

The Homestead, Church Lane, Epwell, OX15 6LD

To: George Smith, Planning Officer, Cherwell DC

Re: Planning Application 21/01081/F

In response to questions raised through the planning process, particularly regarding height and size in relation to our existing agricultural undertakings.

Size

We currently have 90 rows planted, at an average of 225 metres long, giving a total of 20 kilometres (12 miles) of plants. Total capacity of the field is approximately 30 kilometres (18 miles) of plants. Each 100 metres of plants yields approximately 1 to 1.5 cubic metres of material, so the current harvest can be visualised as a volume equivalent to three to four 40-foot shipping containers worth of flowers and stems.

The harvested plant material, either in the form of cut and dried bunches or as residual material from the distillation process (destined for use as animal bedding) needs to be dried in order to preserve its value. It then needs to be stored dry until sold.

The water used in the distillation process becomes hydrosol after distillation, there will be approximately 100 litres of hydrosol per litre of oil produced, this is another product that needs careful storing and maturing. In total, crop storage will take up approximately half of the space in the barn.

We are including secure storage for tractors and machinery in the same building. As well as the physical space taken up by the implements, manoeuvring space is also required to align and hitch up. Equipment storage and access will take up approximately one third of the space.

The remaining 1/6 of the space will house a 2-3 cubic metre non-pressurised steam still for processing the oil and hydrosol from the harvested plant material.

Height

7.2m is the industry standard height for a 15m wide agricultural building, this is not a bespoke extra-tall building.

Door height / clearance

We are currently working with one small tractor and working about 2/3 of the total land area, as the operation develops it is likely that we will also require a standard sized tractor and will need to be able get it through the door of the barn. In the very long term, the farming unit is more viable with storage that can be accessed by standard sized tractors than without.

Gravity fed water supply for condensing steam

A 1 metre tall water tank supported at a height of 6 metres will deliver 0.5 - 0.4 bar of pressure (similar to an upstairs bathroom tap) at the top of the 2 metre high still. (in a vented to atmosphere system the steam has to rise to the heat exchanger so it cannot be placed lower down). This is just enough to allow the same cooling water to be recycled in a closed loop, thus avoiding the need to install drainage and mains water and the unconscionable waste of tipping thousands of litres of clean treated drinking water down the drain.

Fabric hopper for feeding still

The distillation vessel is 2 metres high, a fabric hopper for filling it with chopped plant material will need to be at least that high again, plus clearance above for a suspension frame and block and tackle to lift the hopper above the distillation vessel. A minimum total height requirement for the loading process of 5.5 metres.

Location

The rocky outcrop alongside the road is the most suitable part of the field for building on, firm, level and stable, as evidenced by the existing 150+ year old stone barn on the adjacent property.

The original (withdrawn) permitted development application proposed to site the barn near to the gate, since this couldn't go ahead as permitted development due to the proximity of the aerodrome, we were invited to move the barn into a corner, preferably hard up against the hedge, in keeping with the general pattern for barns in the area. This however would have presented our neighbour with a green tin wall rather than a cherished view of the neighbouring woodland, so we came to the logical compromise position of continuing the existing line of buildings, which shields the barn from view behind the old bottle barn and thereby preserves the outlook from The Bungalow.

We have also agreed with Epwell parish council to form a bank with any excavated material from the foundations on the east side and plant native trees, bushes etc on top in order to help blend it into the woodland backdrop when observed from the footpath on the opposite side of the field.

Yours sincerely,

Matthew Platt (applicant)