

AGRICULTURAL LAND CLASSIFICATION  
DARLINGTON ROAD, RICHMOND  
NORTH YORKSHIRE  
PROPOSED SUPERMARKET  
MAY 1993

ADAS  
Leeds Statutory Group

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## SUMMARY

An Agricultural Land Classification Survey of 3.2 ha of land on the northern side of Darlington Road, Richmond was carried out in May 1993.

All of this was in agricultural use of which 2.0 ha falls within Subgrade 3a. Soils within this subgrade are moderately well drained or imperfectly drained (Wetness Classes II and III) and consist of medium or light textured topsoils over similar textured upper subsoils and heavier gleyed lower subsoils. They are limited to Subgrade 3a by slight wetness.

Subgrade 3b land covers 1.2 ha. Soils are well drained (Wetness Class I) and consist of medium or light textured topsoils over thin stony medium or light textured subsoils. Hard fragmented rock occurs within 25-50 cm of the surface limiting profiles to Subgrade 3b by a combination of shallowness and/or droughtiness. Gradient (8°) is also limiting in parts of the Subgrade 3b area.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT DARLINGTON ROAD,  
RICHMOND. PROPOSED SUPERMARKET

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies 2km north-east of Richmond town centre on the northern side of the A6108 Darlington Road around National Grid Reference NZ 188019. It covers a total of 3.2 hectares. Survey work was carried out in May 1993 when soils were examined by hand auger borings at a density of 2 borings 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 for grading the quality of agricultural land' (MAFF 1988).

1.2 Land Use and Relief

At the time of survey all of the site was under permanent grassland, much of which was rich in grass and herb species. Altitude rises from 145m alongside the A6108 where the land is almost level, to 165m along the northern boundary where there are south facing slopes of 5-8°.

1.3 Climate

Grid Reference	:NZ188019
Altitude (m)	:150
Accumulated Temperature over 0°C (January-June)	:1220 day °C
Average Annual Rainfall (mm)	:816
Climatic Grade	:2
Field Capacity Days	:203
Moisture Deficit (mm) Wheat	:80
Moisture Deficit (mm) Potatoes	:62

#### 1.4 Geology, Soils and Drainage

The site is underlain by Carboniferous strata consisting mainly of sandstones and chert (siliceous flintlike rock). Drift cover is thin on the higher northern part of the site where solid strata is close to the surface. On the lower lying land adjoining the main road there is a superficial cover of loamy drift which in places passes into boulder clay at depth.

Soils on the high ground consist of medium silty clay loam, medium clay loam or fine sandy loam topsoils 15-20cm in thickness over thin stony subsoils of similar textures. Very stony Head or fragmented bedrock occurs within 25-30cm of the surface. Profiles are all well drained and fall within Wetness Class I. On the lower gently sloping and level land adjoining the A6108 topsoil and upper subsoil textures are similar (medium silty clay loam or fine sandy loam) but pass into gleyed or strongly mottled sometimes slowly permeable heavy textured horizons at 40-60cm depth. Profiles are mainly moderately well drained or imperfectly drained and fall within Wetness Classes II and III.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2		
3a	2.0	62.5
3b	1.2	37.5
4		
5		
(Sub total)	(3.2)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
	3.2	100

## 2.1 Subgrade 3a

The level and gently sloping southern parts of the site fall within this subgrade. Soils consist of medium silty clay loam, medium clay loam or fine sandy loam topsoils overlying similar textured slightly or moderately stony upper subsoils. Heavier textured (heavy clay loam or heavy silty clay loam) strongly mottled or gleyed and sometimes slowly permeable horizons occur at 40-60cm depth. Profiles of this type are moderately well drained or imperfectly drained (Wetness Class II or III) and are limited to Subgrade 3a by slight winter wetness.

## 2.2 Subgrade 3b

Subgrade 3b land occurs on the higher moderately to strongly sloping northern part of the site. Soils consist of thin medium clay loam, silty clay loam or fine sandy loam topsoils over thin stony subsoils with a similar range of textures. Stony Head or fragmented bedrock is common within 25-30cm of the surface and soils are limited to Subgrade 3b by droughtiness and/or shallow depth. In a few places where gradients reach 8° slope is also limiting.

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MAP