

INDICATIVE SECTIONS 1:20

- ⊙ Smoke Detector
- ⊙ Carbon Monoxide Detector
- ⊙ Heat Detector
- Radiator
- Towel Rail
- ⊗ Extract Over Hob
- ⊗ Extract Fan

All work is to be carried out in accordance with current building regulations, codes of practice and British standards. All dimensions in millimetres unless otherwise stated.

All dimensions to be checked on site prior to commencement of any work and any discrepancy to be reported to the Contract Administrator without delay.

This drawing is to be read in conjunction with all relevant engineers and specialist's drawings, details and specifications. Check all levels and locations of existing foul and surface water drains and other services prior to commencing the works.

TO BE CONSTRUCTED USING ACCREDITED CONSTRUCTION DETAILS

Construction Design and Management Regulations (CDM) 2015 Generally, The Main Contractor must ensure a Principle Designer is appointed.

- The Main Contractor should:
- Prepare the Construction Phase Plan
  - Implement the Plan
  - Monitor the progress of the plan
  - Secure the site
  - Provide welfare facilities
  - Provide a site induction
  - Liaise with the Principle Designer

- The attention of the Contractor is drawn to the following hazards:
- Working at height
  - Working adjacent to glazed areas
  - Painting, adhesives and other hazardous substances in use in poorly ventilated areas
  - Deep excavations and concealed structures
  - Existing services including drainage, gas, electricity and water
  - Handling of heavy materials such as boilers, steelwork and bulk masonry
  - Working in confined spaces such as roof voids
  - Demolition works related to existing structures
  - The stability and structural integrity of the works
  - Overloading

The Main Contractor should provide fire protection to timber frame during and after construction, all in accordance with United Kingdom Timber Frame Association guidance. Consideration to be given to the risk of fire or radiant heat spreading to neighbouring properties.

FOUNDATIONS

1. All foundations to be to depth determined in consultation with local Building Inspector upon opening up the site, taking into consideration the ground types and distance from the trees and shrubs on and adjacent to the site. All in accordance with current practice notes for building near trees.
2. Where adverse ground conditions are encountered, specialist advice is to be sought from an approved structural engineer.
3. All foundations to be inspected by the Building Control Officer prior to pouring concrete.
4. Loadbearing walls onto 450mm wide concrete GEN1 mix trench fill foundations min 1000mm below finished ground level.
5. Check suitability of existing foundations
6. Replacement of existing cast iron saddles

SUBSTRUCTURE

7. Class B engineering bricks to new link extension

GROUND FLOOR

8. All new flooring surfaces are to be fabricated from natural stone, engineered natural timber incorporating a min 5mm natural solid hardwood timber veneer, or ceramic tiles.
9. Lime screed – 75mm incorporating underfloor heating & cork board perimeter insulation 30mm
10. E'Grid 2020 Biaxial Geogrid for Clipping UFH Pipes
11. Geotextile Membrane
12. Insulated Layer (compacted) – 150mm Geocell Foam Glass Aggregate
13. Geotextile Membrane
14. Subsoil

WALLS

15. Replace all defective studs.
16. Extensions in seasoned European oak heartwood if required.
17. 70mm Pavaflex (or equivalent) fill between existing studs. 12mm OSB and Isolair external insulation (0.041-0.044 W/mK thickness dependant on U-Value to achieve.)
18. Breathable membrane, 25x50mm tanalised battens and finish externally reinstating existing feather edge boards (All replacement weatherboarding is to be executed in larch cladding 200mm x 9mm x 28mm, stained black using barn paint).
19. Internally, walls to be finished with Limecrete Plaster on polypropylene mesh (with insulating additive if available).

ROOF

20. A layer of Tongue and groove (T&G) high density insulation board (PAVATEX ISOLAIR) over the rafters and a flexible insulation (PAVATEX PAVAFLEX OR PAVATEXIL P 0.038 W/mK) between the rafters (according to existing rafter size). Breathable membrane under the counter battens to fix the T&G insulation boards back to the rafters. To be installed according to manufacturer's detail.
21. Reinstated existing.
22. Tiles in the granary roof shall be removed and the hips instead flashed in either rolled lead or zinc to specifications approved by the Lead Development Association, as appropriate.
23. Ventilated ridge system to provide minimum equivalent continuous opening of 50cm<sup>2</sup>/m or 5000mm<sup>2</sup>/m on one side of the roof.
24. Ventilated hips system to provide minimum equivalent continuous opening of 50cm<sup>2</sup>/m or 5000mm<sup>2</sup>/m on one side of the roof.
25. New Link extension: Roof to be constructed from 50mm x 100mm C24 joists @ maximum 400mm centres. A layer of Tongue and groove (T&G) high density insulation board (PAVATEX ISOLAIR) over the rafters and a flexible insulation (PAVATEX PAVAFLEX OR PAVATEXIL P) between the rafters. Breathable membrane under battens to fix the T&G insulation boards back to the rafters. To be installed according to manufacturer's detail. Finish with VM Zinc Membrane and 0.7mm standing seam roof in VM Zinc Plus (or equivalent) complete with proprietary flashings, kerbs, upstands and clips over 18mm exterior grade plywood. Fascia to be formed of continuous zinc eaves apron skirt and 0.7mm folded strip. All to be fitted in accordance with manufacturer's specifications.

JOINERY

26. A minimum head height of 2000mm to be provided below existing wall plate.
27. Stairs to have minimum principal goings of 220mm and risers of 190mm (max pitch 42 degrees) with tapered treads having a minimum going of 50mm at their narrowest point. No gap to be greater than 100mm. Handrail to be 900mm above pitch line and guard rails to be 900mm above FFL.
28. Windows and doors to be fabricated from anodised aluminium and are to be set 90mm into their reveals, the reveals lined with timber or zinc.
29. Windows to be draught stripped and have flexible sealant around perimeters. 4mm/6mm/4mm sealed low E=0.05 double glazed units, a minimum of 1.4W/m<sup>2</sup>K.
30. Safety glass (to BS 6206) to all window areas below 800mm from FFL and 1500mm to doors and sidelights. Safety glass to all windows within 300mm of a door and any window pane in or surrounding a door whose width or height is greater than 250mm.
31. All window openings below 800mm to be fitted with restrictors.

PLUMBING

32. Wastes to be via deep seal traps to 100m uPVC soil and vent pipe, which is to terminate via a cowl a minimum of 900mm above any opening lights to free air. Connect to drain via easy bend and rodding eye. No waste pipe to enter SVP within 200mm of soil entry. Anti-siphonage valves to be fitted to unventilated waste runs that exceed 4m in length.
33. All taps etc. to have in line valves to allow for maintenance.
34. No joints to be used in inaccessible pipework (eg where run in screen).

35. Protect copper pipework from concrete with Densotape. Do not run hot and cold pipework together. Where pipes run through joists allow adequate cut out and sleeve pipes to allow for expansion.
36. Sanitary installation to BS 5572 and design of soil/waste pipe systems in accordance with relevant COP and BRE Digest No.80. Generally, basins with branch length up to 1.7m and 75 deep seal and 32 dia branch. Basins with branch length between 1.7 and 3.0m to have 40 dia branch and 125 deep seal trap. Sinks with branch length up to 3.0m and showers to have 40 dia trap, 75 deep seal and 40 dia branch. Baths and sinks with branch length between 3.0 and 4.0m to have 50 dia branch and sinks with 125 deep seal trap. Basin waste to connect above WC. Waste pipes and traps to be unobtrusive and concealed where possible. Waste pipes to entire soil pipe direct with access above floor for cleaning.
37. The cold water supply must be installed so as to give a supply of wholesome water for the purposes of drinking and food preparation, wholesome or softened wholesome water for the purpose of washing and water of a suitable quality to any sanitary convenience fitted with a flushing device.
38. The hot water system, including associated storage or expansion vessels, shall be designed, constructed and installed so as to resist the effects of temperature and pressure that may occur either in normal use or as a consequence of a reasonably anticipated malfunction, and must be adequately supported.
39. Any part of a hot water system that has a hot water storage vessel shall incorporate precautions to ensure that the temperature of the stored water does not exceed 100°C and that any discharge from safety devices is safely conveyed to where it is both visible and will not cause a danger to persons in or about the building.

RAINWATER GOODS

40. External goods to be 100mm aluminium gutters laid to falls and 61mm aluminium downpipes with roddable access shoes at base.
41. Surface water to run to a three cubic metre soakaway a minimum of 5 metres from any building all in accordance with BRE digest 365. Where granular fill is used for the soakaway a geotextile membrane is to be used around the sides and top of the fill to prevent migration of fine particles into the soakaway.

DRAINAGE

42. Existing drain runs to be utilised as indicated.
43. New drains to be 110mm uPVC (to BS 8310 for foul water and BS 6367 for surface water) and to stand water test, all laid true to line and fully bedded and surrounded with pea shingle to BS.882 and below driveway (if there is to be less than 900mm cover) they are to be surrounded with lean mix concrete. Minimum bedding and surround to be 150mm. Foul drains to be laid to a minimum fall of 1:40 and surface water drains to a minimum of 1:80.
44. Provide pre-cast concrete lintels over pipes passing through foundations and/or walls with 50mm gas resistant flexible surround. Drains are not to pass through or below foundations/walls at less than 45° to the face of the wall.

SERVICES

45. Air to water heat pump to provide hot water for under floor heating and pre-heating to hot water storage cylinder. Pump to be to BS EN 378-1 and -2 Safety & Environmental; to BS EN 14511-2 -3 and -4 Test Requirements; to BS EN 60335-2-40 Electrical Safety. Output to water to be 7Kw. A commissioning certificate is to be provided at completion.
46. Underfloor heating to have independently and thermostatically controlled zones
47. Smoke detectors – Outbuilding to have a suitable number of mains-operated and independently wired to distribution board or a single regularly used local lighting circuit with battery back-up, self-contained smoke alarms to BS 5839-6:2019, fixed to ceiling at approximate locations shown on drawings. Where more than one alarm is fitted, they should be interconnected, in accordance with manufacturer's instructions and to meet BS 5839-6:2019. (dwellings)
48. Within domestic premises consumer units and similar switchgear assemblies shall comply with BS EN 61439-3 and shall have their enclosure manufactured from non-combustible material, or be enclosed in a cabinet or enclosure constructed of non-combustible material and complying with Regulation 132.2. Consumer unit is to be mounted so that the switches are between 1350mm and 1450mm above floor level.
49. All electrical work is to meet the requirements of Part P and be designed, installed, inspected and tested by a person both competent to do so and registered with the NIC or equivalent body. A BS 7671 electrical installation certificate shall be issued by that person and submitted to Building Control prior to completion.
50. Fixed internal lighting within areas affected by the building work are to have low energy light fittings that number not less than 3 per 4 of all light fittings in the main dwelling spaces (excluding infrequently used spaces such as cupboards). Low energy light fittings are to have lamps with a luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens. Light fittings whose supplied power is less than 5 circuit-watts are excluded from the total count.

VENTILATION

51. Ventilation to be by trickle vents in windows. Minimum provision 8000mm<sup>2</sup> (min No.3) to each habitable room and 4000mm<sup>2</sup> to all other rooms. Vents to be of the pressure difference controlled variety, manually opened or closed. No extract fans to be within 500mm of ventilators.
52. Mechanical extract fans giving 1/s in bathroom. Extract to be linked to light switch and to have 15 minute overrun. Intermittent extracts to be commissioned and air flows measured within 5 days of completion.

FIRE PREVENTION

53. All penetrations and service to be boxed in with two layers of 15mm Gyproc SoundBloc with intumescent fire collars at penetration. SVPs to be wrapped with a minimum of 25mm mineral wool quilt (min 10kg/m<sup>3</sup>).
54. All inset light fittings to be fire rated and shielded to separate the insulation.
55. Exposed roof timbers treated with fire resistant varnish giving class 0 or class 1 spread of flame protection.

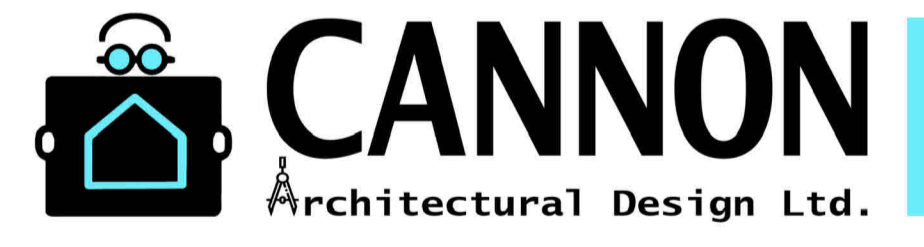
STEELWORK

- All materials and workmanship shall comply with BS5950 part 2 and the national steelwork specification. All steels to have a minimum protection of half hour fire resistance.
- Unless noted otherwise all structural steel shall conform to BS EN 10025 grade s275 (hot finished hollow sections to BS EN 10210).
- Unless noted otherwise all nuts and bolts shall be grade 8.8 (shearalized).
- The steelwork contractor shall fully acquaint themselves with the site conditions, details and dimensions prior to the fabrication of any steelwork.
- Detailed fabrication drawings showing all aspects of the erected steelwork along with connection details and associated calculations shall be submitted to the engineer for comment prior to fabrication.
- All steelwork shall be blast cleaned to BS EN ISO 8501 preparation grade sa2½ to remove all grease, dirt, rust and mill scale etc.
- Internal steelwork to be painted with zinc phosphate epoxy primer dry film thickness 80 microns.
- Steelwork below ground level or within masonry wall cavity to be site painted with 2 No. coats of bituminous paint. Steelwork below ground to have a minimum of 100mm concrete encasement.
- Galvanised steelwork to be acid pickled and hot dipped galvanised to BS EN ISO 1461 with minimum average coating 85 microns.
- The fabricator shall ensure that the steelwork primer is compatible with any paint or other finishes specified by the architect.

Schedule of Revisions:

Rev:	Description:	Date:	Initial:
A	Notes amended	27.06.23	X
B	Internal amendments	06.09.23	

- TIMBER
- Unless noted otherwise all timber shall be grade C24.
  - All timbers to be pressure treated against insect and fungal attack and all cut ends to be treated on site.
  - Unless noted otherwise all joists shall be supported using proprietary hangers or minimum 100mm bearing onto loadbearing walls / beams.
  - Unless noted otherwise all multiple joists shall be connected using 12mm diameter bolts and suitable washers at max 600mm centres.
  - Unless noted otherwise all joist shall be connected to wall plates using proprietary truss clips.
  - All wall plates shall be secured using 30mm x 5mm x 1200mm long holding down straps at max 1500mm centres plugged and screwed to masonry.
  - Provide 30mm x 5mm lateral restraint straps to edges of all roofs at max 1500mm centres fixed to minimum 3 No. joist via suitable timber noggins.
  - All joists exceeding 2.5m span shall be provided with continuous timber noggins or herringbone strutting at mid-span. For spans exceeding 4.5m provide continuous noggins / strutting at third points.
  - Where applicable all J/I joists shall be installed strictly in accordance with manufacturer's recommendations.



Project: Fallowfield, Whempstead SG12 0PE

Drawing: Plans and Elevations as Proposed

Scale: As indicated @ A3  
 Scale: 1:50 1:20  
 Drawn by: Checked By: Revision: B

Drawing No: 190 - 05

THIS DRAWING IS A COPYRIGHT  
 All dimensions to be checked on site or in the workshop before work commences.  
 Only figured dimensions to be worked to. Any discrepancies to be reported to CANNON Architectural Design Ltd.

