

**A1**  
**Canterbury District Local Plan**  
**RUR 12: Land at Eastdown Farm**  
**ALC Map and Report**  
**March 1995**

# AGRICULTURAL LAND CLASSIFICATION REPORT

## CANTERBURY DISTRICT LOCAL PLAN RUR 12: LAND AT EASTDOWN FARM

### 1. Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of sites in the Canterbury district of Kent. The work forms part of MAFF's statutory input to the Canterbury District Local Plan.
- 1.2 The land at Eastdown Farm comprises 18.0 hectares of land at Eastdown Farm, near Broad Oak, to the north of Canterbury, Kent. An Agricultural Land Classification (ALC) survey was carried out during March 1995. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 19 borings and two soil inspection pits were described in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose a long term limitation on its use for agriculture.
- 1.3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.
- 1.4 At the time of the survey the land was under permanent grass.
- 1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent are given in the table below. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement would be misleading. This survey supersedes previous ALC surveys on this land.

**Table 1 : Distribution of Grades and Subgrades**

<b>Grade</b>	<b>Area (ha)</b>	<b>% of Agricultural Land</b>
3a	5.0	27.8
3b	<u>13.0</u>	<u>72.2</u>
Total area of site	18.0	100.0

- 1.6 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

- 1.7 Two areas of Subgrade 3a, good quality land, occur on this site. Land of this quality is primarily limited by soil droughtiness because of sandy textured soils. To the south-west of Eastdown Farm, part of the land is limited by soil wetness. Slowly permeable clay occurring at moderate depths within the soil profile results in imperfect soil drainage conditions.
- 1.8 The majority of land has been classified as Subgrade 3b, moderate quality, because of severe soil wetness and workability limitations. Medium clay loam topsoils are directly underlain by slowly permeable clay subsoils resulting in poor soil drainage conditions. Consequently, this land will be subject to significant restrictions in the flexibility of cropping, stocking and cultivations.

**2. Climate**

- 2.1 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.
- 2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.
- 2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office, 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site. However climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. The soil moisture deficits are relatively high, in a regional context, at this locality. High soil moisture deficits increase the likelihood of soil droughtiness limitations.

**Table 2 : Climatic Interpolation**

Grid Reference	TR 155 606
Altitude (m)	55
Accumulated Temperature (degree days, Jan-June)	1433
Average Annual Rainfall (mm)	635
Field Capacity (days)	132
Moisture Deficit, Wheat (mm)	118
Moisture Deficit, Potatoes (mm)	114
Overall Climatic Grade	1

- 2.4 No other local climatic factors, such as exposure or frost risk, are believed to affect the site.
- 3. Relief**
- 3.1 The site is relatively flat, lying at approximately 55 to 60 m AOD.

#### **4. Geology and Soil**

- 4.1 The relevant geological sheet (BGS, 1974) maps the entire site as London Clay. Drift deposits of head are shown to cover discrete areas in the centre and west of the site.
- 4.2 The most recent published soils information (SSEW, 1983) shows the entire site to comprise soils of the Wickham 4 Association. These soils are described as 'slowly permeable seasonally waterlogged fine loamy over clayey and fine silty over clayey soils associated with similar clayey soils, often with brown subsoils'. The soils for this area are similarly described in the Soils of Kent (SSEW, 1980).
- 4.3 Detailed field examination found two broad soil types, the predominant being that of poorly drained heavy textured soils. The secondary soil type comprises well drained coarse textured sandy soils.

#### **5. Agricultural Land Classification**

- 5.1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.
- 5.2 The location of the soil observation points are shown on the attached sample point map.

##### **Subgrade 3a**

- 5.3 Land classified as Subgrade 3a, good quality, is associated with soils derived from the drift deposits of head. Most of this mapping unit is restricted by moderate soil droughtiness limitations, arising from sandy textured soils. Medium sandy loam and, occasionally, sandy clay loam topsoils overlie medium sandy loam upper subsoils. These overlie variably textured lower subsoils, namely medium or coarse sandy loams, loamy medium sands and sandy clay loams. Profiles are generally gleyed within 40 cm. However, the interaction between the coarse textured soils and low field capacity days means that these profiles are still assessed as being well drained (Wetness Class I). These profiles are stoneless to very slightly stony, containing 0-5% total flints by volume.
- 5.4 From Pit 2, which represents such profiles, it could be seen that the medium sandy loam horizons are moderately structured; loamy medium sands are well structured. It was also observed that the changeable nature of the lower subsoils (namely the variable soil textures and depth to/thickness of the loamy medium sand horizon) resulted in a range of soil moisture deficits.
- 5.5 The interaction between the soil textures and relatively dry local climate meant that Pit 2 was classified as Subgrade 3a. This land is subject to moderate soil droughtiness limitations because of a relatively broad loamy medium sand horizon which occurred at moderate depth within the soil pit profile. The auger borings within this vicinity and in the west of the site were originally assessed as Grade 2. This grade was assigned because of slight soil droughtiness limitations.

- 5.6 This difference in grading arose because, in comparison to Pit 2, the loamy medium sand occurred at greater depths within the auger borings. Consequently, such profiles would retain slightly more profile available water than Pit 2. However, the variable nature of these sandy profiles, as highlighted by Pit 2, means that all of the land comprising sandy textured soils has been classified as Subgrade 3a. The moderate restriction in the amount of profile available water may result in lowered levels and consistency of crop yields from risk of drought stress.
- 5.7 In the west of the site, part of the Subgrade 3a land is restricted by soil wetness limitations. These arise from heavier textured soils. Non-calcareous medium clay loam topsoils and upper subsoils pass into slowly permeable clay subsoils at approximately 45 to 50 cm depth. The occurrence of clay at moderate depths within the soil profile results in imperfect soil drainage conditions (Wetness Class III). This drainage impedance is indicated by gleying from the surface. The interaction between the relatively light topsoil textures and soil drainage status with the prevailing climate means that this land is subject to some restrictions on the flexibility of cropping, stocking and cultivations.

#### **Subgrade 3b**

- 5.8 Land classified as Subgrade 3b, moderate quality, is restricted by significant soil wetness and workability limitations. This land is associated with soils derived from the underlying London Clay. Non-calcareous medium clay loam topsoils overlie heavy clay loam and clay upper subsoils and clay lower subsoils. All subsoils are slowly permeable causing poor soil drainage conditions. This is indicated by gleying from the surface. Such profiles, which are represented by Pit 1, are assigned to Wetness Class IV. The interaction between the topsoil textures and poor soil drainage conditions with the prevailing local climate means that this land is classified as Subgrade 3b. This land will be subject to significant restrictions on the flexibility of cultivations, cropping and stocking. Soil wetness will also adversely affect crop growth and development.

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Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## **SOURCES OF REFERENCE**

British Geological Survey (1974), Sheet No. 273, Faversham, 1:50,000 Series (solid and drift edition).

MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1989), Climatological Data for Agricultural Land Classification.

Soil Survey of England and Wales (1980), Bulletin No. 9, Soils of Kent and accompanying maps at 1:250,000.

Soil Survey of England and Wales (1983), Sheet 6, Soils of South East England, 1:250,000 and accompanying legend.

# APPENDIX I

## DESCRIPTION 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 (eg. 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.

## **Urban**

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

## **Non-agricultural**

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

## **Woodland**

Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

## **Agricultural Buildings**

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

## **Open Water**

Includes lakes, ponds and rivers as map scale permits.

## **Land Not Surveyed**

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.



## APPENDIX II

### FIELD ASSESSMENT OF SOIL WETNESS CLASS

#### SOIL WETNESS CLASSIFICATION

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.

#### Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging <sup>1</sup>
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years. <sup>2</sup>
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.

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics, site and climatic factors. Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field. The method adopted here is common to ADAS and the SSLRC.

<sup>1</sup>The number of days specified is not necessarily a continuous period.

<sup>2</sup>'In most years' is defined as more than 10 out of 20 years.

**APPENDIX III**  
**SOIL PIT AND SOIL BORING DESCRIPTIONS**

**Contents :**

**Soil Abbreviations - Explanatory Note**

**Soil Pit Descriptions**

**Database Printout - Boring Level Information**

**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

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

<b>ARA</b> : Arable	<b>WHT</b> : Wheat	<b>BAR</b> : Barley
<b>CER</b> : Cereals	<b>OAT</b> : Oats	<b>MZE</b> : Maize
<b>OSR</b> : Oilseed rape	<b>BEN</b> : Field Beans	<b>BRA</b> : Brassicae
<b>POT</b> : Potatoes	<b>SBT</b> : Sugar Beet	<b>FCD</b> : Fodder Crops
<b>LIN</b> : Linseed	<b>FRT</b> : Soft and Top Fruit	<b>FLW</b> : Fallow
<b>PGR</b> : Permanent Pasture	<b>LEY</b> : Ley Grass	<b>RGR</b> : Rough Grazing
<b>SCR</b> : Scrub	<b>CFW</b> : Coniferous Woodland	<b>DCW</b> : Deciduous Wood
<b>HTH</b> : Heathland	<b>BOG</b> : Bog or Marsh	<b>FLW</b> : Fallow
<b>PLO</b> : Ploughed	<b>SAS</b> : Set aside	<b>OTH</b> : Other
<b>HRT</b> : Horticultural Crops		
- GRDNT** : Gradient as estimated or measured by a hand-held optical clinometer.
- GLEYSPL** : Depth in centimetres (cm) to gleying and/or slowly permeable layers.
- AP (WHEAT/POTS)** : Crop-adjusted available water capacity.
- MB (WHEAT/POTS)** : Moisture Balance. (Crop adjusted AP - crop adjusted MD)
- DRT** : Best grade according to soil droughtiness.
- If any of the following factors are considered significant, 'Y' will be entered in the relevant column.

<b>MREL</b> : Microrelief limitation	<b>FLOOD</b> : Flood risk	<b>EROSN</b> : Soil erosion risk
<b>EXP</b> : Exposure limitation	<b>FROST</b> : Frost prone	<b>DIST</b> : Disturbed land
<b>CHEM</b> : Chemical limitation		
- LIMIT** : The main limitation to land quality. The following abbreviations are used.

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

## Soil Pits and Auger Borings

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

<b>S</b> :	Sand	<b>LS</b> :	Loamy Sand	<b>SL</b> :	Sandy Loam
<b>SZL</b> :	Sandy Silt Loam	<b>CL</b> :	Clay Loam	<b>ZCL</b> :	Silty Clay Loam
<b>ZL</b> :	Silt Loam	<b>SCL</b> :	Sandy Clay Loam	<b>C</b> :	Clay
<b>SC</b> :	Sandy Clay	<b>ZC</b> :	Silty Clay	<b>OL</b> :	Organic Loam
<b>P</b> :	Peat	<b>SP</b> :	Sandy Peat	<b>LP</b> :	Loamy Peat
<b>PL</b> :	Peaty Loam	<b>PS</b> :	Peaty Sand	<b>MZ</b> :	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. **GLEY** : 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.

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

SOIL PIT DESCRIPTION

Site Name : CANTERBURY LP RUR 12 Pit Number : 1P

Grid Reference: TR15306060 Average Annual Rainfall : 635 mm  
 Accumulated Temperature : 1433 degree days  
 Field Capacity Level : 132 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees SE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MCL	10YR41 00	2	5	HR	C				
29- 55	HCL	25Y 51 00	0	8	HR	M	WKCSAB	FR	M	
55- 80	C	25Y 51 61	0	8	HR	M	WKCSAB	FM	P	

Wetness Grade : 3B Wetness Class : IV  
 Gleying : 0 cm  
 SPL : 029 cm

Drought Grade : APW : mm MBW : 0 mm  
 APP : mm MBP : 0 mm

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : CANTERBURY LP RUR 12 Pit Number : 2P

Grid Reference: TR15406080 Average Annual Rainfall : 635 mm  
 Accumulated Temperature : 1433 degree days  
 Field Capacity Level : 132 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MSL	10YR43 00	2	5	HR					
28- 48	MSL	10YR42 53	0	5	HR	C	MDCAB	FR	M	
48- 80	LMS	10YR63 00	0	0		M	MDCSAB	VF	G	
80-100	MSL	25Y 62 00	0	0		M			M	
100-120	SC	05Y 62 00	0	0		M			P	

Wetness Grade : 1 Wetness Class : I  
 Gleying : 028 cm  
 SPL : 100 cm

Drought Grade : 3A APW : 135mm MBW : 17 mm  
 APP : 95 mm MBP : -19 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB					
1	TR15506090	PGR		0 048	3	3A		0	0				WE	3A	Sandy 48
1A	TR15546090	PGR		0 025	4	3B		0	0				WE	3B	Wet
1P	TR15306060	PGR SE		0 029	4	3B		0	0				WE	3B	Pit dug to 80
2	TR15406080	PGR SE	01		1	1	139	21	106	-8	2		DR	2	Sandy
2P	TR15406080	PGR		028 100	1	1	135	17	95	-19	3A		DR	3A	Pit90 Augd120
3	TR15506080	PGR		0 025	4	3B		0	0				WE	3B	
4	TR15506080	PGR SE	01	0 025	4	3B		0	0				WE	3B	Wet
5	TR15406070	PGR SE		030	1	1	137	19	106	-8	2		DR	2	Very wet 80
6	TR15506070	PGR		0 025	4	3B		0	0				WE	3B	Plastic 35
7	TR15306060	PGR		0 025	4	3B		0	0				WE	3B	
8	TR15406060	PGR S	02	025	1	1	76	-42	77	-37	3B		DR	3B	I60sandy/stny
9	TR15206050	PGR		010	2	1	112	-6	103	-11	3A		DR	3A	Imp 90 flinty
10	TR15306050	PGR		0 050	3	3A		0	0				WE	3A	
11	TR15406050	PGR S	02	0 025	4	3B		0	0				WE	3B	Plastic 25
12	TR15006040	PGR SE		030	1	1	157	39	111	-3	2		DR	2	Sandy
13	TR15106040	PGR SE		0 050	3	3A		0	0				WE	3A	
14	TR15206040	PGR SE		0 020	4	3B		0	0				WE	3B	
15	TR15306040	PGR SE		0 025	4	3B		0	0				WE	3B	
16	TR15406040	PGR SE	02	0 055	3	3A		0	0				WE	3A	
17	TR15106030	PGR SE		025 025	4	3B		0	0				WE	3B	
18	TR15206030	PGR SE		0 045	3	3A		0	0				WE	3A	



SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED		----STONES----			STRUCT/ CONSIST	SUBS			SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR		
1	0-28	mc1	10YR42 00 75YR46 00 C					Y	0	0	HR	5					
	28-48	sc1	10YR52 00 10YR58 00 M					Y	0	0	HR	10		M			
	48-70	c	25Y 52 00 10YR58 00 M					Y	0	0	HR	10		P		Y	
1A	0-25	mc1	10YR42 00 75YR46 00 C					Y	0	0	HR	5					
	25-70	c	25Y 52 00 10YR58 00 M					Y	0	0	HR	2		P		Y	
1P	0-29	mc1	10YR41 00 10YR46 00 C					Y	2	0	HR	5					
	29-55	hc1	25Y 51 00 10YR58 00 M					Y	0	0	HR	8	WKCSAB	FR	M	Y	Y
	55-80	c	25Y 51 61 75YR58 00 M					Y	0	0	HR	8	WKCSAB	FM	P	Y	Y
2	0-25	ms1	10YR43 00						0	0	HR	5					
	25-45	ms1	10YR43 56						0	0	HR	5		M			
	45-85	ms1	10YR56 00						0	0	HR	2		M			
	85-120	lms	10YR68 00						0	0	HR	2		G			
2P	0-28	ms1	10YR43 00						2	0	HR	5					
	28-48	ms1	10YR42 53 10YR58 00 C					Y	0	0	HR	5	MDCAB	FR	M		
	48-80	lms	10YR63 00 75YR58 00 M					Y	0	0		0	MDCSAB	VF	G		
	80-100	ms1	25Y 62 00 75YR68 00 M					Y	0	0		0		M			LS inside ped
	100-120	sc	05Y 62 00 75YR68 00 M					Y	0	0		0		P		Y	
3	0-25	mc1	10YR42 00 75YR46 00 C					Y	0	0	HR	10					
	25-34	hc1	10YR52 00 10YR58 00 M					Y	0	0	HR	10		M		Y	
	34-60	c	25Y 52 00 10YR58 00 M					Y	0	0	HR	10		P		Y	
4	0-25	mc1	10YR52 00 75YR46 00 M					Y	0	0	HR	5					
	25-70	c	25Y 52 00 10YR58 00 M					Y	0	0	HR	2		P		Y	
5	0-30	ms1	10YR43 00						0	0	HR	5					
	30-50	ms1	10YR53 00 10YR56 00 C					Y	0	0	HR	5		M			
	50-80	ms1	10YR53 00 05YR46 56 M					Y	0	0	HR	5		M			
	80-120	lms	10YR53 00 10YR56 00 M					Y	0	0	HR	2		G			
6	0-25	mc1	10YR52 00 75YR46 00 M					Y	0	0	HR	5					
	25-33	hc1	10YR51 00 75YR46 00 M					Y	0	0	HR	5		M		Y	
	33-70	c	25Y 61 00 75YR68 00 M					Y	0	0		0		P		Y	
7	0-25	mc1	10YR51 00 75YR46 00 M					Y	0	0	HR	5					
	25-55	hc1	25Y 51 00 10YR58 00 M					Y	0	0	HR	8		M		Y	
	55-75	c	25Y 61 00 75YR56 00 M					Y	0	0	HR	8		P		Y	
8	0-25	ms1	10YR43 00						0	0	HR	5					
	25-40	ms1	10YR53 00 10YR56 00 C					Y	0	0	HR	10		M			
	40-50	ms1	10YR53 00 10YR56 00 C					Y	0	0	HR	30		M			
	50-70	cs	10YR53 00 10YR68 00 M					Y	0	0	HR	35		M			
9	0-10	msz1	10YR42 00						0	0		0					
	10-30	sc1	25Y 51 61 10YR46 00 M					Y	0	0	HR	5		M			
	30-50	sc1	25Y 41 00 10YR46 00 M					Y	0	0	HR	5		M			
	50-75	sc1	05Y 61 00 10YR46 56 M					Y	0	0	HR	10		M			
	75-90	sc1	25Y 52 00 10YR58 00 M					Y	0	0	HR	15		M			

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT		GLEYS	>2	>6		LITH	TOT	STR		POR
10	0-30	mc1	10YR42 52 10YR56 00 C					Y	0	0	HR	5				
	30-50	mc1	25Y 51 00 10YR56 66 M					Y	0	0	HR	5	M			poss hc1
	50-70	c	25Y 61 62 10YR68 00 M				00MN00	Y	0	0	HR	15	P		Y	
	70-120	c	05Y 71 73 10YR68 78 M					Y	0	0	HR	15	P		Y	
11	0-25	hc1	25Y 52 00 75YR46 00 M					Y	0	0	HR	3				
	25-55	c	25Y 51 00 75YR56 00 M					Y	0	0	HR	3	P		Y	
12	0-30	sc1	10YR42 00						0	0		0				
	30-65	ms1	10YR63 62 10YR58 00 C					Y	0	0		0	M			
	65-80	sc1	25Y 62 00 75YR58 00 M					Y	0	0		0	M			
	80-120	cs1	25Y 72 00 75YR58 00 M					Y	0	0		0	M			
13	0-25	mc1	10YR41 00 10YR46 00 C					Y	0	0		0				
	25-50	mc1	10YR53 52 10YR68 00 M					Y	0	0		0	M			poss sc1
	50-90	c	25Y 62 00 10YR68 00 M					Y	0	0	HR	10	P		Y	
14	0-20	mc1	10YR52 53 10YR56 00 C					Y	0	0		0				
	20-35	hc1	25Y 51 61 10YR58 68 M					Y	0	0	HR	5	M		Y	
	35-70	c	05Y 61 00 10YR68 00 M				00MN00	Y	0	0	HR	5	P		Y	
15	0-25	mc1	10YR41 51 10YR46 00 C					Y	0	0		0				
	25-45	hc1	25Y 53 63 10YR58 00 M					Y	0	0	HR	5	M		Y	
	45-90	c	25Y 63 00 10YR68 00 M					Y	0	0	HR	5	P		Y	
16	0-25	mzc1	10YR42 52 10YR56 00 C					Y	0	0		0				
	25-35	mzc1	10YR52 00 10YR66 00 C					Y	0	0		0	M			
	35-55	mzc1	25Y 53 63 10YR68 00 M					Y	0	0		0	M			
	55-120	zc	25Y 62 63 10YR68 00 M				00MN00	Y	0	0		0	P		Y	
17	0-25	mc1	10YR43 00						0	0		0				
	25-45	hc1	10YR53 52 10YR66 00 C					Y	0	0		0	M		Y	
	45-90	c	25Y 61 00 10YR68 00 M					Y	0	0	HR	10	P		Y	
18	0-30	mc1	10YR41 00 10YR46 00 C					Y	0	0		0				
	30-45	mc1	25Y 62 00 10YR58 00 C					Y	0	0		0	M			
	45-90	c	25Y 61 62 10YR68 00 M					Y	0	0	HR	15	P		Y	