SECTION I - SCHEDULE OF WORK

1.0 GENERAL ITEMS: SCOPE OF WORKS

1.01 The works described in this schedule form the main contract for the repairs to the cemetery Chapels at Keynsham. This schedule is written as a description of the method and sequence of repair. This schedule is based on the site survey carried out by use of a cherry picker. Certain elements have been assumed as a full opening up was not possible. Additional provisional items of repair are included at the end of this schedule as provisional sums to be directed or omitted during the course of the contract.

1.02 The Contractor is to take site levels to exactly establish the internal and external floor finish levels and the extent of horizontal and vertical movement in the stonework, and confirm these with the Architect prior to commencement of the repair work.

1.03 The works are covered by Faculty Approvals nos. ..... granted by the Diocese. There are relevant working conditions which the Contractor should be aware. These are to be forwarded to the Contractor prior to the final award.

1041_1001 Existing Floor Plan
1041_1002 Existing South Elevation
1041_1003 Existing North Elevation
1041_1004 Existing East Elevation
1041_1005 Existing West Elevation
1041_2001 Spire repair detail 1
1041_2002 Spire repair detail 2

2.00 DEMOLITION, DISMANTLING STRIPPING OUT AND PREPARATION WORK:

Allow for marking clearly the route of any known service cables, pipe runs and underground drainage

2.01 STRIPPING OUT/ PREPARATION WORK:

Central spire

Provide full access via scaffolding and carefully strip the timber panels and lead from the central drum of the spire. Note these are to be used as an exact template for the replacement panels and louvres and so are to be retained whole for accurate reproduction.

Remove the fish scale and plain clay tile cladding from the base of the spire and remove the existing lead hips. Expose the internal steel and timber structure for detailed inspection.

Ground floor: East Chapel

Set aside all the existing loose materials and equipment for removal by the employer. Strip out the remaining plasterwork from the area around each area of structural movement

2.02 Allow here for removing from site all subsoil and hardcore removed as a result of the excavations for the remedial structural works.

2.03 All excavations to be inspected and approved by the Structural Engineer and Local Authority Building Inspector.

3.00 CONCRETE WORK

3.01 Foundations

The existing foundations are very shallow and are to be protected at all times. The areas to be excavated are to be carefully monitored and the depths of hard-core fill, given above, are to be gauged against the available depth of footing.

3.03 Carry out the remedial structural repairs in concrete as specified by the Structural Engineer

4.0 STONEWORK TO THE EAST CHAPEL.

4.01 Repairs to the existing stonework

4.02 The existing stonework is a local Pennant stone with cut Bath Stone, limestone to the window and door surrounds and to the external corners of the building.

4.03 Rake out the areas of stonework around the structural movement cracks and take out all previous mortar fill in the stonework to the East and South elevations ready to repoint: Allow for raking out the existing joints to at least twice the depth of the joint width. This is to be carried out from the top down. All cement based or other non-original and inappropriate mortars should be carefully removed whilst avoiding damage to the soft stonework. Hand tools such as plasterers' small tools, half hacksaw blades and specially made steel hooks are be used. Large chisels and any tools wider than the joint width itself are to be avoided. Power tools are not to be used for raking out. All loose and friable material is to be removed before repointing. All joints are to be brushed out and lightly sprayed with water (not under high pressure) to remove any remaining dust and debris

4.04 Mortar. The mortar is to be a gauged lime mortar using moderately hydraulic powder lime (NHL 3.5). the stronger eminently hydraulic powder lime (NHL 5) is not to be used.

4.05 Mortar mixing; allow for a provisional mix of 2.5 Sand: 1 NHL 3.5
A selection of sharp and silver sands is available from Trowbridge Building Supplies [FABs] and differing ratios of sand are to be provided for the sample panel.

4.06 Repointing. As the existing Bath stone is relatively porous, this will need to be wetted down to prevent water being drawn from the newly placed mortar into the masonry. In general, when mortar has stiffened up, it should be firmly compacted into the joints by beating with a stiff bristle brush. This will help eliminate any initial shrinkage cracking and ensure that the mortar is fully compacted into the joint with a good bond to the surrounding masonry. The surface should then be lightly scraped back with the edge of the pointing tool or similar, to provide a rough, open-textured surface which is ideal for carbonation and curing, and for maximum evaporation of moisture from the joints once fully cured.

4.07 Sample panel. Allow for providing a sample panel of pointing for approval by the Architect and the Conservation Officer prior to the repointing works

4.08 In dry conditions avoid rapid drying by lightly spraying for at least 48 hours. Over-rapid drying will result in shrinkage cracking due to rapid loss of water and will inhibit curing. Provide protection to the new work using hessian and polythene sheeted panels placed against the face of the stonework.

4.09 Additional stonework repairs. Carry out re-pointing/ cutting in of new stone and rebedding loose stonework and open joints. This includes the loose corner block to the southeast corner and the open joints to the central buttresses to the south elevation. Localised repointing to the truncated chimney to the east elevation and the rebedding of the loose corner stone to the corner of the northeast chapel/office to the north elevation. Mortar mix and finish to be as above.

5.0 STEELWORK:

5.01 Provide and fix heavy duty, stainless steel structural wall ties to the Structural Engineers Details

5.02 Carefully rub down the existing iron cross at the head of the spire, insitu and redecorate [see section ....}

6.0 CARPENTRY AND JOINERY REPAIRS

6.01 TIMBER GENERALLY:

All timber shall be the best of its kind, perfectly dry, thoroughly well seasoned, sawn die square, free from sap, shakes, cracks, waney edges, loose and dead knots or knots over 32mm diameter, and any other defects which may in the opinion of the Architect render the timber unsuitable for its purpose. The softwood for carcassing shall be approved quality imported Baltic Red Deal, [also known as Baltic Redwood] selected from 5th grade. Softwood for joinery shall be approved good class unsorted Baltic Redwood. Timber for frames and framing shall be selected for straightness of grain.
Timber for internal structural elements should be in air dried English or French oak. These should be air dried for a minimum of five years

6.02 PRESERVATIVE:
All new structural timber, concealed or otherwise, shall be Protim Vac-Vac treated to BS5268: Part 5. All bolts, nails, etc., shall be sheradised or similar protected from rust and attack by preservative. All existing structural timber is to be treated with a brush applied timber treatment in situ.

6.03 REPAIRS TO THE SPIRE ROOF STRUCTURE:
The principal structure beneath the spire outer casing is built of 50 x 50mm steel angle which appears to be in good condition. To this is attached 50mm rafters and packing pieces to give the overall profile of the spire, drum and base. Parts of this timber packing to the central section has decayed and needs replacing. Allow her for 50% replacement to the central drum and base section.

7.00 JOINERY

7.01 Central drum louvred panels; Allow for the supply and installation of eight replacement louvred panels and frames with the quatrefoil and trefoil decorative elements, triangular pediments and arched heads to exactly match the existing. All mouldings are to be exactly copied from the originals

7.02 Allow for the replacement of the projecting moulding at the base of the central drum. This moulding is to exactly match the existing profile and is to be in hardwood with hardwood tenons to the mitred corners.

7.02 ARCHITRAVES AND COVER STRIPS; Provide and fix purpose made corner cover strips to the mitred corners of the central drum. Profile to exactly match the existing

7.03 SEALING AROUND REPLACEMENT JOINERY:
Seal around all new frames in a clean, professional workmanlike manner using Arbokol 1090 gun applied polysulphide sealant to colour agreed with the Architect. The sealant to penetrate well into the gaps to affect a weather-tight seal. Provide a sample panel of sealant in-situ prior to applying the sealant.

8.00 ROOFING

8.01 SCOPE OF THE WORKS:
The scope of the roofing works shall be as follows:

8.02 Carefully strip the lower base section of the spire roof of all tiles [carefully setting aside for reuse]. Strip off all battens and felt, etc, back to the existing rafters and steel frame. Allow for replacing all damaged or decayed rafters. Denail all remaining timbers and inspect junctions with the external walls.

8.03 Lay salvaged clay tiles to all roof slopes disturbed on new 25mm marine plywood boarding to replace the decayed softwood roof boards

8.04 See section 10.00: Lead work for valley and hip lead work, collar, abutment and apron flashings etc.

8.05 ROOFING GENERALLY;

The works shall be undertaken in accordance with good trade practices, in accordance with the manufacturer's instructions, and to comply with BS 5534 'slating and tiling'.

8.06 BATTENS/ ROOF BOARDING: Supply and fix 25mm marine plywood generally secured to rafters using 65 x 3.35mm alloy nails to BS 5534. Roof boarding is to be fitted in large sheets and be mitred to each facet of the base section.

8.07 UNDERLAY: Supply and lay Klober Tyvec breathable underlay [or similar approved] to the tile roof slops, taking particular care to provide a minimum 150mm top and 150mm side lap, side laps only to occur over rafters. Take care to ensure the permanent ventilation provided as shown on the drawings. Allow for Tyvec universal eaves carrier to dress into gutter

8.08 SPARE TILES:
Allow for 25% replacement reclaimed tiles generally. The Contractor shall supply and leave 10 sound tiles on the site for the safekeeping of the Employer.

9.00 GUTTERS, DOWNPIPES AND SOIL STACK DRAINAGE:

9.01 The existing cast iron guttering to the full perimeter of the building is to be cleaned down and tested prior to the redecoration included in section 11.00 Painting and decorating.

10.00 LEADWORK

10.01 Supply and fix all necessary replacement lead soakers, flashings, aprons, collars etc. at all roof abutments including lead collars and flashings around the new rooflights. This is to include all leadwork to the base section and central drum of the spire.

10.02 The sheet lead shall be the best British milled lead of the full weights per square metre and sizes specified, neatly laid and dressed in the best workmanlike manner with proper provision for expansion and contraction:

Code 4	Lead slates to svp's and vents
Code 5	Lead abutment flashings
Code 6	Lead saddles

All leadwork carried out in accordance with Lead Sheet Training Academy's published guidance. All workmanship, sheet sizing, detailing, cutting, laying, dressing, provision for thermal movement, wedging, burning, lead dots, jointing, lapping, welting, falls and drips, upstands and downstands, and all other necessary items or operations relating to leadwork shall comply with the current recommendations of the Lead Sheet Training Academy.

11.00 PAINTING AND DECORATING

11.01 The Scope of the Decorations shall be as follows:

- Decoration of the external joinery to the spire.
- Redecoration of the existing cast iron guttering and downpipes
- Decoration of the cast and wrought iron cross at the head of the spire.
- Redecoration of the iron casement windows

11.02 EXTERNAL STRUCTURAL TIMBERS:
These are generally concealed behind the structure and only visible to verges and eaves. Where new timber is visible this is to be treated with a clear timber preservative only

11.03 NEW EXTERIOR JOINERY:
All softwood joinery to be painted, is to be well rubbed down, abraded to remove all sharp edges, machine marks etc. and thoroughly dusted off. Large knots shall be cut out and plugged with sound wood or cut back, pinned, primed and put forward with a hard stopping. All remaining knots of sapwood and resins streaks shall be treated with two coats of knotting and allowed to dry hard.

Plywood or blockboard surfaces shall be thoroughly cleaned and rubbed down with fine abrasive paper. After priming with wood primer, the surfaces shall be stopped with a board knife and rubbed down to a smooth and even surface, free of grain

Woodwork is not to be primed before delivery to site Cut ends and concealed edges of timber are to be treated with a preservative, liberally swabbed timber preservative before fixing.

All external paintwork is to be in Linseed Paint
Use Linseed Soap to clean and prepare the timber surface. Use Shellac Knotting Solution on any knots in the timber.

Priming/Impregnating - Apply a coat of warmed (70°C) raw linseed oil (linseed oil may not be required if the timber is new or has a high natural oil content); heat using a saucepan on the stove or by pouring it into a metal paint kettle and using a gas burner or fire to warm the container. The heat lowers the viscosity of the oil and allows it to penetrate more easily. Apply the warmed oil to the timbers and allow to dry for at least 24 hours. Alternatively you can apply the raw linseed oil cold and then run a heat gun over it to warm it. A second coat may be applied if the timbers are very old and very dry. Apply only on tropical hardwoods once you have confirmed its application on an off-cut (see footnote b.)

Application of Paint - When applying the first coat of Linseed Paint on external surfaces it is important to ensure that you add Zinc Oxide. This should not exceed 20% (parts per volume) of the first coat of paint. The purpose of the Zinc Oxide is to create a barrier against possible mould growth. Zinc Oxide may also be used in all subsequent coats where there is a higher risk of mould growth. Ie.in damp/wooded areas. Please ensure the paint is mixed thoroughly to avoid drying problems; its application should be worked onto the timber very thinly and thoroughly (c). The traditional Scandinavian Spoon Brushes should be stored with their bristles suspended in Holkham Raw Linseed Oil or washed with Holkham Linseed Oil Soap and warm water between coats, excess oil should still be squeezed from the brush before you proceed with painting. With some of our lighter colours you should still be able to see the timber through this initial coat. In optimum conditions of 24°C, it should dry within 24 hours. Given that the temperatures fluctuate it is important to remember that it may take longer to dry and be prepared to leave longer between coats if necessary. When applied too thickly it can take weeks to dry as the paint will form a skin and remain wet underneath.

5. Fillers - When the initial coat of paint is dry any imperfections in the timber should be filled. We recommend that you use Linseed Putty for any larger holes or imperfections. Any holes to be filled with putty should be coated with Shellac Knotting Solution first to stop the linseed oil in the putty from being absorbed too quickly by the timber and drying out. Smaller holes and imperfections can be filled with Holkham Luslack. This two part filler can be mixed to either a milk-like consistency and used to fill fine cracks and grains or to a stiffer more putty like texture to fill small holes and hollows. Please paint over the luslack once it is dry - approx. half an hour - 1 hour. Plastic based wood fillers can affect the drying and appearance of the paint.

6. Second Coat - Once any required filling has been completed and is dry give the surface a light rub down with fine grain sandpaper and apply the second coat of Linseed Paint (without the Zinc Oxide) in the same way as the first - very thinly and by working it in all directions. Again allow plenty of drying time and then give it another very light rub down.

7. Final Coat - Apply the third coat as above, taking your brush strokes along the grain of the timber again thinly. With most timbers/colours this third coat will be sufficient however it is occasionally necessary to apply a fourth coat. If this is the case then you will need to lightly rub down once dry and apply this final coat as you did the third allowing your brush strokes to follow the grain. Some of our darker colours may require a 4th coat or a finishing coat of Linseed Oil Wax due to natural differences within in the substrate.

11.04 EXTERNAL METALWORK

Decorate any exposed metalwork, including the iron cross, the cast iron guttering and downpipes, and the iron casement windows with 2 no. undercoats of Dulux metal primer, zinc phosphate (buff) or Dulux metal primer (grey) at 50umDFT per coat, 1 no. coat of weathershield exterior flexible undercoat of appropriate shade at 25 umDFT and finish with 2 no. coats of weathershield exterior high gloss finish of selected shade at 25 umDFT. Degrease etc. before priming metalwork. Allow for replacing missing putty to the existing windows.

12.0 EXTERNAL WORKS

24.01 SCOPE OF THE WORKS:

To be confirmed once we have receipt of the Structural Engineers specification.

13.00 COMPLETION WORKS:

Thoroughly clean throughout the building, removing all rubbish and debris, clean all glazing both sides to remain any sealant, finger marks, paint splashes etc.
Upon completion remove all rubbish and debris from site and leave the same, absolutely clean and tidy. Rake over all soil and earth disturbed and make good.

Upon completion, thoroughly clean the site to remove all surplus building materials (unless materials are noted as being retained on site), rubbish and the like. Remove all temporary facilities, mess room etc. and reinstate any damaged areas. Check with the CA that all is complete, satisfactory, clean, reinstated and in good working order.

Test all drainage runs, clean out any debris, rod through as necessary and leave the systems in good working order

Arrange for the testing of all equipment and supply all the manufacturer's manuals/guarantees to the client. Carry out the air testing as required by the Building Inspector

Total amount for section I - Schedule of work

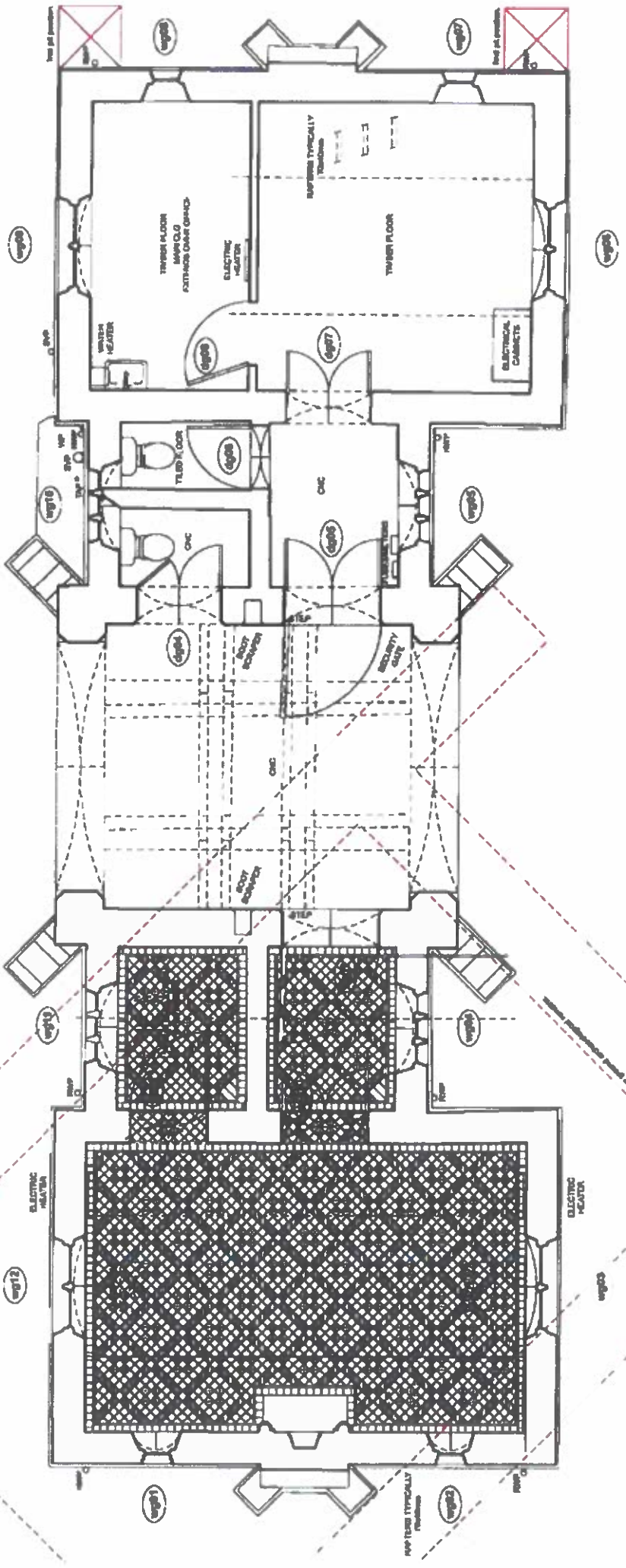
SECTION II -Prelims and Provisional Sums.

Include here for the costs for all preliminaries		£.....
This figure is calculated as a total figure based on a cost per week of	£.....	
Include here for day work rates for the following trades	£.....	
Skilled tradesman – Stonemason, Carpenter etc.	£.....	
Labourers	£.....	

Include for the following provisional sums.

Additional works to the timber and steel sub structure to the spire (Add profit and attendance]	£4,000.00
Additional leadwork other than that included above (Add profit and attendance)	£2,000. 00
Additional landscaping works [Tarmacadam surface] (Add profit and attendance)	£3,000. 00
Repair window ironmongery. (Add profit and attendance)	£500. 00
Include here a Contingency sum of £5,000.00 to be expended or otherwise as directed by the Architect. (Add profit and attendance)	£5,000. 00

Total for Section I	£.....
Total for Section II	£.....
TOTAL TO FORM OF TENDER	**£.....**



REV	DATE	NOTES	BY

CLIENT / PROJECT

KEYNSHAM CEMETRY CHAPEL

DRAWING TITLE

EXISTING FLOOR PLAN

STATUS: PLANNING

DATE	DRAWN	CHECK	SCALE @ A3
05.11.21	HW	HW	1:50

PROJECT NUMBER	UNIT / BLOCK	O / S & B CODE	TYPE & NUMBER	REVISION LETTER
1041			1001	-

0 1 2 3

SCALE IN METRES @ 1:50

BCA
BATH CONSERVATION ARCHITECTS
12 LOWER STREET T: 01371 830161
BA1 1PL W: www.bathconservation.co.uk

REV DATE NOTES INIT

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

EXISTING SOUTH ELEVATION

STATUS	PLANNING		
DATE	DRAWN	CHECK	SCALE @ A3
	HW	HW	1:50

PROJECT NUMBER	UNIT / BLOCK	CI / SFB CODE	TYPE & NUMBER	REVISION LETTER
1041			1002	-

DRAWING NO

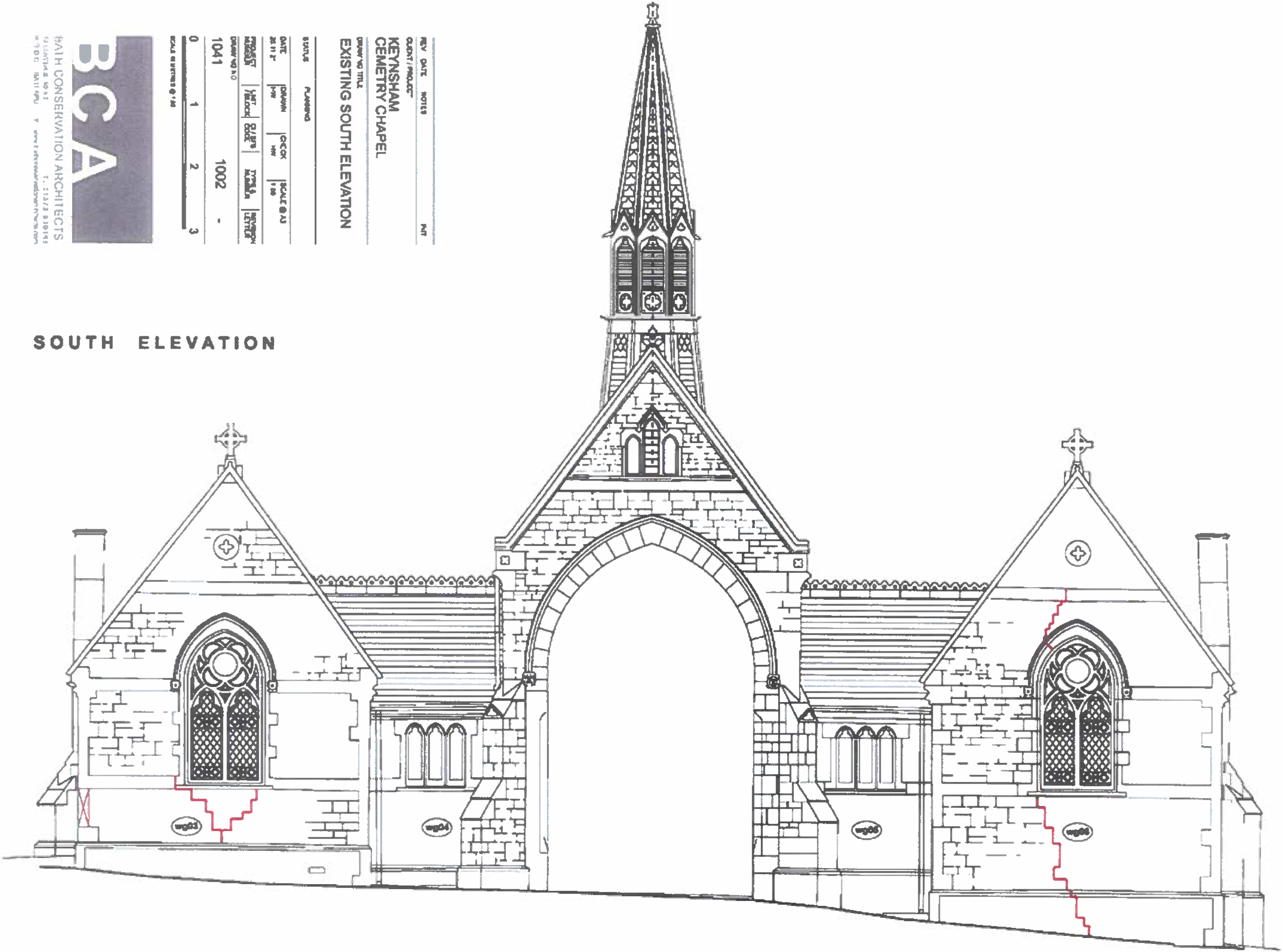
0 1 2 3

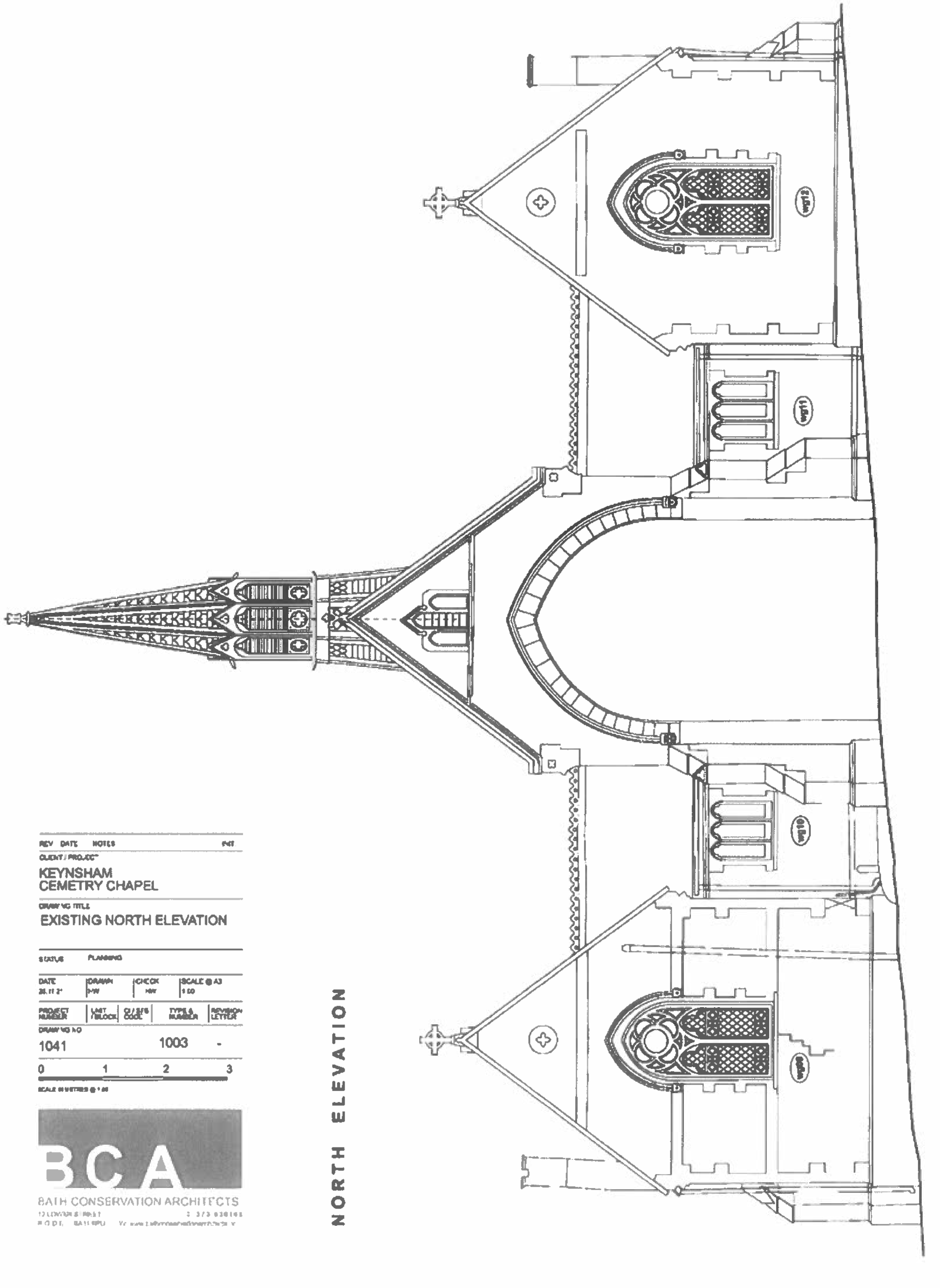
SCALE IN METRES @ 1:50

BCA

BATH CONSERVATION ARCHITECTS

SOUTH ELEVATION





NORTH ELEVATION

REV DATE NOTES

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

EXISTING NORTH ELEVATION

STATUS PLANNING

DATE	DRAWN	CHECK	SCALE @ A3
			1:50

PROJECT NUMBER	UNIT / BLOCK	CI / SFB CODE	TYPE & NUMBER	REVISION LETTER

DRAWING NO

1041 1003 -

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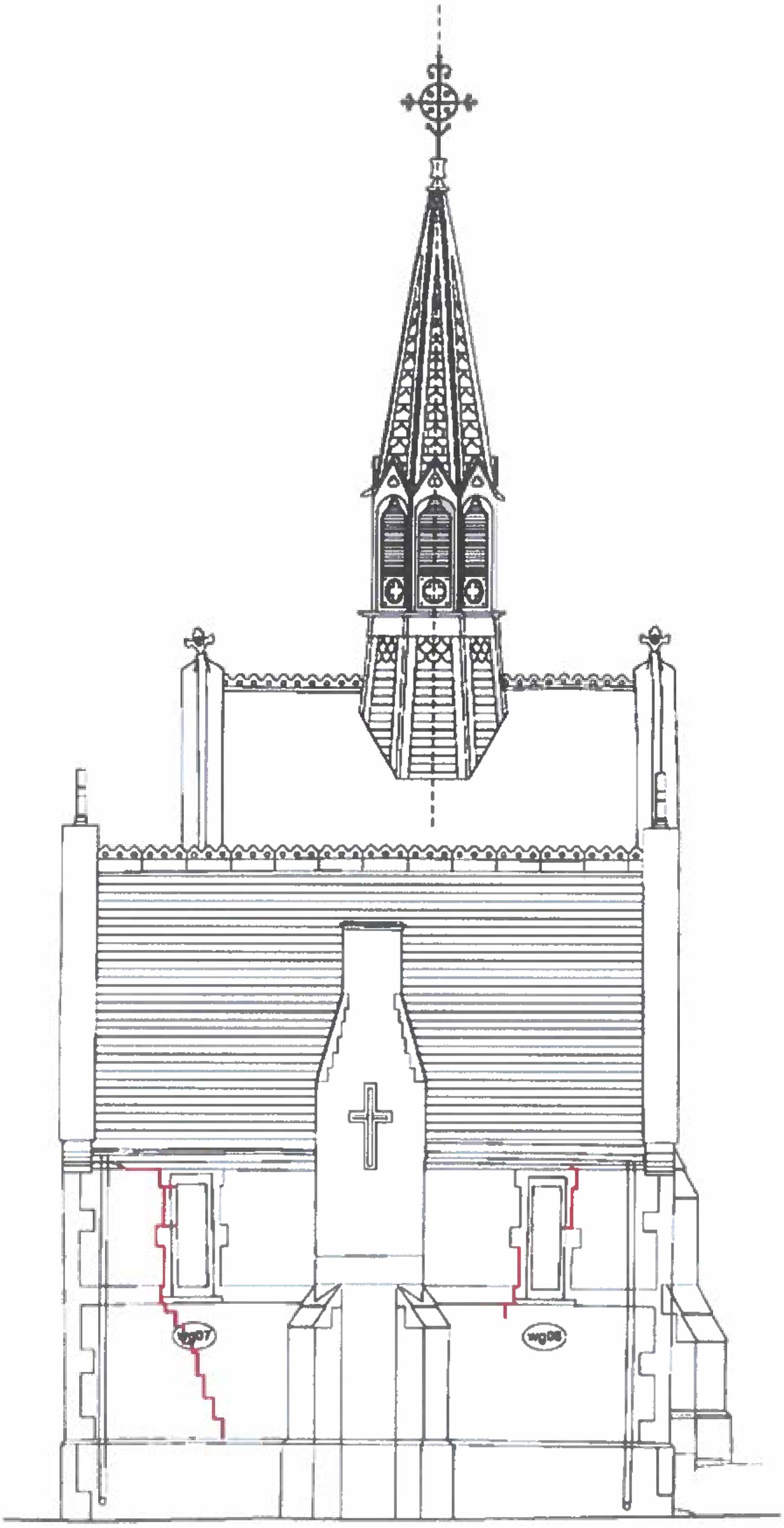
SCALE IN METRES @ 1:50

BATH CONSERVATION ARCHITECTS



EAST ELEVATION

REV DATE NOTES INIT.

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

EXISTING EAST ELEVATION

STATUS PLANNING

DATE	DRAWN	CHECK	SCALE @ A3
30.11.21	HW	MW	1:50

PROJECT NUMBER	AREA / BLOCK	CLASS CODE	TYPE & NUMBER	REVISION LETTER
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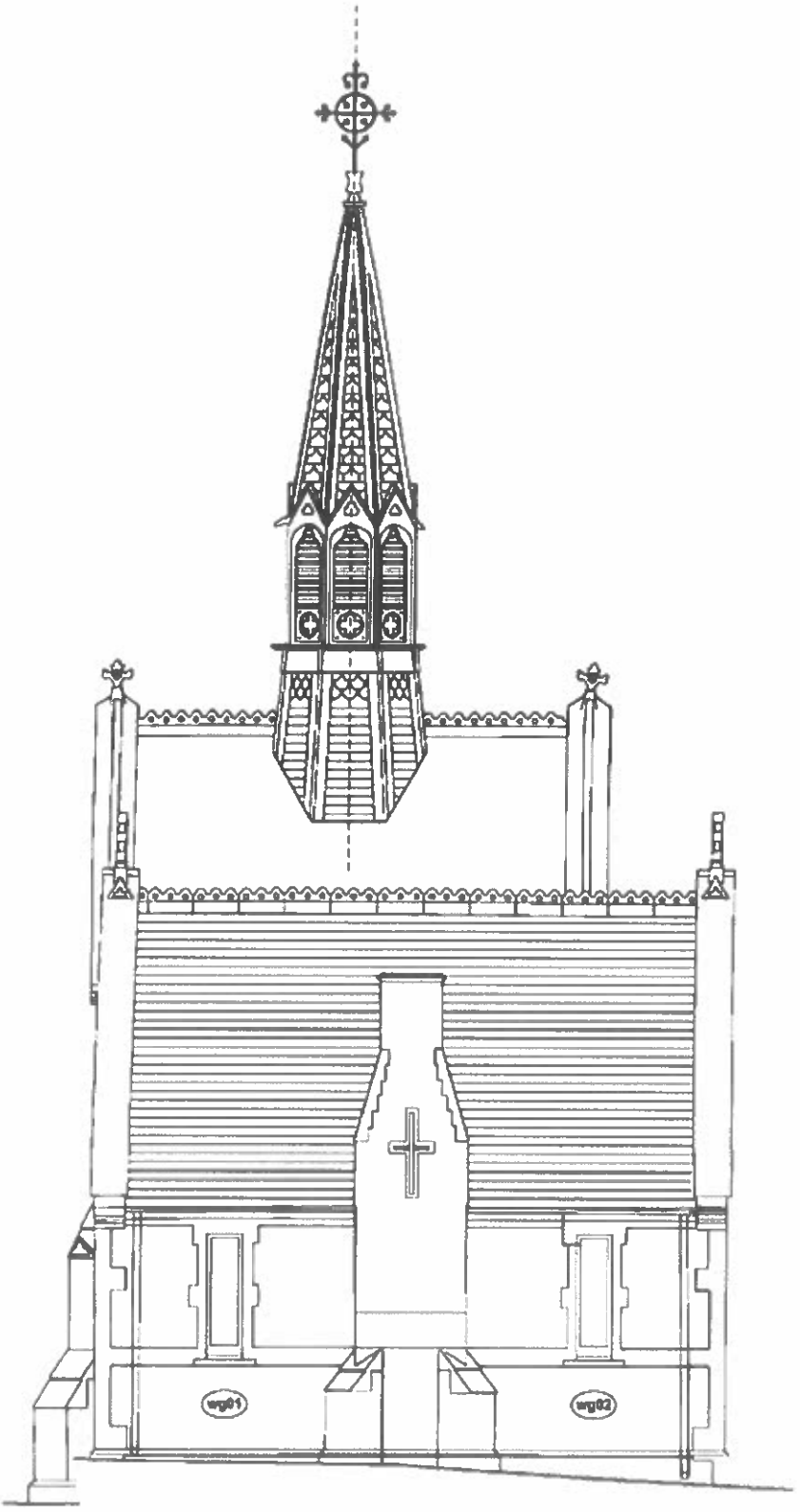
DRAWING NO

0 1 2 3

SCALE IN METRES @ 1:50

BATH CONSERVATION ARCHITECTS



WEST ELEVATION

REV	DATE	NOTES	INIT

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

EXISTING WEST ELEVATION

STATUS PLANNING

DATE	DRAWN	CHECK	SCALE @ A3
20 11 21	HW	HW	1:50

PROJECT NUMBER	UNIT / BLOCK	CI / SfB CODE	TYPE & NUMBER	REVISION LETTER
1041			1005	-

0 1 2 3

SCALE IN METRES @ 1:50

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BATH CONSERVATION ARCHITECTS

Photo of Cemetery taken 2006 showing blue paint on Spire woodwork when listed in 2000

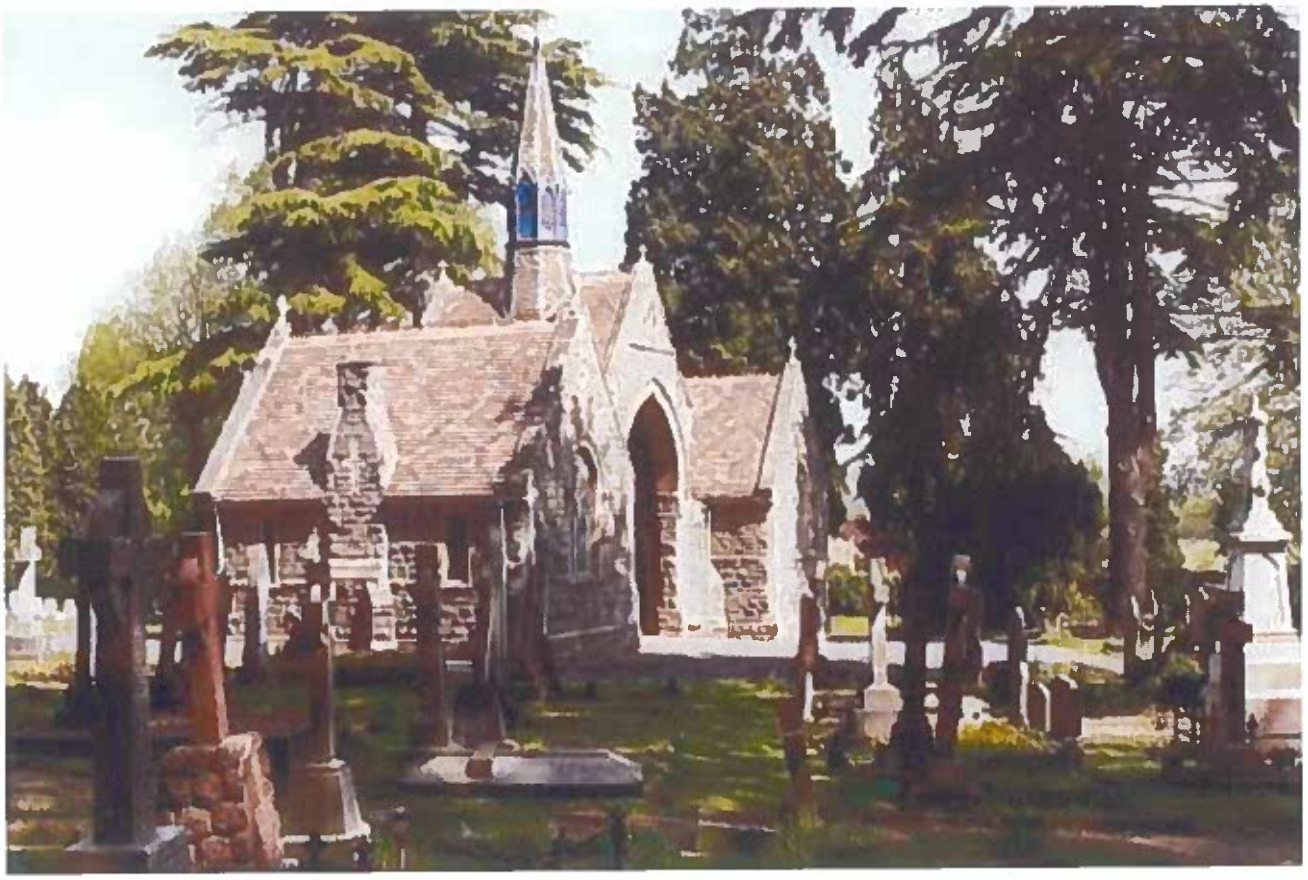
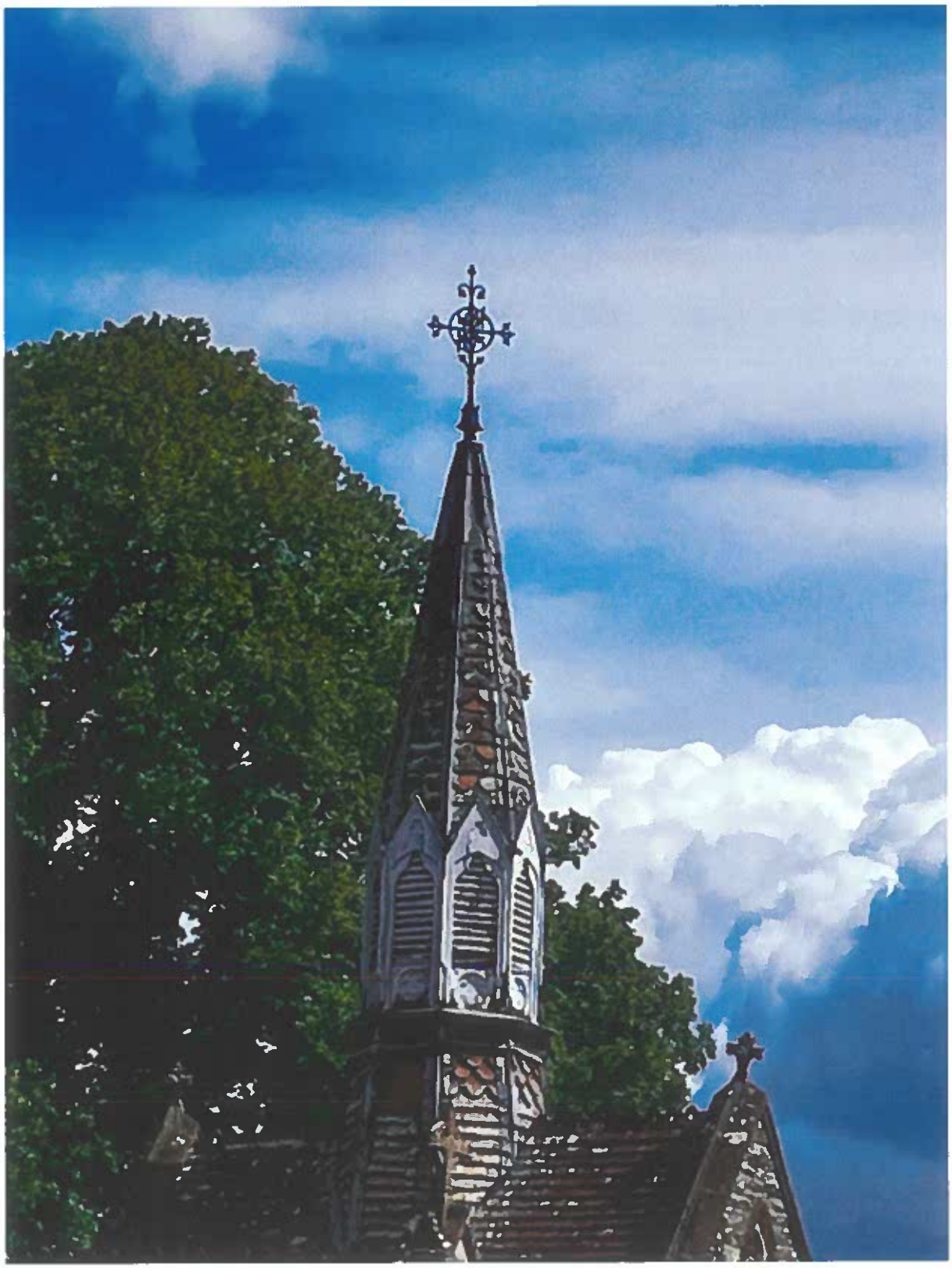
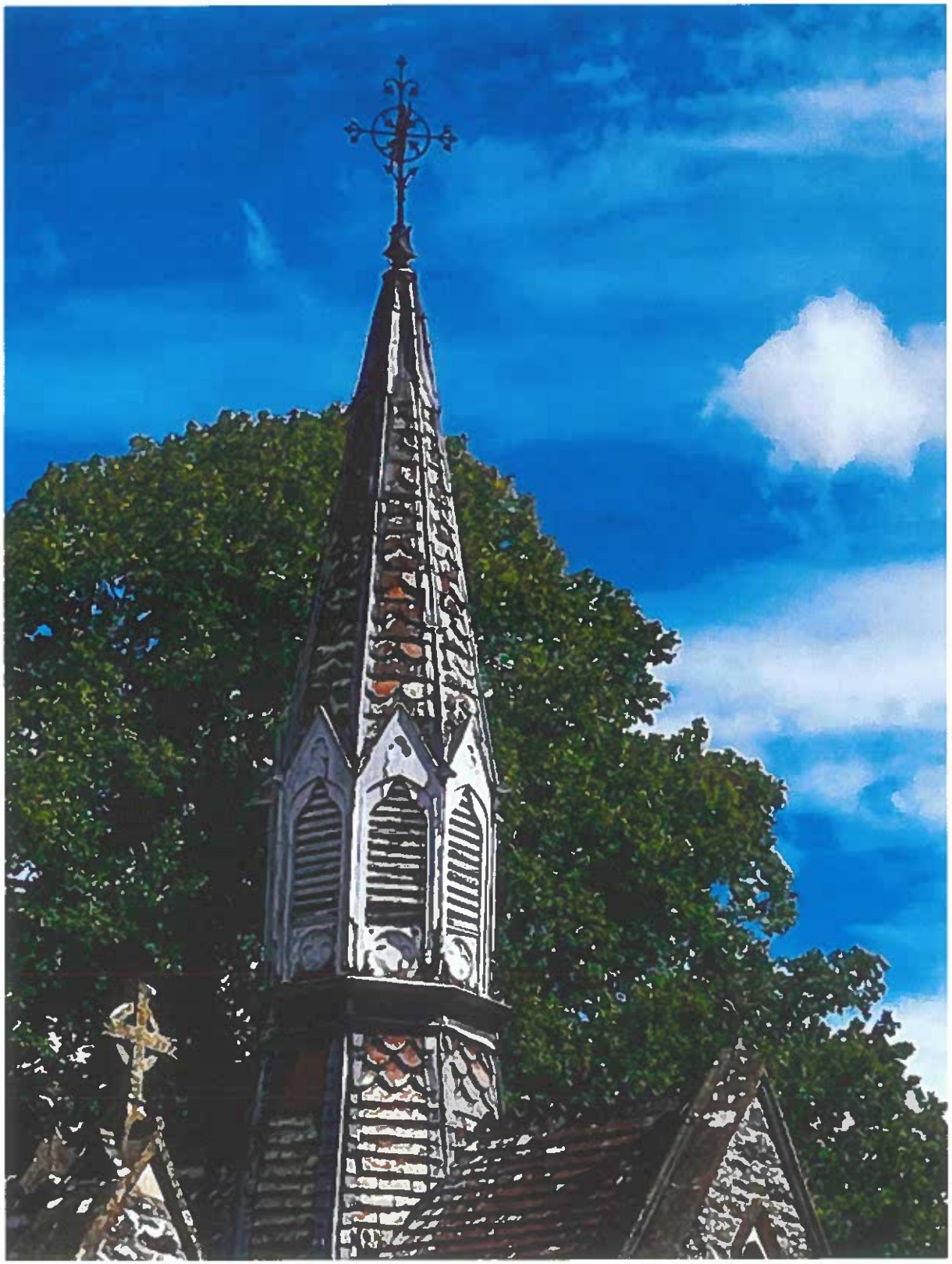


Photo 26.08.2025 example of retained roof tile of Spire with identity of manufacturer

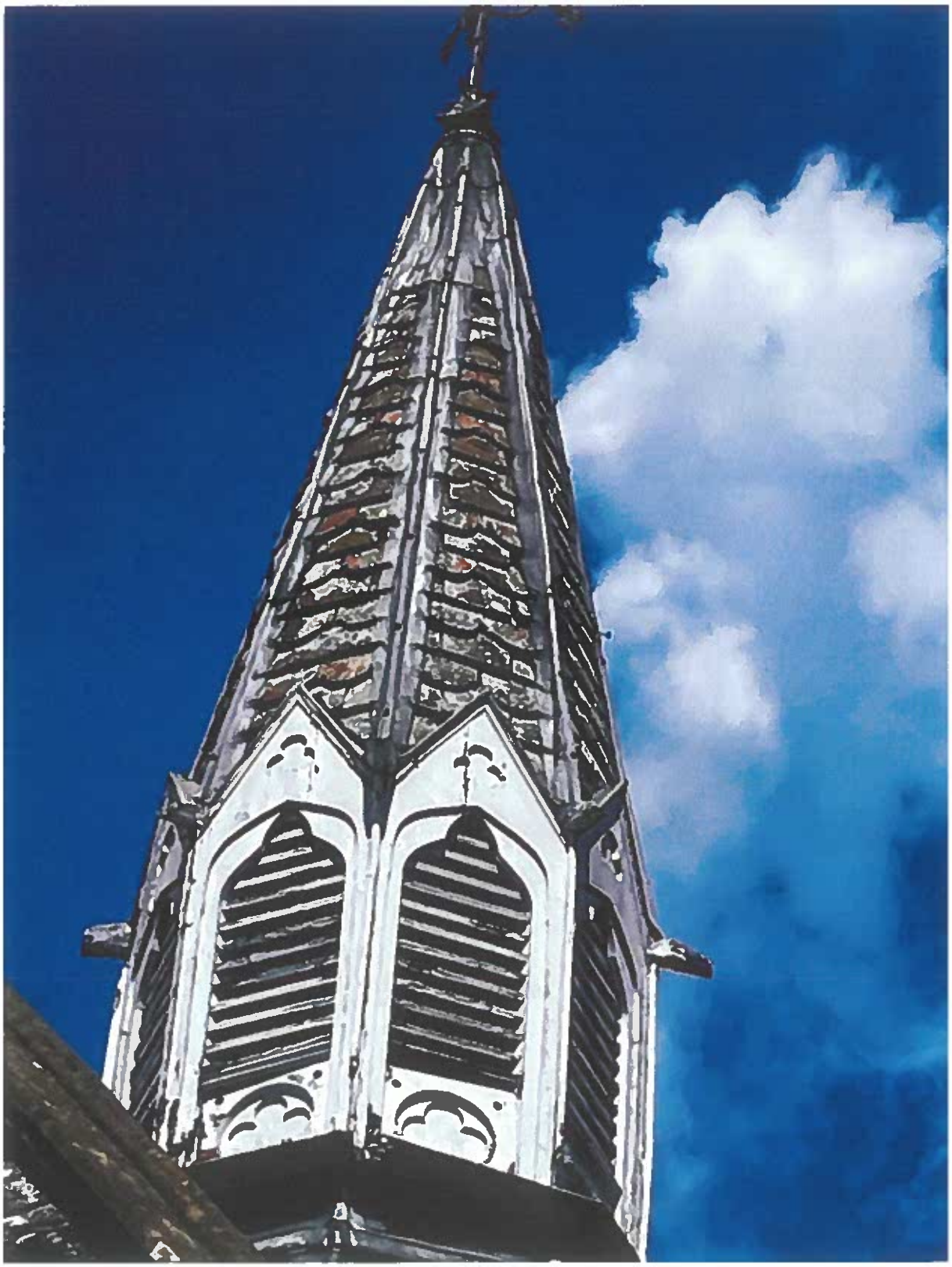
Photos of the Spire August 2025

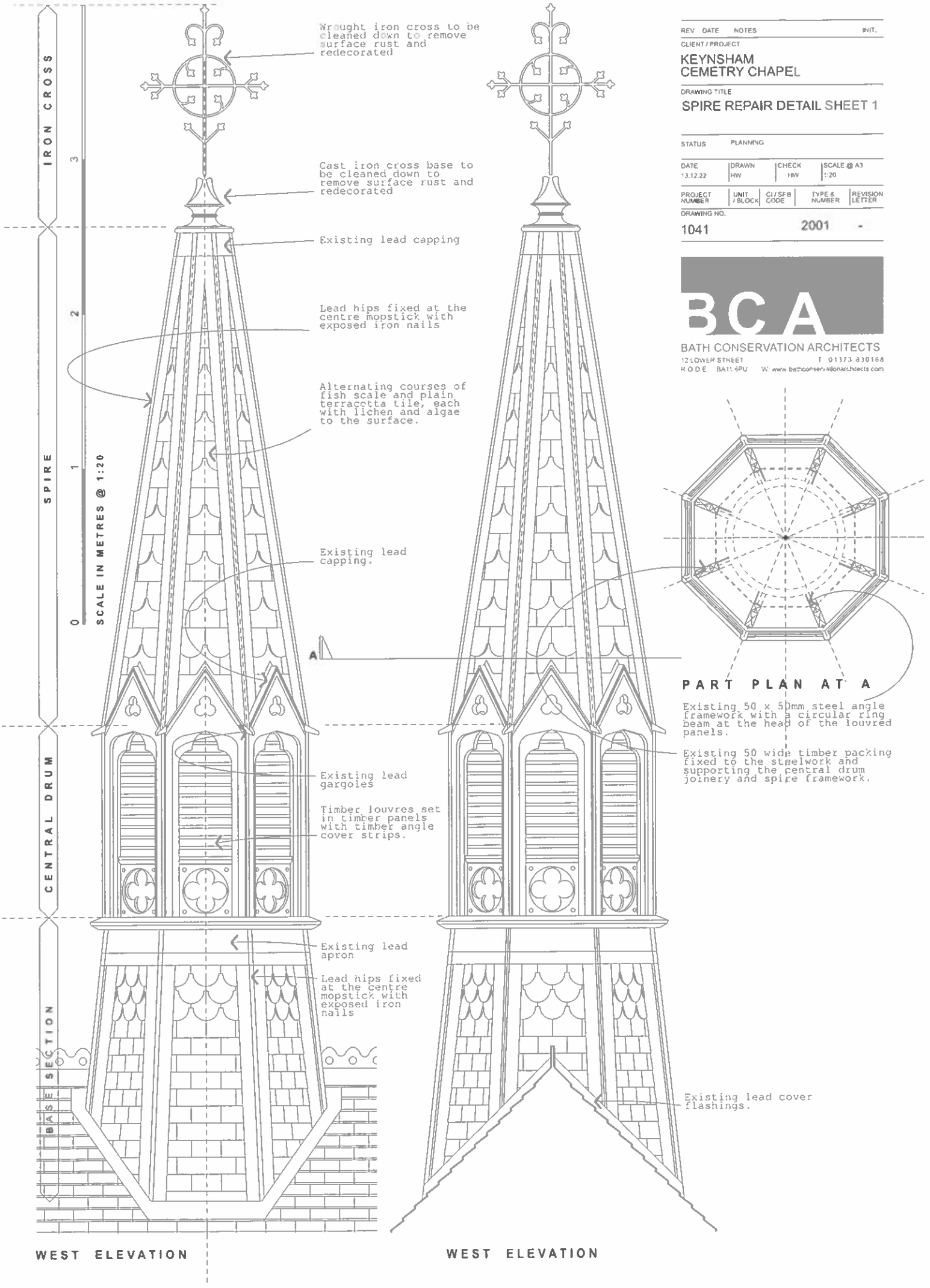


Photos of the Spire August 2025



Photos of the Spire August 2025





REV	DATE	NOTES	INIT.

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

SPIRE REPAIR DETAIL SHEET 1

STATUS	PLANNING				
DATE	DRAWN	CHECK	SCALE @ A3		
13.12.22	HW	HW	1:20		
PROJECT NUMBER	UNIT / BLOCK	CI/SfB CODE	TYPE & NUMBER	REVISION LETTER	
DRAWING NO. 1041			2001	-	

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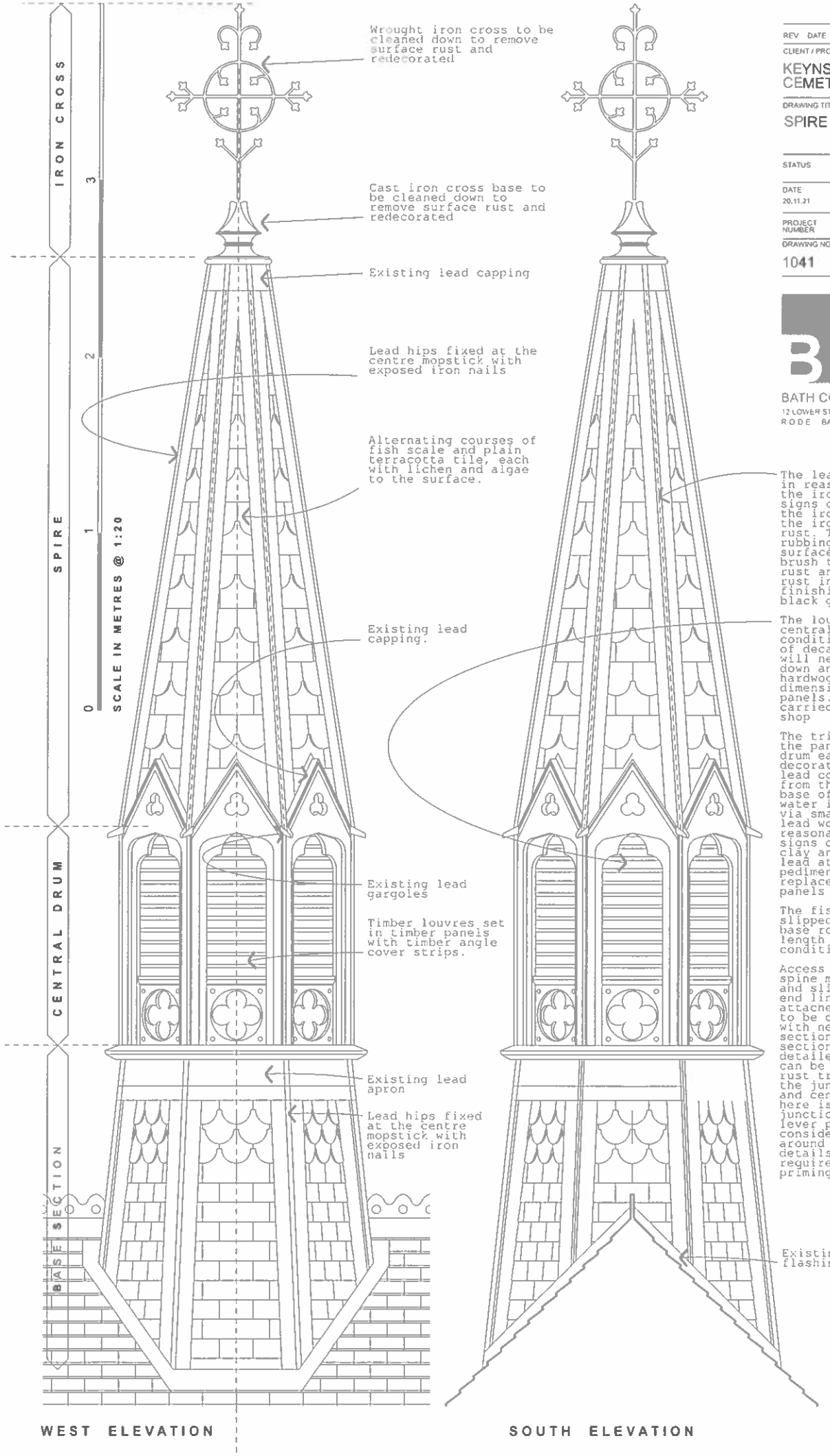
BATH CONSERVATION ARCHITECTS
12 LOWER STREET T 01373 830168
RODE BATH BA11 6PU W: www.bathconservationarchitects.com



REV	DATE	NOTES	INIT.

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

SPIRE REPAIR DETAIL SHEET 2

STATUS PLANNING

DATE	DRAWN	CHECK	SCALE @ A3
20.11.21	HW	HW	1:20

PROJECT NUMBER	UNIT / BLOCK	CI/SFB CODE	TYPE & NUMBER	REVISION LETTER

DRAWING NO.

1041 2002 -

BCA
BATH CONSERVATION ARCHITECTS
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RODE BA11 6PU W www.bathconservationarchitects.com

The lead to the spire section is in reasonable condition although the iron fixings are showing signs of rust. We propose that the iron elements, together with the iron Cross are treated for rust. This would include the rubbing down of all exposed surfaces with a mechanical wire brush to remove all areas of rust and redecorating with a rust inhibitor, priming and finishing with two coats of black gloss paint.

The louvred panels to the central drum are in a poor condition and substantial areas of decay can be seen. Each panel will need to be carefully taken down and rebuilt with new timber hardwood) to follow the exact dimensions of the existing panels. This will need to be carried out within the Joiner's shop

The triangular pediments over the panels within the central drum each have a tri-foil decoration beneath a projecting lead cover piece. The lead hips from the main spire meet at the base of each pediment and the water is thown off the structure via small lead gargoyles. This lead work appears to be in reasonable condition and little signs of slippage to the plain clay and fish scale tiles. The lead at the head of each pediment will need to be replaced in code 5 lead when the panels themselves are replaced

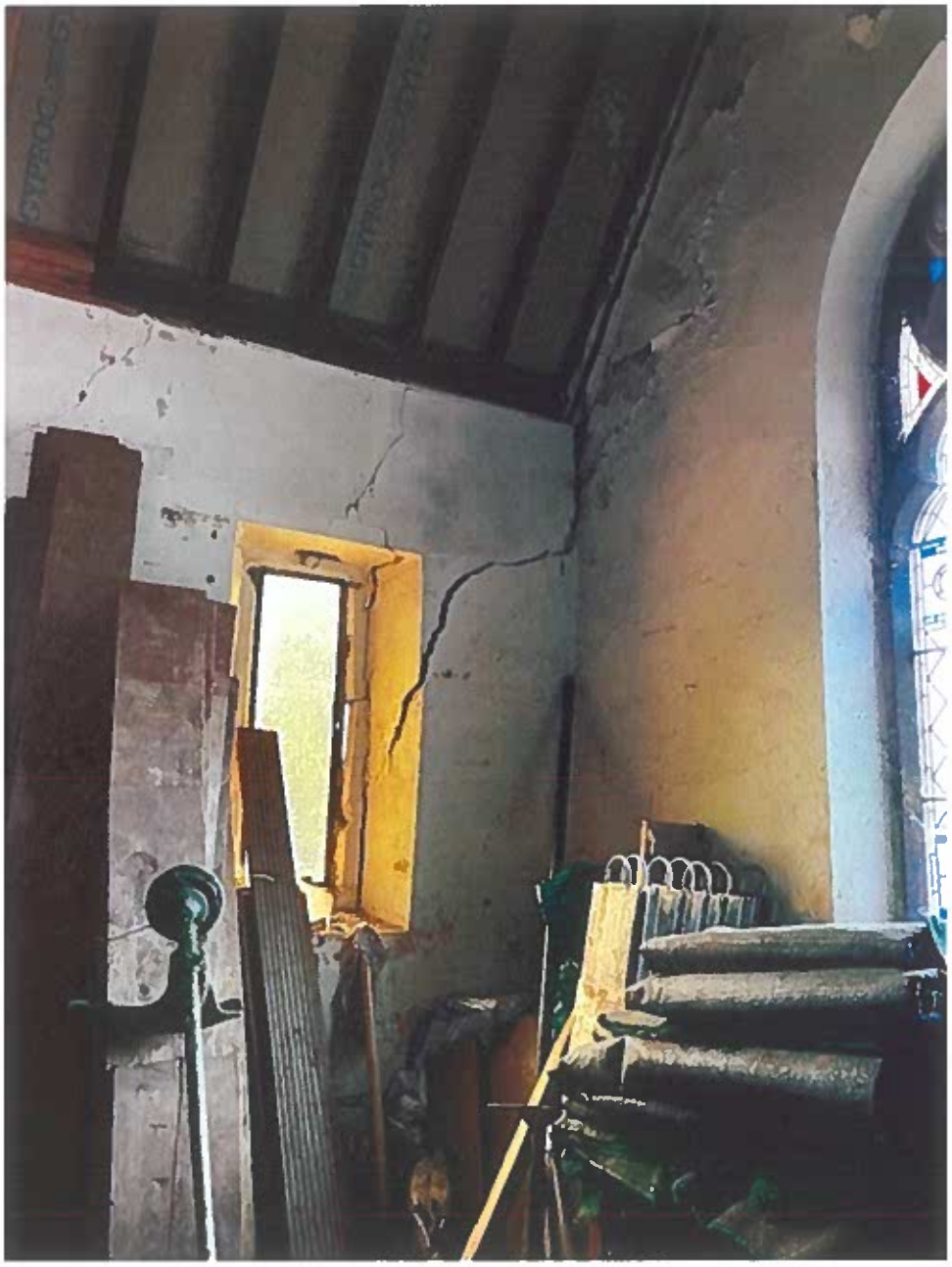
The fishscale clay tiles have slipped two parts of the lower base roof cladding and the length hits are in a poor condition.

Access to the interior of the spine made through the missing and slipped tiles. Decay to the end line timber structure attached to the frame which need to be opened up and repaired with new timber to the same section scarf into existing sections. The same time I fully detailed look at the steelwork can be made and any hours of rust treated Timber moulding at the junction of the bay section and central drum. The timber here is particularly at the junction of the central drum lever panels and there is considerable decay to the timber around the quote to Fyall details remaining timber requires cleaning down and priming ready for redecoration

Photo of East Elevation cracking November 2022

Interior and Exterior Cracking East Elevation August 2025

Interior and Exterior Cracking East Elevation August 2025



Interior and Exterior Cracking East Elevation August 2025

Interior and Exterior Cracking East Elevation August 2025

Structural Report

Mann Williams
Consulting Civil and Structural Engineers
7 Old King Street Queen Square Bath BA1 2JW
T: 01225 464419 www.mannwilliams.co.uk

Project No	6821		
Project	Mortuary Chapel, Keynsham Cemetery, Durley Hill	Report No	**02**
Engineer	Stephen Swinbank	Sheet	Page 1 of 4
Reason for visit	Inspection of Ongoing Fractures	Date	May 2023

1.1 Mann Williams were first instructed by Keynsham Town Council in 2013 to inspect structural movement to the Mortuary Chapel at Keynsham Cemetery, Durley Hill. At that time a series of monitoring points were set up and readings taken during 2013 and 2014.

1.2 During 2013/14, remedial works were also planned and implemented to the West Chapel Mold growth was prevalent on the internal walls of the chapel and a number of fractures were evident within the plaster finishes. In 2014 a scheme of light stitching masonry repairs were implemented by contractor Redland Builders (refer to sketch scheme from that time) along with works to replaster significant areas of the interior (replacing modern plasters in breathable lime plaster and paint finishes). Prior to the 2014 repairs to the West Chapel, some intrusive investigations were undertaken (principally trial pits) which are recorded in Mann Williams report 6821/rss_01 dated 14 March 2014. No works to the East Chapel were undertaken in 2014. Note redecoration and a replacement floor structure and finish had previously been implemented (Circa 1997) in the West Chapel (specified by others).

1.3 Mann Williams have recently been engaged again by Keynsham Town Council owing to concerns in respect of structural movement to the East Chapel. The East Chapel continues to be used for storage and officing for the cemetery staff. It is clear that fractures in the south and east walls of the East Chapel are substantially worse than in 2014. Whilst this is not borne out by a recent set of monitoring readings this is principally because the greatest severity of movement is towards the heads of these elevations and / or the crack monitoring disc locations, for digital caliper measurement, not being located on the live fractures. We note that a plastic tell-tale adjacent the south window of the east elevation records 10mm of movement. This tell-tale predates our initial involvement but in all likelihood was applied around the time of the 1990's work.

1.4 The fractures to the East Chapel are severe and movement is clearly live. Several of the existing fracture lines have opened up more than 5mm since 2014. Movement is most severe in the east elevation where overall movement/distortion around the east window is in the region of 50mm. Movement in the West Chapel is limited to masonry above the openings in the east wall; a maximum of 2mm of movement was noted here at an apparent junction between existing and replacement plaster.

1.5 Anecdotally, we understand from Alan Jenner (Keynsham Town Council), that live movements to the East Chapel started to become visibly apparent over the last two summers, with the rate of movement appearing to accelerate towards the end of summer 2022.

1.6 Whilst the West Chapel appears to bridge Roman foundations, this is not necessarily the case with the East Chapel. However, clearly Roman remains are likely prevalent. Trial pit records from 2014 indicate foundation depths to the east elevation are in the range of 575mm to 700mm extending onto red clay (likely reworked natural ground as opposed to undisturbed natural soil). The presence of mature Cedar trees 6.7m south of the south-east corner and 7.2m and 6.4m north of the north-east corner have in all likelihood influenced these recent movements, exacerbated by relatively dry summers over the past three years.

1.7 Note with reference to NHBC tables, foundations in medium shrinkage potential clay would need to be 0.9m and 1.1m in depth where 6m and 7m respectively from mature Cedar trees. Clearly the foundation depths are inadequate but it is also likely the movement issues are being exacerbated by variations in ground bearing resistance owing to the level of likely made up / disturbed ground.

1.8 The two Cedar trees north of the north-east corner of the East Chapel are under stress. Anecdotally we understand (from Alan Jenner) that they have Honey Fungus and will need to be felled for safety reasons. The Cedar tree south of the south-east corner of the East Chapel is currently understood to be in good condition and able to remain although, ultimately it may also succumb to Honey Fungus. With the trees felled some recovery of moisture in the surrounding clay soils will almost certainly occur. There is potential for heave movements to the masonry of the East Chapel as the soil moisture content increases. However, the soil moisture content may take several years to reach an equilibrium. It should be noted that even in the absence of trees, the foundation depths are too shallow and as such the masonry foundations would still likely be subject to some movement given seasonal variations in the moisture content of the clay.

1.9 Movement to the East Chapel is sufficiently severe to warrant significant structural stitching works aimed at reinstating the integrity of the masonry across the fracture lines. Ordinarily this work would be considered in conjunction with underpinning. However, underpinning works would risk encountering Roman Archaeology and it has already been demonstrated the Roman foundations have likely resulted in differential founding conditions; it is therefore unlikely that underpinning (traditional or otherwise would remove the risk of structural movement entirely). We have therefore proposed at this stage to stitch the masonry walls and further monitor (refer to Mann Williams drawings 6821/SK01 and 6821/SK02).

1.10 The level of repair within the East Chapel itself may be dictated by its future use. In order to undertake the stitching works, the East Chapel will need to be decanted. The extent of internal works including plaster removal, deep pointing of fractures and additional masonry consolidation will depend on the level of access that can be facilitated. Were this area ever to be opened up to the public, further remedial works would be required including to the floor. Note the East Chapel has a timber floor which is undulating and we would recommend that the floor structure is at least investigated by raising of floor boards whilst this area is decanted. Consideration should also be given to the weather tightness of the wall head roof junction for the south wall given the extent of structural movement that has occurred; architectural inspection of this junction is required as remedial works to lead soakers etc may be needed. There is significant deterioration of plaster finish to the south wall of the East Chapel, principally as a consequence of water ingress in this area.

1.11 If on installation of the stitching works structural cracking continues, underpinning works could be considered in a subsequent stage following detailed ground investigation and analysis. However, a phased approach of stitching and continuing to monitor is considered appropriate. Whilst consideration could be given to delaying stitching works until the impact of the felling of the trees is determined, it should be borne in mind that the movement is most severe on the south-east corner of the building where the adjacent Cedar is to remain. Stitching works are needed regardless of whether the fractures are able to recover a little.

A selection of record photographs for the East Chapel from our February 2023 visit are contained below:

Site Visit Report

Project No 6821

Project Mortuary Chapel, Keynsham Cemetery, Durley Hill

Mann Williams
Consulting Civil and Structural Engineers

Report No **02**

Photo 1 - Severe structural cracking around the east elevation south window (external)

Photo 2 - Severe structural cracking around the east elevation south window (internal)

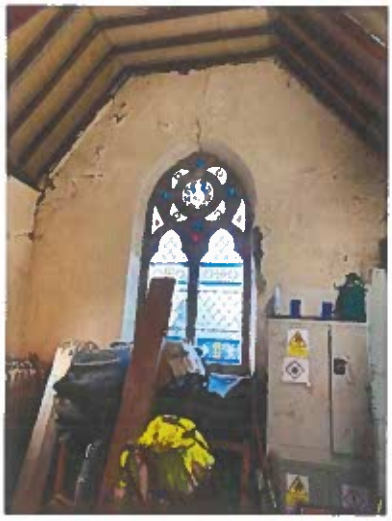


Photo 3 - Structural cracking and damp ingress to south wall of East Chapel (internal)

Photo 4 – Cracking to cill of East Chapel south window (internal)

Site Visit Report

Project No 6821

Project Mortuary Chapel, Keynsham Cemetery, Durley Hill

Mann Williams
Consulting Civil and Structural Engineers

Report No **02**

sheet Page 4 of 4

Photo 5 – Cracking below cill of East Chapel south window (external)

Photo 6 – Cracking to west wall of East Chapel (internal)

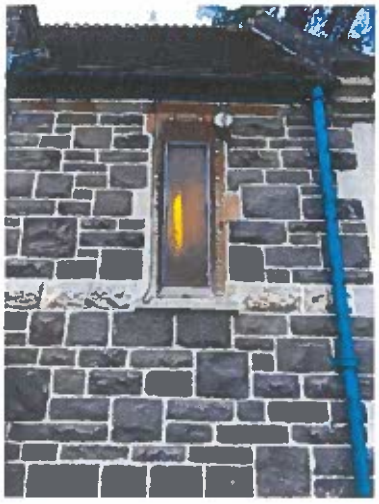
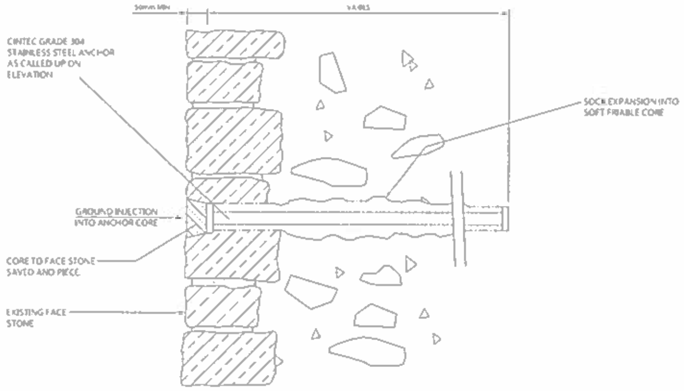


Photo 7 - Structural cracking around the east elevation north window (external)

Photo 8 - Structural cracking around the east elevation north window (internal)



CINTEC STITCHING DETAIL

ALL ANCHORS TO BE INSTALLED BY A CINTEC APPROVED INSTALLER

NOTES

NOTES CONTINUED

REV	DESCRIPTION	BY	DATE
P1	Preliminary	SS	11.05.23

Keynsham Cemetery Chapel

Durley Hill

Proposed Remedial Stitching Works to East Chapel - Anchor Details

MANN WILLIAMS
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

DRAWN	CHKD	SIZE	SCALE	DATE
SS		A3	NTS	APR23

PRELIMINARY

PROJECT	DRAWING	REV
6821	SK02	P1

Loose stonework to be raised and rebedded

Raise and re-bed masonry to window reveal Stonework on inner face of wall also to be locally rebuilt at this location

Fracture to be raked out and deep pointed in hydraulic lime mortar to the full depth of the facing stone Corresponding internal fractures similarly treated NOTE: fracture is severe with total movement at the head of the wall in the region of 50mm

Fracture to be raked out and deep pointed in hydraulic lime mortar to the full depth of the facing stone Corresponding internal fractures similarly treated NOTE: fracture is moderate having opened up 3 to 4 mm

Fire place construction to be explored to establish continuity of anchors is possible

EAST CHAPEL, EAST ELEVATION

Fracture to be raked out and deep pointed in hydraulic lime mortar to the full depth of the facing stone Corresponding internal fractures similarly treated

Fracture to be raked out and deep pointed in hydraulic lime mortar to the full depth of the facing stone Corresponding internal fractures similarly treated NOTE: fracture is moderate having opened up circa 5 mm since last repointed

EAST CHAPEL, SOUTH ELEVATION

Denotes notable fracture in masonry (refer to individual notes)
Mortar to by 1 part NHL 3.5 to 3 parts well graded aggregate, colour matched to existing

Elevations show proposed coverage of Cintec Anchors, sizes as called up on elevation

Denotes point of entry for anchor Stone plugs to be retained and set back in lime mortar following installation of anchor Anchors to be set in to allow 50mm plug depth

NOTES

2 All dimensions are to be read in conjunction with the project specification and all works carried out in accordance with the latest British Standards and codes of practice

3 Any conflicts between this drawing and any other information given elsewhere must be reported to Mann Williams for clarification before work proceeds

4 All dimensions to be checked on site and any discrepancies reported to the engineer before work commences

5 Only figured or call dimensions should be used and no drawing or any portion should be scaled

NOTES CONTINUED

ALL ANCHORS TO BE INSTALLED BY A CINTEC APPROVED INSTALLER

FINAL CINTEC ANCHOR SPECIFICATION: LENGTHS AND SETTING OUT TO BE AGREED WITH MANN WILLIAMS PRIOR TO ORDERING

NOTE: STRUCTURAL SCHEME AIMED AT MAKING MASONRY MORE RESILIENT TO STRUCTURAL MOVEMENT FURTHER MASONRY MOVEMENT IS ANTICIPATED (REFER TO MANN WILLIAMS REPORT)

Rev	Description	Drawn	Date
P1	Preliminary	SS	06.04.23

Keynsham Cemetery Chapel

Durley Hill

Proposed Remedial Stitching Works to East Chapel - South & East Elevations

MANN WILLIAMS

Drawn	Check	Size	Scale	Date
SS		A3	NTS	APR23

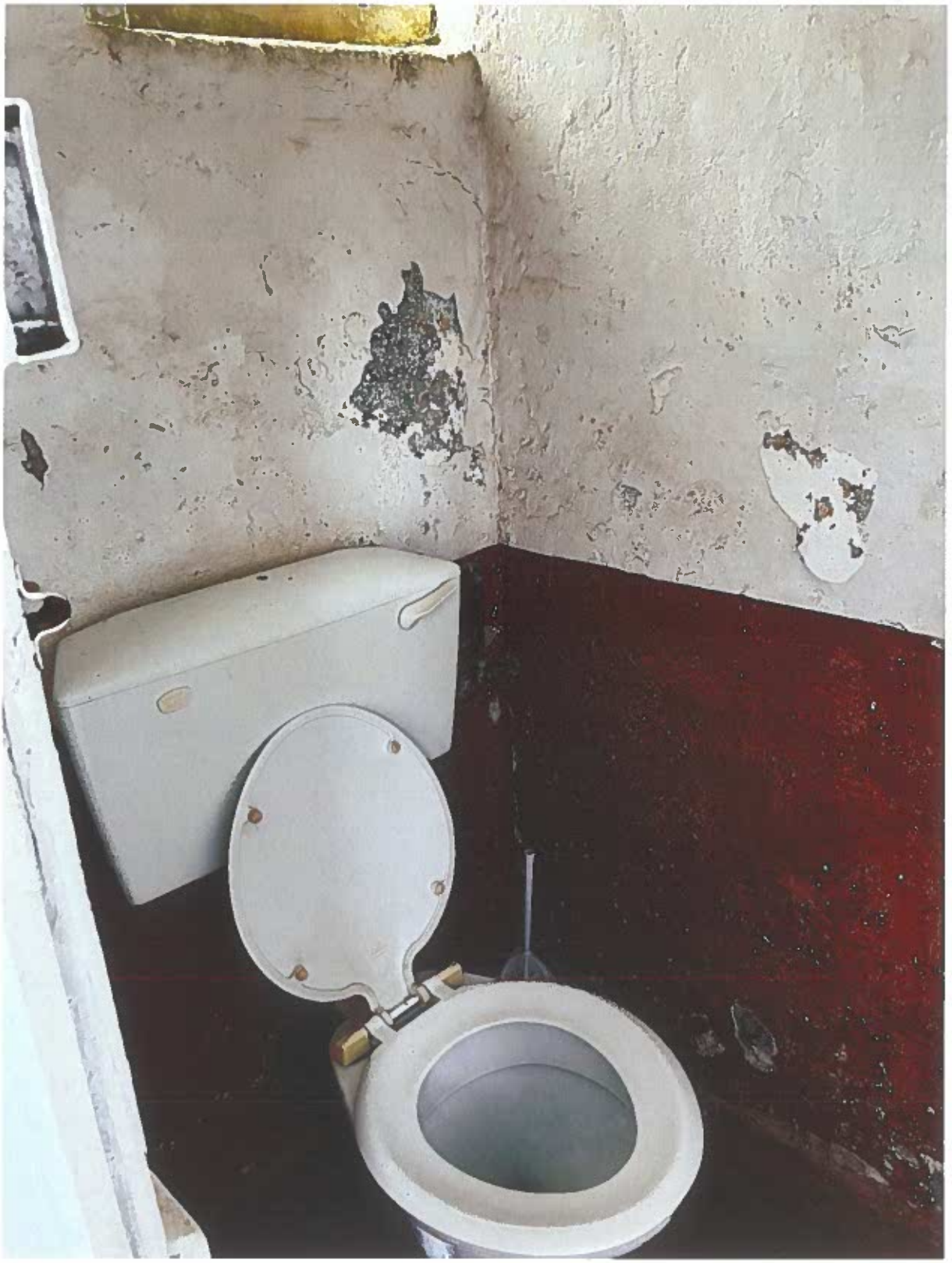
PRELIMINARY

Project	Drawing	Rev
6821	SK01	P1


STONE RW
GRAVEL/GRASS PATH
TARMAC PATH
GRASS PATH
GRASS
TARMAC
1495
1451
1461

Photographs of the boundary wall needing one major repair and two spot repairs.

Photos August 2025 of toilet used by visitors including wall that could take a corner washbasin



Photos August 2025 of toilet used by visitors including wall that could take a corner washbasin

Archaeological Salvage Recording

Keynsham Cemetery, Durley Hill, Keynsham, Bath & Northeast Somerset.

(BSMR 30141/30142).

on behalf of:
Keynsham Town Council

Lynn Hume M.A & Andrew Young

Avon Archaeological Unit

April 1998

AVON ARCHAEOLOGICAL UNIT

325 Fishponds Road, Fishponds, Bristol. BS5 6QG
Telephone & Fax: (0117) 9650219

Summary

This report details the results of a programme of archaeological salvage recording undertaken to examine and record archaeological remains exposed in two engineering test pits opened adjacent to the Victorian Chapel at Keynsham Cemetery, Durley Hill, Keynsham (NGR ST 646694).

The test pits were opened by contractors and sited to examine the foundations of the chapel building, a structure which is known to overlie well preserved remains of a nationally important Roman villa (Keynsham Villa - comprising a colonnaded courtyard complex) which was last investigated archaeologically in the 1920's.

The test pits (BSMR 30141 and 30142) exposed the foundations of the Victorian chapel which lay directly above well preserved subterranean archaeological deposits and structures relating to the former Roman villa. These remains, including a substantial masonry wall, a sequence of flagged floor layers, and mixed rubble and soil layers reflecting demolished villa structures and roof materials, are suggested to represent a previously unknown rear corridor inside the villa's north wing and deposits overlying the floor of the known front corridor. Evidence of more recent activity, associated with the construction and use of the Victorian chapel, were also revealed.

The recording excercise has confirmed that well preserved masonry structures and deposits, representing walls and floor levels inside the north wing of the Roman villa, are preserved as shallowly buried archaeological remains directly below and adjacent to the Victorian chapel building.

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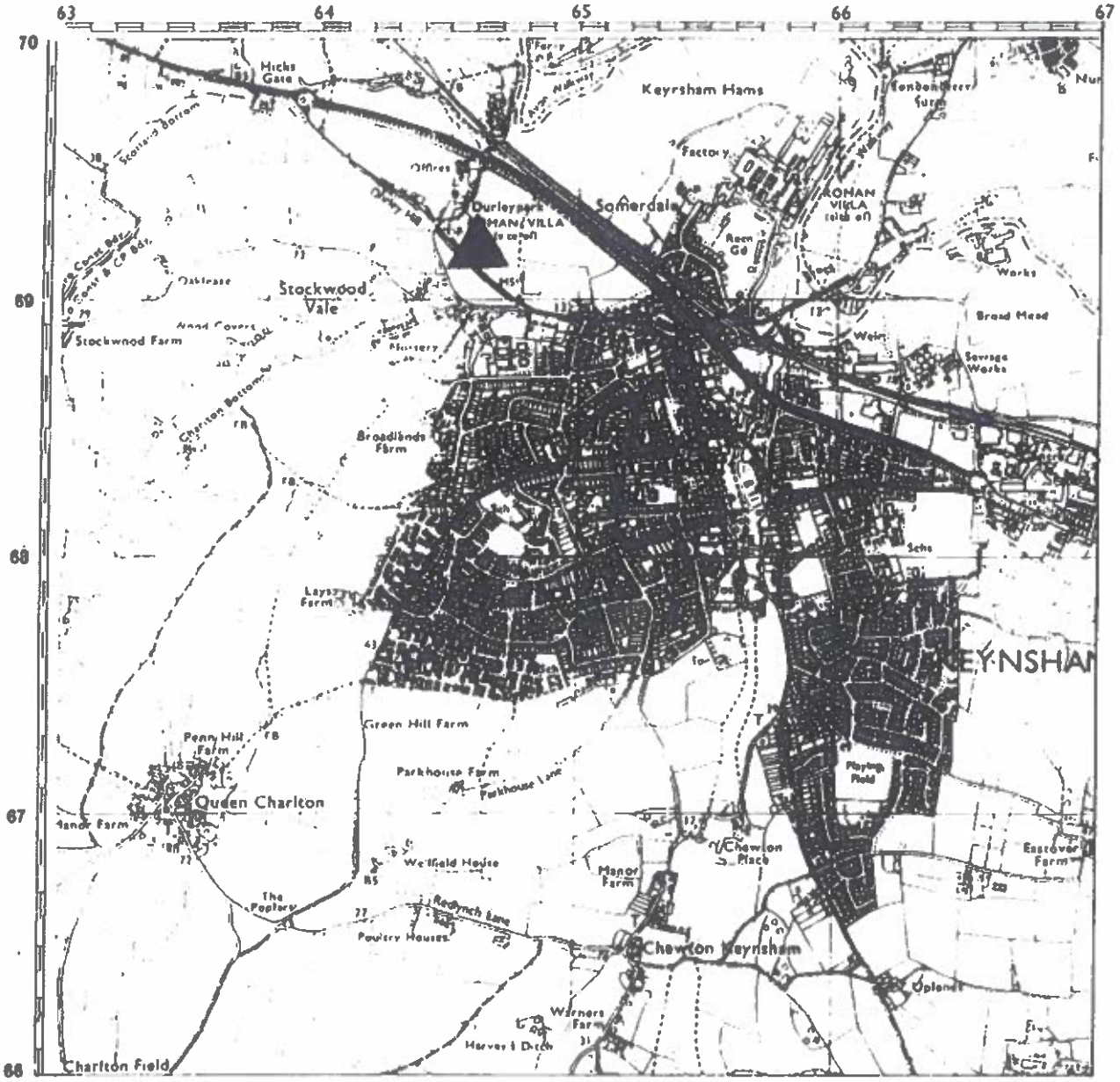
Acknowledgements

Thanks are due to Keynsham Town Council for funding this archaeological project and to Mark Inglis, Town Cerk, for his assistance in arranging the fieldwork. Thanks are also due to Pat Morris, Keynsham Council Sexton, for his help and interest during the course of the work.

Figure 1

Archaeological Salvage Project
Site Location Plan ▲



Scale 1:25000

N

Keynsham Cemetery, Keynsham, Bath SMR 30141/30142

Figure 2

Keynsham Cemetery, Durley Hill, Keynsham: Archaeological Salvage Recording

Location of Testpits

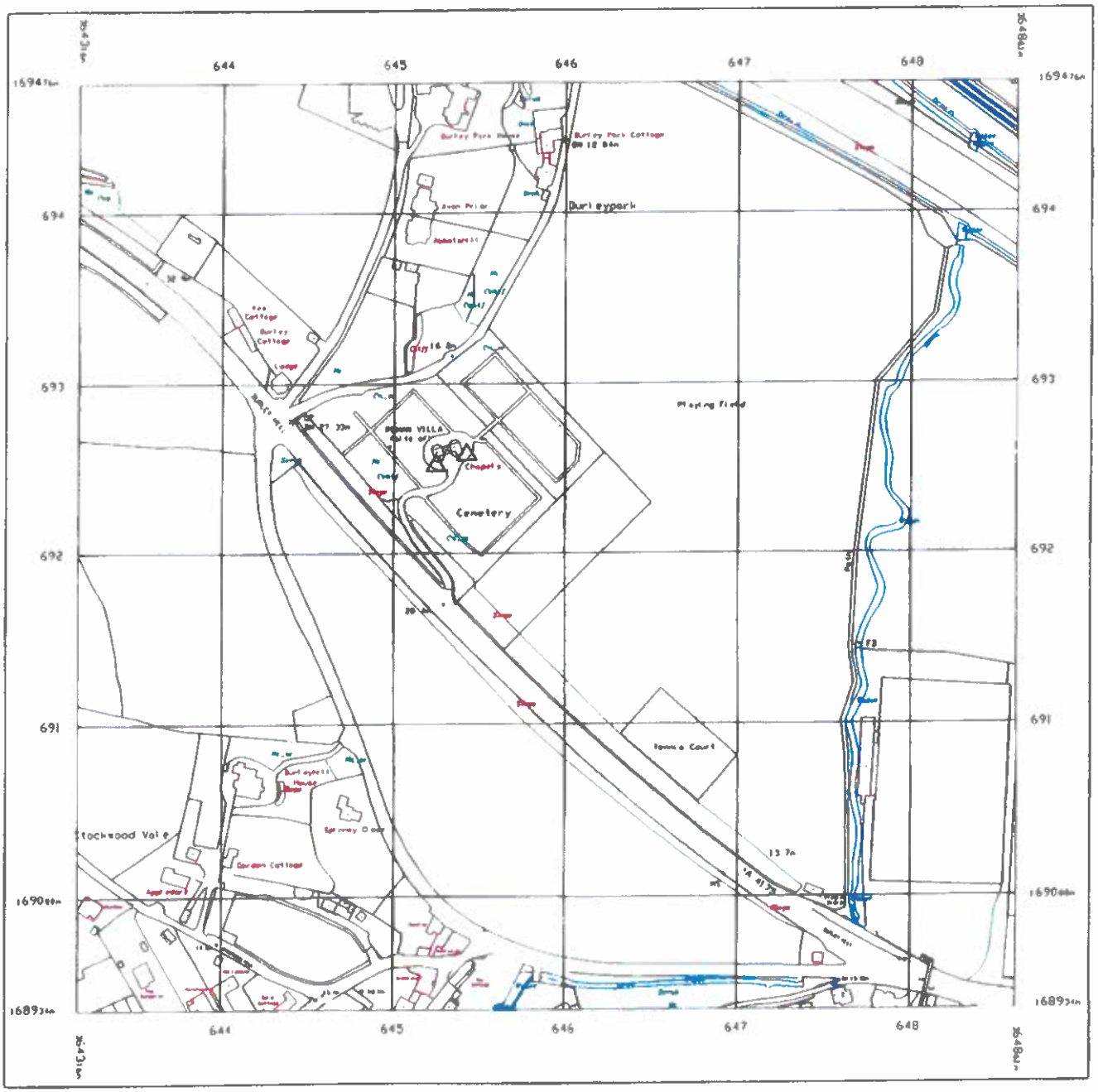
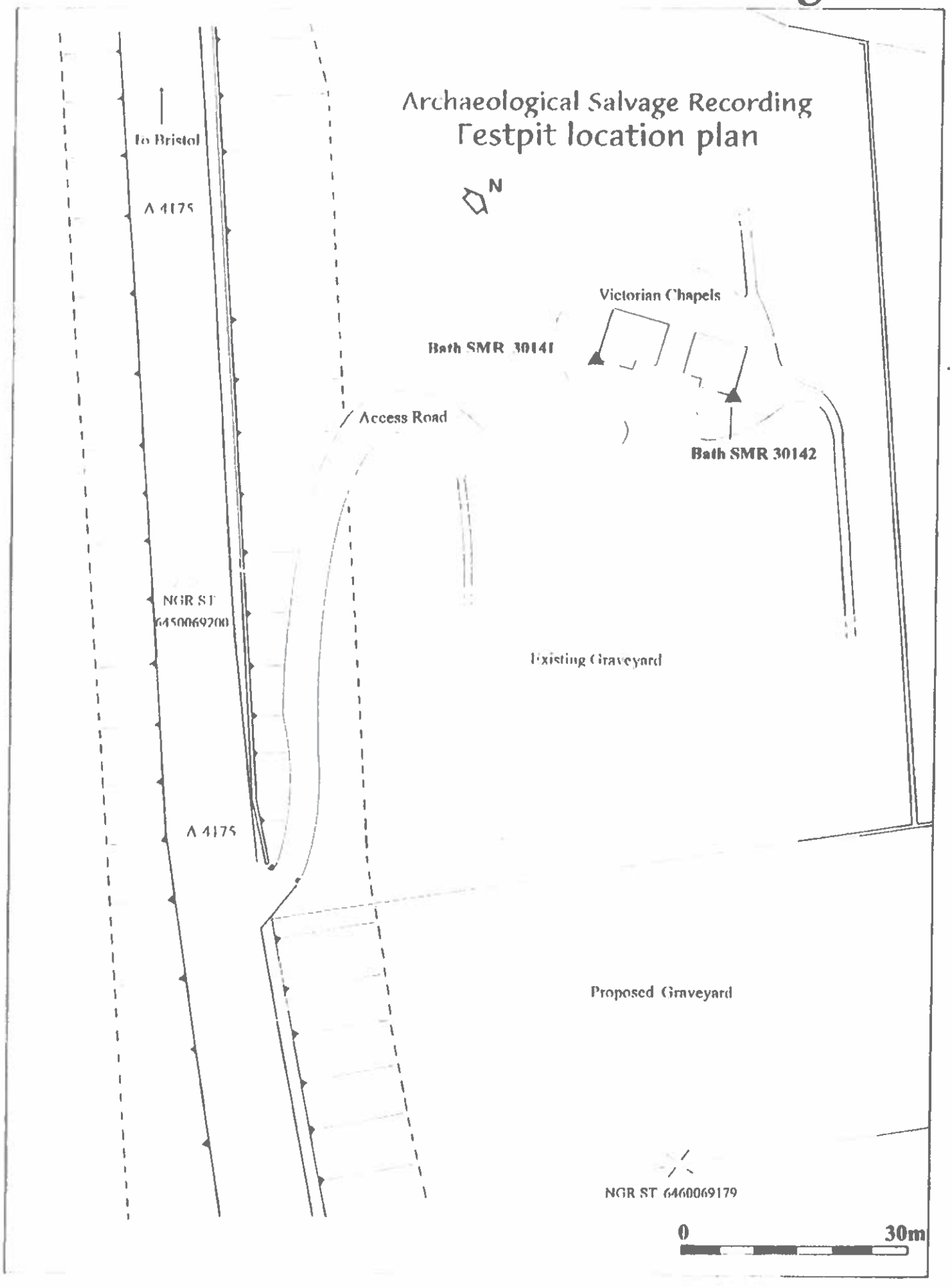
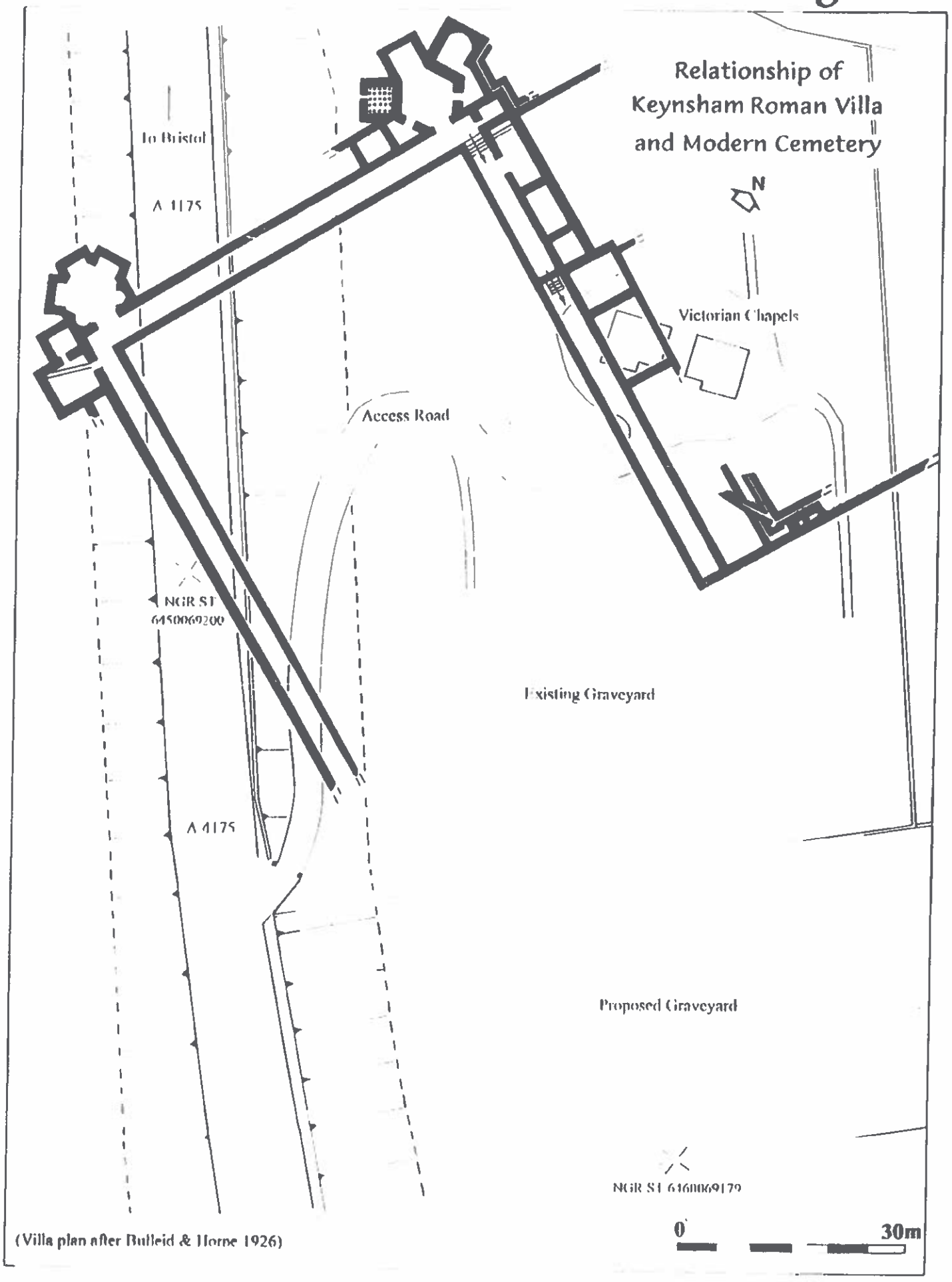


Figure 3



Keynsham Cemetery, Keynsham, Bath SMR 30141/30142

Figure 4



Keynsham Cemetery, Keynsham, Bath SMR 30141/30142

1 INTRODUCTION AND ARCHAEOLOGICAL BACKGROUND

1.1 Keynsham Cemetery (SMR 10373) is located at Durley Hill, to the west of the modern town of Keynsham and immediately northeast of the A4175 Keynsham to Durley Hill road (**figures 1-2**; NGR ST 646 694).

1.2 This archaeological recording project was commissioned by Keynsham Town Council and designed to record archaeological remains revealed in two engineering test pits excavated at the southern and northern ends of the Victorian Chapel of Rest. For archaeological recording purposes the southern pit was assigned Bath SMR 30141 and the northern pit Bath SMR 30142.

1.3 The study area is situated across the junction of Keuper Marl (Mercia Mudstone) bedrock and low lying and recent river alluvium, an area which forms part of the alluvial flood plane known as the Keynsham Hams. It also lies within the known footprint of a substantial colonnaded courtyard Roman Villa (SMR 1208), Keynsham villa, a complex of national importance (although not a Scheduled Ancient Monument). The site has been used as the principal cemetery for Keynsham since the mid-19th century and now contains a dense concentration of many hundred human internments. Gravedigging during the second half of the 19th century revealed substantial remains of the former villa including walls, floors and tessellated floors although it was not until the 1920's that any archaeological work was undertaken to more fully investigate and record those remains.

1.4 The excavations carried out between 1922 and 1924 (Bulleid & Horne 1926) represent the only archaeological investigations on the site of the villa complex dated, largely on stylistic grounds, to the mid-late 3rd century (Russell, 1985). The general ground-plan of the villa (indicated on **figure 4**) as recorded during the 1920,s work, shows a large central courtyard surrounded by three corridor wings with luxurious 'Triclinium' suites comprising hexagonal rooms, decorated with geometric and figurative mosaics, situated at the western ends of the north and south corridors. The whole complex appears carefully designed to appreciate a sweeping view to the southeast, along the Avon Valley. What is clear from the limited excavation evidence is that the villa was very large, extremely well appointed and extensively furnished; the consensus of modern interpretation is that the complex represented a grand country house as opposed to the administrative centre of a working villa estate.

1.5 More recent, if albeit limited, archaeological interventions on the site have included a 'trial excavation' of a cemetery extension to the northeast at NGR ST6454 6930 (SMR 10374) and the archaeological recording of a grave excavation at ST6450 6925 (SMR 10537). Archaeological remains were observed in both instances although limited evidence was recovered. Trial excavations undertaken immediately to the east of the cemetery in 1998 (Cox, 1998) revealed further buried remains associated with the villa, these included a boundary wall, negative soil features reflecting former timber structures, and two substantial masonry foundations suggested to represent the western end of the villa's south wing and, the possible position of a further hexagonal room suite.

2 METHODOLOGY

2.1 The two engineering test pits were dug by hand (by contractors) in order to examine the state of the existing chapel wall foundations. Not surprisingly, no consideration was paid to archaeological stratigraphy during their excavation. The

two pits were located at the northeast and northwestern corners of the chapel building (**figure 3**; Testpits 1 and 2).

2.2 Archaeological recording comprised three stages:

i Hand cleaning of all trench sections and all archaeological/natural features and deposits revealed in plan. Recovery of finds where appropriate.

ii Recording in archaeological plan and section drawings at appropriate scales, all coordinated to Ordnance Survey datum.

iii Compilation of a descriptive context record for all deposits and structures revealed in each of the test pits.

iv A full photographic record of each archaeological section and all other features revealed in each test pit.

v Compilation of a project archive and the preparation of this report.

It should be noted that the recording work was not designed to undertake any further archaeological excavation other than that necessary to clarify features or deposits already exposed in the test pits.

3 DETAILED SITE OBSERVATIONS

The following section describes the evidence revealed in each of the test pits.

3.1 PIT 1 - Bath SMR 30142

1.10m x 1.10m x 1.20m (max.)
16 Archaeological contexts
figure 5 (5.1 - 5.5); SMR 30142 Plates a and b below

Testpit 1 was excavated flush with the external walls of the Victorian chapel through c. 0.12m of modern concrete and scalpings (contexts 100 and 101 respectively). The following series of subterranean features and deposits were revealed:

3.1.1 Plan View

figure 5.1

Wall 106 - The earliest archaeological evidence revealed comprising a stretch of well preserved coursed and faced sandstone masonry orientated west-east. The wall was 0.70m wide and primarily formed of subangular limestone blocks (< 0.20m wide) with occasional limestone rubble, bonded with a fine sandy mortar. The masonry had been destroyed and removed to a greater depth at the western end although even here the base of the wall was not revealed. Where best preserved the masonry was 0.75m high, the highest course preserved at a depth of 0.60m (c. 14.6m OD) below the present ground surface. The northern face of the wall was visible in plan but not exposed in section.

Cut 111 - A linear cut located along the south side of Wall 106 and only observed in plan. The cut representing a construction trench for the wall, cutting the surrounding natural stiff red clay (107).

Layer 112 - A deposit consisting of larger limestone rubble only partly exposed and lying directly above the natural substrata (107). Also observed in the northwest facing section.

Layer 113 - layer of gritty reddish-brown clay (similar to the natural substrata) butting the southern face of Wall 106 containing isolated pockets of cleaner grey clay. The layer (113) was archaeologically sterile but did not appear to have been cut by the wall foundation trench (111 above).

3.1.2 Northeast Facing Section
figure 5.2

Wall 106 - the coursed limestone masonry was partly revealed in section, lying directly beneath the masonry foundations (Wall 104) of the Victorian chapel. The south face of the wall was butted by natural clay deposit 107 and no wall foundation cut (Cut 111, above) was visible. The uppermost section of Wall 106 was indicated by an increased proportion of sandy mortar and a few disturbed masonry blocks reflecting an area where the masonry appeared to have been disturbed or robbed.

Layer 108 - A layer of pale grey silty clay overlying the natural clay and butting the southern face of Wall 106. The deposit was archaeologically sterile.

Deposit 112 - this irregular rubble deposit either butted or truncated Layer 108.

Layer 113 - (as above) also here the deposit butted the disturbed upper masonry of Wall 106 and overlay rubble deposit 112.

Cut 115 - a cut horizon representing the foundation trench for the Victorian chapel wall. Cut 115 truncated Layer 113 and Wall 106, and possibly rubble deposit 112.

Wall 104 - coursed and faced pennant sandstone masonry forming the north wall of the Victorian chapel.

3.1.3 Southwest Facing Section
figure 5.3

Wall 106 - here the masonry was overlain to the southeast by **Deposit 103**, a fairly loosely compacted layer of dark yellowish-brown gritty clay which contained inclusions of small rounded pebbles, occasional sandstone fragments and patches of crushed limestone.

Layer 102 - a layer of dark brown and loosely compacted gritty clay layer contained numerous sandstone rubble fragments and occasional shards of modern glass.

Cut 109 - U shaped cut and fill (110) of a modern service pipe trench.

Layer 101 - layer of modern scalpings.

Layer 100 - layer of modern concrete.

a

b

Testpit 1, Keynsham Cemetery, Keynsham, Bath SMR 30142

3.1.4 Northwest Facing Section
figure 5.4

Wall 106 - the southern face of the wall masonry was set into the natural substrata (107) although, again, no foundation cut was visible in section.

Deposit 112 - the rubble deposit lay directly above the natural substratum (107) although here it was possible that the material reflected the edge of a rubble structure as opposed to chaotic fill material.

Note - no equivalent to Layer 108 (NE facing section above) was revealed in this section.

Layer 113 - (as above) here the layer butted the faced masonry of Wall 106 and either butted or was cut by the possible rubble feature 112. The upper surface of the deposit was located at the same level as the uppermost course of surviving wall masonry.

Layer 114 - possibly filling a broad shallow cut defined by the junction of this and the underlying layers. A layer of dark and compacted greyish-brown gritty clay. The layer contained numerous variously sized sandstone and sporadic limestone rubble, some of which appeared to be heat-affected. Occasional charcoal flecks and pockets of fine sandy mortar were also present in the layer. The precise relationship between layers 103 and 114 was obscured by the cut of a modern drain pipe although they appeared to represent the same deposit.

Layer 102 - as SW facing section above.

Layers 101 and 100 - as above.

3.1.5 Southeast Facing Section
figure 5.5

Wall 106 - here the depth of masonry destroyed during the excavation of the pit was indicated by core masonry (stipple and rubble) preserved in the pit section. The hole revealed the core of the masonry but did not break through the north face of the wall.

Layer 103 - as SW facing section above.

Layer 102 - as SW facing section above.

Layers 101 and 100 - as above.

3.2 PIT 2 - Bath SMR 30141
1.55m x 1.5m x c. 1m
16 archaeological contexts
figure 6 (6.1 - 6.7); SMR 30141 Plates a and b below

This pit was opened to examine foundations forming the southeastern corner of the Victorian chapel. Here the underlying archaeological deposits were more varied and complex than those revealed in Pit 1 above.

3.2.1 Plan View
figure 6.1

The plan view as cleaned (**SMR 30142; Plates a and b**) shows the majority of archaeological contexts revealed in this pit although they are difficult to appreciate from this aspect and are therefore described in detail below in the four recorded sections. What the plan view does highlight well is the area where archaeological remains were totally destroyed, as indicated by the central exposure of clean natural clay (203).

3.2.2 Southeast Facing Section
figure 6.2

Layer 203 - the natural stiff reddish-brown clay substratum.

Floor Layer 205 - a thin seam of flat sandstone slabs lying directly above the natural clay.

?Wall 207 - a single block of possible wall masonry overlying a pennant floor slab (205) bonded with a sandy material.

Layer 208 - a well consolidated wedge shaped deposit of coarse sandstone rubble within a matrix containing pockets of sandy clay mortar.

Cut 210 - broad U shaped cut for a modern ceramic service pipe and backfilled material (211).

Layer 201 - layer of modern scalpings

Layer 200 - layer of modern concrete

3.2.3 Northeast Facing Section
figure 6.3

note - this exposure sloped at c. 60 degrees

Layer 203 - natural substrata

Floor Layer 205 - a seam of flat sandstone slabs varying from 1-3 in number. The slabs were missing in the central portion. Interpreted to represent up to three episodes of flooring.

Layer 208 - c.700mm thick disorganised wedge of larger sandstone (and some limestone) rubble tipping from the north and northeast. Set within a greyish-brown silty clay matrix containing denser patches of orange sandy ?mortar and occasional charcoal.

Layer 214 - disorganised layer of tightly packed larger sandstone and limestone rubble in a dark brown silty clay matrix. A number of pennant tile fragments were present at the base of the deposit, immediately above Floor Layer 205.

Feature 209 - localised deposit of gritty soil, charcoal and small sandstone fragments, probably the fill of a shallow modern cut.

Layer 201 - as above.

Layer 200 - as above.

3.2.4 Northwest Facing Section
figure 6.4

Layer 203 - natural substrata

Floor Layer 205 - further exposure of seams of thin flat sandstone slabs representing a single floor or as many as five separate floor layers. The layer was possibly truncated to the southwest by rubble layer 214. Where best preserved the individual floor slabs were separated by a thin layer of charcoal rich orange sandy clay interpreted as successive bedding material.

Layer 214 - as above. Here the direction of tip appeared to be from the southwest.

Layer 204 - a layer of moderately compacted dark yellowish-brown gritty clay. The deposit contained large sandstone and occasional limestone rubble and frequent nodules of chert. Again the deposit appeared to have tipped from the southwest.

Layer 202 - a layer of dark greyish-brown silty clay containing inclusions of grit, charcoal and crushed sandstone. Very similar to deposit 209 (above).

Layer 201 - as above.

Layer 200 - as above.

3.2.5 Southwest Facing Section
figure 6.5

Layer 203 - natural substrata

Floor Layer(s) 205 - as above. The series of possible floor layers were best preserved in this section where each seam was separated by a bedding or mortar layer of charcoal rich orange sandy clay. The layers were truncated by deposit 206.

Layer 204 - as above.

Layer 202 - as above.

Cut 212 - cut for modern drainpipe. Filled by mixed small rubble, stones and ceramic pipe (213).

Layer 202 - as above.

Deposit 206 - solid dark concrete block with some clinker and occasional rubble representing the foundation for the Victorian masonry.

Wall 215 - Masonry foundations of Victorian chapel.

Layer 201 - as above.

Layer 200 - as above.

Plates

a

b

Testpit 2, Keynsham Cemetery, Keynsham, Bath SMR 30141

3.2.6 **Southeast & Southwest Facing Sections**
figures 6.6 and 6.7

These two sections are described collectively.

Layer 203 - natural substrata.

Floor Layer(s) 205 - as above. Up to four possible separate thin layers of sandstone slabs preserved beneath Layer 204.

Layer 204 - (as above) although here the deposit was confined to either one or two larger stones and a yellowish-brown gritty clay matrix.

Deposit 206 - as above.

Wall 215 - as above.

4 FINDS AND DATING

The few finds which were recovered from the test pits were mostly removed from the excavated spoil and therefore unstratified. In the case of the northernmost pit (SMR 30142) the lack of finds is not surprising, as the majority of the excavated material represented previously bonded wall masonry. The few finds from the southern pit (SMR 30141) of note included pottery sherds of late 3rd - early 4th century Wiltshire Colour Coated Ware and a fragment of a mid-3rd century Oxford Ware Dragendorf 38 rim copy (Dr Mark Corney, pers.comm). Other finds included two complete lozenge shaped rooftiles complete with nail holes, various fragments of similar tiles, plus four small lias tessarae.

Despite this paucity of finds, the dating of the principal structures revealed in each of the pits is undoubtedly Romano-British as indicated by the absence of other dating evidence and their congruence with the known villa layout.

5 DISCUSSION AND CONCLUSIONS

5.1 Testpit 1 (SMR 30142)

This pit opened at the northeast corner of the chapel revealed a previously unknown section of Roman wall whose orientation fits into the overall rectilinear pattern recorded in the 1920's (see figures 4 and 7). The wall foundations were set in a narrow foundation trench (.0.3m deep) cut into the natural clay, the masonry itself well preserved below a level of c. 14.6m OD. but seemingly disturbed above this.

The masonry is substantial, bonded with sandy-clay, and of consistent size to the majority of the party wall and principal masonry (between 2'- 2'6" wide) recorded by Bulleid & Horne. However, this stretch is located to the north of the areas of the north wing investigated in the 1920's excavations and, when compared with that groundplan, indicates the presence of further rooms or structures to the north and possibly a rear corridor, set out on the north side of Bulleid & Horne's 'Room A' (see figure 7). The presence of such a corridor would complete the symmetry of an east facing north wing comprising front and rear corridors, the former continuous,

the latter possibly partitioned, and a central 'cottage' range of larger rooms (including Bulleid & Horne's Room A - containing a tessellated floor in a fretwork pattern).

Deposits revealed in the sections of Testpit 1 mostly comprised disorganised rubble, probably demolition material but also features relating to modern services and surfacing. Layer 108 is of some interest as it provides an indication of a possible contemporary ground level on the south side of the wall (i.e. inside the suggested corridor) and coincides with the level to which the masonry forming the wall appeared to have been disturbed or robbed. Elsewhere on the site recent work (Cox, *ibid*) has noted that Roman masonry is commonly robbed to the top of the foundations, but often no lower.

5.2 Testpit 2 (SMR 30141)

This pit had cut through a more complex sequence of archaeological deposits, although the majority of these appeared to reflect demolition rubble from adjacent villa structures. Of greatest interest are the sequence of well laid pennant floor slabs (Layer 205) partially preserved at the base of the sequence which were set directly above the natural clay and preserved immediately beneath the concrete foundations of the Victorian chapel. Up to five seams of thin floor slabs were indicated, those in the northern corner of the cutting separated by thin deposits of sandy clay bedding material. This evidence suggests that the floor in this area was relaid on several occasions, possibly because the thin slabs would have cracked and fragmented relatively easily.

The presence of fragments of pennant rooftile in situ, above the floor slabs at the base of Layer 214 (further complete examples were recovered from the excavated spoil), is also of interest and fits with a sequence of destruction where roofing materials collapse at an early stage, followed thereafter by masonry walls and upstanding structures.

The position of the testpit in relation to the 1920's groundplan (figure 4) indicates that the pennant layers formed the floor of the north corridor (shown as R3 on figure 7). Similar 'badly cracked pennant squares' were noted to form the floor at the western end of the same corridor (Bulleid and Horne, *ibid*; p.113).

Finally, the single stone block (?Wall 207), suggested to represent a fragment of in situ masonry, fits well with the position of the wall indicated to separate the north wing corridor and an internal room (figure 7; Rooms R3 and A).

6 GENERAL CONCLUSIONS AND ADVICE

The programme of salvage recording has provided some limited but important new information which adds to our understanding of the Keynsham Roman villa complex, in particular the possible original arrangement of its north wing, which may have comprised front and rear corridors either side of a central range of larger rooms.

Equally importantly, the work has shown that very substantial structural remains and deposits representing elements of the villa's north wing are preserved in situ at the level of, or below (from south to north - between c. 15.8m and 14.7m OD) the foundations of the Victorian chapel.

It is advised that all future intrusive engineering works which may be required for Health & Safety reasons, either adjacent to or within the footprint of the Victorian chapel, should be designed to ensure that archaeological remains underlying the Victorian chapel are retained in situ if this is feasible. If the need for intrusive structural works overrides the need for archaeological preservation in situ, then all intrusive ground works which can reasonably be expected to destroy buried archaeological remains should be conducted archaeologically (i.e. all shoring/underpinning pits, trenches etc. dug by archaeologists), as part of a research orientated excavation project.

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General References

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Figure 5

fig. 5.2
Northeast facing section

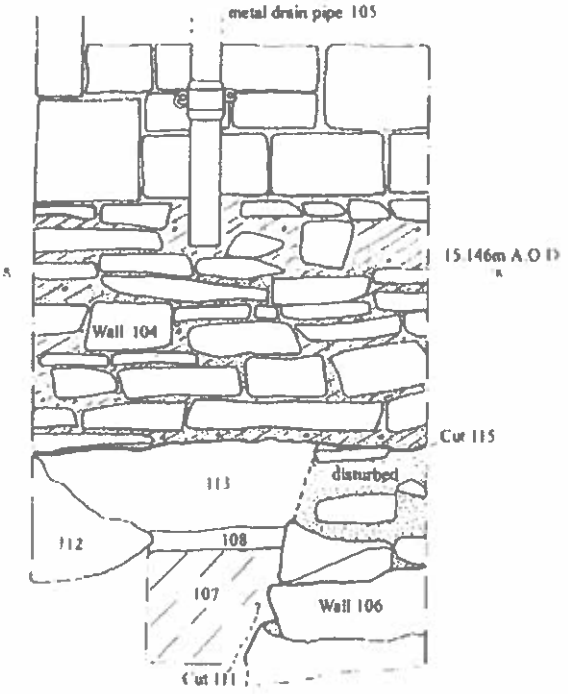


fig. 5.4
Northwest facing section

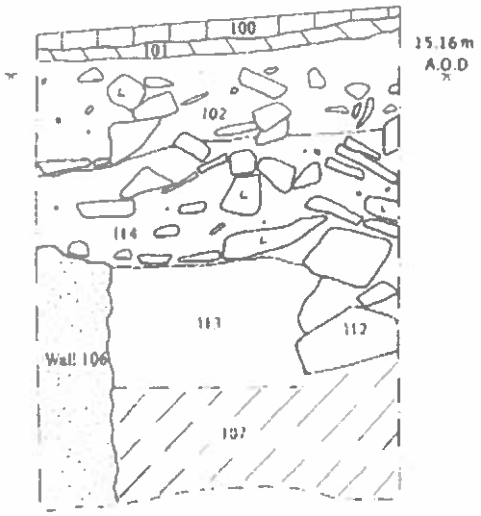


fig. 5.1
Plan of Test Pit 1

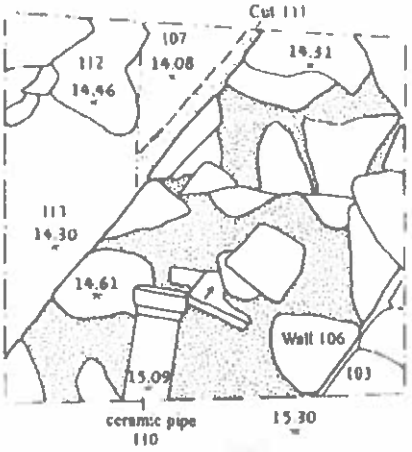
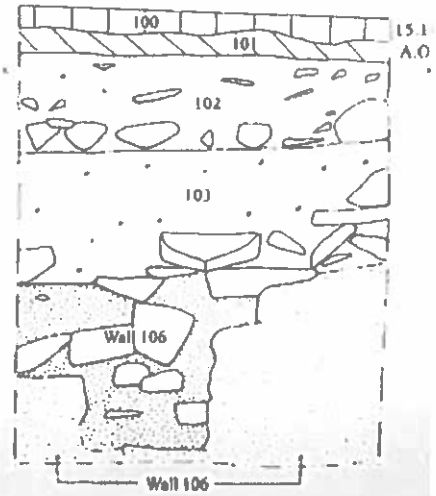
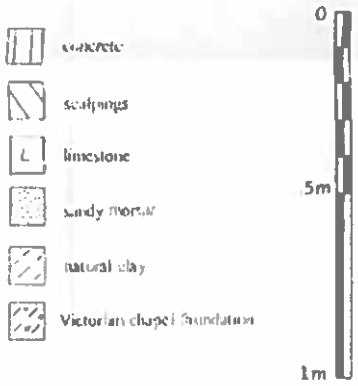


fig. 5.5
Southeast facing section





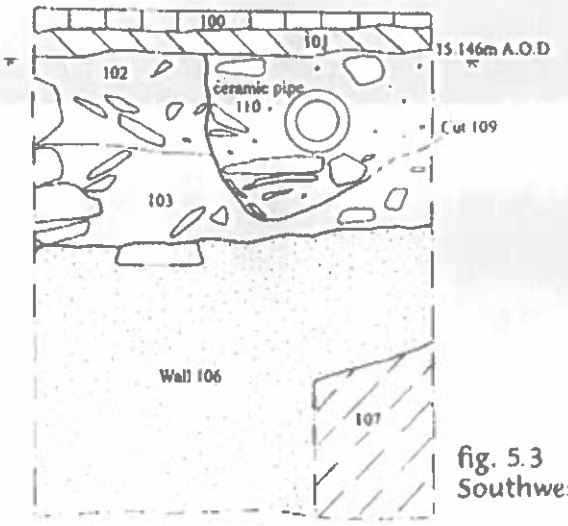


fig. 5.3
Southwest facing section

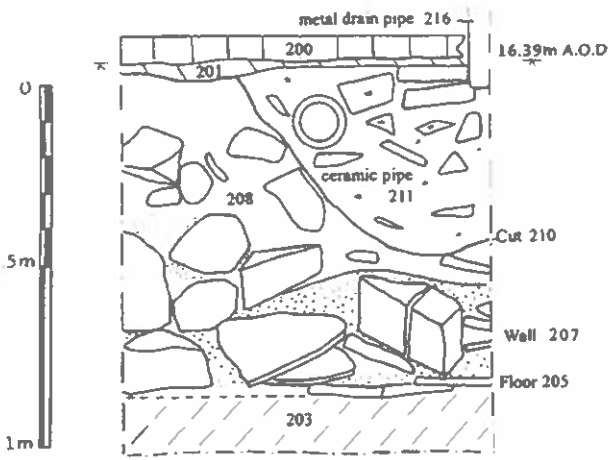


fig. 6.2
Southeast facing section

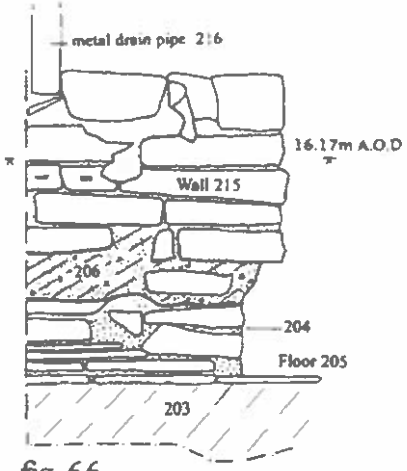


fig. 6.6
Southwest facing section

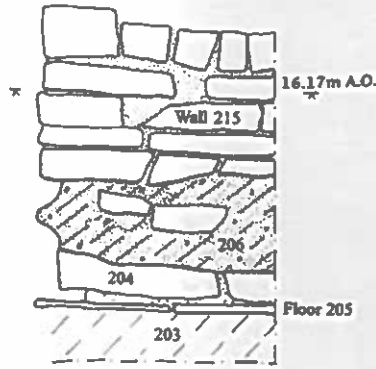


fig. 6.7
Southeast facing section

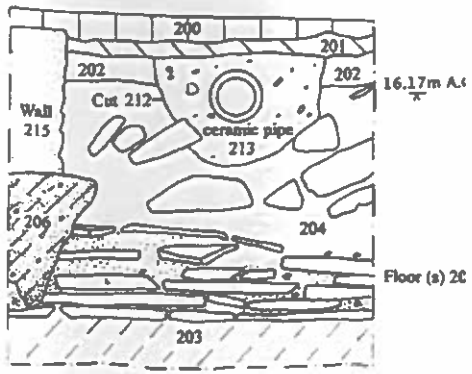


fig. 6.5
Southwest facing section

fig. 6.4
Northwest facing section

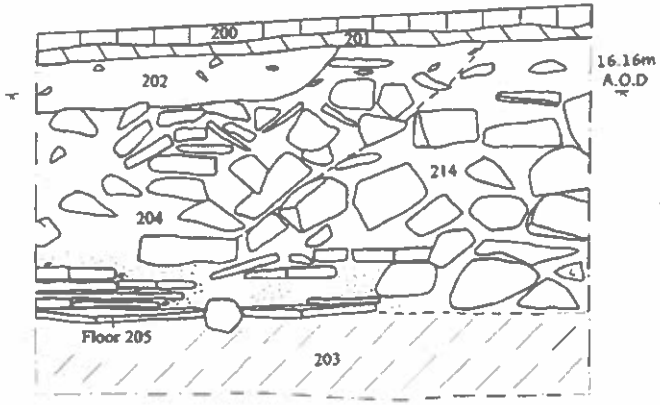


fig. 6.1
Plan of Test Pit 2

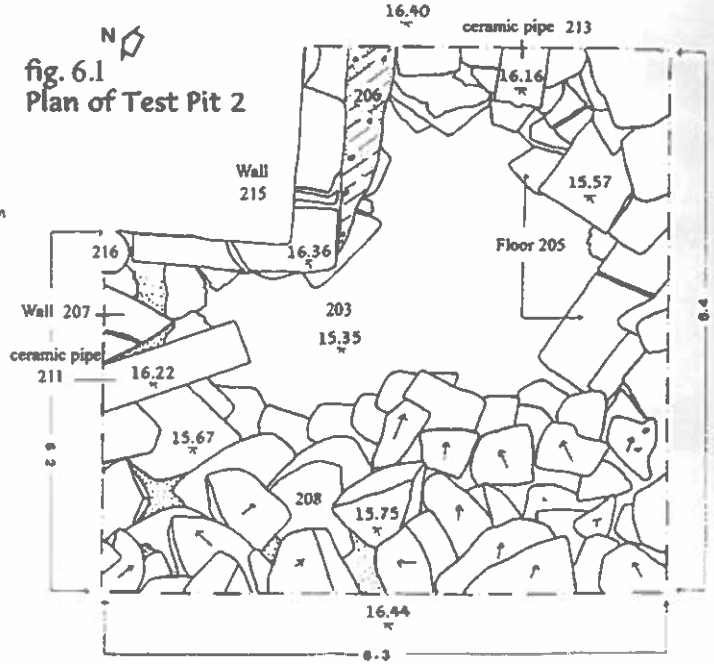
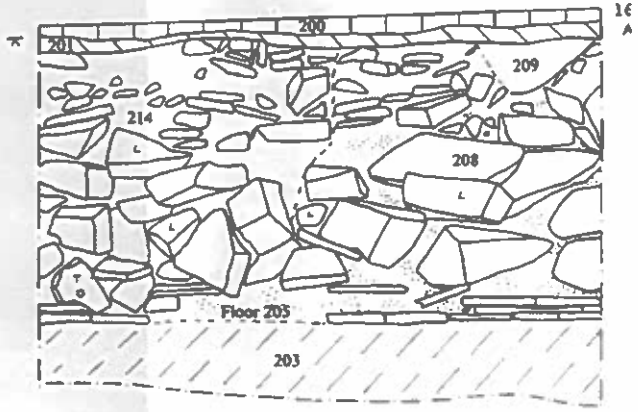


fig. 6.3
Northeast facing section



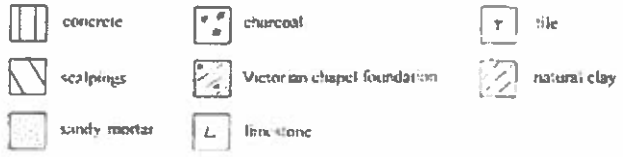
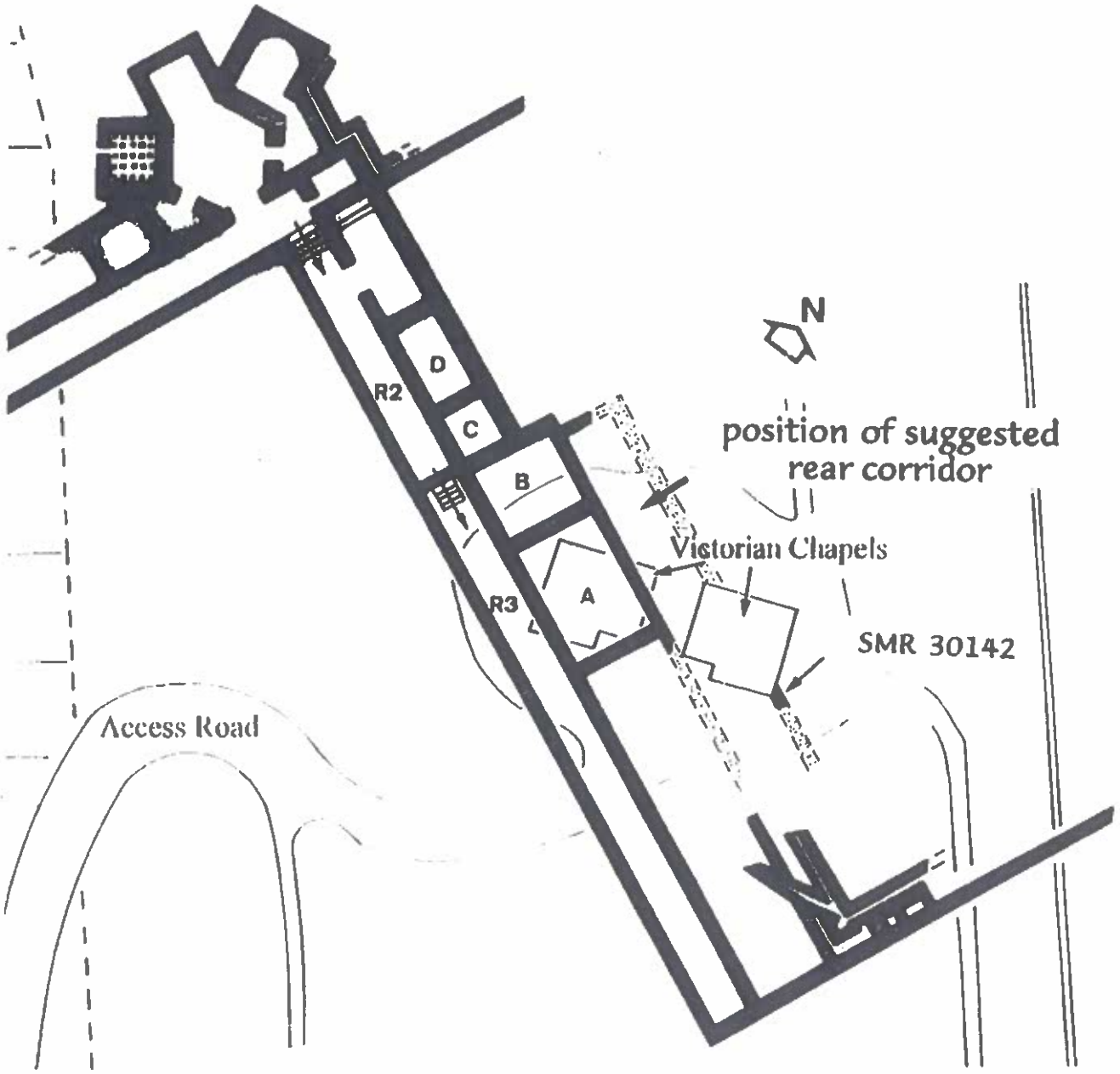


figure 7

Keynsham Roman Villa : Interpretation of Wall 106 - ?a possible rear corridor in the North Wing



SMR 30142
not to scale

CONTEXT LIST & BRIEF DESCRIPTION

TESTPIT 1 (SMR 30142)

CONTEXT	DESCRIPTION
100	modern concrete
101	thin layer of pink scalpings
102	recent rubble layer
103	loosely compacted layer
104	northeastern facing wall of chapel
105	metal drain pipe
106	Roman Wall
107	natural substrata
108	band of pale grey clay
109	cut of modern drain
110	ceramic pipe
111	cut of foundation trench
112	rubble layer
113	layer of possible redeposited material
114	greyish-brown compacted clay
115	foundation cut for Wall 104

TESTPIT 2 (30141)

CONTEXT	DESCRIPTION
200	modern concrete
201	layer of pinkish scalpings
202	dark greyish-brown clay
203	natural clay substrata
204	layer of compacted yellowish-brown clay
205	Floor/s
206	foundation for Southeast facing wall of chapel (215)
207	possible Roman Wall
208	masonry tumble
209	small deposit of dark greyish clay identical to 202
210	cut for modern drain
211	ceramic drain pipe
212	cut for modern drain pipe
213	ceramic pipe
214	layer of tightly packed sandstone rubble (identical to 102, Testpit 1)
215	southwestern wall of chapel

Site Visit Report

DRAFT

Mann Williams
Consulting Civil and Structural Engineers
7 Old King Street Queen Square Bath BA1 2JW
T: 01225 464419 www.mannwilliams.co.uk

Project No	6821		
Project	Keynsham Cemetery, Durley Hill	Report No	**01**
Engineer	Stephen Swinbank	Sheet	Page 1 of 3
Reason for visit	Inspection of Trial Pits	Date	14/03/14
Persons Met	Simon Cartlidge		
Weather	Dry		
Progress	All Pits Excavated		

1.0 Background

1.1 The Mortuary Chapel at Keynsham Cemetery is Grade II listed. Its construction is understood to date from 1877. The Chapel has been subject to a number of structural movements and it would appear these have been ongoing. Fractures to the Chapel have opened up since relatively extensive refurbishment of the chapel was specified between 1994 and 1997. The extent of cracking prior to this repair is not currently clear nor is the detail of any stitching work across the fracture.

1.2 The cemetery site was also developed over the remains of a Roman Villa and there would appear to be a relationship between some of the fracture patterns evident and the footprint of the Roman Villa remains.

1.3 In order to more clearly understand the likely causes of the cracking a total of four trial pits were excavated in accordance with the attached plan. The findings from these trial pitting works are discussed below.

2.0 Summary of Trial Pitting Works

2.1 Trial Pit 1 revealed made ground to the full depth of the pit. It would appear from this trial pit that at this point the Chapel takes support over an earlier foundation. This corner could potentially bear over the remaining foundations of the Roman Villa.

Photo – Trial Pit 1

2.2 Trial Pit 2 as Trial Pit 1 revealed made ground for the full depth of the pit. As far as we could tell from the trial pit this corner of the chapel is founded on made ground. Roots from vegetation were apparent at shallow depth.

Photo – Trial Pit 2

2.3 Within Trial Pit 3, made ground was encountered to the full depth of the pit although at the bottom we did encounter what appeared to be natural (virgin) soil (firm red clay). Roots were apparent within trial pit although most visible at shallow depth. However, the trial pit did not fully prove that the founding material is undisturbed virgin soil, there is a possibility that this could be re-deposited soil.

Photo – Trial Pit 3

2.4 Trial Pit 4, appeared to show the corner of the Chapel at this position founded over natural (virgin) soil. The natural ground is firm red clay. Roots and a drainage run were evident within the trial pit. Again this trial pit did not fully prove that the founding material is undisturbed virgin soil although a correlation to trial pit 3 suggests it is.

Photo – Trial Pit 4

3.0 Notes from Geological Map

3.1 With reference to the 1:50,000 Geological map for Bristol, the Chapel is underlain by Keuper Marl (under recent Geological re-classification this is now referred to as the Mercia Mudstone Group). The site is also close to the Durley Hill Fault which is recorded relatively close to the Northern edge of the Chapel (running along a South-West to North-East axis). Beyond the fault (to the North-West corner of the site) the geological map indicates Pennant measures (Sandstone). The geological map also indicates the lower parts of the cemetery to the South-East are likely to be underlain by Alluvium. It would appear that Keuper Marl (in this case, red clay) was evident to the very bottom of trial pit 3 and throughout much of trial pit 4.

4.0 Archaeology

4.1 There is clear documentary evidence that part of the cemetery site is underlain by a substantial Roman Villa. Whilst the cemetery is understood to date from 1877 it would appear the significance/presence of the underlying Roman Villa was not appreciated or understood until the 1920's when the site was subject to an extensive archaeological exploration and recording. This work confirmed that the 1877 Chapel cuts across the footprint of the Roman Villa. This appears to have been confirmed by trial pits 1 & 2 which indicated foundations over disturbed ground and possibly earlier foundations. During the 1920's key pieces of archaeology were raised, we understand to allow continued operation of the cemetery.

5.0 Influences on Structural Movement

5.1 It appears that the structural movements to the Chapel are predominantly a consequence of differential founding conditions owing to the building cutting across earlier foundations and previously disturbed ground. We believe these differential founding conditions to be the principal causes of the differential movement to the Chapel. However, we also cannot discount the possibility that the presence of tree roots and mature Cedar trees near to the perimeter of the chapel are also having an influence. Whilst no shrinkage potential tests have been undertaken in respect of the clays encountered in Trial Pits 3 and 4 we would anticipate were these to be done the clay would be classified as medium shrinkage potential and as such we would anticipate the founding soils to be influenced by the Cedar trees.

6.0 Ongoing Monitoring Work

6.1 Monitoring readings of the fractures are ongoing. We advise that whilst further movements recorded to date are limited, it is clear that there is a level of ongoing movement. As planned we would advise that a further two sets of readings be undertaken in order to better understand whether the movements to the Chapel are cyclical. It may be that the movements are not progressive and that the fractures open and close throughout the year (to an extent) influenced by the shrinkage potentials of the underlying clays and the presence of trees.

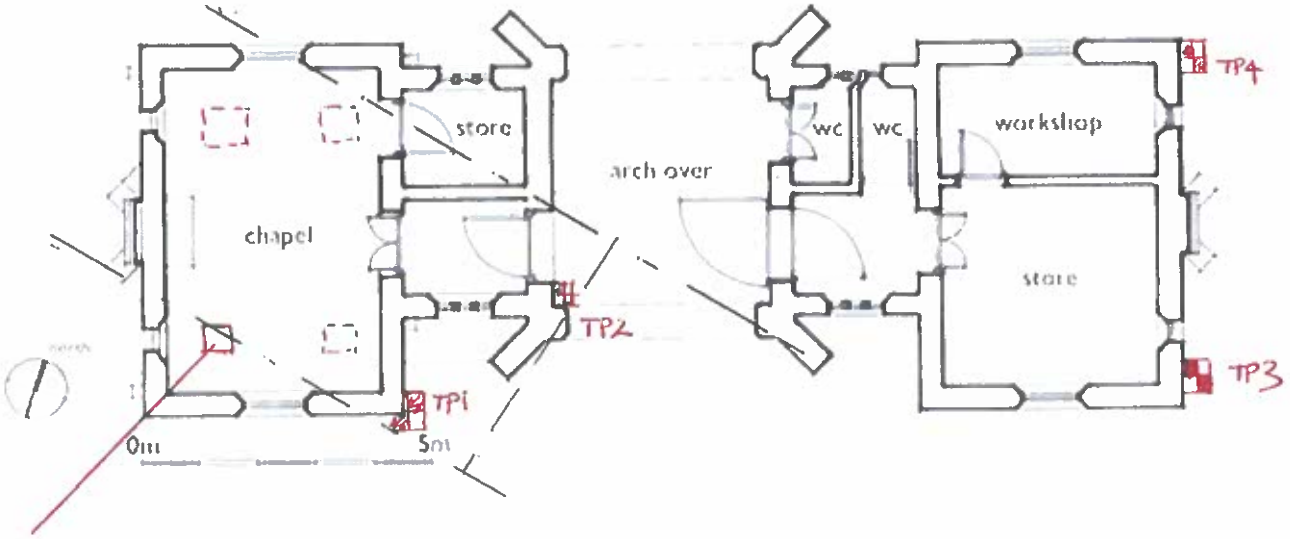
7.0 Likely Remedial Measures

7.1 Given the level of movement exhibited to date it is possible that the remedial measures will involve a number of stitching and masonry reinforcement techniques to improve the ability of the Chapel structure to bridge hard spots in the foundations and be less susceptible to cracking with seasonal movements in the moisture content of the underlying soils which are predominantly clay. However, such a solution is unlikely to eliminate future cracking entirely. The chapel has a number of specimen Cedar trees within the zone of influence of its foundations. We do not believe that felling these trees would be an acceptable option although we do not know at this stage whether the trees are protected by a preservation order but we consider they may be contemporary with the Chapel construction. A further more intrusive option would be to consider underpinning. However, we do not consider the movements we have observed to date are severe enough to warrant underpinning. Underpinning would be a costly option and likely to be complicated by the presence of Roman Foundations. Any final decision in respect of remedial measures should be informed by final monitoring readings.

Keynsham Cemetery, Durley Hill, Keynsham. 6821

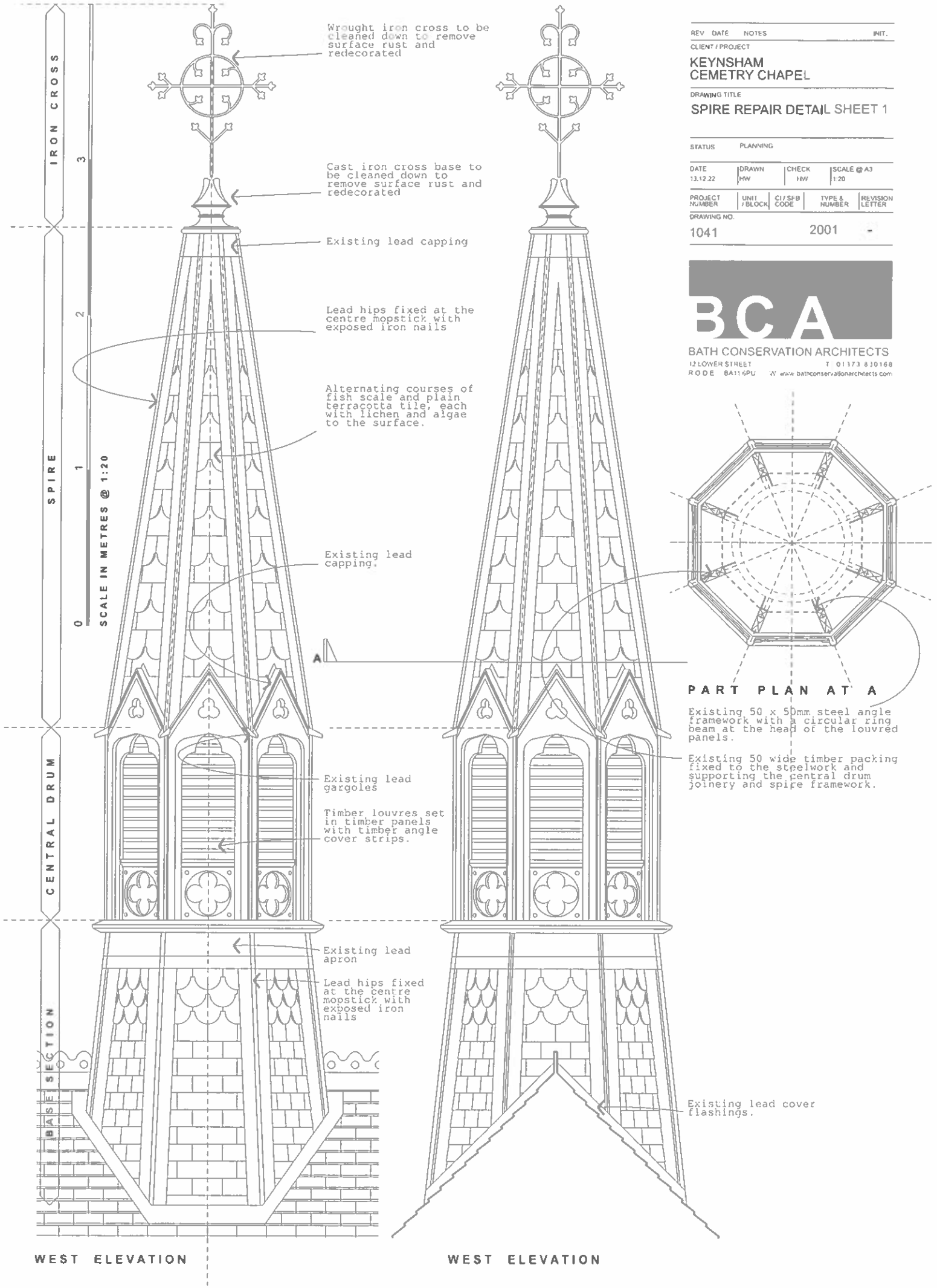
Proposed Trial Pit Layout.

— - — APPROX CENTRELINES FOR ROMAN FOUNDATIONS



INITIALLY OPEN FLOOR HATCH. REMAINING FLOOR HATCHES OPENED SUBJECT TO FINDINGS

NOTE: TRIAL PITS EXCAVATED TO DEPTH OF FOUNDATIONS ONLY.



REV	DATE	NOTES	INIT.

CLIENT / PROJECT

KEYNSHAM
CEMETRY CHAPEL

DRAWING TITLE

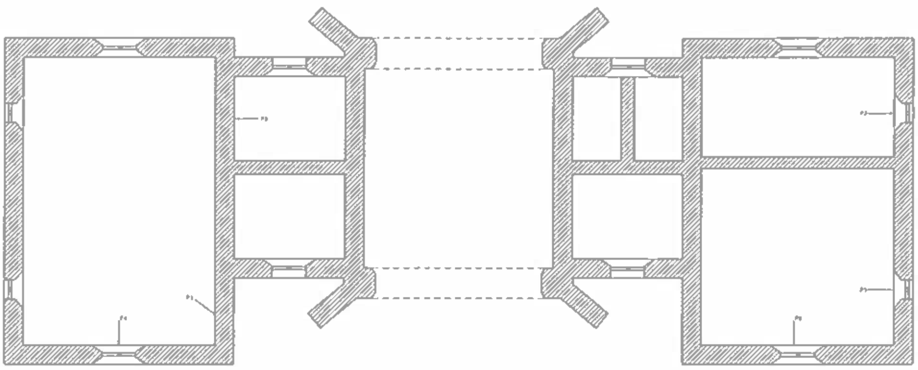
SPIRE REPAIR DETAIL SHEET 1

STATUS	PLANNING		
DATE	DRAWN	CHECK	SCALE @ A3
13.12.22	HW	HW	1:20

PROJECT NUMBER	UNIT / BLOCK	CI/SfB CODE	TYPE & NUMBER	REVISION LETTER
1041			2001	-

DRAWING NO.

BCA
BATH CONSERVATION ARCHITECTS
12 LOWER STREET
RODE BA11 6PU
T 01373 830168
W www.bathconservationarchitects.com



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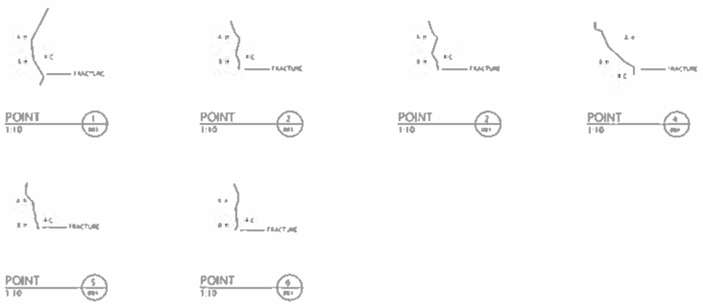


NOTES

1. This drawing is copyright and may not be reproduced without the permission of Mann Williams.
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

REV	DESCRIPTION	BY	DATE
P1	PRELIMINARY ISSUE	[illegible]	[illegible]
P2	MONITORING RESULTS UPDATED	SS	[illegible]

KEYNSHAM CEMETERY CHAPEL

DURLEY HILL

STRUCTURAL MONITORING READINGS

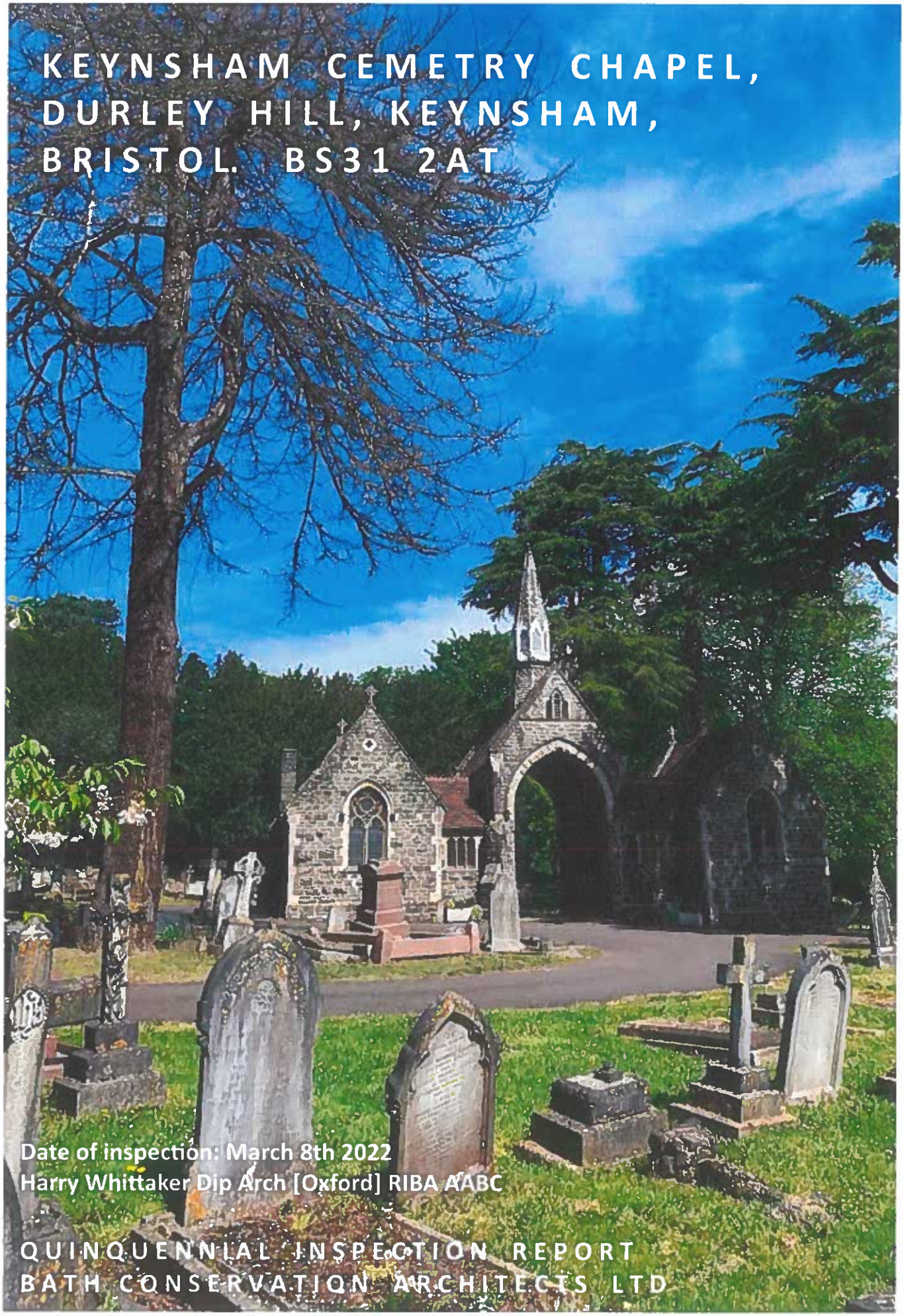
MANN WILLIAMS
CONSULTING CIVIL AND STRUCTURAL ENGINEERS
[illegible]

DRAWN	CHK	SIZE	SCALE	DATE
GED	SS	A2	1:50	DEC 13

PRELIMINARY

PROJECT	DRAWING	REV
6821	001	P2

KEYNSHAM CEMETRY CHAPEL, DURLEY HILL, KEYNSHAM, BRISTOL. BS31 2AT



Date of inspection: March 8th 2022

Harry Whittaker Dip Arch [Oxford] RIBA AABC

QUINQUENNIAL INSPECTION REPORT

BATH CONSERVATION ARCHITECTS LTD

1.0 PART 1 - INTRODUCTION

1.1 PRELIMINARY INFORMATION

Following the request from Dawn Drury, the Town Clerk for Keynsham Town Council we have carried out a quinquennial inspection of the Mortuary Chapels at Keynsham Cemetery.

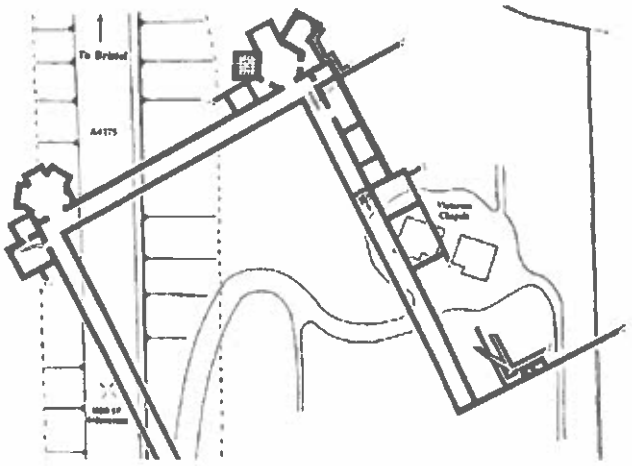
The Inspecting Architect was Harry Whittaker BA (Arch) Oxford, RIBA AABC. The main inspection was carried out on the 8th of March 2022. The weather was clear and dry.

A summary lists of recommendations are included in the report .

Diocese: Bath and Wells.
Archdeaconry: Bath.
Deanery: Chew Magna.

1.2 DESCRIPTION OF THE BUILDING

The Building consists of two, attached late nineteenth century mortuary chapels surrounded by burials dating from the 1870's to today.
The site commonly known as the Roman Villa, was discovered in 1877 when the cemetery chapels were being built. Excavation in the 1920's revealed major structures and further excavation in 2015 indicated that the complex may not have been a typical villa but may have had an alternative function. They showed that the buildings were in use by a great many people rather than a single family. The known Roman features lie directly beneath the south west chapel - see the extract below from the 1998 AAU report.

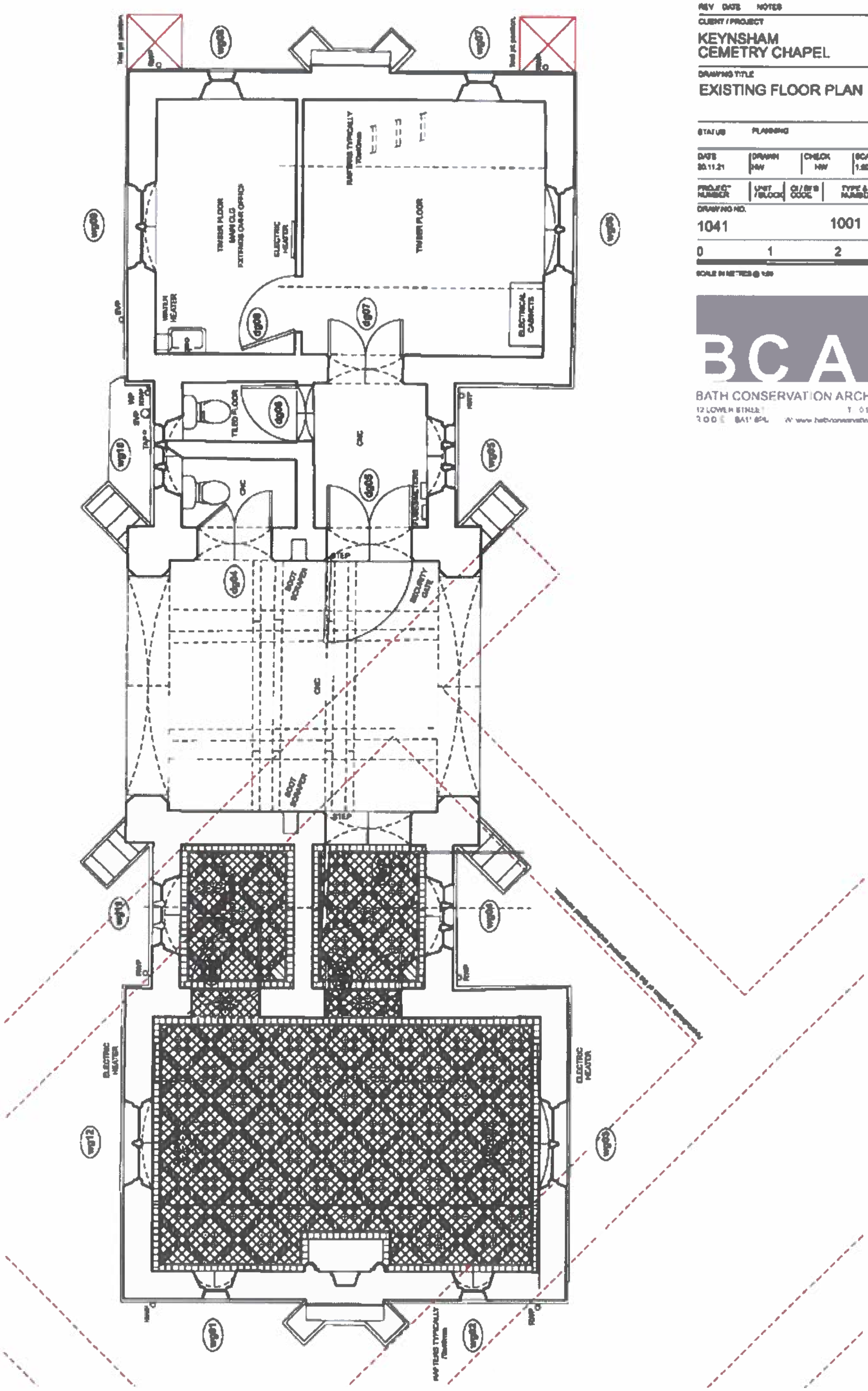


The listing description states -

Grade II

KEYNSHAM. ST66NW DURLEY HILL 739-1/1/38 (North East side) Mortuary Chapels at Keynsham Cemetery

Two attached Anglican mortuary chapels. 1877-8 by Charles Edward Davis of Bath; repaired 1885 by local builder, Edward Harvey. Squared and coursed rock-faced Pennant rubble with Bath ashlar dressings, copings and gabled plain tile roofs.
STYLE: Middle Pointed. PLAN: 2 chapels flanking tall carriage archway.
EXTERIOR: single-storey chapels and links. Symmetrical composition with each chapel having a 2-light, 2-centred-arched window to north and south gable faces with trefoil-cusped lights and rose tracery sections above; coped parapet with kneelers, crosses at apex and ridge cresting; 2 single-light windows and external battered stacks to return walls. Link buildings have plain 3-light windows with arched heads. Tall carriage archway on both sides has pointed-arched head with carved head stops, diagonal buttresses and small 3-light arched openings with louvres below gable; octagonal spirelet with tiled base, wooden louvred mid section with trefoil decoration and tiled upper spire with wrought-iron weathervane.
INTERIOR: each chapel has plain canted rafter roof with plaster infill and stained glass roundels of saints to rose windows.
HISTORICAL NOTE: the cemetery was sited in the middle of a very large Roman villa built in the late C3. The chapels were constructed by Keynsham builder, H Sheppard and consecrated in April 1878. The building is a late example of the style,



REV DATE NOTES

CLIENT / PROJECT

KEYNSHAM CEMETRY CHAPEL

DRAWING TITLE

EXISTING FLOOR PLAN

STATUS PLANNING

DATE	DRAWN	CHECK	SCALE @ A3

PROJECT NUMBER	UNIT / BLOCK	CI / SFB CODE	TYPE & NUMBER	REVISION LETTER

DRAWING NO.

1041 1001 -

0 1 2 3

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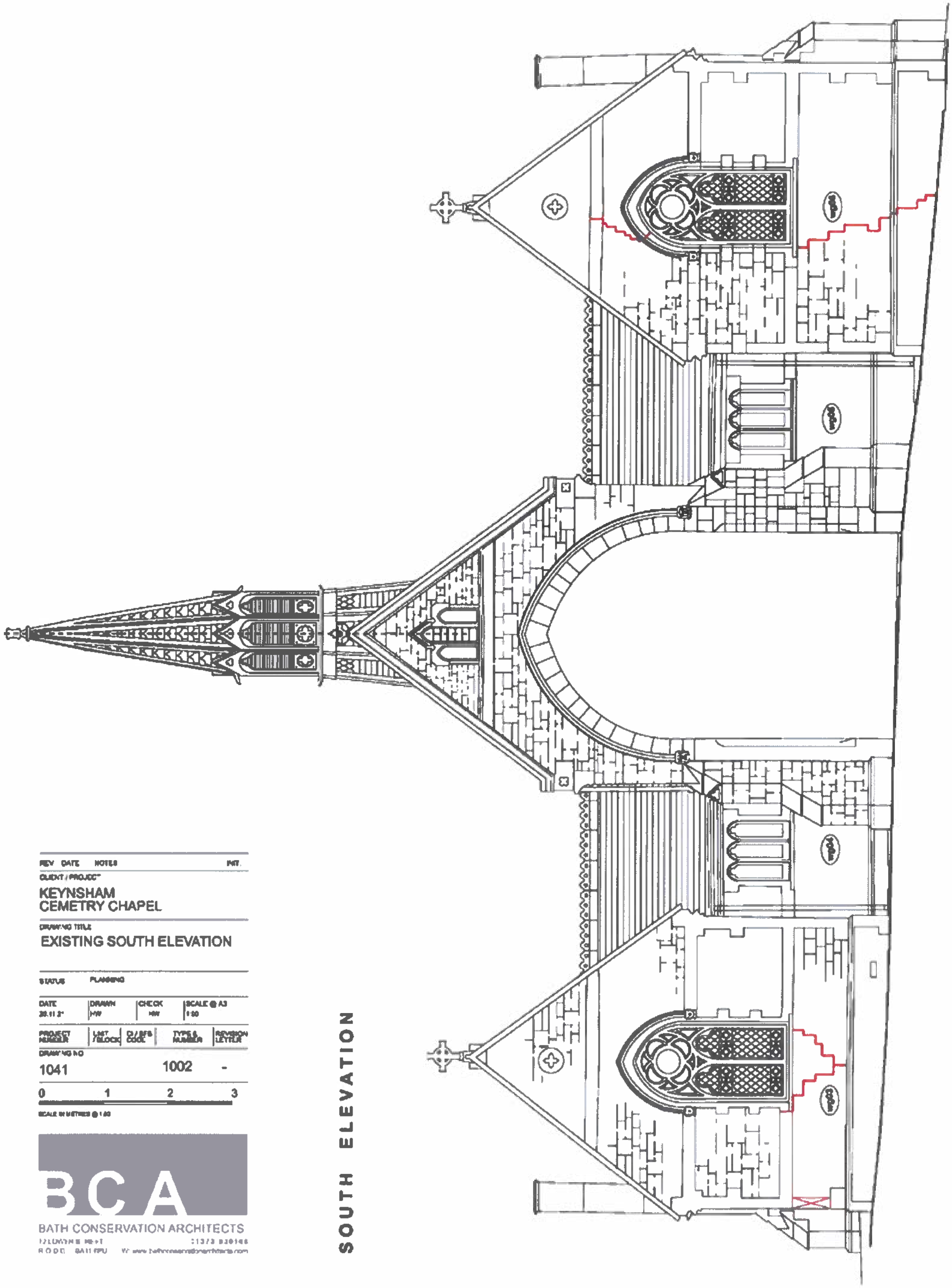
BATH CONSERVATION ARCHITECTS



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REV	DATE	NOTES	INT.

CLIENT / PROJECT

KEYNSHAM CEMETRY CHAPEL

DRAWING TITLE

EXISTING SOUTH ELEVATION

STATUS	PLANNING		
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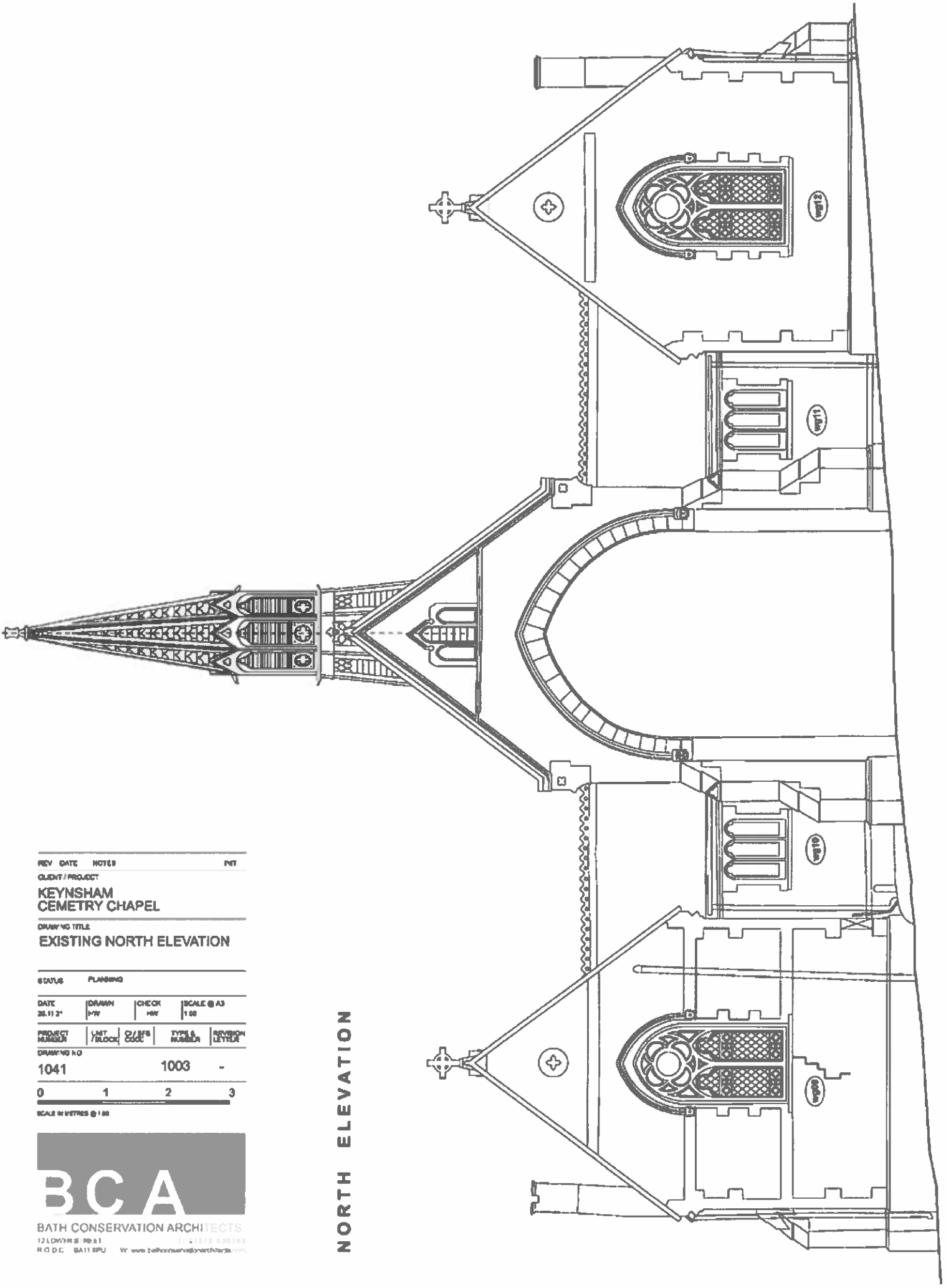

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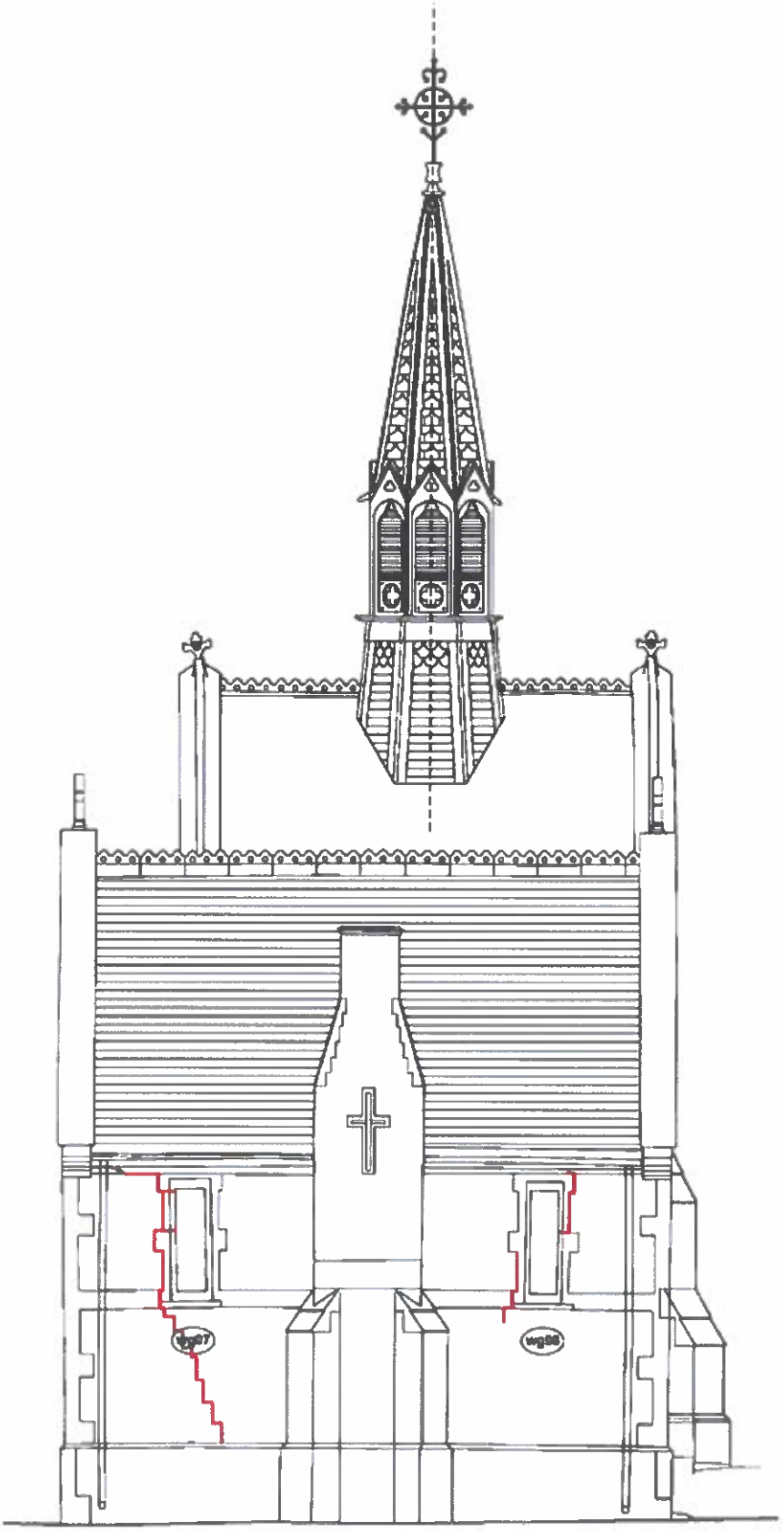

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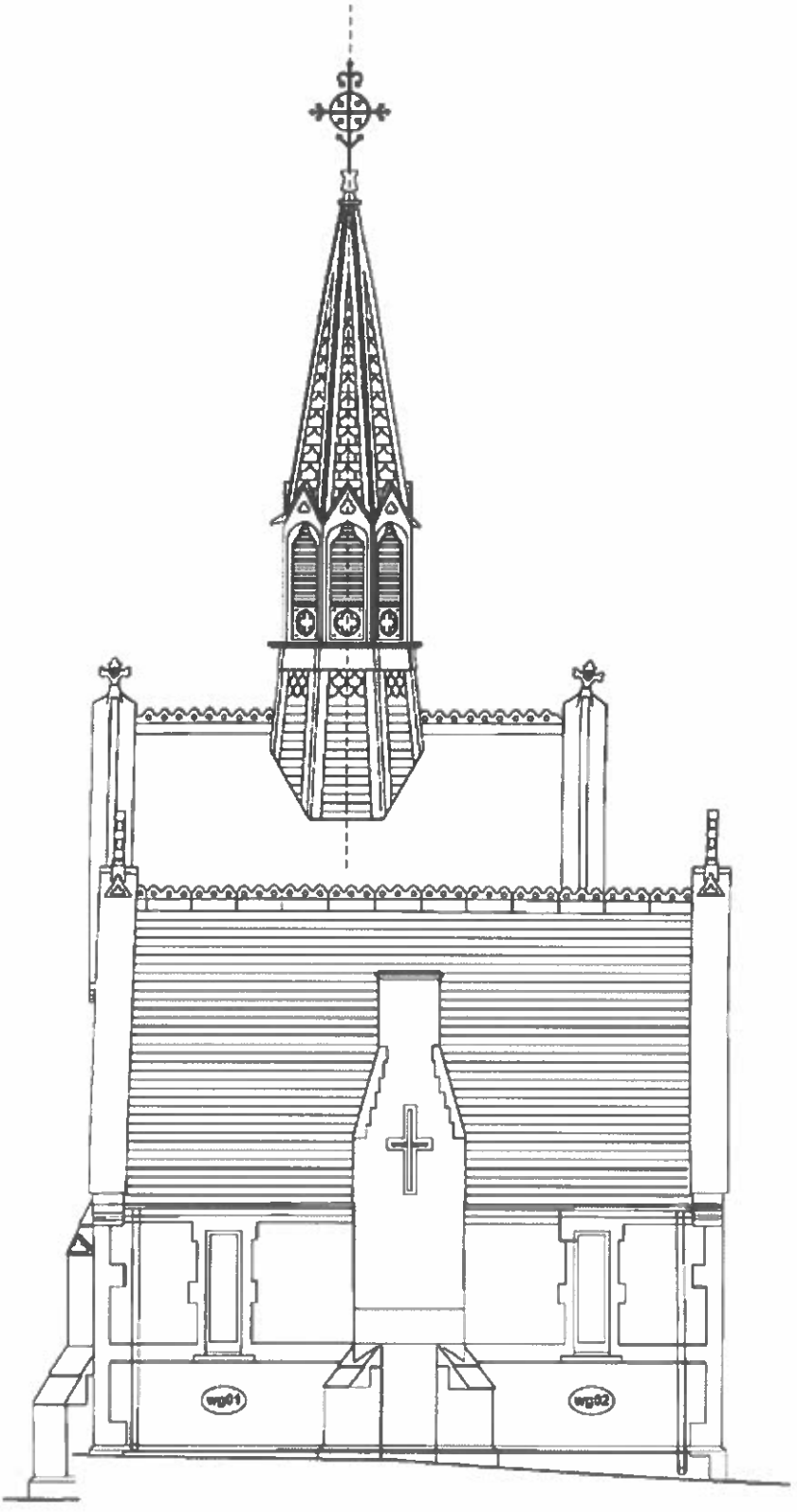

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but is of significant local historical importance, entirely unaltered and designed by a major local architect. The chapels were dilapidated and disused at time of survey. (Keynsham Burial Board Records).

Listing NGR: ST6453169262

The previous quinquennial report was carried out in 2013 by Simon Cartlidge. Previous reports were prepared by George Chedburn in 2002 and 2008.

1.3 LIMITATIONS OF SURVEY

This is a general report only which follows the standard laid down by the Ecclesiastical Jurisdiction and Care of Churches Measure 2018.
It does NOT form a schedule or specification of repair work. The architect is willing to advise on repair, and help in preparing an application for a Listed Building Consent approval.

The inspection was visual, and the majority of the inspection of the exterior was undertaken from Ground Level. The roof covering was inspected from ground level only.

Woodwork or other parts of the building which are covered, inaccessible or unexposed have not been inspected and it is therefore not possible to report that any such parts of the building are free from defects.

This report is not to be reproduced in any form.

1.4 GENERAL RECOMMENDATIONS FOR FURTHER SPECIALIST ADVICE

a) Fire detection and alarm equipment should continue to be checked annually.
b) The electrical installation should be tested every 5 years, shortly before the Quinquennial Inspection is due.
c) The rainwater goods should be checked annually to ensure these are running clear free from blockages. The below ground drainage should be checked to look for any blockages, damaged drains or backing up.
d) A timber treatment inspection of the roof void should be made by a specialist treatment company.

1.5 RECOMMENDATIONS FOR REPAIRS:

Below is a summary of the repair works required. These are listed in order of their importance.

Description	Clause in this report	Approx cost
Priority A - Immediate repairs		
None		
Priority B- Short term repairs within the next 18 months		
Commission the original structural engineers Mann Williams of Bath to revisit the building and carry out further monitoring to the cracking in the masonry walls. As it appears that the structural movement to the South West Chapel has discontinued then the focus needs to be on the eastern corner of the North West Chapel. Here the movement appears to show a horizontal movement of 9 to 10 mm since the tell-tales were installed in 2013. It is unknown whether this movement happened in the first few years after the tell tales were installed or whether this has been a gradual and constant movement over the entire period. A further 18 months of analysis and monitoring should be able to determine this.		
Following the recommendation from the structural engineer we would need to revisit the need for underpinning to the eastern corner of the North East Chapel. We note that this was discussed and decided against back in 2014. A full evaluation and decision on what further course of action to take can only be made once the extend extent of the structural movement and the rate of movement is known.	2.10	£TBC

Tower repairs. Full access needs to be arranged for the architect to inspect and survey the tower structure close up. This can be via a cherry picker or scaffold. A detailed drawing and schedule of work for the repair work to the tower, it's substructure and cladding can then be prepared and costed.	2.3.2	£3,000.00

Priority C - Long term repairs within the next quinquennial period.

Carry out re-pointing/ cutting in of new stone and rebedding the loose stonework and open joints. This includes the loose corner block to the south east corner and the open joints to the central buttresses to the south elevation. Localised repointing to the truncated chimney to the east elevation and the rebedding of the loose corner stone to the corner of the north east Chapel/office to the north elevation. This should be carried out by an experienced mason using a gauged lime mortar with a coarse aggregate mix to match the strength, colour and texture of the existing. This should be dressed back from the face of the individual stones to tie in with the original work.	2.6	£2,000.00
Redecorate and check the alignment of the cast iron guttering.	2.4	£2,000.00
Redecorate the iron window casements and replace missing putty.	2.8	£750.00
Boundary stone wall repairs.	2.20.1	£2,000.00
Taking down and rebuilding the retaining wall to the southern boundary of the original cemetery between this and the extension.	2.20.2	£TBC
Obtain quotations for the redecoration of the interior walls and ceilings	2.9/ 2.10	

2.0 PART 2 - REPORT ON THE CONDITION.

2.1 SCHEDULE OF WORK COMPLETED SINCE THE PREVIOUS QUINQUENNIAL REPORT (2013)

1. Vegetation clearance of the boundary wall collapse ready for re-building.
2. There has been some dry stone walling on another area of collapsed wall.
3. A rebuilding of a section of the drive due to subsidence after a tree came down
4. Re installation of the railing along the subsidence collapse.
5. Some Internal works and decoration to the main chapel have occurred to resolve cracks and mould.
6. Work to the outside drainage [2005]
7. Odd slipped tiles on the spire and roof have been replaced.
8. There has been regular clearance of the gutters for moss and leaves.

Prior to this the following structural analysis and works were carried out -

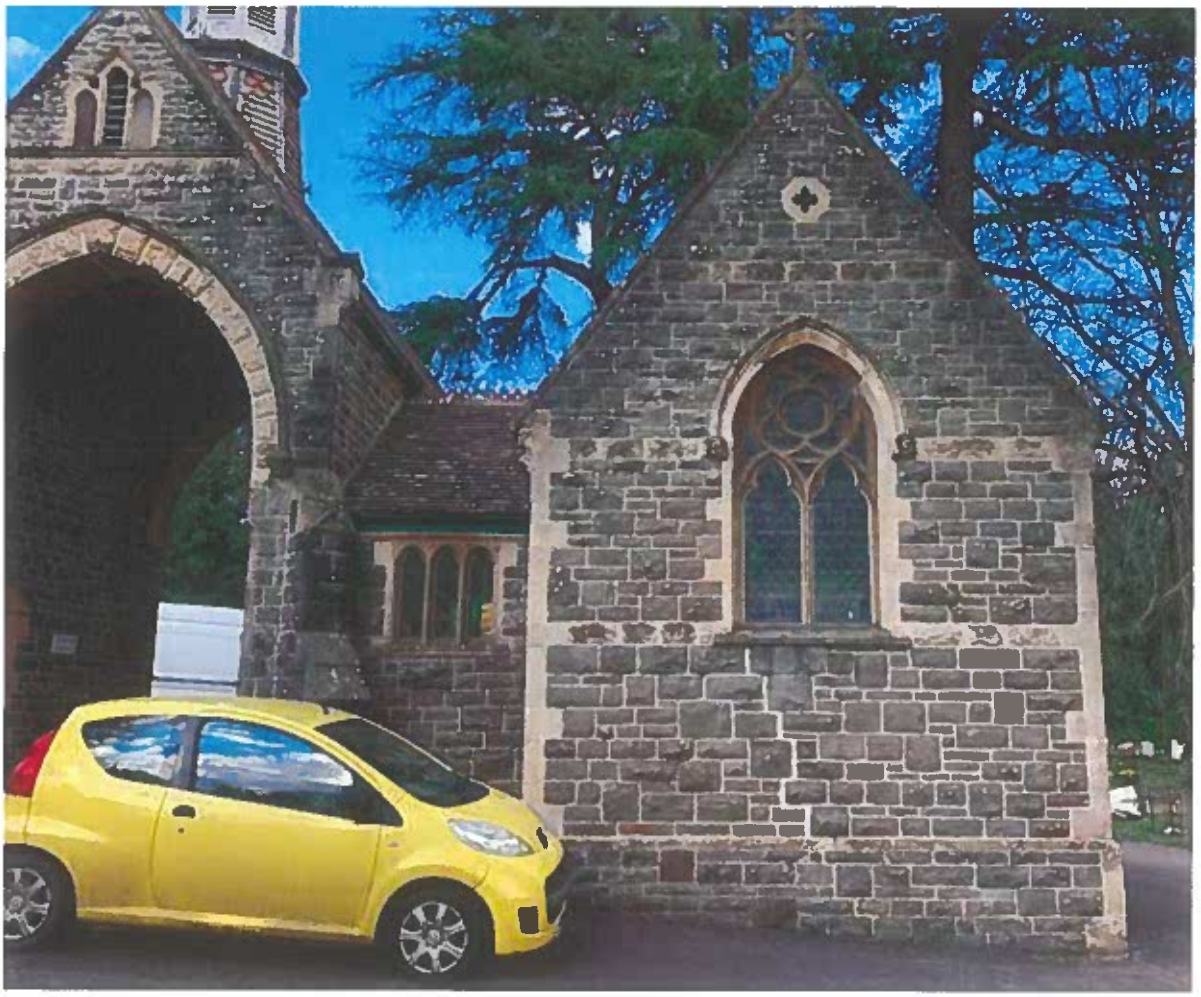
2009 May. Structural monitoring by the Structural Engineer.
2010 September. Structural monitoring by the Structural Engineer.
2011 June. Masonry repairs to the south west chapel.

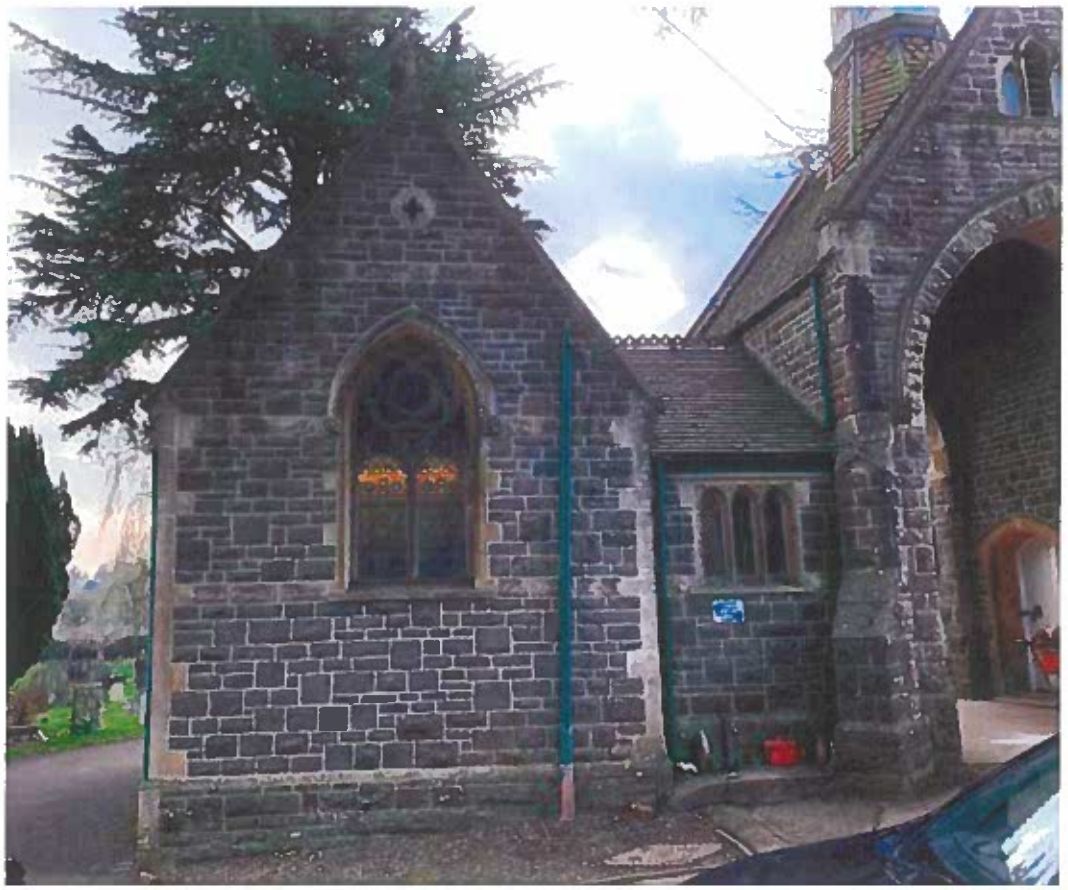
The building does not have a log book which is required under the Care of Churches and Ecclesiastical Jurisdiction Measure 2018.

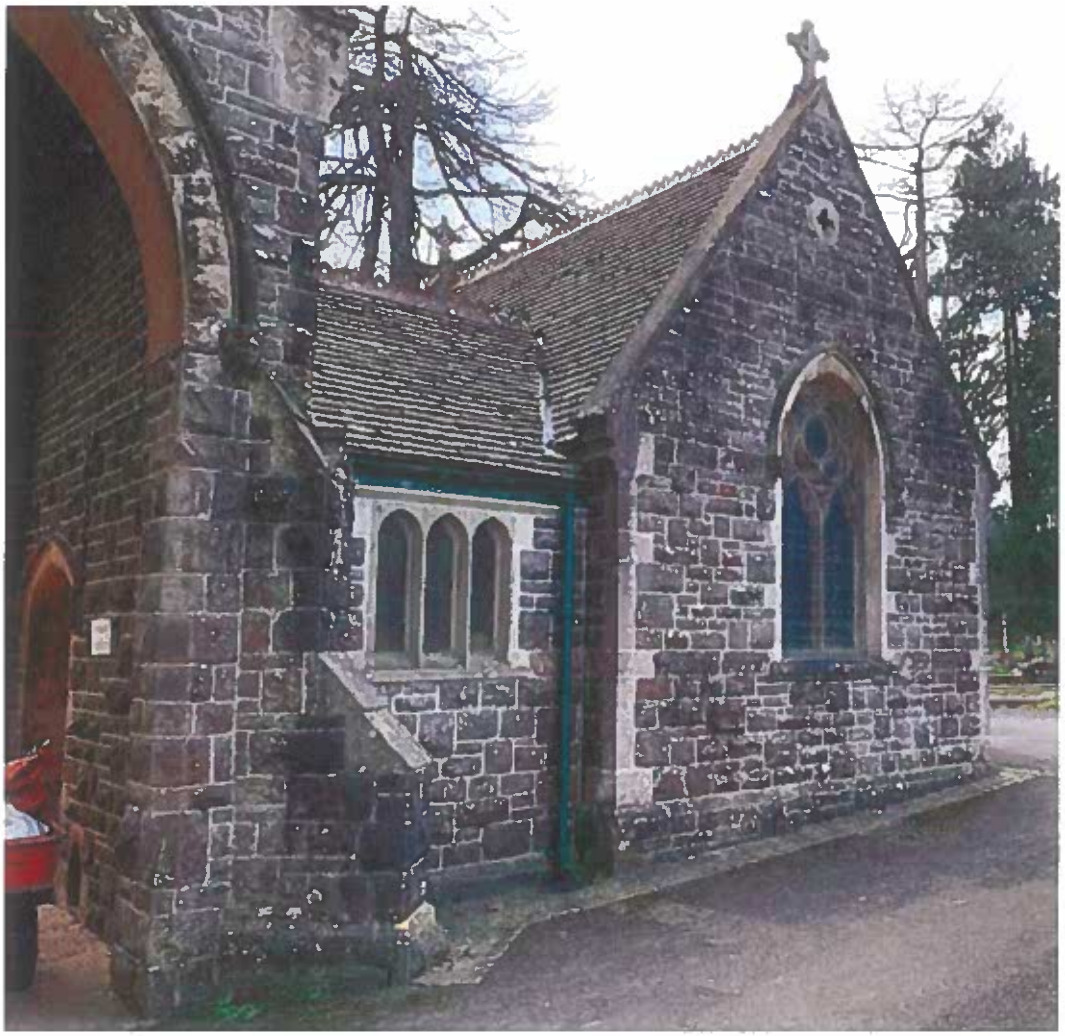
2.2 GENERAL CONDITION

The general condition of the building is good. Maintenance has been kept up and the building appears to be well looked after. The 2002 Historic England listing description hints at dilapidation and disuse but the building seems to be in a much improved condition. The majority of the repairs identified below relate to structural movement and ongoing maintenance repairs.

Above : The South East elevation of the South West chapel
Below : The South East elevation of the North East chapel







The structural issues relate to the north east chapel. Glass 'tell tales' to the south east corner of the North East Chapel indicate relatively recent movement of 9 to 10mm. This is an ongoing issue made clear by the sequence of repointing works to these structural cracks

There are also a number of minor masonry repairs required to the stonework, which will need to be addressed in the future and the minor structural movement monitored.

The Tower has lost a number of tiles and the lead work appears to have moved. This will require attention.

There are a number of minor stonework repairs to the boundary walls but the wall between the new and old sections of the cemetery is in a particularly hazardous state.

2.3 ROOF COVERINGS

2.3.1 Main roof :

The roofs are laid in plain clay tile with a darker blue black tile used to highlight the diamond patterning to each slope. The ridges are laid with crested terracotta tiles fully bedded onto the plain clay tiles. The abutments to the gable parapets together with the apron flashings and abutment flashings around the two chimney stacks is all in lead.

It appears that some roof slopes have been relayed in the relatively recent past and generally the tiling appears been to be in a reasonable condition

2.3.2 Tower roof :

The tower roof is of three stages with a hexagonal base clad in plain clay tiles, fish scale terracotta tiles and lead mop stick hips. A projecting cornice separates this from the centre stage which is built of timber with open louvres and quatrefoil decoration. Each panel is finished with a small timber pediment beneath the upper stage which forms the short spire. The Spire is again of plain clay and fish-scale tiles with lead mop stick hips.

The top of the spire is amounted by a lead finial with a wrought iron cross.

The spire and tower is all in a poor condition with broken and missing tiles to both the lower and upper stages and some signs of movement in the timber. This has caused some collapse to the lowest timber and lead cornice.

The tower will require remedial repair work which will involve stripping back the tiling to expose the supporting timber structure. It would be advisable to arrange for a cherry picker to give access for the architect to make a close evaluation and prepare the schedule of works.

2.4 GUTTERS AND DOWNPIPES

The perimeter of the building is served with ogee, cast-iron guttering which discharges into circular section cast-iron downpipes. The guttering is supported by a painted timber soffit board immediately above the dressed bath stonework to the eaves. All the cast iron and soffit boards are starting to need redecoration. The guttering should be checked for alignment and flow at the same time.

2.5 BELOW GROUND DRAINAGE

2.5.1 Surface water drainage

An existing soakaway system is fed by a perimeter drain around the building. This was repaired in 2005 and was subject to an archaeological study by the Avon Archaeology Unit.

This 2005 archaeological report gives a full account of the drainage works around the south west chapel. There appears to have been no additional new drainage work around the north east chapel but the ground would have been disturbed as part of the two test pits dug in 2014.

2.5.2 Foul drainage.

The WC's. basins and sink discharge into a Klargester septic tank.

2.6 EXTERNAL WALLS

2.6.1 General

The walls are generally built of square cut, split faced pennant sandstone with cut Bath Stone Ashlar to the external quoins, Window surrounds, Buttress copings, windowsills and Gothic heads, parapet copings and Kneeler stones. Fine carved details including the heads at the spring point of the hood mouldings together with the gable apex finials are again all carved from Bath Stone. There is evidence of an injected dpc to the south wing only. The sub floor voids are ventilated via cast iron air bricks. The significant structural movement to certain areas of masonry is covered in section 2.10

There is a loose corner block to the south east corner of the building and to the corner of the north east chapel/office to the north elevation

There are noticeable open joints to the central buttresses to the south elevation and to the truncated chimney to the east elevation

In addition to these minor masonry items the various structural movement cracks have been repointed before but have continued to open up and will need re-addressing once the structural issues are resolved.

The stonework has been repointed in what appears to be a lime mix together with some areas of cement based mortar. The recent development of NHL [Natural Hydraulic Lime] has brought about issues with historic building conservation. The issue that arises here is that increased NHL content as a proportion of aggregate in the mix will equate to a greater hardness and mechanical strength in ways that increased high calcium lime [traditional lime putty) will not. Where the stonework here needs to be repaired the joints should be raked out and repointed using a traditional, soft lime putty mix. This should be carried out by a suitably experienced stone conservator.

2.7 EXTERNAL DOORS AND WINDOWS

2.7.1 External joinery

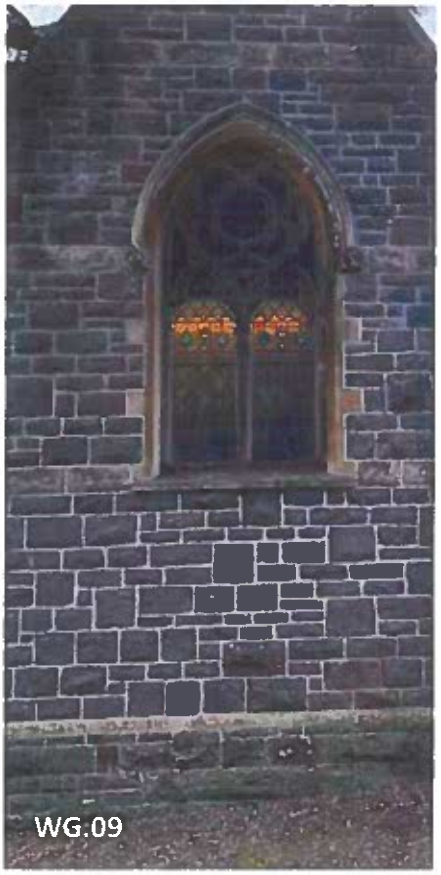
DG.01 Ledged , boarded single internal door off the south west chapel
DG.02 Ledged , boarded double internal doors off the south west chapel
DG.03 Ledged , boarded single external door off the central vault leading to the south west chapel
DG.04 Ledged , boarded double external internal doors off the central vault leading to the WC.
DG.05 Ledged , boarded double external internal doors off the central vault leading to the north east chapel/ store
DG.06 Ledged , boarded single internal door to the WC.
DG.07 Ledged , boarded double internal doors off the north east chapel/ store
DG.08 Modern single door to the north east chapel/ store

2.7.2 Window Glazing

WG.01 West elevation. Square headed window with coloured glass set into a single, opening iron casement.
WG.02 West elevation. Square headed window with clear glass set into a single, opening iron casement.
WG.03 South elevation. Gothic headed tracery window with coloured and painted glass, set in lead cane.
WG.04 South elevation. Tripartite gothic headed mullion window with coloured glass - two fixed and one opening iron casement.
WG.05 South elevation. Tripartite gothic headed mullion window with coloured glass - two fixed and one opening iron casement.
WG.06 South elevation. Gothic headed tracery window with coloured and painted glass, set in lead cane.
WG.07 East elevation. Square headed window with coloured glass set into a single, opening iron casement.
WG.08 East elevation. Square headed window with coloured glass set into a single, opening iron casement.
WG.09 North elevation. Gothic headed tracery window with coloured and painted glass, set in lead cane.
WG.10 North elevation. Tripartite gothic headed mullion window with coloured glass - two fixed and one opening iron casement.
WG.11 North elevation. Tripartite gothic headed mullion window with coloured glass - two fixed and one opening iron casement.
WG.12 South elevation. Gothic headed tracery window with coloured and painted glass, set in lead cane.

2.7.3 Ferramenta

Generally: the opening casements need checking and easing, the putty repaired and redecorating. Each window has been fitted with modern galvanised steel mesh guards. The build up of pine needles at the base of these needs cleaning out.



Above : Open joints beneath the principal chapel windows, not noticably beneath wg.06 where this movement is continued out on the return elevation to the left and below wg.07. This corner of the building is live and continuing to move.
Below : The East elevation of the North East chapelwith movement around each window but more noticably to wg.07

INTERNAL

2.8 Ground floor structure.

2.8.1 Suspended timber floors over masonry sleeper walls to the north east chapel. The south east chapel has a replacement floor of suspended concrete beam and block and patterned encaustic tile. There are access hatches set into the floor here. Elsewhere the floors are solid, of concrete with some cracking noticeable.

2.9 Ceilings

2.9.1 The two chapel ceilings have exposed roof rafters and ceiling ties, stained dark with painted plaster between. The South west chapel has been well maintained and there are signs of rafter repair and replacement to the north east chapel. The office area to the north east chapel has a modern suspended ceiling which hides the main roof from view.

The central vault again has exposed rafters but here the underside of the roof is formed in close timber boarding laid at 45 degrees to the roof slope. Exposed timber purlins support the roof at its mid point and a small attic is formed by the collar ties and boarding above the purlins. This roof appears to be generally sound

There are some hairline cracks in the plaster which are caused by the significant structural movement described in section 2.10

2.10 Internal walls.

2.10.1 The internal walls are generally finished in painted plaster with Bath stone dressings around door and window surrounds. There are a number of active movement cracks in the plasterwork which have been monitored with the use of 'tell tales' These are gauges that monitors horizontal and vertical movement across a crack on a flat surface to an accuracy of +/- 1.0mm and by interpolation to +/-0.5mm. The tell-tales used here are precision gauges that consist of two plates which overlap for a part of their length.

2.10.2 The structural movement can be summarised as follows -

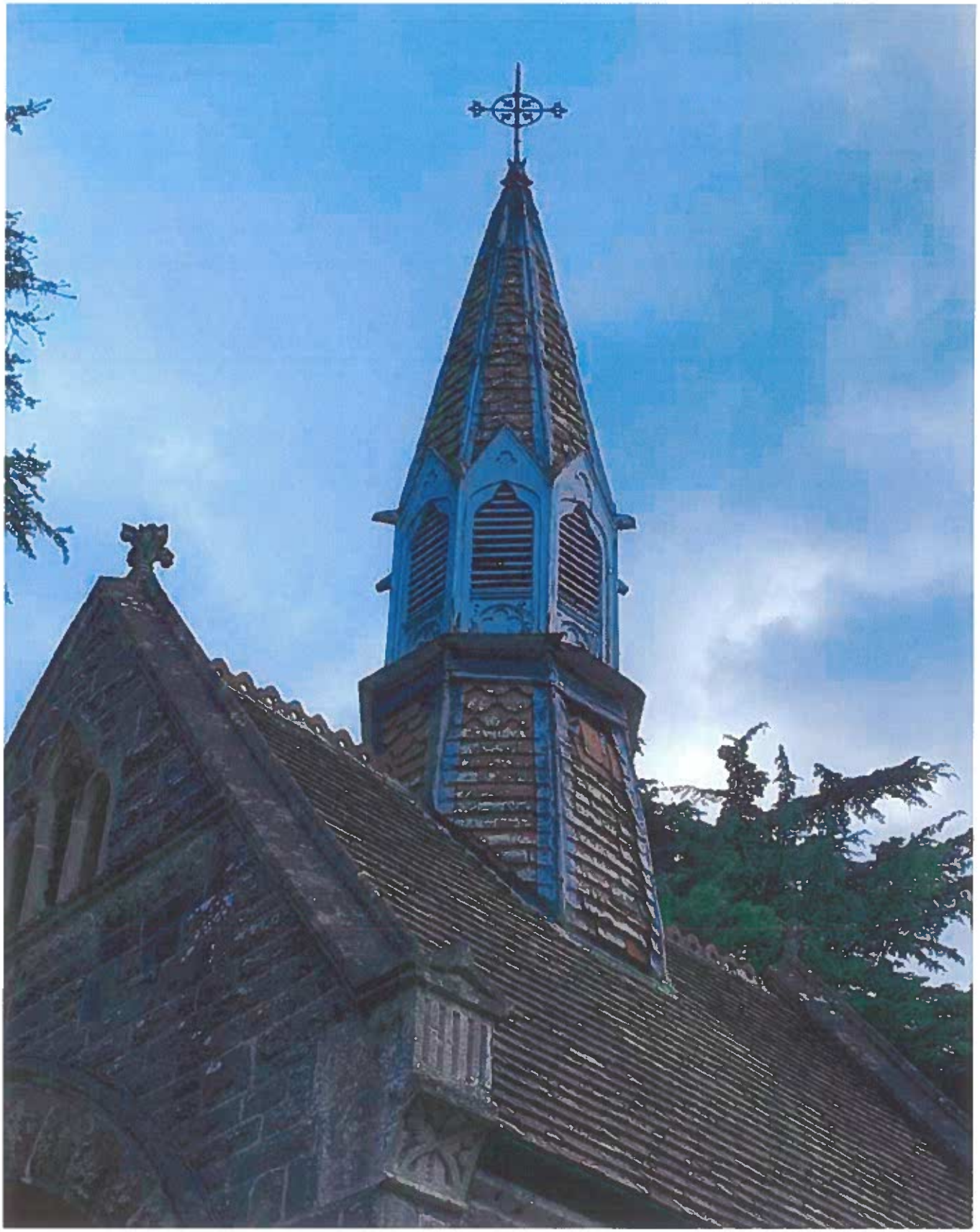
South wing:
There is a crack adjacent to window no'wg.07 which has been fitted with a tell tale. The structural movement here appears to have stopped but confirmation should be sought from the Engineers who installed the tell tales in 2013.
There is a crack to the arch stonework to door no' dg.03. This is repeated opposite over door no' dg.02
The now repointed crack beneath window wg.03 and above wg.02 [see comments above in the section headed external walls] have been filled and redecorated.

North wing:
The structural movement is more pronounced here and includes the following -
There are small cracks over doors no's dg.05, dg.07 and to the corner of the office to the left of window no' wg.09. More substantial and active movement can be seen to the north east corner of the chapel where the existing tell tales are showing a movement of 9 to 10mm. This internal cracking corresponds to the external cracking above and beneath window wg.06, beneath and to the side of windows no's wg.07 and wg.08 and beneath window wg.09. The most movement appears to be to the north east corner where the tell tale and the pointing up in mortar both show that this is still active. Marks to the external tarmac indicate the making good following the trail test pits dug in 2014.
The existing drainage to the north east corner was exposed and inspected at the time so the causes of this settlement must lie in the red clay noted below.

The tell tales were installed by Mann Williams, Consulting Engineers of Bath soon after the last quinquennial in 2013. They also opened up test pits to the east elevation [see positions marked up on the attached floor plan] Their findings were summarised as follows -

Trial Pit 3
"Within Trial Pit 3, made ground was encountered to the full depth of the pit although at the bottom we did encounter what appeared to be natural (virgin) soil (firm red clay). Roots were apparent within trial pit although most visible at shallow depth. However, the trial pit did not fully prove that the founding material is undisturbed virgin soil, there is a possibility that this could be re-deposited soil."

Trial Pit 4
" Trial Pit 4, appeared to show the corner of the Chapel at this position founded over natural (virgin) soil. The virgin soil. The natural ground is firm red clay. Roots and a drainage run were evident within the trial pit. Again this trial pit did not fully prove that the founding material is undisturbed virgin soil although a correlation to trial pit 3 suggests it is."



Above : The central timber lead and tile tower and spire showing the slipped tiles and leadwork.

The conclusion of Mann Williams on likely remedial measures was repeated by Simon Cartilidge [the previous quinquennial inspector, in his later email.

Mann Williams considered that such remedial measures would be unlikely to eliminate future cracking entirely. "The chapel has a number of specimen Cedar Trees within the zone of influence of its foundations. We do not believe felling these trees would be an acceptable option...we do not consider the movements we have observed to date are severe enough to warrant underpinning...Any final decision in respect of remedial measures should be informed by final monitoring readings."

2.11 ROOF AND CEILING VOIDS

No access available

2.12 STAIRCASES

2.12.1 The building is not fitted with a staircase

2.13 FIXTURES AND FITTINGS

2.13.1 The carved gothic fireplace to the south west chapel is in good order. An inspection of the corresponding fireplace to the north east chapel was not possible.

2.13.2 The WC fittings are basic but generally sound. The WC off the central vaulted area is affected by condensation problems.

2.14 Heating installation

2.14.1 Heating is via modern wall mounted electric heaters to the office and south west chapel. All other spaces are unheated.

2.15 Electrical installation

2.15 It is not known when the electrical system was last checked by a qualified NICEIC contractor.

2.16 LIGHTNING CONDUCTOR:

The building is not fitted with a lightning conductor.

2.17 BATS

There is no evidence of bats roosting within the roof void.

2.18 ASBESTOS

There are no obvious indications that asbestos exists within the building but this is no guarantee that the building is free of this material. Before any major works are undertaken an asbestos survey should be commissioned .

2.19 ACCESS FOR THE DISABLED

The single storey nature of the original design allows free movement although each side wing is entered across a threshold step. No accessible WC's are provided.

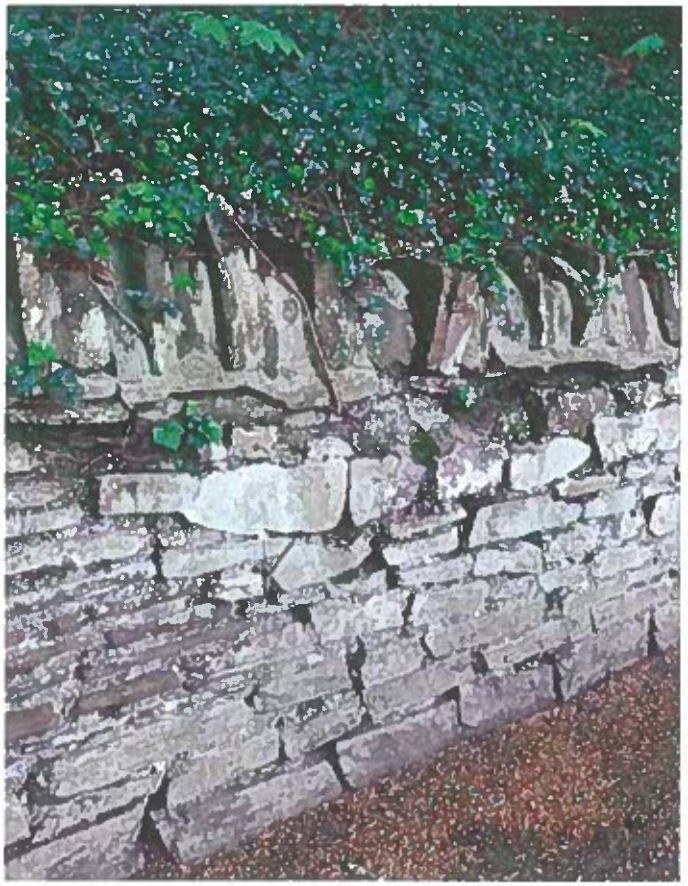
2.20 BOUNDARY WALLS AND GATES:

2.20.1 The church yard is surrounded by boundary walls, fences and hedges to all four sides. In addition the original cemetery area is divided off from the extensions to the burial site with low stone retaining walls.

Northern Boundary between the cemetery and Durley Lane
Local stone wall with stone on edge capping. This is partially obscured by the laurel hedge on the cemetery side and a covering of ivy. The wall has been damaged by an impact at the junction with the A4175, has two sections of collapse along its length and is in a poor condition with loose coping stones.

Western boundary onto Durley Hill - the A4175
This is made up of a tall iron fence in good condition with the low wall and stone piers to the cemetery entrance. The

Above : The norther boundary wall onto Durley Lane showing areas of loose and falling stonework
Below left: The entrance gate pier and low stone wall showing the open joint between the two
Below right: The low wall to the side of the drive showing signs of partial collapse.



Above : The partially collapsed retaining wall between the old and new sections of the churchyard.

junction between the RHS pier and stone wall has an open joint indicating some settlement in the structure. Further south this boundary is formed with a split chestnut fence.

Eastern boundary.
This is made up of a low field wall and laurel hedge.

Southern boundary.
This is formed by a continuous hedge.

2.20.2 Stone retaining walls dividing the cemetery extensions to the south and east.
The southern wall is in a very dilapidated condition and partially collapsed. The remaining sections appear to be mostly later rebuilding due to the visible extent of cement mortar. The majority of the remaining stonework has been pushed out from the vertical. To repair this wall the stonework will need to be taken down for its full extent and rebuilt with additional internal strengthening to provide an adequate retaining wall. Our reccommendation is that this wall is taken down and not rebuilt. This will require faculty consent from the DAC at Bath and Wells. This would also allow further archaeological evaluation of this area of the cemetry. From speaking to the grave diggers it appears that they come accross a pink layer of crushed stone and terracotta in the nearby cremation burial area. This would indicate the prescence of additional Roman structures with possible opus signinum floors.

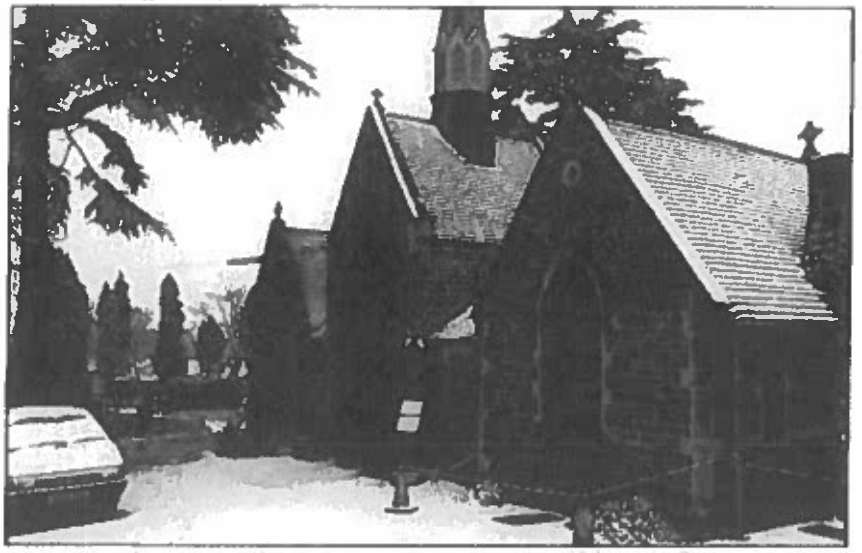
The eastern wall is in a better condition with two areas of repair necessary. Above: fragments of Roman or later stonework built into this wall.

Signed: .....

Harry Whittaker, Dip. Arch (Oxford) RIBA. AABC 3rd May 2022

Keynsham Cemetery Chapel, Durley Hill, Keynsham

Archaeological Recording and Trial Excavation
SMR BN2929
BATRM 2004.10



on behalf of
Keynsham Town Council

Donna E.Y. Young MA
Avon Archaeological Unit
Bristol
March 2004

Keynsham Cemetery Chapel, Durley Hill, Keynsham
Archaeological Recording and Trial Excavation

Report SMR BN2929
Accession Number BATRM 2004.10

for
Keynsham Town Council

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Acknowledgements

This archaeological project was wholly funded by Keynsham Town Council and commissioned on their behalf by George Chedburn of Chedburn Design and Conservation. Avon Archaeological Unit wishes to acknowledge the assistance given by Elaine Giles of Keynsham Town Council and Gary Hibbitt, Grounds Maintenance Worker at Keynsham Cemetery during the fieldwork stage of the project and to Carol Edwards for specialist advice regarding conservation of exposed tessellated floors.

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Avondale Business Centre, Woodland Way, Kingswood, Bristol BS15 1AW
Telephone and Facsimile 0117 960 8487
e-mail avonarch@yahoo.co.uk

Note

Whereas Avon Archaeological Unit have taken all care to produce a comprehensive summary of the known and recorded archaeological evidence, no responsibility can be accepted for any omissions of fact or opinion, however caused.

Summary

This report details the results of an archaeological recording exercise and trial excavation undertaken at Keynsham Cemetery Chapel, Durley Hill, Keynsham, (NGR ST64546926, **figures 1 and 2**). The study area occupies part of the site of an extensive and lavish Romano-British villa, Durley Hill Villa (**SMR BN1208**), first discovered during the construction of the Chapel when the cemetery was established in the mid 19th century. Further masonry structures and tessellated pavements associated with the villa were revealed during subsequent gravedigging and partial excavation was undertaken on the site in the early 20th century (Bulleid and Horne 1926). This work identified much of the layout and extent of the villa and recorded several high quality mosaic floors located in a suite of richly decorated rooms. More recent archaeological work on the site (Cox 1998 and Hume and Young 1998) has identified further structures and floor surfaces associated with the villa.

The present archaeological investigations (**SMR BN2929**) resulted from the need to make repairs to the western wing of Keynsham Cemetery Chapel, constructed over the northern corridor wing of the Romano-British villa. The Chapel, a Grade II listed building (**T66 NW 739-1/1/38**), had been heavily affected by damp requiring internal repairs, including the replacement of the suspended wooden floor. In order to alleviate problems with damp in the future, Keynsham Town Council submitted an application to make repairs internally and to insert French drains on the exterior of the west wing of the Chapel. In response to the application, the Archaeological Officer for Bath and Northeast Somerset Council required that preserved remains associated with the Romano-British villa exposed within the Chapel should be recorded archaeologically and that the impact of proposed drainage work on external surviving archaeological stratigraphy be investigated by trial excavation of three test-pits opened by hand adjacent to the building (**figure 3**).

Two isolated remnants of an in-situ plain tessellated floor were revealed within the west wing of the Chapel, as well as disturbed remnants of associated mortar bedding layers, sealing an extensive, compacted soil deposit containing significant quantities of tesserae derived from an earlier, destroyed floor surface. No associated masonry structures were revealed within the Chapel. On the recommendations of a consultant specialist conservator, a strategy for the stabilisation and future preservation of the floor layers was developed (**Appendix 1**).

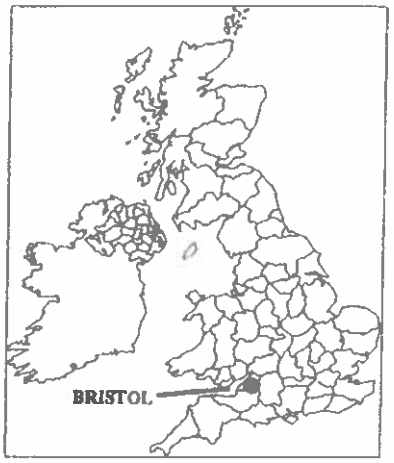
Trial excavation of three test-pits, one each butting the external north, west and south walls of the west wing of the Chapel, revealed Romano-British tessellated floor remnants and masonry walls defining one or more rooms located on the northern corridor wing of the villa. The remains survived at shallow depth (between 16.06 m and 16.18 m a.O.D.) below the gently graded modern ground surface and, to the north and west, were sealed by some 400 mm of made ground deposited prior to the construction of the Chapel. In the southern test-pit however, significant archaeological structures were preserved below only a thin soil layer (c. 100 mm thick) sealed by modern tarmacadam and scalpings. On this basis, the consultant specialist conservator advised against allowing the proposed drainage scheme to proceed (**Appendix 1**).

A limited collection of artefacts was recovered during the archaeological work, mainly redeposited tesserae and flint (**Section 6**). There was a notable lack of dating evidence from Romano-British contexts and only a few examples of standard pottery types were recovered from deposits associated with the construction of the Victorian Chapel.

The work at Keynsham Cemetery Chapel has identified that important archaeological remains comprising tessellated floors and masonry walls, including a previously unidentified internal partition wall, relating to rooms located on the northern corridor wing of the Romano-British villa at Durley Hill (**figure 9**) are preserved both within and outside the building.

Figure 1

Location of the Site ●



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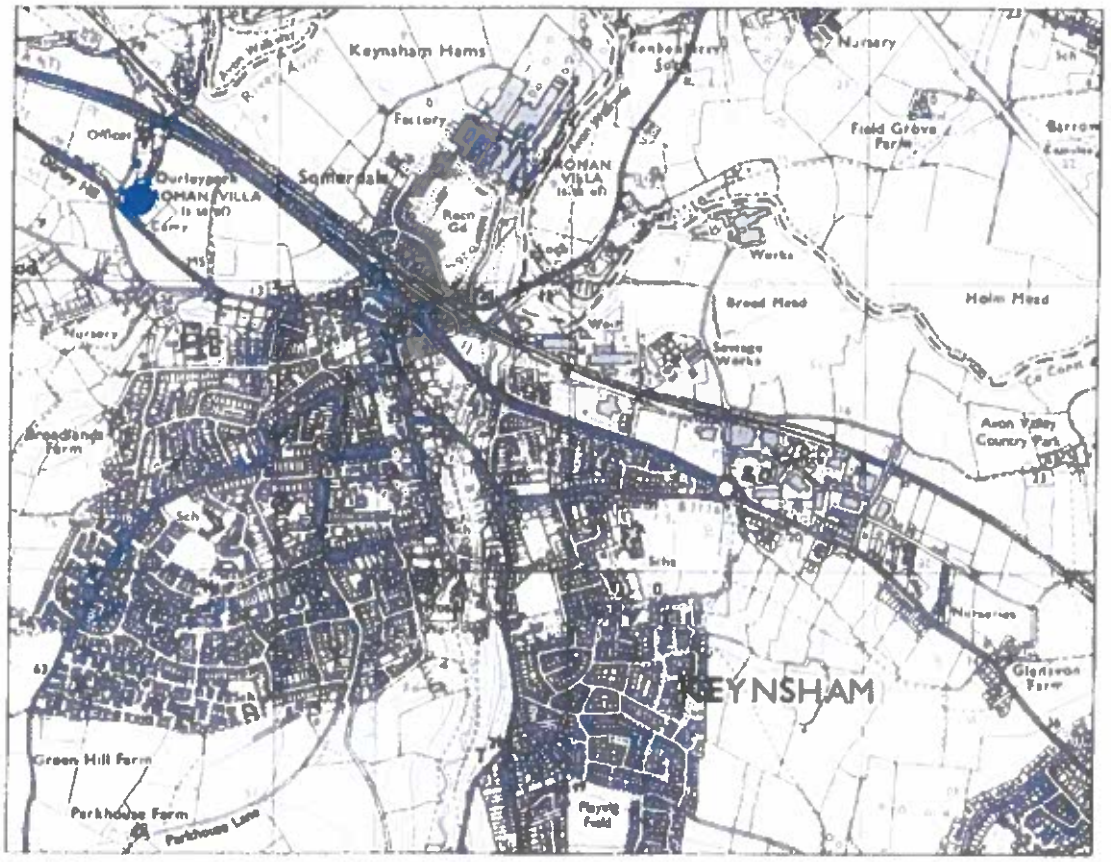


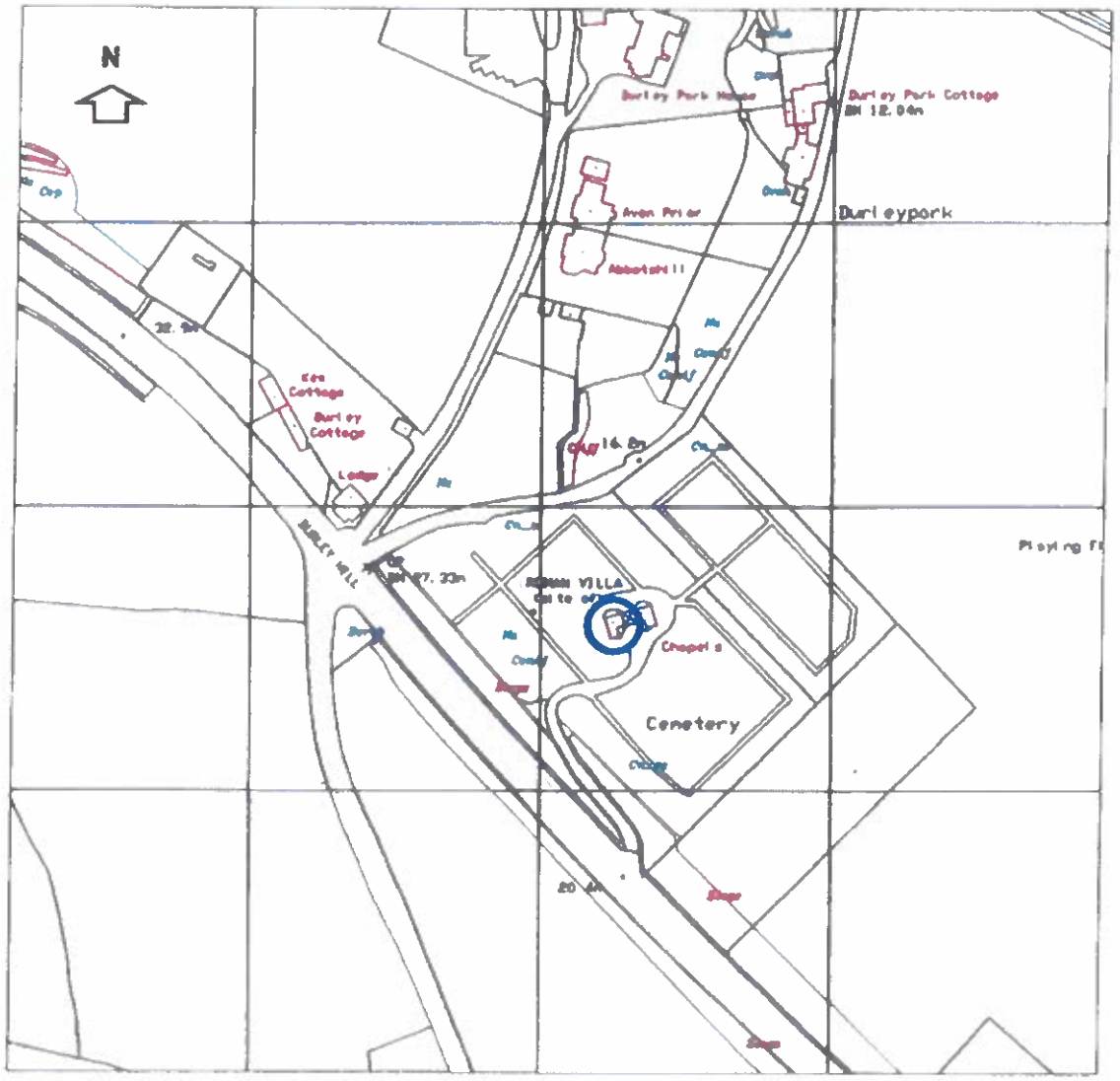
ST 69

Scale 1:25,000

Figure 2

Location of the Study Area

ST 645

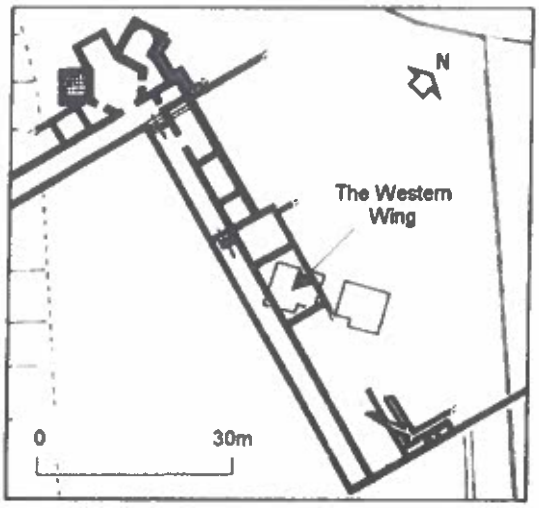


ST 693

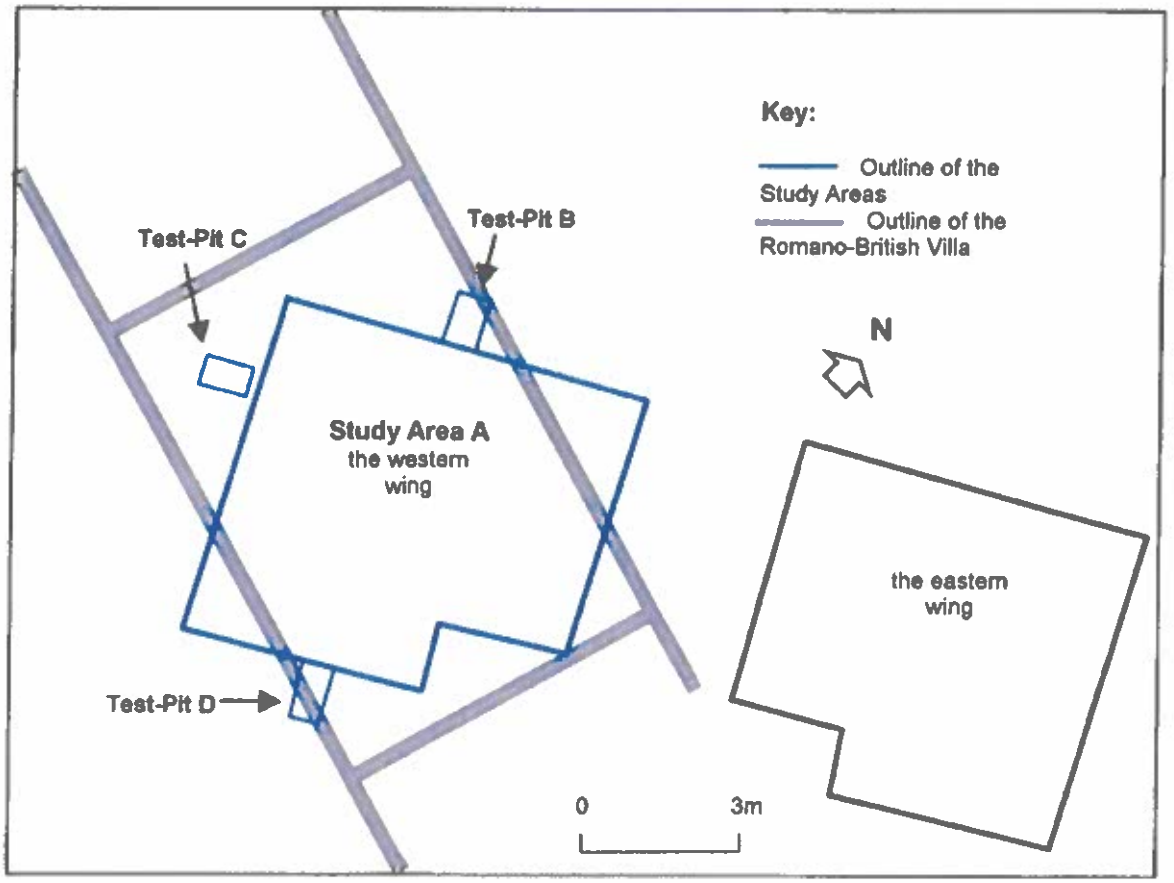
Scale 1:2,500

Figure 3

Location of Area A and Test-Pits B, C and D



.1) Location of the Mortuary Chapel (western wing) in relation to the Romano-British Villa



.2) Detail showing the Location of Study Area A and Test-Pits B, C and D in relation to the Romano-British Villa and the eastern wing of the Victorian Chapel

1 Introduction

Keynsham Cemetery is located at Durley Hill, on the northern edge of the town of Keynsham, Bath and Northeast Somerset (NGR ST64546926, **figures 1 and 2**). The site is bounded to the southwest by the A4175, the main road leading into the town centre from Bristol, and to the northwest by an access road leading to Durley Park. Elsewhere the site is bordered by open grassland used as playing fields. The Victorian Chapel is centrally positioned within the cemetery, which declines at a relatively shallow gradient overall towards the south and east, and is accessed by a steep, narrow road on the southwest boundary, extending down the edge of the A4175 road embankment.

The cemetery is located close to the junction of the Keuper Marl bedrock (Mercia Mudstone) and low-lying river alluvium, part of an area of floodplain known as the Keynsham Hams. It occupies the site of a former Romano-British villa of extensive size and wealth, Durley Hill Roman Villa (**SMR BN1208**). The slightly raised elevation of the area bordering the floodplain would have made this a prime site for a villa offering spectacular views across the Avon Valley.

The archaeological recording project (**SMR BN2929**) resulted from the need to make repairs to the west wing of the Victorian Chapel, a Grade II listed building (**ST66 NW 739-1/1/38**), which had been extensively affected by damp. An application was submitted by Keynsham Town Council to replace the existing internal suspended timber floor and to insert drainage for surface water externally. Accordingly, Mr. R. Sydes, the Archaeological Officer for Bath and Northeast Somerset Council required that a programme of archaeological recording and trial excavation be undertaken in order to record Romano-British features and deposits revealed below the suspended floor within the chapel and to establish the impact of the proposed drainage scheme on significant stratigraphy preserved outside the building.

Keynsham Town Council commissioned the Avon Archaeological Unit to undertake the work in accordance with the stated requirements of the Archaeological Officer and an approved Specification of Work (Young 2004). The work commenced on February 16th, 2004 and comprised twelve days of fieldwork followed by a further three weeks of post-excavation, encompassing specialist assessment (**Appendix 1**), archive work and report preparation.

The project archive (documents and finds) temporarily will be stored at the premises of the Avon Archaeological Unit before being deposited for longterm curation and storage at Roman Bath Museum, Trym Street, Bath, under the accession number **BATRM 2004.10**.

2 Methodology

2.1 *Recording within the Chapel – west wing (Area A)*

All archaeologically significant features, structures and deposits revealed within the Chapel were cleaned by hand and some limited excavation undertaken (i.e. removal of Victorian mortar) in order to fully expose and characterise such remains, particularly all areas of in-situ surviving Romano-British tessellated floor and associated cement bedding.

2.2 *Trial Excavation outside the Chapel – The Test-Pits (Test-Pits B, C and D)*

The test-pits were entirely excavated by hand after the initial mechanical cutting of the modern tarmacadam surfacing. Excavation ceased when the test-pits had been excavated to the same depth (c. 16.04 m a.O.D) as Romano-British deposits exposed within the Chapel interior (Area A), or at the surface of Romano-British archaeology.

2.3 *General*

All archaeological remains revealed were fully recorded by context using standard Avon Archaeological Unit record sheets. The remains were also recorded photographically using both colour and black and white film alongside transparencies and digital images. Scaled drawings were made as appropriate, the tessellated floor remnants being recorded at a scale of 1:1 by rubbing, the resulting images checked for accuracy during on-site transcribing. Artefacts recovered during hand cleaning and hand excavation were bagged and marked with the appropriate context number and removed for processing. The location of Area A and the test-pits was related to the National Grid using the appropriate Ordnance Survey sheet for the area and each was levelled to a nearby Ordnance Survey benchmark.

3 Archaeological Background

Keynsham Cemetery and Chapel occupies a part of the site of Durley Hill Roman Villa (**SMR BN1208**), notably the north wing. The south wing of the villa and focal suite of west rooms are still largely buried under the adjacent A4175 road embankment. The layout of the villa, a palatial colonnaded courtyard complex, was identified during excavations carried out in the early 1920s (Bulleid and Horne *ibid*), in response to the frequent discovery of tessellated pavements and masonry structures during gravedigging. The cemetery had been established during the mid-19th century and the number of bodies already interred on the site greatly hampered the excavations, the results of which provided a tantalising glimpse of the splendidly decorated rooms and tessellated corridors that formed the northern and southern corridor wings, linked by the focal suite of west rooms. The latter included two richly decorated suites incorporating octagonal rooms complete with high quality geometric and figurative mosaic floors.

Little attention was paid to detailed stratigraphy or the distribution and meaning of artefacts during the 1920s excavations, which were mainly concerned with revealing masonry features and tessellated flooring. Accordingly, the chronological and structural development of the villa is poorly understood, although the groundplan clearly indicates that further elements of the complex, not investigated, are preserved within the cemetery grounds and beyond. The location of the 'aula' or formal reception suite within the villa complex has not yet been determined, nor that of the bathhouse, long believed to have been sited on the north wing. The 1920s groundplan indicated that the east side of the substantial courtyard remained open providing an uninterrupted view over the Avon Valley, a suggestion reinforced by the local knowledge of the recently retired and long served former sexton at the cemetery, Mr. Pat Morris, who did not recall uncovering any masonry in the area during gravedigging.

No evidence of pre-villa Romano-British occupation at Durley Hill has been recovered, although earlier occupation during the 2nd-3rd centuries AD has been recorded at nearby Cadbury Somerdale, pre-dating that villa (Hume 1993). Likewise, there is little understanding of post-Roman activity at Durley Hill, although the site potentially would have acted as a rich source of building materials for subsequent settlement, either on site, or elsewhere in the locality.

More recent archaeological work has been undertaken at Keynsham Cemetery, including, in 1998, salvage recording of two engineering test-pits opened adjacent to the south wall of the Chapel in order to examine the foundations of the building (Hume and Young *ibid*). The work (**SMR BN30141 and BN30142**) revealed that the Chapel directly overlay stratified Romano-British deposits associated with the villa and comprising a substantial masonry wall, a sequence of flagged floor layers and mixed rubble and soil layers reflecting demolished villa structures and roofing materials. These deposits were interpreted to represent a previously unknown rear corridor associated with the northern wing of the villa. An archaeological trial

excavation, also undertaken in 1998 (Cox *ibid*) preceded the extension of the burial ground onto an area of land immediately adjacent to the southeast, in order to establish whether further features or deposits associated with the villa complex extended into the area. The work (**SMR BN30121**) revealed shallowly buried Romano-British archaeological remains of varying importance located over the site. The features dated to the 4th century AD and ranged from a substantial masonry wall foundation located at the southern end of the south wing of the villa to a series of postholes for unspecified earthfast timber structures. A thin soil layer occurring over most of the site contained worn fragments of Romano-British pottery and rooftile and was interpreted as a cultivation soil, possibly part of a garden associated with the villa. Limited prehistoric activity was also indicated by a collection of flints recovered from a few shallow soil-filled features of indeterminate form.

4 Archaeological Recording within the Chapel (Area A - west wing)

The Chapel at Keynsham Cemetery is centrally positioned within the bounds of the original Victorian graveyard, which was extended to the east and south during the latter part of the 20th century. The Chapel is actually orientated east-northeast to west-southwest (**figure 3**), but for the purpose of simplification during archaeological recording was regarded as being orientated east to west.

Prior to the commencement of archaeological recording in the interior of the west wing of the Chapel, the suspended wooden floor had been removed and the walls partly stripped of render and plaster before being drilled and coated with a black bituminous substance used for damp-proofing.

The west wing of the Chapel (Area A) was divided internally into three rooms, the vestibule or entranceway, the main room and a small side chamber. The archaeological recording exercise was focused mainly on the main room and small side chamber, where the removal of the wooden floors revealed archaeological remains relating to the Romano-British villa preserved at shallow depth (16.04 m a.O.D). The vestibule floor did not appear to be wooden and had not been removed.

4.1 *The Main Room*

Figures 3, 4 and 5: Plates 1, 2 and 3

Dimensions: length c. 5.5 m, width c. 3.7 m, overall height c. 5.5 m

General Description

The north, west, south and east walls (Walls 125, 123, 126 and 124 respectively), which defined the main room of the Chapel (**figure 4**), were constructed in a single build using dressed sandstone laid in uneven courses and bonded with hard grey mortar with coarse lime and fine ash inclusions. A decorative stained glass window had been incorporated in each of the opposing gable walls (125 and 126) and two narrow slot windows with plain glass were located in the west wall (123). Access into the main room from the vestibule was provided by a centrally positioned gap in the east wall (124) and a second gap towards the northern end of the wall opened into the small side chamber. A rectangular vent sealed with an iron grille on the exterior was incorporated in the construction of the wider stone foundation that projected for some 80 mm into the room at the base of the north wall (125). No projecting foundations were revealed for the west, east and south walls, but the latter (126) also incorporated two similar vents. The foundation trenches (Cut 127, Fill 128 and Cut 129, Fill 130 respectively) for the north and south walls (125 and 126) were revealed, cutting the underlying archaeological stratigraphy, but those for the west and east walls (123 and 124) were obscured by the insertion of sleeper walls for a suspended wooden floor.

A series of four mortared stone sleeper walls (Walls 108, 109, 110 and 111) were constructed in the main room of the Chapel in order to support a suspended wooden floor, the position of joists indicated by moulded mortar remnants adhering to the surface of the walls. The sleeper walls extended north-south over the length of the room and each was constructed within a narrow foundation trench (Cuts 112, 114, 116 and 118 respectively) cutting the underlying archaeological stratigraphy. Sleeper walls 108 and 111 were constructed against the Chapel walls to the east and west (124 and 123) whilst the remaining two sleeper walls (109 and 110) were spaced evenly between.

The western sleeper wall (111) was incorporated in the structure of Fireplace 120, centrally positioned in the western Chapel wall (123). A pair of heavy wooden doors temporarily stored in the Chapel largely obscured the fireplace from view, but three phases of hearth construction were recorded indicating that the present moulded plaster fire surround with cast iron fire basket was not an original feature.

Archaeological Features and Deposits

A compacted layer of silty clay (Layer 103, **figure 4**) containing abundant redeposited tesserae alongside fragments of pink opus signinum mortar and hard white mortar, as well as some small and medium limestone rubble, was revealed over much of the area between the sleeper walls (**plate 3**), sealed by a thin spread of pale grey Victorian mortar (102). The compacted surface (103) was sealed by two isolated, but thick deposits of pink opus signinum mortar (106 and 107) in the area between Sleeper Walls 108 and 109, probable remnants of bedding formerly underlying a tessellated floor. A third spread of similar pink mortar sealed with a hard white mortar surface (Cement 104) was located in the southwest of the room, between Sleeper Walls 110 and 111. Here, a small area of tessellated floor (105, length 320 mm, width 230 mm, **plate 2**) survived in-situ adhering to the hard white mortar and impressions of further tesserae since removed were observed in the mortar surface. Tessellated Floor Remnant 105 was L-shaped in plan and composed of single colour (off-white) limestone tesserae, the majority of which were squared (15 mm x 15 mm), although some wider and narrower rectangular forms were also incorporated at irregular intervals.

A small circular posthole (121) filled with loose soil and rubble (122) cut Layer 103 in the northeast corner of the room. Although undated, it seemed likely that the posthole related to construction activity associated with the Victorian Chapel rather than representing activity associated with the Romano-British villa.

Discussion

Extensive archaeological remains relating to Romano-British villa were revealed within the main room of the Chapel directly below the suspended wooden floor. Remnants of tessellated floor (105) and associated mortar bedding layers (104, 106 and 107) were preserved at a number of locations sealing an extensive compacted soil layer (103). The inclusion of numerous redeposited tesserae and mortar fragments in the make up of Layer 103 indicated that it probably represented made ground incorporating material from an earlier, destroyed tessellated floor. As such, Layer 103 was probably derived from elsewhere on site and deposited at this location as a rammed surface in preparation for the laying of the in-situ tessellated floor (105), which would have formed part of a larger pavement laid in one of the rooms located in the northern wing of the villa (**figure 9**).

The Romano-British remains were directly sealed with a thin layer of Victorian mortar and were truncated by construction activity associated with the Chapel. No evidence of activity on the site during the intervening medieval and post-medieval periods was identified. Some minor modification had been carried out within the Chapel indicated by the three phases of hearth construction associated with the fireplace (120) sited on the western wall (123).

4.2 ***The Side Chamber and Vestibule***
Figures 3, 4 and 6: Plates 4 and 5
Dimensions: length c.2.1 m, width c. 3.5 m, overall height c. 4m

General Description

The side chamber and vestibule were originally a single room, an antechamber providing access in to the main room of the Chapel, which was subsequently subdivided with the erection of a brick partition wall (133). Identical opposing windows were located in the north wall of the side chamber (135) and south wall of the vestibule (132), both of which were constructed using similar mortared sandstone masonry to that recorded for the walls in the main room. Within the side chamber, the east wall (134) was also stone built, but in the adjacent vestibule it had been partly reconstructed using brick when the present arched wooden door was inserted. The tiled floor (131) remained in-situ within the vestibule, whereas the suspended wooden floor had been removed in the side chamber revealing underlying archaeological features and deposits.

The removal of the floor in the side chamber also revealed that Partition Wall 133 was constructed over a low, mortared sandstone masonry wall (136, height c. 200 mm) that projected some 140 mm beyond the face of the brickwork. Wall 136 extended between Walls 124 and 134 to the west and east respectively and was contemporary in construction. The upper edge of Wall 136, upon which the later brick partition (133) had been constructed, appeared well-finished, and it was not possible to determine whether Wall 136 had been originally constructed to a greater height.

Wall 136 was constructed within a broad foundation trench (Cut 143, Fill 144), which appeared contiguous with the foundation trenches (Cut 139, Fill 140 and Cut 141, Fill 142 respectively) for the adjoining east and north walls (134 and 135). This contiguous foundation trench was subsequently truncated when sleeper walls (137 and 138) for a suspended floor were inserted between Walls 135 and 136, each founded within a narrow trench (Cuts 145 and 147 respectively).

Archaeological Features and Deposits

The surviving archaeological stratigraphy (Cement 149 and Tessellated Floor 150, **plate 5**) revealed within the side chamber was sealed by a thin spread of hard grey mortar with coarse ash and lime inclusions (Layer 101), deposited during the construction of the Chapel, and truncated by the various Victorian wall foundation trenches. Traces of pink opus signinum mortar were evident within the spread of thick, hard white mortar (Cement 149) used as bedding for the tessellated floor and the former position of some tesserae was revealed as impressions in the surface. The surviving remnant of in-situ tessellated floor (150) was c. 1 m in length and 500 mm wide and formed from single colour (off-white/buff) limestone tesserae, the majority squared in shape and sized at 15 mm x 15 mm.

Discussion
Romano-British features and deposits related with the villa were revealed within the side chamber, as a remnant of tessellated floor (150) and associated cement bedding (149). These probably represented further remnants of the former pavement (105) identified in the main room of the Chapel, which had been laid in a room located in the northern wing of the villa (**figure 9**). The Romano-British remains were disturbed during construction activity for the Victorian Chapel and were immediately sealed by an associated mortar spread. No evidence of activity on the site in the intervening years and affecting the Romano-British stratigraphy was recorded.

Modification to the Victorian Chapel was indicated by the insertion of a brick partition wall (133) dividing the original single antechamber into a vestibule and adjacent side chamber. The function of the original, low sandstone wall (136), over which Partition 133 had been constructed, was not determined, but possibly represented an earlier partition or internal feature of the antechamber

5 The Trial Excavation -Description of the Test-Pits

A series of three test-pits (Test-Pits B, C and D) were opened, one each adjacent to the external north, west and south walls of the west wing of the Chapel, in order to assess the impact of the proposed drainage scheme on surviving archaeological features and deposits located outside the building.

5.1 *Test-Pit B – north wall*

Figures 3, 7, 8 and 9: Plates 6 and 7

Dimensions: length 960 mm, width 560 mm, maximum depth 560 mm

General Stratigraphy

Test-Pit B was sealed at the surface with a thick layer of tarmacadam (201, depth 80 mm) that formed the modern ground surface throughout. The tarmacadam directly overlay the projecting masonry foundation (211) of the north wall of the Chapel, but elsewhere within the test-pit was bedded on a similar depth of scalpings (202). The shallow remnant of a soil filled cut feature (Gully 203, Fill 204) was revealed below the scalpings, cutting Layer 205, a thin deposit of silty clay with sporadic small stones. Gully 203 also cut the mixed fill (210) of Foundation Trench 209, within which the mortared and coursed sandstone foundation (211) of the north wall of the Chapel had been constructed. Layer 205 sealed a thick deposit (206, depth c. 200 mm) of mixed soil and medium to large limestone rubble, which in turn overlay a thin silted deposit with frequent fine grits (208).

Archaeological Features and Deposits

Silted Layer 208 sealed part of a north-south orientated masonry wall (207) exposed at a depth of 16.18 m a.O.D in the base of the test-pit. Only the faced eastern side and rubble core of the limestone wall (207) was exposed, the stonework bonded with buff sandy mortar with coarse lime inclusions. The wall was butted by a tessellated floor (212), which sealed the remainder of the test-pit in the base and had been truncated by Foundation Trench 209 during construction of the Chapel. Tessellated Floor 212 (**figure 8**) was entirely composed of single colour (yellowish brown – possibly stained by overlying soil) stone tesserae bedded in hard white cement. The tesserae were largely uniform in size and shape (squared at 15 mm by 15 mm), although occasional narrower and wider rectangular forms were also incorporated at intervals with no apparent regularity. The tessellated floor appeared to have subsided, as it declined steeply to the east (1:4 gradient) away from the edge of Wall 207.

Discussion

Archaeological remains associated with the Romano-British villa were revealed within Test-Pit B at a depth of 16.18 m a.O.D, some 400 mm below the modern ground surface. The masonry wall (207) probably represents a previously unidentified internal partition wall dividing two of the numerous rooms that made up the north wing of the villa (**figure 9**). The subsidence of the associated tessellated floor (212) indicates that it may overlie a hypocaust system and suggests the possible location of the bathhouse, previously undetermined, lay nearby.

The Romano-British features and deposits were sealed by a sequence of made ground deposited prior to the construction of the Chapel and indicating little activity on the site in the intervening years.

5.2 ***Test-Pit C – west wall***
Figures 3 and 7: Plate 8
Dimensions: length 910 mm, width 510 mm, maximum depth 690 mm

General Stratigraphy

The modern ground surface sealing Test-Pit C comprised a similar thickness of tarmacadam (301) as that recorded for Test-Pit B and like the latter, it too directly sealed the projecting masonry foundation (310) of the Chapel wall. Elsewhere within the test-pit, the tarmacadam surface was bedded on Scalpings 302, which in turn overlay a silty clay deposit (305), similar to Layer 205 in Test-Pit B. Layer 205 was cut to the west by a modern service trench (303) backfilled with Deposit 304, gritty silty clay sealing a jointed ceramic pipe in the base. The layer (305) was also cut to the east and south by the foundation trench (Cut 309, Fill 310) for the poorly constructed mortared sandstone rubble foundations of the chapel wall (310) and adjacent projecting chimney breast-cum-buttress (306). A thin spread of clay (307) was revealed below Layer 305 and sealed a thick deposit of mixed soil and abundant medium to large limestone rubble (308, depth > 390 mm) that filled the remainder of the test-pit.

Archaeological Features and Deposits

No archaeologically significant features, structures or deposits were revealed within Test-Pit C prior to termination of excavation due to the constraints of working at depth in a confined space.

Discussion
Test-Pit C revealed made ground deposited prior to the construction of the Chapel and insertion of modern drainage. No archaeological remains relating to the Romano-British villa were revealed within the test-pit, however these may survive at greater depth than that exposed, as excavation was terminated at 16.07 m a.O.D, close to the level of known Romano-British deposits surviving within the Chapel interior and in the adjacent test-pits (Test-Pits B and D).

5.3 ***Test-Pit D – south wall***
Figures 3, 7 and 9: Plates 9 and 10
Dimensions: length 970 mm, width 570 mm, maximum depth 360 mm

General Stratigraphy

Shallowly buried archaeological remains relating to the Romano-British villa were revealed at 16.06 m a.O.D in the base of Test-Pit D, sealed by a limited stratigraphic sequence. As previously recorded in Test-Pits B and C, here too the thick modern tarmacadam surfacing (401, depth 90 mm) directly sealed the well-constructed projecting masonry foundations (404) of the Chapel wall. Beyond the foundations, the tarmacadam (401) was bedded on a similar thickness of scalpings (402), which in turn sealed Layer 406, stony silty clay. Layer 406 was cut by both the foundation trench (Cut 403, Fill 405) for the coursed and mortared sandstone wall foundation (404) and by a modern service trench (407). Fill 408, mixed clayey silt and small to medium limestone rubble, sealed the T-shaped junction of two jointed ceramic pipes laid in the base of the service trench (407).

Archaeological Features and Deposits

Deposit 406 overlay the truncated remnant of a former tessellated floor (409, **plate 10**) cut by Foundation Trench 403 in the extreme northeastern corner of the test-pit. Only a few of the stone tesserae used to construct the tessellated floor remained in-situ, but were observed to be similar in size and shape to those recorded in Test-Pit B (Tessellated Floor 212), although differing in colour (off-white). The tessellated floor butted the northern face of an east-west orientated masonry wall (410), similar in form and construction to the Romano-British wall (207) recorded in Test-Pit B. Here, the wall (410) had been partly destroyed during the cutting of both Service Trench 407 and the foundation trench (403) for the Chapel wall. Indeed, part of the earlier wall (410) had been incorporated at the base of the Victorian foundation masonry (404).

Discussion

Significant Romano-British remains relating to the villa were revealed within Test-Pit D preserved at shallow depth (c. 290 mm) below the modern ground surface. Wall 410 probably defined the northern side of the long corridor that extended down the front of the north wing of the villa (**figure 9**), butted by a remnant of the tessellated floor (409) formerly laid in an adjacent room.

The deposition of a thin layer of made ground (406) represented the only activity on the site after the demolition of the villa and prior to the construction of the Victorian Chapel.

6 The Finds

A small collection of artefacts was recovered from both stratified and unstratified contexts during the project. The great majority of these comprised redeposited stone tesserae of varying colours and flint, which, with the exception of a single possible fragment of awl or burin (Context 208), comprised natural flint gravels.

Table1: Catalogue of the Finds

Context	Find Type	Quantity	Weight (g)	Description
100	Tesserae	32	516	32 cube-shaped limestone tesserae, average size 18mm. by 20mm. by 15mm.
100	Glass	1	<1	1 clear glass shard, 1mm. thick, 17mm. max length by 12mm. width. Possible window glass.
100	Flint	2	9	Unworked natural flint gravels
100	CBM	1	1	1 brick/tile fragment, undated
102	Pottery	3	14	1 blue transfer print body sherd (Willow pattern) – post-medieval 2 plain white ware body sherds – post-medieval
102	Clay tobacco pipe	1	1	1 pipe stem fragment, very small bore

Context	Find Type	Quantity	Weight (g)	Description
103	Tesserae	122	1459	122 cube-shaped limestone tesserae. Minimum dimensions: 9mm. by 10mm. by 10mm. Maximum dimensions: 19mm. by 17mm. by 19mm. Some more cuboid in form, with surface dimensions: 21mm. by 16mm.
103	Iron nails	4 and 4 frags	60	4 iron nails, very heavily corroded, probable square-sectioned shanks, heads missing. Tip of 1 nail is bent at right angles to main shank. Dimensions: Minimum: 44mm. by 9mm. by 8mm. Maximum: 55mm. by 9mm. by 38mm. (bent tip).
103	CBM	6	47	6 brick/tile fragments, one with grey lime mortar adhering and rolled edge.
103	Pottery	1	1	1 Romano-British body sherd, internally oxidized, reduced core, earthenware
103	Flint	6	26	Unworked natural flint gravels
200	Glass	1	2	1 olive green, flat glass shard
200	Pottery	1	3	1 flower pot body sherd
200	CBM	1	1	1 brick/tile fragment, undated
204	Flint	1	1	Unworked flint chip
205	Flint	6	24	Unworked natural flint gravels
206	Tesserae	9	147	9 cube-shaped limestone tesserae, very regular in form, average dimensions: 19mm. by 23mm. by 17mm.
206	CBM	1	1	1 brick/tile fragment, undated
206	Flint	8	51	Unworked natural flint gravels
208	Tesserae	22	342	22 cube-shaped limestone tesserae, many with white lime mortar adhering. Dimensions: (minimum) 12mm. by 11mm. by 8mm. (maximum) 17mm. by 22mm. by 20mm.
208	CBM	3	18	3 brick/tile fragments, two with white lime mortar adhering.
208	Flint	4	36	3 x unworked natural flint gravels and 1 x possible awl or burin
305	Glass	2	2	2 clear window glass shards with yellowish tinge, possibly from window of Chapel.
307	CBM	1	47	1 large brick/tile fragment, 11mm. thick, possibly Romano-British
307	Flint	2	7	2 x unworked irregular chips
308	Iron nail	1	4	1 iron nail, slightly bent, no head, slightly tapering, probably square in section. Dimensions: 42mm. by 5mm. by 6mm.

Context	Find Type	Quantity	Weight (g)	Description
308	Tesserae	5	58	5 limestone tesserae, one with lime mortar adhering. One is triangular/prism-shaped, the remainder are cubes. One smaller, orange/brown in colour, dimensions: 13mm. by 11mm. by 11mm. Average size of the remainder: 19mm. by 16mm. by 16mm.
308	CBM	2	4	2 brick/tile fragments, undated.
308	Bone	3	9	3 animal bone fragments
308	Flint	13	68	Unworked natural flint gravels
400	Pottery	1	10	1 possible black burnished ware sherd with lattice decoration (Romano-British)
400	CBM	1	6	1 modern brick/tile fragment with modern concrete adhering
405	Tesserae	3	32	3 cube-shaped limestone tesserae, two with white lime mortar adhering, average dimensions: 23mm. by 15mm. by 13mm.
406	Flint	1	3	Unworked fragment, possibly burnt
406	CBM	2	8	2 brick/tile fragments, probably post-medieval.
406	Bone	3	31	3 animal bone fragments.
406	Worked stone	1	49	Worked limestone fragment. Dimensions: 100mm. by 26mm. (max.) by 13mm. (max.). Possible edge fragment of larger stone object, showing two roughly smoothed perpendicular faces.
406	Metal object	2	139	1 large lump of corroded iron, original shape unidentifiable. 1 small fragment of corroded iron, possibly part of above object.
406	Tesserae	7	109	7 cube-shaped limestone tesserae, average size: 20mm. by 14mm. by 16mm. Dimensions of one slightly larger tessera: 22mm. by 23mm. by 15mm.
408	Flint	3	14	Unworked natural flint gravels
408	CBM	1	26	1 Romano-British tile fragment with stamp showing 2 rectangles. Also possible small animal/bird footprint. Markings along fractured edge suggest that some of the stamp may be missing.
408	Tesserae	4	73	4 cube-shaped limestone tesserae, average dimensions: 17mm. by 20mm. by 16mm. One unusual flat example: 25mm. by 26mm. by 11mm.

7 Discussion and General Conclusions

The archaeological recording exercise and trial excavation at Keynsham Cemetery Chapel have revealed that significant stratified structures and deposits relating to a phase of Romano-British activity survive both within and outside the footprint of the Chapel. The activity identified relates to the occupation of the late 3rd and 4th centuries AD Durley Hill Villa, an extensive and opulent villa complex with a range of rooms organised along two long corridors, the north and south wings, constructed around a courtyard and linked to the west by a suite of richly decorated principal rooms.

The Chapel is located on the site of the northern corridor wing, the groundplan for which was partly established during archaeological excavation of the villa during the early 20th century (Bulleid and Horne *ibid*). The archaeological evidence recorded during the current investigations has identified a previously unrecorded internal partition wall dividing two of the rooms in the wing and further defined one wall of the corridor extending along the frontage. In-situ remnants of plain tessellated floor identified both within and outside the Chapel indicate that one room was well paved, if not as splendidly decorated as the principal rooms to the west, where mosaics with geometric and figurative designs were recorded during the earlier excavations. The possible function of this room is hinted at by the segment of tessellated floor revealed in the base of a test-pit opened on the northern side of the Chapel (Test-Pit B, Floor 212). Here, the tessellated floor appears undisturbed, but has subsided to the southeast towards the centre of the room, possibly due to the disturbance or collapse of an underlying hypocaust system associated with a bath complex. The location of a bath complex at the villa has never been identified, but sluices and drains constructed to the southeast suggested it was located in the vicinity of the northern corridor wing. The differing floor levels recorded for this room and the adjacent corridor on the frontage further support the possible presence of a hypocaust system underlying the tessellated floor. The flagged floor of the corridor was revealed at 15.57 m a.O.D within a test-pit located at the southwest corner of the Chapel during a preceding salvage recording exercise (Hume and Young *ibid*, Context 205), whereas a remnant of tessellated floor exposed within the room and butting the corridor wall lay at 16.06 m a.O.D (Test-Pit D, Tessellated Floor 409).

The test-pits show that the foundation trenches for the Victorian Chapel cut an undated sequence of deposits that seals the Romano-British remains. These deposits represent the only evidence of archaeological activity on the site after the abandonment of the Romano-British villa and prior to the construction of the Victorian Chapel. Internally, features associated with the construction of the Chapel, such as sleeper walls for a suspended wooden floor, directly overlie or truncate surviving Romano-British remains. Despite this, the archaeological work has demonstrated that significant stratified structures and deposits associated with a regionally important villa complex are preserved directly below the Chapel and that the construction of the building has only partially affected those remains.

Future maintenance projects proposed for the Chapel must be designed in order to accommodate the continued preservation of those remains.

On the basis of the evidence gathered during the project, it is advised that the fragments of tessellated flooring, located inside the Chapel, should be preserved in situ after appropriate conservation work (see **Appendix 1**).

The evidence revealed in the test-pits indicates that significant archaeological deposits and structures are preserved at a shallow depth, both adjacent to and below the Chapel foundations. Consequently, the insertion of new French drains would have a significant negative impact upon the archaeology and alternative options to provide new drainage to the Chapel should be considered.

7 References.

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Hume L. 1993
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ST66 NW 739-1/1/38
Durley Hill (northeast side) Mortuary Chapels at Keynsham Cemetery Grade II

Figure 5

Plan of Tessellated Floor Remnant 105

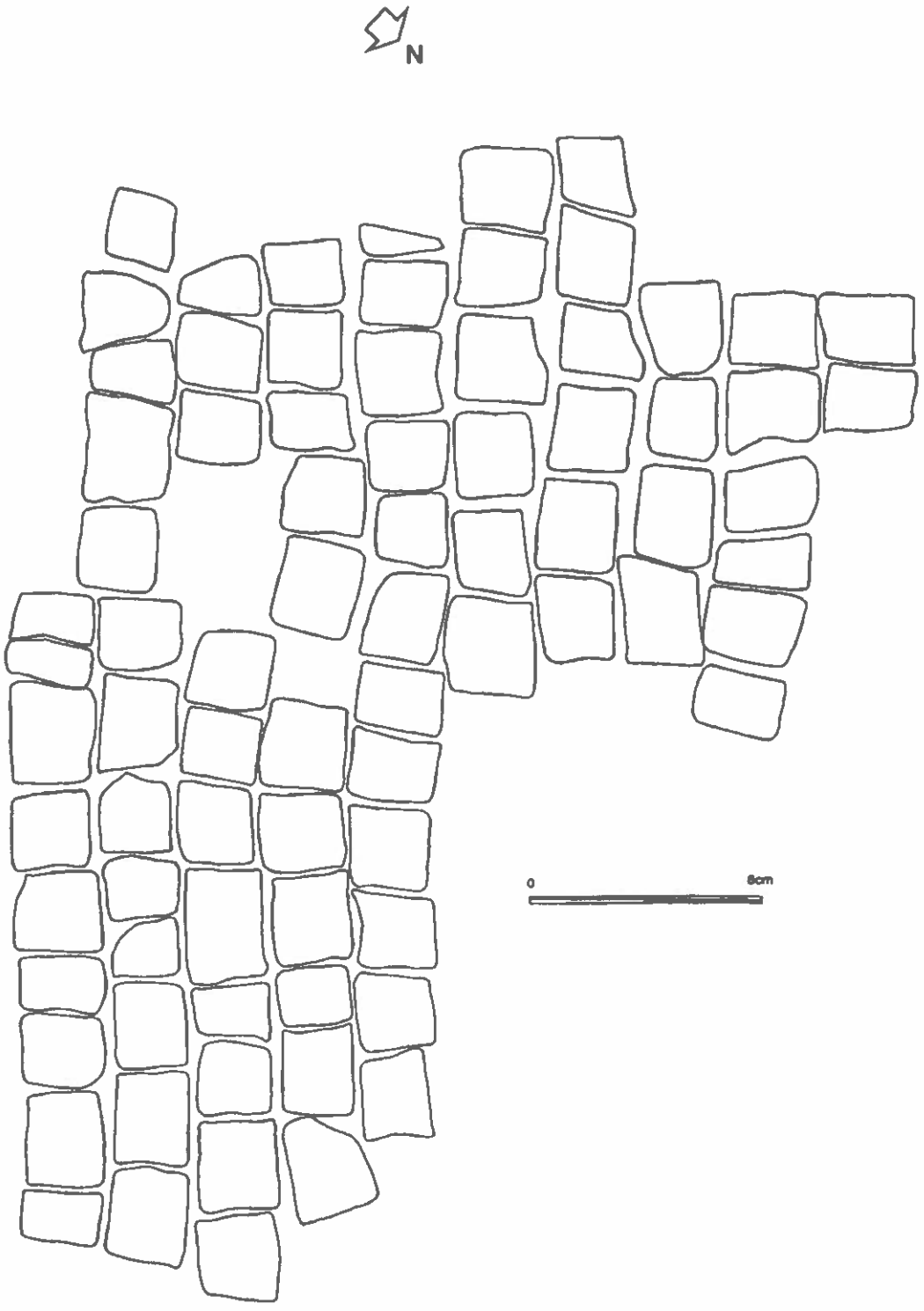
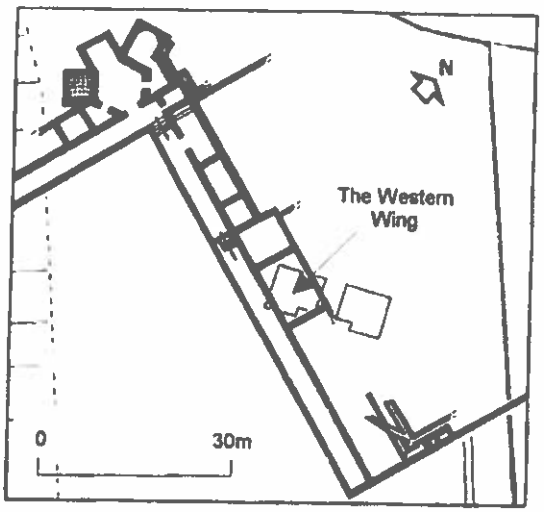
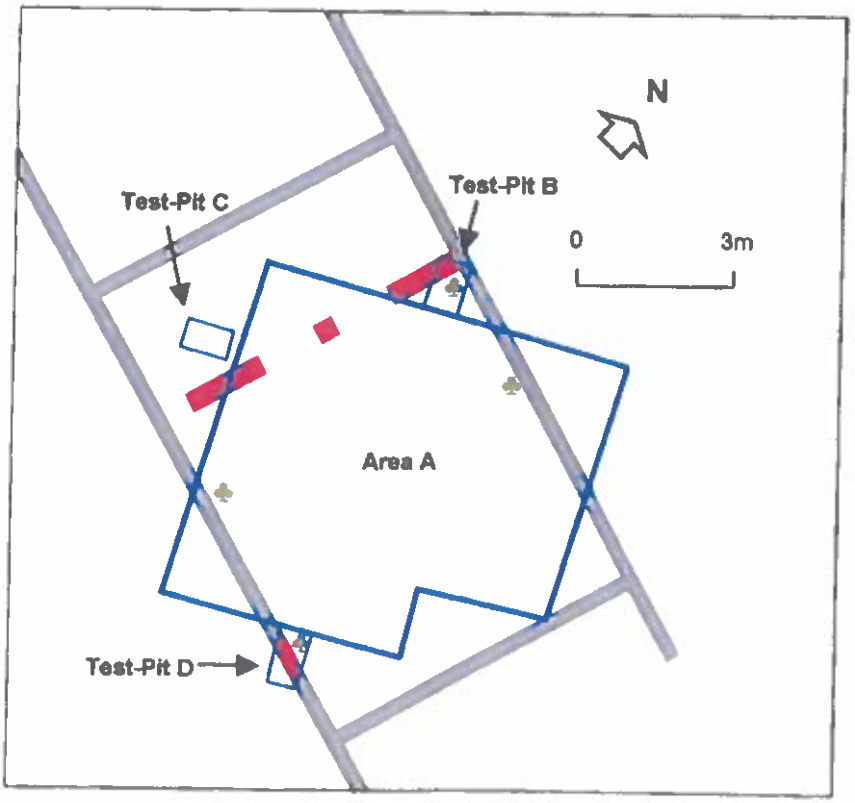


Figure 9

Schematic Plan of the Romano-British Villa and the Archaeological Features Located



.1) Location of the Mortuary Chapel (western wing) in relation to the Romano-British Villa



.2) Detail of the western wing showing the location of Romano-British Archaeological Features identified during Recording

Plates

1) General view of the Chapel interior, west wing, viewed from the northwest

2) Detail of Tessellated Floor Remnant 105, viewed from the southeast

3) General view of Chapel interior viewed from the south

4) General view during cleaning of Tessellated Floor Remnant 150, viewed from the west

5) Detail of Tessellated Floor Remnant 150 and Victorian Sleeper Walls 137 and 138

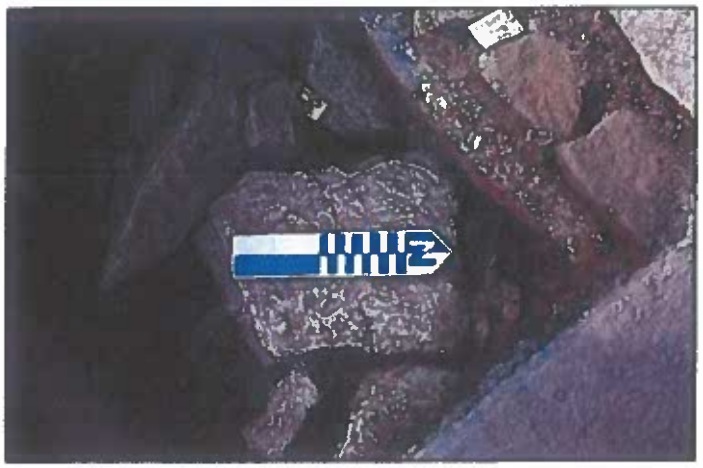
Plates

6) General view of Test-Pit B, after excavation, viewed from the west

7) Test-Pit B, detail of Romano-British Wall 207 and Tessellated Floor Remnant 212, viewed from the northwest

8) Test-Pit C, after excavation, viewed from the west

9) General view of Test-Pit D, after excavation, viewed from the east



10) Test-Pit D, detail of Romano-British Wall 410 and Tessellated Floor Remnant 409, viewed from the east

SOUTHAMPTON CITY COUNCIL

ARCHAEOLOGY UNIT

THE REPORT ON THE ASSESSMENT OF TESSELLATED PAVEMENT FRAGMENTS, DURLEY HILL CEMETERY, KEYNSHAM, SOMERSET

Appendix 1

March 2004

Carol Edwards BA, AIFA,
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SOUTHAMPTON
CITY COUNCIL

REPORT ON THE ASSESSMENT OF TESSELLATED PAVEMENT FRAGMENTS, DURLEY HILL CEMETERY, KEYNSHAM, SOMERSET

by Carol Edwards: Conservator, Southampton City Council Archaeology Unit

1. Introduction

1.1. This report, produced at the request of Andrew Young, Avon Archaeological Unit, (AAU), describes the assessment, discussions and recommendations from a site meeting which took place at Durley Hill Cemetery, Keynsham on 3 March 2004. The meeting was convened to assess and discuss the preservation of the Roman tessellated pavement fragments in situ and was attended by Andrew Young, manager, (AAU); Bob Sydes, County Archaeology officer. Bath and Northeast Somerset Council; Angela Dudley, Keynsham Town Council and Carol Edwards, Southampton City Council Archaeology Unit.

2. Background

2.1 The Roman villa was first discovered in 1877, (1), during the construction of the cemetery chapel. However the use of cemetery site continued, resulting in the damage and destruction of archaeological remains. In the 1920s an archaeological excavation was undertaken and elements of eight, 4th century geometric and figurative mosaics, were revealed, of which at least two mosaics were lifted and displayed.

Further damage to the Roman remains has occurred during the building of the Bath to Bristol Road and the cemetery continues to be in use.

2.2 Following the recent removal of the timber floor in the cemetery chapel, the archaeological surfaces and two areas of plain tessellation were revealed.

2.3 Three external test pits were excavated by the Avon Archaeological Unit prior to the proposed installation of a French drain, around the outside of the chapel, to alleviate damp problems.

3. Description

3.1 Internally, a plain tessellated area, 350 mm x 250 mm approximately, was located in the main room and an additional fragment, c. 1 m x 550 mm, in an adjacent chamber.

The limestone tesserae were off-white/cream in colour with surface dimensions of approximately 15 mm x 15 mm and in good condition. They were firmly set into an off-white mortar and traces of pink opus signinum mortar were visible beneath.

3.2 Surrounding archaeological surfaces showed a disturbed layer with similar tesserae present in it. Modern brick joists/supports had been constructed across the surface.

3.3 Externally, two of the test pits revealed Roman masonry including plain tessellation similar to those within the chapel building. The pit on the southern side of the chapel had a modern drainage pipe running through it and had a very small fragment of tessellation visible. On the northern side the test pit had a larger area of intact tessellation, sloping and subsiding downwards.

4. Assessment and Recommendations

4.1 The following describes the assessment of the tessellated pavement fragments in relation to their condition, the discussions at the site meeting and the recommendations for their preservation.

4.2 The tesserae were in a good condition and well embedded into the setting-bed mortar, however it is recommended that where the outer edges of the fragments need support that these should be bordered with a weak lime mortar. The larger fragment is mainly flush with the surrounding archaeological surface and only requires attention on one side.

4.3 Boarding, raised above the tessellated areas and the archaeological surface, should be installed as temporary protection during the building works. All sawing of boards and wood and where possible all other similar works should be undertaken outside of the chapel and precautions taken to lessen the production of dust etc.

4.4 Keynsham Town Council proposes to construct a timber floor replacement above the archaeological remains. This is the preferred option as it will create a similar environment as before for the Roman remains and will allow inspection hatches to be installed in order to monitor and examine the tessellated areas. The dark and cool environment with ventilation will inhibit algal growth and salt efflorescence.

4.5 There are plans to install ventilation grilles in the timber floor and care will need to be taken that dust and debris does not collect on the archaeological surfaces, particularly near the tessellated areas.

4.6 Externally, the three test pits adjacent to the outer wall of the chapel revealed Roman structures. A French drain around the chapel had been discussed as a possibility to reduce the damp but if installed above the remains this would concentrate the water onto the structures. Additionally, the required depth of the French drains would necessitate the removal of the tessellation and Roman masonry therefore it was recommended that French drains are not installed in this area.

4.7 Two options were proposed for the reburial of the archaeological features in the northern test pit. If the structures were to be reburied with no future plans to uncover them, the excavated soil, to be in contact with the structures, should be first sieved to remove large/ medium stones. Following this, the remaining unsieved soil could be returned to the test pit and the tarmac surface reinstated. Geotextile would not be required as the tarmac layer would prevent plant growth.

4.8. The second option was to cover the archaeological structures with a permeable geotextile followed by a layer of silver sand approximately 5mm in depth. This will allow access to these areas more readily and will give a warning to future works of the presence of archaeological features. This was the option agreed on site, as it was thought probable that access would be required and this would act as a precaution to prevent future damage.

5. Conclusions

5.1 The cemetery site is part of an extensive 4th century Roman villa site and the above recommendations indicate the importance of these Roman features surviving in situ and protected by the chapel. The geometric and figurative mosaics that were excavated in 1920s indicate the importance of this archaeological site and the structures that survive, merit protection.

5.2 The surviving fragments of tessellated pavement inside the chapel are in good condition. A small amount of consolidation with lime mortar to secure the edges is recommended.

5.3 The replacement of the timber floors will protect these remains from physical damage, light and excessive drying of the mortars and it provides an opportunity for controlled access to these structures. Any drainage, heating or other building schemes involving the chapel should also be carefully considered because of possible detrimental effects on the archaeological remains.

6. Bibliography

1. Rainey Anne, 1973: Mosaics in Roman Britain. Pp 99-101