

SURFACE WATER DRAINAGE

Water to discharge to Polypipe rainwater gullys and to be taken to soakaways located in garden. Soakaways to be 1000mm diameter x 1000mm deep filled with 50mm nominal clean stone up to 300mm minimum of finished ground level, covered with visqueen membrane and back filled up to surrounding finished level with top soil. Soakaways to be at least 5m away from structure within lower ground.

FOIIL DRAINAGE

Where applicable, Existing Soil Vent Pipes (SVP) are to be removed and relocated to positions indicated on floor plans. All new drains are to be 110mm diameter uPVC drains laid in granular material at a fall of 1 in 40. New drainage within Kitchen to connect into New Back Inlet Gully (BIG). Drains passing through walls are to be isolated from structure with 600mm long x 100mm wide x 150mm deep reinforced concrete lintels. Drains passing under structure and within 300mm of finished external ground level are to be encased with 150mm concrete. Wastes to connect into Existing drainage run. Contractor to inspect existing drainage system prior to any drainage works.

PLUMBING

Wastes from Kitchen sink to be 50mm minimum diameter uPVC pipe fitted with 75mm deep seal traps. Wastes to connect into new Back Inlet Gully (BIG). All connections being made on bossed socket adapters.

HEATING

Existing central heating system to be extended into new areas. Existing boiler to be inspected by nominated sub-contractor to ensure suitability. If existing boiler is deemed inadequate, boiler to be replaced with wall mounted gas fired condensing combi-boiler with SEDBUK rating of at least 90% to power radiators fitted with thermostatic control valves. No radiators to be fitted in positions which would reduce landings/ walkways to less than 900mm wide. Ensure boiler will not discharge opposite boundaries where within 2.5m. Boiler is to be fitted by GAS SAFE registered engineer.

EFFICIENT LIGHTING

100% of fixed lights to be fitted with lighting outlets which take lamps of luminous efficacy of at least 40 lumens/circuit watt.

FIRE DETECTION

Provide mains operated interacting smoke/ heat detectors at the positions indicated on floor plan. All detection units are to be provided with battery backup with the ability to be trickle charged to ensure continuity in the event of mains power failure. Detection and warning of fire from one unit must be audible throughout entire building. Smoke detectors to be positioned 300mm minimum away from walls and lights. Detection units are to be interlinked to ensure early warning of fire is achieved.

PLASTERING

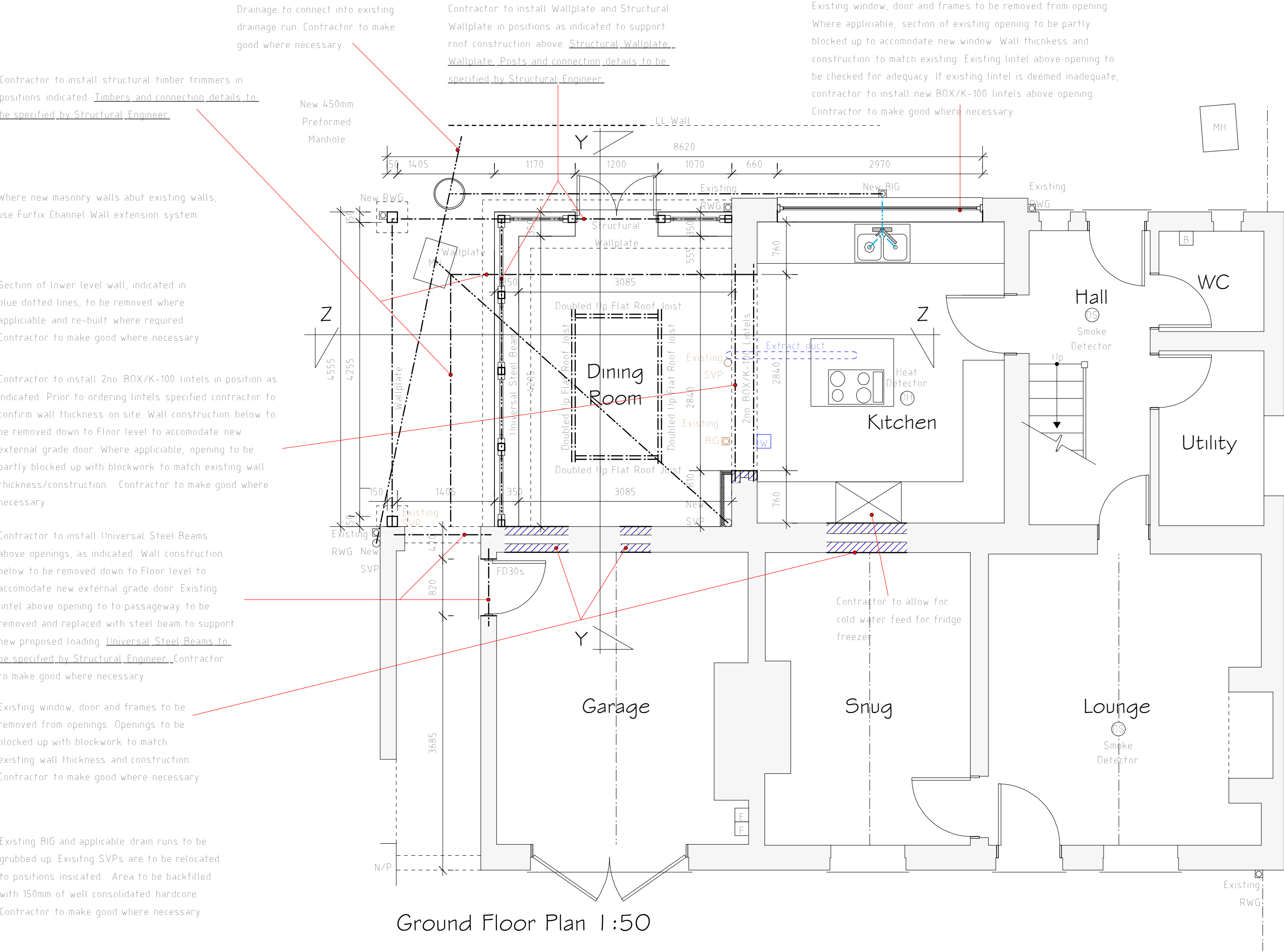
Existing internal plasterwork to be inspected for signs of damage. Any defective plasterwork to be repaired and made good with a sand/ cement plaster finish.

MECHANICAL VENTILATION

Provide mechanical ventilation to Kitchen means of Vent Axia or similar electrically operated fan, extracting directly to external air to the following requirements:

Kitchen: Cooker hood to extract at a rate of 30 litres per second.

Extract fan to duct within floor void and to mushroom vent within flat roof section of new extension.



All dimensions are taken from brickwork/blockwork face and plasterboard face and to be checked on site prior to commencing work.

Where lintels and foundations are to be subjected to additional loading, they are to be exposed by contractor and checked by the Building Control officer for there adequacy prior to introduction of new loads.

DO NOT SCALE FROM DRAWINGS IF IN DOUBT ASK.

PLANS TO BE READ IN CONJUNCTION WITH STRICHTURAL ENGINEER'S DESIGNS AND CALCULATIONS.

B	09/23	Design Amends	D.J.E
A	05/23	Design Amends	D.J.E
Rev	Date	Detail	Initial

Project: Proposed Alterations to, Wisteria Cottage, Church Road, Worthenbury, Wrexham, LL13 0AW	
Title: Floor Plan	Scale: (A2) 1:50

Drawn By: E.M.Jackson	Date: April 2023
Drawing No: LC097/006	Sheet: 1 of 3

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ROOF CONSTRUCTION

Rainwater to discharge to RWG in position as indicated on ground floor plan. Flat section of roof coverings to be Polyroof 185 flat roofing system from Polyroof Products Ltd. Liquid base coat resin applied evenly over substrate. Polymat laid to overlap by 50mm minimum with additional resin coat to be applied and consolidated to eliminate air bubbles. Liquid top coat resin with appropriate colour pigmentation applied over entire surface including all trims. Substrate to consist of 18mm thick external quality ply over 150mm thick Celotex XR4000 insulation on 18mm exterior grade plywood fixed to softwood firings to enable roof to discharge surface water at a rate of 1:50. Firings fixed to 150mm x 50mm C24 softwood joists set at 400mm centres to achieve a minimum U-Value of 0.13W/m²K. Joists to be supported off joist hangers to structural timber trimmers and existing masonry walls Structural timber trimmers and connection details to be specified by Structural Engineer. 12.5mm of knauf wallboard fixed to the underside of joists with 3mm nominal skim plaster finish. Roof coverings to hipped section of roof construction to be slates to match existings. Slates to be fixed to 50mm x 25mm treated softwood battens over Tyvek Supro permeable underlating membrane or similar (Tyvek membrane to be draped Approximately 10mm between the rafters for ventilation purposes). Tyvek to be laid on 150mm x 50mm C24 softwood loose cut rafters at 400mm maximum centers suspended between Structural Wallplate/wallplate and Joist hanger from Universal Steel Beams. Where applicable, allow for doubled up joists to support trimming around rooflights. Where ceiling follows roof line, allow for 100mm thick Celotex GA4000 insulation between rafters ensuring minimum 50mm clear air gap is provided, with 75mm Celotex GA4000 fixed to underside prior to fixing 12.5mm thick plasterboard ceilings to achieve a minimum U-value of 0.13W/m²K. Cavity tray and code 4 lead flashing to be installed at all roof/wall abutments Underside of porch to be clad with 19mm thick T & G boarding.

FRAMED FLAT SKYLIGHT

Specialist manufacturer to specify framed flat skylight. Skylight to sit on doubled up flat roof joists (to specified by Structural Engineer) as indicated. Flat skylight to be fitted in strict accordance with manufacturer's details. Measurements to be taken on site prior to commissioning of work. Skylight comprise sealed double glazed units set within good quality uPVC frame to local authority approval. Sealed double glazed units are to have 16mm minimum air gap and Low-E (soft-coated) glass. Windows within atrium are to achieve a minimum U-value of 1.4 W/m²K. Glazing is to consist of laminated toughened safety glass in accordance with BS 6206 and permanently marked.

ENGINEERED STEEL BEAMS

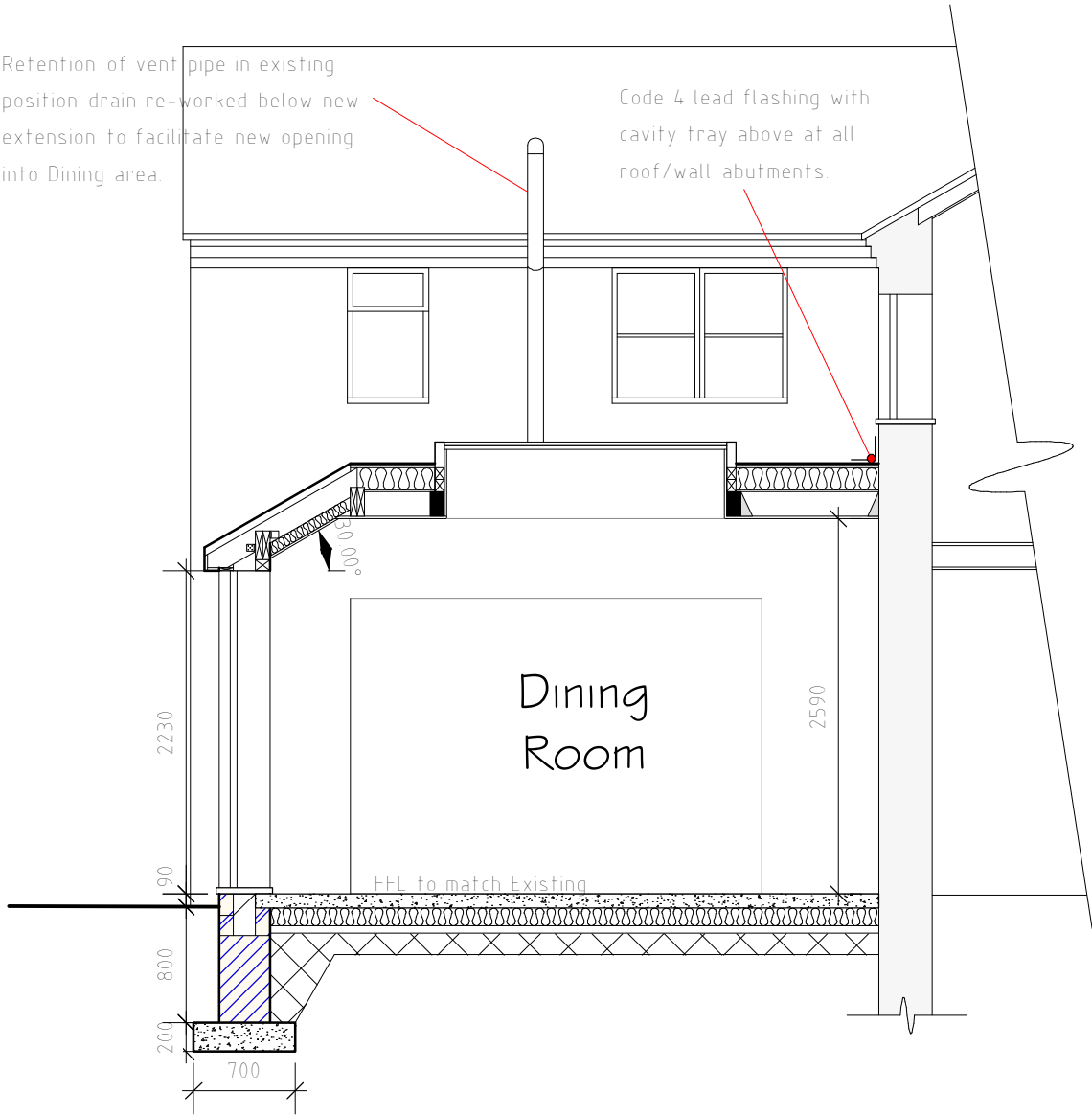
All engineered steel beams are to be installed in positions as indicated. Steel beams are to be protected from fire by means of 12.5mm thick plasterboard and nominal skim finish to provide 30 minutes fire protection. All works in relation to Steel Beams to be as per Structural Engineers specification

INTERNAL BLOCKWORK WALLS

Internal Blockwork walls to comprise Thermalite Medium Density Blockwork with 12.5mm plasterboard fixed to both sides and 3mm nominal

WINDOWS/GLAZING

All new windows and doors are to comprise sealed double glazed units set within good quality timber frames to local authority approval. Sealed double glazed units are to have 16mm minimum air gap and Low-E (soft-coated) glass to styles generally as indicated. Windows are to achieve a minimum U-value of 1.4 W/m²K. Opening areas of windows are to be equal to at least 5% of enclosed floor area with part of the opening set at 1750mm above floor level. Provide background ventilation to habitable rooms by means of 8000mm² controllable trickle ventilators set in head frame member of windows. Glazing in critical locations, such as within 800mm of floor level to windows, within 1500mm of floor level to doors, and windows adjacent to doors are to consist of toughened safety glass in accordance with BS 6206 and permanently marked.



Section Y-Y 1:50

CAVITY WALL CONSTRUCTION

External cavity walls are to comprise of 100mm thick brickwork with cladding, 150mm wide cavity fully filled with 150mm thick DriTherm 0.032-lambda, with an inner leaf of 100mm thick thermolite turbo block. Internal face of blockwork to be finished with 12.5mm thick plasterboard with 3mm thick nominal skim finish. Wall construction to achieve a minimum U-value of 0.18W/m²K. Provide insulated Keystone lintels, Structural Wallplate, and Universal Steel Beams with plates over openings as specified on plans. All lintels to have a minimum of 150mm end bearing length. Keystone lintels can be supplied by Huws Gray (01978 264269). Structural Wallplate, Timber trimmers and Universal Steel Beams with plates and connection details, to be specified by Structural Engineer. Provide stainless steel wall ties across cavity, ties are to be based on double triangle ties as per BR443. Wall ties set at 750mm horizontal and 450mm vertical staggered centre's. Provide additional wall ties at 300mm vertical centres within 225mm of all openings and roof verges. All openings in cavity, ie, around window and door openings, are to be closed with Thermabate 150 insulated cavity closers to prevent thermal bridging. DPC to be installed in new cavity wall as indicated, Cavity trays to be lapped onto DPC with weep holes installed at 900mm centres to outer leaf of wall to ensure any moisture within cavity is dispersed of adequately.

Walls below DPC level and above finished ground level are to be constructed with facing brick, below ground level use class B engineering brick down to Thermalite trench block. Cavity insulation is to continue in 150mm cavity to prevent thermal bridging down to trench block. All walls are to be constructed centrally on supporting foundations.

GROUND FLOOR CONSTRUCTION

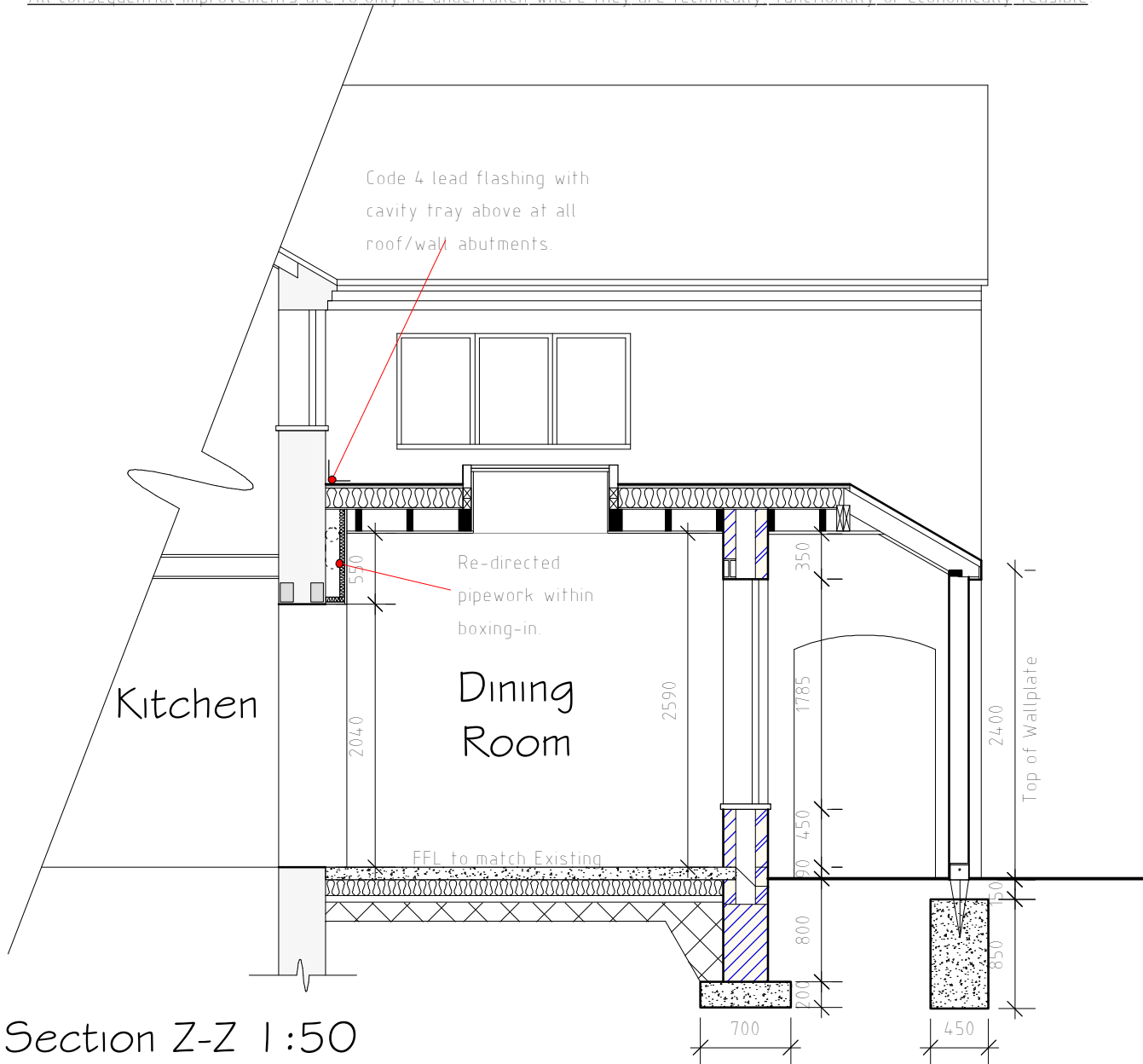
100mm thick concrete slab which is to be continued over inner leaf of cavity wall, allow for 1000mm wide A193 mesh to perimeter of slab. 120mm thick Celotex XR4000 rigid polyisocyanurate foam insulation (to ensure U-value <0.15 W/m²K), with 1200G visqueen DPM below, all joints to have 300mm minimum overlap and be securely taped. 50mm sand blinding on 150mm minimum well consolidated hardcore. Build 650mm x 650mm x 450mm high radon protection sump form with 50mm thick concrete paving slab. Walls of sump to be 100mm brick laid honeycomb bond with perpends left open. Cover with another 50mm concrete paving slab. 100mm diameter uPVC pipe to run from sump to duct to outside air, outlet to be capped at finished ground level. Additionally provide cavity tray as indicated in section bridging the two masonry courses to seal cavity against ingress of radon gas.

FOUNDATION CONSTRUCTION

Provide 700mm wide x 200mm deep concrete foundation below new cavity wall construction. 450mm wide x 850mm long mass filled pad foundations below posts as indicated on sections and floor plans. Contractor to ensure 150mm outcrop is achieved to all loadbearing walls. All foundations are to be cast onto suitable load bearing strata to the satisfaction of the Local Authority Building Inspector. Foundations are to be cast in one pour to prevent joints in concrete. Contractor to ensure new foundations do not undermine existing foundations on site. Concrete can be supplied by Huws Gray (01978 759516).

CONSEQUENTIAL IMPROVEMENTS

Due to the extension increasing the habitable space of the dwelling by over 10m², the following improvements are required:
- If the dwelling has uninsulated or partially insulated cavity walls, cavity to be filled with insulation where possible (Cavity wall insulation may not be suitable for sites exposed to driving rain)
- If there is no or less than 200mm thick insulation within the loft space, provide 250mm insulation or increase to 250mm thick.
- Any existing hot water cylinder tank that is found on site is to be inspected. If tank is uninsulated provide 160mm insulated jacket. If cylinder tank has insulated jacket fitted less than 100mm in thickness contractor to add a further jacket to achieve a total thickness of 160mm. If tank is fitted with solid foam insulation of less than 25mm thick, contractor to add an additional 80mm thick insulation jacket.
All consequential improvements are to only be undertaken where they are technically, functionally or economically feasible



Section Z-Z 1:50

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A	05/23	Design Amends	D.J.E
Rev	Date	Detail	Initial

Project:
Proposed Alterations to,
Wisteria Cottage,
Church Road, Worthenbury,
Wrexham, LL13 0AW

Title: Sections
Scale: (A2)
1:50

Drawn By: E.M.Jackson
Date: April 2023

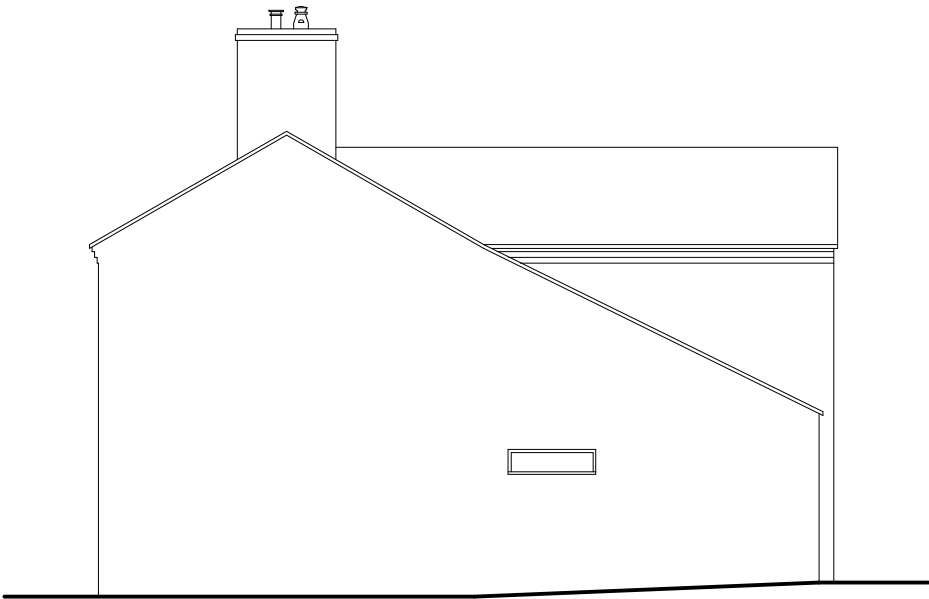
Drawing No: LC097/006
Sheet: 2 of 3

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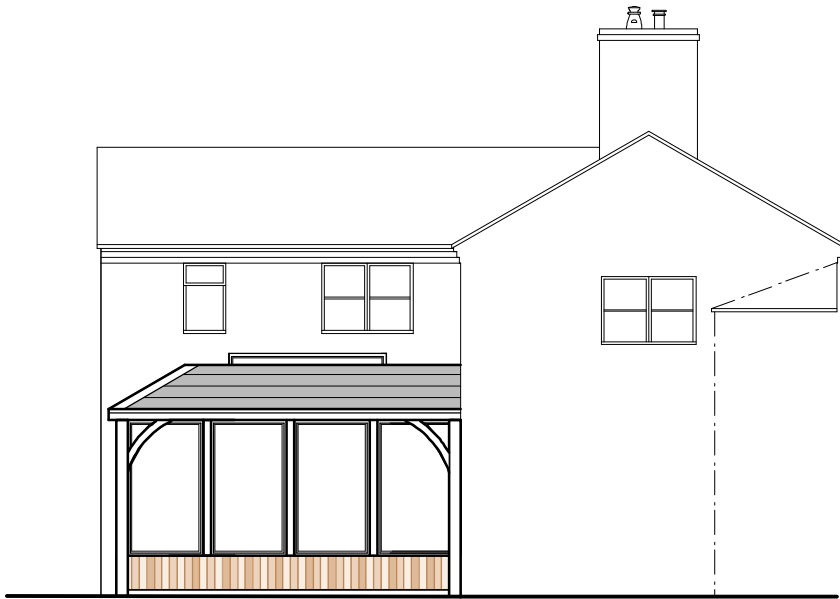
Front Elevation 1:100



Side Elevation 1:100

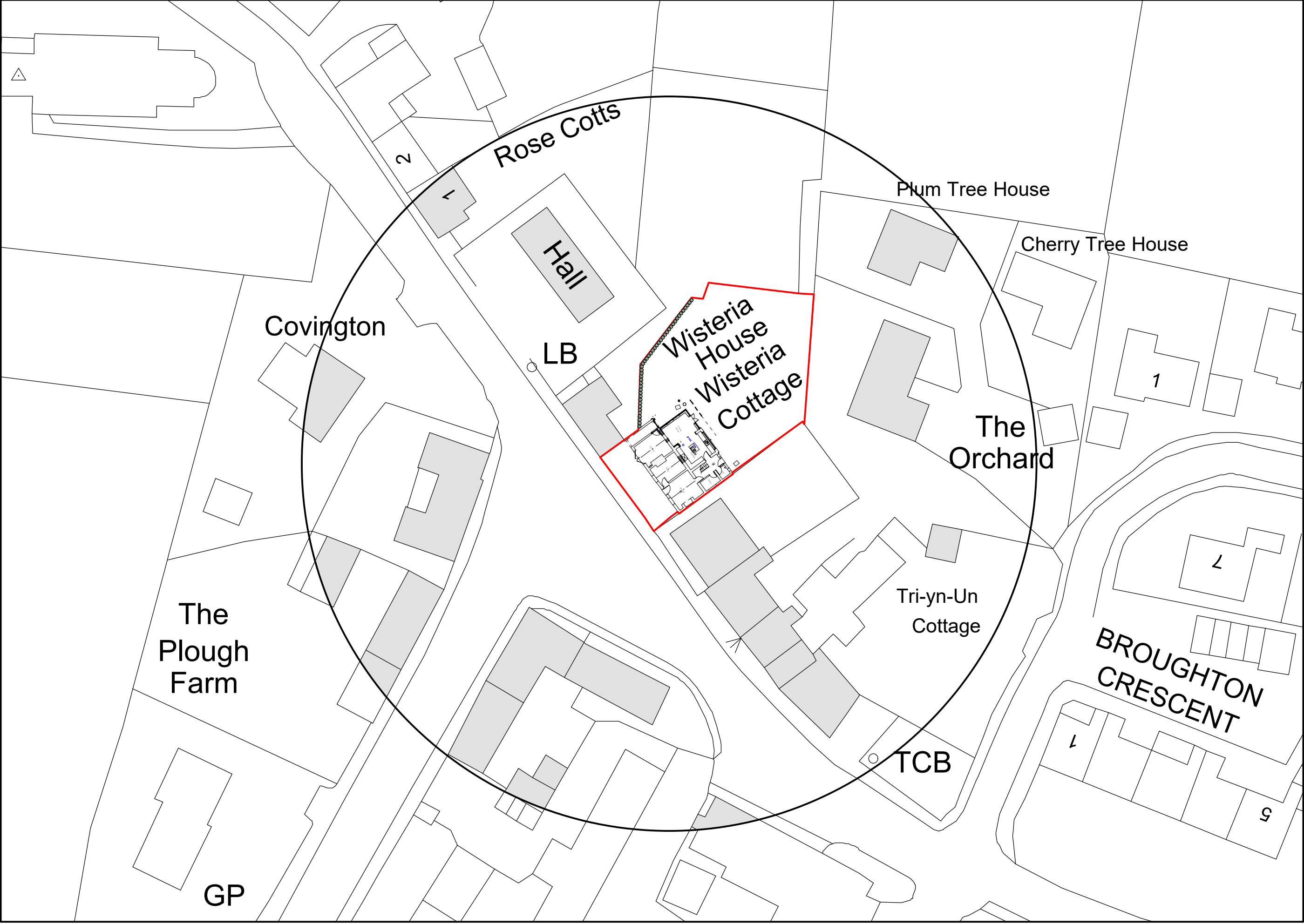


Rear Elevation 1:100

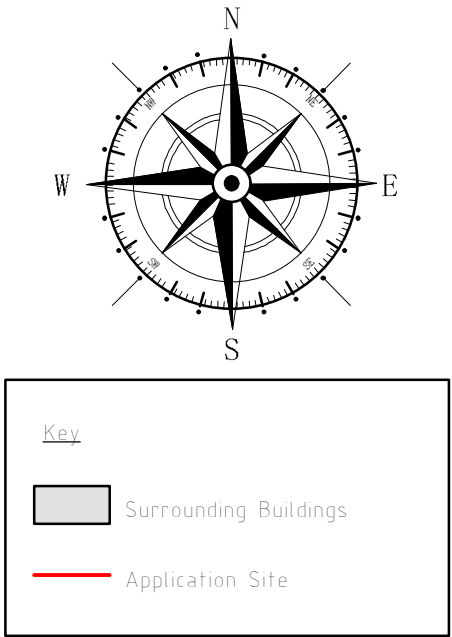


Side Elevation 1:100

- External Facing Materials
Extension to be timber cladding indicated on elevations to local Authority approval
- Roofing Materials
Roof Coverings are to be slates to local authority approval and to match existing
- All Windows are to comprise sealed double glazed units set in timber frames.
- All fascias and soffits are to comprise timber to match windows
- Rainwater to be collected in UPVC guttering, to discharge to soakaways located in garden



Site Plan 1:500



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A	05/23	Design Amends	DJE
Rev	Date	Detail	Initial

Project: Proposed Alterations to, Wisteria Cottage, Church Road, Worthenbury, Wrexham, LL13 0AW	
Title: Elevations & Site Plan	Scale: (A2) 1:100 & 1:500

Drawn By: E.M.Jackson	Date: April 2023
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