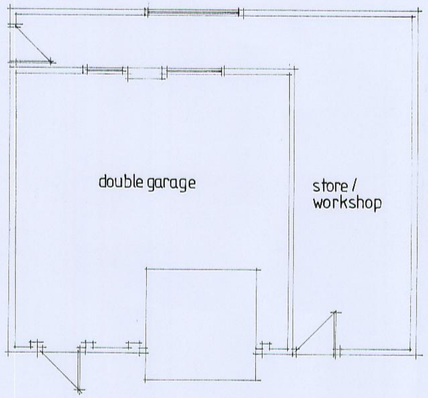
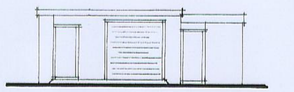
Gas Supply:-
Client to contact the supplier / 'shipper' shown below to arrange for gas supply to the garage/playroom:-
British Gas,
P.O. Box 306,
Cardiff,
CF1 4XD.
Tel: (0845) 9555512.
Gas meter to be sited in an external cavity meter cupboard sited as determined by the Client / Contractor.

Electric Supply:-
Existing.

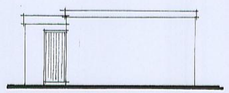
General:-
Client to submit samples of roofing tile, facing brick and any other finish to the Local Authority Planning Department for approval prior to ordering.



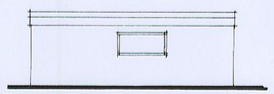
existing plan



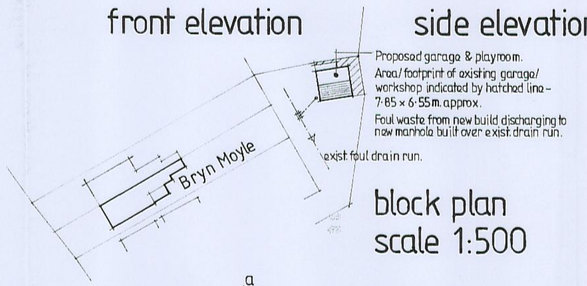
existing front elevation



existing side elevation



existing rear elevation

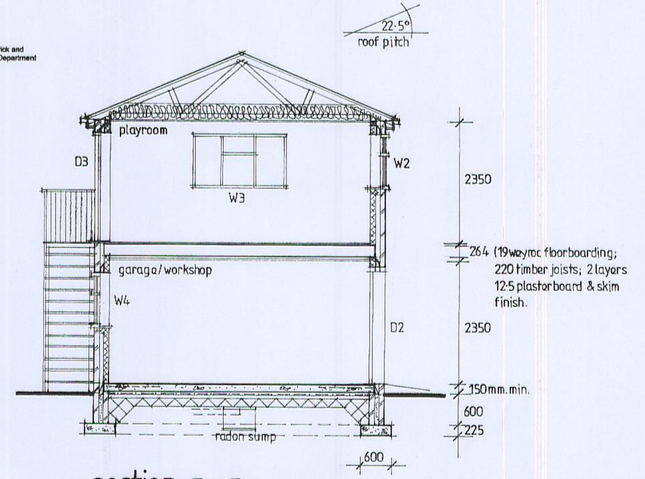


Proposed garage & playroom.
Area/footprint of existing garage/workshop indicated by hatched line - 7·85 × 6·55m. approx.
Foul waste from new build discharging to new manhole built over exist drain run.

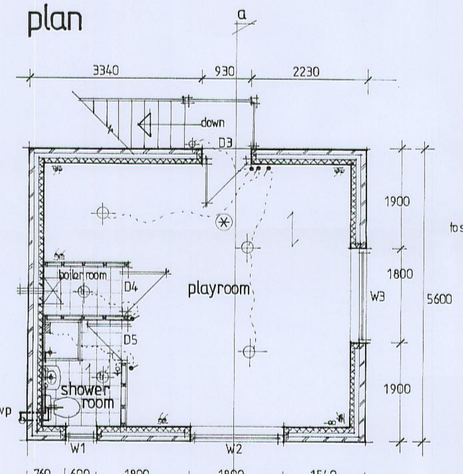
block plan scale 1:500

CDM2015 (Domestic Client):
The design reflected in this drawing has been developed for Planning Application / Building Regulations only.
Our appointment as Principal Designer stops at this point.
The Domestic Client duties under CDM2015 must be undertaken by the contractor, or where there is more than one contractor, the Principal Contractor.
Contractors in Domestic Projects must be aware of their client duties under the Construction (Design and Management) Regulations 2015. Should this not be the case further guidance must be sought.
In accordance with the Construction (Design & Management) Regulations 2015 it is our policy to 'Design Out' as many identifiable risks as possible for the construction, maintenance and demolition of the project.
A competent contractor should be aware of 'Normal' risks involved with the construction process.
Unusual / significant residual risks that cannot be eliminated as part of the design process are listed below:
1) None Identified.
Safe methods and systems of work remain the responsibility of the contractor and must be identified in the Construction Phase Plan. A Construction Phase Plan must be drawn up for every project by the contractor or principal contractor.
If any party using this drawing consider or identifies any 'Abnormal' or 'Unusual' risks that have not been identified above they should share this with the project team immediately.
Health and Safety File – when our appointment as Principal Designer ends we will pass the health and safety file to the principal contractor. The principal contractor will be responsible for developing this and handing it to the client on completion.

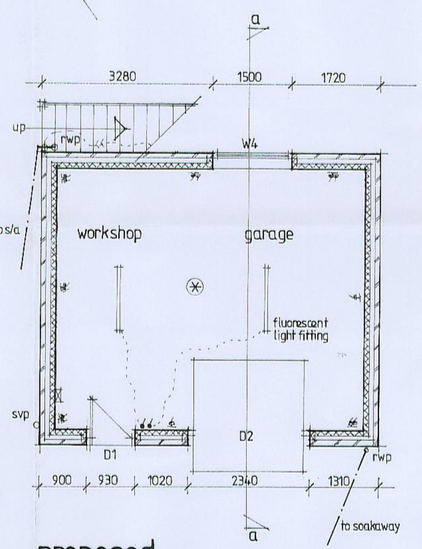
Health and Safety File:
This drawing is to be included in the Health and Safety File on completion of the project and must be updated as necessary by the Principal Contractor to reflect any changes and deviations from the design.



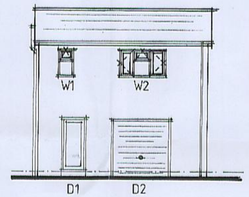
section a-a



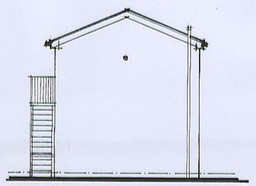
proposed first floor plan



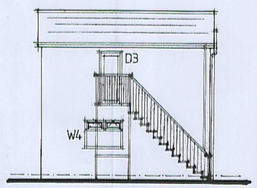
proposed ground floor plan



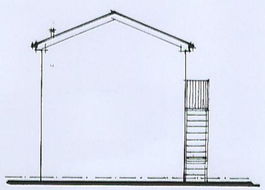
proposed front elevation



proposed side elevation



proposed rear elevation



proposed side elevation

Heating / Radiator Schedule:-
Heating – Gas central heating
Radiator to be sited in Playroom & Shower Room with the required kilowatt output as calculated by a Registered Plumbing & Heating Engineer. New boiler to spec as determined/agreed with the Client.
A mean water temperature of 76°C. in the radiator to be used and 10% added.
First Floor Ceiling Height = 2.350m.
Radiators to be fitted with Thermostatic Radiator Valve.
Ensure all pipework susceptible to freezing is adequately lagged.

Sanitary Fittings:-
The style of sanitary fittings to be to the Client's Specification.
F.F. Shower Room:-
Toilet to have 100mm. connection into SVP.
Wash hand basin to have 50mm. dia. waste & 75mm. deep seal trap into SVP.
Shower to have 50mm. dia. waste & 75mm. deep seal trap into SVP.

Electrical Symbols:-
- One way light switch.
- Ceiling rose and lampholder
- Batten holder.
- External light fitting.
- Single & Double 13amp. switched socket outlet.
- Double pole switch (for shower).
- Co-axial fitting.
- Smoke Detector

External Staircase:-
External metal access staircase to be manufactured by Northall's Wrought Iron Designs Ltd., 1 Park Road, Cefn Mawr, Wrexham, LL14 3AQ. Tel: 01978 824076.
Staircase landing to be in non-slip material – handrail set at a min. height of 1100mm. above f.f.l. of the landing/staircase.
tread size = 250mm.
riser size = 212.5mm. (exact rise & tread to be determined on site).
pitch = 42°

Radon Protective Measures:-
Ground floor d.p.m. to be linked to d.p.c. and cavity trays. All joints to be fully sealed. All details to be in accordance with recommendations as set out in BRE 211.
Full protection required - Install 1no. Monarflex radon sump and connected to a sealed pipe 110mm. dia. and to discharge directly to the outside air, all installed in strict accordance with manufacturer's details and recommendations.
Monarflex address:-
MONARFLEX Ltd., Lyon Way, St. Albans, HERTS., AL4 0LB; Tel: (01727) 830116; Fax: (01727) 868046.
A252 mesh to be built into floor slab, 1m. wide, around slab perimeter.
Client/Contractor to check with the Local Authority Building Control Department whether partial or full protection required.

Asbestos:-
Any suspected asbestos / contaminated material, is to be inspected by a specialist.
Asbestos is to be removed and disposed of off site by a specialist licensed contractor as required, under the 'Control of Asbestos Regulations 2012'.
Further information regarding the above can be obtained from the H.S.E. (Health and Safety Executive).

Welsh Water:-
If building over, or within 3m. of a Welsh Water (Dwr Cymru) sewer pipe or lateral drain;
Client to liaise with Welsh Water (Dwr Cymru) regarding 'Building over (or close to) a public sewer or lateral drain', and the requirements to obtaining consent / completion & submission of a 'Declaration of Works form'.
Tel: 0800 917 2652.

ALL WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH GOOD BUILDING PRACTICE AND WITH CURRENT CODES OF PRACTICE RELATING TO BUILDING WORK. CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS / DETAILS ON THE SITE OF THE WORKS, PRIOR TO COMMENCEMENT.

THESE DRAWINGS ARE SUPPLIED FOR PLANNING & BUILDING REGULATION APPROVAL PURPOSES ONLY.

WREXHAM COUNTY BOROUGH COUNCIL
16 JAN 2019
PLANNING DEPARTMENT

P2019/0025

SPECIFICATION

Site Preparations:-
The site of the works to be cleared of all offensive materials prior to commencement of the works.

Demolitions:-
Take down and remove existing double garage and side store in its entirety.
Include for the full removal of the concrete slab and foundations.

Foundations:-
Founds. to be concrete strip founds. 600 x 225mm. deep - 1:3:6 mix - depth below G/L - 825mm. to u/s of concrete or to suit site conditions, all to the complete satisfaction of the Local Authority Building Control Officer.
N.B. Positions of all existing services are unknown i.e. Gas, Electric, Water, B.T. etc.
If ground found to be unsuitable for strip footings then Client to provide design & calculations of re-inforced concrete raft foundation.

Brickwork, Below Ground Level:-
Frost resisting concrete commons with a min. compressive strength of 21N/mm. Provide weep holes at 450mm. centres in perpends in course under d.p.c. All visible brickwork above G/L to be in facing brick.

Vertical D.P.C.'s:-
Vertical d.p.c. to be inserted at any change of level. To be Bituthene or similar to Agrement Certificate Specification.

Wall Construction:-
Outer leaf of 102.5mm. Facing Brickwork, to match existing dwelling.
Cavity to be 100mm. filled with Xtratherm Cavity Therm 100mm. Insulation, having wall-ties to BS1243:1978 (amended) spaced 750mm. horizontally & 450mm. vertically and at each block course at all jambs.
Cavity to be sealed at eaves with block or with polypropylene cavity closer and all openings to have 150mm. wide horizontal & vertical d.p.c.'s, stepped as necessary to maintain 150mm. min. above path level.
Inner leaf of 100mm. 'Thermalite' Aircrete Shield (Thin Joint) 100 x 440 x 215mm. block, 12.7mm. plasterboard on dabs (dri-lining), including for all 'Expamet' angles & casing beads.
External wall construction to achieve 'U'-value of 0.21W/m²K.
Wall construction stated above achieves 'U'-value of 0.18W/m²K.

Cavity Closers:-
All cavities to be closed with 'Thermabate' cavity closers type Thermabate 100 (white). Thermabate section used at cills and heads of openings to overlap by 50mm. (see manufacturer's details). Thermabate to British Board of Agrement Certificate No. 97/2648.

Lintols:-
'Catnic' lintols to have 150mm. min. bearing each-end. ¼hour fire-resistance provided by 12.5mm. plasterboard & skim finish. A min. 2no. vertical joints to be left open in face to allow for drainage from lintol. Lintols to be insulated. For lintol schedule see below.

W1, W2, W3, W4	Catnic CG90/100
D1, D2, D3	Catnic CG90/100
D4, D5	Catnic CN92

Ground Floor Construction:-
150mm. C20D grade concrete slab, laid on 1200g. visqueen d.p.m. on 50mm. fine sand blinding on well consolidated hardcore - 150mm. min. or to suit site levels.

First Floor Construction:-
Floor finish to be to as follows:-
Shower Room - Ceramic tiles (to Client's specification) laid on 20mm. marine grade plywood flooring (ply flooring screwed down to floor joists). Ceramic tiles fixed to ply with BAL flexible adhesive and joints filled with BAL flexible grout (colour to be determined on site).
Remainder of first floor – 19mm. 'Weyroc' floor boarding ready to receive Client's specified floor finish.

Floor Joists:-
220 x 75mm. timber floor joists (C24), spaced at 400mm. centres, built into blockwork, or hung off joist hangers. Include for all necessary strutting to floor. Joists to receive lateral restraint straps - 30 x 5mm. galvanised m.s. straps taken into blockwork and fixed to first full block and to extend over first three joists with 38 x 100mm. galvanised m.s. straps with noggins fixed between. Straps at 1200mm. maximum centres. Floor finished atop with 19mm. 'weyroc' floor boarding (2400 x 1200mm.), or as specified otherwise, and below to be 2no. layers 12.5mm. plasterboard with skim finish; all joints staggered and taped.
Allow for 100mm. fibreglass quilt insulation to voids between floor / ceiling joists.

Joist Hangers:-
Joist hangers to be 'Expamet' Building Products 'BAT' joist hangers type 'MAXI-SPEEDY', bolted to masonry with 12mm. diameter bolts (4 times) and hanger nailed to the joists with 'BAT' nails (9swg x 32mm. long square twisted sheradised). Hangers to BS6178 Part 1 1990.

Soil & Vent Pipe:-
S.V.P. to head of drain to terminate 900mm. above nearest window opening.
Pipe to be 100mm. internal diameter of 'Polypipe' manufacture, or similar.

First Floor Partitions:-
F.F. partitions to be in 75 x 50mm. studwork with plasterboard & skim both sides. Voids filled with fibreglass quilt insulation - sound insulation.
220 x 75mm. joist to be inserted under partition where partition is parallel to joists (double-up).

Timbers:-
All timbers to be C16 quality unless otherwise stated. External timbers to be knotted, stopped and primed prior to painting or treated with a suitable preservative prior to staining.

Plumbing:-
All internal plumbing to comply to BS5572.

Drainage:-
All new drainage to be 100mm. 'Supersleve' or similar bedded in 150mm. pea gravel, laid to a fall of min., 1 in 40.
Drains within 900mm. of foundation to be encased in 150mm. concrete and if within 400mm. of G/L.
Drains passing through walls to be protected by pre-cast re-inforced concrete lintol built into wall above drain.
Proposed foul drainage to be connected to the existing system.
Proposed s.w. drainage to be taken to new soakaway(s), or alternative - to be determined on site.

Rainwater Goods:-
100mm. gutters to match existing dwelling, 1:50 falls. Downpipes to match existing dwelling - r.w.p. taken to new soakaway(s). 1m³ with clean hardcore, covered in visqueen and 450mm. top-soil cover. S/A to be located min. 5.0m. from nearest build. / structure.

Inspection Chamber:-
New manhole to be constructed in 225mm. brickwork, English bond, with medium duty galvanised steel cover (built over existing main drain run).
Alternatively, 6 polypropylene inspection chamber over run with heavy duty galvanised steel cover.

Mechanical Ventilation:-
Mechanical ventilation to Shower Room to operate at 15L/sec.

Roof Construction:-
Dual-pitched roof to consist of tiles laid to manufacturer's instructions on 50 x 25mm. tanalised s.w. battens on 'tyvek' high performance underslating to BS8217:1994, to be laid over standard roof trusses to BS5268 complete with all necessary 100 x 25mm. longitudinal and diagonal bracing. Trusses spaced at 600mm. centres.
Roof truss manufacturer to submit all calculations, design and details for bracing etc., to L.A. Building Control for approval prior to manufacture.
Trusses to be secured on 100 x 75mm. timber wall-plate, which will be secured with 30 x 5 x1000mm. m.s. anchor straps at centres n.e. 1200mm., allowing for 50 x 50mm. noggins between trusses. Straps provided at roof and wall abutments.
Ceilings to have 300mm. glass fibre insulation on 12.5mm. plasterboard with plaster finish. Roof void to be ventilated by means of Oldbrovate or similar roof ventilation system. Ventilation to be in strict accordance with BS5250:1989.
Roof construction to achieve a 'U'-value of 0.15W/m²K.

New Openings:-
All new openings to be double-glazed white pvc-u casement windows, including 'trickle' ventilation equal to 5,000mm² (over 1700mm. from f.f.l.).
First floor window to be escape window – the window should have an unobstructed openable area that is at least 0.33m², and at least 750mm. high and 450mm. wide – the bottom of the openable area should be not more than 1100mm. above the floor.
Openings to be n.f.l. 5% of the floor plan area and to comply to Part L of the Building Regulations.
Glass in windows and doors to be 'K' Glass (low emissivity) to achieve 'U'-value of 1.6W/m²K.

Glazing:-
All glazing up to 800mm. above floor level in a wall or partition and up to 1500mm. above floor level in a door or side window is to be of toughened glass.

Fire Detectors:-
Provide Integra mains powered smoke alarm system to BS5445 Part 1, by 'Aico' or other similar and approved.
Units to be installed, located and operated all to manufacturer's instructions to Local Authority approval i.e. Detectors to be fixed to ceiling at least 300mm. from any wall or light fitting. A central position is preferable. The detectors should not be fixed to or directly above heaters or any other place where steam, condensation or fumes could give false alarms. The Contractor shall on completion of the installation, ensure that the owner receives the manufacturer's instructions concerning the operation and maintenance of the alarm.
Smoke detectors to be interlinked.

Electrics:-
All electrical installations to comply with current edition of the I.E.E. Regulations. On completion, the work must be certificate approved by M.A.N.W.E.B. or N.I.C.E.I.C.
The wiring shall be plastic sheathed cable C.M.A. grade, sunk in plaster on walls and protected with metal sheathing or with 'Epa'-tubing. All switch plates, power outlets, lighting outlets, etc., to be in white plastic by M.K., Crabtree or similar. Quantity of electrical items to client's specification. That shown on proposed plans is suggested example only.
All switched socket outlets to at a min. height of 450mm. from f.f.l.
All light switches to be at a max. height of 1200mm. from f.f.l.

Electrical Installation:-
The electrical installation is to comply to Building Regulations Part 'P' (work to dwellings).
The proposed electrical installation work is to be undertaken by a legal person (i.e. a firm or an individual) who is a competent person registered with an electrical self-certification scheme authorised by the Secretary of State.
In these cases the person is responsible for ensuring compliance with BS 7671: 2001 and all relevant Building Regulations. On completion of the work, the person ordering the work should receive a signed 'Building Regulations self-certification certificate, and the relevant Building Control body should receive a copy of the information on the certificate. The person ordering the work should also receive a duly completed Electrical Installation Certificate as or similar to the model in BS 7671: 2001 Appendix 6. As required by BS 7671, the certificate must be made out and signed by the competent person or persons who carried out the design, construction, inspection and testing work.

Energy Efficient Lighting:-
Include for Energy Efficient Lighting to comply with Part L of the Building Regulations Approved Document as shown below:-

Number of room created:	Recommended min. number of locations:
1-4	75% of all internal light fittings are to be Energy Efficient
5 or more	100% of external light fittings are to be Energy Efficient

Project:-	**Proposed Double Garage & First Floor Playroom/Shower Room (to replace existing double garage & store/workshop) at 'Bryn Moyle', Wrexham Road, Marchwiel, Wrexham, LL13 0PF**
Client:-	**Mr. & Mrs. J. Cudlip – Tel: 01978 366629 (Home) / 07548 879921 (Mobile)**
Detail:-	**Existing Plan & Elevations; Block Plan; Proposed Plan, Elevations & Section; Specification**
Scale:-	**1:50 1:100 1:500** Date:- **December, 2017**
Drawing No.:-	**JB/1/AA** Revisions:-