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TUNBRIDGE WELLS LOCAL PLAN

Site 6 Land West of Church Road Paddock Wood
Kent

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Site 6 - LAND WEST OF CHURCH ROAD, PADDOCK WOOD, KENT

1 INTRODUCTION

1 1 In June 1992 an Agricultural Land Classification (ALC) was carried out on 8 65 hectares of land at Paddock Wood Kent ADAS was commissioned by MAFF to determine the land quality affected by the proposal to include this site as part of the Tunbridge Wells Local Plan

1 2 The survey work was carried out by members of the Resource Planning Team within the Guildford Statutory Group at a detailed level of approximately 1 boring per hectare A total of 7 borings were described using 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 and chemical characteristics impose long term limitations on its agricultural use

1 3 The distribution of the grades is shown on the attached ALC map and the area and extent is given in the table below The map has been drawn at a scale of 1 5 000 Any enlargement of this would be misleading

Distribution of Grades and Subgrades

Grade	Area (ha)	% of total agricultural area
3a	2 95	35
3b	5 55	65
Total Agricultural Area	8 50	100
Urban	0 08	
Non Agricultural	0 07	
Total Area of Site	8 65	

1 4 Grades 3a and 3b have been mapped at this site The higher quality land is placed in subgrade 3a as a result of minor soil wetness problems causing the main physical limitation Subgrade 3b soils experience a significant wetness problem as a result of shallow slowly permeable layers

2 PHYSICAL FACTORS AFFECTING LAND QUALITY

Relief

2 1 The site varies in altitude between approximately 20 and 22 m AOD The land falls very gently north and south west Nowhere on the site does gradient or altitude represent a significant limitation to agricultural land quality

Climate

2 2 Estimates of climatic variables were obtained by interpolation from a 5km grid database (Met Office 1989) for a representative location in the survey area

Climatic Interpolation

Grid Reference	TQ 676 445
Altitude (m A O D)	20
Accumulated Temperature (days Jan-June)	1491
Average Annual Rainfall (mm)	688
Field Capacity Days	143
Moisture Deficit Wheat (mm)	121
Moisture Deficit Potatoes (mm)	118

2 3 Climatic factors alone place no limitation on agricultural land quality but do affect the interactive limitation between soil and climate namely soil wetness and droughtiness

Geology and Soils

2 4 British Geological Survey (1971) Sheet 287 Sevenoaks shows the site to be underlain by Cretaceous Wealden Sandstone with minor deposits of Head and Aluvium mapped toward the eastern part of the site

2 5 Soil Survey of England and Wales Sheet TQ64 Paddock Wood (1977) shows the site to comprise soils of the Wickham and Denchworth Series

The Wickham Series is mapped towards the north of the site and is described as Typical stagnogley soils fine loamy or fine silty over clayey subsoils (SSEW 1984) Soils of the Denchworth Series occur towards the south and comprise pelo-stagnogley which are stoneless and strongly mottled These soils are slowly permeable and waterlogged for prolonged periods (SSEW 1984)

2 6 Detailed field examination indicates soils similar to those described above

3 AGRICULTURAL LAND CLASSIFICATION

3 1 The ALC grading of the site is primarily determined by the interactions between climate and soil factors namely soil wetness and droughtiness Soil wetness is the overriding limitation to land quality at this site

3 2 Grade 3a

Land of this quality is mapped towards the north of the site Topsoils typically comprise non-calcareous medium silty clay loam over similar textures or heavy silty clay loam Upper subsoils overlie gleyed and slowly permeable heavy silty clay loam or silty clay Profiles were found to be gleyed between 36 and 44 cm and were slowly permeable between 47 and 55 cm wetness class III is thus assigned to such profiles Grade 3a land at this locality is limited by minor wetness limitations as a result of deeper slowly permeable horizons

3 3 Grade 3b

Grade 3b land is mapped towards the south of the site Profiles typically comprise non-calcareous medium or heavy silty clay loam over gleyed and slowly permeable heavy silty clay loam or silty clay between 25 and 32 cm Land within this grade is limited by soil wetness as a result of relatively shallow depths over slowly permeable horizons wetness class IV is therefore assigned to such profiles

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Resource Planning Team
Guildford Statutory Group
ADAS

SOURCES OF REFERENCE

BRITISH GEOLOGICAL SURVEY (1971) Sheet 287 Sevenoaks

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

METEOROLOGICAL OFFICE (1989) Climatological datasets for Agricultural Land Classification

SOIL SURVEY OF ENGLAND AND WALES (1977) Sheet TQ64 Soils of Paddock Wood

SOIL SURVEY OF ENGLAND AND WALES (1984) Soils and their use in South East England Bulletin 15

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
1	0 29	mzcl	25Y 53 00						0	0		0							
	29 44	hzcl	25Y 63 64						0	0		0		M					
	44 55	hzcl	25Y 63 00	10YR66 76	F		25Y 72 73	Y	0	0		0		P			Y		COMMON Mn CONCS
	55 120	zc	05Y 72 00	25Y 68 00	C		25Y 72 73	Y	0	0		0		P			Y		
2	0 30	mzcl	25Y 43 00						0	0		0							
	30 36	mzcl	10YR64 00						0	0		0		M					
	36 47	mzcl	10YR64 00	10YR66 00	C		25Y 63 73	Y	0	0		0		P					
	47 55	hzcl	05Y 72 00	10YR66 00	M			Y	0	0		0		P			Y		
	55 120	c	05Y 72 71	75YR58 68	M		25Y 73 00	Y	0	0		0		P			Y		
4	0 32	hzcl	25Y 43 00						0	0		0							
	32 45	zc	25Y 53 63	10YR66 76	F		05Y 72 00	Y	0	0		0		P			Y		
	45 120	zc	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y		
5	0 25	h cl	10YR42 00						0	0		0							
	25 120	zc	05Y 71 00	75YR68 00	M			Y	0	0		0		P			Y		
6	0 27	mzcl	10YR42 00						0	0		0							
	27 45	zc	10YR64 00	10YR66 68	C		10YR62 00	Y	0	0		0		P			Y		
	45 120	zc	05Y 71 00	75YR58 68	M			Y	0	0		0		P			Y		
7	0 31	hzcl	25Y 43 00						0	0		0							
	31 43	h cl	25Y 53 63	10YR66 76	C		25Y 72 73	Y	0	0		0		P			Y		
	43 120	c	05Y 71 72	75YR58 68	M			Y	0	0		0		P			Y		COMMON M / F CONC
8	0 25	mzcl	10YR42 00						0	0		0							
	25 38	h cl	05Y 71 00	75YR58 68	M			Y	0	0		0		P			Y		
	38 120	zc	05Y 71 00	75YR58 68	M			Y	0	0		0		P			Y		

SAMPLE			ASPECT			WETNESS		WHEAT		POTS		M REL	EROSN	FROST	CHEM	ALC	
NO	GRID REF	USE		GRDNT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	COMMENTS
1	TQ67504460	WHT	NE		044 044	3	3A	136	15	112	2	2				WE 3A	
2	TQ67604460	WHT	N		036 047	3	3A	138	17	114	4	2				WE 3A	
4	TQ67504450	OSR	NW		032 032	4	3B	131	10	106	12	3A				WE 3B	
5	TQ67604450	GRS	N		025 025	4	3B	127	6	102	16	3A				WE 3B	
6	TQ67704450	GRS	S		027 027	4	3B	128	7	103	15	3A				WE 3B	
7	TQ67604440	OSR	S		031 031	4	3B	131	10	106	12	3A				WE 3B	
8	TQ67604430	OSR	SW		025 025	4	3B	127	6	102	16	3A				WE 3B	