

**CHESTER LOCAL PLAN
EAST OF WARRINGTON ROAD
Agricultural Land Classification
ALC Map and Report
September 1997**

**M J Wood
Resource Planning Team
Northern Region
FRCA Wolverhampton**

**RPT Reference: 029/97 & 25/RPT/0780
FRCA Reference: EL 06/10460
LURET Job Number: ME1AW1F**

**AGRICULTURAL LAND CLASSIFICATION REPORT
CHESTER LOCAL PLAN
EAST OF WARRINGTON ROAD**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 29.4 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located between the A41 Trunk Road and M53 Motorway, east of Chester. 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 August 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 pasture and cereal stubble from the previous harvest.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 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	23.1	86	79
3b	3.7	14	13
4	-	-	-
5	-	-	-
Agricultural land not surveyed	0.4	N/A	1
Other land	2.2	N/A	7
Total surveyed area	26.8	100	-
Total site area	29.4	-	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 soil wetness and soil droughtiness.

8. The area of good quality land is located over the majority of the site. The soil has a clay loam topsoil overlying sandy clay loam, heavy clay loam and clay to depth.

9. The area of moderate quality land is mapped in the west of the site. The soils in this area have a clay loam topsoil overlying a gleyed and slowly permeable clay subsoil.

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 435 681
Altitude	m, AOD	40
Accumulated Temperature	day°C (Jan-June)	1421
Average Annual Rainfall	mm	683
Field Capacity Days	days	151
Moisture Deficit, Wheat	mm	100
Moisture Deficit, Potatoes	mm	90
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 relatively level site lies at an altitude of approximately 40 metres AOD.
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 Bunter Pebble Beds. This is overlain with deposits of boulder clay, glacial sands and gravel - British Geological Survey (1986 and 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 23.1 hectares (79%) of the site area and extends across the majority of the site.
22. The majority of the soil in this grade has a clay loam texture over, sandy clay loam, clay loam and clay to depth with few stones within the profile. The depth to gleying and the slowly permeable layer place these soils in Wetness Class III. In the north east of the site the soil has a sandy loam texture over sandy loam, loamy sand and sand. The moisture balance places these soils in Subgrade 3a.
23. The main limitations to the agricultural use of this land include soil wetness and soil droughtiness.

Subgrade 3b

24. Land of moderate quality occupies 3.7 hectares (13%) of the site area and is found in the south west of the site.
25. The soil has a clay loam texture which lies over clay loam and clay. The depth 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.

27. The land to the north of the railway line has been disturbed and consists of a clay loam topsoil over either clay or an impenetrable subsoil of debris.

Agricultural Land Not Surveyed

28. The land to the north of the railway, adjacent to the A56 Trunk road was not surveyed. This land was overgrown with scrub and occupied 0.4 hectares (1%) of the site.

Other Land

29. Other land occupies 2.2 hectares (7%) of the site area and includes derelict buildings, ponds, scrub, woodland and a covered reservoir.

Resource Planning Team
Northern Region
FRCA Wolverhampton

SOURCES OF REFERENCE

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