Longbridge

Agricultural Land Classification

February 1998

Resource Planning Team Bristol FRCA Western Region Job Number 77/97

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LONGBRIDGE

AGRICULTURAL LAND CLASSIFICATION SURVEY

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LONGBRIDGE

AGRICULTURAL LAND CLASSIFICATION SURVEY

INTRODUCTION

- 1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 27 5 ha of land at Longbridge Field survey was based on 17 auger borings and 2 soil profile pits and was completed in December 1997 During the survey 2 samples were analysed for particle size distribution (PSD)
- 2 The survey was conducted by the Resource Planning Team of FRCA Western Region on behalf of MAFF in its statutory role in the preparation of the Warwickshire Structure Plan
- 3 Information on climate geology and soils and from previous ALC surveys was considered and is presented in the relevant section Apart from the published regional ALC map (MAFF 1977) which shows the site at a reconnaissance scale as wholly grade 2 the site was previously surveyed in 1989 at a scale of 1 10000 (ADAS 1989) However the current survey uses the Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988) and supersedes any previous ALC survey Grade descriptions are summarised in Appendix I
- 4 At the time of survey land cover was cereals and permanent grassland An area of agricultural land within the survey area was not surveyed because access could not be obtained from Severn Trent Water Authority however this land has been graded on the basis of the previous 1989 survey results Other land which was not surveyed included Severn Trent Headquarters farm buildings small industrial units and a tree nursery

SUMMARY

5 The distribution of ALC grades is shown on the accompanying 1 10000 scale ALC map The detail of information shown at this scale is appropriate to the intensity of field survey but could be misleading if enlarged or applied to small areas Areas are summarised in the Table 1

Grade	Area (ha)	% Surveyed Area (17 2ha)
3a Other land Total site area	17 2 10 3 27 5	100

Table 1Distribution of ALC gradesLongbridge

6 The agricultural land across the site has been wholly graded as subgrade 3a The soils have moderate limitations to their agricultural use due to soil droughtiness

CLIMATE

- 7 Estimates of climatic variables for this site were derived from the published agricultural climate dataset Climatological Data for Agricultural Land Classification (Meteorological Office 1989) using standard interpolation procedures Data for key points around the site are given in Table 2 below
- 8 Since the ALC grade of land is determined by the most limiting factor present overall climate is considered first because it can have an overriding influence by restricting land to a lower grade despite more favourable site and soil conditions Parameters used for assessing overall climate are accumulated temperature a measure of relative warmth and average annual rainfall a measure of overall wetness The results shown in Table 2 indicate that there is no overall climatic limitation
- 9 Climatic variables also affect ALC grade through interactions with soil conditions The most important interactive variables are Field Capacity Days (FCD) which are used in assessing soil wetness and potential Moisture Deficits calculated for wheat and potatoes which are compared with the moisture available in each profile in assessing soil droughtiness limitations These are described in later sections

Grid Reference	SP 272 625			
Altıtude (m)	46			
Accumulated Temperature (day C)	1441			
Average Annual Rainfall (mm)	627			
Overall Climatic Grade	1			
Field Capacity Days	139			
Moisture deficit (mm) Wheat	109			
- Potatoes	101			

Table 2 Climatic Interpolations Longbridge

RELIEF

10 Altitude ranges from 45 metres at Longbridge Farm to 46 metres in the west of the site. The site is generally level

GEOLOGY AND SOILS

- 11 The underlying geology of the site is shown on the published geology map (BGS 1984 as River Terrace Deposits with alluvium along the brook from Home Farm In the recent survey the soils were found to be light stony and in many cases passing onto gravels at depth
- 12 Soils were mapped by the Soil Survey of England and Wales at a reconnaissance scale of 1 250 000 (SSEW 1983) as wholly the Wick 1 soil association
- 13 The Wick 1 soil association is described as having deep well drained coarse loamy soils
- 14 The recent survey found the soils to be largely well drained sandy loams overlying variably stony sandy clay loams or loamy sands generally passing onto gravels

AGRICULTURAL LAND CLASSIFICATION

15 The distribution of ALC grades found by the current survey is shown on the accompanying 1 10000 scale map and areas are summarised in Table 1 The detail of information shown at this scale is appropriate to the intensity of field survey but could be misleading if enlarged or applied to small areas

Subgrade 3a

16 The agricultural land at Longbridge has been identified as good quality agricultural land The soils were described as having medium sandy loam topsoils which overlay variably stony loamy sands or sandy clay loam subsoils in the majority of profiles examined the subsoils passed onto gravels with depth Two soil profile pits confirmed the soils as well drained but with a moderate drought limitation

> S Y HUNTER Resource Planning Team FRCA Bristol February 1998

REFERENCES

 ADAS RESOURCE PLANNING TEAM 1989 Agricultural Land Classification Survey of Longbridge Scale 1 10000 Reference 4FCS RPG 5987 ADAS BRISTOL

BRITISH GEOLOGICAL SURVEY/INSTITUTE OF GEOLOGICAL SCIENCES (1984) Sheet 184 Warwick 1 50 000 series Solid and Drift edition BGS London

HODGSON J M (Ed) (1997) Soil Survey Field Handbook Soil Survey Technical Monograph No 5 Silsoe

MAFF (1977) 1 250 000 series Agricultural Land Classification South West Region MAFF Publications Alnwick

MAFF (1988) Agricultural Land Classification of England and Wales Revised Guidelines and Criteria for grading the quality of agricultural land MAFF Publications Alnwick

METEOROLOGICAL OFFICE (1989) Climatological Data for Agricultural Land Classification Meteorological Office Bracknell

SOIL SURVEY OF ENGLAND AND WALES (1983) Sheet 3 Soils of Midland and Western England 1 250 000 scale SSEW Harpenden

SOIL SURVEY OF ENGLAND AND WALES (1984) Soils and Their Use in Midland and Western England Bulletin No 12 SSEW Harpenden

APPENDIX I

DESCRIPTION OF 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 include 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 and horticultural crops can usually be grown but on some land in the 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

Grade 3 good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops timing and type of cultivation harvesting or the level of yield Where 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 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 most 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 very severe limitations which restrict use to permanent pasture or rough grazing except for occasional pioneer forage crops

Source MAFF (1988) Agricultural Land Classification of England and Wales Revised Guidelines and Criteria for Grading the Quality of Agricultural Land MAFF Publications Alnwick

APPENDIX II

DEFINITION OF SOIL WETNESS CLASSES

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile

Wetness Class I

The soil profile is not wet within 70 cm depth for more than 30 days in most years

Wetness Class 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 not wet within 40 cm depth for more than 30 days in most years

Wetness Class 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 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 and 90 days in most years

Wetness Class IV

The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 40 cm depth for 91 210 days in most years

Wetness Class V

The soil profile is wet within 40 cm depth for 211 335 days in most years

Wetness Class VI

The soil profile is wet within 40 cm depth for more than 335 days in most years

Notes The number of days specified is not necessarily a continuous period

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

Source Hodgson J M (Ed) (1997) Soil Survey Field Handbook Soil Survey Technical Monograph No 5 Silsoe

APPENDIX III

ABBREVIATIONS AND TERMS USED IN SURVEY DATA

Soil pit and auger boring information collected during ALC survey is held on a computer database and is reproduced in this report. Terms used and abbreviations are set out below. These conform to definitions contained in the Soil Survey Field Handbook (Hodgson 1997).

1 Terms used on computer database in order of occurrence

GRID REF National 100 km grid square and 8 figure grid reference

LAND USE At the time of survey

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

GRDNT Gradient as estimated or measured by hand held optical clinometer

GLEY SPL Depth in centimetres to gleying or slowly permeable layer

AP (WHEAT/POTS)	Crop adjusted available water capacity				
MB (WHEAT/POTS)	Moisture Balance MD)	(Crop adjusted AP	crop potential		

DRT Best grade according to soil droughtiness

If any of the following factors are considered significant Y will be entered in the relevant column

MREL EXP CHEM	Microrelief limit Exposure limitati Chemical limitat	ation H ion H ion	FLOOD FROST	Flood risk Frost prone	EROSN DIST	Soil erosion risk Disturbed land
LIMIT	The main limused	ntation t	o land qua	llity The foll	owing abl	previations are
oc	Overall Climate	AE	Aspect	EX	K Exp	osure
FR	Frost Risk	GR	Gradier	nt M	R Mic	rorelief

FL	Flood Risk	ТХ	Topsoil Texture	DP	Soil Depth
CH	Chemical	WE	Wetness	WK	Workability
DR	Drought	ER	Erosion Risk	WD	Soil

Wetness/Droughtiness

ST Topsoil Stoniness

TEXTURE Soil texture classes are denoted by the following abbreviations

S S71	Sand Sandy Silt Loam	LS CI	Loamy Sand	SL ZCI	Sandy Loam Sulty Clay Loam
52L 71	Salt Loam	SCI	Sandy Clay	C	Clay
<i>с</i> L	Sht Loan	SCL	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)

MOTTLE COL Mottle colour using Munsell notation

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%+

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
- **PED COL** Ped face colour using Munsell notation
- GLEY If the soil horizon is gleyed a Y will appear in this column If slightly gleyed an S will appear
- STONE LITH Stone Lithology One of the following is used

HR All hard rocks and stones SLST Soft oolitic or dolimitic limestone

СН	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 or metamorp	hic rock	

Stone contents are given in % by volume for sizes >2cm >6cm and total stone >2mm

STRUCT	The degree of development	size and shape	of soil	peds are	described
	using the following notation				

Degree of development	WA Adhei	Weakly developed rent	WK	Weakly developed
	MD develo	Moderately oped	ST	Strongly developed
Ped size	F C	Fine Coarse	M VC	Medium Very coarse
Ped Shape	S GR SAB PL	Sıngle graın Granular Sub angular blocky Platy	M AB PR	Massıve Angular blocky Prısmatıc

CONSIST Soil consistence is described using the following notation

L	Loose	VF	Very Friable	FR	Friable	FM	Fırm
VM	Very firm	EM	Extremely firm		EH	Extremely Ha	ard

SUBS STRSubsoil structural condition recorded for the purpose of calculating
profile droughtinessG GoodM ModerateP Poor

- **POR** Soil porosity If a soil horizon has poor porosity with less than 0 5% biopores >0 5mm a Y will appear in this column
- **IMP** If the profile is impenetrable to rooting a Y will appear in this column at the appropriate horizon
- SPL Slowly permeable layer If the soil horizon is slowly permeable a Y will appear in this column

CALC If the soil horizon is calcareous with naturally occurring calcium carbonate exceeding 1% a Y will appear this column

2 Additional terms and abbreviations used mainly in soil pit descriptions

STONE ASSESSMENT

VIS Visual S Sieve D Dis	placement
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ALCTemp doc

MOTTLE SIZE

- EFExtremely fine <1mm</th>MMedium 5 15mmVFVery fine 1 2mm>CCoarse >15mm
- F Fine 2 5mm

MOTTLE COLOURMay be described by Munsell notation or as ochreous
(OM) or grey (GM)ROOT CHANNELSIn topsoil the presence of rusty root channels should
also be noted

MANGANESE CONCRETIONS Assessed by volume

Ν	None		Μ	Many	20 40%
F	Few	<2%	VM	Very Many	>40%
C	Common	2 20%			

POROSITY

Р	Poor	less than 0 5% biopores at least 0 5mm in diameter
G	Good	more than 0 5% biopores at least 0 5mm in diameter

ROOT ABUNDANCE

The number of	of roots per 100cm ²	Very Fine and Fine	Medium and Coarse				
F	Few	1 10	1 or 2				
С	Common	10 25	25				
Μ	Many	25 200	>5				
Α	Abundant	>200					

ROOT SIZE

VF	Very fine	<1mm	Μ	Medium	2 5mm
F	Fine	1 2mm	С	Coarse	>5mm

HORIZON BOUNDARY DISTINCTNESS

Sharp	<0 5cm	Gradual	6 13cm		
Abrupt	05 25cm	Diffuse	>13cm		
Clear	25 6cm				

HORIZON BOUNDARY FORM Smooth wavy irregular or broken * * See Soil Survey Field Handbook (Hodgson 1997) for details

SITE NA	ME	PRO	FILE NO	SLOPE	E AND ASPE	ECT	LAN	ND USE		Av Raınfall	627 mm		PARENT MATERIAL		
Longbrid	ge	PIT 2	2 (ASP 19 23)	LEVEI	-		PGF	ર		ΑΤΟ	1441 day	с	River Terrace Gravels		
JOB NO		DAT	E	GRID	REFERENC	E	DES	SCRIBED B	Y	FC Days	139		PSD SAMPLE	S TAKEN	
77/97		3 12	97	SP 272	06235		SH/	SK		Climatic Grade Exposure Grade	1		0 25cm TS MSL s 68 /6, z 21 / c 119/		,
Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Sto Size ' Field	oniness Type and I Method	Mottling Abundand Contrast Size and Colour	ig ice it, id r	Mangan Concs	Structure Ped Developm Size and Shape	ent Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	25	MSL	75YR43									G	CF		Smooth
2	42	SCL	75YR43		t HR (S&D)		WK S largely by sto		WK SAI largely de	3 VF	М	G	CF		Smooth abrupt
3	72	MSL	10YR43 (some patches of 10YR53)	46 7 T	ot HR (S&D) 75YR46 Common		6 on	Common between H2 & H3 boundary	WK CA	3 VF	G	G	FF & F		Smooth gradual
4	120	SCL	05YR33 05YR44	68/ To	t HR (S & D)	05YR44 Poss mott	4 tles		Too ston	y VF	М	G	FF & VF		
Profile G	Profile Gleyed From			Available Water Wheat 90 mm						Final ALC Grade 3a					
Slowly Pe Horizon I Wetness	Slowly Permeable Horizon From			Potatoes 77 mm Moisture Deficit Wheat 109 mm						Main Limi	ting Factor(s) DR			
Wetness Crada			Potatoes 101 mm												
WCIIICSS 1	Moisture Balance Wheat 19 mm Potatoes 24 mm						Remarks Relates to	ASP 15	18 19 23						
					Droughtin	ess Grade 3	3a	(Calc	ulated to 12	20 cm)					

SITE NAME		PROF	PROFILE NO SLOP		E AND ASPECT		LAND USE		Av	Raınfall	627mm		PARENT MATERIAL							
Longbridge Pit1(ASP6) Level		Level			CER	CER		AT	0	1441 day C		River Terrace Gravels								
JOB NO DATE GRID		GRID I	REFERENCI	E	DESC	DESCRIBED BY		FC	Days	139		PSD SAMPLES TAKEN								
		3 12 9	7	SP 270	0 6260		SH/Sk	SH/SK		Clu Exp	matic Grade	1		TS (0 25 cm) MSL s, 64%, z, 22% c 14/		/				
Lowest Av Depth (cm)	Tex	ture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method		Stoniness Size Type and Field Method		Stoniness Size Type and Field Method		Mottling Abundand Contrast Size and Colour	g ce ľ t đ	Mangan Concs	Structure Ped Developme Size and Shape	ent 1	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
37	M	SL	75YR32	19 ⁄a	>2cm HR (S)									CF &VF	:	Gradual				
68	LN	ИS	75YR43	20 / (ot talHR S&D)				MDCSA	в	VF	G	G	FF&VF		Abrupt				
97	М	IS	75YR43/ 44	1 %>2cm (S&D) <u>28 %< 2</u> cm 28/5 /total HR		cm (S&D) <u>6<2</u> cm /total HR Fe pan (80cm		d D		3	VF	G	G	FVF		Abrupt sharp				
120	M (ox v tl cl: lens	IS cc hun ay ses)	05YR44	5 %>2cm <u>63 / < 2cm</u> 68 / Total HR		5YR46 (patches few	;)		WKMSA	В	VF	М	G	FVF						
leyed From	ı				Available	Water W	Vheat	9	5 mm			Final ALC	Grade	3a	I					
Slowly Permeable Horizon FromWetness ClassIWetness Grade1			Potatoes87 mmMoisture DeficitWheat109 mmPotatoes101 mm						Main Limit	ing Factor(s) DR									
				Moisture Balance Wheat 14 mm Potatoes 14 mm Droughtiness Grade 3a (Calculated to 120 cm)						Remarks relates to A	SP 6 8 11	12 13 20 24	25 26							
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WKMSAB (coc v thm clay 68/-Total HR Structure Potatoes 87 mm Icyced From Icas I Mosture Deficit Wheat 109 mm Class I Mosture Balance Wheat 14 mm Droughtness Grade 3a</td> <td>Junc PROFILE NO SLOFE AND ASPECT LAND USE Av Rainfall gc Pitl(ASP6) Level CER ATO DATE GRID REFERENCE DESCRIBED BY FC Days 12 97 SP 2700 6260 SH/SK Clumatic Grade Lowest Texture Matrix Stoniness Stoniness Av Matrix Stoniness Mottling Mangan Av Texture (Ped Face) Size Type and Contrast Colours Field Method Colour Size and Concs 37 MSL 75YR43 20 4t uHR Colour Stack2on 68 LMS 75YR43 20 4t uHR Stightly MDCSAB VF 97 MS 75YR43 24 4t uHR Stone (S&D) SYR34 MDCAB VF 97 MS 75YR43 24 4t uHR Stone (S&D) StyR46 WKMSAB VF 120 MS 05YR44 54>20m SYR46 WKMSAB VF 120 MS 05YR44 63/<20m</td> SYR46 WKMSAB VF 120 MS 05YR44 63/<20m	JNL FROFILE RO SLOPE AND ASPECT FAND OSE ge Pit1(ASP6) Level CER DATE GRID REFERENCE DESCRIBED B' 3 12 97 SP 2700 6260 SH/SK Lowest Texture Matrix Storie Size Type and Colours Mottling Abundance Mangan Contrast 37 MSL 75YR32 19 & 2cm HR (8±D) Colour Colour 97 MS 75YR43 20 4t talHR (8±D) Strand Colour Strand Colour 97 MS 75YR43 1 & 2cm (8±D) 28 & 2cm 28 & 7bold HR Strand Colour Strand Colour 97 MS 05YR44 5 & 2cm 68 / Total HR Strand Commented Fe pan @ 80cm Strand Fee 120 MS 05YR44 5 & 2cm 68 / Total HR Strand Colour Strand Strand Commented Fe pan @ 80cm Strand Strand Fee Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Strand Str	JALE FROM LEFRO SLOPE AND ASPECT LAND USE ge Ph11(ASP6) Level CER DATE GRID REFERENCE DESCRIBED BY 3 12 97 SP 2700 6260 SH/SK Lowest Matrix Storiness Abundance Av Texture Matrix Storiness Abundance Colours Field Method Concs Structur 10000 Ped Size Type and Contrast Concs 37 MSL 75YR32 19.4>2cm HR Colour Shape 68 LMS 75YR43 20.4 tuBR Colour MDCSA 97 MS 75YR43 21.4 MDCAI 28/57 foul HR Sightly Stightly MDCAI 28/57 foul HR Solor SYR46 WKMSA 120 MS 05YR44 5.4>2cm SYR46 (coc v thin class Structur Structur ileyed From Potatoes 87 mm Potatoes 87 mm Grade 1 Mosture Deficit Wheat 19 mm Oraces 14 mm Potatoes 14 mm	ML FROM LE FRO SLOPE AND RSPECT EARD OSE Av ge Pit1(ASP6) Level CER AT JATE GRID REFERENCE DESCRIBED BY FC 3 12 97 SP 2700 6260 SH/SK Excure Lowest Matrix Stonness Abundance Mangan Av Colours Size Type and Conces Structure Depth Colours Field Method Size and Conces Stape 37 MSL 75YR32 19 422m HR MDCSAB MDCSAB 68 LMS 75YR43 20.4t talHR Slightly MDCAB 97 MS 75YR43 20.4t talHR slightly MDCAB 28/5 Aval HR Sloph B SYR34 MDCAB 97 MS 05YR44 5.4*2m Slightly MDCAB 120 MS 05YR44 5.4*2m SYR46 WKMSAB (coc v thm clay 68/-Total HR Structure Potatoes 87 mm Icyced From Icas I Mosture Deficit Wheat 109 mm Class I Mosture Balance Wheat 14 mm Droughtness Grade 3a	Junc PROFILE NO SLOFE AND ASPECT LAND USE Av Rainfall gc Pitl(ASP6) Level CER ATO DATE GRID REFERENCE DESCRIBED BY FC Days 12 97 SP 2700 6260 SH/SK Clumatic Grade Lowest Texture Matrix Stoniness Stoniness Av Matrix Stoniness Mottling Mangan Av Texture (Ped Face) Size Type and Contrast Colours Field Method Colour Size and Concs 37 MSL 75YR43 20 4t uHR Colour Stack2on 68 LMS 75YR43 20 4t uHR Stightly MDCSAB VF 97 MS 75YR43 24 4t uHR Stone (S&D) SYR34 MDCAB VF 97 MS 75YR43 24 4t uHR Stone (S&D) StyR46 WKMSAB VF 120 MS 05YR44 54>20m SYR46 WKMSAB VF 120 MS 05YR44 63/<20m	Jule FROM LE INO SIGPE AND ASPECT LAND USE Av Rainfall 627mm gc Pit1(ASP6) Level CER ATO 1441 day gc DATE GRID REFERENCE DESCRIBED BY FC Days 139 3 12 97 SP 2700 6260 SH/SK Cimatic Grade 1 Lowest Matrix Storiness Abundance Margan Concs Av Texture Matrix Storiness Abundance Concs Structure Colours Field Method Size Type and Concs Structure Consistence Structural (cm) 75YR32 19.4-2cm HR Colour Stape Consistence Structural 37 MSL 75YR43 20.44 tuBR Colour Stape Consistence Structural 97 MS 75YR43 20.44 tuBR Stightly MDCAB VF G 97 MS 05YR44 5.422m Stightly MDCAB VF G 120 MS 05YR44 5.422m Structure Bocm MCAB VF M 120 MS 05YR44 5.422m Structure Bocm MCAB VF M	ATE FROM LEFRO SUDPE AND ASPECT DATE CTRM DOLE Av Rainfall 627mm ge Pt1(ASP6) Level CER ATO 1441 day C FC Days 139 J 12 97 SP 2700 6260 SH/SK Climatic Grade 1 Exposure Grade 1 Lowest Matrix Matrix Stoniness Mottling Mangan Concest Structural Consistence Structural Av Texture Matrix Stoniness Abundance Contrast Concest Structural Consistence Condution 37 MSL 75YR32 19+2cm HR Colour Stoce and Consistence Structural Consistence Condution Field Method 68 LMS 75YR43 20/4 tallR MDCSAB VF G G 97 MS 75YR43/ 1-4-2cm (S&D) 5YR34 MDCAB VF G G 120 MS 05YR44 5-6-2cm 5YR46 MDCAB VF M G 120 MS 05YR44 5-6-2cm 5YR46 WKMSAB VF M G 120 MS 05YR44 5-6-2cm 5YR46 Watr 109	MB IND/LATION SLOF AND ASPECT DAND USE Av Ramfall 627mm PARENT MAL ge Prt1(ASP6) Level CER ATO 1441 day C River Terace G DATE GRID REFERENCE DESCRIBED BY FC Days 139 PSD SAMPLE 3 12 97 SP 2700 6260 SH/SK Climatic Grade 1 TS (0 25 cm) Lowest Av Matrix Storuness Abundance Mangan Port Av Oclours Size pread Contrast Concist Consistence Condition (cm) Colours Size and Size and Consistence Consistence Condition 37 MSL 75YR43 20.4 tallift Colour SYR214 MDCAB VF G G FVF 68 LMS 75YR43 20.4 tallift SYR24 MDCAB VF G G FVF 97 MS 05YR44 5.4-22m SYR24 MDCAB VF G G FVF 120 MS 05YR44 5.4-22m Stratilit Stratilit Stratilit Stratilit Reference Reference Stratilit Stratellit MDCAB VF M	ME FROMEDING SUPE RND ASPECT END USE Av Ranfall 627mm FRACKT PARTERNE ge PH1(ASP6) Level CER ATO 1441 day C River Terrace Gravels J 12 97 SP 2700 6260 SH/SK Climate Grade 1 TS (0 25 cm) MSL 5, 647, z. 227 c 14 Lowest exture Matrix Stonness Mottling Mangan Structure Ped Declogment Consistence Consistence Condition (Fisures) Roots Calcium 37 MSL 75YR32 19-2cm (RiD) Size and Context Structure Pores Roots Calcium 37 MSL 75YR43 20-4 tallR Sightly MDCAB VF G G FVF Calcium 97 MS 05YR44 3-2-2m (RBD) SYR34 sightly MDCAB VF G G FVF C 120 MS 05YR44 3-2-2m (RBD) SYR46 sightly MDCAB VF M G FVF 120 MS 05YR44 5-2-2m (RBD)				

77-97 Longbridge Warwickshire Structure Plan

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	HA	ACRES {	AGRICULTURAL LAND	% TOTAL LAND
Grade 1 Grade 2 Subgrade 3a Subgrade 3b Grade 4 Grade 5 land Not surveyed	$\begin{array}{ccc} 0 & 0 \\ 0 & 0 \\ 17 & 2 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{array}$	0 0 0 0 42 5 0 0 0 0 0 0 0 0	$\begin{array}{cccc} 0 & 0 \\ 0 & 0 \\ 1 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{array}$	0 0 0 0 62 5 0 0 0 0 0 0 0 0
Total Agrı Land =	17 2	42 5	100 0	62 5
Other land Total Site Area =	10 3 27 5	25 5 68 0	-	37 5 100 0