AGRICULTURAL LAND CLASSIFICATION

Proposed Exelby - A1 Link Road
North Yorkshire

MAFF
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT ON THE PROPOSED EXELBY A1 LINK ROAD, BEDALE, NORTH YORKSHIRE

1.1 INTRODUCTION

Land along the route of the proposed link roads between High Grange Exelby and the A1 and RAF Leeming airfield and the A1 was surveyed in late June 1989. The link roads meet the A1 at Theakston Grange (Grid Reference SE 310 864) which is about 5km south east of Leeming Bar. Soils were examined by hand auger borings at 100m intervals along the route of the proposed road. In addition a profile pit was dug to provide data on soil morphology and to collect samples for laboratory analysis.

1.2 CLIMATE AND RELIEF

Average annual rainfall is 660 mm and the accumulated temperature above 0°C (January-June) is 1343 day °C. The land is at field capacity for 156 days a year. The moisture deficits for wheat and potatoes are 103 mm and 93 mm respectively. Although the rainfall and temperature data indicate that there is no overall climatic limitation on ALC grade, the soil moisture deficits are likely to result in slight droughtiness limitations on light soils.

Gradients are gentle or occasionally moderate across the site with an overall slope to the east. Maximum altitude (48 m aod) occurs west of the A1, south of Exelby High Grange.

1.3 GEOLOGY AND SOILS

All soils are formed on superficial drift deposits which form a thick cover over the underlying Triassic Sandstones. Soils closely resemble their parent material which is either clayey till (boulder clay) or coarse loamy glacio fluvial drift. Where boulder clay occurs at the surface topsoils are fine loamy over slowly permeable clayey subsoils. These soils fall within wetness classes III and IV. Elsewhere slightly stony lighter textured drift gives coarse loamy topsoils over similar textured subsoils which pass occasionally into a lower subsoil of slowly permeable clay. Because the slowly permeable layer is deep in the profile in these soils, wetness is not a serious limitation and profiles fall within Wetness Class I, or II.

1.4 LAND USE

Cereals are currently grown over much of the land other uses include potatoes, and grassland.

1.5 AGRICULTURAL LAND CLASSIFICATION

GRADE	AREA (HECTARES)	% OF TOTAL AREA
2	5.4	76.0
3A	0.6	8.5
3B	0.6	8.5
Urban	0.5	7.0
Total	7.1	100

1.5.1 GRADE 2

Grade 2 land consists of light textured soils (deep sandy loam) free from any significant soil wetness limitation. Slight stoniness and a minor droughtiness limitation for crops such as wheat and potatoes prevent this easily worked land from being graded any higher.

1.5.2 SUBGRADE 3A

The small area of 3A land contains similar soils to the Grade 2 land, but with more limiting droughtiness and stoniness problems.

1.5.4 SUBGRADE 3B

The 3B land contains the heaviest soils along the proposed link road. Topsoils consist of median or heavy clay loam over clayey slowly permeable subsoils. These profiles fall within wetness class IV and are limited to this subgrade by wetness and workability problems.

1.5.5 URBAN

This includes "hard" uses such as metalled roads.

Resource Planning Group
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