



AGRICULTURAL LAND CLASSIFICATION  
CHESTER-LE-STREET LOCAL PLAN  
COUNTY DURHAM  
APRIL 1996

ADAS  
Leeds Statutory Group

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## SUMMARY

Detailed Agricultural Land Classification (ALC) surveys of three sites within Chester-le-Street district (Chester-le-Street Local Plan) were carried out in April 1996. The following table summarises the grade areas found on each site.

Site	Area (ha)		
	Subgrade 3a	Subgrade 3b	Other Land
BOURNMOOR (1)	-	21.8	0.7
WOODSTONE VILLAGE (2)	-	5.4	1.7
DRUM INDUSTRIAL ESTATE (3)	4.0	22.1	9.1

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# AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND

## FOR THE CHESTER-LE-STREET LOCAL PLAN

### 1. INTRODUCTION

Detailed Agricultural Land Classification (ALC) surveys of three sites within Chester-le-Street district were carried out in April 1996, when the soils were examined by hand auger borings at 100m intervals predetermined by the National Grid. Additional borings were made where necessary to refine grade boundaries and at least one soil pit was dug on each site to allow a full profile description to be made.

The land quality in each case 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).

### 2. SITE 1 BOURNMOOR

#### 2.1 Land Use and Relief

This site lies approximately 4km east of Chester-le-Street at Bournmoor. At the time of the survey all the agricultural land was under winter cereals. A small strip of land to the north-east of the site has been fenced and conifers planted. The land is level at 46m AOD.

#### 2.2 Climate

Grid Reference	:	NZ 315515
Altitude (m)	:	46
Accumulated Temperature above 0° C (January - June)	:	1315 day ° C
Average Annual Rainfall (mm)	:	645
Climatic Grade	:	1
Field Capacity Days	:	163
Moisture Deficit (mm) Wheat	:	95
Moisture Deficit (mm) Potatoes	:	83

## 2.3 GEOLOGY, SOILS AND DRAINAGE

The area is underlain by Middle Coal Measures with a drift cover of Laminated Clay. The soils are mainly poorly drained (Wetness Class IV) and consist of medium clay loam topsoils over slowly permeable clay subsoils. Occasional imperfectly drained (Wetness Class III) profiles occur on the site but are too randomly distributed to be mappable.

## 2.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
1		
2		
3a		
3b	21.8	96.9
4		
5		
(Sub total)	(21.8)	(96.9)
Other Land	0.7	3
<b>TOTAL</b>	<b>22.5</b>	<b>100</b>

### 2.4.1 Subgrade 3b

All the agricultural land on the site falls into this subgrade. The soils are mainly poorly drained (Wetness Class IV) and consist of very slightly stony medium clay loam topsoils overlying gleyed slowly permeable clay subsoils. The slowly permeable layer occurs within 35cm depth. The ALC grade of this land is limited by severe soil wetness and workability restrictions. Occasional imperfectly drained (Wetness Class III) profiles occur on the site but are too randomly distributed to be mappable.

### 2.4.2 Other Land

Other land consists of a strip of mature conifers located in the north-east of the site.

RPT File: 20011

MAP

### 3.0 SITE 2 WOODSTONE VILLAGE

#### 3.1 Location, Land Use and Relief

Site 2 lies 4km east of Chester-le-Street at Woodstone Village. At the time of the survey all of the agricultural land was in permanent grass. Remaining land consists of part of the Lumley Brick Works and a strip of trees running along the edge of this. The land lies between 50m AOD and 61m AOD and is level to moderately sloping (0° - 4°).

#### 3.2 Climate

Grid Reference	:	NZ 309504
Altitude (m)	:	55
Accumulated Temperature above 0° C (January - June)	:	1304 day °C
Average Annual Rainfall (mm)	:	640
Climatic Grade	:	2
Field Capacity Days	:	163
Moisture Deficit (mm) Wheat	:	94
Moisture Deficit (mm) Potatoes	:	81

#### 3.3 Geology, Soils and Drainage

The site is underlain by Middle Coal Measures with a drift cover of boulder clay. The soils are poorly drained (Wetness Class IV) and consist of very slightly stony medium clay loam topsoils overlying gleyed slowly permeable clay subsoils. The soils belong to the Dunkeswick series as mapped by the Soil Survey and Land Research Centre.



### 3.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
1		
2		
3a		
3b	5.4	76.0
4		
5		
(Sub total)	(5.4)	(76.0)
Other Land	1.7	24.0
<b>TOTAL</b>	<b>7.1</b>	<b>100</b>

#### 3.4.1 Subgrade 3b

All of the agricultural land falls into this subgrade. Topsoils consist of very slightly stony medium clay loams overlying gleyed slowly permeable clay subsoils. The slowly permeable layer occurs within 35cm and this land is limited to Subgrade 3b by severe soil wetness and workability restrictions.

#### 3.4.2 Other Land

Other land consists of part of the Lumley Brickworks and a fenced strip of trees and scrub running parallel to it.

RPT File: RPT 20012

MAP

#### 4. SITE 3 DRUM INDUSTRIAL ESTATE

##### 4.1 Location, Land Use and Relief

This site lies approximately 1km north of Chester-le-Street, lying north and south of the A693. At the time of the survey agricultural land to the north of the A693 was in winter cereals, land directly south in permanent grass and land south of the track in beans. Other land consists of an area directly west of Drum Road which has already been taken for development. The land is level to gently sloping (0° - 3°) and lies between 45m AOD and 60m AOD.

##### 4.2 Climate

Grid Reference	:	NZ 265531
Altitude (m)	:	55
Accumulated Temperature above 0° C (January - June)	:	1304 day ° C
Average Annual Rainfall (mm)	:	674
Climatic Grade	:	2
Field Capacity Days	:	169
Moisture Deficit (mm) Wheat	:	94
Moisture Deficit (mm) Potatoes	:	81

##### 4.3 Geology, Soils and Drainage

The area is underlain by Middle Coal Measures with a drift cover of boulder clay. Soils to the north of the A693 and immediately south have been worked and restored, and consist of poorly drained (Wetness Class IV) medium clay loam topsoils over slowly permeable clay subsoils. Imperfectly drained undisturbed soils (Wetness Class III) lie to the south of the track. Soils consist of medium clay loam topsoils over permeable upper subsoils, in turn over slowly permeable lower subsoils.

#### 4.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
1		
2		
3a	4.0	11.4
3b	22.1	62.8
4		
5		
(Sub total)	(26.1)	(74.2)
Other Land	9.1	25.8
<b>TOTAL</b>	<b>35.2</b>	<b>100</b>

##### 4.4.1 Subgrade 3a

This land lies to the far south of the site. The soils are imperfectly drained (Wetness Class III) and consist of very slightly stony medium clay loam topsoils, over gleyed permeable sandy clay loam upper subsoils, in turn over gleyed slowly permeable clay lower subsoils. The slowly permeable layer occurs between 50cm and 55cm depth and this land is limited to Subgrade 3a by moderate soil wetness and workability restrictions.

##### 4.4.2 Subgrade 3b

The remaining agricultural land falls into this subgrade. The soils are restored and consist of very slightly stony medium clay loam topsoils overlying gleyed slowly permeable clay subsoils. These soils are poorly drained (Wetness Class IV) and are limited to Subgrade 3b by severe wetness and workability restrictions.

##### 4.4.3 Other Land

Other Land consists of land now developed and built on directly west of Drum Road.

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MAP