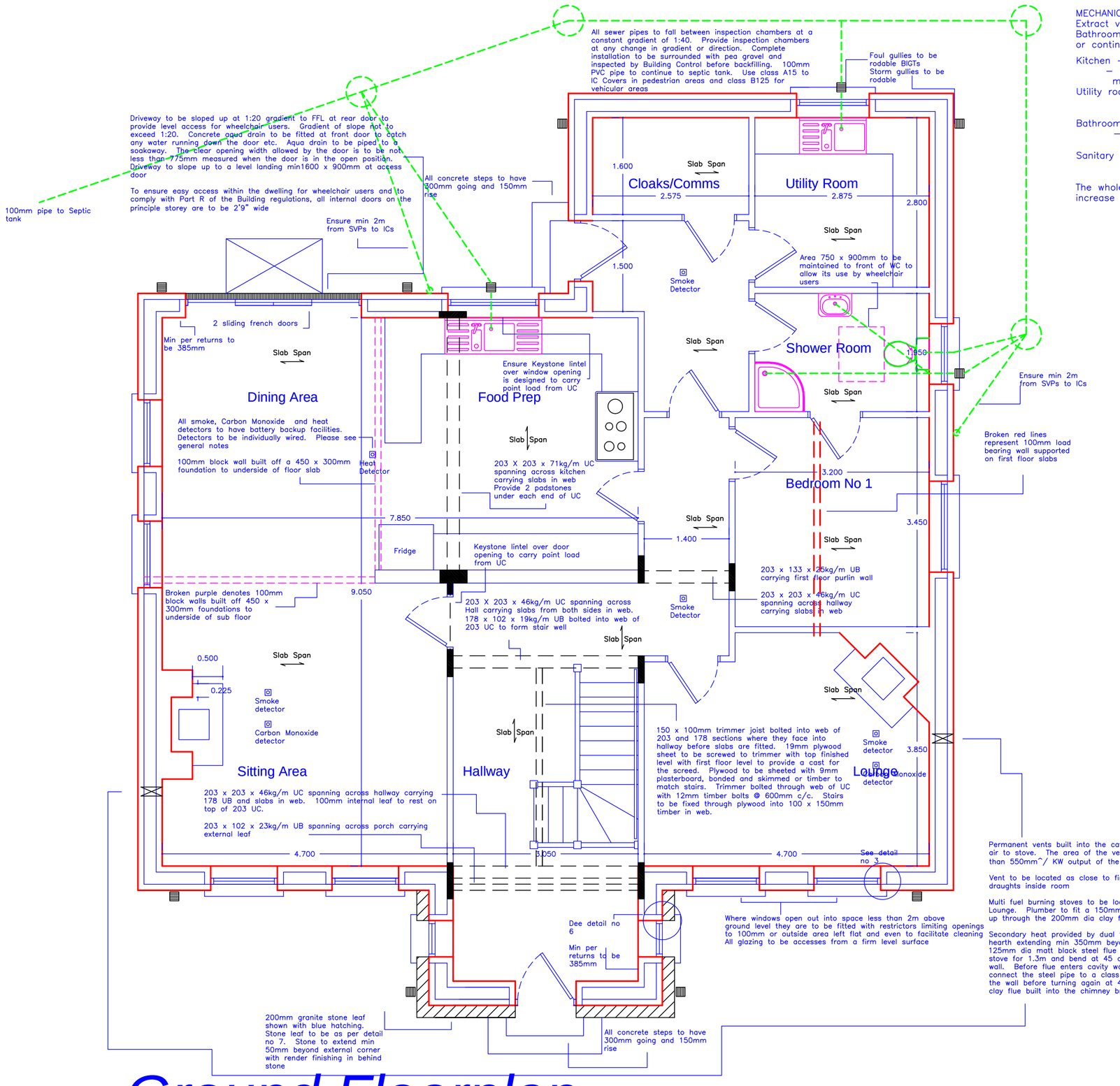


Ground Floorplan

MECHANICAL VENTILATION :
Extract ventilation to outside air is required in each Kitchen, Utility room, Bathroom and Sanitary accommodation as shown on plan with either intermittent or continuous operation. The rates of ventilation to be as follows

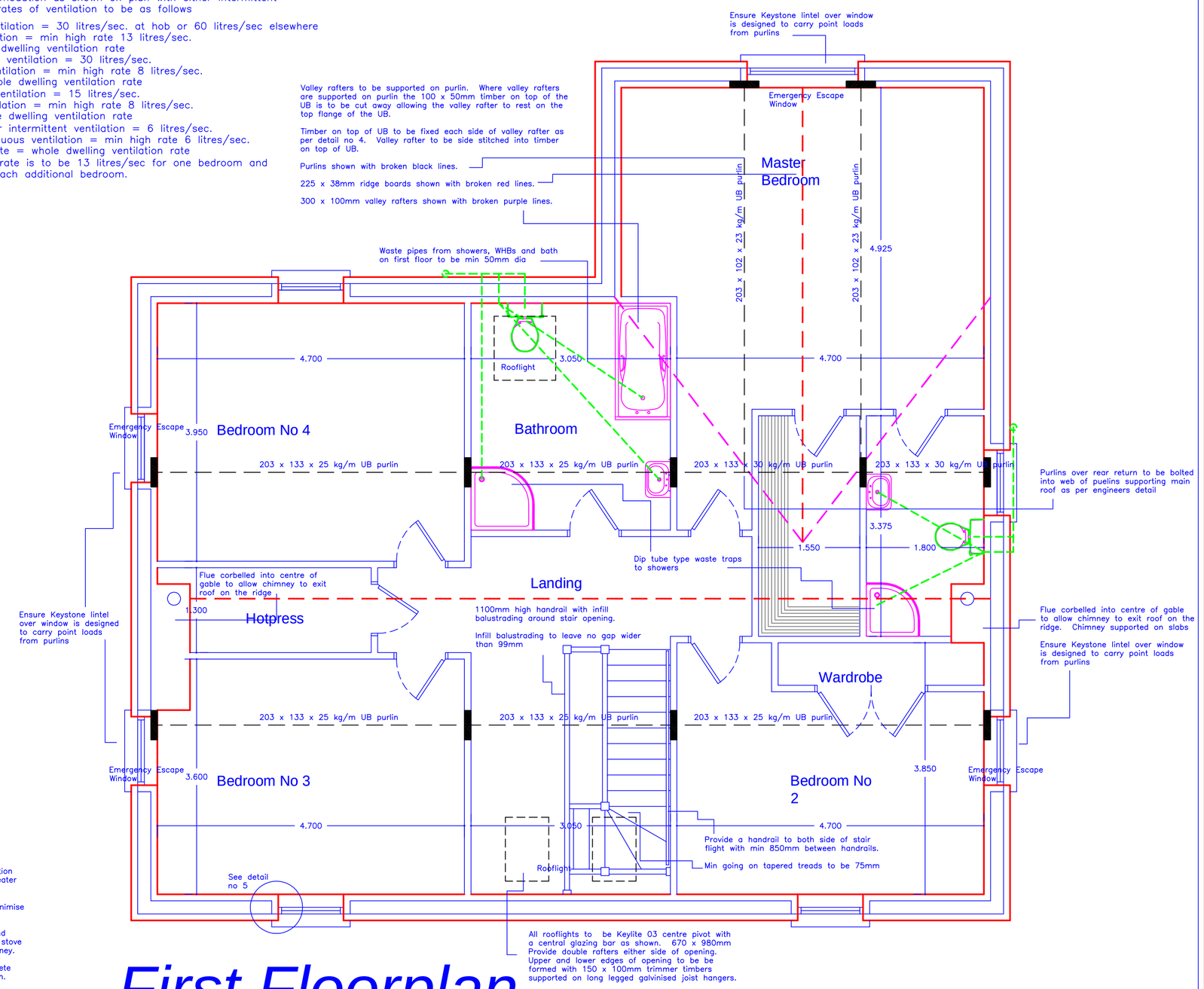
Kitchen – for intermittent ventilation = 30 litres/sec. at hob or 60 litres/sec elsewhere
– for continuous ventilation = min high rate 13 litres/sec.
min low rate = whole dwelling ventilation rate
Utility room – for intermittent ventilation = 30 litres/sec.
– for continuous ventilation = min high rate 8 litres/sec.
min low rate = whole dwelling ventilation rate
Bathroom – for intermittent ventilation = 15 litres/sec.
– for continuous ventilation = min high rate 8 litres/sec.
min low rate = whole dwelling ventilation rate
Sanitary accommodation – for intermittent ventilation = 6 litres/sec.
– for continuous ventilation = min high rate 6 litres/sec.
min low rate = whole dwelling ventilation rate
The whole dwelling ventilation rate is to be 13 litres/sec for one bedroom and increase by 4 litres/sec for each additional bedroom.

Permanent vents built into the cavity wall to provide combustion air to stove. The area of the vent must be equal to or greater than 550mm^2 / KW output of the stoves.

Vent to be located as close to fire breast as possible to minimise draughts inside room

Multi fuel burning stoves to be located in the Sitting Area and Lounge. Plumber to fit a 150mm dia flexible flue from the stove up through the 200mm dia clay flue to the top of the chimney.

Secondary heat provided by dual fuel stove located on concrete hearth extending min 350mm beyond front of stove as shown. 125mm dia matt black steel flue to rise vertically off top of stove for 1.3m and bend at 45 degrees upwards towards cavity wall. Before flue enters cavity wall on adapter is to be fitted to connect the steel pipe to a class 1 flue which will pass through the wall before turning again at 45 deagrees upwards into the clay flue built into the chimney breast.



First Floorplan

Building Control Fee Calc for 2 identical dwellings with floor areas greater than 250m^ &
2 identical garages with floor areas greater than 30m^

Dwelling floor area = 260.5m^ (adjusted for stair opening)
260.5m^ x £1279/m^ = Estimated Cost for 1 dwelling = £333,179.

Garage floor area = 35m^
35m^ x £481/m^ = Estimated Cost for garage = £16,835

Plan fee for 1 dwelling = £527.50
Plan fee for 1 garage = £67.5

Total plan fee = 2 x £595 = £1190

Low Energy Lighting

Fixed energy efficient light fittings must be installed in the most frequented areas/rooms in the dwelling. 88% or 3 in every 4 fittings must be low energy fittings. Light fillings installed in cupboards, storage areas or garages shall not count towards the total number of energy efficient light fittings.

External Lighting

External lights shall have a maximum output of 150W per light fitting and automatically switch off when (a) there is adequate daylight or (b) when lights are not required at night. To achieve this all external lights will be controlled by motion and light sensors.
External lights shall have sockets that can only be fitted with lamps having a luminous efficacy greater than 40 lumens per circuit–watt.

Design, installation and commissioning of heating and hot water systems

The heating and hot water systems shall be designed, installed and commissioned such that, for the purposes of the conservation of fuel and power, the system and its controls are handed over in efficient working order.

Operation and Maintenance Instructions

Commissioning Plan

The air source heat pump, heating system and hot water systems shall be installed and commissioned in accordance with the procedure given in the "Domestic Building Services Compliance Guide" for the relevant fuel type(s), and in accordance with the manufacturer's commissioning procedures.

A notice confirming that all fixed building services have been properly commissioned shall be provided and a copy shall be given to Building Control and the building owner. The notice shall be signed by a suitably qualified person.

Notice plates to be posted at all suitable locations showing safety information in relation to hearths and flues fitted.

Provide and Energy Performance Certificate upon completion. Certification to be carried out by an accredited assessor.

Upon completion the builder is to have at his expense a pressure test performed on the building. The pressure test must achieve a max value of 6 litres/second at 50pa. The results of the test are to be provided to Building Control within 5 days of the test taking place.

Within 5 days of the completion of work, the building owner shall be given sufficient information, including operational and maintenance instructions, to enable the dwelling and its fixed building services to be operated and maintained in an energy efficient manner. The instructions shall be directly related to the specific system(s) installed within the dwelling. The instructions must include advice on the most efficient methods of operation for each system to ensure fuel and power are not un–necessarily used. The document should contain advice for the use of each system in differing weather conditions ie summer and winter. The information shall be provided in a durable format and shall be readily nderstandable by the occupier.

Without compromising health and safety requirements, the instructions shall explain to the occupier of the dwelling how to operate the systems efficiently. These shall include –
(a) how to make adjustments to the timing and temperature control settings; and (b) what routine maintenance is necessary to enable the systems to be
maintained at a reasonable efficiency throughout their service life.

An energy rating shall be calculated for the dwelling as built and a notice
stating the energy rating shall be fixed in the dwelling. The building owner shall be provided with an electronic copy of the as built TER–DER calculations to facilitate future analysis.

To ensure easy access within the dwelling for wheelchair users and to comply with Part R of the Building regulations, all internal doors on the principle storey are to be 2'9" wide

All work to be carried out in accordance with accredited details ensuring compliance with Appendix A Compliance Checklist i.e. Builder, heating and electrical engineers.

Heating system to be powered by a new condensing oil boiler. Boiler to be located in a cabin pack container as per the siteplan or in the garage. The boiler is to be be at least 97% efficient.

All rooms/areas to be heated with radiators. Positions of radiators to be agreed with client before first fix takes place. All radiators to be fitted with TRVs. Thermostat controlling living accomodation to be sited as agreed with client in the main hall. Thermostat controlling sleeping accomodation to be sited in a bedroom which does not benefit from passive solar gains.

Where a stove is fitted in a room a permanent vent (built into the cavity wall) must be provided. The area of the vent must be equal to or greater than 550mm^2 / KW output of the stove.

The building shall be constructed to details given in the Department for Communities and Local Governmnet (DCLG) publication "Accredited construction details for Part F"

The builder shall demonstrate that an appropriate system of site inspection is in place to ensure that the construction standards achieve the required level of consistencey i.e by means of a checklist.

Contractor to ensure the position of all underground services are clarified and marked before excavations commence.

Central heating and domestic hot & cold water installation to be installed using continuous plastic pipes inside protective plastic ducts. Positions of manifolds to be agreed with client before installation begins.

Consideration of high–efficiency alternative systems has been carried out and the analysis is available for verification

Gas Spillage Tests

If it is intended to install an open–flued appliance and an extract fan in the same room/area, the combustion appliance should operate safely whether or not the fan is running. To minimise the risk of spillage of flue gas a spillage test as recommended in BS 5440: 1 must be carried out by EB Gas, Newry (or equal and approved firm) to ensure safe operation of both the combustion appliance in conjunction with the extract fan. This test must be carried out before occupation of the building.

Before occupation of the building, a Carbon Monoxide spillage test must be carried out on all stoves installed in the building. Test to be carried out by EB Gas, Newry (or equal and approved firm)

All smoke/spillage tests to be carried out in strict accordance with relevant Hetas Guidance

Dwelling to be fitted with high–speed–ready in–building physical infrastructure up to the network termination points

General notes for, structural steel and precast concrete floor slabs

Structural steel notes
All steel to be set level on padstones at each support
UBs built in between slabs and carrying block walls/slabs are to be treated with Zero Flame by Decor Ireland to achieve 1/2 hour fire resistance. Decor Ireland to provide a certificate for the fire point on the sections to Building Control.

First Floor Slabs
First floor slabs to be 150mm deep. Slabs to be prestressed where required to carry loading or manage spans. Remainder to be Homespan. Slabs to be grouted and adequatley before loading with blocks. Manufacturer to provide a certificate for the slabs before erection

Keystone Lintels
All external lintels to be designed and manufactured by Keystone for each specific opening.

Where Keystone lintels have been specified to carry point loads these lintels must be designed and manufactured by Keystone for each specific opening.

Structural certification to be provided by Keystone for each lintel confirming it has been designed to carry the imposed load.

NB Concrete lintels are never to be used instead of Keystone lintels.

Should steel UBs be used instead client/building contractor is to ensure UBs are to be designed & certified by an engineer and painted with Zero Flame to provide min half hour fire protection.

Project Title

2 dwellings and detached garages at Bettys Hill Road, Ballyholland, Newry for KPP Developments LTD

Drawing Title:–
Proposed Floorplans to dwelling

Scale:–1:50 A1 & 1:100 A3	Revision:– A
Date:–31 March 2023	Drawn by:– Brendan Quinn
Drawing No:–KPPBHR1	Page Size:– As Noted

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