

LANEY GREEN
MAJOR INVESTMENT SITE PROPOSAL
Agricultural Land Classification Survey
ALC Map and Report
December 1996

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ADAS Statutory Group
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**AGRICULTURAL LAND CLASSIFICATION REPORT
LANEY GREEN
MAJOR INVESTMENT SITE PROPOSAL**

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 77.5 hectares of land. The land is adjacent to Laney Green which lies to the north east of Junction 11 on the M6 Motorway. The survey was undertaken by the Resource Planning Team at Wolverhampton (Northern ADAS Statutory Centre) during December 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 sites (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 cereals and grass.

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
3a	22.8	30	37
3b	38.1	49	63
Other Land	16.6	21	-
Total surveyed area	60.9	-	100
Total site area	77.5	100	-

7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitations being topsoil stone content, gradient, soil wetness and soil droughtiness.

8. The area of good quality land is located in the north, south, east and west of the site. The soils commonly comprise of sandy loam or sandy clay loam topsoil overlying loamy sand, and sand or sandy clay loam and clay. The topsoils are slightly to moderately stony.

9. The area of moderate quality land is mapped in the centre and north of the site. The soils in this area comprise of sandy loam or sandy clay loam topsoil overlying either a gleyed and slowly permeable clay subsoil or loamy sand and sand. The topsoils are moderately stony.

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

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.

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SJ 966 075
Altitude	m, AOD	152
Accumulated Temperature	day°C	1308
Average Annual Rainfall	mm	734
Field Capacity Days	days	171
Moisture Deficit, Wheat	mm	87
Moisture Deficit, Potatoes	mm	73

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 a minor climatic limitation. ~~Local climatic factors, such as exposure and frost risk, are not believed to significantly affect the site.~~ The site is climatically Grade 2.

Site

15. The site lies at altitudes in the range 130-152m AOD. The land rises to the north, south and west of the site with three prominent hillocks, near Holly Bush Farm, Laney Green and Middle Hill.

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

17. Gradient limits the agricultural use of a small area of land in the north of the site 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 Carboniferous Marl and Triassic Pebble Beds. This is overlain with deposits of boulder clay in the south west of the site - British Geological Survey (1948, 1954 and 1958).

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

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.

Subgrade 3a

22. Land of good quality occupies 22.8 hectares (30%) of the site area.

23. In the north and south of the site the soil has a sandy loam texture over loamy sand and sand to depth with common to many stones within the profile. The volume of topsoil stones greater than 2 cm in size limits these soils to Subgrade 3a. There are occasional lenses of sandy loam and sandy clay loam in the subsoil. The moisture balance places these soils in Subgrade 3a.

24. The main limitation to the agricultural use of this land are soil stone content and soil droughtiness.

25. In the south west and east of the site the soil has a sandy clay loam texture over sandy clay loam and heavy clay loam or clay to depth, with common to many stones within the profile. The volume of topsoil stones greater than 2cm in size limits these soils to Subgrade 3a. The depth to gleying and the slowly permeable layer place these soils in Wetness Class III.

26. The main limitation to the agricultural use of this land are topsoil stone content and soil wetness.

Subgrade 3b

27. Land of moderate quality occupies 38.1 hectares (49%) of the site area.

28. In the centre of the site the soil has a sandy loam texture which lies directly over loamy sand and sand with occasional lenses of sandy loam and sandy clay loam in the subsoil. The volume of topsoil stones greater than 2cm in size limits these soils to Subgrade 3b.

29. The main limitation to the agricultural use of this land is topsoil stone content.

30. In the north of the site there is a small area where slopes of between 7° and 11° are found. The gradient limits the agricultural use of this area to Subgrade 3b.

31. In the east of the site the soil has either a sandy clay loam or clay loam texture over heavy clay loam and clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV.

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

Other Land

33. Other land occupies 16.6 hectares (21%) of the site area and is found as trackways, farm buildings, stables, ponds, scrub and a restored landfill site now being converted to a "composting operation".

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SOURCES OF REFERENCE

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