a “suitable and sufficient assessment is carried out whether asbestos is liable to be present in the premises”. The duty-holder shall take such steps that are reasonable in the circumstances in making the assessment to “those parts of the premises which are reasonably accessible”.
- 3.4.7 The industry standard for asbestos surveys requires contractors to be accredited by the United Kingdom Accreditation Service (UKAS). Surveys are carried out in accordance with the Method of Detecting Hazardous Substances, (the HSE Asbestos Survey Guide HSG264:2012) and three surveys are identified as follows:-
- Type 1: Location and Assessment Asbestos Survey (presumptive)
- Type 2: Standard Sampling, Identification and Assessment Asbestos Survey (sampling survey)
- Type 3: Full Access Sampling and Identification Asbestos Survey (pre-demolition/ major refurbishment surveys)
- 3.4.8 The Architect is not an expert in matters relating to asbestos, nor an accredited surveyor in respect of the UKAS requirements and this report should therefore not be considered as a contribution to the Asbestos Survey Report required by the CAW Regulations. The Architect has no duty to report on asbestos. However, where there is reasonable cause to suspect that asbestos containing materials are encountered during the course of the fabric inspection, these matters will be reported in the usual way.
- 3.4.9 All contractors and specialist sub-contractors dealing with asbestos are to comply with the following Regulations and Directives:
- Asbestos Surveys and Asbestos Sampling and Removal.
 - The Control of Asbestos Regulations 2012 (2012/632).
 - HSE Asbestos – Health and Safety in the workplace – April 2012.
 - The revised Approved Code of Practice (ACOP) 2nd October 2013.
 - ISO 17020 UKAS P402 accredited laboratory for testing.

3.5 RS4 – ACCESS SCAFFOLDING

3.5.1 NOTE: All temporary works (TW) are to be completed as contractor design by contractor's Temporary Works Designer with TW training and experience. All temporary works and scaffolding are to comply with BS 5975:2019 or as updated.

3.5.2 DESIGN

3.5.2.1 The design of all scaffolding will be the responsibility of the Contractor and is to be in accordance with the recommendations of BS EN 12811-1:2003 " Temporary works equipment - Scaffolds. Performance requirements and general design" or as updated.

3.5.2.2 Compliance with the various Acts and regulations listed in BS EN 12811-1:2003 is the responsibility of the Contractor.

3.5.2.3 Compliance with all aspects of Health and Safety during erection, using and dismantling is the responsibility of the Contractor.

3.5.2.4 The design of the scaffold is to take account of the requirements of all trades which will require access, use as a working platform or storage. No claims will be entertained for additional scaffold or for amending scaffold already erected to suit the requirements of trades contained within the specification and the tendered works as a whole.

3.5.2.5 The contractor **shall** submit a brief method statement with their tender which describes the nature and location of the proposed scaffolding, so that the Architect can satisfy themselves that it is adequate and properly located.

3.5.3 PROPOSALS

3.5.3.1 The Contractor is to submit his proposals for the scaffold on or before the date for possession and not less than 7 days before commencement of the scaffold.

3.5.3.2 The Contractors proposals are to include clear drawings and structural calculations in duplicate sufficient to prove the stability of the proposed temporary structures in accordance with BS EN 12811-1:2003. Drawings will be provided to the Architect and the Structural Engineer.

3.5.3.3 These drawings will clearly indicate positions where any scaffold is to be tied back to the fabric of the building and the proposed method of fixing.

3.5.3.4 No scaffolding shall be commenced on site until the

Contractors proposals have been submitted and agreed with the Architect/Structural Engineer. Agreement of the Contractors proposals does not relieve the Contractor of his responsibilities to ensure full compliance of all requirements.

3.5.4 PROGRAMME

3.5.4.1 Prior to commencement of any scaffolding the Contractor shall submit a programme indicating the commencement date, and completion date.

3.5.4.2 Prior to striking the scaffold the contractor will submit a programme indicating the period for dismantling for each area of scaffolding.

3.5.4.3 Scaffold is required for inspection purposes prior to confirmation of scope of the work and the Contractor is to indicate this period on his programme and ensure that his proposals are submitted early enough to ensure that this period is not compromised.

3.5.4.4 The programme is to take account of all the requirements of the sub-contractors who require the use of the scaffold.

3.5.5 ERECTION REQUIREMENTS

3.5.5.1 All scaffold tubing and fittings are to be galvanised and in good condition and free from corrosion. Rusty components will not be accepted.

3.5.5.2 No steel component (including capped tubes) is to be in contact with the fabric of the building except where specific approval has been given.

3.5.5.3 Where it is necessary to brace the scaffold from the structure then timber packing of a minimum thickness of 20mm is to be placed between the scaffolding and the masonry.

3.5.5.4 No scaffolding shall rest on any roof coverings unless agreed in writing prior to commencement.

3.5.5.5 The ends of **ALL** scaffold tubes are to be protected with plastic caps which are to be fitted prior to delivery to site. Where it is necessary to cut scaffold tubes during erection the end is to be re-capped immediately. A disc of carpet is to be sandwiched

	between the plastic scaffold cap and the building fabric at every point of contact.		boarding or by other approved means.
3.5.5.6	Scaffold tubes are not to encroach within 50mm of the surface of the building except where required for support or stabilising. This is to prevent accidental damage to the fabric by minor movement of the scaffold. Where such support is required, the scaffold shall be separated from the building fabric by 20mm timber packers to prevent Scarring of the fabric by scaffold tubes.	3.5.7.6	Scaffolding shall be alarmed at all times.
3.5.5.7	Where it is necessary to brace scaffold through window or door openings the existing finishes are to be protected with 20mm thick timber packers both internally and externally. The opening is to be boarded up with access only for the scaffold tubes.	3.5.7.7	Adequate measures must be taken to prevent unauthorised access from all elevations. Which could include floodlights and motion detectors as well as CCTV cameras.
3.5.6	SUPERVISION	3.5.8	PROTECTION
3.5.6.1	The Contractor is to exercise particular care in supervising the erection and dismantling of the scaffold to ensure that no damage occurs to the fabric of the building.	3.5.8.1	The covering to pavements is to be double boarded with visqueen between.
3.5.6.2	It should be noted that in many instances damage to the historic fabric cannot easily be rectified. Any damage due to the scaffold use, erection or dismantling will be rectified at the Contractors expense.	3.5.8.2	The contractor is to satisfy all the requirements of the Local Authority and Highways department.
3.5.6.3	Any area of scaffold not complying with section 3.5.5 above will not be used for any purpose.	3.5.8.3	All surfaces at ground level are to be suitably protected to prevent the scaffold damaging existing external finishes.
3.5.7	SECURITY	3.5.8.4	Where internal scaffold is to be erected full protection will be required under all scaffolding except with prior written consent.
3.5.7.1	All external scaffolding shall be designed and erected so as to prevent unauthorised access by sheeting (whether ply or steel) to a minimum height of 3 metres at the base. 'Herras' mesh fencing is not considered a suitable alternative.	3.5.8.5	Ensure any architectural features or areas prone to damage are suitably protected.
3.5.7.2	Sheeting which forms part of the perimeter hoarding for the site will also need to comply with constraints for site hoarding specified elsewhere within the preliminaries for the project.	3.5.8.6	All entrance doors, fire exits etc are to be kept clear of obstructions and are to be lined at the top and both sides.
3.5.7.3	Access to the scaffold is to be via a single point of entry and a lockable door through the barrier described above.	3.5.9	DISMANTLING
3.5.7.4	Ladders to the lower lifts are to be removed at night.	3.5.9.1	Ensure all necessary care is taken to ensure that no damage occurs to the fabric of the building.
3.5.7.5	Any areas which may be accessible from adjoining structures, roofs, etc are to be similarly protected by	3.5.9.2	Scaffold tubes should be carefully lowered to ground level and not thrown or dropped.
		3.5.9.3	No dismantled components shall be left on site outside working hours unless housed within a secure compound area.
		3.5.10	TEMPORARY PROTECTION AGAINST THE ELEMENTS
		3.5.10.1	Whilst the bay window roof is disassembled to allow access to the works, a small temporary roof will be required to ensure and façade protection is required to ensure the elements do not entering through the façade
		3.5.10.2	Any damage arising to the building fabric from the failure of temporary sheeting will be made good at

the contractor's expense. Sheeting for side walls shall be reinforced translucent sheets which are self-extinguishing and flame retardant (e.g. Monaflex). Details of any alternative proposals shall be submitted for approval with the tender.

3.5.10.3 All sheeting shall be adequately secured against wind uplift etc.

3.5.10.4 All sheeting shall be checked by a competent person once a week and a signed record kept onsite. Any defects are to be rectified immediately.

3.5.10.5 All areas are to be maintained as watertight at all times.

3.5.11 CERTIFICATES

3.5.11.1 Copies of all handover certificates issued by the scaffolding sub-contractor shall be forwarded to the Architect upon receipt by the Main Contractor.

3.5.11.2 Copies of all test certificates for hoists shall be forwarded to the Architect on receipt by the Main Contractor.

3.5.11.3 No scaffolding shall be used unless handover certificates and test certificates have been issued.

3.6 RS5 - HYDRAULIC LIME MORTAR

3.6.1 LIME MORTAR MIX

The mix should be as per the Conservation Structural Engineer's drawing notes and specification. The below is provided as a convenience. If any discrepancies arise/are present, the Engineer's specification supersedes this and takes precedents.

Facing brickwork mortar to constitute 1 part cement: 2 parts hydraulic lime: 9 parts graded sand (from 5mm down to 75 microns) – (St. Astier NHL 2 or similar approved). PENDING MORTAR ANALYSIS AND SAMPLING.

Padstone bedding mortar to constitute 1 part cement: 1 part hydraulic lime: 6 parts graded sand (from 5mm down to 75 microns) – (St. Astier NHL 2 or similar approved).

Suppliers to be consulted for variations in aggregates to achieve required distribution and colour.

Mixing and usage to be strictly in accordance with supplier's recommendations.

3.6.2 MATERIALS

3.6.2.1 Hydraulic lime

Hydraulic Lime or pre-mixed hydraulic lime mortar may be obtained from:

- a) Womersley Associates
Walkley Lane
Heckmondwike
WF16 0PG
Tel: 01925 400651
Fax: 01924 403489
- b) Wenlock Lime Ltd
The Coats Kiln
Stretton Road
Much Wenlock
TF13 6DG
Tel: 01925 728611
Fax: 01925 728361
- c) Telling Lime Products Limited
Primrose Avenue
Fordhouses
Wolverhampton
WV10 8AW
Tel: 01902 709777
Fax: 01902 398777

3.6.2.2 Fine Aggregates

All sand shall be to BS 1199 and 1200:1976, well-graded non-staining clean sharp coarse sand, uncontaminated by clay/silt. Sand shall be selected so that when the mortar has dried out the colour will match the colour and texture of the original mortar, unless instructed otherwise in writing by the Architect.

For work requiring very fine joints in the masonry sand grain size may impede filling the joints. In these instances, fine stone dust or brick dust should replace the sand as the fine aggregate.

Suppliers of lime to be consulted on suitability of sands proposed. Ideally sand to be obtained from the supplier of the lime.

3.6.3 WEATHER AND PROTECTION

3.6.3.1 Cold Weather Working

No work involving the preparation of mortar or the laying of stonework shall be undertaken when the temperature is 5 degree centigrade falling or below 4 degrees centigrade when the temperature is rising.

3.6.3.2 Protection

All work is to be protected from the frost and rain with hessian sheets for a minimum of 7 days or until the mortar has cured if longer.

In warm weather the work is to be similarly protected with hessian sheets which should be kept moist at all times to avoid curing occurring too quickly.

3.6.3.3 Damage due to Weather

Any work affected by the weather is to be cut out and replaced at the Contractor's expense.

3.7 RS6 - BRICK REPAIR

3.7.1 MATERIALS

3.7.1.1 Bricks shall match the existing in size, texture, bond and colour. Samples shall be provided by the Contractor for approval and no final work shall be commenced on the repairs until the sample(s) have been approved in writing.

3.7.1.2 Bricks shall be free from the presence of fungal attack, visible salts, paint, lime wash or other substances.

3.7.1.3 Ties

Ties to cavity work shall be as follows:

- a) Where repair involves only the outer skin of cavity brickwork or solid masonry the ties shall be of a resin anchor type (Ancon Clarke ref. AC31) manufactured in austenitic stainless steel.
- b) where repair involves both skins of cavity brickwork then ties shall be stainless steel fish tail ties to BS 1245: 1978) (Ancon Clarke ref. FVF).
- c) where repair involves cavity wall tie replacement ties shall be stainless steel anchor resin ties of an approved type.
- d) where repair involves rebuilding of solid masonry ties shall be stainless steel fish tail ties except where the existing bonding pattern allows header bricks to be used.

All ties are to be manufactured in austenitic stainless steel by: Ancon Clarke, Olive Grove Road, Sheffield S2 3GB.

3.7.1.4 Water

Water for the works shall be clean and fresh without pollutants. Where existing water supply is available within the building this may only be used with the Employers permission. In other cases, a lockable standpipe is to be erected to the approval of the Local Water Authority.

3.7.1.5 Mortar

Shall be in accordance with specification as instructed, or as referred to in the specification.

3.7.2 INSPECTION

3.7.2.1 The Contractor should note that the documentation has been prepared based on visual inspection from ground level or from easily accessible parts, without the benefit of access scaffold. Further inspection will be required on completion of the access scaffold and the Contractor is allowed a period of 1 week for inspection and confirmation of the scope of the work in his programme.

3.7.2.2 The Contractor is encouraged to be represented during the inspection in order that he may contribute in any discussion regarding alternative methods of repair.

3.7.2.3 Notice

The Contractor is to give 48 hours' notice to the Architect of the completion of the access scaffold to each area.

3.7.2.4 Confirmation

Confirmation of the scope of the work will be the issue of revised drawings and confirmed by an Architects Instruction following completion of the inspection from the access scaffold.

3.7.2.5 Scaffold

The Contractor shall ensure that all access scaffold is complete and in accordance with the specification and that handover certificates have been issued before inviting inspection. Inspection will not be carried out if the scaffold is not in accordance with the specification

3.7.2.6 Programme

The Contractor shall provide a programme of work based on the Architects drawings before commencement of work on site. This programme shall indicate separately the erection sequence for access scaffold, inspection period, order period and works on site for each area of work.

3.7.3 PROTECT, STORAGE AND CLEANING

3.7.3.1 Protection of Work Area

Where large areas of masonry repairs are to be undertaken the scaffold is to be fully protected using a translucent non-combustible sheet such as

	Monaflex fixed to the outside of the scaffold.		at the contractor's expense.
3.7.3.2	Protection of the Fabric Any existing windows are to be protected with ply or particle board, in the areas adjacent to any area of work. Other features identified on the drawings are to be protected from damage. Where scaffold is erected internally or where scaffolding penetrates through into the building internal fittings shall be adequately protected.	3.7.4.4	The area is to be cleared of any mortar, debris etc and any defect in the backing masonry is to be reported to the Architect.
3.7.3.3	Storage Bricks should be stored in stacks on battens protected from moisture and freezing. Adequate care is to be taken to ensure that no damage occurs to the bricks during storage or handling.	3.7.4.5	Where large areas of brick or block are to be removed the opening is to be propped with timber props ensuring that no damage is caused to adjoining brickwork.
3.7.3.4	Storage on Scaffolding Only bricks for immediate use shall be stored on the scaffold.	3.7.4.6	<u>Under no circumstances will the use of mechanical tools be permitted (disc cutters etc.)</u>
3.7.3.5	Protection of Finished Work Protect all work from the weather and to ensure satisfactory curing of the mortar. Protection is to be maintained until completion of all work in that vicinity.	3.7.4.7	There are power tools that use oscillating blades (fein saw type) to rake out fine joints; care must be taken with these, especially if the brick is softer than the mortar, as the blade can slide off the mortar and cut into the brick.
3.7.3.6	Cleaning of Work Keep face work clean and free from staining at all times. Clean off and rub down all brickwork as scaffold is taken down. If acid is used for cleaning down fully protect all windows and other areas liable to damage (e.g. paintwork etc.) Acid shall not be permitted if lime mortar has been used for pointing.	3.7.5	INSERTING NEW BRICKWORK
3.7.4	CUTTING OUT OF DEFECTIVE BRICKWORK	3.7.5.1	The recess is to be thoroughly cleaned out and the adjoining brickwork is to be moistened to prevent the mortar "snatching".
3.7.4.1	The areas to be cut out shall be marked on site and approved/confirmed by the Architect prior to commencement of cutting out.	3.7.5.2	New/replacement bricks are to be bedded on a bed (and backing where solid walls are involved) of lime mortar as detailed in section 3.6 .
3.7.4.2	The brickwork shall be carefully cut out with chisels taking extreme care not to damage the arises of adjoining brickwork which may be being retained.	3.7.5.3	New brickwork is to be installed flush with the face of the building and ensuring that the bed joints and perpend joints are maintained consistent with the existing bricks/blocks.
3.7.4.3	Any damage to adjoining areas will be made good	3.7.5.4	The mortar is to be kept back 25mm from the face to facilitate later pointing.
		3.7.5.5	Where brickwork is being inserted into worn areas of brickwork the new brick is to be set so that the face is in the line of the original face of the brickwork.
		3.7.5.6	Where individual bricks or blocks are being replaced ties are not necessary. Where larger areas of brickwork or blocks are to be removed then ties will be required to be located at centres as follows:
		a)	900 mm centres horizontally and 450mm centres vertically with rows staggered.
		b)	225 centres vertically within 300mm of any opening.
		c)	At closer centres if specified by the Structural Engineer or indicated on the drawings.

3.8 RS7 - POINTING OF BRICKWORK

3.8.1 GENERAL

3.8.1.1 Contractor's attention is drawn to the fact that in some cases the joints between bricks are extremely fine and will demand a great deal of care and attention on site to the preparation, filling and pointing.

3.8.1.2 Pointing should commence from the top of the building and work down when undertaking fabric repair works.

3.8.2 SAMPLE PANELS

3.8.2.1 The contractor is to allow for carrying out two test panels each approximately 1 metre square under the direction of the Architect, using the methods described below. Work to the rest of the brickwork should not commence until the test panel has been approved by the Architect. The location of the test panels is to be agreed with the Architect prior to commencement.

3.8.2.2 The contractor is to allow for several sample mixes using different coloured fine aggregate to obtain a satisfactory colour for the pointing.

3.8.3 PREPARATION

3.8.3.1 All joints are to be raked out to a depth of 25mm using a fine-toothed saw blade or hooked knife. Extreme care is to be taken to avoid damage to the arris of the brick. Under no circumstances shall chisel and bolsters be used.

3.8.3.2 Under no circumstances will the use of mechanical tools be permitted (disc cutters etc.)

3.8.3.3 There are power tools that use oscillating blades (fein saw type) to rake out fine joints; care must be taken with these, especially if the brick is softer than the mortar, as the blade can slide off the mortar and cut into the brick.

3.8.3.4 Joints are to be flushed out using clean water until the water runs clear. Where very fine joints are encountered a large hypodermic syringe shall be used to flush the joints.

3.8.4 FILLING AND POINTING

3.8.4.1 Mortar is to be as specified in accordance with the mortar specification.

3.8.4.2 The mortar is to be introduced into damp joints and compressed with a purpose made pointing iron/key of approximately 30mm diameter giving a shallow "bucket handle" joint. Mortar is to be thoroughly compacted into the joints.

3.8.4.3 Care is to be taken to eliminate lines of mortar occurring on joint intersections, mortar should flow visually from perpendicular to bed joints.

3.8.4.4 Clean off any surplus or spread of mortar with a clean pointing trowel.

3.8.4.5 The joint is to be lightly brushed as mortar is achieving its first set to remove the mechanical smoothness left by the pointing iron.

3.8.5 PROGRESS

3.8.5.1 The works are to be co-ordinated such that preparation is carried out to agreed areas and made available for inspection by the Architect/Employer's Representative. The Contractor is to give at least 48 hours' notice for inspection.

3.8.5.2 No filling of joints is to proceed until preparation has been inspected and approved by Architect.

3.8.5.3 Filling and pointing is to be carried out in small areas such that all operations in one area can be completed within the working day with due notice being paid to any potential adverse weather conditions.

3.8.5.4 The work is to be kept clean from mortar spillage at all times.

3.8.5.5 When pointing commences only area which can be successfully completed during the normal working day are to be attempted giving due regard to the weather conditions/forecast.

3.8.5.6 Completed areas are to be protected until cured.

3.8.6 CLEANING

3.8.6.1 Clean down all areas on completion using clean water and bristle brushes only.

3.8.6.2 Acid cleaners should not be used when lime mortar is present.

3.9 RS8 – ROOF WORKS/REPAIRS - GENERAL REQUIREMENTS

- 3.9.1 Due to the location within a bay window roof void, the bay roof will need to be carefully taken down to allow access for repair work and rebuilt/reinstated once external access to the area is no longer required.
- 3.9.2 The roof materials are to be kept for reuse and be rebuilt/reinstated following completion of the internal and masonry works.
- 3.9.3 Where any materials are identified as requiring replacement, they are replaced on a like-for-like basis, matching the existing the existing, as to have no impact on the external appearance.

3.9.4 EXISTING NATURAL SLATING

- 3.9.4.1 Carefully remove all existing slates and battens, taking great care not to dislodge material into the roof void beneath. Sort all slates and ridge tiles removed from the roof and retain for re-use all sound slates in secure storage for inspection / approval of the CA.
- 3.9.4.2 Where specified, existing slates are to be retained and stored for reuse. The slates are to be sorted for size, shape and any broken, delaminating or otherwise unsuitable slates are to be discarded.

3.9.8.1 Base: Existing timber roof structure with battens to main roof slopes.

3.9.8.2 Pitch: Existing / to match existing.

3.9.8.3 Underlay: Dupont Tyvek Supro breathable membrane

3.9.8.4 Centres: Coinciding with rafters / trusses.

3.9.8.5 Battens: 50 x 32 mm

3.9.8.6 Counter Battens: 25 x 50 mm

3.9.5 EXISTING ROOF COVERINGS

- 3.9.5.1 Existing coverings are to be carefully removed to ensure the maximum amount of material capable of being reused is retained.
- 3.9.5.2 Removal of existing slates, battens, etc shall be carried out ensuring the minimum of disturbance to the roof voids.
- 3.9.5.3 On removal of the roof covering allow for inspection of the roof timbers by the architect or appointed Timber Treatment Specialist. Any timbers found to be rotten and / or damaged are to be replaced with new treated timber of similar section and species upon written instruction from the CA or cut back to sound timber and new sections pieced in.
- 3.9.5.4 Allow a credit for the scrap value of any lead to be removed from the site.

3.9.8.7 Fix using stainless steel 'helifix' 75mm or screw to give a minimum 25mm penetration into the top of the underlying rafter and also to reduce imposed vibration on the existing structure whilst reducing the risk internal finishes becoming defective due to impact.

3.9.8.8 Slates: To BS 680: Part 2.

3.9.8.9 Supplier and reference: Samples to be supplied to match existing

3.9.8.10 Fixing: As per following section with minimum end lap 100 mm or to match existing.

3.9.8.11 Leadwork as per RS9.

3.9.8.12 Tilt fillet: Provide continuous hardwood tilt fillet across the length, including eaves protection tray.

3.9.8.13 Ridge / hip tiles: provide hip and ridge terminal tiles at each junction.

3.9.6 REPLACEMENT ROOF SLATES AND COVERINGS

- 3.9.7 Replacements are on a like-for-like basis, matching the existing and only where necessary and identified.
- 3.9.8 Until existing materials are confirmed through intrusive investigations the following specifications shall be considered appropriate replacements:

3.9.9 REPAIR OR REPLACEMENT OF EXISTING TIMBERS

3.9.9.1 Once the existing coverings are removed the Architect will inspect the timber structure and issue such instructions as are necessary with regard to the repair or replacement of any defective timbers.

3.9.9.2 No defective timbers shall be removed until

	inspected by the Architect even if these are identified for replacement on the drawings. The intention will generally be to retain as much of the original timber as possible.		All battens shall be free from knots and decay. Where battens are cut the cut ends shall be treated with a brush applied compatible preservative. Size of battens should be as described in BS 5534 "Code of Practice for Slating and Tiling" unless larger dimensions are specified. For buildings with a ridge height less than 7.2mm above ground level battens shall be nailed using 3.35mm diameter 65mm length smooth round or ring shank galvanised steel nails to BS 5534.
3.9.9.3	Where existing timbers are a softwood species, replacement timbers shall be vacuum pressure impregnated timber of a section to match the existing. Timber treatment shall be carried out in strict accordance with British Standard. Timber shall be delivered to site with a moisture content no greater than 20% and shall be stored in such a way that the moisture content is not increased prior to use.		At hips and valleys battens should be treated to allow a board 225mm wide to be installed to permit fixing of cut tiles.
3.9.9.4	Treatment certificates are to be forwarded to the Architect on receipt.		Battens shall be set out to ensure that battens are at 90 deg. to the direction of water runoff.
3.9.9.5	Where existing timbers form part of a hardwood timber framed structure the replacement timbers shall comply in full with the requirements of the timber frame specification.		Battens shall be set out such that joints do not occur on the same rafter within 4 rows of battens and that within the zone joints do not occur in adjoining rafters.
3.9.9.6	All battens are to be replaced with new treated softwood battens to sections as specified elsewhere.		All joints shall be centred over rafters and fully supported by and nailed to the rafter.
3.9.9.7	All timbers shall comply with the recommendations of BS 4978 "Specification for softwood grading for structural use" and BS 5534.		All structure shall be checked for line prior to commencing felting and battening and any discrepancies reported to the Architect.
			All existing and new roof structures shall be checked for line prior to commencing felting and battening and any discrepancies reported to the CA.
3.9.10	FIXING		
3.9.10.1	Underlay	3.9.11	SLATE FIXING:
	All underlay shall comply with BS 5545 Part 1 1990 and BS 747 where the underlay is not fully supported it shall be breathable geotextile felt to BS 744 and BS 5534.		Ensure that stripped eaves sections are at the correct level in relationship to gable walls and parapet gutters. Provide all necessary support and fixing battens as recommended by slate supplier or component manufacturer.
	For an unsupported installation with a roof pitch between 15 and 30 degrees the minimum horizontal lap should be 150mm. Where the underlay is supported this may be reduced to 100mm.		Fix slate roofing to make the whole roof sound and weathertight at the earliest opportunity.
	Ensure that the underlay does not tear or rip and that no gaps occur at the laps. Any torn underlay should be replaced before tiling commences.		Lay with an even overall appearance, with tails of slates aligned. Use slates of consistent thickness in any one course, laid with thicker end as tail. Fix edge slates and fittings securely to neat, true lines.
	Underlay shall be fixed using 3.35mm diameter 20mm long extra-large felt nails manufactured in copper or galvanised steel.		Use extra wide slates at ends of courses to maintain bond and ensure that cut slates are as large as possible. Do not use half slates.
	The underlay shall be fixed in such a manner that it cannot touch the underside of the tiles even if subjected to wind pressure from below.		Centre fix each slate with two copper nails to BS 1202: Part 2, 30 mm long x 2.8 mm through countersunk holes 20-25 mm from the side edges. Fix slates wider than width and a third with three nails.
3.9.10.2	Battens		

All slates are to be sorted prior to holing and fixing.
All slates to be used on any course shall be of the same thickness. Thicker slates should be used at the eaves courses.

3.9.11.1 Holing

Slates to be holed from the underside and positioned so that the thinner end of the slate is at the top when fixed.

Holing with a spiked hammer or pick shall only be used for fixing of details during slating.

Each slate should be holed twice within a range of 20-25mm from each side.

For centre nailed slates holing gauge - batten gauge + lap + 8mm - 15mm. For head nailing holes are to be 25mm from the top of the slate. Unless specified elsewhere all slates shall be centre nailed.

No slate shall be cut to less than 150mm width.
Where details would require smaller cuts 'slate and a half' should be used.

Lowest course slates have an under eaves course which should be inverted, and head nailed. Both under eaves course and first full course of slate should overhang the gutter by 50mm and should align to form a neat straight edge.

Remaining courses should be centre nailed so that the tails of all courses are parallel and are finished in clean straight lines.

All slates shall be laid half bond.

Verges should be finished with alternating slates and slate and a half courses.

Pointing for verges shall be up in NHL 3.5 Hydraulic Lime Mortar.

Install additional piece of underlay 600mm wide overlapping the normal underlay and over the hip rafter.

3.9.12 MATERIALS GENERALLY

3.9.12.1 Ensure all materials comply in full with the relevant British Standards as listed below:

3.9.12.2 BS 747 Specification for Roofing Felts.

3.9.12.3 BS 1178 Specification for Milled Lead Sheet for buildings.

3.9.12.4 BS 1202: Part 2 and 3 Specification for Nails.

3.9.12.5 BS 4978: Specification for softwood grades for structural use.

3.9.13 STORAGE OF MATERIALS

3.9.13.1 Only sufficient materials for the operatives to use in a working day should be brought to onto scaffolding.

3.9.13.2 No salvaged materials are to be stored on the scaffold or on the existing roof area. Materials reclaimed for re-use are to be stored at ground level and protected from damage and theft.

3.9.14 WORKMANSHIP

3.9.14.1 All work shall be carried out in accordance with BS 5534 part 1 and 2 "Code of Practice for slating and tiling" and BS 8000: Part 6 "Code of Practice for Workmanship and Building Sites - slating and tiling".

3.9.14.2 All work shall be undertaken by suitably qualified and experienced roofers.

3.9.15 HEALTH AND SAFETY

3.9.15.1 The contractor shall ensure that all necessary precautions are taken to ensure the safety of all operatives, site visitors etc at all times.

3.9.16 INSPECTION

3.9.16.1 The contractor is to give the Architect 2no. working days' notice prior to the roof being ready for inspection.

3.10 RS9 - LEADWORK

3.10.1 REQUIREMENTS

3.10.1.1 All leadwork shall be undertaken by trained operatives employed by a contractor who is a member of Lead Contractors Association.

unless specifically instructed in writing.

Do not use screws or other sharp instruments to mark out lead. Use solder only where specified and not in any other location.

Ensure that finished leadwork is fully supported.

3.10.1.2 All workmanship shall be in accordance with the Lead Sheet Associations recommendations as contained in the Lead Sheet Manual - a guide to good building practice Volume 1 to 3 and current updates.

3.10.3.2 Lead Welding

In situ lead welding is permitted where specified subject to completion of a "hot work permit" form and compliance with its requirements. Lead chutes / sumps will require onsite welding.

3.10.1.3 Working Practices shall comply with the Health and Safety Executive COP2 "Control of lead at work - approved code of practice".

3.10.3.3 Layout

3.10.1.4 All work shall comply with BS 5250 "Code of Practice for control of construction in buildings".

Agree setting out of joints drips and laps with the Architect prior to commencing work.

3.10.2 MATERIALS

3.10.3.4 Control Samples

3.10.2.1 Lead Sheet

Lead sheet shall be milled lead sheet to BS 1178 unless stated otherwise. The minimum height of lead shall not be less than that recommended in BS 6915 "Specification for design and construction of fully supported lead sheet roofs and wall coverings".

Complete an agreed area of finished work and obtain approval of appearance and detail from the Architect before proceeding with the remainder of the works. The sample area(s) shall be selected so as to reflect the problems likely to be encountered on the majority of the work.

3.10.2.2 Underlay

Building paper to BS 1521, Class A.

3.10.3.5 Existing Lead to Be Retained

Thoroughly clean by washing with a detergent solution and using a stiff bristle brush. Rinse off thoroughly. In areas of stubborn soiling a 5% nitric acid 95% water solution may be used provided that it can be established that the run off does not have an adverse effect on other materials. Thorough rinsing with clean water should be undertaken on completion.

3.10.2.3 Copper Nails

Copper nails for fixing lead shall be in accordance with BS 1202 part 2.

3.10.2.4 Wood Screws

Shall be in accordance with BS 1210

3.10.3.6 Existing Lead to Be Removed

Lead specified to be stripped and shall become the property of the contractor.

3.10.3 WORKMANSHIP

3.10.3.1 General

Cut, joint and dress lead neatly and consistently to provide fully waterproof coverings and flashings free from ripples kinks, buckling and cracks.

Comply with BS 6915 and current good practice as described in the latest edition of "The Lead Sheet Manual" published by the Lead Sheet Association

3.10.3.7 Replacement of Existing Lead

In areas receiving run off from adjoining unprotected roofs (e.g. gutters etc) then the work must be carried out in small sections at a time to reduce the risk of weather damage. The contractor shall check the weather forecast before commencing removal of lead and shall only remove an area small enough to permit its reinstatement within the

	working day.		3, not less than 19mm in length and not less than 3.35mm diameter, with stainless steel washers and plastic plugs of length and diameter to suit the screws.
3.10.3.8	Existing Bases		
	In areas where existing substrate is to be recovered in lead, remove all existing leadwork and brush clean of all debris, dust etc. Inspect all timbers for condition and level. Replace as necessary any rotten boards with timber to match existing. Ensure that where boarding is straight edged the gaps are cleaned of dust to permit ventilation. Where boarding is tongued and grooved seek instruction prior to drilling ventilation holes in an agreed pattern.	3.10.4.3	Clips
	Ensure that all boards are securely fixed. Punch in any protruding fastenings and plane or sand as necessary to achieve an even surface.		Clips shall generally be 50mm wide unless specified otherwise. Lead clips shall be cut from sheets of the same code thickness as the sheet being secured. Each clip shall be secured with 2 fastenings not more than 50mm from the edge of the lead sheet. Clips shall be welted around edges of sheets and turned over 25mm.
3.10.3.9	All Bases	3.10.4.4	Copper clips
	All bases shall be dry, free from dust debris grease and other deleterious material with all nails punched home and free from all protrusions, unevenness etc prior to laying lead.		Copper or tinned copper clips should not be less than 50mm wide and cut from copper sheet not less than 0.6mm thickness conforming to BSEN 1172.
	Laying of underlay and lead will be taken as a joint acceptance of the Main Contractor and sub-contractor of the suitability of the base.	3.10.4.5	Stainless steel clips
	Substrates or decking for lead coverings must provide a near continuous smooth surface that is strong enough to support the lead (and any superimposed loadings) and hold the fixings firmly and permanently.		Clips should be fully annealed stainless steel strip conforming to BSEN 10088 at least 50mm wide and not less than 0.375mm thickness. It may be terre coated if exposed to view.
3.10.4	FIXING AND JOINTING	3.10.4.6	Wood Cored Roll Joints
3.10.4.1	Head Fixing of Lead Sheet		Timber core shall be 45x45 rounded timber tapering to a flat base 25mm wide. Ridge rolls may be larger and should be to the dimensions specified on the drawings. King Wood roll shall be 75x75 rounded timber tapering to a flat base.
	Unless specified elsewhere secure top edge of lead sheets with two rows of fixings 25mm and 50mm from the top edge of the sheet at 75mm centres to each row and evenly spaced and staggered.		Rolls shall be fixed to the base with stainless steel countersunk screws at not more than 300 centres.
3.10.4.2	Fixings		Dress under cloak three quarters around the core and fix with nails at 150mm centres for a distance of one third the length of the panel starting from the head of the sheet.
	Fix lead sheet to timber substrates using copper clout nails to BS 1202 part 2 table 2 with annular ring, helical ring or serrated shank, length not less than 20mm, shank diameter not less than 3.35mm and head diameter not less than 8mm, or similar stainless steel (austenitic) clout nails with diameter not less than 2.65mm.		Dress over cloak around core and extent onto main surface to form a 40mm splash lap.
	Where lead is to be fixed to concrete or masonry substrates use stainless steel screws to BS 1210 table	3.10.4.7	Welded Joints
			Form with a 50mm overlap, 25mm underlap and copper or stainless steel clips at not more than 450mm centres.
			Welt overlap and clips around underlap loosely turn over and lightly dress down.

3.10.4.8 Drips - Roofs up to 3 degree Pitch

Dress underlap into rebate along top edge of drip and fix with one row of nails at 50mm centres on centre line of rebate. Dress overlap over drip and form a 40mm splash lap.

3.10.4.9 Drips - Roofs over 3 degree Pitch

Dress underlap up full height of drip upstand. Fix to lower level base with two rows of nails 25mm and 50mm from face of drip and at 75mm centres to each row. Seal over nails with a soldered or lead welded dot.

Dress overlap over drip and form a 75mm splash lap. Secure with lead clips lead welded to underlap with not less than one per bay.

3.10.4.10 Forming Details

Details may be made by bossing or lead weld except where specified. Lead welded seams must be neatly and consistently formed. Do not undercut or otherwise reduce the thickness of the sheets at the seams. Filler strips are to be of the same composition as the sheets being joined. Butt joints are to be formed to a thickness one third more than the sheets being joined. Lap joints are to be formed with 25mm laps and two loadings to the edge of the overlap.

Bossing must be carried out without thinning cutting or otherwise splitting the lead sheet.

3.10.4.11 Fixing into Joints

Currently rake out joint or neatly cut chase to depth of 25mm.

Dress lead into joint or chase and up back face. Fix into back face with stainless steel screws, washers and plastic plugs at minimum 450 centres with a minimum number of 2 fixings per piece of lead.

Joint to be pointed as indicated on the drawings and as specification RS5 - Hydraulic Lime Mortar.

3.10.4.12 Finishing

As soon as practical apply a smear coating of patination oil evenly in one direction. Apply only in dry conditions.

Where run off will be onto visible surfaces apply patination oil immediately on completion of the section of work to avoid staining.

3.10.5 LEAD SHEET COVERINGS / FLASHING

3.10.5.1 Cover Flashings:

Lead: Code 5 in lengths not exceeding 1500 mm.

End to end joints: Laps of not less than 100 mm.

Cover: Overlap to upstand of not less than 75 mm.

Fixing: Lead wedges into bed joint and clips to bottom edge at laps and 450 mm centres.

3.10.5.2 Soakers and Step Flashings:

Lead soakers:

Thickness: Code 5.

Dimensions:

Length: Slate/ tile gauge + lap + 25 mm.

Upstand: Not less than 75 mm.

Underlay: Not less than 100 mm.

Fixing: By roofer.

Lead step flashings:

Thickness: Code 5.

Dimensions:

Lengths: Not more than 1500 mm.

End to end joints: Laps of not less than 100 mm.

Cover: Overlap to soaker upstands of not less than 65 mm.

Fixing: Lead wedges at every course.

3.10.5.3 Sacrificial Lead Flashings

Code 4 lead clipped to gutter linings at max 500mm centres at the foot of rainwater run off to the eaves slates, and at the base of the gutter to project beyond the line of the slates by a minimum of 50mm, refer to drawings for details.

4.0 Drawings and Documents

4.1.1 This schedule of works is to be read in conjunction with other project information including as listed below:

Drawings

9298 (01) 001	Location Plan
9298 (01) 002	Existing Building Plans
9298 (02) 001	Existing Elevation & Sections
9298 (01) 011	Alteration Plans
9298 (02) 011	Alteration Elevation & Sections
9298 (04) 001	Proposed Plans
9298 (05) 001	Proposed Elevation & Sections
071-DR-S-100	Survey Record Drawing
071-DR-S-110	Structural Replacement of Defective Arched Opening

Documents

9298SoW	Schedule of Works & Method Statement
9298DAS-HIA	Design, Access & Heritage Impact Statement
071-807	Wilmslow Road S1 SE Technical Note

5.0 Schedule of Works

5.1 WORK ITEMS CONTENTS

000	Specifications generally
100	General Requirements and Preparation Works
200	Disassembly, Removal and Alteration Works
300	New Installation and Reinstatement Works
Appendices	Site photographs

5.2 DESCRIPTION OF WORK

Please note that this schedule of works is to be read in conjunction with the drawings and documents as listed in section 4.0 Drawings and Documents. Any discrepancies between the documents or omissions from the schedule are to be brought to the attention of the Architect at the time of tendering. Note that all specified products are to be installed to the manufacturer's recommendations.

Work Item.	Description.
000	Specification(s) generally
001	The schedule of work is to be read in conjunction with included 'Method Statements – 9298RS', the content of which is summarised by the following headings and document references: RS1 – Work in Listed Buildings RS2 - Protection of Historic Fabric, Elements And Components RS3 – Hazardous Materials RS4 – Access Scaffolding RS5 - Hydraulic Lime Mortar RS6 - Brick Repair RS7 - Pointing of Brickwork RS8 – Roof Works/Repairs - General Requirements RS9 – Leadwork
100	General Requirements and Preparation Works
101	Familiarisation The contractor is to fully familiarise themselves with the building and its construction prior to submitting their tender. The site is visible from public land and the contractor should visit site to assess the logistics and access requirements. If the contractor wishes the visit the property (including internally), they should contact the CA to arrange access.

102 Design responsibility

The contractor will be responsible for developing all access scaffolding and the temporary works propping design from the Structural Engineers' strategy and to their approval, as indicated SE drawings and design package document.

Using the temporary works strategy as outlined in the Structural Engineer's design package. A qualified and competent Temporary Works Designer is to design and provide detailed proposals for temporary works structures.

The detailed proposals are to be submitted to CA and Structural Engineer with allowance of 5 working days to review. Written signoff confirmation is required from CA nominated Structural Engineer, with acknowledgement from CA prior to works starting on site.

The contractor will also be responsible for developing weather protection and security measures as necessary to provide the following:

- A secure, wind and watertight façade, whilst works are not in operation.
- Internal coverings and protection of working areas extents to limit the spread of dust and debris into the rest of the property.

103 Dimensional survey: generally

Prior to order, manufacture, and installation of any aspect of the scheme. The contractor is to undertake a measured survey prior to commencement on site, sufficiently detailed to confirm all setting out and key dimensional information.

104 Scaffold advertising

Should the contractor feel that there is potential to use the scaffold for advertising purposed during the works then they shall be free to explore the options and make a proposal to the Contract Administrator.

105 Site accommodation

The contractor should assume they will need to provide their own portable toilet facilities, sufficient in number to provide the adequate facilities for their staff. This is assumed to be 1no. in line with HSE recommend 1 toilet for every 7 people on site based on an 8 hour day. Location of the portable toilet is to be agreed with the Client and CA prior to delivery/installation.

The contractor will be able to access the property's kitchen for drinking water. All visiting personal should be prepared with their own reusable bottle/drinking vessels. The property's glasses, cups and utensils etc. are only useable at the Client's discretion.

Where internal access is required (beyond the ground floor dining room and first floor bedroom areas, to which the works are contained), the contractor shall provide adequate facilities for cleaning boots, etc. at point on entry to prevent dirt, water, etc. being walked throughout the property. The assumed access routes are indicated within the drawing pack.

Any areas accommodated by the contractor must be returned to match the original condition, following completion of the main works.

106 Storage

All elements that are to be carefully removed and later reinstated must be stored to shield from all types of damage, including but not limited to impact and weather.

Internally site storage will be limited to the ground floor dining room, where the works are occurring, and only to areas of the room which do not encroach on active working areas.

Externally, the rear courtyard and sections paved areas will be available, but items must be neatly placed and maintained as to not impede access.

Exact areas should be discussed and agreed with the client and CA prior to formal use, including provision of all necessary building fabric protection.

Any areas accommodated should be kept clean and tidy, free from obstructions at all times.

All area(s) used must be returned to match the original condition and arrangement upon completion of the main works

107 Cleaning Upon Completion of the Works

All parts of the elevation are to be thoroughly cleaned down on completion of the works.

Prior to dismantling the scaffold ensure that it is cleaned and clear of any debris that could damage the face of the building as well as cleaning down all paintwork and windows.

As the scaffold is dismantled remove debris and brush clean all sills, ledges and the like.

Cleaning during the works is required as good housekeeping with detailed methods stated with **RS2**.

200 Disassembly, Removal and Alteration Works

201 Disassemble Existing Bay Window Roof

Carefully disassemble, remove and keep for reuse/reinstatement the existing bay window roof, including flashings and rainwater goods/guttering. Set aside and appropriately store and allow for future reinstatement.

- Allow for wholesale stripping back of existing roof slates and set aside for reinstatement. Sort and arrange, courses are to be returned to match original arrangement.
- Carefully remove all existing lead coverings, flashings, and weathering's. Allow for credit to client for material not suitable for reinstatement. Replacement material is to be like-for-like and in line with **RS9**.
- Assume timbers, battens and felt are suitable for reinstatement but contractor should provide provisional sum line item for like for like replacement and allow for assessment of condition prior to reinstatement works.
- When reinstated the ceiling joists will be supported by joist hangers. Alteration may be required to suit.
- Whilst roof is removed, provide temporary weather protection to ensure the interior is thoroughly protected from environmental elements for the duration of the works.

202 Remove and Retain Existing Primary and Secondary Casement Windows

Carefully disassemble, remove and keep for reuse/reinstatement the two sets of casement windows (each set includes primary and secondary elements).

- Allow casements are expected to be suitable for reinstatement in their existing form.
- Allow for alterations to surrounding timber window frame to accommodate dimension and angular changes to the wall opening following the rebuilding of surrounding wall and associated levelling on window cill and lintel.

203 Remove and Retain Internal Fixtures and Fittings including Pendant Light Fitting

Carefully remove and keep for reinstatement the pendant light fitting in the ground floor dining room and store appropriately inside in location as instructed by the client.

Prior to removal, ensure electrical circuit to fitting is without power and safe. Ensure appropriate measures are taken to ensure the fitting is without power and safe for the duration of the works, until pendant reinstatement.

204 Remove and Retain Skirtings

Carefully remove and keep for reinstatement the timber skirting along the west façade.

205 Remove and Retain Floorboards and Floor Covering

Carefully remove and keep for reinstatement the timber floor boards and floor coverings (underlay and Carpet included).

Lifting of nailed floorboards is to be undertaken using non-powered hand tools only, by skilled craftsmen and in such a way as to allow for the reinstatement of all fabric to its existing state and in accordance with method statements in **RS2**.

206 Remove and Retain Internal Cornices

Carefully remove and keep for reinstatement the ground floor ceiling cornices.

Ensure profile is accurately recorded prior to removal as so if replacement is required with can be completed on a like-for-like basis. The Contractor is to provide a provisional sum for replacement.

207 Remove Internal Plaster Ceiling

Remove internal plaster board ceiling and all associated fittings and fixtures etc.

- 208 Remove and Retain localised areas of brickwork for Temporary Works Propping**
- Locally remove masonry in locations confirmed within the agreed detailed temporary works design to allow for temporary needle propping.
- All dismantled masonry is to have residual mortar cleaned off and set aside and appropriately stored and allow for future reinstatement.
- Following removal of needle propping, area is to be made good with existing masonry and internal finishes reinstated to Client's satisfaction
- 209 Disassemble Façade Brickwork**
- Once the above façade and roof is sufficiently supported through the temporary works propping, and all appropriate checks/inspections conducted and passed, the masonry façade is to be carefully disassembled, removed and keep for reuse/reinstatement.
- Internal finish is to be removed and reinstated with new material, finished to Client's satisfaction. All dismantled masonry is to have residual mortar cleaned off and set aside and appropriately store and allow for future reinstatement.
- 210 Remove and Retain Existing Stone Window Lintels**
- Carefully remove and keep for reuse/reinstatement the two stone Lintels.
- These are to be reinstated within the rebuilt level masonry.
- 211 Remove and Retain Existing Stone Window Cills**
- Carefully remove and keep for reuse/reinstatement the two stone cills.
- These are to be reinstated within the rebuilt level masonry.
- 212 Remove / Disassemble Brick Reliving Arch**
- Carefully disassemble, remove and keep for reuse/reinstatement the masonry which forms the brick reliving arch.
- All dismantled masonry is to have residual mortar cleaned off and set aside and appropriately store and allow for future reinstatement.
- 213 Remove Timber Beam/s**
- Once unloaded, carefully remove the existing timber beam/s.
- 214 Alter Floor Joists**
- Carefully cut back existing floor joists to suit the joist hangers, as per Structural Engineers' detail.

300 New Installation and Reinstatement Works

- 301 Build-in Single Section Padstone**
- Building in new padstones to existing wall to either side of opening for new beams to bear on to and make good surrounding area. To be completed as per Structural Engineer's details, summarised below:
- Build-in single section 215x215x215 Naylor C50 Padstones with slate shims. No cut bricks will be permitted in bearing area.
- Mortar mix to be in accordance with method statements in **RS5** and Structural Engineer's details.
- Any revisions to Structural Engineer's details supersede this summary.
- 302 Install 2no. Steel Beams with Continuous Top Plate**
- Install new steel beams to support above load and replace defective masonry arch and timber beam arrangement with 30min fire resistance finish. Beam to be completed as per Structural Engineer's details, summarised below:
- 2no. 178x102x19 UB (S275) beams spaced 15mm apart to align concentric with wall, with continuous 6mm thick top plate tack-welded to outer flange faces once in position.
- Any revisions to Structural Engineer's details supersede this summary.

303 Build Replacement Masonry Spandrel

A masonry spandrel is to be built to replace the, now removed, defective relieving arch. Built level on top of and supported by the steel beams.

The spandrel is to be built from available reclaimed bricks and make good surrounding area. Any additional or replacement bricks required are to be matched on a like for like basis by colour, texture and bond to those present on the West Elevation Façade.

If required, new bricks should be used primarily in the masonry spandrel panel, where the bay window roof will obscure from view. Existing bricks for reuse are to be prioritised to rebuilding the pier and remaining areas of permanently visible façade.

Mortar mix to be in accordance with method statements in **RS5** and Structural Engineer's details.

304 Reinstate Existing Stone Window Cills

Carefully reinstate the existing stone window cills, including stepped brick corbel detail level within rebuilt, masonry wall.

Mortar mix to be in accordance with method statements in **RS5** and Structural Engineer's details.

305 Rebuild/Reinstate Masonry Pier and other areas of Façade Brickwork

The pier and remaining façade are to be rebuilt level and from available reclaimed bricks, taking notice and care to reinstate the original brick colour detail arrangement. Red/orange facing bricks located between cill and lintel positions, mating up with horizontal band which carries across full elevation at cill level.

Make good surrounding area and any additional or replacement bricks required are to be matched on a like for like basis by colour, texture, and bond to those present on the West Elevation Façade.

If required, new bricks should be used primarily in the masonry spandrel panel, where the bay window roof will obscure from view. Existing bricks for reuse are to be prioritised to rebuilding the pier and remaining areas of permanently visible façade.

Mortar mix to be in accordance with method statements in **RS5** and Structural Engineer's details.

The contractor is to provide rates for additional renewal of brick works for single brick replacement.

Internal finish is to be reinstated with like-for-like new material, finished to Client's satisfaction.

306 Reinstate Existing Stone Window Lintels

Carefully reinstate the existing stone window lintels level within rebuilt masonry wall and make good surrounding area.

Mortar mix to be in accordance with method statements in **RS5** and Structural Engineer's details.

307 Rehang of Floor/Ceiling Joists

Following minor alteration of carefully cut back existing floor joists to suit the joist hangers, fix and support existing joists on blocked out beam as per Structural Engineer's details, summarised below:

Joists to be supported on blocked out beam via Simpson Strong tie SAI type joist hangers fitted

Any revisions to Structural Engineer's details supersede this summary.

308 Reinstate Floorboards and Floor Covering

Reinstate the timber floor boards and floor coverings (underlay and Carpet included).

309 Reinstate Existing Primary and Secondary Casement Windows

Carefully reinstate the two sets of casement windows (each set includes primary and secondary elements) and make good surrounding area.

- Allow casements are expected to be suitable for reinstatement in their existing form.
- Allow for alterations to surrounding timber window frame to accommodate dimension and angular changes to the wall opening following the rebuilding of surrounding wall and associated levelling on window cill and lintel.

310 Rebuild / Reinstall Existing Bay Window Roof

Rebuild the temporarily removed/disassembled existing bay window roof, including flashings and rainwater goods/guttering, in original configuration with lead soakers/step flashing built into rebuilt brick coursing.

- Existing roof slates courses are to be returned to match original arrangement.
- Any existing lead coverings, flashings, and weathering's not suitable for reinstatement should be replaced on a 'like-for-like' and in line with **RS9**. Allow for credit to client for removed material.
- Assume timbers, battens and felt are suitable for reinstatement but contractor should provide provisional sum line item for like for like replacement and allow for assessment of condition prior to reinstatement works.
- When reinstated the ceiling joists will be supported by joist hangers. Alteration may be required to suit.
- Make good surrounding area.

311 Reinstall Skirtings

Reinstall the timber skirting, make good, touch up and finish to match existing surrounding area to Client's satisfaction.

312 Reinstall Internal Plaster Ceiling & Cornices

New plasterboard ceiling with skimmed and painted finish and ceiling cornices reinstated to match existing room finish/colour and to Client's satisfaction.

313 Reinstall Wall finishes

New plaster finish and make good surrounding area. Skimmed and painted finish to match existing room finish/colour and to Client's satisfaction.

314 Reinstall Internal Fixtures and Fittings including Pendant Light Fitting

Reinstall all internal fixtures and fittings including pendant light fitting in the ground floor dining room and first floor bedroom to original position, finish and functionality and make good surrounding area.

Appendices

P001



South Elevation of Property

P002



West Elevation of Property

P003



Area of work on West elevation. Defective arch obscured behind the bay window roof

P004



Ground Floor dining room, internal view showing feature pendant light fitting

P005



Ground Floor dining room, internal view showing bay window. Locations of intrusive survey investigation visible.

P006



Example image of the existing, defective arch. Refer to SE's Survey Record Drawing for more.

P007



First Floor bedroom room, internal view looking at internal of West Elevation.

Buttress

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