

**SPECIFICATION FOR BUILDING WORKS AT
TABOR CHAPEL, DAVIES ST, BRYNMAWR**

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General

The tendering contractor must not make assumptions about the terms and descriptions contained in this document or on any associated drawings, either with regard to pricing, or construction. If in doubt, ask.

Contractor to comply with all conditions listed in the planning approval documents.

All work is to comply with the current building regulations, local authority bye-laws and requirements of statutory bodies. Contractor to serve all notices to the authorities concerned.

All work is to comply with the recommendations of relevant British Standards.

Prior to commencing work the contractor is required to communicate with the relevant authorities, bring them to site and locate the positions and lines of all services e.g. water gas, electricity, telephone, sewage on, over, under and around the site which could in any way affect the proposed building works.

All measurements and levels shown are subject to checking on site by the contractor. Figured dimensions to take precedence over scaled. All working dimensions must be taken, checked and or verified by the main contractor on site prior to the manufacture of all items and placing of all work in hand. Working dimensions must not be scaled from drawings. In all cases of doubt or discrepancy please refer to the architect or consultant for instructions.

The main contractor must ensure that all consultant and specialist drawings are read in conjunction with the drawings.

Contractor's site Engineer to undertake peer review of Structural Engineer's design, and assimilate with alterations/adaptations of the existing structure to accommodate the new layout. All structural works must be carried out without affecting the structural integrity of the existing building. Engineer to confirm proposed construction details in association with the removal or adaptation of any wall or roof. All outstanding construction details to be forwarded to Building Control for consideration and approval before execution of work operations.

The appointed contractor is to provide a 'Method Statement' detailing the programme of operations for the execution of the works together with the structural alterations. The method statement is to be agreed with the client prior to the commencement of building operations.

The appointed contractor is to provide a method statement detailing the programme of operations for the execution of the structural alterations following consultation with the appointed Structural Engineer and execution of the 'approved' design details in liaison with the Building Control Officer's inspection visits.

Materials and workmanship to comply with relevant legislation, Building Regulation No 7 and British Standards.

All materials, sand, hardcore etc. to be free from contaminants.

All structural timber to be fixed in accordance with good general practice, cut ends to be treated, no building in to be allowed where use of joist hangers is possible.

Elemental construction to comply with components used in the 'Heat Loss' calculations.

Fixing of elements (e.g. window frames, roof tiles etc.) to be at frequency recommended by manufacturers taking account of the local wind conditions and exposure.

New glazing to all doors, side panels within 300mm, and windows below 800mm above FFL, to be toughened or laminated type A safety glazing. Panes to be marked as such.

All holes from plumbing, heating and electrical installations to be made good properly prior to re-plastering with sleeved connections to avoid pipe corrosion as appropriate. Fire resistance of element being penetrated to be maintained.

Parts of the project requiring design by others such as steelwork, beam and block flooring, kitchen fittings or any under floor heating, to be integrated into the works by the contractor in full compliance with statutory requirements. Service requirements to be agreed in advance of the works commencing.

Commissioning of specialist installations such as under floor heating or the boiler installation to be witnessed by the contractor. Records to be left with the client.

Works to be DDA compliant where relevant.

Demolitions

Any works as shown on demolition drawings to be carried out with care, diligence and after appropriate H&S risk assessments have been undertaken by the contractor. Timing and execution of demolition operations should minimise the effects of dust, noise, vibration and general disturbance to occupants and neighbours.

Removal of the balcony is to be undertaken after the installation of the new steel frame, to which the existing fabric is to be tied back.

Temporary works and any associated disruptions are to be allowed for in tender pricing. Necessary propping of existing structures to be approved by the Structural Engineer prior to commencement.

Re-use of demolition material as hardcore etc, whilst encouraged to reduce waste, is to be confirmed as acceptable by the engineer before commencement.

Reduce level of top of undercroft piers as necessary (approximately 300mm) in order for new steelwork to run over.

Form holes in existing walls for new doorways, vent extracts, boiler flue, recessed gas meter housing and recessed post box.

Foundations

Works to existing and new foundations as advised by Engineer. Method statements to be agreed and recorded in writing before construction commences. Allow for pumping high ground water from new foundations whilst underpinning and forming new basement slab and retaining wall.

Structural Steelwork

To be in accordance with the engineers / subcontractor's design. Method statements to be agreed and recorded in writing before construction commences.

New steel beams supporting flooring over side hall for new office and attic storage to be designed by contractor and safe floor loading advised (min 2.5kN/m²).

Ground Bearing Floor Slab

75mm thick fibre reinforced sand and cement screed on foil faced closed cell polyisocyanurate insulation with taped joints of thickness to satisfy current Building

Regulations 'U' value ($\text{W/m}^2 \text{ }^\circ\text{C}$). This is currently 120mm to achieve a U value of 0.15 $\text{W/m}^2 \text{ }^\circ\text{C}$.

Level of top of screed to be determined before slab is cast in order to allow for the required floor finish (e.g. tiles).

200mm thick concrete slab (reinforced as advised by engineer) on damp proof membrane of 1200 gauge visqueen (with lapped and taped joints as in radon area) on sand blinding on clean well consolidated hardcore of min thickness 150mm. Turn DPM up edges of slab and lay across DPC.

Ensure all vegetable and other deleterious matter is removed before placing of hardcore is commenced.

Radon Protection

The proposed development has been identified as being in an area affected by Radon. Therefore a Radon proof membrane is to be used. Any laps are to be sealed including any cracks or service entries through the ground floor slabs. Discharge vent to be located in rear courtyard. New and existing subfloor voids to have cross ventilation provided / maintained. Allow for forming at least four news holes in the external wall to facilitate. Fit bird, insect and rodent mesh to these and the two existing holes.

Suspended Concrete Floor

75mm thick fibre reinforced sand and cement screed on foil faced closed cell polyisocyanurate insulation with taped joints of thickness to satisfy current Building Regulations 'U' value ($\text{W/m}^2 \text{ }^\circ\text{C}$). This is currently 120mm to achieve a U value of 0.18 $\text{W/m}^2 \text{ }^\circ\text{C}$.

Level of top of screed to be determined before floor structure design finalised in order to allow for the required floor finish (e.g. tiles).

Beam and block floor as designed by Engineer or specialist on steel frame or masonry sleeper walls. Recess to be provided for new platform lift.

Timber Floors

22mm thick flooring grade chipboard flooring on softwood timber carcass with supports at no more than 400mm centres as required to produce raised stage area and two side platforms to main hall.

New floor for attic storage and office over side hall provisionally 25mm thick flooring grade chipboard on 225 x 50mm C24 joists supported on new steelwork .

External Wall Construction – (Existing is Rendered Random Stone)

Option 1: Externally, hack off all defective render, repair cracks to wall below and fix e.m.l. reinforcement over prior to re-rendering with lime / cement render compatible with existing material. Cracks larger than 3mm to be stitched before treating as above. Remove all render to East elevation below ground floor window cill level and include faux ashlar strike lines in new finish.

Option 2: Hack off all external render, repair cracks in substrate and clad with 20mm polyisocyanurate insulation board and reinforced high performance, self coloured, thin render system.

Section of boundary wall under new porch to be repaired and re-rendered on rear.

Existing stone cills to have drips cut into lower surface.

Form recess for gas meter box together with pipe duct through to void. Form recess for new post box in external wall of side hall.

New section of first floor over side hall to be raised in loadbearing insulated cavity blockwork rendered to match new finish to existing.

Roof

Check existing roof finish and leadwork, report defects found and repair as necessary.

Internally, clean the roof voids before installation of 300mm glasswool, rockwool, other approved fibre insulation above existing ceiling level. Lay in 2 No 150mm layers the first between ceiling joists with the second perpendicular. Take care to push the insulation into the eaves to avoid a thermal bridge cold spot at the edges and corners of the ceilings under, but also take care to maintain the 50mm clear air space over.

Repair timber barge boards, fascias and soffits prior to redecoration.

New flat roof over side hall first floor to be laid to minimum fall of 1 in 60. Finish to be either high performance single ply membrane installed in accordance with requirements of insurance backed guarantee, or GRP (Topseal or similar) roof finish comprising GRP top coat in grey, GRP base resin, 450g glass fibre matt, GRP base resin.

Roof deck on timber joists to be minimum 18mm thick orientated strand board decking. Joist depth and spacing to suit span.

Insulation to be foil faced polyisocyanurate with taped joints and of total thickness to satisfy current Building Regulations 'U' value ($w/m^2 \text{ } ^\circ C$). In order to reduce overall thickness of roof lay 25mm above deck and remainder in between roof joists.

Decking board joints to be staggered with timber noggings to support all free edges that are unsupported. Decking to be fixed with non ferrous screws min 100mm long @ max 200mm centres around board edges & at 300mm centres along any intermediate supporting timbers.

Vapour proof non-setting gungrade mastic sealant to be applied continuously to upper surface of all joists, noggings corresponding with board edges to provide continuity of vapour control layer.

Lead Flashings & Cavity Trays

All new lead flashings to be code 4 turned into 25mm raked out mortar course & wedged using lead wedges.

Lead mastic (colour: grey) shall be used to fill raked out mortar courses. Ensure that there is a minimum overlap of 100mm between lead upstands. Lengths not to exceed 1.5m between laps & lap joints are to be 150mm.

Internal Walls

Masonry

Retained masonry walls to have defective, live or cracked plaster removed, cracks in substrate repaired or stitched prior to re-finishing. Internal face of external walls at ground floor level to have stud lining with insulated plasterboard.

Stud Partitions

Two layers of 12.5mm plasterboard fixed with screws on sw studs @ max 600 centres with Rockwool mineral wool insulation between studs minimum thickness 25mm. For studwork up to 2.4m high use 63mm x 38mm wide PAR, above 2.4m high up to 3.6m use 89mm depth studs. Alternatively use 70mm or 90mm pressed metal studs to suit height.

Use moisture resistant (MR) board in potentially humid/wet areas.

Folding Sliding Partitions

Floor to ceiling height folding sliding partitions bounding Sunday school rooms to be London Wall type 200 top hung Rw 52dB. Connecting doors with vision panels to lower hall.

Stairs and Steps

New stairs to be **steel timber** framed ~~tray infill type~~ designed by specialist subcontractor. Padstones to be formed in perimeter walls to take bolt connections from stair support structure. **Steelwork carriage Stairs** to be clad on underside of flights and landings. Exposed faces of stringers to be **polyester powder coated gloss painted**.

Stainless steel handrails to both sides of **main stair, with** balustrades with toughened glass infill panels, ~~faced fixed to flight strings with stand off stainless steel bolts~~ fixed to carriage using stainless steel bolts. Design to be responsibility of balustrade manufacture and approved prior to fabrication.

Rear stair to be timber with timber handrails and square section balusters.

~~Steps to the lower ground floor store to be insitu concrete with granular anti-slip powder worked into wearing surface of treads. Finished stair to receive anti-dusting sealer coats.~~

Rear steps from ground floor (kitchen) down to external lower ground floor level, and also down to side hall undercroft, to be re-formed in concrete. Going and rise to be adjusted to comply with current regulations.

Provide a suitable height good quality A frame step ladder to facilitate lamp changing and ceiling void access.

Platform Lift

Self supporting pre-finished A8000 platform lift with 1000kg capacity supplied and installed by 'Axess 4 All' 77 Waterside Rd, Leicester LE5 1TL, tel 0116 274 4040. Recess to be left in slab to provide level entry at ground floor level.

Mechanical Ventilation

Mechanical extract ventilation of 15 litres/sec with 15 minute over-run to be provided in WCs. Extract ductwork from accessible and stand alone WCs adjacent to lobby to be taken over crèche ceiling and through external wall to street (fans to be located at WC end).

Extract from kitchen to be 60 litres/sec unless located in a cooker hood in which case this can be reduced to 30 l/s on approval of Building Control.

Windows

UPVC framed, internally glazed casements with multi-point lockable handles to the top section to match balcony level windows on SW side, to be installed on Davies Street side elevation. Two new windows also required on ground floor level on this elevation, both to have multipoint locking and be compliant with Secured by Design standard. Other windows at ground floor level to have locking upgraded to multi-point (allow for new opening lights in existing framing as minimum and complete replacement as max).

Glazing to external elements to be double glazed insulating units, argon filled and low 'e' coated.

Windows with part of the glass below 800mm above FFL to be fitted with A rated safety glass. Any openable sections below 800mm above FFL to be provided with guarding. Existing windows adjacent to stairs to be re-glazed if any part of pane is within 800mm zone.

Existing UPVC windows to be cleaned down with re-finishing solution. Defective gaskets and double glazed units to be replaced.

Internal windows required as shown on plan, fire resistance to suit enclosing partition.

New window and opening to office No 1.

New window with top opening light to crèche in side hall first floor extension. Roof over first floor toilet areas to incorporate 3 No twin skin polycarbonate fall safe roof lights with insulated upstands. Type must be suitable for flat roof installation. Natural ventilation facility also to be incorporated.

Doors

New external doors to Davies Street, front porch and rear steps from kitchen to be double glazed in aluminium frames (thermally broken if possible). Any glazed elements to be internally beaded.

New internal doors generally to be solid core timber veneer faced with scratch resistant protective coating. Leaves generally to be 926mm in 1000mm door sets and be hung on 3 No stainless steel class 13 (min) hinges. See door schedule drawing for other sizes. Vision panels to have laminated or fire resisting glass as per fire plan.

Doors to rooms containing extract fans to have a clear 10mm gap between the bottom of the door and the floor finish.

Ironmongery quality to be heavy-duty. Room locks to be fitted with anti barricade clutch turns internally. Screw fixed kick plates required to all doors. All ironmongery, in particular closers, to be DDA compliant. Closer installation to be checked prior to handover and opening force measured to confirm, with a record left in the handover documentation.

New doors to basement undercroft openings.

Miscellaneous Metalwork, Carpentry and Joinery

New kitchen installation to be as per specialist catering design using catering grade stainless steel worktops, table and fittings fully removable for deep cleaning. Wall shelving to be stainless steel.

Coffee bar and back fittings to be as per specialist catering design. Solid wood (laminated) work top with feature cladding to front.

Where window boards are replaced use 19mm solid pre-primed MDF with rounded arises and returned ends.

New skirtings required throughout – use 150mm high square section.

New soil stacks inside building to be boxed in using 38 x 38mm softwood framework with 6mm plywood facing prepared for painting.

Access hatch to existing timber ceiling over main hall to be reconfigured (with insulation) to provide safe access to the loft space for inspection and maintenance.

Access hatch between kitchen and coffee bar to have ½ hour fire rated roller shutter.

Access hatch between kitchen and lower hall to have ½ hour fire rated doors, finished to match others in lower hall.

Enclose existing electrics in small hall with cupboard in FR construction. Doors/access panels to be labelled 'KEEP SHUT'.

Burglar bars to new window in office No 1.

Miscellaneous Repair and Modification Works

Angled reveals to new hatch between lower hall and kitchen, to be built out square in masonry construction.

Angled reveals to new door between lower hall and side hall, to be built out square in masonry construction.

Cill of former window used for hatch to be lowered by 200mm. Cill of former window to be used for new door to be cut down to new ground floor level.

Damp proof treatment to existing masonry walls up to 1.2m above adjacent ground level. Apart from the walls bounding the new stair, this does not apply to the south end of the

undercroft where 1.2m from adjacent ground level externally and internally will still be below the new floor level. This effectively means 75% of the length of the main hall on the road side (11m) does not need damp proof treatment. Half the length on the other side will have a corresponding length to the side hall. Both side hall and main building elevations onto Davies Street will require treatment.

All existing wainscot panelling is to be removed. Repair wall surface behind by filling or injection grouting all open joints with suitable material, especially where wall requires damp proof treatment.

If exposure works highlight areas which have to be repaired, use similar materials to the existing.

Railings to boundary wall to have defective sections cut out and replaced. Remaining sections to be blast cleaned to remove old paint prior to redecoration.

Form new opening to main hall undercroft.

New gate and screen fence to close off passage from courtyard at rear. Height to be 2.1m topped with 300mm of trellis. Gate to be fitted with external quality panic hardware operable from courtyard side only. Existing gate to Davies Street to be fitted with similar ironmongery.

Existing redundant grave stones to be re-located adjacent to the south wall of the side hall undercroft. Patch repair rendered wall surfaces of adjoining properties and paint two coats of masonry paint up to level of 2.5m above ground level. Clean down face brickwork with algicide.

All external ground surfaces to be scrapped back by 100mm, including removal of any remaining walling from the original toilet installation. Lay geotextile membrane and 100mm of loose 20mm rounded gravel to whole area. Existing manholes to have covers re-bedded with brick surround. Lay paving slab path on gravel from re-built steps through new and original gates out to Davies Street.

Finishes

Floor finishes to be agreed with client before project commences. Screeds to be of an appropriate water content (tested by meter) before finish is applied. Provisionally, floor finishes to be:

- heavy duty commercial quality loop pile (Heuga, Milliken or similar) carpet tile to main hall (including stage), Sunday school rooms, and offices;
- general purpose commercial quality decorative vinyl or linoleum sheet to lower hall, side hall, crèche, stairs and entrance lobby;
- slip resistant heavy duty commercial quality vinyl sheet to kitchen, toilets and lower ground floor store;
- commercial quality walk off carpet to main area of new entrance porch;
- heavy duty commercial quality matwells to first 1m inside new porch entrance doors and new side entrance to Davies St.

- sealed 22mm flooring grade, water resistant, chipboard to ~~attic storage area side~~ hall first floor.
- stairs and main hall stage to have proprietary metal nosings to provide adequate contrast for B Regs compliance.

N.B. If the proposed heating system is changed to underfloor heating, all carpet in areas served by underfloor heating must be compatible with this type of heat source.

Wall and Plasterboard ceiling finishes generally to have primer sealer and two coats emulsion paint, all applied in accordance with manufacturers instructions. Use Diamond Matt (heavy duty) paint to walls unless specified otherwise. Toilet areas to have satin emulsion finish. External corners of partition/walls to have corner protection to 1.2m above FFL.

Kitchen wall surfaces to be clad with commercial quality anti-microbial plastic sheeting such as C/S Acrovyn Hydroclad from floor (where exposed) to level with top of door frame. Kitchen wall cladding to be taken to floor level behind removable tables and equipment. Wash basins in toilet areas to have tiled splash backs.

Existing UPVC windows to be cleaned down with re-finishing solution.

Ceilings generally to be mineral fibre lay-in tile in inverted 'T' grid. Suspension system to suit void but over potentially wet areas, the suspension, grid and tile must be suitable for the humidity conditions below. Board types as follows:

- Kitchen: Armstrong Parafon Hygien.
- Offices, lower hall, entrance lobby and stores: Armstrong Dune Supreme (perforated).
- Sunday school rooms, café, multi-purpose room and crèche: Armstrong Dune Max.
- Ground floor toilets: Armstrong Ultima.

Plasterboard ceiling required to kitchen, cleaners cup'd and staircases, including soffit of flights. Access panel numbers and locations in kitchen ceiling to be determined by the M&E installer.

Plasterboard bulkheads required at some window heads as shown on sections.

Existing timber ceiling over main hall to be retained, repaired as necessary (with features redecorated), and receive clear fire retardant finish.

For option 1 of external walls section, previously painted render elevations to be thoroughly prepared after render repairs and redecorated using Keim Soldalit.

Timber barge boards, fascias and soffits to be redecorated using at least four coats of oil based paint.

Existing metal railings, gutters and downpipes to be thoroughly prepared and repainted using at least four coats of oil based paint.

Sanitary Fittings

All sanitary fittings to use restricted water flow taps and fittings. WCs to be low volume dual flush (2.5 / 4 litres). All traps to be anti-syphon 75mm deep seal.

Accessible WCs to be fitted with Doc M pack plus additional grab rails, colostomy bag shelf etc. to be in full compliance with AD part M.

Standard WC	Alto E7544 close coupled
Accessible WC	Contour 21 BTW with spacer box
Standard WHB	Studio E1170 two tap holes, overflow and chainstay hole.
Accessible WHB	Contour 21 S2474 with single thermostatic mixer tap
Kitchen sink	Integral with ss base stand
Kitchen WHB	Vogue P088

Main bank of toilets to have cisterns fed from separate CWSTs (located in ceiling void above kitchen) with first input from harvested rainwater, topped up by mains as required.

Miscellaneous Fittings

Tip up seating to raised seating areas at sides of main hall. Quality to be as per 'Accolade' from Audience Systems BA13 4JP, tel 01373 865050.

Lighting and sound control desks.

Display monitors to main hall and ancillary areas - crèche, lower hall, side hall, and each Sunday school room.

External signage to consist of illuminated painted areas on front and side walls.

Internal signage to be as follows:

- door labels to indicate room function
- do not disturb sign to offices
- coloured floor plans on display boards in entrance lobby
- statutory fire exit signage
- fire door labelling (e.g. fire door keep shut etc)
- unisex symbol to toilets and disabled symbol to accessible WC.

Internal painted area to wall above stage.

Roof Drainage

Check and repair as necessary. Fit filtered harvesting system and storage tank to one main down pipe. Use storage tank as 'first call' feed for use in flushing main bank of WCs.

Internal Drainage

Use UPVC pipes with a long radius bend connection to sewer drainage as BS 4514. Diameter of traps to be 32 min for washbasins; 40mm for baths, showers, sinks, dishwasher and washing machine; and 100mm for WCs. Stub stacks to be fitted with AAVs. Refer to approved document part H1 of the Building Regulations for general guidance.

External Drainage

Existing drainage to be located on site prior to commencement of construction. Any repairs and adjustments required must be to Building Control approval.

For new drainage see drawings. Where drainage pipes pass through external walls, provide lintel and compressible material over to prevent damage to pipe. Drains to be not less than 100mm dia. UPVC pipes with flexible connection rings generally laid to a fall of 1 in 40, all as BS4460, 5660, 5481, 2494 and 2782.

Ensure system adopted allows thermal expansion of approx 1mm/4m length per 5 degrees.

Generally surround all gullies to a depth of 600mm along pipe with 1:2:4 concrete, including bedding and surrounding to a depth of any load bearing walls.

Provide 10mm fibreboard expansion joint at pipe joints where surrounded in concrete.

Provide trenches of minimum pipe width and 150mm either side of pipe, remove any stones and vegetation, tamp and fill soft spots with gravel. Bed pipes on minimum 65mm granular fill max 20mm dia. Particles, compact granular fill to a depth of top crown of pipe. Further granular fill to a height of 100mm above pipe crown as above, compacted by hand. Back fill as dug material to a depth of 300mm by hand then further back fill by machine.

Shallow laid drains with less than 450mm above crown to FGL to have 50mm thick concrete slab over drain at 100mm above crown.

Construct new inspection chambers to suit levels with class B covers in all locations and surround all chambers with 100mm concrete fill.

Drainage under new beam and block floors in undercrofts to be supported with stainless steel straps bedded into the floor system. Rodding eyes to be provided at all bends and ends of run.

Rainwater goods to be repaired as necessary. Stormwater drainage to discharge to existing drainage system.

Electrical Installation

All electrical work to be carried out by qualified electrician and comply with part P of the Building Regulations.

Create new or modify existing electrical circuits to achieve proposed layout. Remove all redundant cabling from previous installations.

Switches and socket outlets for lighting and other equipment to be located between 450mm and 1200mm above FFL.

Exact locations and type of all electrical fittings are to be agreed with client prior to starting construction. Light fittings to be designed to accommodate energy efficient lamps. All lighting to be LED type where possible. **Fittings to be taken from Lledo range or be of similar quality.**

Electrical sockets marked 'LL' to have socket below worktop with fused spur isolator above. **Allow the following numbers of double power sockets:**

- 1 No to each circulation space or one per 10m in corridors.
- 3 No each to offices 1 and 2, 6 No to office 3.
- 1 No to each store.
- 2 No each to Sunday school and multi-purpose rooms.
- 4 No each to lower and side halls, and body of main hall.
- 8 No to stage (provisional figure not including PA requirement).
- 3 No to sound and lighting desk (provisional figure not including PA requirement).
- 1 No external for courtyard.
- 1 No to each undercroft.

Electrical key used on drawing:

E = external quality fitting.

R = recessed fitting.

S = sealed fitting.

W = wall mounted fitting.

Rooms to be individually switchable but with one central control point **adjacent to first point of entry into building.** Lighting levels to be in accordance with mid range values of the CISE guide with a minimum as follows:

- Stairs, other circulation spaces, stores and toilets 150 lux.
- Entrance foyer, crèche, lower and side halls 200 lux.
- Sunday school rooms and main hall 300 lux (dimnable)
- Kitchen and offices 500 lux.

~~Photovoltaic panels (12.5m total) to be installed on south west facing roof with inverter located in attic space and cable connection down to main distribution board.~~

Fully addressable fire alarm system to be designed and installed by specialist. **Locate panel in main foyer.**

Security alarm system with internal presence detectors and contact sensors on all external exits. Design and installation by specialist.

CCTV system with low light level cameras to cover rear yard and all entrances. Monitors and recording equipment to be located in admin office.

Power and control cabling to lighting gantry over stage.

PA system with monitors in ground floor rooms linking to upstairs control desk. Sky TV feed to control desk. Large screen in main hall to be power operated.

Provide **three phase** supply for new platform lift **and PA/lighting system**.

Electronic door security controls to new porch and doorway to Davies Street. Door to porch to be power assisted with disabled access pad opening externally and key switch over-ride internally. Activation of porch door control pad also to switch on external light.

Mains powered door bell to ring in all offices. Voice entry system required with remote opening capability for front door.

Lighting system rig to main hall to be suspended over the main body of the space and be capable of taking theatrical lighting on the front part nearest the stage. The whole rig to be capable of being lowered using electric motors located in the main hall loft.

Hearing induction loop required in all halls plus the office which will be used as reception.

Wifi to all areas and telephone system to all offices. Hard wired network connections to all offices, wireless transmission points, kitchen, stage and sound desk.

Heating and Hot Water Installation

Radiators of water based systems to be fitted with thermostatic radiator valves

New boilers must comply with current Building Regulations and be fitted by Gas Safe Registered installer.

Exact locations, sizes and type of boiler, **heating elements (e.g. radiators)**, pipes, and **other associated** appliances to be agreed with client prior to starting construction.

Main hot water using appliances to be fed from storage tank heated by solar thermal panels and topped up from main gas fired boiler.

Isolated washbasins and sinks to be serviced with hot water from stand alone instantaneous electrical units with variable and accurate temperature control.

Baptistry water to be heated from separate circuit back to main boiler.

APPENDIX A

ELEMENTAL 'U' VALUES - AUGUST 2013.

WORK TO EXISTING BUILDINGS OTHER THAN DWELLINGS (Approved Document part L2b)

Element	Standard (W/m ² .K)
Wall	0.28
Pitched roof – insulation at ceiling level	0.16
Pitched roof – insulation at rafter level	0.18
Flat roof or roof with integral insulation	0.18
Floors	0.22
Windows, roof windows and glazed rooflights	1.8 for whole unit or domestic character band C
Plastic rooflight	1.8
Curtain walling	1.8 but see AD section 4.28
Pedestrian doors where the door has more than 50% of its internal face area glazed	1.8 for whole unit
High-usage entrance doors for people	3.5
Vehicle access and similar large doors	1.5
Other doors	1.8
Roof ventilators including smoke extracts	3.5