

A1

**PROPOSED GOLF COURSE
ETCHINGHILL, FOLKESTONE, KENT**

Agricultural Land Classification

July 1996

**Resource Planning Team
Guildford Statutory Group
ADAS Reading**

**ADAS Reference: 2010/104/96
MAFF Reference: EL 20/1454
LUPU Commission: 2620**

AGRICULTURAL LAND CLASSIFICATION REPORT

PROPOSED GOLF COURSE ETCHINGHILL, FOLKESTONE, KENT

Introduction

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 23.8 ha of land at Etchinghill, Folkestone, Kent. The survey was carried out during July 1996.
2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) Land Use Planning Unit, Reading in connection with a planning application for a proposed extension to Etchinghill Golf Course. This survey supersedes previous ALC surveys on this land.
3. The work was conducted under sub-contracting arrangements by NA Duncan, and was supervised by members of the Resource Planning Team in the Guildford Statutory Group in ADAS. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.
4. At the time of survey the majority of the site was under set-aside, with a small area of woodland on the eastern side of the site, alongside Teddars Leas Road.

Summary

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 it is accurate at this scale but any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% Total site area	% Surveyed Area
3a	10.0	42.0	42.6
3b	13.5	56.7	57.4
Other land	0.3	1.3	-
Total surveyed area	23.5	98.7	100
Total site area	23.8	100	-

7. The fieldwork was conducted at an average density of 1 boring per hectare. A total of 22 borings and 2 soil pits were described.

8. The higher flatter land to the north and east of the site has been classified as Subgrade 3a, good quality agricultural land. This area principally comprises fine loamy soils developed in Head. The major limitation associated with this land is due to a minor wetness and workability restriction. The steeper sloping land to the south and west has been mapped as Subgrade 3b, moderate quality agricultural land. This area comprises soils developed on Cretaceous Chalk. Much of this area is moderately steep (8-10°) which limits the land to Subgrade 3b, but on the less steeply sloping land shallow, moderately stony soils overlying chalk have been mapped, which are moderately droughty due to the restricted rooting depth and are therefore also included within Subgrade 3b. A small area of Subgrade 3a has also been mapped on the western side of the site in the bottom of a small re-entrant on the valley side, where moderately shallow soils over chalk were found but on less steeply sloping land.

Factors Influencing ALC Grade

Climate

9. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

10. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	TR 171 400
Altitude	m, AOD	155
Accumulated Temperature	day°C (Jan-June)	1328
Average Annual Rainfall	mm	820
Field Capacity Days	days	172
Moisture Deficit, Wheat	mm	100
Moisture Deficit, Potatoes	mm	89

11. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

12. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site mean due to the relatively warm and moist conditions that prevail, wetness and workability limitations may be enhanced on the heavier textured soils. The land is also relatively exposed to the prevailing south westerly airstream, being close to the south coast. Overall the site is restricted to Grade 2 as a result of climatic limitations

Site

14. The site is located on the western side of a valley and comprises the moderately steep side slopes rising on to the very gently sloping or flat plateau top land. The altitude of the site ranges from 170 m AOD on the eastern side falling to 145 m AOD on the western boundary, which abuts the existing golf course. The eastern side of the site is flat or very gently sloping with slopes in the range of 0-4°, whilst on the western side, the gradients range from 5-10°, limiting much of this area in terms of ALC grading.

Geology and soils

15. The published geological information for the area (BGS, 1974) shows the site to be underlain by three main geological deposits. The higher land on the eastern side of the site has been mapped as Head, whilst to the west the land is underlain by Middle Chalk on the mid slopes and Lower Chalk on the lower slopes to the south west.

16. The reconnaissance soil survey map (SSEW, 1983) for the area shows the site to comprise a small area of Batcombe association on the higher land at the eastern side of the site, with Wantage 1 association soils occupying the western side. The Batcombe soils are described as typically fine silty or fine loamy over clayey with red or red mottled subsoils. They suffer slight seasonal waterlogging and typically occur on level or gently sloping land. The soils of the Wantage 1 association are classified as loamy rendzinas and typically comprise well drained fine silty soils overlying chalk. The association includes shallow soils on the convex brows and steeper slopes with deeper drift over the chalk on the lower slopes and valley floor (SSEW 1984).

Agricultural Land Classification

17. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1, page 1.

18. The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix III.

Subgrade 3a

19. Two areas of Subgrade 3a have been mapped, the larger on the flat or gently sloping land on the eastern side of the site, and the smaller area in the bottom of a small re-entrant on the valley side on the western side of the site. Land on the higher ground to the east of the site has been included within this subgrade due to a wetness and workability limitation. The soils are typically fine loamy, having a heavy clay loam topsoil overlying a brown or greyish brown heavy clay loam subsoil with distinct red mottling. Soil pit 1 indicates that the subsoils are gleyed but not slowly permeable and, as such, the soils are assessed as Wetness Class II

(see Appendix II). The combination of a heavy clay loam topsoil texture and the impeded drainage means that under the prevailing climatic regime the soils may not be in a suitable condition for cultivation, trafficking by machinery or grazing by livestock during the wetter periods of the year and have therefore been included within Subgrade 3a. This area also includes soil profiles with medium clay loam topsoils and/or less evidence of gleying, which have a Grade 2 classification. However, it was not feasible to delineate these areas separately at the current scale of mapping and as such the whole area is mapped as Subgrade 3a.

20. The small area of land on the western side of the site which has been mapped as Subgrade 3a has a droughtiness limitation. The soils in this area comprise strongly calcareous fine loamy soils, overlying chalk at a moderate depth. Moisture balance calculations indicate that under the prevailing climatic conditions these soils will be slightly droughty, limiting the land quality to Subgrade 3a. All the surrounding land in this area is restricted to a lower subgrade due to a gradient limitation, but the slopes in this small area are less than 7°, allowing the land to be included within Subgrade 3a.

Subgrade 3b

21. The western half of the site has been mapped as Subgrade 3b, due to gradient and/or droughtiness limitations. The whole of this area comprises soils developed on chalk. On the convex upper slopes the soils are very calcareous, shallow clay loams with many small chalk stones overlying fissured chalk. Soil pit 2 indicates that plant roots extend into the chalk approximately 35 cm and moisture balance calculations indicate that these soils will therefore be moderately droughty, limiting the land quality to Subgrade 3b. In addition, much of the land, especially on the mid and lower slopes is moderately steep with gradients ranging from 8-10°, causing difficulties for mechanised farm operations and, therefore, limiting land quality to Subgrade 3b.

N A Duncan
for the Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

British Geological Survey (1974) *Sheet Nos. 305 and 306, Folkestone and Dover*.
BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land*. MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification*.
Met. Office: Bracknell.

Soil Survey of England and Wales (1983) *Sheet 6, South East England*.
SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England*
SSEW: Harpenden

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

Grade 1: Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2: Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a: Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b: Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4: Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5: Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

APPENDIX II

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

Wetness Class	Duration of waterlogging ¹
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years. ²
II	The soil profile is wet within 70 cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but only wet within 40 cm depth for 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years or, if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

¹ The number of days is not necessarily a continuous period.

² 'In most years' is defined as more than 10 out of 20 years.

APPENDIX III

SOIL DATA

Contents:

Sample location map

Soil abbreviations - Explanatory Note

Soil Pit Descriptions

Soil boring descriptions (boring and horizon levels)

Database Printout - Horizon Level Information

SOIL PROFILE DESCRIPTIONS: EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF:** national 100 km grid square and 8 figure grid reference.
2. **USE:** Land use at the time of survey. The following abbreviations are used.

ARA: Arable	WHT: Wheat	BAR: Barley
CER: Cereals	OAT: Oats	MZE: Maize
OSR: Oilseed rape	BEN: Field Beans	BRA: Brassicae
POT: Potatoes	SBT: Sugar Beet	FCD: Fodder Crops
LIN: Linseed	FRT: Soft and Top Fruit	FLW: Fallow
PGR: Permanent Pasture	LEY: Ley Grass	RGR: Rough Grazing
SCR: Scrub	CFW: Coniferous Woodland	
DCW: Deciduous Wood		
HTH: Heathland	BOG: Bog or Marsh	FLW: Fallow
PLO: Ploughed	SAS: Set aside	OTH: Other
HRT: Horticultural Crops		

3. **GRDNT:** Gradient as estimated or measured by a hand-held optical clinometer.
4. **GLEYSPL:** Depth in centimetres (cm) to gleying and/or slowly permeable layers.
5. **AP (WHEAT/POTS):** Crop-adjusted available water capacity.
6. **MB (WHEAT/POTS):** Moisture Balance. (Crop adjusted AP - crop adjusted MD)
7. **DRT:** Best grade according to soil droughtiness.
8. If any of the following factors are considered significant, 'Y' will be entered in the relevant column.

MREL: Microrelief limitation	FLOOD: Flood risk	EROSN: Soil erosion risk
EXP: Exposure limitation	FROST: Frost prone	DIST: Disturbed land
CHEM: Chemical limitation		

9. **LIMIT:** The main limitation to land quality. The following abbreviations are used.

OC: Overall Climate	AE: Aspect	EX: Exposure
FR: Frost Risk	GR: Gradient	MR: Microrelief
FL: Flood Risk	TX: Topsoil Texture	DP: Soil Depth
CH: Chemical	WE: Wetness	WK: Workability
DR: Drought	ER: Erosion Risk	WD: Soil Wetness/Droughtiness
ST: Topsoil Stoniness		

Soil Pits and Auger Borings

1. **TEXTURE:** soil texture classes are denoted by the following abbreviations.

S: Sand	LS: Loamy Sand	SL: Sandy Loam
SZL: Sandy Silt Loam	CL: Clay Loam	ZCL: Silty Clay Loam
ZL: Silt Loam	SCL: Sandy Clay Loam	C: Clay
SC: Sandy Clay	ZC: Silty Clay	OL: Organic Loam
P: Peat	SP: Sandy Peat	LP: Loamy Peat
PL: Peaty Loam	PS: Peaty Sand	MZ: Marine Light Silts

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of the following prefixes:

F: Fine (more than 66% of the sand less than 0.2mm)
M: Medium (less than 66% fine sand and less than 33% coarse sand)
C: Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content: **M:** Medium (<27% clay) **H:** Heavy (27-35% clay)

2. **MOTTLE COL:** Mottle colour using Munsell notation.
3. **MOTTLE ABUN:** Mottle abundance, expressed as a percentage of the matrix or surface described.

F: few <2% **C:** common 2-20% **M:** many 20-40% **VM:** very many 40% +

4. **MOTTLE CONT:** Mottle contrast

F: faint - indistinct mottles, evident only on close inspection
D: distinct - mottles are readily seen
P: prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL:** Ped face colour using Munsell notation.
6. **GLEYS:** If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.
7. **STONE LITH:** Stone Lithology - One of the following is used.

HR: all hard rocks and stones	SLST: soft oolitic or dolimitic limestone
CH: chalk	FSST: soft, fine grained sandstone
ZR: soft, argillaceous, or silty rocks	GH: gravel with non-porous (hard) stones
MSST: soft, medium grained sandstone	GS: gravel with porous (soft) stones
SI: soft weathered igneous/metamorphic rock	

Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

8. **STRUCT:** the degree of development, size and shape of soil peds are described using the following notation:

degree of development **WK:** weakly developed **MD:** moderately developed
 ST: strongly developed

ped size **F:** fine **M:** medium
 C: coarse **VC:** very coarse

ped shape **S :** single grain **M:** massive
 GR: granular **AB:** angular blocky
 SAB: sub-angular blocky **PR:** prismatic
 PL: platy

9. **CONSIST:** Soil consistence is described using the following notation:

L: loose **VF:** very friable **FR:** friable **FM:** firm **VM:** very firm
EM: extremely firm **EH:** extremely hard

10. **SUBS STR:** Subsoil structural condition recorded for the purpose of calculating profile droughtiness: **G:** good **M:** moderate **P:** poor

11. **POR:** Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

12. **IMP:** If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.

13. **SPL:** Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

14. **CALC:** If the soil horizon is calcareous, a 'Y' will appear in this column.

15. Other notations

APW: available water capacity (in mm) adjusted for wheat

APP: available water capacity (in mm) adjusted for potatoes

MBW: moisture balance, wheat

MBP: moisture balance, potatoes

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP					
1	TR16904030	SAS W	08	000	1	1	000	0	000	0			GR	3B	
1P	TR17304010	SAS N		025	2	3A	140	40	106	17	1		WE	3A	
2	TR17004030	SAS W	04	055	2	3A	000	0	000	0			WE	3A	
2P	TR17303990	SAS SW	04	000	1	1	075	-25	078	-11	3B		DR	3B	
3	TR17104030	SAS N	01	050	2	3A	000	0	000	0			WE	3A	
4	TR16904020	SAS W	09	000	1	1	000	0	000	0			GR	3B	
5	TR17004020	SAS W	06	000	1	1	000	0	000	0			DR	3B	
6	TR17104020	SAS SW	04	000	1	1	083	-17	086	-3	3A		DR	3A	
7	TR17204020	SAS N		030	2	3A	000	0	000	0			WE	3A	
8	TR16904010	SAS SW	08	000	1	1W	000	0	000	0			GR	3B	
9	TR17004010	SAS S	09	000	1	1	000	0	000	0			GR	3B	
10	TR17104010	SAS W	09	000	1	1	000	0	000	0			GR	3B	
11	TR17204010	SAS W	02	025 025	3	3B	000	0	000	0			WE	3B	
12	TR17304010	SAS W		025	2	3A	000	0	000	0			WE	3A	
13	TR17004000	SAS NW	07	000	1	1	082	-18	082	-7	3A		DR	3A	
14	TR17104000	SAS NW	08	000	1	1	000	0	000	0			GR	3B	
15	TR17204000	SAS W	06	000	1	1	133	33	111	22	1		OC	2	
16	TR17304000	SAS W	01	000	1	1	066	-34	066	-23	3B		DR	3A	
17	TR17404000	SAS W	01	030	2	3A	000	0	000	0			WE	3A	
18	TR17103990	SAS SW	05	000	1	1	000	0	000	0			DR	3B	
19	TR17203990	SAS SW	05	000	1	1	000	0	000	0			DR	3B	
20	TR17303990	SAS SW	04	000	1	1	077	-23	080	-9	3B		DR	3B	
22	TR17103980	SAS SW	08	030	2	3A	000	0	000	0			GR	3B	
23	TR17103970	SAS SW	01	065 085	1	2	140	40	112	23	1		WE	2	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES----			STRUCT/	SUBS	SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH				
1	0-28	hc1	10YR43 00						3	0	CH	10			Y
	28-40	ch	10YR81 00						0	0		0			
1P	0-25	hc1	10YR43 00						2	0	HR	5			
	25-50	hc1	75YR54 00	75YR56 00	C		10YR53 00	Y	0	0	HR	3	MDCSB	FM	M
	50-90	hc1	10YR53 00	75YR58 00	M			Y	0	0		0	MDVCAB	FM	P
	90-120	sc1	10YR65 00	10YR68 00	C			S	0	0		0	WKVCSB	FR	M
2	0-30	mc1	10YR44 00						2	0	HR	3			
	30-55	hc1	10YR46 00						0	0	HR	2			
	55-78	c	10YR46 00	00MN00 00	C			S	0	0		0			
	78-80	ch	10YR81 00					S	0	0		0			
2P	0-25	hc1	10YR44 00						0	0	CH	10			Y
	25-60	ch	10YR81 00						0	0		0	P		
3	0-30	hc1	10YR44 00						2	2	HR	5			
	30-50	hc1	10YR54 64						0	0	HR	2			
	50-80	hc1	10YR54 00	75YR56 00	C			Y	0	0	HR	2			
	80-120	fsc1	25Y 48 00	10YR66 00	C			Y	0	0		0			
4	0-24	mc1	10YR44 00						2	0	HR	3			Y
	24-55	hc1	10YR56 00						0	0	CH	7			Y
	55-60	ch	10YR81 00						0	0		0			
5	0-27	mzc1	10YR53 00						3	0	CH	15			Y
	27-40	ch	10YR81 00						0	0		0			
6	0-28	mc1	10YR43 00						2	0	HR	3			
	28-37	hc1	10YR56 00						0	0	HR	2	M		
	37-60	ch	10YR81 00						0	0		0	P		
7	0-30	hc1	10YR44 00						2	0	HR	3			
	30-55	hc1	75YR46 00	05YR56 00	C			S	0	0		0			
	55-90	hc1	25Y 64 00	05YR58 00	C			Y	0	0		0			
	90-120	fsc1	25Y 64 00	05YR58 00	M			Y	0	0		0			
8	0-30	mzc1	10YR52 00						0	0	CH	15			Y
	30-40	ch	10YR81 00						0	0		0			
9	0-30	hc1	10YR43 00						2	0	HR	4			Y
	30-60	hc1	10YR56 00						0	0	HR	3			Y
10	0-25	hc1	10YR43 00						2	0	HR	4			Y
	25-85	hc1	10YR56 00						0	0	CH	5			Y
	85-120	fsc1	10YR58 00						0	0	HR	2			
11	0-25	hc1	10YR43 00						4	0	HR	6			
	25-70	c	25Y 54 00	10YR58 00	C		00MN00 00	Y	0	0	HR	5			Y
	70-75	c	25Y 54 00	10YR58 00	C			Y	0	0	HR	10			Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----		PED		----STONES----		STRUCT/ CONSIST	SUBS		SPL	CALC
				COL	ABUN.	COL.	GLE	>2	>6		LITH	TOT		
12	0-25	hc1	10YR43 00							2 0 HR	5			
	25-45	hc1	10YR54 00	75YR56 00	C			Y	0 0 HR	3				
	45-80	hc1	10YR53 00	75YR56 00	C			Y	0 0 HR	3				
	80-120	mc1	10YR66 00					Y	0 0 HR	2				
13	0-30	hc1	10YR43 00							3 0 CH	10			Y
	30-50	hc1	10YR55 00	00M00 00	F					0 0 CH	15	M		Y
	50-60	ch	10YR81 00							0 0	0	P		
14	0-28	hc1	10YR43 00							2 0 CH	10			Y
	28-90	hc1	10YR56 00							0 0 CH	8			Y
	90-95	ch	10YR81 00							0 0	0			Y
15	0-27	hc1	10YR43 00							3 0 HR	5			Y
	27-65	hc1	10YR56 00							0 0 HR	5	M		Y
	65-120	c	75YR56 00	00M00 00	F					0 0 HR	2	P		
16	0-27	mc1	10YR43 00							2 0 HR	4			
	27-40	hc1	10YR46 00							0 0 CH	15	M		Y
	40-50	ch	10YR81 00							0 0	0	P		
17	0-30	hc1	10YR44 00							2 0 HR	4			
	30-50	hc1	10YR54 00	75YR56 00	C			Y	0 0 HR	3				
	50-80	hc1	10YR54 00	75YR58 00	C			Y	0 0 HR	2				
	80-120	hc1	75YR56 00					Y	0 0 HR	2				
18	0-28	hc1	10YR43 00							5 0 CH	15			Y
	28-60	ch	10YR81 00							0 0	0			
19	0-27	hc1	10YR43 00							5 0 CH	15			
	27-60	ch	10YR81 00							0 0	0			
20	0-25	hzc1	10YR43 00							3 2 HR	5			Y
	25-60	ch	10YR81 00							0 0	0	P		
22	0-30	hc1	10YR43 00							4 2 CH	11			Y
	30-70	hc1	10YR54 00	75YR56 00	C			Y	0 0 CH	5				Y
	70-80	ch	10YR81 00					Y	0 0	0				
23	0-30	hc1	10YR44 00							2 2 HR	5			
	30-65	hc1	10YR56 00							0 0 HR	5	M		
	65-85	hc1	10YR45 00	00M00 00	C			S	0 0 HR	5		M		
	85-120	c	25Y 64 00	75YR56 00	C			Y	0 0	0		P		Y

SOIL PIT DESCRIPTION

Site Name : ETCHINGHILL GOLF KENT Pit Number : 1P

Grid Reference: TR17304010 Average Annual Rainfall : 820 mm
 Accumulated Temperature : 1328 degree days
 Field Capacity Level : 155 days
 Land Use : Set-aside
 Slope and Aspect : degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	HCL	10YR43 00	2	5	HR					
25- 50	HCL	75YR54 00	0	3	HR	C	MDCSB	FM	M	
50- 90	HCL	10YR53 00	0	0		M	MDVCAB	FM	P	
90-120	SCL	10YR65 00	0	0		C	WKVCSB	FR	M	

Wetness Grade : 3A Wetness Class : II
 Gleying : 025 cm
 SPL : No SPL

Drought Grade : 1 APW : 140mm MBW : 40 mm
 APP : 106mm MBP : 17 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : ETCHINGHILL GOLF KENT Pit Number : 2P

Grid Reference: TR17303990 Average Annual Rainfall : 820 mm
Accumulated Temperature : 1328 degree days
Field Capacity Level : 155 days
Land Use : Set-aside
Slope and Aspect : 04 degrees SW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	HCL	10YR44 00	0	10	CH					Y
25- 60	CH	10YR81 00	0	0					P	

Wetness Grade : 1 Wetness Class : I
Gleying : 000 cm
SPL : No SPL

Drought Grade : 3B APW : 075mm MBW : -25 mm
APP : 078mm MBP : -11 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness