

AGRICULTURAL LAND CLASSIFICATION  
SOUTH WARWICKSHIRE LOCAL PLAN - GAYDON

The site which comprises three blocks of land, lies about 7 miles south east of Leamington Spa. The most northerly block at Lighthorne is bounded by the A41 and a minor road and occupies the site of a disused limestone quarry with the addition of five fields of undisturbed land <sup>on</sup> the edge of Lighthorne Heath. The latter fields were under cereal crops and temporary grass at the time of survey (June and July 1990) whilst the former quarry was under rough grass and scrub and was used for cattle grazing.

The centre block lies between the A41 and the M40 motorway from Kingston Fields Farm in the north to the B4451 in the south. Most of this land was in agricultural use with oilseed rape, cereals, field beans, linseed, borage and grass. Some areas adjacent to the motorway were under rough grass having been used for soil dumping and there is also some woodland and hard standing areas used by caravans close to Kingston Grange.

The southern area of land lies to the south east of the B4451 around Spring Farm with the motorway forming the western boundary of the site. It was entirely in agricultural use with oilseed rape, cereals, field beans and permanent pasture for sheep and cattle.

Climate

The average annual rainfall in this area is about 643 mm with August and November being the wettest months and February to April the driest. The accumulated temperature above 0°C for the period January to June is 1355 day°C and there is no overall climatic limitation. The median duration of field capacity is 135 days and the growing season extends to about 250 days from late March to late November. The balance between summer rainfall and evapotranspiration gives moisture deficits of 102 mm for

winter wheat and 91 mm for potatoes. The mean date of the last frost is late April.

### Site

The land ranges in altitude from 95 m to the south east of Spring Farm to 130 m at Lighthorne Heath. The southern block of land is level or only gently sloping. Between the A41 and the M40 is generally level on the higher ground around Kingston Grange, and gently to moderately sloping down to the B4451. The disused quarry in the north is generally level but with an irregular surface, while the undisturbed fields to the south are moderately sloping.

### Geology and Soils

The solid geology comprises Lower Lias with hard, cream and grey limestone of the White Lias and also calcareous Rhenish beds in the north; dark grey and bluish mudstones and clay shales in the south; and Lower Lias overlain by Boulder Clay drift deposits in the centre of the three blocks of land.

These give rise to medium and heavy clay loam over clay soils with some lighter textured soils on the higher areas of boulder clay.

### AGRICULTURAL LAND CLASSIFICATION

Grade 3a. Land has been mapped as Grade 3a over most of the central block of land from Castle Farm northwards to Kingston Fields Farm. The land is level or only gently sloping and forms the highest part of this site. The soils are lighter than found elsewhere with sandy loam, sandy clay loam and clay loam topsoils over heavy clay loam and clay. The soils are restricted to this Grade by wetness being either wetness class III or IV with gleying from about 30 cm depth and slowly permeable layers at about 45 cm or higher.

Grade 3b. Most of the site is Grade 3b, including the southern block of land around Spring Farm, land south and east of Castle Farm and the undisturbed fields in the north. Soils are heavy and restricted by wetness with clay and heavy clay loam over clay profiles. Some of the land between Castle Farm and the motorway has been disturbed <sup>by soil dumping, leaving very mixed soil profiles & disruption</sup> of the drainage. Some of this land, notably west of Lighthorne Heath is gently to moderately sloping.

Grade 4. Most of the restored quarry area has been mapped as Grade 4 along with a small area at Kingston Grange. The latter area has a limited depth of soil over hardstandings in places and elsewhere has been disturbed by motorway construction. The quarry area has very variable and mixed soil profiles and suffers from a microrelief/pattern limitation with rock and boulders at the surface in places, interspersed with wet hollows.

Grade 5. The small area of Grade 5 land has been mapped where there are very shallow soils onto rock, generally 5-10 cm of humose clay loam onto rock.

The area of land not surveyed was under full grown oilseed rape at the time of survey and together with very dry and hard soil conditions, this prevented completion of the survey in this area. Land shown as non-agricultural included woodland, a grass covered reservoir and ponds.

Area of Land in each Grade

	hectares	% of total area	% of agricultural area
Grade 3a	68.4	16	17
Grade 3b	253.7	61	62
Grade 4	41.7	10	10
Grade 5	7.3	2	2
NA	4.0	1	-
Urban	1.3	<1	-
Ag. buildings	0.4	<1	-
Not surveyed	36.1	9	9
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TOTAL	412.9	100	100

Resource Planning Group  
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