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# Design and access statement

## Planning application to retain and change the use of an agricultural building into a B2 General industrial use
## At Megcroft Farm, Onecote Road, Ipstones, Staffordshire. ST10 2NB

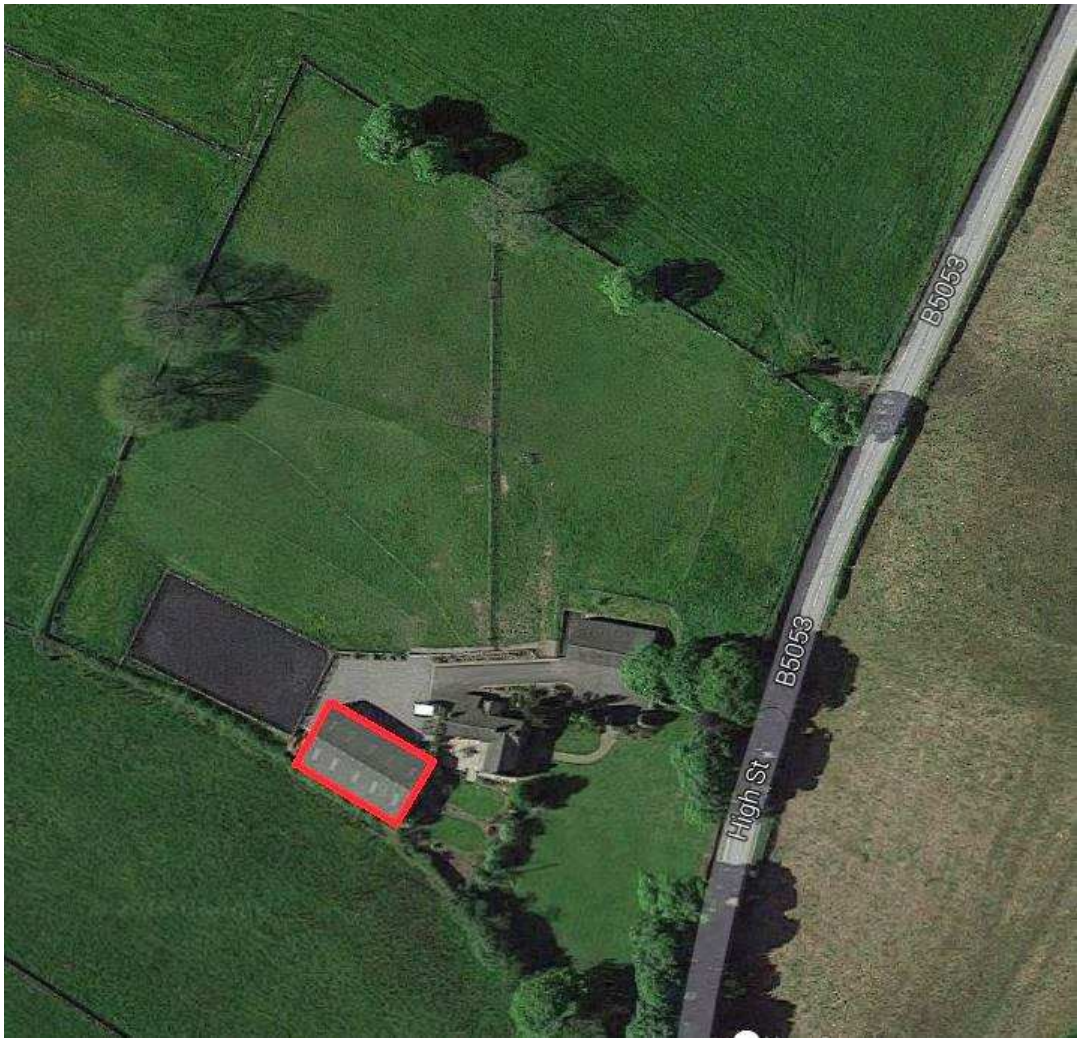


Photo courtesy of google earth

Revision E 12th January 2017

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**Planning application to retain and change the use of an agricultural building into a B2 general industrial use**
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## Introduction/Context

The application proposes the change of use of a portal frame agricultural building into a general industrial B2 use.

This is a revised application for the same change of use following the refusal (FLEX/2016/0001) of the application for change of use under permitted development. The application for prior approval for the change of use of the redundant agricultural building was refused due to the occasional use of a band saw, which may cause a noise nuisance. The previous application had no mechanism with which the council could use to condition the noise arising from the building within a certain distance. For example a zone 10m away from the building the maximum noise should be below a prescribed noise level, to prevent disturbance to neighbouring properties.

The band saw the applicants use within their current premises, is of a commercial nature rather than a machine available in a DIY hardware store. As such this machine must comply with the guidelines imposed by Health and Safety at work Act, and also Health and Safety Executive limits for exposure to noise, etc.

Where the bandsaw is found to exceed the condition imposed by the planning approval, the saw could be easily enclosed with a sound insulated room, with sound absorbing boards.

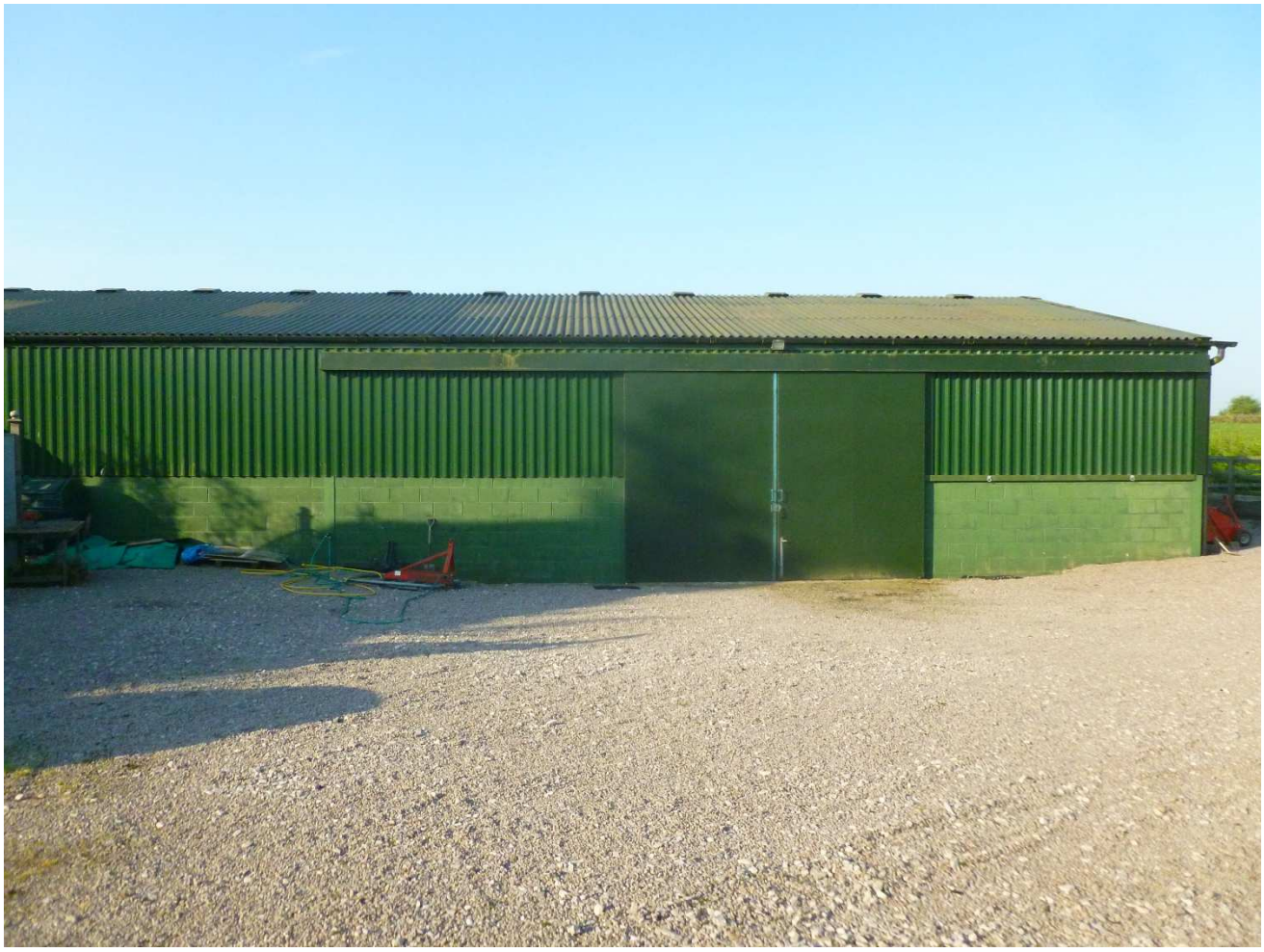
The applicants sought planning advice via a pre-application PAD/2016/0033 when they were in the process of purchasing Megcroft Farm with a view to relocate their exotic hardwood specialist wood supply business to the farm and utilising the existing barn on the site for storing and cutting of the wood, also picking and packing of internet orders. They are only one of two people in the country providing this service, supporting British craftsmen keeping traditional woodworking alive. There is an existing stone stable block on the site, the pre-application advice received requested that a planning application for using the agricultural barn should have supporting information to justify the barn is required and that the stable block would be unsuitable for use for the hardwood supply business.

The agricultural building was granted planning permission (SMD/2003/1347) in 2004, and has been used by the (now former) owners for a mixed use agricultural building, storing hay, farm machinery and sheep/lambs.

The previous design and access statement supporting the first application was focused upon justification for using the agricultural barn and why the stone stable block was not suitable. It is understood that a B1 business (light industrial) class use are for business which can take place within a residential area without damaging the amenity of the area. The previous application also focused upon the fact that the business is very low key, with only family as staff, and has little vehicle impact.

This application for B2 general industrial use recognises that a blanket B2 use will cover a multitude of uses that would not be suitable for use in a domestic or residential setting.

The applicants and now owners of Megcroft Farm identified the property for its idyllic location and peaceful surroundings, which they are very keen to preserve and would be devastated if they were a nuisance neighbour. They are also very keen to ensure that the peaceful nature of Megcroft Farm and the surrounding area is preserved in the event they move away from the premises, and they would welcome a condition restricting the use of the building for their prescribed business and for it to revert back to an agricultural building once the building is not used for activities associated with Exotic Hardwood specialist supplies.



The farm has now been bought by the applicants and the farm building has been cleared out of agricultural residue and the floor scrubbed in preparation to bring the pallets of materials from their unit in Chapel en-le Frith, Unit 3, Bowden Hey Road.

The applicants would require a change of use from the present agricultural use to a general industrial B2 use. The have an established business currently based in a small industrial estate on Bowden Hey Road, in Chapel en le Frith in the High Peak. The Landlord of the Industrial Unit are RTG Developments LTD under the terms of Light Industrial Use, as granted by the planning permission HPK/2004/0350

The Exotic hardwood specialist wood supply business is internet based with very little footfall of customers except by appointment limited generally to an average of 2 per week. The remainder of the sales are internet based delivered out by a UPS collection once per day using a standard brown 3.5 tonne van, 6 metres x 2m wide, therefore the relocation of their business would not affect trading to any extent.

The exotic hardwood is imported to the country and brought to the premises using a 15 tonne lorry, delivered on average every 6 weeks, and brought into the building for storage. Due to the nature of the timber and business there will be no timber stored outside.

Aside from a delivery around every 6 weeks requiring the use of a forklift truck, the lorry being no larger than a standard refuse lorry for domestic wheelie bins, and the collections, the business has no more impact than a house holder trading goods via ebay.

The timber when imported is initially sent to a saw mill for cutting and sizing to suit the overall end use and sent in palletised loads to the applicants for storage and distribution to the end user.

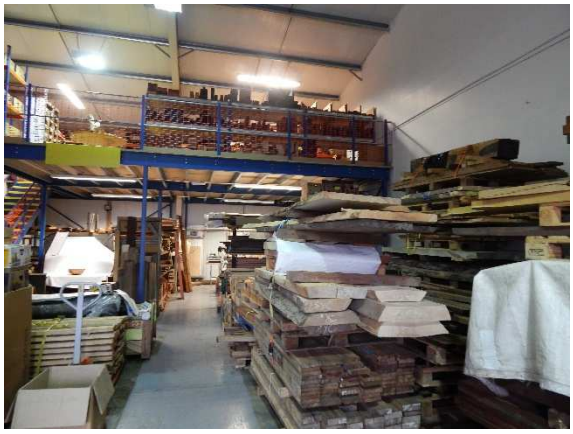
The applicants have a traditional woodworking business specialising in supplying hardwood for wood turning, English Longbows, Snooker Cues, musical instrument maker, antique restorers and cabinet makers. The building would be used solely for storage and sawing the timber in the required length's. Customers will purchase the timber in 'plank' form so they can carry out the further working required at their own premises to produce the items noted above.

The existing premises has numerous storage racks and pallets of timbers in small lengths, most generally light enough to handle manually, but some are bundled together and moved with the forklift truck.

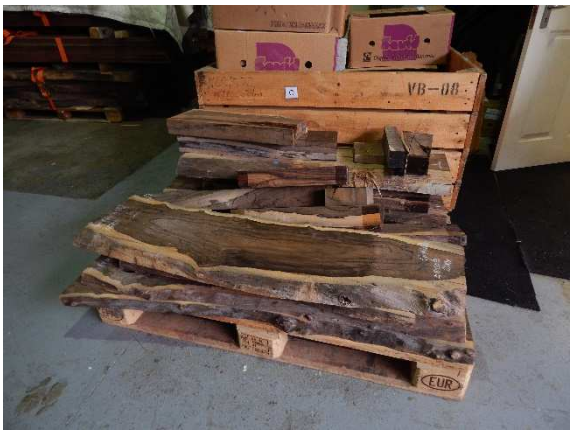
The following images are taken inside the existing unit at Chapel en-le Frith.


Australian Burr

General photo of the existing unit



General photo of existing warehouse

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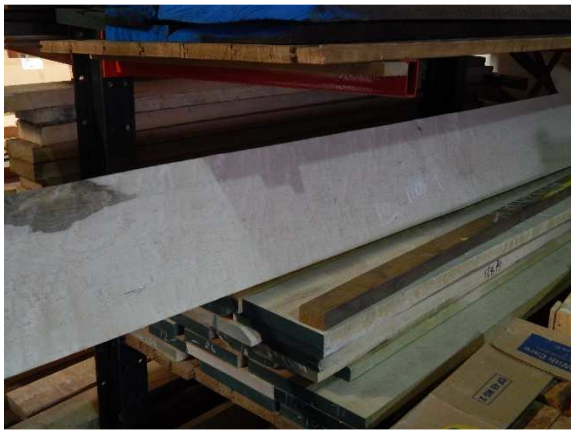
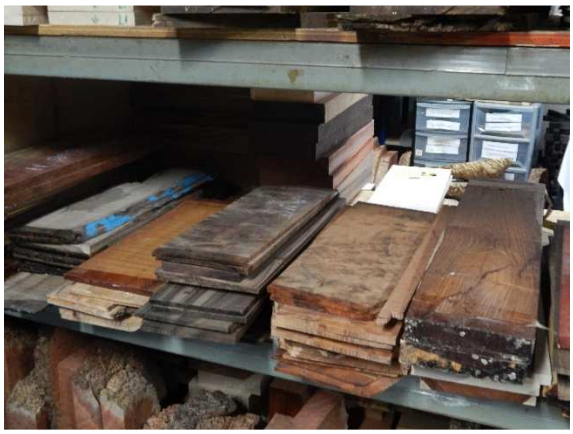


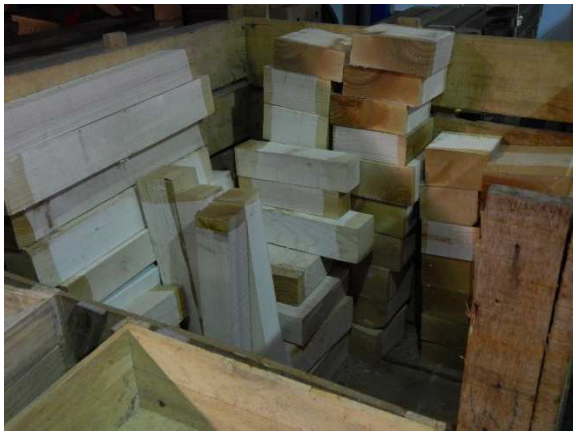
Birds eye Maple

Guitar pieces

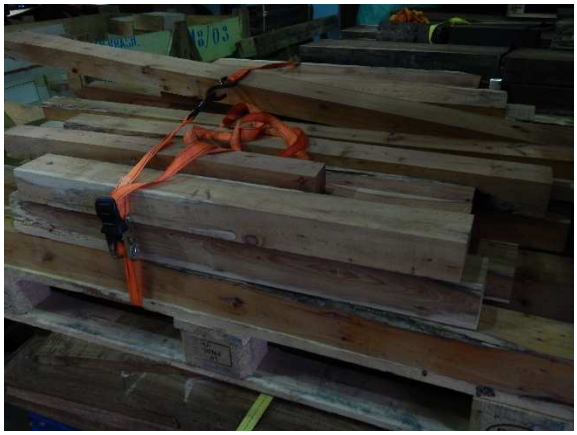


More Guitar pieces


Australian Burr



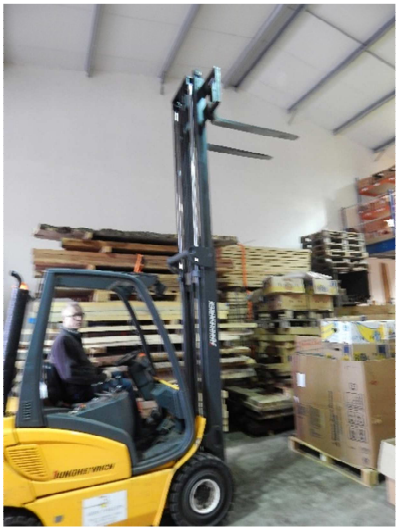
English Ash



English Yew

The business is a family run business with only 3 staff, (applicants husband and wife, together with their son.) They intend to live in the farmhouse as a family and have the business on the doorstep to reduce and avoid long commutes to and from work.

During business hours of 9am to 5pm, it will be necessary to use a fork lift truck for moving timber within the store, on average around an hour per week, except when the large delivery is being unloaded every six weeks or thereabouts when it is used during the time to carry the timber from the lorry to inside the building. The forklift boom is 2.4m when the forks are resting on the floor, as the forks are raised to lift or carry a pallet load, the boom is also raised.

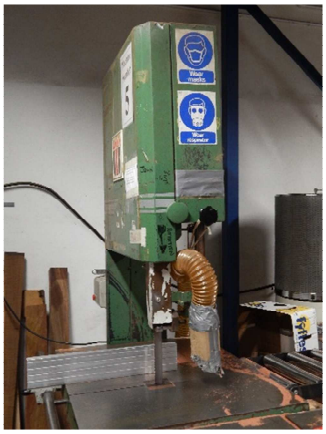


During the past 6 months the applicants have received 2no wood deliveries consisting of a 1000kg pallet of Ebony which will last on average approximately 1 year and a 500kg pack of Walnut. The Walnut is regularly requested by customers. They have run their stocks down a little during the past few month whilst waiting on the planning decision to relocate their business. Generally they would have a delivery approximately every 6 weeks averaging 1.5 tonnes of hardwood each time.

The timber delivered to the applicant is generally cut and sized to lengths required by the end users in a saw mill.

The timber is sold to art and crafts end users to cut, assemble polish and turn the hardwood into pieces of Art, musical instruments, fine furniture etc. They have a mix of customers from DIY enthusiast's woodworking for pleasure to small 'cottage industry' making products from their garage or garden workshop for sales on Art/Craft market stall, through to more commercial enterprises. The applicants have found that many of their customers have more machinery in their garage or garden shed, to include lathes, motice jointer, pedestal drill and bandsaws, than they have themselves. This is reason the initial application was for light industrial B1 use.

Within the building as well as the timber store, there would be a Wadkin C7 band saw with a 5hp motor. Wadkin officially rate the saw as producing 84 decibels of sound. This has been tested, next to the machine with the meter approx. 150mm away from the blade, it does produce 84dBA without any load. Whilst sawing, it varies between 86 & 87dBA. The noise decreases to 73DB at 6m away from the building (average volume of kerbside traffic), and reduced further to 66Db at 12m distance from the building, which roughly equates to the volume of conversational speech. The neighbouring premises on the Chapel industrial estate were not aware that they used a saw within the unit.



The saw uses a small old style waste bin size bag to collect the dust generated during cutting with its own dust collection fan, rather than a separate dust collector. There is no external fan or dust collection unit, therefore everything will be enclosed within the building.

They do not carry out much cutting, therefore there is very little waste saw dust generated. A local garage generally took the bag of sawdust for cleaning up oil spillage.

Wadkin C7 band saw

A random selection of tools sold for a domestic market were also tested using the same equipment, each with the meter approximately 150mm away from the machine tested (as with the Wadkin saw.

A bench fixed 225mmØ 1800w compound mitre saw generated 102.5dBA of sound running under no load (ie not cutting). A hand held Black & Decker jigsaw with 400w motor produced 109dBA of noise. A JCB branded 115mmØ 850wangle grinder produces 110dBA of noise, again under no load, a Worx branded 650w hammer drill produced 103dBA of noise and a Black & Decker 125mmØ hand held circular saw 850w generated 112dBA of noise under no load.

It is interesting to note that the decibel scale is logarithmic, which means the 'volume' of the sound is actually doubled for every 10 decibel increase, the 'loudness level' is doubled, The sound produced by the Watkins bandsaw is 84 dBA compared to the handheld Black and Decker type circular saw used generally by DIY enthusiasts at 112dBA. A change of almost 30 decibels.

From the data in the charts below, it can be seen that the difference in noise generated between a DIY circular saw and the Watkins band saw used by the applicants is 28 decibels which equates to the DIY saw being almost 8 times 'louder' than the commercial bandsaw.

It must therefore be deemed that the Wakins band saw is suitable for use within a light industrial B1 use within a residential area because it is unlikely a neighbour would hear the noise generated

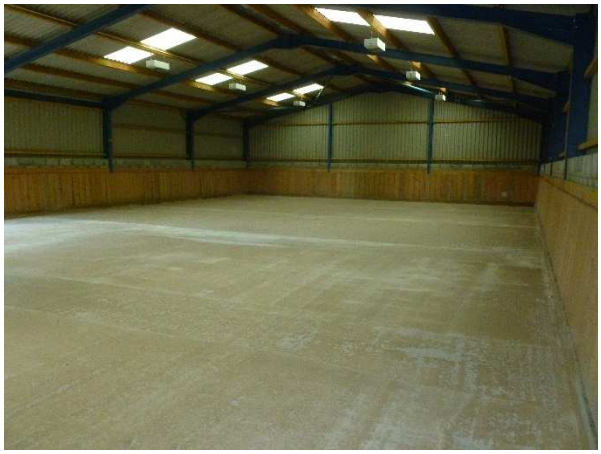
An internet search for comparative sound levels produced the following chart

| | |
|---|---|
| 190 dBA | Heavy weapons, 10 m behind the weapon (greatest level) |
| 180 dBA | Toy pistol fired close to ear (greatest level) |
| 170 dBA | Slap on the ear, fire cracker explodes on shoulder, small arms at a distance of 50 cm (greatest level) |
| 160 dBA | Hammer stroke on brass tubing or steel plate at 1 m distance, airbag deployment very close at a distance of 30 cm (greatest level) |
| 150 dBA | Hammer stroke in a smithy at 5 m distance (greatest level) |
| 130 dBA | Loud hand clapping at 1 m distance (greatest level) |
| 120 dBA | Whistle at 1 m distance, test run of a jet at 15 m distance |
| | **Threshold of pain, above this fast-acting hearing damage in short action is possible** |
| 115 dBA | Take-off sound of planes at 10 m distance |
| 110 dBA | Siren *) at 10 m distance, frequent sound level in discotheques and close to loudspeakers at rock concerts, violin close to the ear of an orchestra musicians (greatest level) |
| 105 dBA | Chain saw at 1 m distance, banging car door at 1 m distance (greatest level), racing car at 40 m distance, possible level with music head phones |
| 100 dBA | Frequent level with music via head phones, jack hammer at 10 m distance |
| 95 dBA | Loud crying, hand circular saw at 1 m distance |
| 90 dBA | Angle grinder outside at 1 m distance |
| | **Over a duration of 40 hours a week hearing damage is possible** |
| 85 dBA | 2-stroke chain-saw at 10 m distance, loud WC flush at 1 m distance |
| 80 dBA | Very loud traffic noise of passing lorries at 7.5 m distance, high traffic on an expressway at 25 m distance |
| 75 dBA | Passing car at 7.5 m distance, un-silenced wood shredder at 10 m distance |
| 70 dBA | Level close to a main road by day, quiet hair dryer at 1 m distance to ear |
| 65 dBA | **Bad risk of heart circulation disease at constant impact is possible** |
| 60 dBA | Noisy lawn mower at 10 m distance |
| 55 dBA | Low volume of radio or TV at 1 m distance, noisy vacuum cleaner at 10 m distance |
| 50 dBA | Refrigerator at 1 m distance, bird twitter outside at 15 m distance |
| 45 dBA | Noise of normal living; talking, or radio in the background |
| 40 dBA | **Distraction when learning or concentration is possible** |
| 35 dBA | Very quiet room fan at low speed at 1 m distance |
| 25 dBA | Sound of breathing at 1 m distance |
| 0 dB | Auditory threshold |

The flowing chart indicates the change in perceived ‘loudness’ for changes in decibel readings

| Level Change | Volume Loudness | Voltage Sound pressure | Acoustic Power Sound Intensity |
|---|---|---|---|
| +60 dB | 64 | 1 000 | 1 000 000 |
| +50 dB | 32 | 316 | 100 000 |
| +40 dB | 16 | 100 | 10 000 |
| +30 dB | 8 | 31.6 | 1 000 |
| +20 dB | 4 | 10 | 100 |
| **+10 dB** | 2.0 = double | 3.16 = √10 | **10** |
| +6 dB | 1.52 times | 2.0 = double | 4.0 |
| +3 dB | 1.23 times | 1.414 times = √2 | 2.0 = double |
| - - - - ±0 dB - - - - | - - - - 1.0 - - - - - - - | - - - - 1.0 - - - - - - - | - - - - - 1.0 - - - - - |
| −3 dB | 0.816 times | 0.707 times | 0.5 = half |
| −6 dB | 0.660 times | 0.5 = half | 0.25 |
| **−10 dB** | 0.5 = half | 0.316 | 0.1 |
| −20 dB | 1/4 = 0.25 | 0.100 | 0.01 |
| −30 dB | 1/8 = 0.125 | 0.031 6 | 0.001 |
| −40 dB | 1/16 = 0.062 5 | 0.010 0 | 0.000 1 |
| −50 dB | 1/32 = 0.031 2 | 0.003 2 | 0.000 01 |
| −60 dB | 1/64 = 0.015 6 | 0.001 0 | 0.000 001 |
| **Log. size** | **Psycho size** | **Field size** | **Energy size** |
| **dB change** | **Loudness multipl.** | **Amplitude multiplier** | **Power multiplier** |

The existing building is of a portal frame construction, the frames of which form 5no equally sized 'bays'. The building has a large sliding door located roughly centrally within the 4th bay along the north elevation from the house. The 3no bays closest to the house would be used for the timber store and warehouse using shelving for the smaller items and racking for the larger items placed using the forklift on pallets.



The building has now been cleared of all agricultural residue from the previous owners and the floor power washed in preparation for the timber to be moved from Chapel light industrial unit

The band saw would be located on the Northern side of the building, on the right after entering the building. The use of the saw has been decreasing over the years since first starting the business they cut all of the wood down themselves. Over time they found that it was more cost effective to buy the wood cut and sized as required by the saw mills themselves, when they took in account labour/time and wastage. This means they generally have little need to use the saw. Recent events with the refusal of the previous application has made them focus upon the use of the saw and as such they could outsource the majority of the cutting necessary which hasn't already been done at the saw mill initially. Unfortunately there will always be an odd customer who wants a specific size, and whilst they could use a hand held saw to carry out this service, it isn't the most practical solution, hence the retention of the bandsaw.

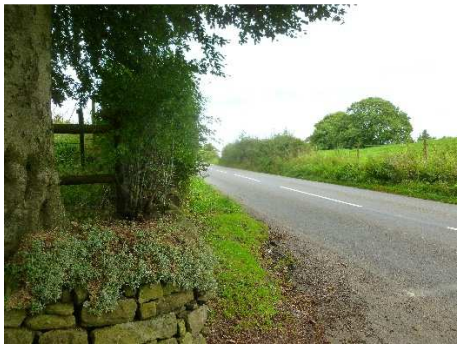
If the building (and saw generally) do not naturally conform to the sound restriction imposed by planning condition, the external wall in the immediate area of the saw position would be acoustically enhanced. The external wall shall be ply boarded, over which a timber stud frame would be formed 100mm thick, which would be infilled with acoustic insulation quilt, 100mm thick, minimum density 10kg/m3 to absorb any sound transmitted and covered with a breathable roofing type membrane to ensure insects and dust cannot penetrate inside, before overboarding with a hardboard style pegboard (perforated board). This construction will allow the sound generated by the saw to pass through the holes rather than bounce straight off and disperse in the structure of the acoustic panel. A percentage of sound will bounce of the board (ratio of the board area against the holes, so if necessary a similar wall may be necessary behind or above the saw to absorb more sound, until in the unlikely event a sound proof booth is created to contain any noise.

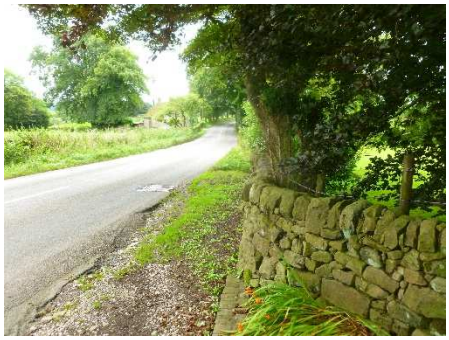
However as noted previously the band saw itself is comparatively quiet against widely used DIY type saws and the use of a sound booth to achieve sensible and acceptable sound levels is not deemed to be required.

The right side of the building and entrance area shall be retained for storing the goods in as delivered before unpacking, etc and transporting to the correct storage location. The entrance bay would generally be kept clear to allow access into the building using the forklift for loading and unloading, and also if the door height allows for the delivery/collection vehicle to reverse into the building during wet weather to retain the goods in a dry condition.

**The Site**

The site is located on the B5053 Onecote road between Bottom house and Ipstones within the national speed limit zone. There appears to be reasonable visibility in both directions for vehicles exiting the site, vegetation shall be cut back and maintained to maximise the visibility.



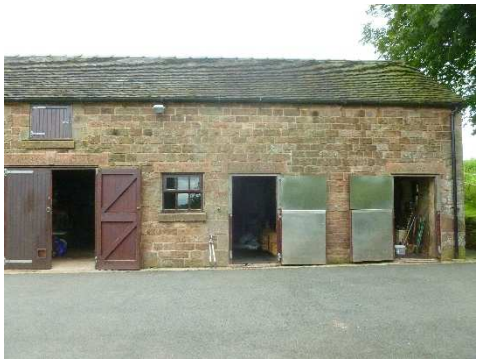


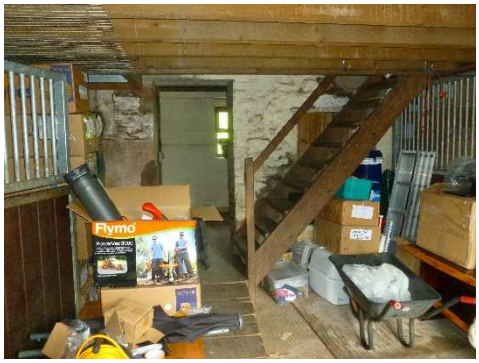
During the previous planning consultation period with the Highway's department, there were no adverse comments or objections made, aside from maintaining the visibility as noted above, and moving the gate as below.

It is recognised that due to the placement of the gated entrance, there is not sufficient space for the UPS vehicle to leave the highway and park whilst opening the gate. It is proposed to move the entrance gates further onto the site to allow the delivery truck and UPS van sufficient space to park off the carriage way whilst the gate is being opened.

On the site are 3 significant buildings. Accessing the site from the road, to the right passing towards the farmhouse, is a traditional stone built barn, the stone farmhouse is on the left and beyond the farm house is the agricultural barn.

The pre-application advice focused on the possible use of the stable for the business, and to provide evidence to describe why is would not be practical.
The stable block has been assessed for suitability for storing the timber, however the small doors suitable for horse and pedestrian access are limited in height at generally 2.1m high which would not allow the forklift truck to access the building, which would limit the stock inside to be moved by a manual pallet truck or carried. The larger bundles could not be brought in, and it would make deliveries difficult and may spoil timber in wet weather.

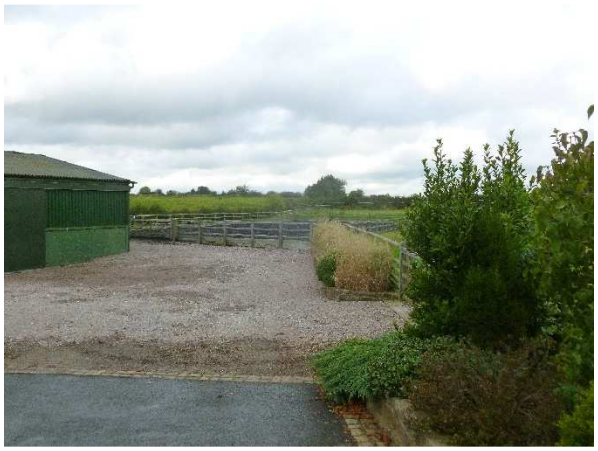




There is also a low floor inside the building which would need to be stripped out, if a larger doorway was formed for access.  Alterations to the existing doorway to allow access by the forklift would spoil the overall appearance and character of the stone barn and are not generally acceptable by planning officers

The applicants will keep and raise some sheep and other farm animals, the stone barn would be allocated to its intended purpose of storing the feed/bedding and housing the animals during the winter/foul weather.  The first floor would be used for storing the hay and bedding straw

There is a large space in front of the barn which is deemed to be suitable for turning the delivery vehicle around, allow it to exist the site using forward gears.



A parking area to the side of the  house almost opposite a stone barn which can easily park 4 cars/domestic vehicles for the family use, leaving the large space on front of the barn clear for the delivery vehicle, UPS courier and the occasional visitor parking.

## The Building

The building is a typical portal frame building, original built by Ivan Cooper Ltd, who were one of the main suppliers of agricultural buildings at one time. The building has been there in excess of 10 years, there are established trees and shrubs growing around the building and also a climbing plant on the garden gable wall

The building has a painted blockwork lower section approx. 1350mm high, then green metal cladding above, providing an internal floor space of approximately 295m2.

There are no proposals to alter the existing barn exterior appearance, aside from forming a personnel access door to the gable wall for pedestrian access

## Proposal

The proposal is change the use of an agricultural building into a general industrial B2 use for the storing and sawing of wood, also picking and packing of internet orders. The building would not need to be physically altered to accommodate the proposed use. A small personnel door would be installed to the side of the building on the gable closest to the farmhouse to provide alternative means of escape in the event of a fire, which will also double up as pedestrian access to the building rather than using the main door by the owners. This would be a timber frame, timber panel door, painted to match the surrounding green colour.

**Use/Amount**

The proposed change of use would utilise an existing agricultural building for the storage of exotic hardwood, which would be brought to site using a small 15 tonne lorry around every 6 weeks, consisting on average 1.5 tonnes. The wood is cut off site and stored within the building before being sold via internet sales to wood working businesses making musical instruments, furniture, etc. The sales are collected via UPS courier in the traditional brown van for delivery around the country.

There is adequate space within the building to allow stacking, and storage of the quantities of wood they generally turn over within a 6 week period between deliveries, and have space for safe manoeuvring and material handling, such as picking and packing for the customer.

Due to the specialist nature of the business, the hardwood can be stored for several years before being sold. They have had a quantity of Rosewood stored for 7 years. This is why they need the large building to store the diverse material required by their customers for purchase when needed.

The proposed business use for storing and selling exotic hardwood requires the wood to only be cut to manageable sizes as required by the customer to make their products, as such there is very little waste involved, generally equates to a bin bag of saw dust per month. Larger offcuts are generally set aside for sale to other customers requiring small timber sizes.

The business is a small family business with 3 staff, and very low vehicle movements and visitors to the site.

**Layout**

The proposals will utilise the existing layout of the building on the site. There is a large stone chip surfaced area in front of the building which is adequate for turning the delivery vehicle around to allow exiting the site using forward gears.

**Scale**

The scale of the existing building shall remain unchanged. The existing building has been previously used for agricultural use, for storing hay, etc requiring the use of a tractor with forks to stack the bales within the building. The existing height of the building will allow the timber planks to be stored near vertical, to avoid any bowing or bending of the timber.

**Appearance**

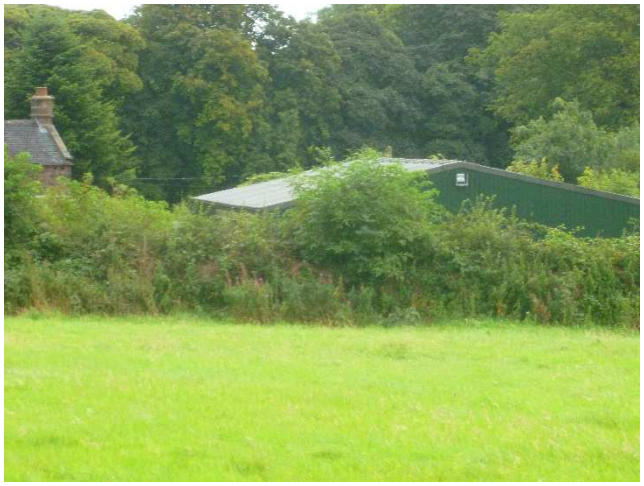
The key features of the building will remain.as existing, there are no proposals to change the appearance of the building

## Landscaping

The landscaping will generally be as existing. The driveway shall be retained and stone chip parking/turning area in front of the agricultural building.

The existing gated access would be moved into the site a little more to provide around 10m off road space to the gate to allow the vehicles to exist the highway whilst the gate is being opened.

The building is generally painted in a green colour and does not stand out from the surrounding countryside, there are a number of trees and large hedges planted around the building providing screening from the roadside, etc. It is proposed to plant further native trees to complement the existing species on the southern boundary to provide further screening from road users travelling up from Ipstones.



## Access

Level access exists from Onecote road, and there is a very gentle gradient across the site driveway

## Planning Policy

It is recognised nationally there is a relaxation for the conversion of redundant agricultural buildings into other uses, to include light industrial, cafés, offices to allow diversification of rural businesses.

It is accepted that the previous application for prior notification for a change of use under permitted development did not have the mechanism and control to impose conditions relating to the noise generated by the business and also to restrict the activities on the site to prevent the building be used for a steel fabrication business for example. Conditions to restrict the use and revert back to agricultural use if no longer needed would be welcomed.

Staffordshire County Council supports rural enterprise to help the county's economy to grow creating new and sustainable jobs.