

**WALSGRAVE HILL FARM
MAJOR INVESTMENT SITE PROPOSAL**

**Agricultural Land Classification Survey
ALC Map and Report
July and October 1996**

**Resource Planning Team
ADAS Statutory Group
ADAS Wolverhampton**

**ADAS Reference: 54/96, 25/RPT/0781
MAFF Reference: EL 43/11270
LUPU Commission: WO1980, W02116**

**AGRICULTURAL LAND CLASSIFICATION REPORT
WALS GRAVE HILL FARM
MAJOR INVESTMENT SITE PROPOSAL**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 165.1 hectares of land. The land is located to the east of Coventry adjacent to the A4600. The survey was undertaken by the Resource Planning Team at Wolverhampton (Northern ADAS Statutory Centre) during July and October 1996.
2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) from its Land Use Planning Unit in Crewe. The survey was in connection with the Major Investment Site (MIS) study in the West Midlands. The results of this survey supersede any previous ALC information for this land.
3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised Guidelines and criteria for Grading the Quality of Agricultural Land" (MAFF 1988).
4. At the time of survey the agricultural land on this site was under grass, cereals and fallow.

SUMMARY

5. The findings of the survey are shown on the attached ALC map. At the request of the Land Use Planning Unit this was a detailed grid survey at a scale of 1:10 000 with a minimum auger boring density of 1 per hectare. The ALC map is only accurate at the base map scale and any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 below.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% site area	% surveyed area
2	14.2	9	9
3a	38.3	23	24
3b	109.1	66	67
Other Land	3.5	2	-
Total surveyed area	161.6	-	100
Total site area	165.1	100	-

7. The agricultural land on this site has been classified as Grade 2 (very good quality) and Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitation for Grade 2 and 3a being soil wetness or droughtiness and for Subgrade 3b being soil wetness.

8. The area of very good quality land is located to the south and east of the site. The soils commonly comprise either a clay loam topsoil overlying a sandy clay loam subsoil to depth or a sandy clay topsoil overlying loamy sand and sand to depth.

9. The area of good quality land is located to the south of the site. The soils commonly comprise either a clay loam topsoil overlying clay, or a sandy loam topsoil overlying loamy sand and sand to depth.

10. The area of moderate quality land is mapped to the centre and north of the site. The soils in this area comprise a clay loam topsoil overlying a gleyed and slowly permeable clay subsoil.

FACTORS INFLUENCING ALC GRADE

Climate

11. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

12. The key climatic variables used for grading this site are given in Table 2 below and were obtained from the published 5km grid datasets using standard interpolation procedures (Met. Office, 1989).

13. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SP 395 812
Altitude	m, AOD	75
Accumulated Temperature	day°C	1398
Average Annual Rainfall	mm	671
Field Capacity Days	days	153
Moisture Deficit, Wheat	mm	101
Moisture Deficit, Potatoes	mm	91

14. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

15 The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

16. The site lies at altitudes in the range 70-92m AOD. The land is undulating with a maximum height in the centre of the site.

17. Three site factors of gradient, microrelief and flooding are considered when classifying the land.

18. These factors do not impose any limitations on the agricultural use of this land. However areas of grass around Walsgrave Hill Farm exhibit extensive lengths of ridge and furrow which may benefit from further botanical and historical investigation of relevant organisations.

Geology and soils

19. The solid geology of the area is comprised of Triassic Mudstones (Keuper Marl). This is overlain with deposits of Quaternary alluvium, fluvio-glacial sand and gravel and boulder clay (British Geological Survey, 1969).

20. The soils that have developed are influenced by this geology are generally of a clay loam or sandy loam texture.

Agricultural Land Classification

21 The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1.

Grade 2

22 Land of very good quality occupies 14.2 hectares (9%) of the site area and occupies two discrete blocks to the east and south east of the site.

23 The soil are of two types; to the north west of Hill Fields Farm the soil typically has a clay loam texture over sandy clay loam to depth. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class II. To the west and south west of Hill Fields Farm and to the south of the site the soil typically has a sandy loam texture over loamy sand and sand to depth. The profiles contain many stones in the subsoil. The moisture balance places these soils in Grade 2.

24. The main limitation to the agricultural use of the land is either soil wetness on the clay soils or droughtiness on the sandy soils.

Subgrade 3a

25. Land of good quality occupies 38.3 hectares (23%) of the site area and has been mapped in two blocks; a small area to the south west of Walsgrave Hill Farm, and a larger area towards the south of the site.

26. To the south east of Walsgrave Hill Farm and adjoining the A4600 the soil has a medium clay loam texture over clay, with occasional isolated pockets of lighter (sandy clay loam) material within the subsoil. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class III. In the south and south east corner of the site the soil typically has a sandy loam texture over loamy sand and sand to depth. The profiles contain many stones in the subsoil. The moisture balance places these soils into Subgrade 3a.

27. The main limitation to the agricultural use of the land is either soil wetness on the clay soils or droughtiness on the sandy soils.

Subgrade 3b

28. Land of moderate quality occupies 109.1 hectares (66%) of the site area and extends across the north and centre of the site.

29. The soil has a clay loam texture overlying clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV.

30. The main limitation to the agricultural use of this land is soil wetness.

Other Land

31. Other land occupies 3.5 hectares (2%) of the site area and is found as a trackway and allotments in the south east of the site.

Resource Planning Team
Wolverhampton Statutory Group
ADAS Wolverhampton

SOURCES OF REFERENCE

British Geological Survey (1981) *Sheet 253, Abingdon Solid and Drift Edition. 1:63 360 Scale.*

BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.*

MAFF: London.

Meteorological Office (1989) *Climatological Data for Agricultural Land Classification.*

Met. Office: Bracknell.