

**CHESTER LOCAL PLAN
LAND EAST OF THE KING'S SCHOOL
Agricultural Land Classification
ALC Map and Report
July 1997**

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**AGRICULTURAL LAND CLASSIFICATION REPORT
CHESTER LOCAL PLAN
LAND EAST OF THE KING'S SCHOOL**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 71.0 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located South of Chester, east of the A483 road and adjacent to The King's School. The survey was in connection with the Chester Local Plan.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in July 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 cereals and soft fruit crops, plus a small field of permanent pasture in the north of the site.

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	36.4	55	51
3b	30.0	45	42
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	4.6	N/A	7
Total surveyed area	66.4	100	-
Total site area	71.0	-	100

7. The agricultural land on this site has been classified as 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 good quality land is located mainly in the north and centre of the site. The soils commonly comprise a medium clay loam topsoil overlying either a medium or a heavy clay loam upper subsoil passing to slowly permeable clay at depth

9. The area of moderate quality land is mapped mainly in the southern part of the site. The soils in this area comprise a medium clay loam topsoil overlying a heavy clay loam upper subsoil passing to a slowly permeable clay.

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 399 635	SJ 404 640
Altitude	m, AOD	20	30
Accumulated Temperature	day°C (Jan-June)	1447	1435
Average Annual Rainfall	mm	697	694
Field Capacity Days	days	155	154
Moisture Deficit, Wheat	mm	102	100
Moisture Deficit, Potatoes	mm	92	90
Overall climatic grade	N/A	Grade 1	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 20 to 30 metres AOD. The land rises gently from west to east, with the highest point close to the Water Treatment Works in the north east.
16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.
17. *These factors do not impose any limitations on the agricultural use of this land.*

Geology and Soils

18. The solid geology of the area is comprised of Carboniferous Lower Mottled Sandstone and pebble beds - British Geological Survey (1986). This is overlain with deposits of boulder clay - British Geological Survey (1990).
19. The soils that have developed on this geology are generally of a clay loam texture over clay at depth.

Agricultural Land Classification

20. 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

21. Land of good quality occupies 36.4 hectares (51%) of the site area and occurs in the north and centre of the site in a single unit, with a smaller area in the south western corner.
22. The soil has a clay loam texture over either a medium or heavy clay loam upper subsoil, over a gleyed and slowly permeable clay to depth, with few or no stones within the profile. The depths to gleying and the slowly permeable layer place these soils in Wetness Class III.
23. The main limitation to the agricultural use of this land is soil wetness.

Subgrade 3b

24. Land of moderate quality occupies 30.0 hectares (42%) of the site area and occurs mainly in the south of the site, but with a small area on the far northern edge.
25. The soil has a clay loam texture overlying either clay or heavy clay loam, over clay to depth. There are few or no stones within the profile. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV.
26. The main limitation to the agricultural use of this land is soil wetness.

Other Land

27. Other land occupies 4.6 hectares (7%) of the site area and comprises a recreation ground in the north of the site, ponds, an area of scrub and trees, farm buildings and trackways.

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SOURCES OF REFERENCE

British Geological Survey Sheet 109, Chester Solid (1986) and Drift (1990) Editions.
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.