# DAMSON PARKWAY, SOLIHULL
# MAJOR INVESTMENT SITE PROPOSAL

## Agricultural Land Classification Survey
## ALC Map and Report
## December 1996


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# AGRICULTURAL LAND CLASSIFICATION REPORT
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## INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 188.1 hectares of land. The land is located to the east of Elmdon Heath and is bounded to the west by Damson Parkway, to the south by the Grand Union Canal and to the east by Catherine de Barnes Lane. The survey was undertaken by the Resource Planning Team at Wolverhampton (Northern ADAS Statutory Centre) during May, June, October, November and 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 grass, cereals, brassicas and woodland.

## 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 |
|---|---|---|---|
| 2 | 23.1 | 12 | 14 |
| 3a | 49.8 | 24 | 30 |
| 3b | 86.7 | 46 | 52 |
| 4 | 5.9 | 3 | 4 |
| Other Land | 22.6 | 12 | - |
| Total surveyed area | 165.5 | - | 100 |
| Total site area | 188.1 | 100 | - |

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality), Subgrade 3b (moderate quality) and Grade 4 (poor quality), the key limitations being soil droughtiness and soil wetness.

8. The area of very good quality land is located on the lower lying land in the south of the site. The soils commonly comprise of sandy loam or sandy clay loam topsoil, overlying sandy clay loam to depth.

9. The area of good quality land is mapped across the central southern part of the site and also in the north west of the site. The soils in the southern part of the site comprise of sandy clay loam topsoil over clay to depth. The soils in the north western part of the site comprise of clay loam topsoil over clay loam and clay to depth.

10. The area of moderate quality land is mapped across the central and northern part of the site. The soils comprise of clay loam topsoil over clay loam onto clay at depth.

11. The area of poor quality land is found in the southern western corner of the site. The soils comprise of either a peaty loam or clay loam topsoil over clay to depth.

## FACTORS INFLUENCING ALC GRADE

### Climate

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

13. 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).

14. 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 | SP 169 820 |
| Altitude | m, AOD | 110 |
| Accumulated Temperature | day°C | 1363 |
| Average Annual Rainfall | mm | 707 |
| Field Capacity Days | days | 166 |
| Moisture Deficit, Wheat | mm | 94 |
| Moisture Deficit, Potatoes | mm | 82 |

15. 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.

16. The combination of rainfall and temperature at this site mean that there is no overall climatic limitation.

The site is climatically Grade 1.

**Site**

17. The site lies at altitude ranging from 103 to 127m AOD. The land rises from the north, south and east of the site towards the highest point in the central western part to the north west of Woodhouse Farm.

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

19. Gradient, microrelief and flooding do not impose any limitations on the agricultural use of this land.

**Geology and soils**

20. The solid geology of the area is comprised of Triassic Keuper Marl and alluvium. This is overlain by small pockets of glacial sands and gravels - British Geological Survey (1950 and 1955).

21. The soils that have developed on this geology are typically of either a sandy clay or clay loam texture over sandy clay loam, heavy clay loam or clay.

**Agricultural Land Classification**

22. 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.

*Grade 2*

23. Land of very good quality occupies 23.1 hectares (12%) of the site area and extends across the southern part of the site.

24. The soil has either a sandy loam or sandy clay loam texture over sandy clay loam to depth.

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

*Subgrade 3a*

26. Land of good quality occupies 49.8 hectares (27%) of the site area and extends across the central, southern and north west of the site.

27. The soil has a sandy clay loam texture over clay to depth in the southern part of the site. The soils in the north west of the site have clay loam topsoil over clay loam and clay to depth. The Wetness Class places these soils in Subgrade 3a.

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

*Subgrade 3b*

29. Land of moderate quality occupies 86.7 hectares (46%) of the site area and extends across the central and northern part of the site.

30. The soil has a clay loam texture overlying clay to depth. The Wetness Class places these soils in Subgrade 3b.

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

*Subgrade 4*

32. Land of poor quality occupies 5.9 hectares (3%) of the site area and is found in the south west corner of the site.

33. The soil has either a peaty or a clay loam texture which lies over clay to depth. The Wetness Class places these soils in Grade 4.

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

*Other Land*

35. Other land occupies 22.6 hectares (12%) of the site area and includes woodland, ponds, tracks and buildings.

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## SOURCES OF REFERENCE

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