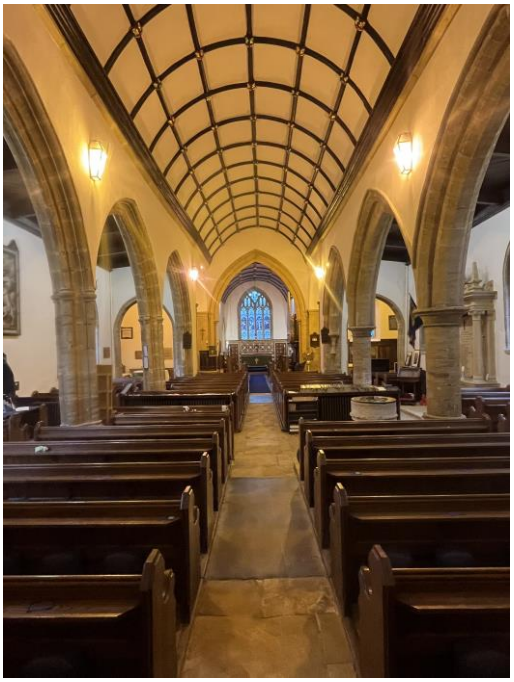
benjamin+beauchamp
architecture design conservation
the borough studios, the borough, wedmore, somerset BS28 4EB
T 01934 713313 F 01934 713314
studio@b2architects.com www.b2architects.com

EAST COKER
St Michael & All Angels

Project Beacon

Reordering and external works including:

level access provision, pew removal, new flooring, new servery & accessible WC, improvements to external car park and new heating system.



Project No: 0659

v2
10 Oct 2025

PART 1: PRELIMINARIES

1.1 Description of Church - Summary Description

The church is built of Ham hill stone and is located immediately northeast of Coker Court. The building comprises chancel, nave, north and south transepts and aisles. The tower, previously located over the central crossing, was rebuilt north of the chancel in the mid C18 along with much of the adjacent fabric. There is some internal C13 work and possible Norman fabric at the west end. The church has an attractive position uphill of the village and a beautiful churchyard with expansive views.

The church is Grade II* listed.

1.2 Background & Brief

The church is kept in good order by a dedicated PCC. The oil boiler is aged and the piped heating system no longer operates effectively. Under-pew electric heaters have been successfully installed in the central nave over the last 12months, and the church now plan to move to a fully electric heating solution.

Externally the church is currently approached via a steep tarmac path, previously with a few ham stone slabs immediately outside the north porch. These had suffered severe weathering and had become a trip hazard. A temporary faculty was granted for their removal and for a temporary hoggin surface whilst detailed proposals were being developed. Ham stone remains stored on site. The car park is defined by a large section of former boundary wall left in place when the adjacent landowner gifted a strip of land to the church to facilitate vehicular access in the 1970's. Unfortunately this forms a substantial 'traffic island' and despite the large area parking space is limited. and access for emergency vehicles would be almost impossible during services or events.

The church has level access through the aisles, choir and chancel but due to the steeply sloping site, there are several steps up through the north porch, including within the aisle, and steep steps down into the church, at the west doors. The church benefits from a single WC near the back door, but this is small and cannot be made readily accessible during services/ events. Despite drainage investigations and review of previous faculties, the foul drainage route remains unclear and further testing is required.

The church is regularly used but the west end seating is infrequently utilized, and there is a desire for more flexible arrangements in this area to facilitate different forms of worship and to encourage greater community use of the building. The PCC have engaged in a thorough process to investigate options for locating an accessible WC, creating level access, and installing a servery. This document and the associated drawings are the product of nearly 8yrs development work.

Other associated proposals include re-lighting the building (under a separate faculty application) and heritage/ interpretation works including better presentation of memorials to TS Eliot and William Dampier. These are currently under development with specialist consultants Rowena Riley and McNeilage Conservation and proposals will be subject to future consultation and faculty applications.

1.3 Scope and Principles of the Works

This project comprises the following range of work:

- structural works to create new doorway within base of NE tower
- new accessible WC within base of tower
- Internal floor relevelling to facilitate level access (under archaeological supervision)
- pew & platform removal to the west end of the nave
- new flooring with underfloor heating
- new servery
- relocation of the font
- new timber dais and steps to the west door
- new timber joinery providing chair & table storage, and covers to new electric heaters

1.4 Location of Site

The church is sited in the village of East Coker.

Postcode: BA22 9JW

1.5 Access

The church is open daily but if you wish to confirm that there are no services then arrangements to visit the church should be made by contacting Arrangements to visit the church should be made by contacting Toffer Beattie, the Churchwarden.

1.6 The Contract

The Employer will be the PCC of St Michael & All Angels, East Coker
The Architect will be benjamin+beauchamp architects ltd.
The Principal Designer will be benjamin+beauchamp architects ltd.

A contract will be drawn up between the Employer and the selected Contractor using the Intermediate Building Contract issued by the Joint Contracts Tribunal, 2024 latest edition. All contract figures shall be exclusive of VAT.

The following Contract Particulars shall apply:

1st Recital	The Employer wishes to have the following work carried out: Reordering and external works including: level access provision, pew removal, new flooring, new servery & accessible WC, improvements to external car park and new heating system at St Michael & All Angels Church, East Coker - 'The Works'
2nd Recital	A Specification and drawings have been prepared. A Bill of Quantities will be produced.
3rd Recital	Reference to Work Schedules and Schedules of Rates will be deleted.
4th Recital	The 'Base Date' shall be ten days before the tender return due date. CIS – The Employer at the Base Date is not a Contractor for the purpose of the CIS.
5th Recital	CDM Regulations The Project is notifiable.

6th Recital	Framework agreements do not apply.
7th Recital	Supplementary Provisions: - Collaborative working applies - Health and Safety applies - Cost savings and value improvements do not apply - Sustainable development and environmental considerations do not apply - Performance indicators does not apply - Notification of disputes does not apply
Article 7	& Schedule 1 (arbitration) shall apply
Clause 2.2	Date for commencement of the works : TBA Date for completion of the works : TBA
Clause 2.8	Liquidated damages: £200/week
Clause 2.10	Rectification period shall be 12 months
Clause 4.3	Percentage rate of the total value shall be 95 %
Clause 4.3	Percentage rate of total amount paid to the contractor shall be 97½ %
Clause 4.8	Percentage addition for Schedule 2 (paragraph 13)(if applicable).
Clause 4.8.1	Supply of documentation: 3 months
Clause 5.3	Contractor's Public Liability Insurance shall be taken out to cover an unlimited number of incidents at £5 million per incident.
Clause 5.4A&B	Clause 5.4B applies. The PCC will advise their insurers. Clause 5.4A.1 Percentage shall be 15%
Clause 5.4B.1	Percentage shall be 15%
Clause 7.2	The adjudicator shall be the President or a Vice President or a Vice Chairman of the Royal Institute of British Architects.

1.7 CDM Regulations 2015 - Health & Safety Plan

At the time of the tender it is considered that the project is not notifiable as it is assumed that that the works will not last longer than 30 days with more than 20 workers working simultaneously at any one point OR exceeds 500 person days. Should this situation change then the project will become notifiable to the HSE.

The PCC will appoint benjamin+beauchamp architects as the Principal Designer (PD) and the successful contractor as the Principal Contractor (PC) in accordance with the CDM 2015 Regulations. The PD will prepare the Health and Safety Plan for the PC to consider with the tender. The PC will remain responsible for Health and Safety during the construction Phase and complete the Health and Safety File on Practical Completion.

The information contained within this document has been prepared by the Principal Designer to comply with the Construction (Design and Management) Regulations 2015 for a project of this scale. This pre-construction information must be read in conjunction with all drawings, documents, specifications, schedules of work, etc that constitute the tender documents. The Designer Risk Assessment is attached to this document.

The selected Contractor is to undertake the responsibilities and duties of the Principal Contractor as defined by the Construction (Design and Management Regulations 2015). The Contractor warrants that he is competent to act as the Principal Contractor in such case. All costs and expenses resulting from observance of the Principal Contractor's duties are deemed to have been allowed for within the Contractor's tender.

The selected Contractor shall assume the role of Principal Contractor under the CDM Regulations with effect from the date of appointment. The Contractor is required to complete all of the required Health & Safety information to comply with the CDM Regulations. A Construction Phase Health & Safety Plan is to be submitted and approved before any work can commence.

The Contractor must ensure that appropriate health and safety measures are employed throughout the duration of the contract and that these should include the following:

- Provide details of the site management structure and identify those members of staff with specific responsibilities for Health & Safety.

- Be satisfied that when arranging for a sub-contractor to carry out construction work, they are competent and have made adequate provision for Health & Safety.

- Carry out risk assessments and obtain and check safety method statements.

- Ensure the co-ordination and co-operation of sub-contractors.

- Have appropriate communication arrangements between sub-contractors on site for Health & Safety. Ensure that the subject of Health & Safety features strongly on the agenda of all sub-contractors and progress meetings.

- Make arrangements for discussing Health & Safety matters with people on site.

- Allow only authorised people on to site and maintain a visitor's book. Ensure that all visitors are advised of any specific safety risks.

- If after the construction phase commences, the design changes, unforeseeable circumstances arise or the principal contractor wishes to change the principles on which the health and safety plan was prepared, then the Principal Contractor shall liaise and agree necessary variations the Principal Designer.

- Display notification details.

- Monitor Health & Safety performance.

- Prepare a Health & Safety File

1.8 Variations and Unforeseen Work

The contractor is to notify the architect immediately if any unforeseen defects are uncovered. Any extra works found to be necessary during the works shall not be commenced without the architect's prior instruction, which will be confirmed in writing as a variation.

No claim for extras can be considered in the assessment of the Final Account unless this procedure has been followed.

No variations in addition to, or omissions from, the work shall be made without the written authority of the architect. All authorised variations shall be measured and valued on the basis of priced schedules supplied by the contractor.

Immediately upon receipt of a written architect's Instruction the contractor shall return one copy of the Architect's Instruction issued under the appropriate clause of the contract.

1.9 Asbestos

There is an Asbestos Management report for the building and this is available to all persons working on the site. However, if the Contractor subsequently finds, or suspects asbestos then appropriate testing should be undertaken before proposals are brought forward for its removal.

An asbestos Demolitions and Refurbishment survey will be commissioned in advance of the works commencing.

1.10 Care, Protection and Security

The church building, contents and grounds are valuable and unique. Great care is to be taken in the carrying out of the works and any necessary temporary protection is to be provided to prevent damage to property or injury to persons. The contactor is to make good, at his own expense, any damage or loss arising out of his failure to provide adequate care and protection.

The works are to be left safe and tidy and the lowest stages of any ladders are to be removed or otherwise made inaccessible at the end of each working day. Adequate safeguards are to be taken against theft or vandalism.

1.11 Property

Allow for protecting the property both real and personal of the church, their neighbours and visitors. The contractor will be held responsible for and must make good at his own expense any damage caused to buildings, roads, pavements, fencing, drains electric, gas or water services and the like, arising from the contract. He shall not allow his own or any other workmen engaged upon the works to trespass upon the grounds adjoining the works.

The contractor will be required to make good to the architect's satisfaction all damage to paths, lawns and flowerbeds, including those within the area allocated for storage and working space. All areas of storage and transit operations at the current site must be made good to the architect's satisfaction.

1.12 Programme

The contractor is to prepare a written programme for the works for submission within two weeks of the date for commencement for the works.

The contractor will commence work within five days of the date for commencement and shall proceed regularly and efficiently with the works until completion.

1.13 Water for the Works

Water is available on site in the base of the tower and externally in this location. The contractor is to allow for providing all necessary temporary plumbing work and storage tanks and for cleaning away on completion. The PCC will pay any charges.

1.14 Lighting and Power for the Works

All temporary lights on site to assist with the work will be fluorescent, **no 'hot lamp'** halogen lights are to be used at any time. The contractor is to record meter readings at the start of the contract and at completion. The PCC will pay associated charges.

Lighting and power is available on site for use by the Contractor. All temporary installations to be designed and provided by the Contractor.

1.15 Removal of Rubbish and Spoil, No Fires

The contactor is to clear and cart away from time to time, as it accumulates, all rubbish and spoil arising from the work. Paths and roadways are to be kept free of obstruction. Consent for parking a skip, if required will be the contractor's responsibility.

No water, or other liquid, containing cement, lime, paint, solvent, oils etc., is to be allowed to enter any drain and must be removed from the site for proper disposal.

1.16 Temporary Accommodation

The contractor is to provide Welfare Facilities as required by the works and Health & Safety legislation.

A WC is available for use on site but the Contractor must ensure that these facilities are left in a clean and serviceable state at all times after use. Welfare Area/ Facilities as required can also be made available within the building if required. The Contractor is to satisfy himself that the facilities available are appropriate.

The siting of any temporary buildings must be agreed on site prior to commencement.

1.17 Discoveries

Any unusual discoveries of artefacts or fragments of metal, glass, or carved wood are to be carefully preserved and reported to the architect or archaeologist if engaged.

If any human remains are inadvertently uncovered, they are to be brought to the attention of the archaeologist and the architect.

1.18 Bats

If any bats are discovered in any area of works, operations there are to cease and further advice sought from the architect. The contractor is reminded bats are a protected species.

1.19 Salvage, Removal of Material

No material is to be removed from the site without the permission of the architect. Where noted a full salvage value for materials is to be allowed against the contract.

1.20 Completion and Clearing Up

On completion of the works, remove from site all temporary installations, rubbish and surplus materials. Clean the affected parts of the building and working areas. Repair paths, turf, fences etc, and leave everything clean and tidy to the satisfaction of the architect.

1.21 Plant and Equipment

The contractor is to provide all plant and equipment necessary for the execution of the works and will be responsible for ensuring that it complies with, and is used entirely in accordance with, safety recommendations and statutory regulations.

1.22 Health and Safety File

This is in relation only to the construction work carried out under this contract.

At the completion of the works, the Contractor is to supply to the Principal Designer the completed Health & Safety file in accordance with the current legislation. The information provided should include the following:

- Schedules of the materials used showing the source of supply for each material with manufacturer's literature of all materials, plant and equipment used in the works.
- The names and addresses of every sub-contractor engaged upon the contract, together with a description of the work carried out by each company.
- A maintenance plan describing the nature and the frequency of future maintenance work and identifying risks. The employer's attention to be drawn to the use of any hazardous materials - COSHH assessments to be provided to ensure safe working methods.

1.23 Working Times, Radios and Church Services

The church is generally open to the public during the daylight hours but it is anticipated that the building will be closed for the contract duration. In the event that the church needs to open for a service then the contractor will be notified 1 week in advance. The contractor is to cease noisy operations throughout the period of the service.

We do not foresee the need for any weekend work and if proposed, this should be agreed in advance.

The Contractor is not to generate noisy operations before 8am and after 5pm unless by prior agreement. Radios or similar devices will not be allowed at the church.

1.24 Provisional Sums

Provisional sums may be included for works that cannot be quantified until the work is opened-up. These sums are to be used as directed in whole, or in part, if not required.

Where Provisional Sums are stipulated for the cost of specialist items these are to cover the net cost of supply and delivery only. They will be spent, in whole or in part, as directed by the architect. The contractor should allow in addition for profit and any handling charges.

Where Provisional Sums are included for specialist works or services these will be assumed to be carried out by domestic, specialist subcontractors whose identity will have been discussed with the architect. The contractor should allow in addition for profit and attendance.

1.25 Drawings and Specification

Copies of the architect's specification are to be readily available at all working times. All craftsmen must read the Preliminaries and those parts of the Specification relating to their work, prior to commencement.

1.26 Record Photographs

The contractor is to provide 'before' and 'after' photographs of the works. The photographs should be dated and titled and if appropriate or cross-referenced to the drawings. They are to be presented in digital format prior to completion of the contract.

1.27 Conservation Practice

All works to be undertaken with due care and attention to prevent any damage to the structure and fabric of the existing building. All conservation and repair work is to be carried out to best practice standards.

All temporary electrical installations are to be inspected and tested by a competent person, before use.

Chemicals and other harmful substances must not be discharged into open watercourses or drains.

PART 2: MATERIALS & WORKMANSHIP SPECIFICATION

CONTENTS

A100 SCAFFOLDING

To be read with preliminaries/ general conditions.

100 SCAFFOLDING GENERALLY

- Scaffolding or other safe means of access is to be provided wherever scheduled.
- The Main Contractor will be responsible for the design of safe scaffolding which is to comply with all relevant British and European Standards, including, but not exclusively, BS1139: 1964; BS2482:1970; BS5973:1993 and BS EN 12811-1: 2003
- The scaffold design is the responsibility of the Main Contractor and is to be carried out by experienced designers. Where requested, the Main Contractor is to provide drawings and calculations for the scaffold design. These documents must be provided at least two weeks prior to the commencement of erection to allow checking. The drawings will be considered by the Structural Engineer/ Architect.
- Wind loads must be assessed in accordance with Eurocode 1 with due consideration given to local wind speeds and the precise location of the scaffold.
- There are to be no fixing points into the building. Putlog fixings are unacceptable.
- Ideally there should be no bearing or bracing points to the building but where needed they must first be agreed in advance with the Structural Engineer/Architect and are to be fully padded to prevent damage to the fabric of the structures. Deflections in the scaffold should not cause any damage to the fabric of the building.
- The scaffold should designed and built to enable safe working platforms and access to undertake the Works.
- Scaffolding is to be erected and dismantled under the supervision of the general contractor's foreman to ensure that it is done with care to avoid any damage to the existing structures. At all times, ensure that members of the public including the owners of the property are kept at a safe distance during erection and dismantling.
- Due consideration must be given at all times to the historic fabric. Temporary protection should be installed as required to avoid damage to the building or monuments in the site area or on the route between the site and the delivery site.
- All pole ends within 25mm of the structures are to be fitted with plastic caps. Boards installed adjacent to walls are to be upturned to prevent accidental damage to the walls.
- Due consideration in the design should also be given to delivery, erection, dismantling and removal of the scaffold and to any hoisting arrangements required for the execution of the work.
- The design of the scaffold should give due regard to entrances and exits from the building that remain in use with fan hoardings if necessary.
- Temporary rainwater disposal connecting into the existing should be included where the scaffold includes any form of roof.
- Unless specified otherwise the Contractor is responsible for installing appropriate ventilated sheeting and protection to carry out the works.
- If deemed necessary, the Contractor should install appropriate lightning protection to the scaffold and the scaffold should be bonded into the existing lightning conductor if it exists.
- The Contractor should design and place the scaffold giving due consideration to the ground conditions, drains and the like and any works that are to take place. Burial sites are high likely in ground around churches.

150 SCAFFOLD SECURITY

- All scaffolding is to be rendered inaccessible outside working hours in order to prevent vandalism or theft.
- The Contractor must ensure that scaffolds are erected and maintained so as to provide adequate protection against the theft of materials both fixed and unfixed, and particularly of old and new lead on roofs, and to prevent as far as possible any

unauthorized access or breaking and entering into the building by way of the scaffolds.

- Erect the lowest lift at least 2.4 metres above ground level and provide access to the lowest lift by means of short ladders that must be removed every evening and locked away in a secure place.

C20 DEMOLITION

To be read with preliminaries/ general conditions.

DESK STUDY / SURVEY
- Scope: before starting deconstruction/ demolition work, examine available information, and carry out a survey of: : internal pew platform voids and external landscaping in vicinity of works
  Format of report: PDF copy by email

EXTENT OF DECONSTRUCTION / DEMOLITION
- General: subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to: : as indicated on drawings, no greater extent without prior approval

GROUNDWORKS
- Old foundations, slabs and the like: Break out in locations and to the extents stated.
- Removal of deleterious material: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil
- Ancillary items: Backfill voids to levels required

LOCATION AND MARKING OF SERVICES
- *Services affected by deconstruction/ demolition work:* Old service routes below floors (unknown); extent and in-use drainage in vicinity of north porch & west doors
- *Mains services marking:* Arrange with the appropriate authorities for services positions to be located and marked
- *Marking standard:* In accordance with Street Works UK publication Guidance on the Positioning and Colour Coding of Underground Utilities' Apparatus.

SERVICES DISCONNECTION ARRANGED BY CONTRACTOR
- General: Arrange with the appropriate authorities and responsible private organizations for disconnection of services, and removal of fittings and equipment owned by those authorities and organizations where agreed, prior to starting deconstruction or demolition
- Decommissioning action plan: Prepare for approval (for oil tank and oil boiler)

LIVE DRAINAGE SYSTEMS AND WATERCOURSES
- Unrecorded features: Give notice if unrecorded pipes, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.
- Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings: Protect and maintain normal flow during deconstruction or demolition
- Existing watercourses: Divert or construct culvert or drain to ensure continued passage of water, all in accordance with the requirements of the local authority and environmental protection agency.

WORKMANSHIP
- *Standard:* Demolition in accordance with BS 6187.
- Operatives: Appropriately skilled and experienced for the type of work.

Holding, or in training to obtain, relevant Construction Skills certification of competence.

- *Site staff responsible for supervision and control of work:* Experienced in the assessment of risks involved and methods of deconstruction and demolition to be used. Hold appropriate qualification or training certificates for their role.

PARTLY DEMOLISHED STRUCTURED

- *General:* Leave in a stable condition, with adequate temporary support and bracing at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
- *Temporary works:* Prevent overloading due to debris and machinery.
- *Access:* Prevent access by unauthorized persons.

DANGEROUS OPENINGS

- *General:* Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
- *Access:* Prevent access by unauthorized persons.

ASBESTOS – CONTAINING MATERIALS – UNKNOWN OCCURENCES

- *Discovery:* Stop work, and give immediate notice of suspected asbestos-containing materials when they are discovered during deconstruction and demolition work. Avoid disturbing such materials.
- *Removal:* Submit statutory risk assessments and details of proposed methods for safe removal.

UNFORSEEN HAZARDS

- *Discovery:* Give notice immediately when hazards, such as unrecorded voids, tanks, chemicals, are discovered during deconstruction or demolition.
- *Removal:* Submit details of proposed methods for filling, removal, etc.

EMPLOYER'S PROPERTY

- *Components and materials to remain the property of the employer:* Any grave markers or archaeological finds
- *Protection:* Maintain until delivered to a required place of storage

RECYCLED MATERIALS

- *Materials arising from deconstruction and demolition work:* Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with the site waste management plan, and following approval by the architect.

C41 MINOR MASONRY WORKS

To be read with Preliminaries/ General conditions.

GENERAL/ PREPARATION

110 SCOPE OF WORK

- Schedule: As shown on drawings and as described in the Bill of Quantities

WORKMANSHIP GENERALLY

150 POWER TOOLS

- Usage for removal of mortar: Not permitted under any circumstances.

160 PROTECTION OF MASONRY UNITS AND MASONRY
- Masonry units: Prevent overstressing during transit, storage, handling and fixing. Store on level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination. Lift units at designed lifting points, where provided.
- Masonry: Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces. Prevent mortar/ grout splashes and other staining and marking on facework. Protect using suitable nonstaining slats, boards, tarpaulins, etc. Remove protection on completion of the work.

165 STRUCTURAL STABILITY
- General: Maintain stability of masonry. Report defects, including signs of movement, that are exposed or become apparent during the removal of masonry units.

170 DISTURBANCE TO RETAINED MASONRY
- Retained masonry in the vicinity of repair works: Disturb as little as possible.
- Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
- Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

180 WORKMANSHIP
- Skill and experience of site operatives: Appropriate for types of work on which they are employed.

185 ADVERSE WEATHER
- General: Do not use frozen materials or lay masonry units on frozen surfaces.
- Air temperature: Do not bed masonry units or repoint:
  - In hydraulic lime:sand mortars when ambient air temperature is at or below 5°C and falling or unless it is at least 3°C and rising.
  - In nonhydraulic lime:sand mortars in cold weather, unless approval is given.
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Rain, snow and dew: Protect masonry by covering during precipitation, and at all times when work is not proceeding.
- Hot conditions and drying winds: Prevent masonry from drying out rapidly.
- New mortar damaged by frost: Rake out and replace.

190 CONTROL SAMPLES
- General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder:
  - Pointing to ham stone paving externally
  - Pointing to ham stone flooring internally
  - Pointing to lias flooring internally

MATERIALS/ PRODUCTION/ ACCESSORIES

215 MATERIAL SAMPLES
- Representative samples of designated materials: Submit and obtain approval before placing orders.
- Designated materials:
  - New ham stone for interior flooring
  - (see other clauses for new blue lias flooring/ external materials)

- Retention of samples: Unless instructed otherwise, retain samples on site for reference. Protect from damage and contamination.

220 RECORDING PROFILES
- Profiles: Take measurements from existing masonry units, as instructed, to allow accurate matching of replacements.
- Recording in situ: If there are no suitable joints to allow use of inserts, seek instructions.
- Drawings and templates: Prepare as necessary. Templates must be clearly and indelibly marked to identify use and location.

240 HAM HILL STONE FOR INTERIOR MASONRY & FLOORING
- Supplier: Harvey Stone, Ham Hill, Stoke-sub-Hamdon, TA14 6RW
  T: 01935 824950
- Type: to match the existing as close as possible
- Quality: Free from vents, cracks, fissures, discolouration, or other defects that may adversely affect strength, durability or appearance. Thoroughly seasoned, dressed and worked in accordance with shop drawings prepared by the supplier.

245 REPLACEMENT STONE UNITS
- Sizes and profiles: To match existing masonry. Maintain existing joint widths.
- Sinkings for fixings, joggles and lifting devices: Accurately aligned and positioned in relation to existing masonry.
- Marking: Mark each block/ dressing clearly and indelibly on a concealed face to indicate the natural bed and position in the finished work.

250 STONE ORIENTATION
- Orientation of natural bed:
  - In plain walling: Horizontal.
  - In projecting stones and copings: Vertical and perpendicular to wall face – joint bedded
  - In arches: Perpendicular to line of thrust.

255 ASHLAR BLOCKS/ DRESSINGS
- Cutting and dressing stone: To true and regular surfaces, free from hollow or rough areas.

258 TEMPLATES
- Templates for replacement stones are to be prepared by careful measuring and inspection of the adjoining stonework.

DISMANTLING/ REBUILDING

310 DISMANTLING MASONRY FOR REUSE
- Masonry units to be reused: Remove carefully and in one piece.
  - Treatment: Clean off old mortar, organic growths and dirt, and leave units in a suitable condition for rebuilding.
  - Identification: Mark each unit clearly and indelibly on a concealed face, indicating its original position in the construction.

320 REBUILDING/ REPAIR TO SLEEPER WALLS BELOW GROUND IF REQUIRED
- Replacement materials: Existing salvaged stone from site and new stone or brick as required. Bricks only to be used below ground level where not visible.
- Mortar: As section Z21.
  - Mix: 1:2.5 Hydraulic Lime NHL 3.5:
  - Sand source/ type: Smooth, sharp and well graded to approval
- Fixings: Cramps and dowels as Clause 281.
- Rebuilding: To match previous face and joint lines, joint widths and bonding. Adequately bonded to retained work/ backing masonry, as appropriate.
- Joint surfaces: Dampen, as necessary, to control suction.

- Laying masonry units: On a full bed of mortar; perpend joints filled.
- Joints: Joint finishing to be completed as separate pointing operation in association with other repointing and using a weaker hydraulic lime mix (NHL 2.0) where visible due to level changes
- Other requirements: Where stones have been taken down from the wall the stones are to be relaid as similar as possible to their original locations, with external faces as previously, but whilst also ensuring a good bond is achieved. Seek clarification if required.

REPLACEMENTS AND INSERTIONS

340 REPLACEMENT OF ASHLAR WORK (N TRANSEPT EAST WALL- FACE)
- Stone: Ham Stone Ashlar as Clause C41/240
- Bedding depths: Full bed but not more than 175mm
- Mortar: As section Z21.
  - Mix: 1:0.5:2.5 non hydraulic lime putty: pozzolanic admixture: stone dust/ sand
  - Sand source/ type: Stone dust/ sand to match the existing
- Fixings: Bonded dowels as Clause 405.

341 REPLACEMENT RUBBLE WALLING (N TRANSEPT EAST WALL - CORE)
- Stone: Ham stone/ lias rubble as existing
- Bedding depths: Full bed
- Mortar: As section Z21.
  - Mix: 1:2.5 Hydraulic Lime NHL 3.5: sand
  - Sand source/ type: Smooth, sharp and well graded to approval
- Fixings: As clause 405 if required.
- Joints: Joint finishing to be completed as separate pointing operation in association with other repointing.

360 TILE REPAIR TO MISSING SECTIONS OF MASONRY
Mortar: As section Z21.
- Tile: Flat clay tile, supply to be contractors choice
- Mix: 1:3 Hydraulic Lime NHL 3.5: sand
- Sand source/ type: Smooth, sharp and well graded to approval
- Fixings: Stainless steel ties/helibars if required to assist with bond. Discuss bonding on site.
- Tiles to be laid in courses and cut to match the depth of the void.

385 LAYING REPLACEMENT MASONRY UNITS
- Exposed faces of new material: Keep to agreed face lines. Where possible maintain original face/line of the wall.
- Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
- Joint surfaces: Dampen to control suction as necessary.
- Laying units: On a full bed of mortar, all joints filled.
- Exposed faces: Keep clear of mortar and grout.

390 GROUTING JOINTS
- Grout mix: Non- hydraulic lime with pozzolanic additive.
- Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
- Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

395 INSTALLING STONE INSERTS
- Pockets to receive inserts:

- Cut out accurately. Undercut sides of pocket, where necessary, to provide space for bonding material.
- Adjust depth so that insert stands proud of existing stone for finishing in situ.
- Clean out thoroughly.

- Inserts: Cut to the smallest rectangular shape necessary to replace the defective area and provide a firm seating. Install accurately and securely.
  - Exposed faces: Keep clear of bonding material.
- Existing joint widths: Maintain. Do not bridge joints.
- New inserts should respect the existing joints. Do not 'jump' to create cross bonded stones.

410 CORRODED METAL FIXINGS
- Removal: Cut or drill out carefully, causing the least possible disturbance to surrounding masonry. Remove associated rust debris.
- Replacement: Compatible fixings, as clause 281.

415 STONE PINNINGS FOR RUBBLE STONEWORK
- Material for pinnings: Clay tile fragments.
- Placing: Tamp pinnings firmly into fresh mortar. Ensure mortar is thoroughly compacted into voids and that levelling and load distribution functions of pinnings are retained.

420 TEMPORARY DISTANCE PIECES FOR JOINTS IN ASHLAR STONEWORK
- Material: Lead or stainless steel.
- Removal: When mortar/ grout is sufficiently strong to take loading without compression.

TOOLING/ DRESSING STONE IN SITU

458 REDRESSING STONE
- No redressing is to be undertaken.

CRACK REPAIRS/ TIES/ REINFORCEMENT

630 TIES TO SECURE MASONRY
- Tie system manufacturer: Cintec
  - Product reference: S/S type CHS Anchor
- Type/ Diameter: 10mm– Refer to S/E's Drawing 12680/9001/P2
- Grout: Lime based and as recommended by Cintec.
- Holes: Drill carefully and accurately, in locations shown on drawings, to suit types and lengths of tie. Remove drilling dust and debris.
- Adjacent masonry: Do not damage during drilling. Keep cavities behind facings free from debris.
- Tie installation:
  - Expansion type anchor fixings: Set to the correct torque.
  - Bonded ties: Grouted.
  - Ends of ties: Keep back from face of masonry to allow for making good. Allow a minimum of 25mm from the face of the masonry.
- Exposed masonry faces: Clean and free from grout/ mortar stains.
- Making good: Stone plugs to ashlar as Clause 692.
- Cintec Anchors are to be installed by a trained installer.

640 PINNING LOOSE OR DETACHED MASONRY IF REQUIRED
- Dowels/ Pins:
  - Type: Austenitic stainless steel threaded rods
  - Diameter: 3, 4 or 6mm to suit
- Resin: Contractor's choice

- Holes: Drill carefully, sloping downwards into background. Remove drilling dust and debris and keep dry.
- Filling holes:
  - Check that dowel lengths are correct before filling with resin.
  - Use sufficient resin so that when the dowel is inserted the resin is dispersed to achieve an effective repair.
- Exposed faces: Keep clean and free from resin stains. Use temporary plugging material and/ or isolating membranes as necessary.
- Clearances: Keep ends of ties and resin back from face of masonry.
- Making good after resin has cured: Allow for stone plugs as Clause 692 but discuss on site prior to installing.

692 MAKING GOOD TO TIE AND DOWEL INSERTION HOLES USING CORE DRILLED PLUGS
- Plugs: Cut plug from masonry face before drilling hole for each tie/ dowel. Where resulting plug is unusable, prepare plug from matching material.
  - Plug diameter: Smallest practicable.
- Holes: Clean.
- Method of securing plug: A spot of epoxy resin and hydraulic lime mortar and sand.
- Joints: Fine and flush.
- Finished appearance: Obtain approval for first three holes before completing remainder.

GROUTING RUBBLE FILLED CORES (IF REQUIRED TO NORTH TRANSEPT EAST WALL)

710 PREPARATION FOR GROUTING
- Grouting holes: Drill in joints at horizontal and vertical centres to suit coursing and to achieve an effective distribution of grout so that, on completion, all voids in masonry are filled.
- Maximum height of each grout pour: Allow 600mm lifts but regulate to prevent disruption to masonry.
- Open joints in masonry: Seal with an approved temporary material to prevent leaking of grout. Leave weep holes every two or three courses to assist in flushing out dust and debris, and to prove effectiveness of grouting. Locate temporary seal back from facework to allow for specified repointing. Seek instructions if repointing precedes grouting.

712 FLUSHING OUT
- Timing: Before grouting.
- Requirement: Flush out core of masonry walls using clean water delivered under moderate pressure through grouting holes.

740 APPLICATION OF GROUTING
- Grouting: Continuous operation during each lift. Allow grout to set before commencing subsequent lifts.
- Monitoring: Monitor grouting carefully and continuously at each delivery point (flow and delivery pressure), and at adjacent/ opposite wall faces, to ensure that there is an effective distribution of grout with no leaking, staining, or disruption to the masonry.
- Temporary seals: Remove on completion of grouting and leave joints in a suitable condition for repointing.

POINTING/ REPOINTING

810 PREPARATION FOR REPOINTING
- Existing mortar: Working from top of wall downwards, remove loose mortar carefully, without damaging adjacent masonry or widening joints, to a minimum depth of 30mm. Do not remove any sound mortar.

- Raked joints: Remove dust and debris by brushing and gentle flushing out with clean water.

820A POINTING TO RUBBLE WALLING INTERNALLY
- Preparation of joints: As Clause 810
- Mortar: As section Z21.
  - Mix: 1:2$^{1/2}$ Hydraulic Lime NHL2.0 : sand
  - Sand source/ type: Smooth, sharp and well graded to approval
- Joint profile/ finish: Recessed very slightly back from the weathered arrises and to match the approved sample.
- Other requirements: Deep pack locally or grout any voids found.

820B POINTING TO RUBBLE WALLING EXTERNALLY
- Preparation of joints: As Clause 810
- Mortar: As section Z21.
  - Mix: 1:2$^{1/2}$ Hydraulic Lime NHL 3.5: sand
  - Sand source/ type: Smooth, sharp and well graded to approval
- Joint profile/ finish: Recessed very slightly back from the weathered arrises and to match the approved sample.
- Other requirements: Deep pack locally or grout any voids found.

822 POINTING TO ASHLAR WORK INTERNALLY
- Preparation of joints: Remove any loose and failing mortar. Retain sound mortar. Rake out to a depth of 20mm.
- Mortar: As section Z21.
  - Mix: 1:2$^{3/4}$Non-hydraulic lime
  - Sand source/ type: Stone dust and sand to match the existing.
- Joint profile/ finish: Flush and to match the approved sample

840 POINTING WITH TOOLS/ IRONS
- General: Press mortar well into joints using pointing tools/ irons that fit into the joints, so that they are fully filled, and taking great care not to spread any mortar over the surface of the masonry units
- Face of masonry: Keep clear of mortar: Work carefully using specialist tools to suit the width of joint to avoid spreading mortar over arises or surfaces of the masonry units. Should this occur, it should be removed immediately and washed clean with clean water. Where arises are sharp and clear, gentle adhesive tape may be permitted for use as a mask. Finish joints full and neat.

860 BRUSHED FINISH TO JOINTS

- Following initial mortar set, when the mortar is still 'going off', carefully remove the surface of the mortar using saw blade or knife and dress back the joint using a stiff churn brush to compact the mortar, and to provide a coarse texture with the aggregate exposed and visible in the finished appearance.

D2 SITE PREPARATION

System Outline

SURVEY
Description: Review levels and features prior to start on site to confirm extent of works.
- Site boundary: Confirm location and dimensions. As drawings.

- - Buildings and structures adjacent to site boundary: Confirm locations and dimensions
  relative to boundary.
- Features: Confirm locations and dimensions relative to boundary.
- Above-ground and below-ground services: As drawings.
- Ground hazards: Identify and record physical hazards within the site boundary.
- Structures: Identify and record physical hazards within buildings/ structures to be affected by the works.
- Report: Submit.

DEMOLITION
- Description: Extent indicated on dwgs. Rubble masonry to be reviewed for potential reuse in the works prior to removal from site.
- Method statement: Required for approval prior to starting works

GRADING AND LEVELLING
- Description: Car Park/ External areas as indicated on dwgs
- Grading to levels: As drawings.
- Fill: As-dug fill.
- Excess subsoil: Remove from site.

D20 EXCAVATING AND FILLING

To be read with preliminaries/ general conditions.

TREE ROOTS
- Protected area: Do not cut roots within precautionary protection area.
- Size of area: Equal to tree crowns above ground
- Excavation in protected area
- Method: By hand
- Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
- Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
- Cutting
- Make clean smooth cuts with no ragged edges.
- Pare cut surfaces smooth with a sharp knife.

SITE CLEARANCE
- Timing: Before topsoil stripping, if any.
- General: Clear site of rubbish, debris and vegetation. Do not compact topsoil.

REMOVING SMALL TREES, SHRUBS, HEDGES AND ROOTS
- Identification: Clearly mark hedging to be removed.
- Small trees, shrubs and hedges
- Cut down.
- Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Safety: Comply with Forest Industry Safety Accord safety leaflets.

CHIPPING AND SHREDDING
- Generally: Permitted, remove arisings from site

STRIPPING TOPSOIL
- General: Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.

- Depth
- Remove to an average depth of: 200 mm
- Give notice where the depth of topsoil is difficult to determine.
- Handling: Handle topsoil for reuse or sale in accordance with BS 3882.
- Around trees: Do not remove topsoil from below the spread of trees to be retained.
- Site storage: Keep separate from excavated sub-soil

ADJACENT EXCEVATIONS

- Requirement: Where an excavation encroaches below a line drawn at an angle from the nearest formation level of another higher excavation, the lower excavation, all work within it and backfilling thereto, must be completed before the higher excavation is made.
- Angle of line below horizontal: 45°

UNRECORDED FEATURES

- Give notice: If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

WATER

- Generally: Keep all excavations free from water until:
- Formations are covered.
- Below ground constructions are completed.
- Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
- Drainage: Form surfaces of excavations and fill to provide adequate falls.
- Removal of water: Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

PLACE FILLING

- Surfaces of excavations and areas to be filled: Free from loose soil, topsoil, organic material, rubbish and standing water.
- Freezing conditions: Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.
- Adjacent structures, membranes and buried services
- Do not overload, destabilise or damage.
- Submit proposals for temporary support necessary to ensure stability during filling.
- Allow 14 days (minimum) before backfilling against in situ concrete structures.
- Layers: Place so that only one type of material occurs in each layer.
- Earthmoving equipment: Vary route to avoid rutting.

BACKFILLING AROUND FOUNDATIONS

- Under oversite concrete and pavings: Hardcore.
- Under grassed or soil areas: Material excavated from the trench, laid and compacted in 300 mm maximum layers.

BLINDING

- Surfaces to receive sheet overlays or concrete:
- Blind with
- Concrete where shown on drawings; or
- Sand, fine gravel, or other approved fine material applied to fill interstices. Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
- Sand for blinding: To BS EN 12620, grade 0/4 or 0/2 (MP).

E1 CONCRETE FOUNDATIONS AND FLOORS

System Outline

STRIP FOUNDATIONS
- Description: Below new external walling
- Trenches: Excavations, as clause 608.
- Foundations
- Concrete
- Standard: To **BS EN 206** and **BS 8500-2**.
- Type: Designated concrete GEN1.
- Placement: As drawings.
- Backfill
- Type
- Under concrete and pavings: Type 1 granular fill.
- Under grassed areas and landscaped areas: Selected excavated fill, free from large stones and organic matter.
- Timing: On completion of substructure.

PAD FOUNDATIONS
- Description: To support new handrail posts
- Pits: Excavations, as clause 612.
- Formwork: Contractor's choice.
- Pads
- Concrete
- Standard: To **BS EN 206** and **BS 8500-2**.
- Type: Designated concrete GEN1.
- Placement: As clause 618.
- Backfill
- Type
- Under concrete and pavings: Type 1 granular fill.
- Under grassed areas and landscaped areas: Selected excavated fill, free from large stones and organic matter.
- Timing: On completion of substructure.

Products

DAMP PROOF MEMBRANES
- Description: Where indicated on dwgs
- Manufacturer: Contractor to submit proposals
- Type: As drawings.

CONCRETE BLOCKS
- Description: External works, where indicated on dwgs
- Manufacturer: Contractors choice
- Type: Aggregate concrete blocks to **BS EN 771-3**; dense.
- Size: 440 x 215 x 100 mm.

Execution

PLACING CONCRETE GENERALLY
- Surfaces to receive concrete: Clean, with no debris or free water.
- Temperature range for concrete: 5–30°C. Do not place against frozen or frost-covered surfaces.

PLACING FILL GENERALLY

- Excavations and areas to be filled: Free from loose soil and rubbish.
- Freezing conditions: Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces.

EXCEVATING PITS FOR PAD FOUNDATIONS
- Excavations
- Depth below ground (minimum): As drawings.
- Size at base: As drawings.
- Other requirements: Archaeological supervision required.

PLACING CONCRTE FOR PAD FOUNDATIONS
- Pad size: As drawings.
- Other requirements: Confirm archaeological work complete prior to placing

PLACING HARDCORE FILL AND BINDING
- Placing fill
- Spreading and levelling: Spread and level in 150 mm (maximum) layers.
- Compacting fill
- Compaction: Sufficient to resist subsidence and deformation of the completed paving when in use.
- Timing: As soon as possible after laying.
- Compacted thickness (minimum): As drawings.
- Permissible deviation (maximum) from required levels: +/-12 mm.
- Blinding
- Type: 25 mm (minimum) sand blinding.
- Permissible deviation on surface level: +0–25 mm.

CURING AND PROTECING CONCRTE GENERALLY
- Evaporation: Limit throughout curing period. Cover immediately after compacting. Replace cover immediately after finishing operations.
- Curing periods (minimum)
- Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: Ten days.
- Other structural concrete surfaces: Five days.

E10 MIXING/ CASTING/ CURING IN SITU CONCRETE

SPECIFICATION
- Concrete generally: To BS 8500-2.
- Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

BASIC DESIGNATED CONCRETE
- Description: Concrete footings/ landings/ steps
- Designation: GEN1
- Coarse recycled aggregates: RCA permitted

SUBSTITUTION OF STANDARDISED PRESCRIBED FOR DESIGNATED CONCRETE
- General: Conform to BS 8500-2, clause 9.
- Substitution: In accordance with BS 8500-1, Table A.14.
- Proposals: Submit for each substitution, stating reasons.
- Site mixing: Conform to BS 8000-2.1, subsections 2, 3 and 4.
- Restrictions:

PREMATURE WATER LOSS

- Requirement: Prevent water loss from concrete laid on absorbent substrates.
- Underlay: Polyethylene sheet 250 micrometres thick.
- Installation: Lap edges 150 mm.

PLACING AND COMPACTING

- Surfaces to receive concrete: Clean, with no debris, tying wire clippings, fastenings or free water.
- Timing: Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
- Temperature limitations for concrete: 30°C (maximum) and 5°C (minimum). Do not place against frozen or frost covered surfaces.
- Compaction: Fully compact to full depth to remove entrapped air especially around reinforcement, cast-in accessories, into corners of formwork and at joints. Continue until air bubbles cease to appear on the top surface.
- Methods of compaction: To suit consistence class and use of concrete.

CURING AND PROTECTION

- Evaporation from surfaces of concrete: Prevent throughout curing period.
- Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
- Top surfaces: Cover immediately after placing and compacting. Replace cover immediately after any finishing operations.
- Curing periods
- Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: 10 days (minimum).
- Other structural concrete surfaces: 5 days (minimum).
- Protection: Protect concrete from shock, indentation and physical damage.

F1 MASONRY WALLING

System Outline

EXTERNAL SOLID WALLING

- *Description:* New external dwarf walls
- Walling below ground
- *Type:* As drawings.
- *Masonry units:* Aggregate concrete blocks, as clause 308.
- *Mortar:* Class M6, as clause 316.
- Walling above ground
- External leaf above ground
- *Masonry units:* Natural stone rubble, as clause 314.
- *Bond or coursing:* As drawings. Brought to courses.
- Mortar
- *Type:* As drawings.
- *Joint profile to external faces:* Flush.

SLEEPER WALLS

- *Description:* Existing sleeper walls below aisle/pew platform junction
- *Parameters:* As drawings.
- *Masonry units:* Reclaimed bricks, as clause 306.
- *Mortar:* As drawings.
- Openings
- *Lintels:* Precast concrete, as clause 358. For services only.

Products

COMMON BRICKS
- *Description:* Within new tower arched opening as indicated on dwgs (to be plastered over)
- *Manufacturer:* Submit proposals
- *Type:* Clay to **BS EN 771-1**.
- *Colour:* Contractor's choice.
- *Unit sizes:* As drawings.
- *Durability:* Manufacturer's standard.

AGGREGATE CONCRETE BLOCKS
- *Manufacturer:* Submit proposals
- *Standard:* To **BS EN 771-3**.
- *Density:* Dense.
- *Compressive strength (minimum):* As drawings.
- *Thermal conductivity (maximum):* Manufacturer's standard.
- *Unit sizes:* As drawings.

NATURAL STONE RUBBLE
- *Description:* Blue or grey lias rubble
- *Manufacturer/ supplier:* Submit proposals
- *Standard:* To **BS EN 771-6**.
- *Family:* Limestone.
- *Quality:* Squared.

PRECAST CONCRETE LINTELS
- *Description:* As Str Eng dwgs/ details & specification
- *Manufacturer:* Submit proposals
- *Standard:* To **BS EN 845-2**.
- *Size:* As drawings.

Execution

LAYING RUBBLE STONEWORK
- *Mortar joints:* Lay units on full bed. Fill voids and vertical joints. Avoid long continuous vertical joints.
- *Lowest courses:* To extend 150 mm minimum below finished ground level.
- *Coursing:* Plumb, with consistent appearance.
- *Built-in components:* Align with walling joints.

F20 NATURAL STONE RUBBLE WALLING

To be read with preliminaries/ general conditions.

RUBBLE WALLING
- Description: New external dwarf walls
- Stone: Blue/ Grey Lias rubble to match main church elevations
- Name (traditional): Lias
- Petrological family: Limestone
- Colour: Blue/ Grey
- Supplier: Ashen Cross Quarry or Hadspen Quarry
- Product reference: Random
- Size: 100 mm on bed; random length and height and 150 mm on bed; random length and height

- Quality: Seasoned and free from cracks, vents, fissures or other defects deleterious to strength, durability or appearance.
- Mortar: As section Z21.
- Mix: 1:2.5 NHL3.5:sand
- Joints: Flush; brushed

LAYING GENERALLY
- Absorbent stones: Dampen in warm weather to reduce suction.
- Mortar joints
- Laying: Full bed of mortar with all joints and voids filled.
- Appearance: Neat and consistent.
- Natural bed of stones: Appropriate to properties of stones and positions in walling.
- Appearance and bonding: Consistent overall appearance, good bond, and satisfactory junctions and joints with built-in elements and components.
- Random walling: Avoid long continuous vertical joints.
- Quoins and jambs: Large stones dressed to a regular shape.
- Cleanliness: Keep facework clean.

WALLING BELOW GROUND LEVEL
- Extent of facework below finished level of adjoining ground or external works (minimum): 150 mm.

BRUSHED FINISH TO JOINTS
- General: After the initial set has taken place, brush joints to remove laitance/ excess fines and give a coarse texture.

F21 NATURAL STONE/ ASHLAR WALLING/ DRESSINGS

Types of walling/ dressings

ASHLAR
- Description: Interior masonry forming new WC door surround & internal cladding to ramp sides
- Stone: To **BS EN 771-6**.
- Name (traditional): Ham Stone
- Petrological family: Limestone
- Colour: Cream
- Finish: Sawn
- Supplier: Harvey Stone, Ham Hill - or other approved
- Unit dimension tolerances: Length +1 mm, width (bed) +1 mm, height +1 mm
- Mortar: As section Z21.
- Bond: As shown on drawings
- Joints:
- Width: 3 mm
- Pointing: As clause 390

G20 CARPENTRY/ TIMBER FRAMING/ FIRST FIXING

Clauses

TIMBER PROCUREMENT
- Timber (including timber for wood-based products): Obtained from well-managed forests/ plantations in accordance with:
- The laws governing forest management in the producer country or countries.

- International agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- Documentation: Provide either in accordance with chain of custody certification scheme requirements:
- Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied. Or
- Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
- Chain of Custody Certification scheme:

STRUCTURAL SOFTWOOD
- Description: FOR STRUCTURAL USE GENERALLY
- Grading standard: To the appropriate BS EN 14081-1-compliant standard. To the appropriate BS EN 14081-1-compliant standard.
- Grade: GS to BS 4978
- Strength class to BS EN 338: C16
- Treatment: None required

WOOD TRIM
- Description: Cornice to West Stores
- Species: European oak
- Standard: To BS 1186-3.
- Class: 1
- Treatment: None required
- Fixing: Two 50 mm lost head nails to each support

SELECTION AND USE OF TIMBER
- Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

NOTCHES. HOLES AND JOINTS IN TIMBER
- Notches and holes: Position in relation to knots or other defects so that the strength of members will not be reduced.
- Scarf joints, finger joints and splice plates: Do not use without approval.

PROCESSING TREATED TIMBER
- Cutting and machining: Carry out as much as possible before treatment.
- Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
- Surfaces exposed by minor cutting/ drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

MOISTURE CONTENT
- Moisture content of wood and wood-based products at time of installation: Not more than:
- Covered in generally unheated spaces: 24%.
- Covered in generally heated spaces: 20%.
- Internal in continuously heated spaces: 20%.

BOLTED JOINTS
- Bolt spacings (minimum): To BS EN 1995-1-1, section 8.5.
- Holes for bolts: Located accurately and drilled to diameters as close as practical to the nominal bolt diameter and not more than 2 mm larger.
- Washers: Placed under bolt heads and nuts that would otherwise bear directly on timber. Use spring washers in locations which will be hidden or inaccessible.

- Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
- Checking: At agreed regular intervals. Tighten as necessary.

ADDITIONAL SUPPORTS
- Provision: Position and fix additional studs, noggings and/ or battens to support edges of sheet materials, and wall/ floor/ ceiling-mounted appliances, fixtures, etc. shown on drawings.
- Material properties: Timber to be of adequate size and have the same treatment as adjacent timber supports.

JOISTS GENERALLY
- Centres: Equal, and not exceeding designed spacing.
- Bowed joists: Installed with positive camber.
- End joists: Positioned about 50 mm from masonry walls.

JOISTS ON HANGERS
- Hangers: Bedded directly on and hard against supporting construction. Do not use packs or bed on mortar.
- Joists: Cut to leave not more than 6 mm gap at each end. Rebated to lie flush with underside of hangers.
- Fixing to hangers: A nail in every hole.

JOIST HANGERS
- Description: GENERAL USE
- Manufacturer: Contractor's choice
- Material/ finish: Hot-dip-galvanized steel plate
- Size: To suit joist, design load and crushing strength of supporting construction.

TRIMMING OPENINGS
- Trimmers and trimming joists: Not less than 25 mm wider than general joists.

STRUTTING TO FLOOR JOISTS
- Type: One of the following:
- Herringbone strutting: At least 38 x 38 mm softwood.
- Solid strutting: At least 38 mm thick softwood and at least three quarters of joist depth.
- Proprietary metal strutting:
- Fixing: Between joists as follows:
- Joist spans of 2.5 to 4.5 m: One row at centre span.
- Joist spans over 4.5 m: Two rows equally spaced.
- Not projecting beyond top and bottom edges of joists.
- Outer joists: Blocked solidly to perimeter walls.

J40 FLEXIBLE SHEET WATERPROOFING/ DAMP-PROOFING

To be read with preliminaries/ general conditions.

SOFT BLINDING TO HARDCORE BEDS
- *Material:* Soft sand
- *Thickness (minimum):* As drawing
- *Finish on completion:* Smooth, consolidated bed free of sharp projections.

DPM
- *Substrate:* Soft-blinded hardcore

- Membrane
- *Standard:* To BS EN 13967.
- *Designation:* Type A
- *Manufacturer:* Visqueen
- Contact details

Address: Visqueen
Heanor Gate Industrial Estate
Derbyshire
Heanor
Derbyshire
United Kingdom
DE75 7RG

- *Telephone:* +44 (0) 333 202 6800
- *Web:* www.visqueen.com
- *Email:* enquiries@visqueen.com
- *Product reference:* Visqueen EcoMembrane®
- *Material:* Low-density polyethylene (PE-LD).
- *Purpose:* Damp-proof membrane.
- *Standard:* CE Mark EN 13967:2017.
- Performance characteristics
- *Elongation to break:* 400%.
- *Water vapour resistance (minimum):* 586 MN·s/g.
- *Fire performance:* Grade F.
- *Third-party certification:* British Board of Agrément (BBA) Certificate, 94/3009.
- Physical properties
- *Colour:* Black.
- Dimensions
- *Thickness (minimum):*
- *Width (minimum):* 4000 mm.
- *Recycled content:* Fully recycled.
- *Impact resistance:* 200 mm.
- *Water vapour transmission:* 0.16 g/m²/d.
- *Thickness/ gauge:* 500 micrometres (2000 gauge)
- Joints
- *Surfaces to be joined:* Clean and dry beyond the full width of the joint.
- *Laps (minimum):* End and side, 150 mm
- *Sealing:* Continuous mastic strip between overlaps, edge of top sheet sealed with jointing tape

WORKMANSHIP GENERALLY

- Condition of the substrate
- Clean and even-textured, free from voids and sharp protrusions.
- *Moisture content:* Compatible with damp-proofing/ tanking materials.
- *Air and surface temperature:* Do not apply sheets if below the minimum recommended by the membrane manufacturer.
- Condition of the membrane at completion
- Neat, smooth and fully supported, dressed well into abutments and around intrusions.
- Completely impervious and continuous.
- Undamaged. Prevent puncturing during following work.
- *Permanent overlying construction:* Cover the membrane as soon as possible.

L2 DOORS AND FRAMES

System Outline

MAIN EXTERNAL ENTRANCE DOORS
- Description: Existing pair of arched timber porch doors
- Doors: Remove from site, cut down to suit raised threshold, undertake repairs, fit new weatherboard to base, prepare & restain entire.
- Frames: As existing - amend base jambs to suit raised height
- Thresholds: new or existing stone paving
- Hardware: as existing

SECONDARY EXTERNAL DOORS
- Description: New frameless glass entrance door in oak rebated frame
- Manufacturer: IQ Glass/ Marvin & Pinch/ other approved
- Doors: Bespoke frameless glass, as drawings.
- Frames: Wood, as clause 310.
- Thresholds: Not required - existing stone
- Hardware: As drawings. Plate hinges, lock and fixed handle & pushplate
- Other requirements: brush draughtseals to be applied to timber frame

INTERNAL DOOR AND FRAME RELOCATION
- Description: Existing historic C16 door on wrought iron pintles & strap hinges
-
- Disposal or reuse
- Hardware: As drawings.
- Doors: To be relocated on repositioned pintles - as drawings.
- Other requirements: Careful handling required
- **Products - Not Used**
- **Execution - Not Used**
- **System Completion**

TESTING
- Hardware: Check, adjust and lubricate all hinges, operators and openers. Ensure correct operation.

L3 STAIRS AND GUARDINGS

INTERNAL STAIRS
- Description: New timber landing and steps to West entrance
- Stair flights: Purpose-made, as clause 304.
- Intermediate landings: As drawings.
- Guarding
- Posts: Newel posts, as clause 306.
- Infill: Balusters, as clause 308.
- Handrails: As drawings.
- Wall handrails: As drawings.

PURPOSE-MADE STAIR FLIGHTS
- Description: new landing and steps to West Entrance
- Manufacturer: Bespoke
- Standard: In accordance with BS 5395-1.
- Certification: FSC chain of custody.
- Configuration: As drawings.
- Risers (number): As drawings.
- Components
- Strings

- Material: European redwood.
- Thickness: 38 mm.
- Treads
- Material: European oak.
- Thickness: 21 mm.
- Risers
- Type: Closed.
- Material: As drawings.
- Thickness: 12 mm.
- Finish as delivered: Unfinished.
- Other requirements: Osmo PolyX Oil finish - 2 coats
- Other requirements: inset s/s bars for contrast - see dwg for detail

GUARDING POSTS & INFILL

- Description: West Entrance: posts to top and bottom of flight, intermediate balusters between. New guarding to north aisle ramp - end posts and intermediate balusters.
- Manufacturer: bespoke
- Standard: In accordance with BS 5395-1.
- Type: Square newel posts.
- Material: As drawings – bronze
- Dimensions (nominal): As drawings.
- Other requirements: top and bottom posts to be fixed into new concrete footings set into floor - see detail dwg. Intermediate balusters braced to timber structure.

GUARDING HANDRAILS

- Description: Bronze handrails to new internal steps & ramp
- Manufacturer: Bespoke
- Standard: In accordance with BS 5395-1.
- Type: As drawings.
- Material: Bronze - As drawings.
- Dimensions (nominal): As drawings.

INSTALLATION GENERALLY

- Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
- Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.

L20 DOORS / SHUTTERS / HATCHES

To be read with Preliminaries / General conditions

TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either in accordance with chain of custody certification scheme requirements:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied; or
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.

- Chain of custody certification scheme: Contractor's choice in accordance with UK Government Timber procurement policy (UKTPP), i.e. FSC, GiB or PEFC.
  - Other evidence: None

WOOD PANELLED DOOR LEAVES

- *Description:* New bespoke joinery to west store cupboards, new WC & cabinetry
- *Manufacturer:* Bespoke item
- *Wood species:* Oak.
- *Preservative treatment:* Not required.

GLAZED NORTH ENTRANCE DOOR & FRAME – AS DRAWING

- Description: To front of No 27. As drawing 0950.WD.J.2702
- Supplier: IQ Glass OR Marvin & Pinch OR similar of contractor's choice -to be approved.
- Glazing/ infill details:
  - 12mm clear toughened arched door, complete with patch hinge fittings
- Frames: 'Frameless' with minimal glazing channels, with glazing packed and silicone bonded, all to supplier recommendations.
  - Finish as delivered: Polyester powder coated, black RAL TBC
- Manifestation: Required – bespoke transfer design to client requirements.
- Other requirements: Refer to drawing. Subject to specialist supplier recommendations and architect's review.
  - Overhead automatic door opener/closer, with push to open buttons. All to meet nationally recognized standards.
  - 600mm long back-to-back black PVD finish handles
  - Bottom kick rail
  - Finish as delivered: Polyester powder coated, black RAL TBC

DOORS – INTERNAL STORE DOORS set within new panelled joinery

- Description: New bespoke panelled timber doors and frames – as dwgs
- Material: English oak for staining
- Infill details:
  - Manifestation: Not required
  - Beading: 12mm pinned oak beads
- Ironmongery 3no. hinges plus handle per door -see ironmongery section
- Perimeter seals: Not required
- Fixing: Plugged and screwed
  - Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb and at 600 mm maximum centres.
- Other requirements: Refer to drawing

WOOD DOOR FRAMES

- *Description:* Doorframe to WC door
- Performance
- Fire performance
- *Fire resistance:* n/a - non habitable
- *Materials:* Generally to BS EN 942.
- *Species:* Oak.

Assembly

Joinery workmanship: As section Z12 'Purpose-made joinery'.

Preservative treatment: Organic solvent, as section Z12 and in accordance with Table 5 of the WPA Code of Practice; desired service life: 30 years.

Moisture content on delivery: to match moisture context

Perimeter seals: Not required.

Fixing: Plugged and screwed, as section Z20.

Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb, adjacent to each hanging point and at 600 mm maximum centres.

85 FIXING IRONMONGERY GENERALLY
- Fasteners: Supplied by ironmongery manufacturer.
  - Finish/ Corrosion resistance: To match ironmongery.
- Holes for components: No larger than required for satisfactory fit/ operation.
- Adjacent surfaces: Undamaged.
- Moving parts: Adjusted, lubricated and functioning correctly at completion.

L30 STAIRS / LADDERS / WALKWAYS / HANDRAILS / BALUSTRADES

To be read with Preliminaries / General conditions

45 RAMPS / WALKWAYS
- Description: New stone ramp within North Aisle.
- Gradients
  - Going: As drawings.
- Finish: Ham stone slabs As C41/240

65 PURPOSE-MADE HANDRAILS see also Section Z Purpose Made Metalwork
- Description: To new timber steps at west end, around Children's Corner and to new external steps
- Component material, grade and finish as delivered
  - Handrails: Bronze & European Oak - finished as M60/175
  - Metalwork to spindles/ newels: Bronze
- Reaction to fire: N/A
- Fixing: Through fixing to existing timber/masonry as indicated on dwgs

L40 GENERAL GLAZING

To be read with preliminaries/ general conditions.

WORKMANSHIP AND POSITIONING GENERALLY
- Glazing
- *Generally:* In accordance with BS 6262 series.
- *Integrity:* Wind and watertight under all conditions. Make full allowance for deflections and other movements.
- Glass
- *Standards:* Generally to BS 952-1, BS 952-2 and to the relevant parts of:
- BS EN 572-9 for basic soda lime silicate glass.
- BS EN 1096-1 for coated glass.
- BS EN 12150-2 for thermally toughened soda lime silicate glass.
- BS EN 14449 for laminated glass.
- *Quality:* Free from scratches, bubbles and other defects.
- *Dimensional tolerances:* Panes/ sheets to be accurately sized.
- *Material compatibility:* Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be compatible. Comply with glazing/ sealant manufacturers' recommendations.
- *Protection:* Keep materials dry until fixed. Protect insulating glass units and plastics glazing sheets from the sun and other heat sources.

PREPARATION

- *Surrounds, rebates, grooves and beads:* Clean and prepare before installing glazing; ensure compliance with any certified installation requirements.

MANIFESTATION
- *Description:* Bespoke transfer to new glazed entrance door
- *Manufacturer:* Signomatic or similar approved
- *Product reference:* Bespoke decal
- *Design:* As drawing
- *Art work:* Supplied by client
- *Media:* Digital
- *Technique:* Applied film

M1 PLASTERING, RENDERING AND SCREEDING

System Outline

PLASTERBOARD BACKINGS TO TIMBER-FRAMED WALLS AND PARTITIONS
- Description: New interior partition to form WC & to inside faces of West Stores
- Insulation between studs: Natural fibre, as clause 348.
- Plasterboard:
- Type: Moisture-resistant, as clause 304.
- Fasteners: Screws, as clause 314.

PLASTERBOARD BACKINGS TO CEILINGS
- Description:
- Insulation between joists:
- Plasterboard:
- Type:
- Fasteners:
- Other requirements:

LEVELLING SCREEDS
- Description: Jupiter dry levelling screed
- Preparation: As drawings.
- Screed: Jupiter product for floor buildup - see drawings
- Mixing and laying screeds: As clause 632.
- Reinforcement: As drawings.
- Other requirements: Setting out as drawings

Products

DAMP PROOF MEMBRANES
- Description: Strip, below new timber sole plates to new partition/ store walls
- Manufacturer: Contractor's choice
- Type: Polyethylene.
- Thickness (minimum): 300 micrometres (1200 gauge).

NATURAL FIBRE INSULATION TO JOISTS OR STUDS
- Description: Insulation between new studs to WC/Vestry wall
- Manufacturer: Thermafleec
- Product reference: Cosywool slab
- Material: Sheep's wool.
- Form: Batts.
- Thickness: 75 mm.
- Width: To suit stud spacing.

EXPANDED POLYSTYRENE (EPS) IINSULATION
- Description: To new floor areas at West End (Jupiter UF heating system)
- Manufacturer: Kingspan
- Product reference: Greenguard
- Standard: To **BS EN 13163**.
- Certification: Agrément-certified.
- Thickness: 50mm

Execution

LAYING SCREEDS GENERALLY
- Compacting screeds:
- General: Compact thoroughly.
- Screeds over 50 mm thick: Lay in two layers of equal thickness. Roughen surface of compacted lower layer, then immediately lay upper layer.
- Joints: Lay continuously with 'wet screeds' between strips or bays. Minimize defined joints.
- Maximum deviation from flatness at any point on floor:
- Screeds for flooring and beds up to 50 mm thick: 10 mm from underside of a 3 m straight edge.

CURING SCREEDS
- Requirement: Prevent rapid water loss.
- Other requirements: Follow manufacturer's recommendations for drying time.

M10 CEMENT BASED LEVELLING/ WEARING SCREEDS

To be read with Preliminaries/ General conditions.

TYPES OF SCREED

195A PROPRIETARY SCREEDS TO BS EN 13813 – NATURAL HYDRAULIC LIME SCREED
- Substrate: Existing screeds/ slabs
- Screed manufacturer: Telling Lime Products Ltd
  - Product reference: Unilit Lime Screed made using Unilit FEN-XA Natural Hydraulic Lime Binder.
- Screed construction: Unilit Fen-XA NHL5.0 and 0-5mm sharp sand; proportions 1:3; or pre-blended by Telling Lime products Ltd.
- Thickness: 50mm minimum.
- Finish:
  - To receive: new stone slabs/ tiles.

GENERALLY/ PREPARATION

210 SUITABILITY OF SUBSTRATES
- General:
  - Suitable for specified levels and flatness/ regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
  - Sound and free from significant cracks and gaps.
- Concrete strength: In accordance with BS 8204-1, Table 2.
- Cleanliness: Remove plaster, debris and dirt.
- Moisture content: To suit screed type. New concrete slabs to receive fully or partially bonded construction must be dried out by exposure to the air for minimum six weeks.

251 CONDUITS CAST INTO OR UNDER SCREEDS
- Reinforcement: Overlay with reinforcement selected from:
  - 500 mm wide strip of steel fabric to BS 4483, reference D49, or
  - Welded mesh manufactured in rolls from mild steel wire minimum 1.5 mm diameter to BS 1052, mesh size 50 x 50 mm.
- Placing reinforcement: Mid depth between top of conduit and the screed surface.
  - Width of reinforcement (minimum): 300 mm.
- Screed cover over conduit (minimum): 75mm

260 FULLY BONDED CONSTRUCTION
- Preparation: Generally in accordance with BS 8204-1.
- Removing mortar matrix: Shortly before laying screed, expose coarse aggregate over entire area of hardened substrate.
- Texture of surface: Suitable to accept screed and achieve a full bond over complete area.

270 PARTIALLY BONDED CONSTRUCTION
- Preparation: Generally in accordance with BS 8204-1.
- Substrate surface: Brushed finish with no surface laitance.
  - Texture of surface: Suitable to accept screed and achieve a bond over complete area.

BATCHING/ MIXING

305 AGGREGATES
- Sand: To BS EN 13139.
  - Grading limits: In accordance with BS 8204-1, Table B1.
- Coarse aggregates for fine concrete levelling screeds:
  - Standard: To BS EN 12620.
  - Designation 4/10.
- Lightweight aggregates: In accordance with BS 8204-1, Annex A.

330 MIXING
- Water content: Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction.
- Mixing: Mix materials thoroughly to uniform consistency. Mixes other than no-fines must be mixed in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
- Consistency: Use while sufficiently plastic for full compaction.
- Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

340 ADVERSE WEATHER
- Screeds surface temperature: Maintain above 5° C for a minimum of four days after laying.
- Hot weather: Prevent premature setting or drying out.

LAYING

345 LEVEL OF SCREED SURFACES
- Permissible deviation: (allowing for thickness of coverings): 2mm

355 FLATNESS/ SURFACE REGULARITY OF FLOOR SCREEDS
- Standard: In accordance with BS 8204-1, Table 5.
- Test: In accordance with BS 8204-1, Annex C.
- Sudden irregularities: Not permitted.

375 COMPACTION OF SCREEDS
- General: Compact thoroughly over entire area.
- Screeds over 50 mm thick: Lay in two layers of approximately equal thickness. Roughen surface of compacted lower layer then immediately lay upper layer.

FINISHING/ CURING

510 FINISHING GENERALLY
- Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
- Prohibited treatments to screed surfaces:
  - Wetting to assist surface working.
  - Sprinkling cement.

540 TROWELLED FINISH TO LEVELLING SCREEDS
- Floating: To an even texture with no ridges or steps.
- Trowelling: To a uniform, smooth but not polished surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

650 CURING
- General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
- Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

M20 PLASTERED/ RENDERED/ ROUGHCAST COATING

400 PLASTER CONSERVATION AND REPAIR

405 REPAIRS TO SMALL PATCHES OR LARGE CRACKS IN LIME PLASTER WORK INTERNALLY
- Large cracks and patches must be prepared by undercutting the edges of the well adhered plaster with a sharp knife to create a dovetail key. The area of repair may need to be widened slightly to ensure all the edges are tightly adhered to the background.
- Remove all loose dust and debris by careful brushing and the use of a vacuum cleaner.
- Treat the surrounding plaster with a weak solution of PVA solution (10%) and once dry thoroughly wet the masonry, laths and adjacent plaster with limewater. Dry plaster may require additional applications of limewater.
- The patch or crack should then be built up in coats no greater than 10mm with the lime putty finishing coat approximately 3mm thick. Finish with a soft brush to marry in with the adjacent existing surfaces.

406 REPAIRS TO SMALL CRACKS IN PLAIN LIME PLASTER WORK INTERNALLY
- Small cracks should be thoroughly cleaned; wetted with limewater and then filled with lime putty mixed with a small amount of fine aggregate. Apply with a soft brush.

MATERIALS AND MAKING OF MORTAR

478 HYDRAULIC LIME
- Standard: To BS EN 459-1.
  - Type: Natural hydraulic lime (NHL).

492 HAIR REINFORCEMENT TO SCRATCH COATS

- Manufacturer/ Supplier: Contractor's choice
- Product reference: Goat or cow hair between 25mm and 100mm long. The hair should be strong, soft and not springy.
- Proportions (approximate): Allow 2 kg of hair/tonne of coarse stuff for ceilings and 1kg of hair/tonne of coarse stuff for walls.
- Condition: Clean, sterile and free from grease and other impurities. Well teased before adding to the mix.
- Distribution: Evenly throughout with no balling into lumps.
- Hair must always be added to the mix as late as possible and certainly never to non-hydraulic batches which are left to 'fatten up' prior to knocking-up.

495 MIXING

- Render mortars (site-made):
  - Batching: By volume. Use clean and accurate gauge boxes or buckets.
  - Mix proportions: Based on damp sand. Adjust for dry sand.
  - Mechanical mixers required for large quantities.
  - Mixing must be thorough and generally for 15 – 20 minutes
- Mixes: Of uniform consistence and free from lumps. Do not retemper or reconstitute mixes.
- Contamination: Prevent intermixing with other materials.

497 COLD WEATHER

- General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
- External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising. Maintain temperature of work above freezing until coatings have fully hardened.
- Internal work: Take precautions to enable internal coating work to proceed without detriment when air temperature is below 3°C.

PREPARING SUBSTRATES

510 SUITABILITY OF SUBSTRATES

- Soundness: Free from loose areas and significant cracks and gaps.
- Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
- Tolerances: Permitting specified flatness/ regularity of finished coatings.
- Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

556 REMOVING DEFECTIVE EXISTING RENDER OR PLASTERS

- Plaster or render for removal: Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged. Agree the extent of removal on site in advance as hollow, detached areas in historic plasterwork can frequently be reattached to avoid the loss of the historic plaster and decorative finishes.
  - For smooth renders, edges should be square cut or slightly undercut but for rough cast the edge should be feathered.
  - Bottom edges to external render: Do not undercut to avoid creating a water trap.
- Cracks:
  - Fine hairline cracking/ crazing: Leave.
  - Other cracks: Discuss with architect
- Faults in substrate (structural deficiencies, damp, etc.): Discuss with architect
- Dust and loose material: Remove from exposed substrates and edges.
- Perished and salt contaminated masonry: Rake out mortar joints.
- Drying out substrates: Established drying conditions. Leave walls to dry for as long as possible before plastering.

- Great care must be taken to minimise damage to masonry.
- In certain situations and when used by skilled operatives small power or air chisels may be used to remove large flat areas of render, but render removal must always be by hand around carved stonework.
- For wide joints, carefully drilled holes into the mortar can assist with the breaking up the mortar, but care must be taken never to drill the stonework. Hacksaw blades may be beneficial for narrow joints.
- Cement pointing must be picked out with care with joints always cleaned out by hand.
- Any evidence of historic renders below should be retained for close inspection and analysis.
- Where timber lintels are revealed internally allow to counterbatten with oak laths prior to re-plastering. Externally apply stainless steel mesh over timber lintels.

INTERNAL PLASTERING

705 WALL PREPARATION GENERALLY

- Where sound backgrounds are found, with good pointing then only loose surface material needs to be removed.
- Failing and loose pointing must be raked out and replaced before a new render application is applied. All joints in masonry should be left open or raked to a minimum depth of 2.5mm.
- Dampening down must be undertaken to modify the suction characteristics of the substrate. When patch repairing, the edges of surrounding material must be well dampened.

710 APPLICATION GENERALLY

- Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion. When applying a scratch coat over laths apply diagonally.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
  - Accuracy: Unless stated or agreed otherwise, finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- The substrate should be thoroughly wetted down to control suction.
- Drying out: Prevent excessively rapid or localized drying out.

720 DUBBING OUT

- General: Correct substrate inaccuracies.
- Existing and new masonry surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.
- Thickness of any one coat (maximum): 10 mm.
- Mix: As undercoat.
- Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

725 UNDERCOATS GENERALLY

- General: Rule to an even surface and the cross scratch to provide a key for the 'floating coat'.
- Scratch coats on metal lathing: Work well into interstices to obtain maximum key.
- Wherever possible routinely inspect the rear of the lathing to ensure a good key is being maintained.
- Do not apply next coat until drying shrinkage is substantially complete. The recommended interval between coats is one to three weeks but this will vary according to humidity and temperature.

- The undercoats are to be finished with a wooden float prior to scratching.
- Ensure that the floating coat is accurately gauged to allow the finishing coat thickness to be consistent over all areas.
- It is essential that the 'floating coat' is vigorously 'scoured' or compacted with a wood float at least twice before it sets to consolidate as it shrinks on drying.
- The 'floating coat' is to be scratched with a 'devil float'.

777 SMOOTH FINISH
- Appearance: A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. Avoid water brush, excessive trowelling and over polishing. Do not overwork.

M40 TILED FINISHES

To be read with Preliminaries/ General conditions.

10 WALL TILING TO SPLASHBACK WITHIN WC
- Description: To repair wall tiled finishes and new splashbacks. For locations and setting out see detailed layout drawing.
- Tiles: Plain white glazed tiles to match existing
  - Manufacturer/ Supplier: Johnsons Tiles
    Product reference: NOPAL - Opal White
  - Colour: White
  - Finish: Gloss
  - Size: 152 x 152
  - Thickness: 5.5mm
- Background/ Base: Lime plastered walls Gyproc TileBacker, or similar approved
- Preparation: As preparation clauses below.
- Bedding: Adhesive to tile manufacturer's recommendations, as clause 651.
- Joint width: 5mm
- Grout: White
- Accessories: Proprietory UPVC Tile trims.

30 NATURAL STONE FLOORING – LIAS TILES
- Description: New lias tiles to West End - Nave & Aisles Central field laid in diagonal pattern set within solid perimeter border – see dwgs for details.
- Type: Blue/Grey Lias
- Standard: To BS EN 1341.
- Supplier: AR Purnell Ltd, Hadpsen Quarry, Lovells Stone Group or similar approved
  - Product reference: Internal Floor tiles
- Petrographical description/ stone type: Limestone
- Finish: Tumbled. TBA- see line 9 Slip Resistance
- Sizes: Varies to perimeter borders. 500 x 500mm to central field areas. Thickness: 25mm
- Arrises: Square
- Slip resistance: Mean SRV to BS EN 14231 of 94
- Background/ Base: new flooring as Jupiter system buildup
- Interlayer: Schluter Ditra Decoupling Membrane, or similar approved.
- Bedding: Adhesive to tile manufacturer's recommendations.
- Joint width: max. 5mm
- Grout: lime-based grout – colour TBC via samples
- Accessories: brass or s/s trim to floor socket locations.
- Verification: Verify slip resistance.
  - Submittals: Product data sheets & manufacturer's literature.
  - Timing: Before placement of orders.
  - Sample: See clause 250. To be approved by architect prior to placing order.

115 NATURAL STONE FLAGSTONES TO AISLES (IF REQUIRED TO MAKE UP)
- Type: Ham Stone – to match existing
- Stone:
  - Name (traditional): Limestone
  - Petrological family: sedimentary
  - Colour: pale cream/grey
  - Finish: smooth
  - Supplier: Harvey Stone or other to approval
  - Quality: Free from vents, cracks, fissures, discoloration, or other defects deleterious to strength/ colour.
  - Size: to suit – site measure
  - Thickness: min. 40mm
  - Other requirements: SAMPLES TO BE PROVIDED FOR APPROVAL PRIOR TO FINAL STONE SELECTION.
- Background/ Base: New Lime Screed (see M20 above) over aisle sub-base (existing slabs to be lifted & reused elsewhere)
- Bedding: lime mortar
- Joint width: max. 5mm
- Grout: lime mortar

116 SLATES ON EDGE AROUND FONT
- Type: Natural Slate
- Stone:
  - Name (traditional): Welsh Slate
  - Colour: grey or blue/grey
  - Finish: smooth
  - Supplier: TBC – for approval
  - Quality: Free from vents, cracks, fissures, discoloration, or other defects deleterious to strength/ colour.
  - Size: to suit – site measure
  - Thickness: min. 40mm
  - Other requirements:

  SAMPLES TO BE PROVIDED FOR APPROVAL PRIOR TO FINAL SELECTION.
- Background/ Base: New Lime Screed (see M20 above) over central aisle
- Bedding: lime mortar
- Joint width: max. 5mm
- Grout: lime mortar

470 INTERMEDIATE SUBSTRATE TILES
- Type: Screed Replacement Tile (clay)
  - Manufacturer: Jupiter Underfloor Heating
    Product reference: SRT
  - Thickness: 18mm
- Fixing system: brick bond on slip membrane with manufacturer-supplied non-toxic adhesive
  - Manufacturer: Jupiter Underfloor Heating
  - Application: Current pew platform areas to nave and aisles (west end only) -see drawings.
    Substrate surface: Secure, true and even.
- Joints: Close butt.
- Penetrations: Seal.

GENERAL

210 SUITABILITY OF BACKGROUNDS/ BASES

- Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
- New background drying times (minimum):
  - Brick/ block walls: 6 weeks.
  - Lime plaster: 4 weeks.
- New base drying times (minimum):
  - Limecrete slabs: 6 weeks.

215 FALLS IN THE BASES
- General: Give notice if falls are inadequate.

250 SAMPLES
- General: Submit representative samples of the following:
  - M20/10
  - M20/30

260 CONTROL SAMPLES
- General: Complete sample areas, being part of finished work, in locations as follows:
  - New natural stone flooring – lias tiles
- Approval of appearance: Obtain before proceeding.

PREPARATION

310 EXISTING BACKGROUNDS/ BASES GENERALLY
- Efflorescence, laitance, dirt and other loose material: Remove.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.

320 EXISTING CONCRETE/ SCREEDS
- Loose or hollow portions: Cut out.
- Making good: as M10 above

330 EXISTING PLASTER
- Defective areas: Remove plaster that is loose, soft, friable, badly cracked or affected by efflorescence. Cut back to straight horizontal and vertical edges.
- Making good: Use plaster or nonshrinking filler.

FIXING

510 FIXING GENERALLY
- Colour/ shade: Unintended variations within tiles for use in each area are not permitted.
  - Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/ base. Prime if recommended by adhesive manufacturer.
- Use of admixtures with cementitious adhesives: not permitted
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/ base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints when viewed under final lighting conditions.
- Surplus bedding material: Clean from joints and face of tiles without disturbing tiles.

530 SETTING OUT
- Joints: True to line, continuous and without steps.

- Joints on walls: Horizontal, vertical and aligned round corners.
- Joints in floors: Parallel to the main axis of the space or specified features.
- Cut tiles: Minimize number, maximize size and locate unobtrusively.
- Joints in adjoining floors and walls: Align.
- Joints in adjoining floors and skirtings: Align.
- Movement joints: Where locations are not indicated, submit proposals.

550 FLATNESS/ REGULARITY OF TILING/ MOSAICS
- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 2 m straightedge with 3 mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 6 mm, i.e. a tolerance of + 3 mm.

560 LEVEL OF TILING ACROSS JOINTS
- Deviation (maximum) between tile surfaces either side of any type of joint:
  - 1 mm for joints less than 6 mm wide.
  - 2 mm for joints 6 mm or greater in width.

570 MORTAR BEDDING
- Bedding mix:
  - NHL 3.5 lime mortar – no Portland cement
  - Sand for floors: Fine aggregate to BS EN 13139.
    Grading designation: 0/4 (MP) category 1 fines and between 20%-66% passing a 0.5 sieve.
- Batching: Select from:
  - Batch by weight.
  - Batch by volume: Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.
- Mixing: Mix materials thoroughly to uniform consistence. Use a suitable forced action mechanical mixer. Do not use a free fall type mixer.
- Application: At normal temperatures use within two hours. Do not use after initial set. Do not retemper.

MOVEMENT JOINTS/ GROUTING/ COMPLETION

875 GROUTING
- Sequence: Grout when bed/ adhesive has set sufficiently to prevent disturbance of tiles.
- Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
- Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
  - Profile: flush
- Polishing: When grout is hard, polish tiling with a dry cloth.

885 COLOURED GROUT
- Staining of tiles: Not permitted.
- Evaluating risk of staining: Apply grout to a few tiles in a small trial area. If discoloration occurs apply a protective sealer to tiles and repeat trial.

M60 PAINTING/ CLEAR FINISHING

To be read with preliminaries/ general conditions.

EGGSHELL /SATIN PAINT

- *Description:* Skirtings inside new WC
- *Manufacturer:* Submit proposals
- *Surfaces:* Uncoated & Previously decorated
- *Preparation:* Remove all loose and defective coatings. Ensure surfaces are clean and dry
- *Undercoats:* As recommended by manufacturer
- *Number of coats:* 2
- Finishing coats
- *Number of coats:* 2

DECORATIVE WOOD STAIN / VARNISH/ PRESERVATIVE
- *Description:* To all new interior joinery
- *Manufacturer:* Osmo
- *Product reference:* PolyX Oil - Clear Matt
- *Initial coats:* 1
- *Finishing coats:* 1

DECORATIVE WOOD STAIN / VARNISH / PRESERVATIVE TYPE A
- *Description:* To Existing Double External Doors
- *Manufacturer:* Osmo
- *Product reference:* Natural Oil Woodstain – teak
- *Initial coats:* 1
- *Finishing coats:* 1

PREPARATION GENERALLY
- *Standard:* In accordance with BS 6150.
- Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
- *Risk assessments and method statements for suspected hazardous materials:* Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- *Preparation materials:* Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- *Substrates:* Sufficiently dry in depth to suit coating.
- *Efflorescence salts, dirt, grease and oil:* Remove. Give notice if contamination of surfaces/ substrates has occurred.
- *Surface irregularities:* Provide smooth finish.
- Organic growths and infected coatings
- Remove with assistance of biocidal solution.
- Apply residual effect biocidal solution to inhibit regrowth.
- Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water-based stoppers and fillers
- Apply before priming unless recommended otherwise by manufacturer.
- If applied after priming: Patch prime.
- Doors, opening windows and other moving parts
- Ease, if necessary, before coating.
- Prime resulting bare areas.

PREVIOUSLY COATED SURFACES GENERALLY
- Preparation: In accordance with BS 6150.
- Contaminated or hazardous surfaces: Give notice of:
- Coatings suspected of containing lead.
- Substrates suspected of containing asbestos or other hazardous materials.
- Significant rot, corrosion or other degradation of substrates.

- Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings
- Thoroughly clean.
- Gloss-coated surfaces: Provide key.
- Partly removed coatings
- Apply additional preparatory coats.
- Junctions: Provide flush surface.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

WOOD PREPARATION
- General: Provide smooth, even finish with lightly rounded arrises.
- Degraded or weathered surface wood: Take back surface to provide suitable substrate.
- Degraded substrate wood: Repair with sound material of same species.
- Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
- Resinous areas and knots: Apply two coats of knotting.
- Defective primer: Take back to bare wood and reprime.

COATING GENERALLY
- Application: In accordance with BS 6150,
- Conditions: Maintain suitable temperature, humidity and air quality.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing: Not permitted unless recommended by manufacturer.
- - Overpainting: Do not paint over intumescent strips or silicone mastics.
- Priming coats: Apply as soon as possible on same day as preparation is completed.
- Finish
- Even, smooth and of uniform colour.
- Free from brush marks, sags, runs and other defects.
- Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating and between coats.

CONCEALED JOINERY SURFACES
- General: After priming, apply additional coatings to surfaces that will be concealed when component is fixed in place.

STAINING WOOD
- Primer: Apply, if recommended by stain manufacturer.
- Application: Apply in flowing coats and brush out excess stain to produce uniform appearance.

EXTERNAL DOORS
- Bottom edges: Prime and coat before hanging.

114 CLAY PAINT FOR THE WC &VESTRY WALLS INTERNALLY (New partition and making good to existing cementitious plaster coatings)
- Manufacturer: Earthborn
  - Product reference: Claypaint
- Prepare surfaces in accordance with manufacturer's recommendations and apply.
- Apply 2no full top coats and allow for 10% dilution for the first coat.

- Colour: To be agreed.

152 EXTERIOR DECORATION OF METAL WORK
- Manufacturer: Rustoleon. Supplier: Rustoleum Direct, Andrews coatings, Carver Buildings, Littles Lane, Wolverhampton, WV1 1JY. Tel: 01902 712286.
- Surfaces: Preparation: Prepare in accordance with paint supplier's recommendations.
- Initial Coats:
  - Rubbed down metalwork where previously rusty. Prime with Rustoleon 769 damp proof red primer.
  - Bright metallic steel and all transit primed metalwork or where existing paintwork is in good condition and not rusty. Prime with Rustoleon 569.
  - Stainless steel or galvanised metal: Rustoleon 3202 Galvinoleum.
- Undercoats: Apply 1no coat of Rustoloeum Hi-build undercoat over existing well adhered paint and primed surfaces including transit primer for new cast iron goods.
- Finishing coats: Apply 2no full coats of Rustoleon Alkythane top coat in satin black. Rustoleon Code: 7575: Alternative: RAL 7021 Black Grey.

LIMEWASH

175 PURE LIMEWASH TO INTERNAL WALLS (LIME PLASTERED SURFACES)
Pure limewash is used for the decoration of internal and external porous surfaces and should not be used on non-porous surfaces, cement renders, gypsum plaster, and timber painted with anything other than limewash.
- Manufacturer: Pre-prepared limewash applications can be obtained from:
  - Limebase Products Ltd, Walronds Park, Isle Brewers, Taunton. TA3 6QP Tel: 01460 281921.
  - Farrow & Ball Ltd, 33 Uddens Industrial Estate, Wimborne, Dorset. BH21 7NL Tel: 01202 876141.
  - Rose of Jericho Ltd, Horchester Farm, Holywell, Evershot, Dorchester. DT2 OLL. Tel: 01935 83676.
  - The Potmolen Paint CO Ltd, 27 Woodcock Industrial Estate, Warminster, Wilts. BA12 9DX. Tel: 01985 213960.
  - Mike Wye & Associates, Buckland Filleigh Sawmills, Buckland Filleigh, Devon, EX21 5RN. Tel: 01409 281644.
- Colour: *To match existing adjacent*
- Finishing coats:
  - Apply five full coats externally
  - Apply three full coats internally
- Sample areas: _____
- Limewash should be sourced direct from the slaking process.

801 LIMEWASH PREPARATION
- If using a specified or agreed pre-prepared limewash product then the preparation and application of the product should be fully in accordance with the supplier's information.
- Ensure all other works to the stone, render or plaster are complete before applying the limewash. Lime mortars and renders should have been allowed to carbonate for at least one month.
- Any algae or mould must be treated with an algaecide or fungicide and thoroughly washed off with clean water. Do not use proprietry fungicides containing water repellents.
- Protect any adjacent surfaces and fixtures and fittings as required to avoid splashing and spillages.
- Protect fixtures, fittings and furnishings as appropriate to prevent any damage and discolouration.

- Ensure that the surface is brushed down and washed to remove any loose dust flushed from the surface of the stone, render or plaster.
- Advise the Architect of the discovery of any wall paintings or historic paint schemes.
- Limewash must be applied to dampened stone/plaster surfaces.
- Ensure all preparatory materials are compatible with the limewash to be used.
- Ensure colourants for pigmentation are to be stirred in well to the prepared limewash to achieve the colour required.
- As far as possible, all limewash for one job should be batched, combining and inter-mixing all separately measured quantities at the start of the job.

802 LIMEWASH APPLICATION
- Ensure limewash is within the shelf life period.
- Apply limewash using a large bristle brush working the limewash well into the surface paying special attention to any eroded areas, cracks and fissures.
- Coats should be applied thinly to avoid cracking of the finish. Each coat will not at first appear to cover, but will become opaque as the limewash dries. Each coat should be well burnished into the surface with the brush as it starts to 'gel'.
- It is important to mist spray the previous coat prior to the application of the next coat.

803 LIMEWASH PROTECTION
- Ensure all limewashed areas are properly and promptly protected. It is essential that the limewash dries slowly.
- Externally used limewash must be protected from frost before carbonation.
- Protect limewashed surfaces from premature drying as it is essential that the limewash dries slowly and remains damp for at least four hours to ensure maximum strength. Limewashed surfaces may be damped down with fine mist sprays if early drying is a problem. Protection from the sun, and or wind, may also need to be erected if drying becomes too fast.

GENERAL

210 COATING MATERIALS
- Manufacturers: Contractor's choice unless stated.

215 HANDLING AND STORAGE
- Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
- Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

280 PROTECTION
- 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

PREPARATION

400 PREPARATION GENERALLY
- Standard: In accordance with BS 6150.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment, and reoccupation, and obtain approval before commencing work.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- For newly lime plastered surfaces allow at least four weeks for the plaster to carbonate prior to applying paints or distempers.

- Wash off old distempers thoroughly prior to applying new coats.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface, provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water based stoppers and fillers:
  - Apply before priming unless recommended otherwise by manufacturer.
  - If applied after priming: Patch prime.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts:
  - Ease, if necessary, before coating.
  - Prime resulting bare areas.

420 EXISTING FIXTURES, FITTINGS AND IRONMONGERY
- Generally remove before commencing work. Carefully label, refurbish as necessary, and refit when coating is dry. Hinges to doors need not be removed.
- Remove old coating marks. Clean and polish.

440 PREVIOUSLY COATED SURFACES GENERALLY
- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces: Give notice of:
  - Coatings suspected of containing lead.
  - Substrates suspected of containing asbestos or other hazardous materials.
  - Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment, and reoccupation, and obtain approval before commencing work.
  - Significant rot, corrosion or other degradation of substrates.
- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
- Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
- Alkali affected coatings: Completely remove.
- Retained coatings:
  - Thoroughly clean to remove dirt, grease and contaminants.
  - Gloss coated surfaces: Provide key.
- Partly removed coatings:
  - Additional preparatory coats: Apply to restore original coating thicknesses.
  - Junctions: Provide flush surface.
- Completely stripped surfaces: Prepare as for uncoated surfaces.

500 PREPRIMED STEEL
- Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.

511 GALVANIZED, SHERARDIZED AND ELECTROPLATED STEEL
- White rust: Remove.
- Pretreatment: Apply one of the following:
  - 'T wash'/ mordant solution to blacken whole surface.
  - Etching primer recommended by coating system manufacturer.

521 UNCOATED STEEL - MANUAL CLEANING
- Oil and grease: Remove.
- Corrosion, loose scale, welding slag and spatter: Remove.
- Residual rust: Treat with a proprietary removal solution.
- Primer: Apply as soon as possible.

541 UNCOATED ALUMINIUM/ COPPER/ LEAD
- Surface corrosion: Remove, and lightly key surface.
- Pretreatment: Etching primer, if recommended by coating system manufacturer.

APPLICATION

711 COATING GENERALLY
- Application: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
- Overpainting: Do not paint over intumescent strips or silicone mastics.
- Priming coats:
  - Thickness: To suit surface porosity.
  - Application: As soon as possible on same day as preparation is completed.
- Finish:
  - Even, smooth and of uniform colour.
  - Free from brush marks, sags, runs and other defects.
  - Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating and between coats.
- For rainwater and other goods apply all coats fully prior to installation but include to redecorate locally any areas of damage caused by the fixing and installation. Where required, the touching-up should include rubbing back, priming, undercoat and two topcoats all as specified.

730 WORKSHOP COATING OF CONCEALED JOINERY SURFACES
- General: Apply coatings to all surfaces of components.

770 EXTERNAL DOORS
- Bottom edges: Prime and coat before hanging doors.

800 LIMEWASH PREPARATION
- If using a specified or agreed pre-prepared limewash product then the preparation and application of the product should be fully in accordance with the supplier's information.
- Ensure all other works to the stone, render or plaster are complete before applying the limewash. Lime mortars and renders should have been allowed to carbonate for at least one month.
- Any algae or mould must be treated with an algaecide or fungicide and thoroughly washed off with clean water. Do not use proprietry fungicides containing water repellents.
- Protect any adjacent surfaces and fixtures and fittings as required to avoid splashing and spillages.
- Protect fixtures, fittings and furnishings as appropriate to prevent any damage and discolouration.
- Ensure that the surface is brushed down and washed to remove any loose dust flushed from the surface of the stone, render or plaster.
- Advise the Architect of the discovery of any wall paintings or historic paint schemes.
- Limewash must be applied to dampened stone/plaster surfaces.
- Ensure all preparatory materials are compatible with the limewash to be used.
- Ensure colourants for pigmentation are to be stirred in well to the prepared limewash to achieve the colour required.

- As far as possible, all limewash for one job should be batched, combining and inter-mixing all separately measured quantities at the start of the job.

802 LIMEWASH APPLICATION
- Ensure limewash is within the shelf life period.
- Apply limewash using a large bristle brush working the limewash well into the surface paying special attention to any eroded areas, cracks and fissures.
- Coats should be applied thinly to avoid cracking of the finish. Each coat will not at first appear to cover, but will become opaque as the limewash dries. Each coat should be well burnished into the surface with the brush as it starts to 'gel'.
- It is important to mist spray the previous coat prior to the application of the next coat.

803 LIMEWASH PROTECTION
- Ensure all limewashed areas are properly and promptly protected. It is essential that the limewash dries slowly.
- Externally used limewash must be protected from frost before carbonation.
- Protect limewashed surfaces from premature drying as it is essential that the limewash dries slowly and remains damp for at least four hours to ensure maximum strength. Limewashed surfaces may be damped down with fine mist sprays if early drying is a problem. Protection from the sun, and or wind, may also need to be erected if drying becomes too fast.

N10 GENERAL FIXTURES/ FURNISHINGS/ EQUIPMENT

To be read with preliminaries/ general conditions.

TABLES
- Description: New church tables (10no.)
- Item: mobile folding table, on transporter
- Manufacturer: Howe
- Product reference: Tempest
- Plan shape: Rectangular
- Dimensions: 1200x750mm, 730mm high
- Worktops
- Material: Veneer
- Finish/ Colour: natural oak
- Exposed edges: matching hardwood edge
- Supports: T-T legs (folding)
- Material: Round uprights and elliptical feet. Steel quality Norm DIN 2394 with Fe content of 97-98%. Foot end caps in dye cast zinc.
- Finish/ Colour: chrome
- Other requirements: include for 2no. table transporter kits for stackable storage

CHAIRS AND STORAGE DOLLIES
- Description: New stackable church chairs - 80no.
- Manufacturer: Howe
- Product reference: 40/4 Side Chair – linking
- Size: 435 deep seat
- Adjustability:
- Seat/ Back/ Arms
- Material: Wood veneer-faced plywood
- Finish/ Colour: oak stained
- Frame
- Material: Steel
- Other requirements: Allow for 8no. with slim armrest option

- Other requirements: Plus 2no. single transport dollies (40no. chairs per dolly)

N11 KITCHEN FITTINGS, FURNISHINGS & EQUIPMENT

To be read with preliminaries/ general conditions

FITTED BASE UNITS AND WALL UNITS
- Description: New servery, west end of S Aisle
- Manufacturer: Bespoke joinery item
- Plan shape: L shape as dwgs
- Dimensions: as dwgs
- Surface finishes: stained oak
- Doors and drawer fronts
- Material: Solid wood
- Finish and colour: Clear finish
- Edges: Solid wood
- Other requirements: Concealed door hinges
- Side panels, plinths and shelves
- Material: Solid wood
- Finish and colour: Clear finish
- Edges: Solid wood

WORKTOPS
- Description: Oak worktop
- Manufacturer: Bespoke joinery item
- Material: Solid wood – oak
- Dimensions: As dwgs
- Exposed edges: Solid wood
- Other requirements: cut outs for sink unit & services as indicated

SINKS, TAPS, TRAPS AND WASTES
- Description: Kitchen mixer tap & s/s sink unit with drainer
- Sinks
- Standard: To BS EN 13310
- Manufacturer: Contractor's choice
- Configuration: Left hand bowl
- Overall size: as dwgs
- Material: Stainless steel
- Tap/ chainstay/ overflow holes: One tap hole, centre Overflow hole
- Taps: Mixer
- Manufacturer: Contractor's choice Submit proposals - note, size needs to suit hinged lid proposed over
- Material: Chromed steel
- Wastes: Plug and chain
- Standard: To BS EN 274-1, BS EN 274-2 and BS EN 274-3
- Manufacturer: Contractor's choice Submit proposals
- Size: To fit sink
- Material: Chromed steel
- Traps: Tubular, P-type

APPLIANCES
- Item: Integrated Dishwasher & Integrated Fridge
- Manufacturer: TBC
- Product reference: tbC
- Colour and finish: INTEGRATED

- Service connections: Cold water & waste to DW

Execution

MOISTURE CONTENT OF WOOD AND WOOD BASED BOARDS
- Control and monitoring
- Method statement: Submit.

INSTALLATION GENERALLY
- Fixings and adhesives: As section Z20.
- Services: As section S90 and section V90

INSTALLING UNITS AND WORKTOPS
- General: Well-fitting, stable and secure.

INSTALLING APPLIANCES
- Connections: Provide to electric, hot and cold water services & wastes

N13 SANITARY APPLIANCES AND FITTINGS

To be read with preliminaries / general conditions

Products

ACCESSIBLE WC EQUIPMENT PACKAGES TYPE A
- *Description:* new Accessible WC
- *Manufacturer:* Armitage Shanks
- Contact details
- *Address:* Armitage
  Old Road
  Rugeley
  Staffordshire
  WS15 4BT
- *Telephone:* +44 (0)870 122 8822
- *Web:* https://www.idealspec.co.uk/
- *Email:* productinfo@idealspec.co.uk
- *Product reference:* Contour 21+ - Doc M Close Coupled Left Hand Pack
- *Standards:* In accordance with Approved Document M.
- *Form:* Complete accessible WC Doc M package and fittings.
- *Arrangement:* Close-coupled pack.
- *Transfer handing:* Left-hand.
- Material and colour
- *WC pans:* Vitreous china to BS EN 997, white.
- *WC cisterns:* Vitreous china to BS EN 997, white.
- *WC seats:* Plastics, no cover.
- Washbasins
- *Material:* Vitreous china to BS EN 14688, white.
- *Handrails:*
- *Water supply fittings:* Lever-operated thermostatic mixer tap.
- *Integral accessories:* Toilet roll holder.

PAPER TOWEL DISPENSERS
- *Manufacturer:* Dolphin Solutions
- Contact details
- *Address:* Southpoint
  Compass Park

Junction Road
Bodiam
East Sussex
TN32 5BS

- *Telephone:* +44 (0)1424 202224
- *Web:* https://www.dolphinsolutions.co.uk
- *Email:* info@dolphinsolutions.co.uk
- *Product reference:* DP3103 Dolphin Prestige Paper Towel Dispenser
- *Form:* Wall mounted.
- Towels
- *Towel type:* Folded.
- *Width:* 265 mm.
- Materials
- *Body:* Stainless steel, grade 1.4301 (304).
- *Finish and colour:* Satin silver.
- *Operation:* Pull out.
- *Projection:* 120 mm.
- *Capacity:* 750.
- *Dimensions:* 448 x 265 mm.

INSTALLATION GENERALLY

- *Standards:* In accordance with BS 6465-1, -2 and -3.
- *Assembly and fixing:* Fix appliances securely to structure, without taking support from pipelines, level and plumb and so that surfaces designed to fall drain as intended.
- *Fasteners:* Non-ferrous or stainless steel.
- *Jointing and bedding compounds:* Recommended by manufacturers of appliances, accessories and pipes, to form watertight joints between appliances and backgrounds (except cisterns) and between appliances and discharge pipes.
- *Supply and discharge pipework:* Fix before appliances.
- *Timing:* Tiled backgrounds, other than splashbacks, complete before fixing appliances. Do not overstress tiles when fixing appliances.
- *On completion:* Components and accessories working correctly with no leaks.
- *Labels and stickers:* Remove.

MODIFYING SANITARY INSTALLATIONS

- *Extent:* As drawing
- *Method:* Submit proposals

INSTALLING TAPS

- *Fixing:* Secure against twisting.
- *Seal with appliance:* Watertight.
- *Positioning:* Hot tap to left of cold tap as viewed by user of appliance.

INSTALLING WASTES AND OVERFLOWS

- *Bedding:* Waterproof jointing compound.
- *Fixing:* With resilient washer between appliance and backnut.

P10 SUNDRY INSULATION/ PROOFING WORK

45 FOAMED GLASS INSULATING AGGREGATE

Location: Former Pew platform areas – part of Jupiter system.
Extent: See dwgs.
Manufacture: Foamed Glass UK
T: 01977 661 631

Product: Foamglass 65 or 40 Aggregate – TBC
Thickness: 150mm compacted

P21 DOOR/ WINDOW IRONMONGERY

To be read with Preliminaries / general conditions

INSTALLING HARDWARE
- *Quantities and locations of ironmongery:* New internal doors, cupboards and north porch semi-external door
- *Fixing:* As sections L10 and L20.

IRONMONGERY FROM SINGLE PROPRIETARY RANGE
- *Manufacturer:* Croft Architectural Hardware
- *Product reference:* Maine levers 7230COV65A on plain covered rose 210A for WC & West stores doors
- *Product reference:* Chetton Cabinet handles 1450 (128mm) for radiator & Dis Board cabinetry
- *Principal material/ finish:* Aged brass
- *Items unavailable within selected range:* Submit proposals.

SAMPLES
- *General: before placing orders with suppliers submit labelled samples of the following:* Lever & cabinet handles

SINGLE AXIS DOOR HINGES
- *Description:* New WC, Store & Cabinetry doors
- *Standard:* To **BS EN 1935**.
- *Manufacturer:* Submit proposals
- *Type:* Plain bearing butt.
- *Material/ finish:* Polished brass.

DOOR HINGES
- *Description:* Patch hinges to frameless glass entrance door
- *Manufacturer:* Submit proposals
- *Material/ finish:* stainless steel
- *Other requirements:* see drawing to indicate arrangements - special bespoke arched glazed door

DOOR LOCKS
- *Description:* Lock to New Glazed Entrance door
- *Standard:* To **BS EN 12209**.
- *Manufacturer:* Submit proposals
- *Type:* Cylinder mortice lock
- *Backset:* 44 mm.
- *Material/ finish:* Stainless steel faceplate.

DOOR LOCKS TYPE A
- *Description:* WC Bathroom Lock
- *Standard:* To **BS EN 12209**.
- *Manufacturer:* Croft Architectural Hardware
- *Product reference:* Equality Thumb Turn & Release 6430
- *Type:* Bathroom lock.
- *Material/ finish:* Aged brass

DOOR LOCKS TYPE B
- *Description:* Mortice Deadlock with cast covered escutcheon
- *Standard:* To **BS EN 12209**.
- *Manufacturer:* Croft Architectural Hardware
- *Product reference:* M006 & 4580
- *Type:* Five-lever mortice deadlock
- *Backset:* 44 mm.
- *Material/ finish:* Aged brass
- *Keying:* In master keyed suite.

DOOR LATCHES
- *Description:* Interior Door Latch for Sprung Leves
- *Standard:* To **BS EN 12209**.
- *Manufacturer:* Croft Architectural
- *Product reference:* M006
- *Type:* Vertical case mortice latch.
- *Backset:* 82mm
- *Material/ finish:* Aged brass

DOOR STOP
- *Description:* New glazed entrance door, WC door & West Store doors
- *Manufacturer:* Croft Architectural
- *Product reference:* 4530
- *Type:* Round two part floor fixed doorstop

Q10 KERBS / EDGINGS / CHANNELS/ PAVING ACCESSORIES

To be read with preliminaries/ general conditions.

PRECAST CONCRETE
- Description:
- Standard: To BS EN 1340.
- Manufacturer:
- Product reference:
- Recycled content:
- Designations:
- Size (width x height x length):
- Special shapes:
- Finish:
- Colour:
- Bedding:
- Joints:
- Sealant movement joints:
- Accessories:

STONE
- Description: Stone kerbs as church path
- Standard: BS EN 1343.
- Supplier: Harvey stone, or existing material recycled.
- Types: Splayed with radiused exposed edges
- Stone type: Ham Stone
- Size: to match existing

LINEAR SLOT DRAINAGE CHANNEL SYSTEM
- Manufacturer: Aco

- Product reference: Multi Drain Brickslot - Single and Twin
- Finish: Galvanised steel

LAYING KERBS, EDGINGS and CHANNELS
- Standard: To BS 7533-6.
- Cutting: Neat and accurate and without spalling. Form neat junctions.
- Long units' (450 mm and over) minimum length after cutting: 300 mm.
- Short units' minimum length after cutting: The lower of one third of their original length or 50 mm.
- Bedding of units: Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
- Securing of units: After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

CONCRETE FOR FOUNDATIONS, RACES AND HAUNCHING
- Standard: To BS 8500-2.
- Designated mix: Not less than GEN0 or Standard mix ST1.
- Workability: Very low.

CEMENT MORTAR BEDDING
- General: To section Z21.
- Mix: (Portland cement:sand): 1:3.
- Portland cement: Class CEM I 42.5 to BS EN 197-1.
- Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
- Bed thickness: 12-40 mm.

DRAINAGE CHANNEL SYSTEMS
- Installation: To an even gradient, without ponding or backfall. Commence laying from outlets.
- Silt and debris: Removed from entire system immediately before handover.
- Washing and detritus: Safely disposed without discharging into sewers or watercourses.

ACCURACY
- Deviations (maximum)
- Level: ± 6 mm.
- Horizontal and vertical alignment: 3 mm in 3 m.

TOOLED MORTAR JOINTS
- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
- Joint width: 6 mm.

ROAD MARKING (LIGHT DUTY)
- Manufacturer: Contractor's choice
- Product reference: Contractor's choice
- Colour: White
- Surface to receive markings: Clean and dry, loose material removed.
- Application: Uniform, with no streaks or ragged edges.

REGULARITY OF PAVED SURFACES
- Maximum undulation of (non-tactile) paving surface: 3 mm.
- Method of measurement: Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
- Difference in level between adjacent units (maximum)
- Joints flush with the surface: Twice the joint width (with 5 mm max difference in level).
- Recessed, filled joints: 2 mm.

- Recess depth (maximum): 5 mm.
- Unfilled joints: 2 mm.
- Sudden irregularities: Not permitted.

Q22 ASPHALT ROADS / PAVINGS

ASPHALT CONCRETE PAVING
- Description: Car Park areas as indicated
- Manufacturer: Contractor to submit proposals
- Standard: To BS EN 13108-1
- Subgrade improvement layer: Submit proposals
- Compacted thickness: Not applicable
- Geomembrane: Not required
- Granular sub-base: Submit proposals
- Compacted thickness: Submit proposals
- Base: Submit proposals
- Other requirements:

TIMBER EDGING
- Description: To edges of grass verge and abutments with new masonry walls etc
- Softwood board
- Size: 38 x 150 mm.
- Fixing: Galvanized nails into softwood pegs.

LAYING GENERALLY
- Preparation: Remove all loose material, rubbish and standing water.
- Adjacent work: Form neat junctions. Do not damage.
- Channels, kerbs, inspection covers etc: Keep clean.
- New paving
- Keep traffic free until it has cooled to prevailing atmospheric temperature.
- Do not allow rollers to stand at any time.
- Prevent damage.
- Lines and levels: With regular falls to prevent ponding.
- Overall texture: Smooth, even and free from dragging, tearing or segregation.
- Condition on completion: Clean.

LEVELS
- Permissible deviation from the required levels, falls and cambers (maximum): In accordance with BS 594987, clause 5.2.

Q25 Slab/ brick/ sett/ cobble pavings

To be read with preliminaries/ general conditions

LAYING PAVINGS – GENERAL
- Appearance: Smooth and even with regular joints and accurate to line, level and profile.
- Falls: To prevent ponding.
- Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
- Bedding/ Laying course: Consistently and accurately graded, spread and compacted to produce uniform thickness and support for paving units.
- Slopes: Lay paving units upwards from the bottom of slopes.
- Paving units: Free of mortar and sand stains.

- Cutting: Cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes.

LEVELS OF PAVING
- Permissible deviation from specified levels (generally)
- Generally: +/-5 mm.
- Height of finished paving above features
- At gullies: +6 to +10 mm.
- At drainage channels and kerbs: +3 to +6 mm.

REGULARITY OF PAVED SURFACES
- Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
- Joints between paving units or utility access covers
- Joints flush with the surface: Difference in level between adjacent units to be no more than twice the joint width (with a 5 mm maximum difference in level).
- Recessed, filled joints: Difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
- Unfilled joints: Difference in level between adjacent units to be no greater than 2 mm.
- Sudden irregularities: Not permitted.

PROTECTION
- Cleanliness: Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.
- Materials storage: Do not overload pavings with stacks of materials.
- Handling: Do not damage paving unit corners, arrises, or previously laid paving.
- Mortar-bedded pavings: Keep free from traffic after laying:
- Pedestrian traffic (minimum): Seven days
- Access: Restrict access to paved areas to prevent damage from site traffic and plant.

NATURAL STONE SLAB PAVING SYSTEMS
- Description: Pennant Stone paving to front dais & steps
- Granular sub-base: Type 1
- Compacted thickness: As drawings
- Base: Designed concrete, as section E10
- Thickness: as drawings & SE specification
- Laying course: Site-mixed mortar
- Paving units: Natural stone slabs
- Jointing: Site-mixed mortar
- Bond: Random lengths in regular courses with joints staggered by minimum 100 mm
- Accessories: Applied slip-resistant rebated inserts

COMPLETION OF PAVING WITH DRY SAND OR FINE AGGREGATE – FILLED JOINTS
- Sand dressing: Leave a thin layer of dry jointing sand/ fine aggregate over the paving, sweep clean before practical completion
- Final compaction of the surface course: In accordance with BS 7533-3.
- Vacuum cleaning machines: Not allowed.

R12 BELOW GROUND DRAINAGE SYSTEMS

To be read with Preliminaries/ General conditions.

GENERAL

SYSTEM PERFORMANCE

211 DESIGN - BELOW GROUND DRAINAGE SYSTEMS
- Design: Complete the design of the below ground drainage system in accordance with BS EN 752, BS EN 1295-1 and BS EN 1610.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

PRODUCTS

315 CHANNEL/ SLOT DRAINS FOR SURFACE WATER DRAINAGE
- Standards: To BS EN 1253-1, -2, -3, -4 and -5; or
  - Clay: To BS EN 295-1 and Kitemark certified, or Agrément certified.
- Material: Galv steel
- Manufacturer: Aco
  - Product reference: Brickslot Single C 250
  - Loading grades to BS EN 1433: A15 for pedestrian areas

329 PIPES, BENDS AND JUNCTIONS - SUPPLY
- Pipes and fittings: From same manufacturer for each pipeline.

346 PIPES, BENDS AND JUNCTIONS - PVC-U - SOLID WALL
- Standard: To BS EN 1401-1, with flexible joints.
- Manufacturer: Contractor's choice
- Sizes: min. 100mm dia
- Application area code: UD.

352 ACCESS POINTS - PLASTICS (as indicated on dwgs)
- Standard: To BS 4660 and Kitemark certified, to BS EN 13589-1, or Agrément certified.
- Manufacturer: Polydrain or other approved
- Nominal diameter: 320mm
- Access covers and frames:

483 CONCRETE (GENERAL)
- Standard: To BS 8500-2.
- Concrete: ST2 or GEN 1

492 GEOTEXTILE MEMBRANES - FILTER
- Manufacturer: Terram
  - Product reference: Terram 700

496 GRANULAR MATERIAL - NATURAL
- Standard: To BS EN 12620.
- Recycled content: Not permitted other than clean stone.
- Size: Dependent on location - see Execution clauses in this section, and in sections R16, R17 and R18, if used.

EXECUTION

611 EXISTING DRAINS
- Setting out: Before starting work, check invert levels and positions of existing drains, sewers, inspection chambers and manholes against drawings. Report discrepancies.

- Protection: Protect existing drains to be retained and maintain normal operation if in use.

613 EXCAVATED MATERIAL
- Turf, topsoil, hardcore, etc: Set aside for use in reinstatement.
- Excavated material is consecrated ground and must not be removed from site. Allow for redistribution around the churchyard.
- Any bones or human remains should be carefully set aside for reburial by the Parish.
- It should be assumed that all excavation works within a churchyard are undertaken with an archaeologist in attendance. The archaeologist will have a watching brief.

616 SELECTED FILL FOR BACKFILLING
- Selected fill: As-dug material, free from vegetable matter, rubbish, frozen soil and material retained on a 40 mm sieve.
  - Compaction: By hand in 100 mm layers.

623 LOWER PART OF TRENCH - GENERAL
- Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
  - Width (minimum): External diameter of pipe plus 300 mm.

631 TYPE OF SUBSOIL
- General: Where type of subsoil at level of crown of pipe differs from that stated for the type of bedding, surround or support, give notice.

635 FORMATION FOR BEDDINGS
- Timing: Excavate to formation immediately before laying beddings or pipes.
- Mud, rock projections, boulders and hard spots: Remove. Replace with consolidated bedding material.
- Local soft spots: Harden by tamping in bedding material.
- Inspection of excavated formations: Give notice.

661 CLASS O SUPPORT FOR PLASTIC PIPEWORK
- Type of subsoil: Clay
- Granular material:
  - Pipe sizes DN 100 and DN 150: Size 4/10.
  - Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.
- Bedding:
  - Material: Granular, compacted over full width of trench.
  - Thickness (minimum): 100 mm.
- Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
- Support:
  - Material: Granular.
  - Depth: To slightly above crown of pipe.
  - Compaction: By hand.
- Backfilling:
  Material and depth: Protective cushion of selected fill to 300 mm above crown of pipe; or
  Additional granular material, to 100 mm above crown of pipe.
  - Compaction: By hand in 100 mm layers.

680 CONCRETE SURROUND FOR PIPE RUNS NEAR FOUNDATIONS
- Class Z surround: Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):

- Trenches less than 1 m from foundations: Top of concrete surround not lower than bottom of foundation.
- Trenches more than 1 m from foundations: Top of concrete surround not lower than D mm below bottom of foundation, where D mm is horizontal distance of trench from foundation, less 150 mm.

683 LAYING PIPELINES
- Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
- Ingress of debris: Seal exposed ends during construction.
- Timing: Minimize time between laying and testing.

685 JOINTING PIPELINES
- Connections: Durable, effective and free from leakage.
- Junctions, including to differing pipework systems: With adaptors intended for the purpose.
- Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
- Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
- Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
- Jointing material: Do not allow to project into bore of pipes and fittings.

697 INSTALLING FLEXIBLE COUPLINGS
- Ends of pipes to be joined: Cut cleanly and square.
- Outer surfaces of pipes to be joined: Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines and/ or apply a cement grout over the sealing area.
- Clamping bands: Tighten carefully to make gastight and watertight seals.

705 INITIAL TESTING OF PIPELINES
- Before testing:
  - Cement mortar jointing: Leave 24 h.
  - Solvent welded pipelines: Leave 1 h.
- Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

715 BACKFILLING TO PIPELINES
- Backfilling above top of surround or protective cushion: Material excavated from trench, compacted in layers 300 mm (maximum) thick.
- Heavy compactors: Do not use before there is 600 mm (total) of material over pipes.

720 BACKFILLING UNDER ROADS AND PAVINGS
- Backfilling from top of surround or protective cushion up to formation level: Granular sub-base material, laid and compacted in 150 mm layers.

728 LAYING WARNING MARKER TAPES
- Installation: During backfilling, lay continuously over pipelines.
- Depth: 300-400 mm.
  - Pipelines deeper than 2 m: Lay an additional tape 600 mm above the top of the pipeline.

734 INSTALLING ACCESS POINTS AND GULLIES
- Setting out relative to adjacent construction features: Square and tightly jointed.
- Permissible deviation in level of external covers and gratings: +0 to -6 mm.

- Raising pieces (clay and concrete units): Joint with 1:3 cement:sand mortar.
- Exposed openings: Fit purpose made temporary caps. Protect from site traffic.

759 LAYING PREFORMED PLASTICS CHANNELS, BRANCHES AND BENCHING
- Main channel: Bed solid in 1:3 cement:sand mortar.
  - Branches: Connect to channel, preferably at half pipe level, so that discharge flows smoothly in direction of main flow.
  - Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.
- Bedding: 1:3 cement:sand mortar. Use clips or ensure adequate mechanical key.
- Benching:
  - Material: Concrete (general).
  - Profile: Rise vertically from top of main channel to a level not lower than soffit of outlet pipe, then slope upwards at 10% to walls.
  - Topping:
    Material: _____ .
    Application: Before benching concrete has set, and with dense smooth uniform finish.

773 INSTALLING ACCESS COVERS AND FRAMES
- Bedding and haunching of frames: Continuously.
  - Top of haunching: 30 mm below surrounding surfaces.
- Horizontal positioning of frames:
  - Centred over openings.
  - Square with joints in surrounding paving.
- Vertical positioning of frames:
  - Level; or
  - Marry in with levels of surrounding paving.
- Permissible deviation in level of external covers and frames: +0 to -6 mm.

776 EXPOSED OPENINGS IN INSPECTION CHAMBERS, ACCESS POINTS, FITTINGS AND EQUIPMENT
- General: Fit purpose made temporary caps. Protect from site traffic.

COMPLETION

901 REMOVAL OF DEBRIS AND CLEANING
- Preparation: Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
  - Timing: Before cleaning, final testing, CCTV inspection if specified, and immediately before handover.
- Cleaning: Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
- Washings and detritus: Do not discharge into sewers or watercourses.
- Covers: Securely replace after cleaning and testing.

903 TEMPORARY MEASURES
- Water used to stabilize tanks and the like during installation: Drain.

911 TESTING AND INSPECTION
- Dates for testing and inspection: Give notice.
  - Period of notice: 2 days

941 WATER TESTING OF MANHOLES AND INSPECTION CHAMBERS
- Timing: Before backfilling.

- Standard:
  - Exfiltration: To BS EN 1610.
    Method: Testing with water (method W).
  - Infiltration: No identifiable flow of water penetrating the chamber.

Z10 PURPOSE MADE JOINERY (OAK)

LOCATIONS: new west store cupboards, new heater cabinetry and new DIS board cabinet, new servery – see drawings.

110 FABRICATION
- Standard: To BS 1186-2.
- Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
  - Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects including plane flutters.
- Joints: Tight and close fitting.
- Assembled components: Rigid. Free from distortion.
- Screws: Provide pilot holes.
  - Screws of 8 gauge (4 mm diameter) or more and screws into hardwood: Provide clearance holes.
  - Countersink screws: Heads sunk at least 2 mm below surfaces visible in completed work.
  - Adhesives: Compatible with wood preservatives applied and end uses of timber.

120 CROSS SECTION DIMENSIONS OF TIMBER
- General: Dimensions on drawings are finished sizes.
- Maximum permitted deviations from finished sizes:
  - Softwood sections: To BS EN 1313-1:-
    Clause 6 for sawn sections.
    Clause NA.2 for further processed sections.
  - Hardwood sections: To BS EN 1313-2:-
    Clause 6 for sawn sections.
    Clause NA.3 for further processed sections.

130 PRESERVATIVE TREATED WOOD
- Cutting and machining: Completed as far as possible before treatment.
- Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
- Surfaces exposed by minor cutting and/ or drilling: Treat as recommended by main treatment solution manufacturer.

140 MOISTURE CONTENT
- Wood and wood based products: Maintained within range specified for the component during manufacture, storage and fitting.

150 TIMBER
- All timber is to be well seasoned and sourced from managed and sustainable plantations and is FSC certified. Evidence of the source of the timber should be available if requested.
- The contractor is to provide a sample of the proposed timber prior to commencing work.
- Softwood for new joinery should be joinery grade European Redwood unless otherwise described.

- New solid timber doors & cabinetry should be made from English Oak unless stated otherwise.

250 FINISHING
- Surfaces: Smooth, even and suitable to receive finishes.
  - Arrises: Eased unless shown otherwise on drawings.
- End grain in external components: Sealed with primer or sealer as section M60 and allowed to dry before assembly.

Z11 PURPOSE MADE METALWORK

To be read with Preliminaries/ General conditions.

PRODUCTS

310 MATERIALS GENERALLY
- Grades of metals, section dimensions and properties: To appropriate British Standards. When not specified, select grades and sections appropriate for the purpose.
- Stainless steel: Grade 316 (1.4401)
- Prefinished metal: May be used if methods of fabrication do not damage or alter appearance of finish, and finish is adequately protected.
- Fasteners: To appropriate British Standards and, unless specified otherwise, of same metal as component being fastened, with matching coating or finish.

FABRICATION

515 FABRICATION GENERALLY
- Contact between dissimilar metals in components: Avoid.
- Finished components: Rigid and free from distortion, cracks, burrs and sharp arrises.
  - Moving parts: Free moving without binding.
- Corner junctions of identical sections: Mitre.

520 COLD FORMED WORK
- Profiles: Accurate, with straight arrises.

527 WELDING
- Preparation:
  - Joint preparation: Clean thoroughly.
  - Surfaces of materials that will be self-finished and visible in the completed work: protect from weld splatter.
- Jointing:
  - Joints: Fully bond parent and filler metal throughout with no inclusions, holes, porosity or cracks.
  - Strength requirements: Welds to achieve design loads.
  - Complex assemblies: Agree priority for welding members to minimize distortion caused by subsequent welds.
  - Tack welds: Use only for temporary attachment.
  - Jigs: Provide to support and restrain members during welding.
  - Lap joints: Minimum 5 x metal thickness or 25 mm, whichever is greater.
  - Weld terminations: Clean and sound.

FINISHING

710 FINISHING WELDED AND BRAZED JOINTS VISIBLE IN COMPLETE WORK
- Standard: To BS EN ISO 8501-3.

- Butt joints: Smooth, and flush with adjacent surfaces.
- Fillet joints: Neat.
- Grinding: Grind smooth where indicated on drawings.

745 PREPARATION FOR APPLICATION OF COATINGS
- General: Complete fabrication, and drill fixing holes before applying coatings.
- Paint, grease, flux, rust, burrs and sharp arrises: Remove.

780 GALVANIZING
- Standard: To BS EN ISO 1461.
- Preparation:
  - Vent and drain holes: Provide in accordance with BS EN 14713. Seal after sections have been drained and cooled.
  - Components subjected to cold working stresses: Heat treat to relieve stresses before galvanizing.
  - Welding slag: Remove.
  - Component cleaning: To BS EN ISO 8501-1.

Z12 PRESERVATIVE/ FLAME RETARDENT TREATMENTS (IF REQUIRED)

110 APPLICATION
- To all internal joinery, after completion

To be read with Preliminaries/ General conditions.

PRODUCTS

200 FIRE VARNISH BASECOAT
- Product Details: Thermoguard Fire Varnish Base Coat
- Standard: BS Class 1/10 and EN Class B system
- Finish: Clear Satin
- Application: to all new internal fixed joinery
- Drying: min. 8hrs, but complete system within 4 days – basecoat must be hard dry before applying overcoat
- Application: to all new internal fixed joinery

201 FIRE VARNISH OVERCOAT (INTERIOR)
- Product Details: Thermoguard Fire Varnish Overcoat (INTERIOR)
- Standard: BS Class 1/10 and EN Class B system
- Finish: Clear
- Application: to all new internal fixed joinery

Z21 LIME MORTARS

300 NON-HYDRAULIC LIME MORTARS (For use with Ham Stone above ground)

310 LIME:SAND MORTAR MIXES
- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

320 SAND FOR LIME:SAND MASONRY MORTARS
- Type: Sharp, well graded.
- Grading/ Source: As specified elsewhere in relevant mortar mix items or if not stated to include the following:

- Fine yellow washed pit sand
- Bath stone dust
- Ham stone dust
- Lias stone dust
- Beer Stone dust
- Corfe Mullen sand
- Culm measure sandstone dust
- Crushed Thorverton stone
- Heavitree stone dust
- Holme sand
- Hornton Brown sand
- Ginger Building Sand
- Silver sand
- Fine red quartz sand
- Taunton Red / Hill Head sand fine or coarse
- Wareham washed pit sand
- Chard Coarse stock
- Others of the Contractor's choice

- Quality, sampling and testing: To BS EN 13139. Sands should not be marine dredged due to salt contamination.

- Ensure all sands and aggregates are stored in different stockpiles on clean hard bases that allow free drainage.
- Allow to prepare a total of .....nr (insert quantity) mortar samples based on mixes using various sands and stone dusts for consideration for the various situations

335 READY PREPARED LIME PUTTY

- Lime putty can be obtained from various sources. Suggested suppliers include:
  - Limebase Products Ltd, Walronds Park, Isle Brewers, Taunton. TA3 6QP Tel: 01460 281921.
  - Rose of Jericho Ltd, Horchester Farm, Holywell, Evershot, Dorchester. DT2 OLL. Tel: 01935 83676.
  - Cornish Lime Company Ltd, Brims Park, Old Callywith Road, Bodmin, Cornwall, PL31 2DZ Tel: 01208 79779.
  - Mike Wye & Associates, Buckland Filleigh Sawmills, Buckland Filleigh, Devon, EX21 5RN. Tel: 01409 281644.
  - HJ Chard & Sons, 1 Cole Road, Bristol, BS2 0UG. Tel: 0117 977 7681.
- Maturation period before use (minimum): 2 months
- Ensure that all supplied lime comes in bins with the date of slaking clearly marked.
- Store ready lime putty in conditions that prevent drying out and protect from frost.
- Note: 'Reconstituted lime putty' made by mixing bagged hydrated non-hydraulic lime with water is not acceptable.

360 MAKING LIME:SAND MORTARS GENERALLY

- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
- Allow for bulking if sand is damp.
- Contamination: Prevent intermixing with other materials, including cement.

370 SITE PREPARED NONHYDRAULIC LIME:SAND MORTARS

- Mixing: Mix materials thoroughly by compressing, beating and chopping. Do not add water.
- Ensure putty and aggregates are thoroughly mixed in large batches.
  - Equipment: Paddle or roller pan mixer or submit proposals.
- Maturation period before use (maximum): 7 days
- The mortar, plaster or render should be left to mature in air tight containers. Include additional covering inside the bin to prevent drying out.

390 KNOCKING UP NONHYDRAULIC LIME:SAND MORTARS
- Knocking up before and during use: Achieve and maintain a workable consistency by compressing, beating and chopping. Do not add water.
- Equipment: Paddle or roller pan mixer or submit proposals.

400 HYDRAULIC LIME MORTARS (For use below ground and in rubble walling)

405 Hydraulic lime is available as follows:
- NHL 2.0 – Feebly hydraulic
- NHL 3.5 – Moderately hydraulic
- NHL 5.0 – Eminently hydraulic
- NHL 5.0Z – Eminently hydraulic

410 LIME:SAND MORTAR MIXES
- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

420 SAND FOR LIME:SAND MASONRY MORTARS
- Type: Sharp, well graded.
- Grading/ Source: As specified elsewhere in relevant mortar mix items for if not stated as follows:
- Fine yellow washed pit sand
  - Fine red quartz sand
  - Ginger Building Sand
  - Silver sand
  - Washed sand of the Contractor's choice
- Quality, sampling and testing: To BS EN 13139. Sands should not be marine dredged due to salt contamination.
- Ensure all sands and aggregates are stored in different stockpiles on clean hard bases that allow free drainage.
- Prepare mortar samples based on mixes using various sands and stone dusts for consideration.

445 ADMIXTURES FOR HYDRAULIC LIME:SAND MORTARS
- Do not use any admixtures.
- Do not use cement.

460 MAKING LIME:SAND MORTARS GENERALLY
- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
- Contamination: Prevent intermixing with other materials, including cement.

470 MAKING HYDRAULIC LIME:SAND MORTARS
- Lime can be obtained from various sources. Suggested suppliers include:
  - Limebase Products Ltd, Walronds Park, Isle Brewers, Taunton. TA3 6QP Tel: 01460 281921.
  - Rose of Jericho Ltd, Horchester Farm, Holywell, Evershot, Dorchester. DT2 OLL. Tel: 01935 83676.
  - Cornish Lime Company Ltd, Brims Park, Old Callywith Road, Bodmin, Cornwall, PL31 2DZ Tel: 01208 79779.
  - Mike Wye & Associates, Buckland Filleigh Sawmills, Buckland Filleigh, Devon, EX21 5RN. Tel: 01409 281644.
  - HJ Chard & Sons, 1 Cole Road, Bristol, BS2 0UG. Tel: 0117 977 7681.
- Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix and allow for each batch of lime to be

mixed for at least 15 minutes and then left to stand for a short period to improve workability prior to application.
- Water quantity: Only sufficient to produce a workable mix.
- Contamination: Prevent intermixing with other materials, including cement.
- Working time: Within limits recommended by the hydraulic lime manufacturer.

End of Materials & Workmanship Specification

APPENDIX – DESIGNER RISK ASSESSMENT

CONSTRUCTION RISKS						
ELEMENT	**DETAILS OF CONSTRUCTION**	**HEALTH & SAFETY IMPLICATIONS**	**E**	**IR**	**ACTION TO BE TAKEN**	**RR**
Demolitions	Removal of pew platforms, temporary removal of monuments and formation of tower opening	Dust, falling from height, unstable construction, confined spaces, discovery of remains	WD	3	Method statements, PPE, work in a safe environment. and stop work if required, archaeological WSI & site supervision.	2
	Discovery of asbestos	Obtain Asbestos report	LPW	2	Inspect asbestos report. Wear protective clothing and work in accordance with current guidelines	2
	Internal protections & high level access	Falling from height, unsafe methodology	LPWID	3	Method statements	1
Font relocation & safe removal	Heavy materials	Lifting & storage of heavy materials	WD	3	Method statements, appropriate trained workforce	1
Drainage works	Unclear drainage routes/ foul connection	Ground contamination, changes to proposed connections	WID	3	Review drainage survey, retesting and lifting of adhered MH covers on site	1
External works	Formation levels, earthworks in car park	Ground instability, public access	PID	3	Protections, method statements	2
Services	Electrical services	Live services	LPW	3	Carry out desk top & site survey, divert/protect & make safe	2
	Existing boiler	Fumes from extract	LW	2	Ensure adequate ventilation is maintained.	1
	Existing oil tank	Potential contamination/ leaks	PWI	3	Specialist input	1
Finishes	Lime based products	Injury to health	LPW	2	Protection, training	1
	Lead based products	Injury to health	LPW	2	Protection, training	1

Risk assessment key

EFFECT (E): Loss of Life = L, Injury to Public = P, Injury to Workforce =W, Disruption to Infrastructure = I, Damage to Works = D.
INITIAL/RESIDUAL RISK (IR)/(RR): High = 5, Probable = 4, Occasional = 3, Improbable = 2, Remote = 1.

End of Document