AGRICULTURAL LAND CLASSIFICATION
KIRK DEIGHTON NORTH EAST,
NORTH YORKSHIRE
PROPOSED MOTORWAY SERVICE AREA
AUGUST 1993

ADAS
Leeds Statutory Group

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SUMMARY

An Agricultural Land Classification survey of 15.3ha of land at Kirk Deighton was carried out in August 1993.

At the time of survey all of the land was in agricultural production, of which 3.7ha falls in Grade 2. Profiles are well or moderately well drained (falling in Wetness Classes I or II) and generally consist of medium sandy loam or medium clay loam topsoils and subsoils, with sand or heavy clay loam occurring at depth in places. Slight soil droughtiness limits this land to Grade 2.

2.3ha of Subgrade 3a land occurs in the centre of the site. Profiles are well to imperfectly drained (falling in Wetness Classes I to III) and consist of medium clay loam topsoils and sandy loam, loamy sand or sand subsoils. Slowly permeable layers of heavy silty clay loam occur at depth in places. This land is limited to Subgrade 3a by either soil wetness or soil droughtiness, depending on subsoil texture.

The remainder of the site (9.3ha) falls in Subgrade 3b. Profiles are poorly drained (falling in Wetness Class IV) and consist of medium clay loam or heavy silty clay loam topsoils overlying slowly permeable heavy silty clay loam or silty clay subsoils. Soil wetness and workability limitations restrict this land to Subgrade 3b.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT KIRK DEIGHTON NORTH EAST, NORTH YORKSHIRE PROPOSED MOTORWAY SERVICE AREA

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies approximately 2km north-east of Wetherby and is centred on Grid Reference SE 414503. Survey work was carried out in August 1993 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Land quality was assessed 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).

1.2 Land Use and Relief

At the time of survey central and southern parts of the site had been sown to oats while the north was under winter wheat. The site lies at an altitude of approximately 25m AOD and is flat to very slightly sloping.

1.3 Climate

Grid Reference	: SE 414503
Altitude (m)	: 25
Accumulated Temperature above 0°C (January-June)	: 1374 day°C
Average Annual Rainfall (mm)	: 684
Climatic Grade	: 1
Field Capacity Days	: 166
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 89

1.4 Geology, Soils and Drainage

The site is underlain by Upper Magnesian Limestone and covered by deep deposits of glacial silt and clay, probably of lacustrine origin. In parts of the centre and north of the site pockets of glacial sand also occur.

In general, the soils in the west and south of the site are poorly drained (falling in Wetness Class IV) and consist of medium clay loam topsoils directly overlying slowly permeable heavy silty clay loam or silty clay subsoils at around 30cm depth.

The soils in the north and east of the site are generally well or moderately well drained (falling in Wetness Classes I or II) and consist of medium sandy loam or medium clay loam topsoils overlying similarly textured subsoils. Small areas of lighter textured subsoils occur in the centre of the site.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	3.7	24.2
3a	2.3	15.0
3b	9.3	60.8
4		
5		
(Sub total)	(15.3)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	15.3	100

2.1 Grade 2

Grade 2 land occurs in the north-east of the site. Profiles are well or moderately well drained (falling in Wetness Classes I or II) and generally consist of very slightly stony medium sandy loam or medium clay loam topsoils overlying similarly textured subsoils. Horizons of sand or heavy clay loam occur at depth in places. Slight soil droughtiness is the factor limiting this land to Grade 2.

2.2 Subgrade 3a

A small area of Subgrade 3a land occurs in the centre of the site. Profiles vary from well drained (Wetness Class I) to imperfectly drained (Wetness Class III) and consist of medium clay loam topsoils overlying medium sandy loam, loamy medium sand or medium sand subsoils. Slowly permeable layers (typically consisting of heavy silty clay loam) occur at around 65cm depth in places and this land is limited to Subgrade 3a either by soil wetness or soil droughtiness.

2.3 Subgrade 3b

Subgrade 3b land covers most of the south and west of the site. Profiles are poorly drained (falling in Wetness Class IV) and typically consist of medium clay loam topsoils (heavy silty clay loam in places) overlying gleyed slowly permeable heavy silty clay loam or silty clay subsoils at around 30cm depth. Soil wetness and workability limitations are the factors restricting this land to Subgrade 3b.

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MAP