

**SHREWSBURY AND ATCHAM
LOCAL PLAN
LAND WEST OF ELLESMERE ROAD**

**Agricultural Land Classification
ALC Map and Report
January 1999**

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**RPT Reference: 047/98 & 25/RPT/0973
FRCA Reference: EL 35/10151A
LURET Job Number: ME1AP74**

**AGRICULTURAL LAND CLASSIFICATION REPORT
SHREWSBURY AND ATCHAM LOCAL PLAN
LAND WEST OF ELLESMERE ROAD**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 27.2 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the north of Shrewsbury between the railway and Ellesmere Road. The survey was in connection with the Shrewsbury and Atcham Borough Local Plan.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in January 1999 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 mainly under grass and fodder turnips. There was an area to the north of Cedars Drive which was fallow after last years potato harvest.

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	-	-	-
3a	4.9	19	18
3b	20.5	81	75
4	-	-	-
5	-	-	-
Agricultural land not surveyed	0.6	N/A	2
Other land	1.2	N/A	5
Total surveyed area	25.4	100	-
Total site area	27.2	-	100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality). The key limitations to the agricultural use of this land are gradient and soil droughtiness.

8. The area of good quality land is located in the southern part of the site. The soils have a sandy loam topsoil texture overlying sandy loam, loamy sand and sand to depth.

9. The area of moderate quality land is mapped towards the centre and north of the site. The soils in this area have a sandy loam topsoil texture overlying sandy loam, loamy sand and sand to depth.

FACTORS INFLUENCING ALC GRADE

Climate

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

11. 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 491 148
Altitude	m, AOD	60
Accumulated Temperature	day°C (Jan-June)	1420
Average Annual Rainfall	mm	669
Field Capacity Days	days	140
Moisture Deficit, Wheat	mm	106
Moisture Deficit, Potatoes	mm	97
Overall climatic grade	N/A	Grade 1

12. 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.

13. 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.

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

Site

15. The site lies at an altitude of 50 to 65 metres AOD. The highest part of the site is found on a central dome to the north of Cedars Drive. From this dome the land falls away in all directions.

16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.

17. In the north of the site there are isolated slopes of 8° where gradient limits the agricultural use of the land to Subgrade 3b.

18. The remaining 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 Triassic Bunter Lower Mottled Sandstone. This is overlain with deposits of glacial sands and gravel and boulder clay - British Geological Survey (1952 and 1974).

20. The soils that have developed on this geology are generally of a sandy loam texture over sand and gravel 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.

Subgrade 3a

22. Land of good quality occupies 4.9 hectares (18%) of the site area and located in the southern part of the site.

23. The soil has a sandy loam topsoil texture over sandy loam, loamy sand and sand (often coarse) to depth, with common to abundant stones within the profile. The moisture balance places these soils in Subgrade 3a. There are occasionally auger borings of Grade 2 quality land within this unit but these cannot be shown separately at this scale of mapping.

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

Subgrade 3b

25. Land of moderate quality occupies 20.5 hectares (75%) of the site area and is mapped across the centre and north of the site.

26. The soil has a sandy loam topsoil texture over sandy loam, loamy sand and sand (often coarse) to depth, with common to abundant stones within the profile. The moisture balance places these soils in Subgrade 3b. There are occasional auger borings of Subgrade 3a quality land within this unit but these cannot be shown separately at this scale of mapping.

27. To the west of Greenfields Farm and in the north of the site there are slopes of 8°, limiting the land to Subgrade 3b.

28. The main limitations to the agricultural use of this land are gradient and soil droughtiness.

Not surveyed

29. An area to the south of Greenfields Farm covering 0.6 hectares (2%) of the site was not surveyed due to standing water at the time of survey.

Other Land

30. Other land occupies 1.2 hectares (5%) of the site area and includes buildings, a nursery and trackways.

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SOURCES OF REFERENCE

British Geological Survey (1952) Sheet 152, Shrewsbury Solid Edition.
1:63 360 Scale.
BGS: London.

British Geological Survey (1974) Sheet 152, Shrewsbury Drift Edition.
1:63 360 Scale.
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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.