SCHEDULE OF WORKS (Faculty Application)

CONTENTS

REF	DESCRIPTION	£

PRE-AMBLE

0.1 **Notes Relating to Schedule of Works**

All items must be individually priced before pre-contract meetings. This Schedule is to be read in conjunction with the bill of quantities where each item should be individually priced

All quantified items in this schedule of works will be properly identified before work commences.

All work described to be agreed and confirmed by the Contract Administrator/Architect before any works commence on site.

Reference should be made to the drawings for identification and location of areas/aspects of the works described throughout this Schedule of Works.

The contractor is invited to present suggestions to the architect for approval, for significant items within this Schedule of Works, where specific brand/product names have not been provided.

Any discrepancies between the tender drawings and the specification or cross over between the consultant's drawings and the architect's specification should be brought to the Architect's attention.

All prices for the works are to be inclusive of all overheads, profit, fees, hire charges and materials.

Value Added Tax is to be separately itemised. VAT is to be charged at the appropriate rate. Invoices with the wrong VAT applied will be returned unpaid.

Unless otherwise stated, where trade names are stipulated, tenders should be based on these products only. Alternative materials may only be substituted by agreement with the Contract Administrator/Architect.

Provisional sums are to be expended or deducted in part or in whole at the sole discretion of the Contract Administrator/Architect.

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CONTRACTOR'S COSTS ITEMS

1.1 **Insurance**

1.1.1 Personnel & Property

The Contractor shall insure against injury to or death (to include coverage during public open days) of persons in accordance with clause 6.1 (JCT IBC 2016)

The Contractor shall insure against loss, injury or damage to property in accordance with clause 6.2 (JCT IBC 2016), to be not less than £2 million.

The Contractor shall (in the joint names of the Employer and Contractor) insure, under insurance option C, the works and all unfixed materials against loss or damage plus 18% for professional fees in accordance with clause 6.7 (JCT IBC).

1.2 **Personnel**

1.2.1 Site Supervision

Allow for site supervision and off-site and visiting staff costs for the duration of the work.

Any sub-contractor employed or appointed by the Contractor shall be the domestic sub-contractor of the Contractor. The Contractor will be under a duty to supervise the sub-contractor and ensure that any work undertaken by them is carried out in accordance with the terms of the contract documents, with due diligence and in a good and workmanlike manner.

1.2.2 CDM Regulations 2015

The Contractor will assume the role of Principal Contractor throughout the duration of their appointment and carry out all required responsibilities in accordance with current CDM Regulations 2015 legislation.

These responsibilities include (but are not necessarily limited to):

- Employing workers with the right skill, knowledge, training and experience.
- Provide appropriate site inductions, supervision, instruction and information.
- Provide adequate site welfare facilities.
- Provide a written Construction Phase Plan (to plan, manage and coordinate the construction works and manage health and safety risks to workers and the public).
- Contribute to compilation of the Health and Safety file.
- Liaise with the employer and Principal Designer as required.

REF	DESCRIPTION	£
1.2.3	Contractor's Attendance Allow for all costs, expenses, etc., caused or incurred in attending upon the Contract Administrator/Architect, sub-contractors and consultants providing site facilities, power, water, access, scaffolding, material deliveries and cranage, (to include provision of Banksmen) and for specialist work set out elsewhere in this specification.	
1.3	**Contractor's Compound**	
1.3.1	Accommodation Exact layout of site office and welfare facilities to be agreed at pre-contract meeting with suitable vehicular access arrangements. For pricing purposes, allow for provision of one small site office/welfare facility and include option for locating on a platform scaffold within the churchyard. It is essential that the Works and the Contractor's compound are secure at all times. The Contractor's compound must be of sufficient size for the use by Sub-contractors alongside the main Contractor. It will be assumed that the main contractor has discussed the needs of the Sub-contractors prior to tendering and included for all their requirements.	
1.3.2	Site Communication Contractor to establish and maintain a telephone within the site compound. Contactor to ensure there is an effective protocol for distribution of written instructions, drawings and other information to site issued by email from the Architect or other consultants. Maintaining provision for emails to be sent to site and printed is recommended.	
1.3.3	Welfare Allow for portable toilet hire facility for use by all construction workers on site.	
1.3.4	Provision for meetings Meetings to be held within the church or church office (within the adjacent school), subject to client confirmation at prestart meeting. Contractor to allow for all project meetings.	
1.3.5	Drawings & Documents Contractor to ensure all drawings are available for discussion including any drawings issued by sub-contractors, manufacturers, suppliers and other consultants.	

REF	DESCRIPTION	£

All latest drawings issued to contractor are to be held together in ascending numerical order and well organised. Superseded drawings are to be stored within the contractor's compound for reference should the need arise.

The Schedule of Works (including any mark ups or notes) should be kept on site at all times along with any Architects' instructions for reference, should the need arise.

1.4 Site Operations

1.4.1 Water

Existing church water supply to be used. The Contractor is to allow for making necessary connections and protections for appropriate supply to working areas from the outside tap on the north side of the Servery.

1.4.2 Lighting & Power

Existing power to site can be used. Contractor to allow for making safe connection to existing power supply for use during the works.

Provide all temporary distribution cabling, equipment and transformers to provide power and lighting to working areas.

1.4.3 Health & Safety

Allow for all costs in complying with current Health, safety and welfare legislation (including production and maintenance of Health & Safety file information) and for acting as Principal Contractor.

1.4.4 Waste Disposal

Allow for all costs in providing suitable on-site rubbish bins and skips for disposal of all waste, including disposal, in accordance with current legislation, and the general requirements of this specification.

1.4.5 Site Clearance

Remove from site all surplus materials as they accumulate, clean/repair all fabric adjacent/affected by the works to a condition that is no worse than that recorded by the pre-works condition photographs.

All works and areas affected by the works are to be professionally cleaned inside and out ready for handover to the client, including internal and external walls, floors, windows, doors, skirtings, architraves, sills, sanitary ware, kitchens, appliances, cupboards, radiators, lights, switches, sockets, etc.

Paths, pavements, etc. to be washed down and left clean and tidy.

REF	DESCRIPTION	£
1.4.6	Cleaning & Drying Out Allow for complying with all appropriate drying out requirements implied or specified by the works covered within this specification.	
1.4.7	General Protections Allow for establishing a working zone around the building works. Provide all temporary fencing, hoardings, screens, planked footways, guard rails, gantries, internal dust protections to church furniture, equipment, fixtures and fittings and the like as may be necessary to secure the site and provide safe access to the working areas during all stages of construction and for removal upon completion. Any temporary work along boundaries abutting public highways or access roads is to conform to the requirements of the Local Authority. The contractor must allow for all security fencing, sheeting, netting, general site lighting, signage padding and protection, temporary protection of the building and ground during erection (including matting and trackways) and formation of a safe route around the building. General public use of the church and wider site will continue throughout the duration of works (services and general access/worship) and the contractor must allow for all necessary cordoning of areas that will be out of public bounds. Access to the church to be available at all times, via north, south, servery, and storeroom doors, and the two sheds on south side of the church. Access via the West door of the tower can be excluded if necessary. The contractor is to ensure at all times that the greatest care and protection is given to the existing fabric of the buildings within the curtilage throughout these works. The contractor will be responsible for such provisions and for any damage caused by lack of due care and attention, as well as inappropriate practise and unsatisfactory standards of workmanship. All trees, (particularly the yew trees within the churchyard) planting, headstones and churchyard monuments, and surfaces vulnerable to damage must be adequately protected during the project. The windows in the west wall of the tower and the south aisle are to be securely protected externally, and the tower window also internally. The church bells, the clock, clock mechanism, clock faces and hands are to be protected against falling objects and dust by the churches existing maintenance company. The clock will be stopped for the duration of the works but, if possible, the bells are to remain usable. Clock to be fully serviced on completion. Ensure any existing overhead cables and posts are suitably protected during the works.	

REF	DESCRIPTION	£

The Contractor is to engage with the church organ specialist to provide or specify appropriate protections/dismantling as required. Allow for the organ top, sides and keyboard/console to be protected by a fire-resistant, breathable roofing felt enclosure fixed to a light timber or scaffold frame, kept approximately 300mm min. away from the organ to allow ventilation to the operation organ pipes (not necessarily the decorative organ pipes). Clean hardwood ply or Correx is to be fitted to the top of the frame – not resting on the organ pipe – if physical damage from falling debris is likely to occur prior to covering with protective sheeting. OSB is not to be used.

The Contractor is to provide and keep a relative humidity meter within the organ enclosure to record the moisture levels and arrange heating/dehumidifier, if required.

Allow to carefully remove all the protections described above and avoid dust and debris into the organ on removal on completion.

Allow for the organ to be serviced following completion.

1.4.8 Hot Works

No hot works, open flames or spark producing tools to take place or be used within or close to the building, due to fire risk. The Contractor is to make due allowance for these conditions, as required.

1.4.9 Signage

Provide painted (white) plywood signboard with space to accommodate the following signage:

- 1300mm wide x 700mm high for Contractor.
- 1300mm wide x 700mm high for Architect.
- 1300mm wide x 700mm high for QS.
- 1300mm wide x 700mm high for funders.
- A1 size board for public information.

Signage to be secured in position agreed at the pre-contract meeting.

1.4.10 Plant

Allow for all costs in hiring, use and operation of required plant and specialist machinery and equipment associated with and required for the works described. The Contractor shall ensure that all such plant, specialist machinery and equipment is operated by suitably qualified and licenced personnel at all times.

REF	DESCRIPTION	£

1.5 Preparation & Access

1.5.1 Scaffold

The contractor will be responsible for the design (from inception to completion) of the access, working and protection scaffold structure and its erection (together with all necessary roofing, rainwater disposal, sheeting, netting, protection works, fencing and lighting) and hire, as well as all necessary periodic inspections, certification and maintenance for the whole, and its dismantling/removal at the end of the building works.

The scaffold will need to be erected/dismantled for each zone in time for works to proceed to the agreed programme. The scaffold must remain in situ for inspection of completed work and allow for full-spire height stair access for public open days.

For the purpose of protection of the building and continued works during inclement weather, the contractor must allow for adequate roof-over scaffolding and horizontal weather protections, over and around the building where existing whole-roof coverings are being removed and where existing retained structure is being opened up. Allowances to be made for any necessary adjustments or alterations to meet ecological requirements, i.e leaving a hole within or leaving a gap at the top of the horizontal protections

The contractor must allow for the scaffolding to comply with security requirements as specified by the Ecclesiastical Insurance Company, and contained within Church Guidance note (Church Scaffolding Questionnaire) items 'a' to 'n'.

Full allowance is to be made for any temporary scaffolding and access equipment for use by all domestic sub-contractors.

The contractor will be responsible for any necessary alterations, amendments or extension of any building services affecting the scaffold or its erection.

1.5.2 Temporary Propping & Supporting of Structures

Allow for all costs in hiring and use of temporary propping and structural support of structures required throughout the duration of works.

1.5.3 Protection of Gravestones

Allow for costs in providing temporary protections to all gravestones within the immediate area of where proposed works are to take place.

REF	DESCRIPTION	£
1.5.4	Public Open Days For pricing purposes, allow for 2no.Contractor-supervised public open mornings and to provide public access to the tower, spire, Nave and Chancel roofs. Open mornings to allow for 4 hours. Allow for 2no. 4-hour carpenter sessions to give demonstrations on shingle manufacture/installation and timber repair methods. Also allow for 2no. 4-hour Contractor-supervised and guided school visits. Allow for 1no. carpenter per day to give demonstrations on shingle manufacture/installation. Church volunteers will be available to manage visiting members of the public. Use of Church & Scheduled/Unscheduled Services The contractor is to make all necessary allowances for public access to the church, to include scheduled and currently unscheduled services. The contractor is to provisionally allow for 6no. days within their programme for currently unscheduled services, i.e., funerals. Works are to stop for up to half a day, to be confirmed by the client service by service. Weddings shall have several months' notice, Funerals usually a week's notice.	
1.5.5	Photographic Record The Contractor will maintain a comprehensive photographic record of the condition of the building prior to and during progress of building works for the duration of the scheme. This will be undertaken using digital photography, and the Contractor will provide all photographs to the Contract Administrator/Architect upon completion of the Works.	
1.5.6	Access & Parking The contractor must allow for all necessary public and site health and safety requirements, signage and traffic management systems when any entrances to the churchyard and church are in use. Allow for parking of all Contractor's vehicles within the *Central Car Park* in Porlock. The Contractor is responsible for use of the car park by Contractor's vehicles and associated parking restrictions. Tools, materials and equipment may be dropped-off/collected at the church at appropriate times during the agreed working hours.	
1.5.7	Weather The Contractor is to make due allowance for the time of year and weather conditions, which may be reasonably expected when the works are carried out. The onus is on the contractor to avoid sequencing works which will be impeded by periods of	

REF	DESCRIPTION	£
	inclement weather or to provide reasonable protection to vulnerable areas of the building to effectively program works during undesirable weather conditions.	
1.5.8	Ecology Allow £1,935.00 provisional sum for: • Bat licence and mitigation measures. Contractor to arrange with ecologist for the purchase of any external mitigation requirements. • Ecologist toolbox talk to construction team. • Ecologist visit to site in the event of discovery of bats (to include temporary stoppage of works). Allow for ecology attendance for stripping of timber and slate roof coverings. Allow for ecological enhancements. For pricing, allow for 8no. Swift boxes. Location to be agreed with ecologist.	

REF	DESCRIPTION	£
	ROOF STRIPPING	
2.1	**Pitched Roof to Nave & Chancel (South side only)**	
2.1.1	Clay Ridge Tile Removal Carefully remove all existing plain clay ridge tiles to Nave and Chancel roof, remove mortar from the tiles where possible without damaging the tile or slate roof coverings. For pricing purposes, allow to clean and set aside 70% for re-use. For pricing purposes, allow to dispose of 50% of ridge tiles if their quality is condemned by the Architect. Actual quantity to be agreed with architect on site.	
2.1.2	Natural Slate Removal Carefully strip existing natural slates from south pitch of Nave and Chancel roof and salvage all slates that are suitable for reuse. Architect to check and agree disposal of any slates before their removal from site. For pricing purposes, allow to dispose of 50% of existing natural slates if their quality is condemned by the Architect. For pricing purposes, allow to securely store 70% of the existing natural slates for re-use along with retained ridge tiles.	
2.2	**Pitched Roof to North Porch**	
2.2.1	Clay Ridge Tile Removal Carefully remove all existing plain clay ridge tiles to North Porch roof, remove mortar from the tiles where possible without damaging the tile or slate roof coverings. For pricing purposes, allow to clean and set aside 70% for re-use. For pricing purposes, allow to dispose of 50% of ridge tiles if their quality is condemned by the Architect. Actual quantity to be agreed with architect on site.	
2.2.2	Natural Slate Removal Carefully strip existing natural slates from both pitches of North Porch roof and locally to Nave (to allow later removal of lead valleys) and salvage all slates that are suitable for reuse. Architect to check and agree disposal of any slates before their removal from site. For pricing purposes, allow to dispose of 50% of existing natural slates if their quality is condemned by the Architect.	

REF	DESCRIPTION	£

For pricing purposes, allow to securely store 70% of the existing natural slates for re-use along with retained ridge tiles.

2.2.3 Cement Flaunching Removal

Allow to carefully remove all cement flaunching to parapet gable.

2.2.4 Leadwork Removal

- Lead valleys to North Porch/north pitch of Nave roof.
- Lead flashings and soakers to verge parapets and abutment to Tower walls of south pitch of Nave roof.
- Chute outlet to west end of Nave and South Aisle valley.

Set aside the best lead to be reused for sacrificial flashings. All remaining lead and all copper to be disposed of, with scrap value credited back to the contract to be added to the contingency, minus Main Contractor's OHP. Receipt to be produced for scrap value.

2.2.5 Nave Insulation

Allow to remove insulation and dispose of safely. *Caution this could have an element of asbestos. Contractor to check accordingly.*

2.3 Spire Roof (inc. broaches)

2.3.1 Lead & Copperwork Removal

- Flat lead roof from flat roof of spire.
- Flashings and soakers to Spire arêtes.
- Soakers and lead flashings to lucarnes.
- Soakers to broach hips.

Set aside the best lead to be reused for sacrificial flashings. All remaining lead and all copper to be disposed of, with scrap value credited back to the contract to be added to the contingency, minus Main Contractor's OHP. Receipt to be produced for scrap value.

2.3.2 Flat Lead Roof Timber Boarded Deck

Following removal of lead, Architect to inspect condition of timber boarding below and extent of repair to be agreed. For pricing purposes, allow for 20 linear meters of 25 x 150mm softwood decking boards and 10 linear meters of wood rolls.

REF	DESCRIPTION	£
2.3.3	Oak Shingle Removal Carefully remove of all oak shingles from spire, including broaches. Allow for all removed oak shingles to be crated or palleted on site for church use.	
2.3.4	Timber Sarking Board Repair Following the removal of the cleft oak shingles, allow for thorough assessment of the sarking boards by Architect and Structural Engineer, who will agree extent of repair required. For pricing purposes, allow to carefully remove and dispose of 75% of 25 x 150mm existing sarking boards, to include all sarking boards to broaches.	
2.3.5	Weathervane, Cross & Cross Lighting Allow for temporary removal and protected storage of weathervane, cross and cross lighting (to allow replacement of spire flat roof covering).	
2.4	**Rainwater Goods**	
2.4.1	Cast Iron Gutters, Hoppers, Downpipes & Bracketry Allow to temporarily remove and store all cast iron gutters, hopper, downpipes and removable bracketry.	
2.4.2	Spire Gutter, Downpipe & Bracketry Allow to carefully record, remove and dispose of uPVC gutter and debris from inside of elm boarded V-gutter, and set aside cast iron hopper, downpipe and bracketry.	

REF	DESCRIPTION	£
	ROOF STRUCTURE REPAIRS	
3.1	**All Stripped Pitched Slate Roofs**	
3.1.1	Wall Plates Assume 100 x 150mm softwood wall plate set to the masonry wall tops. For pricing purposes, allow to cut out and replace 10no. rotted sections up to 1.5m long to match existing timber type and profile, scarf or halved jointed to remaining sound timber and refix to existing rafters. To be included in following locations: • South pitch of Nave/Chancel roof. • East and West pitches of Parvise Chamber. Actual extent to be agreed by Architect on site.	
3.1.2	Sarking Boards Assume 22 x 225mm PSE softwood sarking boards to tops of common rafters. For pricing purposes, allow to cut out and replace 25no. rotted sections up to 1.5m long to match existing profile, butt jointed at nearest rafter centre with remaining sound sarking boards, as per drawing no. 1398_009 EXISTING SECTION DETAILS. Actual extent to be agreed by Architect on site.	
3.1.3	Nave and South Aisle Valley Decking Boards (to West running outlet) Assume 25 x 150mm sawn softwood decking boards. For pricing purposes, allow to cut out and replace 5no. rotted sections up to 500mm long. Any boarding replacement to be agreed with architect on site following opening up. Actual extent to be agreed by Architect on site. Allow to install new decking boards to tops of joists, to correct falls with penny gaps between boards.	
3.1.4	Trussed Rafters (Principal Rafters and Struts) Assume 100 x 150mm sawn softwood. For pricing purposes, allow to cut out and replace 10no. rotted sections up to 1.5m long to match existing profile and jointed in accordance with Structural Engineer specification - TBC. To be included in following locations: • South pitch of Nave/Chancel roof. • East and West pitches of Parvise Chamber.	

REF	DESCRIPTION	£

Actual extent to be agreed by Architect on site.

3.2 Spire Roof (inc. broaches)

3.2.1 Wall Plate

150 x 300mm outer and 100 x 275mm inner oak wall plates. For pricing purposes, allow cut out and replace 14no. rotted sections up to 2m long, to match existing profile and half-lapped or plane scarfed into existing sound wall plate. Allow to mechanically fasten the plate to the masonry wall head with 300mm embedded, resin-fixed M12 stainless steel studding set at 1.2m staggered centres.

Actual extent to be agreed by Architect on site.

3.2.2 Rafters

50 x 100mm sawn softwood broach rafters. For pricing purposes, allow to cut out and replace 15no. rotted sections up to 1.2m long, to match existing profile and jointed in accordance with Structural Engineer specification.

Actual extent to be agreed by Architect on site.

3.2.3 Sarking Boards

Allow to install 75% new sarking boards.

Actual extent to be agreed by Architect on site.

Allow 22 x 225 PSE softwood sarking boards to tops of rafters, including all to broaches. Allow for all existing and replacement sarking boards to be re-nailed with stainless steel nails.

3.2.4 Flat Roof Decking Boards

Assume 25 x 150mm sawn softwood decking board to tops of floor joist laid to falls.

Allow to install new decking boards to tops of joists, to correct falls with penny gaps between boards and to include new wood rolls and hatch cover and in accordance with LSTA guidelines.

Actual extent to be agreed by Architect on site.

3.2.5 Lucarne Frames

For pricing purposes, allow for replacement of 12no. 2.4m lengths of exposed and defective lucarne timber frames, to include any required temporary propping and/or removal and replacement of louvres and other attached sound framework where necessary. Allow for replacement framework to be made from quarter sawn air dried

REF	DESCRIPTION	£
	oak and to match existing profiles. Assume overall louvre framework to be 125 x 125mm.	
3.2.6	Lucarne Louvres For pricing purposes, allow to refix 8no. slipped louvres, repair 4no. split louvres and replace 6no. missing louvres. Allow for replacement louvres to be made from quarter sawn air dried oak and to match existing profiles. Assume overall louvre dimensions to be 50 x 400 x 700mm. Actual extent to be agreed by Architect on site.	

REF	DESCRIPTION	£
	NEW ROOF COVERINGS	
4.1	**Slating to all Stripped Pitched Roofs**	
4.1.1	Battens & Felt:	
	Provide and fix new 25 x 50mm graded slating battens at gauge to suit the existing slate headlap. Headlap to be agreed with Architect on site.	
	Allow for Type 1F Felt to be installed before the battens.	
4.1.2	Slate Supply	
	Allow to supply new slate.	
	For pricing purposes, allow to supply 600 x 300mm Delabole slates.	
	Slate sample to be provided and approved by architect prior to order.	
	Allow for slate-and-a-half to all verges.	
	It is expected that the roofer will have recent experience with using this slate and will make an accurate allowance for sorting and wastage.	
	For pricing purposes, allow for 70% retention of existing slate with 50% new slate supply. Actual extent to be agreed by Architect on site.	
4.1.3	Slate Fitting	
	Fit slates to south pitch of Nave & Chancel and both pitches of North Porch and corresponding abutment of North Porch to Chancel.	
	Position re-used slate on south pitch of Nave & Chancel within the valley where it is least visible.	
	All slates to be fixed with large headed ring shanked, or serrated, heavy gauge (min. 3.35mm diameter) copper roofing nails. New slates to be pre holed by drilling or boring method before delivery to site, 2no. holes for centre fixing. Nails to penetrate the battens 15mm minimum. Any new holes required in the existing slates are to be drilled.	
	Allow for a double course of slates at the eaves with the under slate inverted and head nailed.	
	Allow for sorting slates thickness to ensure that slates on any one course are of the same thickness. Generally, allow to sort slates into 3no. grades of thickness if required. Thicker slates should be used nearer the eaves and thinner slates nearer the top of the roof.	

REF	DESCRIPTION	£
4.1.4	Lower & Upper Courses: Refix lower courses to south pitch of Nave and Chancel and both pitches of North Porch – upper course to be fixed with stainless steel hall hooks and stainless steel ring shank nails.	
4.1.5	Ridge Tile Supply For pricing purposes, allow for 70% retention of existing ridge tiles with 50% new clay ridge tile supply, to match existing profile. Actual extent to be agreed by Architect on site. Reset existing and new ridge in NHL 3.5 lime mortar to all roofs. Fix all ridges using stainless steel fixing clips.	
4.1.6	Refitting/Replacing Slipped/Damaged Natural Slate Roofing Re-fix slipped or replace damaged/missing natural slates to other roof coverings where accessible. For pricing purposes, allow to re-fix 25no. slates and replacement of 15no. slates to match existing. Replacement and re-fixed slates to be fixed using stainless steel hall hooks and stainless steel nails. To include: • North pitch of Chancel & Nave roof. • East pitches of Clergy Vestry & Servery roofs. • North & South pitches of South Aisle roof. Actual extent to be agreed by Architect on site.	
4.2	**Spire Roof (inc. broaches)**	
4.2.1	English Cleft Oak Shingles (Supply) Allow to supply 3-4” wide x 12” long green shingles, using oak sourced from Exmoor woodland. Refer to Materials & Workmanship document for English cleft oak shingles specifications.	
4.2.2	English Cleft Oak Shingles (Fixing) Allow to fix 3-4” wide x 12” long green oak shingles to spire and broaches at 4-1/2” gauge using copper ring shank nails. 2no. centre nails to secure each shingle min. 1” from edges with 3” headlap and 1 – 1-1/2” side lap. Refer to Materials & Workmanship document for English cleft oak shingles specifications.	

REF	DESCRIPTION	£
4.2.3	Weathervane, Cross & Cross Lighting Allow to clean, re-paint and refit Weathervane, cross and two new cross 10W floodlights and associated supply cable securely to spire roof, ensuring that the weatherproofing of the spire lead roof is not compromised by the fixings. Lights to be installed as low as possible, hidden behind the upstand at the roof edge, so that light spill is not visible to houses in the village.	

REF	DESCRIPTION	£

POWER SUPPLY UPGRADE

5.1 **Provision of 3-Phase Power Supply**

5.1.1 Upgrade from Single to 3-Phase Power Supply

Allow for upgrading of existing single phase power supply to 3 phase.

The contractor is to manage and liaise with the local electricity distribution company and coordinate all building works and assistance required in connection with updating of the current supply.

5.1.2 Cable Routing

Existing incoming power cable routes to be re-used for upgraded 3-phase supply.

New routing of incoming power cables to be underground to specialists design. The Contractor is to make allowance for archaeological supervision of the works.

New 3-phase distribution board, meter, etc., to replace existing single phase hardware.

5.2 **System Commissioning**

Allow for full testing and commissioning of the 3-phase system, to include new connections to existing lighting and small power distribution networks and new infrared heating and photovoltaic array.

REF	DESCRIPTION	£
	ELECTRICAL ITEMS	
6.1	**Cables, Lighting and Sockets**	
6.1.1	Upgrade to cable runs in the spire Allow to remove existing cables within the spire Allow to replace with MICC Light Duty cable. For pricing, allow for a new lighting and a new socket circuit.	
6.1.2	Sockets and Lighting in the spire Allow to replace the existing socket and lights. For pricing purposes, allow for 2no. double sockets and 2no. surface mounted bulkhead lights. Allow for additional sockets and lights. For pricing purposes, allow for 2no. double sockets (one by the clock mechanism and one by the roof hatch). Allow for 2no. surface-mounted spotlights (one for the clock weights are suspended – NE corner of the belfry and halfway up the roof access ladder – to illuminate the ladder and roof hatch)	
6.1.3	Motion Detectors for Church Internal Lighting Allow for 4no motion detectors (PIRs) to be installed on the existing interior lighting circuits. A master switch is to be allowed at the foot of the tower and the servery. Any additional cabling to follow existing routes (at wall plate level). For pricing purposes, allow for KSR black internal and external adjustable PIR sensor. #	
6.2	**External Lighting System**	
6.2.1	Removal of External Lighting System Allow to remove existing non-operational external lighting system to base of spire/top of tower and on parts of the north face of the church and both faces of the porch. Make good fixing holes following removal of bracketry. Allow to remove associated light boxes and electrical wiring supply to light boxes (the system is currently disconnected from the power supply at the distribution board).	

REF	DESCRIPTION	£
	PHOTOVOLTAIC ARRAY INSTALLATION	
7.1	**PV System**	
	Full PV system specification to be provided by specialist designer and installer.	
7.1.1	Panel Mounting Hardware	
	Allow to install bracketry and all necessary hardware to support PV panels following the general principle illustrated in drawing no. 1398_033.	
	Allow for the mounting system be fixed to the existing roof structure with the minimum quantity of mechanical fixings required, with bracketry to pass through the natural slate roof covering with minimal disturbance and without compromising weatherproofing to the church.	
7.1.2	PV Panels	
	Allow for installation of 18no. AIKO-A455-MAH54Mw Black Frame PV panels and to include stainless steel meshing of open edges of array (to prevent bird nesting under PV panels).	
7.1.3	Cable Routing	
	Allow for external cable runs between panels to pass under the array and be secured to the mounting system.	
	Allow for external cable run at the end of the array to be secured behind and to cast iron downpipe located at the internal corner junction of the east elevation of the south aisle and the south elevation of the chancel.	
	Allow for low-level south elevation chancel wall surface mounted cabling (inc. cable conduit) from bottom of downpipe to invertor and battery location in store.	
	Allow for internal cable routing from invertor and battery location in store to consumer unit in servery, in accordance with drawn detail.	
7.2	**Controls & Public Display**	
7.2.1	Controls	
	Allow for installation of user control panel within store room.	
7.2.2	Public Display	
	Allow for installation of wireless public display screen to be positioned where required within church. The screen will display present PV generation and daily/monthly/annual/carbon saving figures, etc.	
	Display monitor and mounting system to be agreed with architect prior to order and installation.	
7.3	**System Commissioning & Training**	
	Allow for full testing and commissioning of the PV system, to include 1no. training day for church staff.	

REF	DESCRIPTION	£

LEAD & COPPERWORK

8.1 General

All leadwork described to be installed in accordance with Lead Sheet Association guidelines.

All leadwork to be treated with patination oil when first fixed.

8.2 Pitched Roofs

8.2.1 North Porch Verge Parapet Soakers & Flashings

Form new Code 5 lead soakers and flashings to east and west verge parapets to North Porch.

8.2.2 North Porch/Nave Valley Gutters

Form new Code 6 lead valley gutters to east and west abutments of north aisle roof to nave roof.

8.2.3 Nave & Chancel Abutment Soakers & Flashings

Form new Code 5 lead soakers and flashings to Nave abutment with tower and Chancel abutment to parapet gable.

8.2.4 Chute Outlet to West of Nave and South Aisle Valley

Form new Code 8 lead chute outlet (with overflow) to existing cast iron hopper as per drawn detail. Allow for chalk emulsion to underside of all new leadwork. Test upon completion.

8.3 Spire Roof

8.3.1 Spire Flat Roof

Re-cover roof and hatch cover in Code 8 lead to include all working joints, clips, sundry items and outlet connection to internal surface water downpipe. Allow for chalk emulsion to underside of leadwork.

For pricing purposes, allow for 7m^2 of replacement lead flat roof covering.

Actual extent to be agreed by Architect on site.

8.3.2 Spire Roof Chute Outlet

Form replacement 0.7mm (22 swg) copper chute outlet from spire roof covering to spire V-gutter, to include connection to existing internal uPVC drain pipe, clips, flashing and drip detail.

REF	DESCRIPTION	£
8.3.3	Linings to Spire Gutters Form replacement 0.7mm (22 swg) copper linings to V-gutter profile, to include all clips, running outlet and overflow as per drawn details. Allow for chalk emulsion to underside of copperwork. Test upon completion.	
8.3.4	Soakers to Spire Corners Form new concealed copper soakers to corners of spire.	
8.3.5	Soakers to Lucarnes Form new concealed copper soakers to roof and corners of lucarnes.	
8.3.6	Flashings to Lucarnes Form new Code 6 lead flashings to sills of louvred openings.	
8.3.7	Ridges to Lucarnes Form new Code 8 lead ridges to all lucarnes.	
8.3.8	Soakers to Broaches. Form new concealed copper soakers to hips to broaches and abutments to spire tower.	
8.4	**Forensic Marking** Contractor to add SmartWater® forensic marking treatment to all new lead and copper work and bronze gutter bracketry to spire in accordance with manufacturer's recommendations. SmartWater® to be provided by church PCC.	

REF	DESCRIPTION	£
	RAINWATER GOODS	
9.1	**All Cast Iron Rainwater Goods**	
9.1.1	Cast Iron Gutters, Hoppers & Downpipes Unblock, clean, remove all rust and repaint all cast iron gutters, hoppers, downpipes and bracketry. For pricing purposes, allow to weld repair 4 linear meters of cracked/broken cast iron gutter and downpipe, 2no. hoppers and 6no. ancillary items, i.e., cast iron bracketry, angled adaptors and downpipe shoe fittings. Weld repairs are not permitted to take place *in situ* or close to the building (please refer to *Hot Works* section).	
9.1.2	Spire Flat Roof Downpipe Allow to remove and re-route existing uPVC outlet from internal spire flat roof downpipe and replace with painted cast iron alternative to position shown on drawn south elevation and V-gutter running outlet detail.	
9.1.3	Spire V-Gutter & Downpipe For pricing purposes, allow to carefully repair up to 10no. rotted section of elm gutter boards up to 3m long to match existing profile, scarfed to corresponding gutter boards using stainless steel joining plates and screws and secured to wrought bronze brackets where applicable using stainless steel screws. All joining plates to be inside the gutter so that they are not visible and fitted so that they do not conflict with the copper lining of the gutters. Inside lengths of replaced gutter board to also be screwed to oak wall plate using stainless steel screws. Actual extent to be agreed by Architect on site. For pricing purposes, allow to carefully repair up to 4no. rotted lengths of timber gutter fillet up to 4m long to match existing profile and nailed to elm gutter boards. Actual extent to be agreed by Architect on site.	
9.2	**Allow to install painted cast iron downpipe from running outlet to existing cast iron hopper, to include all required bracketry and fastenings.Decoration**	
9.2.1	Decoration of Cast Iron Rainwater Goods Decorate all rainwater goods as per specification. For pricing purposes, allow for: • 2no. coats of *Dulux Metalshield* primer. • 2no. coats of *Dulux Metalshield* satin finish. Final colour to be confirmed by Architect.	

REF	DESCRIPTION	£
	EXTERNAL REPAIRS	
10.1	**Lucarnes**	
10.1.1	Replacement of Bird Mesh Allow for removal and disposal of all existing bird mesh from inside of lucarnes. Fit new stainless steel mesh to the inner frames of the four Lucernes, to prevent bird access. 25 x 25mm welded stainless steel mesh, fitted with stainless steel screws and washers. Allow one bat access point at each Lucerne, design to be agreed with Architect and Ecologist.	

REF	DESCRIPTION	£

INTERNAL REPAIRS

11.1 Nave

11.1.1 Wall Plaster Removal

Remove and dispose of defective lime plaster and damp staining to sound plaster to west end of arcade and east facing internal tower wall.

For pricing purposes, allow for 10m^2 of defective wall plaster removal. Actual extent to be agreed by Architect on site.

11.1.2 Plaster Analysis

Make allowance for existing plaster analysis from *Cornish Lime*.

11.1.3 New Plaster

Prepare and clean/wash walls and apply new lime plaster.

For pricing purposes, allow for 10m^2 of plastering. Actual extent to be agreed by Architect on site.

11.1.4 Decoration of New Lime Plaster

Decorate new lime plaster with 5no. coats of limewash (to match existing internal decoration of the church).

For pricing purposes, allow for 10m^2 of limewash. Actual extent to be agreed by Architect on site.

Architect to confirm colour of limewash prior to application.

11.2 Chapel of High Cross (Parvise Chamber)

11.2.1 Ceiling Plaster Removal

Remove and dispose of defective plaster, broken laths and debris.

For pricing purposes, allow for 2m^2 of defective ceiling removal. Actual extent to be agreed by Architect on site.

11.2.2 Plaster Analysis

Make allowance for existing plaster analysis from *Cornish Lime*.

11.2.3 New Laths & Plaster

Prepare and rafters and apply new laths and lime plaster.

REF	DESCRIPTION	£

For pricing purposes, allow for 2m^2 of lath and plastering. Actual extent to be agreed by Architect on site.

11.2.4 Decoration of New Lime Plaster

Decorate new lime plaster with 5no. coats of limewash (to match existing internal decoration of the church).

For pricing purposes, allow for 2m^2 of limewash. Actual extent to be agreed by Architect on site.

Architect to confirm colour of limewash prior to application.

11.2.5 Wall Plaster Removal

Remove and dispose of defective lime plaster and damp staining to sound plaster to west end of arcade and east facing internal tower wall.

For pricing purposes, allow for 15m^2 of defective wall plaster removal. Actual extent to be agreed by Architect on site.

11.2.6 Plaster Analysis

Make allowance for existing plaster analysis from *Cornish Lime*.

11.2.7 New Plaster

Prepare and clean/wash walls and apply new lime plaster.

For pricing purposes, allow for 15m^2 of plastering. Actual extent to be agreed by Architect on site.

11.2.8 Decoration of New Lime Plaster

Decorate new lime plaster with 5no. coats of limewash (to match existing internal decoration of the church).

For pricing purposes, allow for 15m^2 of limewash. Actual extent to be agreed by Architect on site.

Architect to confirm colour of limewash prior to application.

11.3 Reredos

11.3.1 Reredos Repairs

Allow for repairs to reredos in accordance with recommendations described in accompanying report by McNeilage Conservation.

REF	DESCRIPTION	£
11.4	**Triptych**	
11.4.1	Triptych Repairs Allow for repairs to triptych in accordance with recommendations described in accompanying report by Hugh Harrison.	

REF	DESCRIPTION	£

HEATING SYSTEM

12.1 Overhead Infrared Heating

Full overhead infrared heating system specification to be provided by Herschel Infrared.

12.1.1 Nave

Allow for installation of 3no. overhead Herschel Halo infrared heaters over nave. Refer to relevant drawings for position, fixing detail and cable runs.

12.1.2 South Aisle

Allow for installation of 2no. overhead Herschel Halo infrared heaters over south aisle.

12.1.3 Bracketry

Allow for bespoke bracketry fabrication and installation for suspending Herschel Halo infrared heaters, in accordance with drawn detail.

12.1.4 Under Pew Infrared Heating

Full under pew infrared heating system specification to be provided by Herschel Infrared.

12.1.5 Chancel

Allow for installation of 16no. under choir pew infrared heaters.

12.1.6 Cable Routing

Allow for LSLF cable installations to specialist design and in accordance with drawn detail.

12.2 Controls

Allow for installation of user master control panel within servery for both overhead and under pew heating elements.

Allow for discreet individual on/off/variable setting pew heater controls per pew heater. To be attached to each individual heater.

12.3 System Commissioning & Training

Allow for full testing and commissioning of the infrared heating system, to include 1no. training day for church staff.

REF	DESCRIPTION	£

MASONRY

13.1 General

13.1.1 General Pointing

North, East, South and West walls of tower, verges to south pitch of chancel, verges to North Porch, all rainwater goods locations at eaves and areas listed below.

Allow for raking out of defective mortar and plug any holes, gaps or voids left by removal of old lead flashings, redundant rainwater goods bracketry, removed lighting systems, defective joints, etc. in lime mortar to specification. For pricing purposes, allow for 75 linear meters of pointing.

Actual extent to be agreed by Architect on site.

13.1.2 Mortar Analysis

Make allowance for existing mortar analysis from *Cornish Lime*.

Lime mortar to match existing and sample to be approved by Architect prior to commencement of repointing works.

13.2 North Porch

13.2.1 East Elevation Wall

Check high-level masonry for stability of stone where open-jointed. If necessary, consolidate stone in lime mortar to match existing. For pricing purposes, allow for 0.25m^2 stone re-bedding.

Actual extent to be agreed by Architect on site.

13.2.2 North Elevation Wall

Rake out high-level plant growth, treat with biocide and fill cavities with lime mortar to match existing.

13.3 Nave

13.3.1 North Elevation Wall

Rake out and fill open joint in masonry above windows n5 and n7 with lime mortar to match existing.

13.4 Tower

13.4.1 Consolidation of Wall Head

Check wall head masonry for stability of stone and open joints. If necessary, consolidate stone in lime mortar to match existing. For pricing purposes, allow for 2m^2 stone re-bedding.

REF	DESCRIPTION	£
13.4.2	South Elevation Wall Rake out plant growth to head of buttress, treat with biocide and fill cavity with lime mortar to match existing.	
13.5	**Chancel**	
13.5.1	East Window Clear and re-point open joints to window and re-point in lime putty to match existing. Actual extent to be agreed by Architect on site.	
13.6	**Transept**	
13.6.1	West Elevation Parapet Ashlar Re-point minor open joints to ashlar. Actual extent to be agreed by Architect on site.	
13.7	**South Aisle**	
13.7.1	South Elevation Wall Consolidate and repair fragmented masonry above the west of hood moulding S5 south window. For pricing purposes, allow for 0.25m^2 stone re-bedding. Actual extent to be agreed by Architect on site.	

REF	DESCRIPTION	£
	MISCELLANEOUS	
14.1	**Spire Flat Roof Fall Restraint**	
14.1.1	Fall Restraint System For pricing purposes, allow for installation of *Heightsafe* (or similar approved) fall restraint system to spire flat roof in accordance with BS EN 795:2012 (C & D) and TS 16415:2013.	
14.2	**Access Ladders**	
14.2.1	Alteration of Existing Wooden Ladder from Bell-ringing Chamber to Spire Allow to alter existing timber ladder to provide equally-spaced and secured rungs for improved function.	

REF	DESCRIPTION	£

COMPLETION ITEMS & CONTINGENCY

15.1 **Manuals & Training**

15.1.1 Manuals

Issue a hard copy of all manuals and as-built information to Architect for checking and collating into Health & Safety file. The information should include (but is not limited to):

- Internal services layouts.
- Test certificates.
- List of finishes used, including product codes, names and suppliers.
- List of subcontractors used, including contact details.
- O&M manuals including maintenance regimes.

15.2 **Contingency**

15.2.1 All Works

Allow a contingency of 20% of the total schedule cost here.