MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
EAST YORKSHIRE BOROUGH WIDE LOCAL PLAN
LAND AT BRIDLINGTON
HUMBERSIDE
FEBRUARY 1995

ADAS
Leeds Statutory Group

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SUMMARY

A detailed Agricultural Land Classification of eight sites was undertaken in February 1995 as part of the East Yorkshire Borough Wide Local Plan. The following table summarises the Grades for the eight sites:

	Area (ha)				
Site	**2**	**3a**	**3b**	**Other land**	**Total**
Site A		10.7	1.3		12.0
Site C	2.6		1.7		4.3
Site D		2.6	4.0	2.1	8.7
Site F	2.5			5.7	8.2
Site G		0.9			0.9
Site H			4.7	1.3	6.0
Site I	0.8	0.8	0.7	0.1	2.4
Site J	2.4	3.0		1.9	7.3

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AGRICULTURAL LAND CLASSIFICATION REPORT ON EAST YORKSHIRE BOROUGH WIDE LOCAL PLAN, LAND AT BRIDLINGTON

1. INTRODUCTION

1.1 Location and Survey Methods

Eight sites around Bridlington were surveyed in detail in February 1995. Soils were examined by hand auger at 100m intervals predetermined by the National Grid. Soil profile pits were dug to examine the soil in greater detail. All land quality assessments were made 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).

2.1 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE A

2.1.1 Location

The site lies to the south-west of Bridlington around National Grid Reference TA 163 663.

2.1.2 Land Use and Relief

At the time of survey the site was all in arable use with the exception of some scrub land around earthworks in the south of the site.

Altitude ranges from 10 to 25m AOD and the site slopes gently to the south.

2.1.3 Climate

Grid Reference	: TA 163 663
Altitude (m)	: 20
Accumulated Temperature above 0°C (January - June)	: 1361 day °C
Average Annual Rainfall (mm)	: 697
Climatic Grade	: 1
Field Capacity Days	: 171
Moisture Deficit (mm) Wheat	: 106
Moisture Deficit (mm) Potatoes	: 98

2.1.4 Geology, Soils and Drainage

Boulder clay drift deposits cover solid deposits of Flamborough Chalk.

Topsoils are medium clay loam or occasionally medium sandy loam over similar textured upper subsoils. Lower subsoils are gleyed, slowly permeable and typically sandy clay loam or heavy clay loam.

These soils are imperfectly drained (Wetness Class III).

A small area of poorly drained soils (Wetness Class IV) is found towards the centre of the site.

2.1.5 AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE A

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	10.7	89.2
3b	1.3	10.8
4		
5		
(Sub total)	(12.0)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	12.0	100

2.1.6 Subgrade 3a

Most of the site is Subgrade 3a. Soils are imperfectly drained (Wetness Class III) and the land is limited to this Subgrade by soil wetness and workability problems.

2.1.7 Subgrade 3b

This small part of the site contains poorly drained soils limited by severe soil wetness and workability problems.

MAP

2.2 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE C

2.2.1 Location

This site is located to the west of Bridlington around National Grid Reference TA 166 672.

2.2.2 Land Use and Relief

At the time of survey the whole site was in arable use.

A small dry valley runs through the site roughly south to north. This contains slopes of up to 5°. Elsewhere slopes are typically 2 to 3° with a variable aspect.

Altitude ranges from 20 to 30m AOD.

2.2.3 Climate

Grid Reference	: TA 166 672
Altitude (m)	: 23
Accumulated Temperature above 0°C (January - June)	: 1357 day °C
Average Annual Rainfall (mm)	: 697
Climatic Grade	: 1
Field Capacity Days	: 172
Moisture Deficit (mm) Wheat	: 105
Moisture Deficit (mm) Potatoes	: 95

2.2.4 Geology, Soils and Drainage

Soils are all developed from solid deposits of Flamborough Chalk. Drift cover is absent.

On the highest and steepest parts of the site soils are shallow and stony. Topsoils and subsoils are typically a moderately stony, medium clay loam over bedrock at about 35cm depth.

Elsewhere soils are deeper and less stony. Bedrock is not exposed here within 80cm depth.

Soils are all well drained and Wetness Class I

2.2.5. AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE C

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	2.6	60.5
3a		
3b	1.7	39.5
4		
5		
(Sub total)	(4.3)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	4.3	100

2.2.6 Grade 2

Deep well drained slightly stony soils typical medium clay loam topsoils and subsoil over chalk at about 80cm depth were found on the Grade 2 land.

Slight droughtiness limits the ALC grade.

2.2.7 Subgrade 3b

This subgrade contains shallow, stony, droughty soils. Droughtiness is the overall limitation on this land.

MAP

2.3 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE D

2.3.1 Location

Site D is located to the west of Bridlington around National Grid Reference TA 163 677.

2.3.2 Land Use and Relief

Much of the site is in Non Agricultural use including a caravan park, housing and a field where soils have been stripped.

Most of the agricultural land was under grass.

Slopes are level or gentle at an average altitude of 15m AOD.

2.3.3 Climate

Grid Reference	: TA 163 677
Altitude (m)	: 15
Accumulated Temperature above 0°C (January - June)	: 1366 day °C
Average Annual Rainfall (mm)	: 697
Climatic Grade	: 1
Field Capacity Days	: 172
Moisture Deficit (mm) Wheat	: 105
Moisture Deficit (mm) Potatoes	: 96

2.3.4 Geology, Soils and Drainage

Soils are developed from river terrace and alluvium drift, below which is found Flamborough Chalk.

Topsoils are typically medium clay loam or medium silty clay loam over similar textured upper subsoils in the north of the site and over clayey, slowly permeable subsoils towards the Gypsey Race beck. In the north of the site lower subsoils start at around 50cm depth.

Profiles are either imperfectly or poorly drained (Wetness Class III or IV).

2.3.5. AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE D

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	2.6	29.9
3b	4.0	46.0
4		
5		
(Sub total)	(6.6)	(75.9)
Urban		
Non Agricultural	2.1	24.1
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(2.1)	(24.1)
TOTAL	8.7	100

2.3.6 Subgrade 3a

This land contains imperfectly drained soils limited to Subgrade 3a by soil wetness and workability problems.

Topsoils and upper subsoils are typically medium silty clay loam over clayey slowly permeable subsoils.

2.3.7 Subgrade 3b

Subgrade 3b land is limited by severe soil wetness problems. The land is poorly drained (Wetness Class IV).

2.3.8 Non Agricultural

This category includes a number of uses described in paragraph 2.3.2.

MAP

2.4 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE F

2.4.1 Location

The site lies to the west of Bridlington around National Grid Reference TA 172 687.

2.4.2 Land Use and Relief

Part of the site contains a Yorkshire Water pumping station. Elsewhere are a few small grass fields and some arable land adjacent to the Scarborough Road.

Slopes are gentle and level in the east of the site and moderate with a westerly aspect in the west.

Altitude ranges from 45m AOD to 29m AOD.

2.4.3 Climate

Grid Reference	: TA 172 687
Altitude (m)	: 40
Accumulated Temperature above 0°C (January - June)	: 1337 day °C
Average Annual Rainfall (mm)	: 704
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 101
Moisture Deficit (mm) Potatoes	: 90

2.4.4 Geology, Soils and Drainage

Profiles are mostly developed from Flamborough Chalk, drift cover being thin or absent.

Soils are usually well drained and slightly stony, typically a medium clay loam topsoil and subsoil over chalk at about 80cm depth.

2.4.5. AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE F

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	2.5	30.5
3a		
3b		
4		
5		
(Sub total)	(2.5)	(30.5)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed	5.7	69.5
(Sub total)	(5.7)	(69.5)
TOTAL	8.2	100

2.4.6 Grade 2

All the surveyed land was Grade 2. Profiles are typically well drained and slightly stony. A slight drought limitation applies across this area.

2.4.7 Not Surveyed

Access problems prevented this land from being surveyed.

MAP

2.5 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE G

2.5.1 Location

Site G is located to the north-east of Bridlington around National Grid Reference TA 174 688.

2.5.2 Land Use and Relief

At the time of survey the whole site was under grass.

Slopes are gentle with a south easterly aspect. Average altitude is 45m AOD.

2.5.3 Climate

Grid Reference	: TA 172 688
Altitude (m)	: 43
Accumulated Temperature above 0°C (January - June)	: 1333 day °C
Average Annual Rainfall (mm)	: 705
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 101
Moisture Deficit (mm) Potatoes	: 90

2.5.4 Geology, Soils and Drainage

Soils are developed from reddish boulder clay drift which covers the Flamborough Chalk below.

Topsoils and upper subsoils are typically medium clay loam over clayey reddish slowly permeable subsoils. These are imperfectly drained (Wetness Class IV).

2.5.5 AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE G

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	0.9	100
3b		
4		
5		
(Sub total)	(0.9)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	0.9	100

2.3.6 Subgrade 3a

The whole site is Subgrade 3a. Soil wetness limits the ALC grade of this imperfectly drained (Wetness Class III) land.

MAP

2.6 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE H

2.6.1 Location

Site H lies to the north west of Bridlington around National Grid Reference TA 173 691.

2.6.2 Land Use and Relief

At the time of survey part of the site was in Non Agricultural use including the storage of fishing boats and equipment.

The remaining agricultural land was under grass.

Slopes are level or gentle and average altitude is 53m AOD.

2.6.3 Climate

Grid Reference	: TA 173 691
Altitude (m)	: 53
Accumulated Temperature above 0°C (January - June)	: 1322 day °C
Average Annual Rainfall (mm)	: 708
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 88

2.6.4 Geology, Soils and Drainage

Soils are formed directly upon Flamborough Chalk. Drift cover is absent.

Soils are typically shallow, stony and well drained (Wetness Class I).

Medium clay loam top and subsoils overlie bedrock at about 35cm depth.

2.6.5 AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE H

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a		
3b	4.7	78.3
4		
5		
(Sub total)	(4.7)	(78.3)
Urban		
Non Agricultural	1.3	21.7
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(1.3)	(21.7)
TOTAL	6.0	100

2.6.6 Subgrade 3b

All the agricultural land is Subgrade 3b.

Soils are shallow and stony. Severe soil droughtiness limits the ALC grade of this land.

2.6.7 Non Agricultural

This includes a number of non agricultural land uses described in paragraph 2.6.2.

MAP

2.7 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE I

2.7.1 Location

The site is located 2km to the north of Bridlington town centre and is centred around National Grid Reference TA 175 691.

2.7.2 Land Use and Relief

At the time of survey the whole site was under permanent grass. Altitude ranges from 53m AOD in the west to 42m AOD in the east of the site. Slopes vary from gently to moderately sloping (2-5°), with an easterly aspect.

2.7.3 Climate

Grid Reference	: TA 175 691
Altitude (m)	: 47
Accumulated Temperature above 0°C (January - June)	: 1329 day °C
Average Annual Rainfall (mm)	: 706
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 89

2.7.4 Geology, Soils and Drainage

The site is underlain by Flamborough Chalk which is exposed within 30cm of the surface in the west. The east of the site is covered by a thin layer of drift.

Soils are shallow in the west at the top of the slope, and are characterised by medium clay loam topsoils overlying very shallow medium silty or heavy clay loam subsoils.

In the east, profiles are deeper, with medium clay loam topsoils, medium silty or heavy clay loam upper subsoils and stony, medium textured lower subsoils.

Profiles are well drained (Wetness Class I).

2.7.5 AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE H

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	0.8	33.3
3a	0.8	33.3
3b	0.7	29.2
4		
5		
(Sub total)	(2.3)	(95.8)
Urban	0.1	4.2
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.1)	(4.2)
TOTAL	2.4	100

2.7.6 Grade 2

0.8 ha of Grade 2 land occurs in the east of the site in a lower-slope location. Medium clay loam topsoils overlie shallow heavy clay loam upper subsoils and stony (15% chalk stones) medium clay loam lower subsoils. Chalk bedrock is exposed at 90cm depth,and the land is restricted to Grade 2 by a slight droughtiness limitation.

2.7.7 Subgrade 3a

0.8 ha of Subgrade 3a land occurs in a mid-slope location across the centre of the site. Medium clay loam topsoils overlie medium silty clay loam upper and lower subsoils. Lower subsoils are stony (15% chalk stones), and Chalk bedrock is exposed at 60cm. The land is restricted by a moderate drought limitation to Subgrade 3a.

2.7.8 Subgrade 3b

0.7 ha of Subgrade 3b land occurs towards the top of the slope in the west of the site. Medium clay loam topsoils overlie shallow, heavy clay loam subsoils, with Chalk bedrock exposed at 30-35cm depth. The land is restricted by severe drought limitations, to Subgrade 3b.

2.7.9 Urban

0.1 ha of land in the north-west of the site is occupied by a house and garden.

MAP

2.8 AGRICULTURAL LAND CLASSIFICATION REPORT ON BRIDLINGTON SITE J

2.8.1 Location

The site lies to the north-east of Bridlington, adjacent to the B1255 and the railway, and is centred around National Grid Reference TA 197 697.

2.8.2 Land Use and Relief

At the time of survey all of the agricultural land was under permanent grass. Some small areas have been planted with woodland. There are three areas of Urban land (houses and gardens), and there is one area of Farm Buildings. Part of the field in the north-west corner of the site has recently been used to provide an extension to the caravan park and so is classed as Non-Agricultural.

Altitude ranges from 50m AOD in the south-west to 45m AOD in the north-east. Slopes are north easterly with the land being level or gently sloping.

2.8.3 Climate

Grid Reference	: TA 197 697
Altitude (m)	: 50
Accumulated Temperature above 0°C (January - June)	: 1324 day °C
Average Annual Rainfall (mm)	: 710
Climatic Grade	: 1
Field Capacity Days	: 174
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 88

2.8.4 Geology, Soils and Drainage

The site is underlain by Flamborough Chalk, but this is not exposed within 1m of the surface. The site is covered by boulder clay drift from which the soils are derived.

Soils are characterised by medium clay loam or medium silty clay loam topsoils overlying heavy clay loam or heavy silty clay loam subsoils at depths between 35 and 70cm. The subsoils are gleyed and can be slowly permeable. Profiles range from well to poorly drained (Wetness Classes I - IV).

2.8.5 AGRICULTURAL LAND CLASSIFICATION - BRIDLINGTON SITE J

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	2.4	32.9
3a	3.0	41.1
3b		
4		
5		
(Sub total)	(5.4)	(74.0)
Urban	0.5	6.9
Non Agricultural	0.9	12.3
Woodland - Farm	0.3	4.1
- Commercial		
Agricultural Buildings	0.2	2.7
Open Water		
Land not surveyed		
(Sub total)	(1.9)	(26.0)
TOTAL	7.3	100

2.8.6 Grade 2

2.4 ha of land in the south-west of the site is Graded 2. Medium clay loam topsoils overlie heavy clay loam subsoils which are gleyed and, in places, slowly permeable at around 60cm depth. Profiles are well to moderately well drained (Wetness Classes I-II). The land is restricted by slight soil wetness limitation to Grade 2.

2.8.7 Grade 3a

The remaining 3.0 ha of agricultural land is Graded 3a. Medium clay loam and medium silty clay loam topsoils overlie slowly permeable, gleyed heavy clay loam and heavy silty clay loam subsoils at varying depths. Profiles are imperfectly to poorly drained (Wetness Classes II - IV). The land is restricted to Grade 3a by moderate soil wetness limitations.

2.8.8 Urban

Three areas totalling 0.5 ha are occupied by houses and gardens.

2.8.9 Non Agricultural

0.9 ha of land in the north-west corner of the site is a recent extension to the neighbouring caravan park.

2.8.10 Woodland

0.3 ha of woodland has been planted across the south-east of the site.

2.8.11 Agricultural Buildings

0.2 ha in the north-east of the site is occupied by farm buildings.

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