

Cambs 03/91

AGRICULTURAL LAND CLASSIFICATION

LAND AT LITTLE SUTTON, NR WISBECH, LINCOLNSHIRE

1.0 BACKGROUND

1.1 Land on this 50 hectare site was inspected in mid-January 1991 in connection with proposals to include it as a potential industrial development site within the Local Plan. A total of 50 soil inspections were made across the site on a structural 100 metre grid, and this information was supplemented by data collected from two soil profile pits. At the time of inspection the site was in mixed agricultural/horticultural use growing bulbs, flowers, potatoes, sugar beet, carrots, onions and cereals.

2.0 PHYSICAL FACTORS AFFECTING LAND QUALITY

Relief & Drainage

2.1 The site occupies level land at an altitude of approximately 4 metres above ordnance datum. The land is underdrained, and water levels are regionally controlled by ditches and pumps.

Climate

2.2 Site climate data has been obtained by interpolating information contained in the 5 km grid dataset produced by the Meteorological Office (Met. Office, 1989). This shows annual average rainfall to be 599 mm (23.96 inches), which is low by national standards. Field capacity days at 109 per annum are also low.

2.3 The accumulated temperature for this area is recorded at 1436° Celsius. This parameter measures the cumulative build up of warmth available for crop growth and has an influence on the development of soil moisture deficits (SMD). Soil moisture deficits of 119 mm and 115 mm are recorded for wheat and potatoes respectively.

Geology and Soils

2.9 The geology of this area is mapped on the 1:50,000 scale geological map sheet number 145/129 (Geol. Surv. 1978). This indicates that the site comprises marine alluvium (Terrington Beds) overlying Amphill clay.

2.5 Field survey observations support this general description and identify one main soil type occurring over the majority of the site. This comprises medium silty clay loam topsoils to 30/40 cm depth, overlying upper subsoils of medium silty clay loam, silt loam or fine sandy silt loam. These textures may extend to depth but often overlie lower subsoils of fine sandy loam or loamy fine sand below 80-100 cm. Soil pit observations indicate that subsoil permeability is high, and wetness class is assessed predominantly as I. Mottling, evident in the subsoil at most locations is a relic feature indicative of water levels pre drainage (see paragraph 2.1).

3.0 AGRICULTURAL LAND CLASSIFICATION

3.1 The site is graded 1, with smaller areas of urban and non agricultural land occurring along its northern and western boundaries. The exact proportion of the differing land uses is indicated below.

ALC	Ha	%
1	42.8	85.0
Urban	7.4	14.6
Non Agricultural	0.2	0.4
Total	<hr/> 50.4	<hr/> 100.0

3.2 The soils described in paragraph 2.5 are deep, well drained and hold large reserves of plant available water. This results in the land being easily worked, and capable of producing high yields of a wide range of arable and horticultural crops.

3.3 To the north of the site a narrow ribbon of land has been affected by the dismantling of a railway. Although occasional profiles of 2 and 3a occur in this area, resulting from a patchy surface stoniness constraint, these have not been delineated at the scale of mapping shown. (Furthermore they do not in a way appear to affect the cultivation or cropping of the fields in which they occur).

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