GOLF COURSE APPLICATION
HORSHAM, WEST SUSSEX

GOLF COURSE APPLICATION, HORSHAM, WEST SUSSEX : REPORT OF SURVEY

1. Introduction : In June 1992, an Agricultural Land Classification (ALC) was carried out on 80 hectares of land on the western edge of Horsham in West Sussex. ADAS was commissioned by MAFF to determine the land quality affected by the application for planning permission for a public golf course, club house and parking together with the erection of 52 detached houses. The application was made by Horsham District Council who had proposed a scheme based largely on their own land.

The work was conducted by members of the Resource Planning Team within the Guildford Statutory Group at a reconnaissance level with approximately 1 soil observation per 3.5 hectares. A total of 26 borings and 1 soil pit were described using MAFF's revised guidelines and criteria for grading the quality of agricultural land. These guidelines provide a framework for classifying land according to the extent to which its physical or chemical limitations impose long-term limitations on its agricultural use.

The distribution of the grades and subgrades is shown on the attached ALC map and the area of each grade is given in the table below. The map has been drawn a scale of 1:20,000; the information is accurate at this level and any enlargement would be misleading. Subgrade 3B is the main grade on the site with a minor area of Grade 2. The poorer quality of the land is related to the presence of upper subsoils of clay which cause a significant wetness limitation.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Agricultural Area
2	1.1	1.4
3B	76.2	98.6
		100% (77.3 ha)
Non Agric	12.0	
Woodland	3.4	
Ag. Bldgs	0.6	
Urban	1.9	
Total	95.2 ha	

2. Climate : A detailed assessment of the prevailing climate has been made by interpretation from a 5 km grid point dataset. The details are given in the table below.

Climate is considered first when grading land as it can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable soil or site conditions.

The main parameters used in the assessment of a climatic limitation are average annual rainfall, a measure of overall wetness, and accumulated temperature, a measure of the relative warmth of a locality.

The interpretations show that there is no overall climatic limitation. In addition, no local climatic factors are significant. The site is climatically Grade 1.

Table 2 : Climatic Interpretations

Grid Reference	TQ60315	TQ166313	TQ172334
Altitude (m)	40	40	45
Accumulated temperature (days)	1486	1486	1479
Average Annual Rainfall (mm)	784	783	776
Field Capacity (days)	164	164	163
Moisture deficit, Wheat (mm)	110	110	110
Moisture deficit, Potatoes (mm)	104	104	104

3. Agricultural Land Classification

3.1 Subgrade 3B : The great majority of the site has been placed in this grade with soil wetness as the main limitation. Pit 1 is typical of these soils and describes a medium silty clay loam topsoil overlying clay subsoils. The clays are slowly permeable and give rise to clear gleying at shallow depths. The soils fall into Wetness Class IV (ie. the profile is wet within 70 cm for >180 days but not wet within 40 cm for >210 days in most years) and can be graded no higher than 3B given the topsoil textures (MZCl) and the prevailing field capacity level (164 days).

3.2 Grade 2 : A minor area of this grade has being identified in the extreme south-east of the survey area on lower lying land near the brook. Deeper slowly permeable layers permit these soils to be placed in a more favourable wetness class and, as a result the wetness limitation is less significant.

SOIL PIT DESCRIPTION

Site Name : HORSHAM GOLF COURSE Pit Number : 1P

Grid Reference: TQ165 324

Average Annual Rainfall : 776 mm
Accumulated Temperature : 1479 degree days
Field Capacity Level : 163 days
Land Use : Ley
Slope and Aspect : 02 degrees SE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 25	MZCL	10YR53 00	0	0	C	
25- 60	HCL	25Y 63 00	0	0	M	

Wetness Grade : 3B

Wetnesss Class : IV
Gleying :000 cm
SPL :025 cm

Drought Grade : 3A

APW : 098mm MBW : -12 mm
APP : 104mm MBP : 0 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

DESCRIPTION OF THE GRADES AND SUB-GRADES

Grade 1 - excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly include top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 - very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a - good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b - moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which an be grazed or harvested over most of the year.

Grade 4 - poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 - very poor quality agricultural land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Descriptions of other land categories used on ALC maps

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: golf courses, private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Agricultural buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg polythene tunnels erected for lambing) may be ignored.

Open water

Includes lakes, ponds and rivers as map scale permits.

Land not surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown.