

Transport Statement

Proposed new Grainstore, Beef Shed, Implement Store and Yard

at

Holt Farm
Holt End Lane
Bentworth
GU34 5LF

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1.0 Introduction

- 1.1 Heaton Farms Ltd obtained consent (application reference 38104/002) for a new grainstore, implement store, yard and weighbridge on a site adjacent to the existing Hall Farm Grainstore, off Colliers Wood Lane in Bentworth, Hampshire (“the Original Application”).
- 1.2 Heaton Farms Ltd intends to submit a substitute planning application for a new grainstore, implement store and yard on the site, but to also include a beef shed (“the New Application”).
- 1.3 In respect of the Original Application, Ken Dudley, Consultant Transport Planner for Hampshire County Council as Highways Authority, provided a consultation response to the planning application stating:

“The increase in space for grain storage would be likely to change the traffic impacts on the local network in particular on Collier’s Wood Lane and the junction with Holt End Lane. No information is provided with regards to the number of loads and types of vehicle movements associated with the existing operations or routes of how grain arrives to the existing grain store. In addition, no detailed information is provided as to how this will change with the introduction of a further grainstore.”

The response went on to recommend a holding objection until further information is provided.

- 1.4 It is assumed that Hampshire County Council will adopt a similar stance in respect of the New Application. The purpose of this transport statement is to provide the further information referred to above to enable the Highways Authority to assess the impact of the proposed development on the highway network with a view to securing their support for the New Application.

2.0 Background

- 2.1 The farm buildings complex currently comprises two barns, a small general-purpose building and a larger grainstore. The farm building complex currently supports an arable farming operation of c. 365ha.
- 2.2 The farm building complex is inadequate for a farming operation of c. 365ha and as a result, the existing grain store, in addition to storing grain, is needed for the storage of fertiliser, for which the timing of delivery is very restricted, and machinery. Accordingly, it has only been available to be used as a short-term store at harvest, with all grain moved off site during harvest, and shortly thereafter.
- 2.3 The permitted new grainstore, used in conjunction with the existing farm buildings, will be sufficient to allow all grain grown on the holding to be stored on the holding prior to its eventual dispatch to the end user through the year. As a consequence, all double handling will be eliminated, and lorry movements should be spaced out through the year, eliminating the current harvest peak. In addition, in conjunction with the proposed implement store, it will provide sufficient storage for all the required fertiliser and machinery for use on the farm.
- 2.4 Since securing planning permission pursuant to the Original Application, Heaton Farms Ltd, the farming business that operated from Holt Farm, has been selected as the National Trust's farming partner at their Hinton Ampner Estate. The farming operation at Hinton Ampner will cover c. 800 acres and will predominately involve running a suckler herd of rare breed Sussex cattle.
- 2.5 There are no livestock building at Hinton Ampner, and being in the South Downs National Park, it is not a natural location to propose erecting large farm buildings. In any event, it makes more sense to house the cattle at Holt Farm over the winter, where they can be fed and bedded on arable byproducts produced at Holt Farm, and the muck that is produced can be used for the arable operation at Holt Farm.
- 2.6 Accordingly, the proposed farmyard layout has been redesigned to allow for the inclusion of a beef shed, hence the New Application.

3.0 Existing Vehicle Movements

3.1 Existing vehicle movements are a function of the agricultural activity on site.

3.2 Cropping varies year to year, but is centred around 50% of the farm growing wheat, with the remainder in break crops. An example of typical cropping split is shown below:

Crop	%
Wheat	50
OSR	25
Beans	20
Barley	5
Total	<u>100</u>

3.2 Field activity varies by crop. The number of activities required for each crop grown is set out below:

Crop	Cultivate	Drill	Spray	Fertiliser	Harvest
W Wheat	1.5	1	7/8	3	1
OSR	1.5	1	5	3	1
Beans	1.5	1	5	1	1
Barley	1.5	1	5	3	1

Note: 1.5 in respect of cultivation reflects the fact approximately 50% of the fields are deep cultivated every year, and 100% are shallow cultivated

3.2 Applying typical work rates to the different activities required for the different crops it is possible to calculate the number of days each activity is carried out. This is shown in the table below:

		ha	Area worked annually (ha)					Total
			Cultivate	Drill	Spray	Fertilise	Harvest	
Wheat	50%	182	273	182	1,460	547	182	
Rape	25%	91	136	91	456	273	91	
Beans	20%	73	109	73	365	73	73	
Barley	5%	18	27	18	91	54	18	
		<u>365</u>	<u>547</u>	<u>365</u>	<u>2,372</u>	<u>949</u>	<u>365</u>	
Typical workrate (ha/8hr day)			13.5	20	70	60	20	
Theoretical days worked			40.6	18.3	33.9	15.8	18.3	126.7

3.4 It is appropriate to add an efficiency factor of 50% to the theoretical days work to reflect that not all operations can be carried out continuously, suggesting a total of 253 days worked.

3.5 The agricultural vehicle movements per day vary according to the operation. Cultivations typically only require two movements, leaving in the morning and returning in the evening. Drilling, spraying and fertilising all involve greater numbers

of movements, as it is necessary to return to the farm buildings to fill up with seed, pesticides or fertiliser respectively. Harvest has the greatest number of movements due to the need to bring the harvest grain back to store.

3.6 The table below applies the efficiency factor to the theoretical days, and then converts the resulting actual days into vehicle movements:

	Cultivate	Drill	Spray	Fertilise	Harvest	Total
Theoretical days worked	40.56	18.25	33.89	15.82	18.25	126.77
Efficiency factor to reflect weather interruption, part loads, different tank mixes etc						50%
Actual days worked	81.11	36.50	67.79	31.63	36.50	253.53
Agricultural vehicle movements per day	2	6	10	12	20	
Agricultural vehicle movements per annum	162	219	678	380	730	2,169

3.7 It is apparent from the above that the current agricultural vehicle movements from the site are calculated to be 2,169.

3.9 In addition to agricultural vehicle movements, it is necessary to consider car and small van movements. There is one full time member of staff on the farm, who will generate 2 movements per day. A further 2 movements a day are assumed to cover manager, agronomist and miscellaneous visits and chemical deliveries. On the basis of a 5-day week (being an appropriate annual average), that equates to 1,040 car movements per annum.

3.9 Finally, it is necessary to consider lorry movements. Lorry movements can be split into seed and fertiliser deliveries, and grain collections.

3.10 The seed for any given crop type is typically delivered on one lorry. Allowing for two varieties of wheat, but a single variety of other crops, that suggest 10 lorry movements per annum.

3.11 All the fertiliser of a single type is typically delivered on a single lorry, with the exception of urea and ammonium nitrate, where the quantities required mean two lorries are required. Four different types of fertiliser are typically bought, suggesting a total of 12 lorry movements per annum.

3.12 The lorry movements associated with grain collections are best assessed by applying typical crop yields to the cropped area, as shown below

		Ha	Yield	Tonnage
Wheat	50%	182.5	9.0	1,642.5
Rape	25%	91.3	4.0	365.0
Beans	20%	73.0	4.0	292.0
Barley	5%	18.3	7.0	127.8
		<u>365.0</u>		<u>2,427.3</u>

3.13 Grain is typically collected in articulated lorries with a carrying capacity of 29t. Accordingly, 84 lorries are theoretically required to collect a typical year's crop. This figure should be adjusted up by 10% to reflect the fact due to different crops and varieties some loads will be part loads, meaning 92 lorry movements per annum.

3.14 The existing vehicle movements at the site can therefore be summarised as:

Type of vehicle	Number of movements per annum
Agricultural	2,169
Cars	1,040
Lorries	114
Total	<hr/> 3,323

3.15 The consultation response queried “routes of how grain arrives at store”. When leaving the grain store, approximately 100ha (27%) is accessed by heading south from the store, whilst the remainder (73%) is accessed by heading north via Holt End Lane. Applying these figures to the 2,169 agricultural vehicle movements per annum meaning on average 586 agricultural vehicle movements involve driving south down Colliers Wood Lane, and 1,583 agricultural vehicle movements involve driving north onto Holt End Lane.

4.0 Proposed Vehicle Movements.

- 4.1 The area farmed, the mix of crops, the activities required for each crop, the work rates of each operation and the efficiency factor will be unaffected by the proposals. However, there will be additional agricultural movements associated with the beef operation. Straw will be baled and brought to the farmyard for bedding and feeding to the cattle. 4 big bales will be used per day, and adopting a typical a 125 day winter housing period means 500 big bales will be required. 25 big bales will fit on a tractor trailer, meaning 20 trailer loads of straw will be required, meaning 40 agricultural vehicle movements. Each trailer load of straw will generate a trailer load of muck, so another 40 agricultural vehicle movements will be required to remove the muck. Accordingly, the number of agricultural movements will increase by 80 movements per annum to 2,249 per annum.
- 4.2 The routes of how grain arrives and leaves the farm building complex will be unaffected by the proposals. 100ha will continue to be serviced by heading south out of the farm buildings complex, which equates to 586 agricultural vehicle movements per annum. The remainder of the farm, 265ha, will continue to be serviced by heading north from the farm buildings complex, to Holt End Lane, which equates to 1,583 agricultural vehicle movements.
- 4.3 The number of car movements per annum will increase by 4 movements a week, to cover the daily attendance of the cattle at weekends. A further allowance of 0.25 movements per week is envisaged as an allowance of vet visits etc. All other car movements will be unaffected by the proposals as no further staff will work at the store, and no further visit should be required as the area farmed and the mix of crops remains unchanged. Accordingly, car movements will increase by 221 per annum to 1,261 per annum.
- 4.4 The number of lorry movements per annum will increase as the beef herd will arrive and depart by lorry. There will be one movement in the autumn, and another in the spring. Given the number of cattle, each movement will involve four vehicle movements. All other lorry movements will be unaffected by the proposals as the same areas of land is being farmed, with the same mix of crops, leading to the same amount of grain being produced, and so the same number of lorries being required to delivery fertiliser and seed, and to collect the grain. Accordingly, lorry movement will increase by 8 per annum to 122 per annum.
- 4.5 The daily lorry movements will reduce, as the lorries collecting the grain will be spread out through the year, rather than being concentrated in a short window around harvest. This reduction in daily movements is considered to be beneficial to the local highway network.
- 4.5 There will be a small increase in both lorry and car movements during the construction period, perhaps 30 lorry movements and 90 car movements in total, but given the short-term nature of the increase, this is not considered to be material.

5.0 Conclusion

- 5.1 The existing activity at the site generates 2,169 agricultural vehicle movements, 1,040 car movements and 114 lorry movements.
- 5.2 Should planning consent be forthcoming and the new grainstore, beef shed and implement store be built, the number of vehicle movements will increase marginally.
- 5.3 The number agricultural vehicle movements will increase by 3.6%, which is considered de minimis.
- 5.3 The number of car movements will increase by 21%. This is a material increase, but these movements only relate to the short length of Colliers Wood Lane between the farm buildings and the adopted highway at Holt End Lane. Further, as the movements involve cars, they are considered to have less impact on the road surface and other users than lorries or agricultural vehicles. Accordingly, this increase is considered acceptable.
- 5.4 Should planning consent be forthcoming and the new grainstore, beef shed and implement store be built, the number of lorry movements will increase by 7%. However, given the low number of existing lorry movements, this increase only equates to 8 vehicle movements per annum. These are likely to be spread across two days, one in the autumn and one in the spring, and only involves the short length of Colliers Wood Lane between the farm buildings and the adopted highway at Holt End Lane and accordingly are considered to be de minimis.
- 5.3 The number of daily lorry movements during the harvest period will be significantly reduced as lorries collecting grain are spread through the year, rather than being concentrated in the short harvest period. This reduction in daily movements is considered to be beneficial to the local highway network.
- 5.4 There will be an increase in traffic during the construction period, but the increase will be small and for a limited period, so is considered to be de minimis.
- 5.5 Accordingly, it is apparent that the proposed development will not have a detrimental impact on the local highway network, and indeed there should be a positive effect due to the reduction in daily lorry movements around harvest. Accordingly, Hampshire County Council as Highways Authority are kindly requested to support the application.