Stafford Local Plan
Objection L00057/01
Land S. of Eccleshall Rd, Walton, Stone

Agricultural Land Classification
ALC Map and Report
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AGRICULTURAL LAND CLASSIFICATION REPORT
Land S. of Eccleshall Rd, Walton, Stone

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 8.8 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the west of Walton, Stone, south of Common Lane. The survey was in connection with the Stafford Local Plan.

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in June 1997 by the Resource Planning Team of the Farming and Rural Conservation Agency (FRCA)- Northern region of FRCA.

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, either pasture for grazing cattle or for mowing.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this 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.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	-	-	-
2	4.6	53	52
3a	0.8	9	9
3b	3.3	38	38
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	0.1	N/A	1
Total surveyed area	8.7	100	-
Total site area	8.8	-	100

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality). The key limitation to the agricultural use of this land is soil wetness.

8. The area of very good quality land is located on the relatively higher land to the south and west of the site. The soils commonly comprise a sandy clay loam topsoil overlying a sandy clay loam upper subsoil passing to a medium sandy loam and a loamy sand with, occasionally clay or clay loam at depth.

9. The area of good quality land is mapped in two discrete units in the south of the site. The soils in this area comprise either a medium clay loam or sandy clay loam topsoil overlying a gleyed sandy clay loam subsoil, or a sandy clay loam topsoil overlying a medium clay loam or sandy clay loam upper subsoil passing to a slowly permeable clay lower subsoil.

10. The area of moderate quality land is located to the north of the site. The soils in this area comprise an organic medium clay loam or sandy clay loam topsoil overlying gleyed sandy clay loam upper and lower subsoils passing to a slowly permeable clay at depth.

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 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SJ 895323
Altitude	m, AOD	115
Accumulated Temperature	day°C (Jan-June)	1341
Average Annual Rainfall	mm	753
Field Capacity Days	days	185
Moisture Deficit, Wheat	mm	89
Moisture Deficit, Potatoes	mm	76
Overall climatic grade	N/A	Grade 1

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.

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 (ATO, 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 between 105 to 115 metres AOD. The land rises gently from the north to the south, with a short rise at a field boundary in the centre of the site.

17. The 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.

Geology and Soils

19. The solid geology of the area is comprised of Keuper Marl. This is overlain with deposits of boulder clay - British Geological Survey (1974).

20. The soils that have developed on this geology are generally of a sandy clay loam or medium clay loam texture over clay at depth.

Agricultural Land Classification

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

Grade 2

22. Land of very good quality occupies 4.6 hectares (52 %) of the site area and is found in the south of the site in a single unit.

23. The soil has a sandy clay loam texture over a sandy clay loam upper subsoil and a gleyed sandy clay loam lower subsoil, occasionally passing to clay at depth. The texture of the lower subsoil appears quite variable with patches of lighter and heavier material evident. The subsoil horizons are moderately stony. The depth to gleying, and absence of a slowly permeable layer places these soils into Wetness Class I .

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

Subgrade 3a

25. Land of good quality occupies 0.8 hectares (9 %) of the site area and is found in the south of the site in two blocks.

26. In the centre of the site the soil has a sandy clay loam texture over a sandy clay loam upper subsoil overlying a slowly permeable heavy clay loam lower subsoil passing to clay. The depth to the slowly permeable layer place these soils in Wetness Class III.

27. At the southern edge of the site the soils have a medium clay loam texture overlying a gleyed sandy clay loam upper subsoil, passing to either medium clay loam or medium sandy loam lower subsoils and heavy clay loam at depth. The depth to gleying places these soils in Wetness Class II.

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

Subgrade 3b

29. Land of moderate quality occupies 3.3 hectares (38 %) of the site area and extends across the north of the site.

30. The soil has an organic medium clay loam texture over a gleyed sandy clay loam upper subsoil overlying slowly permeable sandy clay loam lower subsoils passing to clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV.

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

Other Land

32. Other land occupies 0.1 hectares (1 %) of the site area and is found as a derelict barn and foundations in the west of the site.

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SOURCES OF REFERENCE

British Geological Survey (1974) Sheet 139, Stafford Drift Edition.
1:50,000 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.
Meteorological Office: Bracknell.