



AGRICULTURAL LAND CLASSIFICATION
TYNEDALE DISTRICT LOCAL PLAN
SITES H4.5/4.6 (WEST WYLAM &
BROOM HOUSE)
PROPOSED RESIDENTIAL DEVELOPMENT
NOVEMBER 1994

ADAS
LEEDS STATUTORY GROUP

JOB No; 133/94
MAFF REF: EL 10046A

2 FCS 10336

SUMMARY

An Agricultural Land Classification survey of 33.8 ha of land at West Wylam and Broom House, east of Prudhoe Castle, Northumberland was carried out in November 1994.

29.2 ha was in agricultural use, of which 1.6 ha falls in Grade 2. Soils within this grade are imperfectly drained (Wetness Class III). Profiles have sandy loam topsoils overlying loamy sand on sandy loam upper subsoils and heavy textured lower subsoils, which are slowly permeable at about 60 cm depth. The land is limited to Grade 2 by slight soil wetness restrictions.

18.5 ha falls in Subgrade 3a. Soils are imperfectly drained (Wetness Class III). Medium textured topsoils overlie sandy clay loam upper subsoils and slowly permeable medium or heavy textured lower subsoils which occur at about 60 cm depth. The land is limited to Subgrade 3a by moderate soil wetness restrictions.

7 ha falls in Subgrade 3b. In some areas, soils are poorly drained (Wetness Class IV) with medium or heavy textured topsoils overlying heavy textured subsoils which are slowly permeable at about 25 cm depth.

Land is limited by severe soil wetness restrictions in some areas. In other areas land is limited to this Subgrade by gradients of 8° - 13° and very uneven micro-relief.

1.7 ha falls into Grade 4, limited by gradients of 13° - 18°.

0.4 ha falls into Grade 5, limited by gradients of over 18°.

2.7 ha of land is occupied by a school, the road and a cottage, and is classed as Urban.

1.3 ha of Farm Woodland occurs in three areas on the site.

0.6 ha of land, which includes the farmhouse and yard are classed as Agricultural Buildings.

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WYLAM AND BROOM HOUSE REF: H4.5/4.6, PRUDHOE, NORTHUMBERLAND

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

33.8 ha of land at West Wylam and Broom House east of Prudoe Castle, centroid grid reference NZ099634 were surveyed in detail in November 1994. Soils were examined by hand auger borings at a density of one boring per hectare at locations predetermined by the National Grid. Soil types were examined in greater detail by examination of profile pits. 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 86% of the site was in agricultural use. Most of the land was under cereals, with two areas under pasture, to the north east of Broom House, and in the extreme north west of the site.

There were three areas of Farm Woodland in the centre and east. An area in the extreme south east was under Urban use.

Slope was not a limiting factor over the majority of the site. However, some areas contained slopes between 8° and 20°. The aspect was generally northerly.

1.3 Climate

Grid Reference	:NZ099634
Altitude (m)	:50
Accumulated Temperature above 0°C (January - June)	:1308 day°C
Average Annual Rainfall (mm)	:673
Climatic Grade	:2
Field Capacity Days	:173
Moisture Deficit (mm) Wheat	:93
Moisture Deficit (mm) Potatoes	:79

1.4 Geology, Soils and Drainage

The site is underlain by Carboniferous sandstones and shales and has a variable cover of drift.

Topsoils are sandy loam to heavy clay loam with sandy to heavy textured upper subsoils overlying medium to heavy textured lower subsoils. Subsoils become slowly permeable at between 20 and 70 cm depth, and soils fall into Wetness Classes I to IV, ranging from well to poorly drained.

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	1.6	4.7
3a	18.5	54.7
3b	7.0	20.7
4	1.7	5.0
5	0.4	1.2
(Sub total)	(29.2)	(86.3)
Urban	2.7	8.0
Non Agricultural		
Woodland - Farm	1.3	3.9
Commercial		
Agricultural Buildings	0.6	1.8
Open Water		
Land not surveyed		
(Sub total)	(4.6)	(13.7)
TOTAL	<u>32.8</u>	<u>100</u>

2.1 Grade 2

Grade 2 land occurs in two areas, to the east of the site, and south of Broom House. Topsoils are fine and medium sandy loam, overlying loamy sand and sandy loam upper subsoils. Heavy clay loam lower subsoils are gleyed and slowly permeable at about 60 cm depth. Profiles are imperfectly drained (Wetness Class III), and the land is limited to Grade 2 by slight soil wetness restrictions.

2.2 Subgrade 3a

Subgrade 3a land occurs in the south, east and west of the site. Topsoils are generally sandy clay loam or medium clay loam, overlying sandy clay loam gleyed upper subsoils.

Slowly permeable, gleyed medium clay loam or clay lower subsoils occur at 50 - 60 cm depth. Soils fall into Wetness Class III and are imperfectly drained. The land is limited to Subgrade 3a by soil wetness restrictions.

2.3 Subgrade 3b

Subgrade 3b land occurs in many areas across the site. To the north west of Broom House and in two areas in the extremem south and south west of the site the land is strongly sloping (9-11°) and is limited to Subgrade 3b by gradient. The paddock to the east and north east of Broom House is strongly to moderately steeply sloping (8 - 13°) and has an uneven micro relief which would restrict the use of machinery. These restrictions limit this area to Subgrade 3b.

The remaining areas of Subgrade 3b land are limited by soil wetness restrictions. Profiles have medium and heavy clay loam topsoils, overlying heavy or sandy clay loam or clay subsoils which are gleyed, slowly permeable and occur at about 25 cm depth. Soils are poorly drained and fall into Wetness Class IV.

2.4 Grade 4

Grade 4 land occurs in the south and in the north west of the site. It is limited to this grade by gradients of 13° - 18°.

2.5 Grade 5

An area of Grade 5 land occurs east of Broom House. The land falls away into a gully and is steeply sloping with irregular topography. The land is limited by gradients of over 18°.

2.6 Urban

Urban land (2.7 ha) occurs in the south east of the site including a school, the tarmac road through the site and a small house.

2.7 Farm Woodland

Farm woodland occurs in the centre/north, and east of the site in three separate areas totalling 1.3 ha.

2.8 Agricultural Buildings

The farm house and farm yard in the centre of the site falls into this category, covering 0.6 ha.

RPT File: 2FCS
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MAP