

Repair Works Specification

Client: Hopwood Hall College

Project: Milnrow Chapel Refurbishment

Reference: HCO-SEV-XX-XX-SP-A-09903

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1.0 Introduction

- 1.1 Proposals have been developed for the repair and conversion of the existing Grade II Listed Former Chapel at Hopwood Hall College to facilitate use of the building as a T-level Engineering and Virtual Reality (VR) learning centre. The works will involve a series of fabric repairs and upgrading works as well as new interventions to make the building suitable for use by the College.
- 1.2 The site address is
Hopwood Hall College
Middleton Campus
Rochdale Road
M24 6XH
- 1.3 In brief, the works will comprise:
- External works including new external concrete steps and ramp, refurbishment of existing steps, upgrading works to existing paths, new accessible parking space, external lighting and new plant enclosure
 - External cleaning and fabric repairs to the existing concrete frame and blockwork
 - Refurbishment of existing windows and glazed lantern
 - Thermal upgrading of existing roofs and renewal of roof coverings
 - Renewal and replacement of rainwater goods
 - Repair works to existing doors and installation of new glazed entrance doors
 - Repair works to internal fabric and historic features
 - Internal construction to form new insulated 'pods'
 - New internal soffit treatment following asbestos removal works
 - New internal doors, finishes and FF&E
 - Formation of new WC accommodation
 - New internal services installation and lighting
- 1.4 This Repair Works Specification is intended to cover the fabric repair and renovation works required to the existing building fabric only.
- 1.5 In general terms, the repair works to the building will follow a philosophy of minimal intervention to limit any damage to historic fabric and retain as much of the original fabric as possible.
- 1.6 Contractor is to include for temporary protection of all historic features for the duration of the construction works to reduce the risk of impact, exposure to dust and debris, and liquid damage. Generally, this will involve wrapping or boxing in the feature. Protection methods are to be agreed with the Architect prior to commencement.
- 1.7 Final methodology for repair works to historic fabric is TBA with Conservation Officer prior to commencement.
- 1.8 The Contractor should note that the tender 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. The Contractor is encouraged to be represented along with any specialist sub-contractors during the inspection in order that they may contribute to any discussion regarding alternative methods of repair.

2.0 Design Standards

- 2.1 The development as a minimum is to be designed and constructed in compliance with and to conform to the following:
- a. Any planning and listed building consents for the building.

- b. Any drawings that have been produced in accordance with Building Regulations approval.
- c. Where reference in this specification is made to compliance with the Building Regulations, it shall be construed to mean compliance with this sub-clause.
- d. The requirements of the Local Authority, Utility Supply Companies and of competent organisations reporting to the Local Authority, including the Fire Officer requirements.
- e. British Standards Specifications and Codes of Practice.
- f. Any relevant Acts, Statutory Instruments and Mandatory Guidelines.
- g. Joint Code of Practice 'Fire Prevention on Construction Sites' published by the Building Employers Federation and the Loss Prevention Council.
- h. All Health and Safety Regulations including CDM 2015 Regulations and any subsequent amendments.
- i. Equality Act 2010 Legislation and all subsequent amendments.

Note: Where reference is made to material specification 'Unacceptable' or 'Deleterious' materials will not be accepted, meaning any material, which by its nature or application contravenes any British Standard or British Code of Practice or E.U equivalent current at the date of incorporation in the works, and/or any material which is not in accordance with good building practice and/or which is generally known to be deleterious at the time of use.

4.0 External Works

4.1 *External Steps and Balustrades*

- 4.1.1 The two sets of existing steps leading to the front entrances into the building are to be demolished in full and new steps and balustrades constructed.
- 4.1.2 Two sets of existing steps are to be retained and repaired:
- a. The existing concrete and paved steps leading from the College campus
 - b. The existing concrete steps to the rear of the building
- 4.1.3 Methodology for Repair Works to existing concrete and paved steps leading from the College campus:
- All steps and risers are to be cleaned to remove staining and moss growth.
 - Damaged concrete risers are to be repaired to SE specification.
 - Allow for removal, re-bedding and re-pointing to all paving flags.
 - Allow for replacement of broken paving flags with new matching flags.
 - Areas of concrete steps are to be removed and replaced with new paving flags to match the rest of the steps on suitable bedding
 - Existing handrails are to be retained and re-decorated.
- 4.1.4 Methodology for Repair Works to existing concrete steps to the rear of the building:
- All existing paving is to be removed from the concrete structure along with all previous mortar bedding back to a level surface. Existing balustrades are to be removed.
 - The existing concrete structure is to be repaired in accordance with Section 6.0 of this document and Structural Engineer's details.
 - Areas of badly stained concrete are to be cleaned in accordance with Section 5.0 of this document.
 - New paving and balustrades are to be installed.
- 4.1.5 Proposed paving = Marshalls "Conservation X Paving" with skimmed finish. Final paving setting out TBA on site to suit original paving.
- Proposed balustrades = Flat bar metal balustrade and handrails. Powder coated steel - colour: Black

5.0 Cleaning Masonry / Concrete

- 5.1 The cleaning of masonry and concrete on any part of this project shall only be undertaken by experienced operatives who have regularly been engaged in, or specialise in restorative cleaning of external and internal masonry and shall produce references of such activity with the tender return.
- 5.2 The primary purpose is to remove paint, previous water staining and algae staining from the external walls and concrete frame.
- 5.3 The system to be used is the DOFF low pressure water-based cleaning system by specialist in accordance with current guidelines (BS8221-1:2000) for the cleaning of historic buildings.
- 5.4 The operatives shall be fully conversant with the method of cleaning specified and have had previous experience and knowledge of the system. The operatives shall have attended training sessions on the use of all items of equipment or chemicals contained in the specification.
- 5.5 No chemicals are to be used as part of the current cleaning process and this specification is to be adhered to rigidly unless instructed in writing by the Architect
- 5.6 Test panel is to be prepared sign off prior to cleaning works:
 - a) Areas should be representative of the substrate, soiling and detail of the main works
 - b) Test panels should be positioned discreetly
 - c) Location of the test areas must be recorded and protected from further alteration
 - d) The parameters by which the result is obtained must be recorded
 - e) An acceptable test area should be retained as a control panel for the main works
 - f) Measures adopted as a result of the tests must be attainable and controllable in the main works.
- 5.7 Protection should be given to windows, doors, delicate features or any other areas not to be treated. For example 'Tank-Tape' and polythene to reduce water ingress through openings. Isolation of vulnerable electrical apparatus, lighting etc.
- 5.8 Any gutters and down pipes leading to soakaways should be diverted in order that the removed solid matters do not impair the drainage system. The use of a geo-textile such as 'Terral' or 'Typar' should be used to control paint or other solid residues.

6.0 Concrete Frame Repairs

6.1 *General*

- 6.1.1 The repair of concrete on any part of this project shall only be undertaken by experienced operatives who have regularly been engaged in, or specialise in the repair of external and internal masonry and shall produce references of such activity with the tender return.
- 6.1.2 All repair works are to be undertaken fully in accordance with the Structural Engineer's details and specification – refer to the following Goodsons Associates drawings for details:
 HC-GOO-01-00-DR-S-210
 HC-GOO-01-00-DR-S-211
 HC-GOO-01-00-DR-S-220
- 6.1.3 Repairs are to be undertaken using a suitable repair concrete to SE specification. This is to match the colour, texture and composition and compressive strength of the original concrete. Contractors are to allow for analysis of the existing concrete to determine the composition, type and size of aggregate and compressive strength to allow for the specification of suitable repair concrete.
- 6.1.4 Surface of repaired areas is to be finished flush with surrounding areas.

- 6.1.5 Areas of corroded steel rebar are to be carefully cut out to allow suitable treatment of rebar before undertaking repairs to surrounding concrete.
- 6.1.6 Areas of loose concrete are to be removed back to sound concrete. Areas of exposed rebar are to be suitably treated before undertaking repairs to surrounding concrete.
- 6.1.7 Areas of damp/degraded concrete are to be cleaned and any damaged areas removed back to sound concrete. Areas of exposed rebar are to be suitably treated before undertaking repairs to surrounding concrete.
- 6.1.8 The detailed repair methodology is TBA with the Local Planning Authority prior to undertaking the works.

6.2 Sample Panels

- 6.2.1 The tenderer is to allow for carrying out two test areas each approximately 0.5 metre square using the methods described below. Work to the rest of the concrete should not commence until the test panel has been approved by the Architect and Structural Engineer. The location of the test panels is to be agreed prior to commencement.
- 6.2.2 Tenderer is to allow for several sample mixes using different coloured fine aggregate to obtain a satisfactory colour for the pointing.

6.3 Inspection

- 6.3.1 The Contractor should note that the tender 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.
- 6.3.2 The Contractor is encouraged to be represented during the inspection in order that he may contribute to any discussion regarding alternative methods of repair.

6.4 Protection

6.4.1 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.

6.4.2 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.

6.4.3 Protection of the 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.

7.0 Concrete Blockwork Repairs

7.1 General

- 7.1.1 Existing blockwork walls are to be thoroughly inspected with specialist sub-contractor to agree the full schedule of repair works prior to commencement.
- 7.1.2 All repair works are to be undertaken fully in accordance with the Structural Engineer's details and specification as well as conservation best practice. Refer to the following Goodsons Associates drawings for details:
HC-GOO-01-00-DR-S-210
HC-GOO-01-00-DR-S-211

HC-GOO-01-00-DR-S-220

- 7.1.3 Detailed repair methodology is TBA with Local Planning Authority prior to commencement of works.

7.2 Blocks

- 7.2.1 Any areas of walls to be rebuilt should be done to match the historic laying pattern with reclaimed blocks to match existing.
- 7.2.2 New blocks shall be sound second hand blocks selected to match existing in size, texture and colour. Samples shall be provided by the Contractor for approval and no work shall commence on the repairs until the sample has been approved in writing.
- 7.2.3 Any blocks that have reduced structural integrity due to spalling are to be replaced with reclaimed blocks from site or blocks of a matching type as outlined above. Blocks to be replaced to be agreed and identified on site following the erection of scaffold access.

7.3 Protection

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.

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.

7.4 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.

7.5 Cleaning of Work

- 7.5.1 Keep facework clean and free from staining at all times.
- 7.5.2 Clean off and rub down all blockwork as scaffold is taken down.
- 7.5.3 Fully protect all windows and other areas liable to damage (e.g. paintwork etc.) prior to cleaning.

7.6 Cutting out of Defective Blockwork

- 7.6.1 The areas to be cut out shall be marked on site and approved/confirmed by the Architect prior to commencement of cutting out.
- 7.6.2 The blockwork shall be carefully cut out with chisels taking extreme care not to damage the arrises of adjoining blockwork which may be being retained.
- 7.6.3 Any damage to adjoining areas will be made good at the contractors expense.
- 7.6.4 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.
- 7.6.5 Where large areas of blockwork are to be removed the opening is to be propped with timber props ensuring that no damage is caused to adjoining blockwork.

7.7 Inserting New Blockwork

- 7.7.1 The recess is to be thoroughly cleaned out and the adjoining blockwork is to be moistened to prevent the mortar "snatching".

- 7.7.2 New blocks are to be bedded on a bed of mortar. The mortar is to be prepared as described in this specification.
- 7.7.3 New blockwork 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.
- 7.7.4 The mortar is to be kept back 25mm from the face to facilitate later pointing.
- 7.7.5 Where blockwork is being inserted into worn areas of blockwork the new block is to be set such that the face is in the line of the original face of the blockwork.
- 7.7.6 Where individual blocks are being replaced ties are not necessary.
- 7.7.7 Where larger areas of blockwork are to be removed then ties will be required to be located at centres as follows:
900 mm centres horizontally and 450mm centres vertically with rows staggered.
225 centres vertically within 300mm of any opening.
At closer centres if specified by the Structural Engineer or indicated on the drawings.

7.8 *Pointing of Blockwork*

7.8.1 General

Contractors are to include for the careful removal of all areas of inappropriate mastic pointing and re-pointing with new mortar to match the colour and composition of the original mortar.

Please refer to Repair Elevations for locations of re-pointing works required.

A sample panel of new pointing is to be approved by the Local Planning Authority prior to commencement of works.

Pointing should commence from the top of the building and work down.

7.8.2 Sample Panels

The tenderer 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 blockwork 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.

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

7.8.3 Preparation

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 block. Under no circumstances shall chisel and bolsters be used.

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

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.

7.8.4 Mortar Specification

New mortar is to match existing mortar in strength, composition and colour.

Mortar sampling to be undertaken to establish final specification.

7.8.5 Filling and Pointing

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.

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

7.9 Weep holes

Include for new weep holes at 900mm centres in accordance with SE specification. These are to be coloured grey to match the surrounding blockwork.

7.10 Movement Joints

Existing movement joints are to be repaired in accordance with Structural Engineer's details.

8.0 External Doors

8.1 Timber Doors to be Retained

8.1.1 Existing timber external double doors to the rear of the building are to be retained and refurbished.

8.1.2 Existing doors are to be cleaned with warm water / detergent. NB - Method statements to be submitted to Principal Designer prior to commencement of any works involving existing paintwork.

8.1.3 Note: Prior to commencement of the agreed works, the contractor should provide a quality control sample for approval, including new or replacement glass panels and ironmongery as required.

8.2 Repair Works to Timber Doors

8.2.1 Repair works are to follow the below methodology:

1. Retain as much of the original material as possible.
2. Replace any rotted sections, with timber to match existing species, visible grain characteristics, quality and colour, suitably treated for the location.
3. New sections are to match the profile of the original with fixings to match existing.

8.2.2 Include for removal of all screws in the face of the door and infilling of all holes using suitable wood filler.

8.2.3 Include for the replacement of 5no. broken glazing panes to match existing glazing specification. Hardwood beading is to be carefully removed prior to the removal of broken panes and replicated upon installation of new glazing using matching timber species and profile.

8.2.4 Areas of minor decay to timber are to have decayed areas removed before infilling using a suitable wood filler and sanded smooth and level to surrounding timber.

8.2.5 Areas of more significant decay to the base of the doors and frames are to receive splice repairs using well-seasoned, matching new hardwood double vacuum treated timber. Where decayed timber is to be removed to form a splice repair, the minimum amount of existing timber should be removed as is necessary to allow an effective repair to be formed.

8.2.6 Always work new material to the line of the existing (rather than vice versa) and avoid unnecessary trimming of the original timber. Repairs should follow any existing deformities in the line of the window.

8.2.7 Generally, avoid mixing timber species between the new and the existing in a repair, as the joint between the two is likely to fail due to differential expansion and contraction during alternating dry and damp conditions.

8.2.8 Wherever possible, spliced repairs should be designed to ensure that moisture is directed towards the outer face of the timber and that moisture does not lie on the repair joint. The length

of the splice is governed by the section of timber and the nature of the component being repaired, and should be designed to ensure an effective bond between the new and the existing sections of timber.

- 8.2.9 Wherever possible, splice repairs should be designed which incorporate mechanical fixings (for example, timber pegs/dowels or non-ferrous screws/pins) as well as glue. Screw or pin fixings should ideally be inserted from the inner face of the window.
- 8.2.10 Well-seasoned timber should be used in forming a repair, with the line and density of the grain (number of growth rings) of the new timber matching the existing as closely as possible. As with all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.
- 8.2.11 If possible, repairs are to be formed in situ. Where doors are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. Similarly, always number glass panes/ quarries before removal.

8.3 *Decoration*

- 8.3.1 Doors and frames are to be cleaned and suitably prepared with all surfaces to be clean, dry, sound and free of any contamination that may interfere with adhesion. Remove all loose or peeling paint and chalky paint residue. Sand edges of any remaining paint film until smooth.
- 8.3.2 Doors and frames to receive new paint finish to comprise 3no. coats Zinsser AllCoat Exterior Satin (Water Based).
<https://www.rawlinspaints.com/products/596-zinsser-allcoat-exterior-satin-water-based.html>
- 8.3.3 All finishes to be applied in accordance with manufacturer's recommendations and it is to be noted that the paint is only suitable for application in conditions above 10 degrees Celsius.
- 8.3.4 Colour = TBA with College and Local Planning Authority prior to commencement.

8.4 *Ironmongery*

- 8.4.1 Existing ironmongery is to be cleaned, inspected and overhauled.
- 8.4.2 Supply and install new panic ironmongery to allow the doors to be used as a fire escape.

9.0 External Clerestorey Windows

9.1 *General*

- 9.1.1 Existing metal framed clerestorey windows are to be retained, inspected and refurbished as necessary.
- 9.1.2 Any windows found to be beyond repair are to be replaced to match existing.
- 9.1.3 Refer to Window Schedule and Repair Elevations for further information.
- 9.1.4 Exact scope of repair works is to be agreed on site with specialist sub-contractor following high level inspection.
- 9.1.5 All lead based paints to existing clerestorey window frames, cills and ironmongery are to be removed by specialist sub-contractor. It is to be noted that traces of lead based paints may remain to existing hinges and contractor is to take this into account when undertaking refurbishment works to windows. **NB - Method statements to be submitted to Principal Designer prior to commencement of any works involving existing paintwork.**

9.2 *Frames*

- 9.2.1 Existing metal frames are to be carefully cleaned with a soft brush to remove dirt or mud using warm water / detergent.

- 9.2.2 Areas of rust and superficial corrosion are to be rubbed down using suitable non-abrasive cleaning method, avoiding damage to the metalwork.
- 9.2.3 Deeper but non-structural corrosion is to be raked out as thoroughly as possible before priming and filling with suitable metal filler prior to redecoration.
- 9.2.4 Badly rusted and damaged frames are to be carefully removed and repaired off site. Where the strength of the frame has been compromised, new frames are to be installed to match original.
- 9.2.5 Any distorted frames affecting the operation or safety of the window should be re-aligned. Where possible this is to be undertaken in situ with removal of the glazing if required. Where this is not feasible, frames are to be carefully removed and realigned off site.
- 9.2.6 Full recording and labelling are to be undertaken prior to removal of any frames.
- 9.2.7 Method for re-fitting and re-sealing metal windows TBA prior to commencement of works.
- 9.2.8 Suitable protective treatment is to be applied to frames as soon as cleaning is complete in order to prevent further rusting.
- 9.2.9 All replacement frames are to follow the original moulding profiles and construction methods.
- 9.2.10 All perimeter fixings and sealing are to be inspected and renewed as necessary using construction methods to match the original.

9.3 *Decoration*

- 9.3.1 All metal window frames to be cleaned and suitably prepared with all surfaces to be clean, dry, sound and free of any contamination that may interfere with adhesion. Remove all loose or peeling paint and chalky paint residue. Sand edges of any remaining paint film until smooth.
- 9.3.2 Window frames to receive new paint finish to comprise 3no. coats Zinsser AllCoat Exterior Satin (Water Based).
<https://www.rawlinspaints.com/products/596-zinsser-allcoat-exterior-satin-water-based.html>
- 9.3.3 All finishes to be applied in accordance with manufacturer's recommendations and it is to be noted that the paint is only suitable for application in conditions above 10 degrees Celsius.
- 9.3.4 Colour = black to match existing clerestorey windows.

9.4 *Glazing*

- 9.4.1 Any broken or cracked panes are to be replaced to match existing glazing appearance and specification.
- 9.4.2 Final glazing specification is TBA following high level inspection. Glazing samples are to be obtained for comparison with existing glass. For pricing purposes, Contractors are to include for new glazing as follows:
Histoglass Mono RT+4mm thickness with toughened finish
- 9.4.3 Replacement glass is to be cut 3mm smaller than frames to allow for thermal movement.
- 9.4.4 All existing putty and mastic is to be inspected at high level and any failed areas are to be carefully removed before renewal with matching materials. For pricing purposes, Contractors are to assume re-puttying and re-pointing to 100% of lantern glazing.
- 9.4.5 All new putty beading to be profiled away from the glazing to allow water run off.

9.5 *Ironmongery*

9.5.1 All ironmongery is to be cleaned, tested and overhauled.

9.5.2 Any ironmongery found to be beyond repair is to be replaced to match original.

9.6 Cills

9.6.1 The existing cill appears to be in a dilapidated condition. Further high level inspection is to be undertaken to ascertain the condition of the cill and this is to be retained and repaired where possible.

9.6.2 For pricing purposes, Contractors are to include for the careful removal of the existing cill and installation of a new metal / timber cill throughout to match the original size and profile.

9.6.3 The cill is to be cleaned and suitably prepared with all surfaces to be clean, dry, sound and free of any contamination that may interfere with adhesion prior to decoration.

9.6.4 Cill to receive new paint finish to comprise 3no. coats Zinsser AllCoat Exterior Satin (Water Based).
<https://www.rawlinspaints.com/products/596-zinsser-allcoat-exterior-satin-water-based.html>

9.6.5 All finishes to be applied in accordance with manufacturer's recommendations and it is to be noted that the paint is only suitable for application in conditions above 10 degrees Celsius.

9.6.6 Colour = black to match existing.

10.0 Roof Works

10.1 Concrete Roof Structure

10.1.1 Existing concrete frame roof structures to be assessed for structural integrity by the appointed Engineer.

10.1.2 Any damaged areas are to be repaired in accordance with Section 6.0 of this document and the Structural Engineers specification and details.

10.2 Copper Roof

10.2.1 The existing copper roof is considered to have exceeded it's design life and to be beyond economic repair. This is to be stripped off and replaced with a new like for like standing seam copper roof.

10.2.2 The existing roof build up is as follows:

- Copper faced bitumen roof covering
- Wood fibre board (approx. 40mm thickness)
- Bitumen roofing felt
- Concrete soffit panel

10.2.3 The proposed methodology for the replacement of the existing roof is as follows:

1. Opening up works to remove existing roof covering to allow understanding of the existing roofing build up, thickness and condition of the roof structure beneath
2. Opening up works to parapet gutter area to understand existing construction and drainage strategy
3. Careful stripping out and disposal of existing roof coverings to include all coatings and backing boards back to structural deck.
4. New roof to be laid in accordance with manufacturer's details and to incorporate timber beams positioned at each of the eight corners, with new copper roofing to wrap over the top, re-creating the original appearance.
5. Panel widths / standing seams to new roof are to be set out to match the existing as closely as possible to retain the appearance of the original roof.

10.2.4 The Proposed Specification of the new standing seam copper roof is as follows.

KME TECU Classic Standing seam to comprise:

SIG TECU Copper Standing Seam roofing (Colour: TECU Classic: Natural Finish)

SIG HM Breather membrane

22mm WBP exterior grade plywood

min. 50mm ventilated timber battens

50mm Class A1 Insulation

Vapour control layer

- 10.2.5 New roof is to incorporate ventilation as recommended by manufacturer and to incorporate insect mesh to all openings.
- 10.2.6 NB - Final roof details including insulation thickness are to be agreed following further opening up works by main contractor and condensation risk analysis calculations.
- 10.3 Parapet Gutter**
- 10.3.1 The existing parapet gutter is lined using bitumen roofing felt. There is an aluminium capping to the perimeter which has also been covered using roofing felt.
- 10.3.2 The existing gutter is to be stripped out and renewed using new marine plywood gutter lining and copper covering installed in accordance with roofing manufacturer's details.
- 10.3.3 All gutters to be laid to suitable falls towards the existing outlets.
- 10.3.4 The parapet gutter and all existing outlets are to be fitted with suitable leaf guard protection to prevent future maintenance issues. These are to be fitted below the top of the parapet wall to ensure no visibility from ground level.
- 10.3.5 New drip edge detail to be formed to the edge of the gutter using metal profile to suit surrounding roofing. New drip is to extend a minimum of 20mm beyond the face of the concrete fascia to ensure adequate shedding of water away from façade to prevent further moisture saturation to the façade.

11.0 Glazed Lantern**11.1 General**

- 11.1.1 The glazed lantern is to be retained, repaired and refurbished.
- 11.1.2 The lantern is formed using eight reinforced concrete ribs, infilled using galvanised steel framed glazing with steel glazing bars and coloured antique glass. A ring beam at the junction of the lantern and main roof is clad using copper and the top portion of the lantern is also clad in copper, in between the concrete ribs.
- 11.1.3 The below information is provided for pricing purposes only. Exact scope of repair works is to be agreed on site with Contractor, Structural Engineer and specialist sub-contractors following high level inspection.

11.2 Structure

- 11.2.1 Concrete ribs and ring beams are to be thoroughly inspected to agree the full schedule of repair works.
- 11.2.2 Areas of badly stained concrete are to be cleaned using low pressure water-based cleaning system by specialist in accordance with current guidelines (BS8221-1:2000) for the cleaning of historic buildings. Refer to Section 5.0 for details.
- 11.2.3 Any damaged areas are to be repaired in accordance with Section 6.0 of this document and the Structural Engineers specification and details.

11.4 **Cladding**

The existing copper cladding is in poor condition and considered to be beyond economic repair. The cladding is to be removed off site and replaced using new like for like copper cladding. Please refer to NBS Specification for further details. Final build up and specification TBA following high level inspection, opening up and investigative works.

11.5 **Windows**

11.5.1 Metal Frames

The glazing is comprised of a series of framed sections, each 3 panes wide by 5 panes high. All panes are fixed lights with the exception of two opening doors at the base of the lantern. Glazing is separated using steel glazing bars and appears to be secured externally using putty.

Existing metal frames are to be degreased and carefully cleaned with a soft brush to remove debris and dust. Clean the existing with warm water / detergent but DO NOT USE SAND OR ABRASIVE METHODS which may create dust due to possibility of lead based paints. Any loose flakes etc. will need to be removed although precautions for the presence of lead must be taken into consideration. NB - Method statements to be submitted to Principal Designer prior to commencement of any works involving existing paintwork.

Areas of rust and superficial corrosion are to be rubbed down using suitable non-abrasive cleaning method, avoiding damage to the metalwork.

Deeper but non-structural corrosion is to be raked out as thoroughly as possible before priming and filling with suitable metal filler prior to redecoration. For pricing purposes, assume 25% of all lantern glazing.

Badly rusted and damaged frames are to be carefully removed and repaired off site. Where the strength of the frame has been compromised, new frames are to be installed to match original. For pricing purposes, assume 10% of all lantern glazing.

Any distorted frames affecting the operation or safety of the window should be re-aligned. Where possible this is to be undertaken in situ with removal of the glazing if required. Where this is not feasible, frames are to be carefully removed and realigned off site. For pricing purposes, assume 10% of all lantern glazing.

Full recording and labelling are to be undertaken prior to removal of any frames.

Suitable protective treatment is to be applied to frames as soon as cleaning is complete in order to prevent further rusting.

All replacement frames are to follow the original moulding profiles and construction methods.

All perimeter fixings and sealing are to be inspected and renewed as necessary using construction methods to match the original.

11.5.2 Decoration

It is assumed that the existing frames have a galvanized finish and any new frame sections will require a new matching galvanized finish.

11.5.3 Glazing

Any broken or cracked panes are to be replaced to match existing coloured glass. For pricing purposes, assume 10% of all lantern glazing.

Exact glazing specification is TBA following high level inspection. For pricing purposes, Contractors are to include for new glazing as follows:
Handmade cylinder mouth-blown glass – clear and coloured to match existing panes

Replacement glass is to be cut 3mm smaller than frames to allow for thermal movement.

All existing putty and mastic is to be inspected at high level and any failed areas are to be carefully removed before renewal with matching materials. For pricing purposes, Contractors are to assume re-puttying and re-pointing to 100% of lantern glazing.

All new putty beading to be profiled away from the glazing to allow water run off

11.5.4 Doors and Ironmongery

The 2no. doors at the lower level of the lantern are to be fitted with actuators to aid natural ventilation of the Chapel. For details please refer to MEP specification.

All ironmongery to the doors within lantern is to be tested and overhauled where possible. Any ironmongery found to be beyond repair is to be replaced to match original.

11.5.5 Safety Netting

New fine mesh internal tensioned safety netting to be installed to the rear of the glazed lantern to help prevent falling glass to the interior of the building.

This is to comprise suitable air permeable rope edged safety nets securely installed vertically to the interior side of the lantern glazing.

Construction of Mesh: HDPE UV stabilized twine

Size of Mesh = 50 x 50mm x panel sizes to suit

Colour of mesh = Translucent to minimise visual impact

Gauge of Mesh = Approx. 1mm diameter

Fixings = Stainless steel fixings to existing concrete frame as required to support mesh panels.

Fixings are to be kept to the minimum number possible and to be made into existing construction joints where feasible to reduce impact upon historic fabric.

Final specification is TBA with manufacturer to ensure suitability for weight and dimensions of glazing panes.

Sample area to be made available to the Conservation Officer for approval prior to installation.

11.6 **Flat Roof**

11.6.1 The existing flat roof appears to incorporate a series of eight vents which are to be inspected and retained in any works. The roof also incorporates a plinth in the centre that would have previously supported the crucifix which was removed following de-consecration of the Chapel.

The roof is to be inspected at high level to fully assess the condition but it is proposed that a new insulated warm roof is to be installed. For further details please refer to NBS Specification.

If possible, the historic fabric will be retained and the new roof covering overlaid onto this.

Final details, specification and methodology TBA following opening up and investigation works with sample to be provided for approval prior to works.

12.0 **Leadworks**

12.1 **Requirements**

12.1.1 All work shall be undertaken by trained operatives employed by a contractor who is a member of Lead Contractors Association or Stainless-Steel Equivalent.

12.1.2 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 update No. 1.

12.1.3

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

12.1.4

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

12.2 *Materials*

12.2.1 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".

12.2.2 Underlay

To lead shall be a polyester geotextile felt such as "Lotrak" non woven trevira 200g manufactured by Don and Low (Geotextile Division) Tel: 01307 66011.

12.2.3 Plywood

Shall only be used where specified and shall be in accordance with BS 1210. Plywood shall be WBP grade.

12.2.4 Copper Nails

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

12.2.5 Wood Screws

Shall be in accordance with BS 1210.

12.2.6 Timber

For gutter linings, roof decks etc shall be 100x25mm straight edged boarding with a 2mm gap between adjoining boards.

Timber shall be vacuum pressure impregnated with preservative in accordance with the British Wood Preserving and Damp Proofing Associations Manual and as British Wood Preserving Association Commodity Specification C8.

Timbers shall be planed, free from wane, pitch pockets decay and insect attack.

Moisture content shall not be more than 22% at the time of covering.

12.3 *Workmanship*

12.3.1 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 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.

12.3.2 Lead Welding

In situ lead welding is permitted where specified subject to completion of a "hot work permit" form and compliance with its requirements.

12.3.3 Layout

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

12.3.4 Control Samples

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.

12.3.5

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.

12.3.6

Existing Lead To Be Removed

Lead specified to be stripped and shall become the property of the contractor. The contractor shall credit the Employer for the scrap value of all such lead and shall declare the value in this tender.

12.3.7

Replacement of Existing Lead

Replacement of existing lead will generally be carried out under the protection of a temporary roof. In areas where this is not possible or 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.

12.3.8

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.

Ensure that all boards are securely fixed. Punch in any protruding fastenings and plane or sand as necessary to achieve an even surface.

12.3.9

All Bases

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.

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.

12.4

Fixing And Jointing

12.4.1

Head Fixing Of Lead Sheet

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.

12.4.2

Fixings

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.

Where lead is to be fixed to concrete or masonry substrates use stainless steel screws to BS 1210 table 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.

12.4.3

Clips

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.

12.4.4 Wood Cored Roll Joints

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.

Rolls shall be fixed to the base with stainless steel countersunk screws at not more than 300 centres.

Dress undercloak 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.

Dress overcloak around core and extent onto main surface to form a 40mm splash lap.

12.4.5 Welted 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.

12.4.6 Drips - Roofs Up To 3# 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.

12.4.7 Drips - Roofs Over 3# 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 over lap over drip and form a 75mm splash lap. Secure with lead clips lead welded to underlap with not less than one per bay.

12.4.8 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.

12.4.9 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.

12.4.10 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.

14.0 Existing Ground Floor

14.1 *General*

- 14.1.1 Existing ground floor slab and finishes are to be retained and protected for the duration of the works.
- 14.1.2 Where new floor finishes are to be applied to the existing floor, a protective layer of 6mm plywood is to be incorporated to allow installation of new finishes without damage to the historic floor.

14.2 *Tiled Floors*

- 14.2.1 Existing tiled floors are to be retained throughout. In some areas these will be covered with a new raised access floor / new floor finishes.
- 14.2.2 All tiled floors are to be carefully and thoroughly cleaned prior to works using non-abrasive methods and suitable pH neutral detergents. Wire wool brushes and hard abrasives are not permitted.
- 14.2.3 Where biological growth and salts are present these are to be removed and further investigation to be undertaken to establish the source of moisture ingress.
- 14.2.4 Tiled floors are to be exposed in the following areas:
1. Circulation Area - L0.CM.023 / L0.CM.026 / L0.CM.031
 2. Sanctuary Area - L0.CM.022
- Please also refer to Floor Finishes drawing ref. HCO-SEV-ZZ-00-DR-A-02160 for locations.
- 14.2.5 In the above areas where the tiled floor is to be exposed in the finished scheme, the floor is to be repaired as follows:
- Any damaged or missing tiles are to be replaced with salvaged tiles from other parts of the building or with reclaimed matching tiles to blend in with the surrounding floor. These are to be bedded onto suitable mortar with strength and composition to match the original mortar. Finished surface is to sit flush with surrounding areas.
 - Cracked tiles are to be repaired and any holes filled with suitable repair grout to match the colour of surrounding tiles.
 - Damaged or defective mortar joints are to be repaired with new grout to match the original in strength, composition and colour.

14.3 *Concrete Floors*

- 14.3.1 Existing concrete floors are to be retained throughout and will be covered using new raised access flooring and new floor finishes.
- 14.3.2 All concrete floors are to be carefully and thoroughly cleaned prior to works using non-abrasive methods and pH neutral sulfate free detergents. Wire wool brushes and hard abrasives are not to be used.

14.4 *Skirtings*

- 14.4.1 Existing skirtings are comprised of a tiled upstand. All existing skirtings are to be retained throughout and in most areas these will be concealed underneath the raised access flooring.
- 14.4.2 All skirtings are to be carefully and thoroughly cleaned prior to works using non-abrasive methods and pH neutral sulfate free detergents. Wire wool brushes and hard abrasives are not to be used.
- 14.4.3 Existing skirtings will remain exposed in the following areas:
- Circulation Area - L0.CM.023 / L0.CM.026 / L0.CM.031.
- 14.4.4 Where existing skirtings are to be exposed in the finished scheme, these are to be repaired as follows:

- Any damaged or missing tiles are to be replaced with salvaged tiles from other parts of the building or with reclaimed matching tiles to blend in with the surrounding area. These are to be bedded onto suitable mortar with strength and composition to match the original mortar. Finished surface is to sit flush with surrounding areas.
- Cracked tiles are to be repaired and any holes filled with suitable repair grout to match the colour of surrounding tiles.
- Damaged or defective mortar joints are to be repaired with new grout to match the original in strength, composition and colour.

14.5 Threshold Strips

Suitable level threshold strips are to be provided at interfaces between new floor coverings and any other adjoining floor types such as between old and new flooring or within doorways.

15.0 Internal Walls

15.1 Internal Walls Above Clerestorey Window Level

15.1.1 Asbestos coating at high level is to be removed in full by licensed asbestos contractor prior to main contract works.

15.1.2 New acoustic plaster finish to be applied to high level walls following removal of asbestos coating. For details please refer to NBS Specification.

15.2 Internal Blockwork Walls

15.2.1 Internal blockwork walls are to be cleaned in accordance with Section 7.0.

15.2.2 Internal blockwork walls are to be repaired in accordance with Section 5.0.

15.2.3 Areas of loose or defective mortar to internal blockwork are to be raked out and repointed using a mortar to match the composition and colour of the original mortar. All new joints to be finished flush to match existing and sample area to be agreed with the Architect prior to commencement. For pricing purposes Contractors are to include for re-pointing of 50% of internal wall area.

15.2.4 Where biological growth and salts are present to the walls these are to be removed and further investigation / opening up works are to be undertaken to establish the source of moisture ingress.

15.2.5 All later addition wall coverings are to be removed in full and surrounding areas made good.

15.2.6 All existing redundant services are to be decommissioned and carefully removed avoiding damage to historic fabric. Any damage or holes are to be repaired in accordance with Section

15.2.7 All existing lintels are to be repaired in accordance with Structural Engineer's details.

15.2.8 Existing movement joints are to be repaired in accordance with Structural Engineer's details.

15.2.9 Where door positions within existing fairfaced blockwork walls are to be amended (to new Plant Room), the existing blocks and lintel are to be carefully taken down and set aside for re-use in the reconfigured wall. SE to assess suitability of existing lintel prior to re-use. New areas of wall are to be constructed using reclaimed blocks and to be pointed using mortar to match the original composition and colour. All new mortar joints to be finished to match existing and sample area to be agreed with the Architect prior to commencement.

15.3 Internal Plastered Walls to Entrance Lobby

15.3.1 Existing plasterwork to Entrance lobby walls appears to be in a poor condition owing to historic water ingress to this area.

15.3.2

- Existing plaster is to be removed in full to allow drying out of the substrate behind before re-finishing with new plasterwork and skim to match the thickness and composition of the original plaster.

15.3.3

All later addition wall coverings are to be removed in full and surrounding areas made good.

16.0 Ceilings

16.1 *Existing Soffit to Chapel*

- 16.1.1 Asbestos coating at high level is to be removed in full by licensed asbestos contractor prior to main contract works.

- 16.1.2 New acoustic plaster finish to be applied to high level walls following removal of asbestos coating.

- 16.1.3 The new finish is to be installed with an appearance to match the existing with the finished soffit to be set back from face of concrete frame to match the existing detail and geometric indentations to the finished surface plaster to match the original.

16.2 *Existing High Level Ceiling to Underside of Glazed Lantern*

- 16.2.1 NB - HIGH LEVEL CEILING AREA IS TO BE TESTED FOR PRESENCE OF ASBESTOS PRIOR TO ANY WORKS BEING UNDERTAKEN.

- 16.2.2 This ceiling has evidence of previous water ingress with water staining and mould growth evident. The ceiling is to be removed in full and replaced with a new matching ceiling with acoustic plaster finish to match the soffit to the main Chapel.

- 16.2.3 The existing detailing and geometric pattern are to be recreated in the new ceiling. Details are to be agreed following high level inspection of this area.

16.3 *Existing Ceiling to Entrance Lobby*

- 16.3.1 The existing plastered ceiling to the Entrance Lobby is to be carefully removed in full including all associated framing and services installations and disposed off site.

- 16.3.2 Areas of mould growth are to be fully investigated and the source of moisture rectified prior to the installation of a new ceiling.

- 16.2.3 New plastered ceiling to be installed - for details please refer to NBS Specification.

17.0 Internal Doors and Ironmongery

- 17.1 Existing internal timber and glazed doors between entrance lobby and Chapel are to be retained and refurbished.

- 17.2 Existing doors, framed and architrave are to be cleaned with warm water / detergent.

- 17.3 Doors and frames are to be sanded and suitably prepared to receive new finish with all surfaces to be clean, dry, sound and free of any contamination that may interfere with adhesion. Remove all loose or peeling paint/varnish and residue. Sand edges of any remaining paint film until smooth.

- 17.4 Doors are to be finished using new 2no. coats clear varnish with matt finish to comprise Rust-Oleum 4900 Polycoat 2K:
<https://www.rawlinspaints.com/products/2089-rust-oleum-4900-polycoat-2k.html>

17.5

- 17.6 All finishes to be applied in accordance with manufacturer's recommendations and Contractor is to undertake small trial area to check for suitable adhesion prior to full coating.

Existing ironmongery is to be cleaned and inspected to ensure that this is in full working order.

18.0 Internal Clerestorey Windows

18.1 *General*

- 18.1.1 Existing metal framed clerestorey windows are to be retained, inspected and refurbished as necessary.

- 18.1.2 Refer to Window Schedule for further information.

- 18.1.3 Exact scope of repair works is to be agreed on site with specialist sub-contractor following high level inspection.

- 18.1.4 All lead based paints to existing clerestorey window frames, cills and ironmongery are to be removed by specialist sub-contractor. It is to be noted that traces of lead based paints may remain to existing hinges and contractor is to take this into account when undertaking refurbishment works to windows. **NB - Method statements to be submitted to Principal Designer prior to commencement of any works involving existing paintwork.**

18.2 *Frames*

- 18.2.1 Existing metal frames are to be carefully cleaned with a soft brush to remove dirt or mud using warm water / detergent.

- 18.2.2 Any areas of rust and superficial corrosion are to be rubbed down using suitable non-abrasive cleaning method, avoiding damage to the metalwork.

- 18.2.3 Deeper but non-structural corrosion is to be raked out as thoroughly as possible before priming and filling with suitable metal filler prior to redecoration.

- 18.2.4 Badly rusted and damaged frames are to be carefully removed and repaired off site. Where the strength of the frame has been compromised, new frames are to be installed to match original.

- 18.2.5 Any distorted frames affecting the operation or safety of the window should be re-aligned. Where possible this is to be undertaken in situ with removal of the glazing if required. Where this is not feasible, frames are to be carefully removed and realigned off site.

- 18.2.6 Full recording and labelling are to be undertaken prior to removal of any frames.

- 18.2.7 Method for re-fitting and re-sealing metal windows TBA prior to commencement of works.

- 18.2.8 Suitable protective treatment is to be applied to frames as soon as cleaning is complete in order to prevent further rusting.

- 18.2.9 All replacement frames are to follow the original moulding profiles and construction methods.

- 18.2.10 All perimeter fixings and sealing are to be inspected and renewed as necessary using construction methods to match the original.

18.3 *Decoration*

- 18.3.1 All metal window frames to be cleaned and suitably prepared with all surfaces to be clean, dry, sound and free of any contamination that may interfere with adhesion. Remove all loose or peeling paint and chalky paint residue. Sand edges of any remaining paint film until smooth.

- 18.3.2 Window frames to receive new paint finish to comprise 3no. coats Zinsser AllCoat Exterior Satin (Water Based).

<https://www.rawlinspaints.com/products/596-zinsser-allcoat-exterior-satin-water-based.html>

18.3.3 All finishes to be applied in accordance with manufacturer's recommendations and it is to be noted that the paint is only suitable for application in conditions above 10 degrees Celsius.

18.3.4 Colour = black to match existing clerestorey windows.

18.4 Glazing

18.4.1 Any broken or cracked panes are to be replaced to match existing glazing appearance and specification.

18.4.2 Final glazing specification is TBA following high level inspection. Glazing samples are to be obtained for comparison with existing glass. For pricing purposes, Contractors are to include for new glazing as follows:
Histoglass Mono RT+4mm thickness with toughened finish

18.4.3 Replacement glass is to be cut 3mm smaller than frames to allow for thermal movement.

18.4.4 All previous putty and mastic is to be removed prior to installation of new glass. New glazing is to be fixed to match the original construction methods – this is to be agreed on site following high level inspection of the windows. For pricing purposes, Contractors are to assume that all glazing will be externally beaded using putty.

18.4.5 All existing putty and mastic is to be inspected at high level and any damaged areas are to be carefully removed before renewal with matching materials.

18.4.6 All new putty beading to be profiled away from the glazing to allow water run off.

18.5 Ironmongery

18.5.1 All ironmongery is to be cleaned, tested and overhauled.

18.5.2 Any ironmongery found to be beyond repair is to be replaced to match original.

19.0 Internal Joinery

19.1 Existing vestment cupboards, cabinetry and kitchen area within the existing Vestry are to be carefully removed to facilitate the installation of the new WCs / plant areas.

19.2 These are to be set aside and protected for re-use elsewhere in the project / across the College campus.

19.3 It is proposed that some of the Vestry cupboard doors will be re-used to form the new cupboard doors to the Brew Area.

20.0 Central Altar Stone

20.1 The existing altar stone is to be re-instated to it's original position. It is envisaged that this will be used as a bench seat.

20.2 The altar stone is to be carefully and thoroughly cleaned prior to works using non-abrasive methods and ph neutral sulfate free detergents. Wire wool brushes and hard abrasives are not to be used.

20.3 Construct plinth to altar stone using the existing plinth stones which are set aside within the building currently. These will need to be cut down to suit the new lower height - overall height to top of altar stone from FFL = 450mm.

21.0 Side Chapel Altar

- 21.1 Existing Side Chapel walls, skirtings, coping stones, railings, timber canopy, altar and raised step are all to be retained.
- 21.2 Contractor is to note the presence of lead based paints to the black railings – refer to Lead Paint Survey for information. **NB - Method statements to be submitted to Principal Designer prior to commencement of any works involving existing paintwork.**
- 21.3 All features are to be carefully and thoroughly cleaned prior to works using non-abrasive methods and ph neutral sulfate free detergents. DO NOT USE SAND OR ABRASIVE METHODS which may create dust due to presence of lead based paints.
- 21.4 Include for the removal of all later addition wall coverings and making good to any holes following removal.
- 21.5 Repair works to blockwork walls and coping stones are to be undertaken as necessary and in accordance with Section 5.0.
- 21.6 Areas of loose or defective mortar to blockwork are to be raked out and repointed using a mortar to match the composition and colour of the original mortar. All new joints to be finished flush to match existing and sample area to be agreed with the Architect prior to commencement. For pricing purposes Contractors are to include for re-pointing of 50% of internal wall area.
- 21.7 New walls are to be constructed behind the existing walls and altar, allowing this to be retained in its entirety, including existing stone skirtings and wall cappings. For further details please refer to drawing HCO-SEV-ZZ-00-DR-A-02551.

22.0 Existing Pipe Organ

- 22.1 The existing organ pipes and all associated mechanisms are to be retained, cleaned and protected for the duration of the construction works.