

AGRICULTURAL LAND CLASSIFICATION

PORT WAKEFIELD, NORMANTON

Proposed Channel Tunnel Rail
Freight Terminal

ADAS
Leeds Regional Office

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1. Agricultural Land Classification

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location

The site is located around National Grid Reference SE 388 240 immediately north of Normanton on each side of the Normanton - Leeds railway. The M62 motorway runs from east to west through the centre of the site with junction 31 lying close to the eastern boundary.

1.2 Survey Method

The site was surveyed in February 1991 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Additional borings were made and soil pits dug where necessary to provide information on soil structure and to refine grade boundaries.

All land quality assessments were made using the methods described in Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural Land (MAFF 1988).

1.3 Land Use

Urban use accounts for 50% of the land within the site. Land in this category consists of railways, sidings, tracks, sewage works, motorway embankments and a land fill site.

Restored land is used for permanent pasture and non-agricultural land consists of planted woodland and vacant land. The remaining land is in arable use.

1.4 Climate and Relief

Average Annual rainfall (AAR) is approximately 625 mm. Accumulated temperature (ATO) above 0°C between January and June is 1398 day °C, and land is at field capacity for 138 days a year.

Climatic factors do not impose any limitations on ALC grade.

The site is gently or occasionally moderately undulating at an average altitude of 20 m a.o.d and there are no gradients steep enough to restrict agricultural use.

1.6 Geology and Soils

The area is underlain by Coal Measure shales and sandstones and naturally formed soils are developed on these deposits or on Head deposits derived from them. Much of the site, however, has been disturbed by coal working and tipping and there are large areas of disturbed and/or restored land, especially in the north. The resultant soils are variable and range from well drained sandy loam topsoils over similar subsoils to poorly drained medium or heavy clay loam topsoils over slowly permeable clay subsoils. Disturbed and restored areas often contain compacted rubble and shale below a thin heavy topsoil

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on the site are as follows:

Grade	Hectares	Percentage of Total survey area
2	24.4	17.1
3a	8.1	5.7
3b	42.4	29.8
4	4.7	3.3
Urban	50.7	35.6
Non-agricultural	10.7	7.5
Farm Buildings	1.5	1.0
TOTAL	<u>142.5</u>	<u>100</u>

2.1 Grade 2

Land in this grade occurs in the south west corner of the site. Soils consist of sandy loam to medium clay loam topsoils over similar subsoils, some of which have a high silt content. These soils do not contain slowly permeable horizons and are well or moderately well drained, falling into Wetness Classes I and II.

Slight soil wetness and workability are limiting factors on land in this grade in winter.

2.2 Subgrade 3a

Subgrade 3a land occurs in two small areas near the southern edge of the site and near Millhouse Farm in the north east. In the area near Ashfield soils consist of medium clay loam topsoils over similar subsoils with slowly permeable heavy clay loam at depth. These soils which are imperfectly drained and fall into Wetness Class III are limited to subgrade 3a by wetness and workability problems. The area adjoining the railway contains similar soils which also contain patches of rubble. The land near Millhouse Farm is more variable especially in the subsoils which often consist of interbedded light and heavy material.

2.3 Subgrade 3b

Much of the land in this subgrade is associated with the restored colliery spoil tips in the north. Soils in these areas consist of heavy clay loam topsoils over similar but compacted subsoils, often with shale at depth. Other relatively undisturbed areas within this subgrade consist of medium clay loam topsoils over slowly permeable heavy clay loam subsoils. In both cases soils are poorly drained and fall within Wetness Class IV.

Severe soil workability and wetness are the over-riding limiting factors on land in this subgrade.

2.4 Grade 4

This area south of the motorway consists of severely disturbed poorly drained land with clayey subsoil material occurring at the surface.

2.5 Urban

This consists of railways, sidings and embankments, tracks, sewage works, motorway embankments, industrial developments and a land fill site.

2.6 Non-Agricultural

Land in this grade includes recently planted woodland, and disused or derelict areas.

2.7 Farm Buildings

The farm buildings north of Station Road are placed within this category.

Resource Planning Group
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