

1. MATERIALS

	Existing	Proposed
<u>External Walls</u>	External walls are clad with Ashlar bath stone facings. These are fixed to solid brickwork walls with ferrous cramps and pointed lime mortar putty. Joints between some stone panels have been filled with mastic at high level, presumably to minimise the risk of moisture ingress. Two single storey bay windows are located to the North (rear) elevation. Parapet walls to each bay are finished with bath stone coping stones. Bays are in poor condition with corroded ferrous fixings visible at ground level. A portico structure is located to the North (front) elevation, providing cover around the main entrance door. The portico is formed from ashlar bash stone and vertical columns There are three further bay windows to the East (side) elevation. These bays are curved, with tooled chamfered stonework and faux columns carved into the face of the wall. Photo References – Photos 1 and 2	Localised cracking and loose sections of stonework are evident to elevations throughout. A specialist stonemason has been appointed in a consulting capacity to advise on sensitive and appropriate repair methods and to produce a schedule of proposed repairs to the worst affected areas of stonework. Proposed replacement stonework is to match the existing ashlar stonework. A specialist stone-mason has been consulted to identify appropriate repair and cleaning methods. In cases where damage to facings results from expansion of ferrous fixings, stainless steel replacements are proposed to minimise future damage. We envisage further discussion with the conservation officer on-site to confirm the extent of proposed stone repairs.
<u>Pitched Roof Coverings</u>	Pitched roofs throughout are covered with natural slate. Slates are nail fixed to square edged roof boards below. Localised tile replacements have been carried out in the past with a combination of natural and artificial slate. Replacement slates are fixed with lead tingles. The existing square edge roof boards are to be retained. Localised replacement of boards may be required where moisture damage and decay have occurred identified to individual boards. Photo Reference – Photo 3 and 4	Replacement pitched roof coverings are proposed throughout. New slates are to be Penrhyn blue grey and sized to match the existing. This is estimated to be 560mm x 280mm. Each new tile is to be fixed with two stainless steel nails to new battens. The precise specification of roof tiles is to be agreed with the Conservation Officer prior to commencement. The roof line will be raised approximately 50mm to accommodate new counter battening required to ventilate the void. Localised areas of moisture damage have been identified to roof rafters. Splice repairs are proposed to deteriorated rafter ends, with replacement of timber members as necessary. Where repairs and replacement are required, these are to be agreed in advance with the Conservation Officer. Internally, mineral wool insulation is to be introduced at ceiling level within roof voids. Ventilation will be afforded at eaves and ridge level.

<u>Flat Roof Coverings</u>	A crown flat roof is located at the apex of pitched roof coverings to the East wing. The roof is covered with bituminous felt. Bituminous felt covers two dormer windows and the timber framed structure between the wings. Photo Reference – Photo 5	We propose to strip the existing roof covering and lay a new thermally insulated warm roof. We anticipate an increased roof height of up to 100mm. We propose a GPR capping coat to the new roof, to mimic the appearance of leadwork. As an alternative to the above, we propose to overlay the existing roof with a layer of 30mm thermal insulation overlay board ahead of recovering with a GRP covering.
<u>Rainwater Goods</u>	Existing rain water goods are generally painted cast iron. Areas of damage are apparent to stonework facings where ferrous fixings have corroded and expanded. This has resulted in rust staining and spalling of stonework. Leadwork linings and drainage details are to be replaced and overhauled as detailed above, within the 'Roofing Works' section. Photo Reference – Photo 6	The introduction of powder coated aluminium rainwater goods will to reduce the likelihood of corrosion. New guttering will be provided in locations to match the existing and will be Ogee profiled. Leadwork drip details will be included to match the existing. The powder coated finish will provide an attractive appearance in the long term, reducing the requirement for future re-decoration works. The proposal will reduce the requirement for access arrangements and minimise the requirement for works at height.
<u>Timber Eaves</u>	Sections of timber soffits are in poor condition, with significant areas of rot affected exposed timber. The upper edge of the soffit is lined with rolled leadwork. This is generally aged, lifted and in poor condition throughout. Photo Reference – Photo 7	Deteriorated sections of timber will be replaced to match the existing. Where there is evidence of rot, timber will be removed to a distance of 500mm beyond the defective area. Rolled leadwork will also be replaced in accordance with proposed leadwork detail drawings.
<u>Plasterboard</u>	Studwork room in a roof walls to Flat 5 currently comprise a single skin of British Gypsum plasterboard.	Foil backed insulation is to be inserted between existing studs and an additional layer of British Gypsum plasterboard is to be applied to the void side of studwork. This will improve thermal properties and provide an additional layer of protection in case of fire within the void.
<u>Thermal Insulation</u>	There is no thermal insulation within located within roof voids. Photo Reference – Photo 8	We propose to lay approximately 300mm of thermal insulation above joists, to a depth of 300mm. Insulation will only be installed between joists where there is sufficient depth to avoid disturbing finishes below. Insulation will be provided to water pipework to minimise the risk of freezing pipework within the space.

2. PHOTOGRAPHS



Photo 1 – Vertical crack to the South Elevation



Photo 2 – Deteriorated cramps and loose stonework to single storey bay window on the South elevation.



Photo 3 – Slipped, cracked and broken roof tiles to the South elevation of the West wing.



Photo 4 – Stained, slipped and slipped tiles to the West elevation.



Photo 5 – deteriorated flat roof covering to crown roof of the East wing and bituminous roof to the timber framed walkway.



Photo 6 – Corrosion of downpipe bracket and staining to stonework cladding



Photo 7 – Deteriorated timber soffit detail. Lead linings are located to the upper edge.



Photo 8 – Lack of thermal insulation to roof void. Lathe and plaster ceiling visible to West wing roof void.