

AGRICULTURAL LAND CLASSIFICATION  
HARROGATE LOCAL PLAN  
SITE 7, BAR LANE, KNARESBOROUGH  
MAY 1993

ADAS  
Leeds Statutory Group

Job No:- 16/93  
MAFF Ref:-

## SUMMARY

An Agricultural Land Classification Survey of approximately 47 ha of land around Bar Lane, Knaresborough was carried out in two stages between October 1986 and May 1993. 71.2% of this is in agricultural use, some of which has been restored following extraction of sand and gravel.

Grade 2 land covers 13.2 ha. Soils within this grade consist of very slightly stony medium clay loam and fine sandy loam topsoils over similar textured subsoils. Profiles are well drained and limited to Grade 2 by summer droughtiness.

Subgrade 3a land covers 12.9 ha. Undisturbed soil profiles consist of very slightly stony or slightly stony medium to light textured topsoils overlying similar subsoils. Gravelly material typically lies within 80 cm depth. Soil profiles on restored land consist of medium to light textured topsoils overlying medium sandy loam or heavy clay loam subsoils. Most land in this subgrade is well drained. Summer droughtiness and topsoil stoniness are the principal limitations on grade.

Land in Subgrade 3b occupies 7.4 ha of the site. Soils have been restored following extraction of sand and gravel. Profiles fall into two types: i) poorly drained soils (Wetness Class IV) consisting of heavy clay loam topsoils overlying slowly permeable heavy clay loam subsoils, limited to Subgrade 3b by soil wetness. ii) Well drained soils (Wetness Class I) which are shallow (30 to 40 cm), and consist of medium clay loam over heavy clay loam over land fill rubble. Summer droughtiness and lack of soil depth are the main limitations on ALC grade.

Farm buildings (glass houses and a barn used for storage and farm machinery) cover 4.1 ha.

Open water covers 0.9 ha.

3.7 ha is in other non-agricultural uses, principally as school playing fields and land undergoing restoration following the extraction of sand and gravel.

0.4 ha of the site was not surveyed because of access problems.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT: HARROGATE LOCAL PLAN  
SITE 7, BAR LANE, KNARESBOROUGH

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies approximately 1½ Km north-east of Knaresborough town centre around National Grid Reference SE358583. It covers a total of 47.1 ha, of which 33.5 ha are in agricultural use. The southern and central areas were surveyed for local planning purposes in 1986 and 1987. Northern and eastern parts of the site were surveyed between February and May 1993. Soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Land quality of the northern and eastern parts of the site was assessed using methods outlined in 'Agricultural Land Classification of England and Wales' (MAFF, 1988). The remaining areas were originally classified according to methods outlined in MAFF Technical Report 11/1 (1976). The distribution of grades and subgrades on the attached map takes into account revisions in ALC grading criteria, notably the inclusion within Subgrade 3b of land previously designated Subgrade 3c.

1.2 Land Use and Relief

At the time of the survey, 71.2% of the site was in agricultural use for cereals and winter vegetables (mostly Brassicas) with permanent pasture on the restored land. The remainder is taken up by farm buildings (mostly glasshouses), open water, roads and housing or is in other non-agricultural use, including playing fields and former sand and gravel workings in the process of restoration. A small area of land was not surveyed.

The site varies in altitude between 58 m and 45 m O.D. Topography is gently undulating, with slopes ranging from level to moderately sloping.

1.3 Climate

Grid Reference	:	SE358 583
Altitude	:	50
Accumulated Temperature above 0°C (January - June)	:	1349 Day °C
Average Annual Rainfall (mm)	:	690
Climatic Grade	:	1
Field Capacity Days	:	169
Moisture Deficit (mm) Wheat	:	98
Moisture Deficit (mm) Potatoes	:	87

#### 1.4 Geology, Spills and Drainage

The area is underlain by Carboniferous sandstones and grit stones and Lower Magnesian limestone, both of which are covered by boulder clay (Till) and fluvio-glacial sands and gravels. Some parts of the site consist of land restored from earlier gravel workings. In these areas (between Sweet Bits Farm and Hazelheads Lane, and between Bar Lane and the northern site boundary) topsoil and subsoil have been placed over domestic waste, rubble or other soil making material.

Undisturbed soil profiles are generally deep and well drained (Wetness Class I), consisting of medium to light textured topsoils (medium clay loam, sandy clay loam or fine sandy loam) over similar subsoils. Restored profiles vary from well-drained (Wetness Class I) shallow (<30 cm) fine sandy loam to deeper, poorly drained (Wetness Class IV), heavy clay loam, both overlying landfill rubble and waste.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	13.2	28.0
3a	12.9	27.5
3b	7.4	15.7
4		
5		
(Sub total)	(33.5)	(71.2)
Urban	4.5	9.5
Non Agricultural	3.7	7.8
Woodland - Farm		
- Commercial		
Agricultural Buildings	4.1	8.8
Open Water	0.9	1.9
Land not surveyed	0.4	0.8
(Sub total)	(13.6)	(28.8)
<b>TOTAL</b>	<b>47.1</b>	<b>100%</b>

### 2.1 Grade 2

Land in Grade 2 occurs in various parts of the site. Soil profiles are deep and well drained, (Wetness Class I) and consist of very slightly stony medium clay loam, sandy clay loam or fine sandy loam topsoils overlying similar textured subsoils. Slight summer droughtiness limits this land to Grade 2.

### 2.2 Subgrade 3a

Land in this subgrade occurs is common across the site. Soils consist of very slightly stony or slightly stony medium clay loam, sandy clay loam or fine sandy loam topsoils overlying similar subsoils, with gravel within 80 cm depth. These soils are limited to Subgrade 3a by droughtiness or topsoil stoniness.

The land north of the nurseries on Breary Flat Lane and that adjacent to Boroughbridge Road on the north side of Bar Lane has been restored following sand and gravel extraction. Sandy loam or sandy clay loam topsoils overlie restored sandy loam or heavy clay loam subsoils typically greater than 50 cm deep. This land is limited to Subgrade 3a by droughtiness.

### 2.3 Subgrade 3b

Restored land adjacent to Park Nurseries and south of Hazelheads Lane falls within Subgrade 3b. Profiles in the Park Nurseries area are poorly drained (Wetness Class IV), and consist of heavy clay loam topsoils over compacted similar textured subsoils which are slowly permeable within 40 cm depth. This land is limited to Subgrade 3b by wetness. Soils in the area south of Hazelheads Lane are shallow, typically consisting of medium clay loam topsoils over heavy clay loams with rubble below 30 cm depth. Soil depth and droughtiness limit this land to Subgrade 3b. It should be noted that soils in this area may be affected by landfill gases, although there was little field evidence of gas contamination at the time of survey in May 1993.

### 2.4 Agricultural Buildings

Glass houses cover 4.1 of land west of Breary Flat Lane, while a small area on Bar Lane is used to store farm machinery.

### 2.5 Urban

Areas covered by roads and domestic housing occur across the site. Land adjacent to Orchard House is used for dog kennels. The area south of Bar Lane remains derelict following sand and gravel extraction.

### 2.6 Open Water

A flooded gravel pit occupies part of the south-east of the site.

2.7 Non-agricultural Land

Land in other non-agricultural uses includes school playing fields, a former railway embankment east of Halfpenny Lane and areas undergoing restoration from sand and gravel extraction off Bar Lane and Hazelheads Lane.

2.8 Land Not Surveyed

A small area south of Water Lane was not surveyed because of access problems.

RPT File 2FCS 6324  
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MAP