PROPOSAL.

TWO STOREY SIDE EXTENSION AND INTERNAL ALTERATIONS.

ADDRESS OF PROPOSAL.

3, CHURCH LANE, ASTON, WEM, SHROPSHIRE, SY4 5JG.

CLIENTS. Mr & Mrs A MILBURN.

SPECIFICATION FOR THE TWO STOREY EXTENSION TO THE SIDE AND INTERNAL ALTERATIONS AT 3, CHURCH LANE, ASTON, WEM, SHROPSHIRE, SY4 5JG.

Clients Mr & Mrs A MILBURN.

BOUNDARIES.

No part of any proposed construction will encroach over any boundary. **EXISTING CONSTRUCTION.**

A trial hole will need to be dug prior to work commencing for inspection by the officer to see if the existing Sitting room wall that forms the rear of the new Living Room is of adequate size to support the new work.

The existing walls, foundations and lintels are to be assessed for their suitability by the inspecting officer.

Where the new works are adjacent to the existing then the plasterwork will be stripped back and new work taken from the existing and renovated.

If the existing walls are of solid construction then a 100mm x 50mm timber studwork wall will need to be constructed against the inner face of the wall with 77.5mm Celotex PL400 insulation board or the equivalent between the studs and board with 12.5mm plasterboard skimmed over. **DEMOLITION.**

Skips are to be provided to allow the removal of all waste products and materials. Demolish the existing parts of the building that are being replaced and cart away from site. Create new openings in the existing walls and these opening are to be propped and supported

correctly and install the correctly specified steel supports.

The existing chimney breast that is in the Kitchen is to be removed.

FOUNDATIONS.

All the new foundations are to be to the inspecting officer's approval.

Foundations to be of a strip design type 610mm x 229mm and at a minimum depth of 1 metre. Concrete to be 1:2:4 mix.

DRAINS.

All new drains are to be 100mm diameter pipes with flexible sockets and joints and laid on a 150mm granular bed and surrounded by the pea gravel.

Fall of the drains is to be 1:40.

Where the drains pass through or under the walls then form reinforced concrete lintels over. Where the drains pass under the floor then encase them in concrete and form expansion joints also embed reinforced mesh in the concrete above the line of the drain to give additional protection.

The SVP is to be a 100mm diameter plastic pipe that terminates 914mm min above the head of nearest window that is within 3 metres and a plastic balloon is to be fitted to stop any kind of ingress, the foot is to be connected directly to the drains.

The SVP is to run within the floor void and be secured to the joists.

Connect the new shower that is to be provided in the shower room to a back inlet gulley and via new pipes to the existing chamber.

The waste pipes are to be plastic and fitted with an anti-syphonic traps and are to have access caps fitted at the end of the pipes.

The waste pipes to the bath and shower are to be 40mm and 32mm to the basins. MANHOLES.

The existing manholes / chambers are to be connected to by new pipes.

Existing chamber at the rear of the Shower Room has an invert level of 300mm.

The existing manhole to the side of the Sitting Room is inaccessible and will need conditional approval from the inspecting officer until access is gained to verify the invert level.

RAINWATER GOODS.

New 100mm gutters that match the profile of the existing are to be screwed to the rafter ends by brackets and then discharging into 63mm diameter downpipes.

The new guttering is to be connected to the existing gutter and will discharge back into the existing downpipes.

Connect the new rainwater downpipes to the existing system if it can be traced. If the existing rainwater system is not of adequate quality or size to allow the new rainwater to flow into it then provide a new layout and use 100mm pipes that will fall to a soak away which must be no nearer than 5000mm from the property and 5000mm from boundary.

Percolation test is to be carried out to confirm size and suitability of required soak away system and the calculations / details and results to be submitted to the inspecting officer.

CONCRETE FLOOR.

100mm Concrete slab laid on 150mm hardcore of broken brick and stone and should be completely free of contaminants and plaster, should be delivered to site via a supplier with a quality audit process in place and compacted sufficiently to support the slab and incorporate a 1200 gauge membrane DPM on a soft sand blinding.

The insulation below the concrete is to be 100mm Celotex or the equivalent with 20mm thick between slab and wall.

A separating layer is to be installed over the floor insulation to act as a second isolation membrane.

If Radon gas protection is required by the inspecting officer then it is to be achieved by installing a continuous 2000 gauge DPM with all joints and penetrations taped with special gas tape and over lapped by a minimum of 300mm the damp proof membrane should be continued across the external walling by means of a cavity tray arrangement, the floor may also need venting.

DAMP PROOF COURSE.

New DPC is to be at finished floor level and 150mm above outside ground level. All the ends are to be fully lapped by 150mm.

The new DPC is to be fully lapped over the existing DPC at all abutments by at least 100mm. All reveals are to be equipped with vertical DPC's.

CAVITY WORK.

The cavity wall is to be brickwork of a 102mm facing brick outer leaf that matches the existing style, texture and colour of the property with a 100mm Cavity and an inner leaf of 100mm insulation block for example, Celcon Solar or the equivalent.

Work below ground to is to be one of the following either a semi-engineering type with the cavity filled with lean mix compo up to a minimum of 225mm from DPC level or mass fill with concrete up to 150 below damp proof course or use trench style concrete blocks.

Reinforce wall with mild steel ties at 900mm horizontal cts and at 450mm cts vertically staggered. Wall ties should also be provided and spaced not more than 300mm apart vertically, within a distance of 225mm from the vertical edges of all openings, movement joints and roof verges. Insulation is to be 100mm thick Knauf Earthwool DriTherm 32 or the equivalent which is to be taken right up to the reveal of all openings.

All the cavities are to be sealed with insulated preparatory closers.

All returns to be no less than 655mm from the external corner.

Where new cavity walls abut the existing wall's the cavities should be taken through to the existing cavity to prevent cold bridging.

Block wall surrounding Shower Room is to be 90kg/m2 to give adequate sound insulation. **LINTELS.**

Lintels internally are to be reinforced concrete type as support over the new openings that are to be formed in the existing walls.

All lintels externally are to be galvanized steel type something like or similar to a Catnic CG 90/100.

Lintels in the external cavity walls are to have a cavity tray with stop ends and leave weep holes in the outer leaf at the ends of the cavity tray.

All lintels to have a minimum of 150mm bearing and be concrete.

PLASTER WORK.

12.5mm plasterboard dabbed to inner face of cavity work and skimmed over or walls to be rendered with a 25mm sand and cement render which has a waterproof additive and skimmed finish.

The ceilings are to be 12.5mm plasterboard skimmed over.

The stud partition walls are to have a 12.5mm plasterboard skimmed over with the void between the studs filled with fibre glass quilt to give sound insulation.

The stud partition walls are to be C16 grade 100mm x 50mm softwood timbers with a head and a base and noggins.

All floor joists that run parallel with the stud walls will be tripled up.

WOODWORK.

The new skirting will be planed softwood matching the existing and is to be screwed to the walls. The new architraves will be planed softwood matching the existing.

The new door linings are to be 37mm softwood.

New doors are to be to the clients choice and hung on 2 or 3 hinges.

FLOORS.

All timber will be structurally graded and treated.

The flooring is to be 25mm tongue and grooved sheets screwed to the joists.

The joists are to be C16 grade timbers 200mm x 50mm at 400mm cts secured to walls by joist hangers and between the joists totally fill the void with fibre glass quilt which has a density of 10kg/m3.

The floor joists are to be strutted at mid span.

The floor joists will be laterally restrained to the wall running parallel.

The joists are to be tripled up under any stud walls where they run parallel with the floor joists. **TRUSSED RAFTER ROOF**

Conditional approval from the inspecting officer is to be requested and details of loading, strength, bracing and fixing design from the manufacturers to be forwarded to the inspecting officer prior to installation.

Prior to the trusses being ordered the truss manufacturer is to survey the new work.

The trusses are to be at 600mm Cts and braced to BS 5268.

The new ridge board is to be a C16 grade 200mm x 25mm timber.

The new valley board is to be a C16 grade 200mm x 25mm timber.

The ventilation of the roof will be achieved by a 25mm continuous air gap at eaves level and a 5mm gap at ridge level.

The lateral support is to be mild steel straps at minimum Cts of 2 metres.

The insulation is to be loft roll 40 laid at 90 degrees to each other with at least 300mm over the timbers.

The wall plates are to be C16 grade 100mm x 50mm timbers secured to walls by 32mm x 6mm galvanized mild steel straps which will be at 1200mm cts.

The wall plates will be secured at right angles with dragon ties.

Clad the roof with good quality slates that will be nailed to C16 grade 25mm x 50mm treated softwood battens which are in turn laid on one layer of untearable felt which should be vapour permeable and comply with BS EN 13859-1 or have third party accreditation (BBA cert). All the fixing details are to be provided once they are available.

All the lead work is to be 5lb lead.

Where the new roof abuts the wall form a cavity tray if wall is cavity construction.

The gable is to have gable straps.

EXISTING ROOF SLOPES.

Check all the existing roof slopes for any defective slates and replace if needed, check all timbers and again replace any defective members.

Where the new wall abuts the existing Sitting Room roof form a 200mm x 25 mm valley board on 100mm x 50mm noggins that are screwed to the existing rafters and secured to the new wall and dress 5lb lead over and at least 200mm up the wall and tucked into the relevant mortar joint and then taken up the roof slope and over the first row of battens. Valley to fall to the outside.

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WINDOWS AND DOORS.

Windows to be double glazed with "K" glass low emissivity type with 16mm air gap between the panes.

All windows are to have an area that opens that is equal to 1/20th of the total floor area. The total area of glazing is to be no more than 25% of the total floor area.

The background ventilation will be achieved by installing trickle vents equal to 8000mm2. The secondary means of escape is to be a clear area that can be opened of 733mm x 450mm and a sill height of between 800mm and 1100mm from the floor to all new first floor windows. To provide a waterproof seal then line the outside of window where it is in contact with the brickwork with a mastic.

All the critical areas will be safety glass to conform to BS 6206 and part K and marked accordingly, alternatively a supply invoice or certificate is to be provided upon completion. All external glazed doors are to have a U Value of 1.6W/M2K.

The existing Bathroom window is to be removed carefully and reused in the new En Suite. Manufacturer and installer will confirm that the windows will have a U Value of 1.6W/M2K and the doors to have 1.8W/M2K.

Ensure that all toughened glass is in accordance with BS EN 12600.

Ensure all doors and windows comply with PAS 24 requirement.

EXTRACTOR FANS.

The extractor fan to the Bathroom, Shower Room and En-Suite will be capable of expelling 60 litres per Second and will have a 15 minute over run.

The fans to have at least 3 air changes per hour.

All the extraction outlet grills are to be a minimum of 1750mm from the floor.

As there are no windows in the Bathroom the fan will run off the light switch.

The extractor fan to the Kitchen needs to be discharging to the outside air and should be capable of expelling 30 litres per second if it is in the cooker hood, if sited elsewhere then a fan which is capable of extracting 60 litres per second or a PSV and background ventilation of 2500mm2 should be provided.

All the wet rooms are to have an air inlet.

BATHROOM / EN SUITE / SHOWER ROOM DOOR.

The door to the Bathroom / En Suite / Shower Room will have a 10mm gap at the bottom. LIGHT FITTINGS.

75% - 100% of all the new internal light fittings are required to be energy efficient with a luminous efficiency greater than 45 lamp lumens per circuit-watt and the total output greater than 400 lamp lumens is required.

FASCIA & SOFFIT.

The fascia and soffit is to be an open type.

SMOKE DETECTORS.

All new smoke alarms are to be to BS 5839, part 6, 2004 grade D system category LD3 to be provided to all circulation areas.

The ground floor smoke detectors are to be positioned no more than 7 metres from the Kitchen. The first floor smoke alarms are to be positioned not more than 3 metres from any Bedroom. All the alarms are to be interlinked and connected to the fuse box independently and are to have a battery backup.

Details of the type & positioning of smoke/heat detectors, these to be mains interlinked and a minimum 300mm away from a light fitting to be provided prior to installation.

HEATING.

Details of the space heating and hot water storage controls ie:- individual radiator thermostats and or wall mounted zone thermostats to be given conditional approval pending the client and inspecting officer liaising with final details.

Extend / modify the existing hot water system to accommodate new radiators.

The extended new heating system is required to include thermostatic radiator valves. Installer to discuss with the client the position, design, size and type of radiators to achieve

adequate temperature levels in each space.

The hot water supplied to any fixed bath should not exceed 48 degrees celsius by incorporating a line blending valve positioned close to the final outlet to prevent the colonization of waterborne pathogens.

All work involving a gas installation, must be carried out by a gas safe registered contractor and carried out in accordance with all the current regulations

ELECTRICS.

All new electrical sockets and switch positions to be discussed with the approved contractor prior to work commencing and must comply with the building regulations.

The design, installation and testing of the electrics are to be undertaken by an installer registered under a suitable electrical self certification scheme i.e. NICEIC or ECA or alternatively by a suitably qualified person who is competent to issue an installation, commissioning and testing certificates for works in accordance with BS 7671. Prior notification must be gained from the inspecting officer to establish which route the applicant / contractor wishes to undertake. When any electrical installation work is classed as an extension, an alteration or a change of use then the existing and fixed electrical installation are to be checked to establish that they meet the

requirements and that the mains supply equipment is suitable.

SANI-FLO UNIT (optional).

Due to the new Bathroom being sited away from the new SVPs it may be that it is easier to use a Saniflo product (eg something like a Sanipack pro).

The unit uses a waste pipe that can be either 22mm, 28mm or 32mm.

The discharge distances are 5 meters vertically and 100 metres horizontally.

SCAFFOLD.

The correct installed and erected scaffold will need to be used to work on the existing and new works.

CHIMNEY BREAST.

The chimney breast in the Kitchen is to be carefully removed.

BATHROOM.

The existing Bathroom suite is to be removed.

A new Bathroom suite is to be installed and connected to the new SVP.

A new 100mm x 50 mm studwork wall is to be erected and plasterboard and skimmed.

SHOWER ROOM (FUTURE PROOFED / OPTIONAL).

The shower area is to utilize a dished floor to facilitate a gradient run off to the drains. Alto walkway 20 slip resistant flooring or similar with the same quality should be used on the entire floor. It should have a continuous coved skirting and finished with trim to the edges. All specialist floor to be installed by a competent approved installer.

All floors are to be laid continuous below the WC and basin.

The shower unit should be thermostatically controlled with an anti-scald device. The controls should be positioned to suit a seated user and there should be an extended shower riser to accommodate a standing user also.

Shower to have a separate 40 amp fuse and RDC protected circuit.

The shower curtain should be full height and weighted. It should be hung to trail the floor by approximately 25mm to help retain water.

Light fitting to be moisture resistant, flush and IP44 rated.