



A23 HANDCROSS to WARNINGLID IMPROVEMENT

ENVIRONMENTAL STATEMENT

November 1994

Part 1

Carl Bro Group



Derek Lovejoy Partnership



HA HIGHWAYS
AGENCY

The Highways Agency is an Executive Agency of the Department of Transport



UNCLASSIFIED

TOLLGATE HOUSE

HA 044/027/000143 1

ENVIRONMENT & LANDSCAPE
Environmental Statement

11/03/2001 16:02:58

**A23 HANDCROSS TO WARNINGLID
IMPROVEMENT – ENVIRONMENTAL
STATEMENT PART 1 11/94**



#HA 44/27/143# 1#

ENVIRONMENTAL STATEMENT: VOLUME 1

CONTENTS

1.0	INTRODUCTION	1.0
1.1	THE PROPOSALS	
1.2	THE ENVIRONMENTAL STATEMENT	
1.3	AVAILABILITY OF INFORMATION	
1.4	COMMENTS	
	Figures:	
1.1	Regional Context Plan.	
1.2	The Scheme.	
2.0	DESCRIPTION OF THE AREA	2.0
2.1	INTRODUCTION	
2.2	LOCAL FEATURES	
2.3	LOCAL COMMUNITIES	
2.4	THE EXISTING ROUTE CORRIDOR	
2.5	THE EXISTING HIGHWAY NETWORK	
	Figures:	
2.1	Location Plan.	
2.2	Existing Local Highway Network.	
3.0	BACKGROUND	3.0
3.1	THE EXISTING ROAD	
3.2	THE PROBLEM	
3.3	THE EXISTING AND FORECAST TRAFFIC FLOWS	
3.4	THE EFFECTS OF THE SCHEME	
	Figures:	
3.1	The Existing Road and Features.	
3.2	Accident Location Plan.	
3.3	Existing and Predicted Traffic Flows.	
4.0	PUBLISHED SCHEME	4.0
4.1	DESCRIPTION OF THE SCHEME	
4.2	DESCRIPTION OF THE ROUTE	
4.3	LAND USE	
4.4	CONSTRUCTION AND MAINTENANCE	

Figures:

- 4.1 Engineering Details and Landscape Proposals.
Handcross Village to Slaugham Junction.
- 4.2 Engineering Details and Landscape Proposals.
Slaugham Junction to Stanbridge View.

5.0 EFFECTS ON AIR QUALITY

- 5.1 INTRODUCTION
- 5.2 METHODOLOGY
- 5.3 LOCALISED AIR QUALITY ASSESSMENT
- 5.4 OVERALL IMPACT ASSESSMENT
- 5.5 MITIGATION

6.0 EFFECTS ON CULTURAL HERITAGE

- 6.1 INTRODUCTION
- 6.2 METHODOLOGY
- 6.3 ENVIRONMENTAL EFFECT - ARCHAEOLOGICAL SITES
- 6.4 ENVIRONMENTAL EFFECT - CONSERVATION AREAS
- 6.5 ENVIRONMENTAL EFFECT - LISTED BUILDINGS OF
SPECIAL ARCHITECTURAL OR HISTORIC INTEREST
- 6.6 ENVIRONMENTAL EFFECT - HISTORIC PARKSCAPES
- 6.7 ENVIRONMENTAL EFFECT - NATIONAL TRUST
PROPERTY
- 6.8 SUMMARY

Figures:

- 6.1 Cultural Heritage Constraints.

7.0 DISRUPTION DUE TO CONSTRUCTION

- 7.1 INTRODUCTION
- 7.2 METHODOLOGY
- 7.3 MITIGATION
- 7.4 ENVIRONMENTAL EFFECT OF EARTH REMOVAL
- 7.5 ENVIRONMENTAL EFFECT OF CONSTRUCTION NOISE
- 7.6 ENVIRONMENTAL EFFECT ON THE ECOLOGICAL AND
ARCHAEOLOGICAL AREAS CLOSE TO THE SITE
- 7.7 SUMMARY

Figures:

- 7.1 Disruption Due to Construction Assessment.

8.0 EFFECTS ON ECOLOGY AND NATURE CONSERVATION

- 8.1 INTRODUCTION
- 8.2 METHODOLOGY
- 8.3 EXISTING SITUATION
- 8.4 MITIGATION MEASURES
- 8.5 ENVIRONMENTAL IMPACT
- 8.6 SUMMARY

Figures:

- 8.1 Nature Conservation Status.
- 8.2 Scheme Overlay on Habitat Survey Plan. Key Sheet and Sheets 1- 4

9.0 EFFECTS ON LANDSCAPE

- 9.1 INTRODUCTION
- 9.2 EXISTING LANDSCAPE
- 9.3 MITIGATION AND ENVIRONMENTAL EFFECT
- 9.4 SUMMARY

Figures:

- 9.1 Landscape Assessment of Existing Road.
- 9.2 Landscape Assessment of Scheme.

10.0 EFFECTS ON LAND USE

- 10.1 INTRODUCTION
- 10.2 METHODOLOGY
- 10.3 RESIDENTIAL PROPERTY
- 10.4 COMMERCIAL PROPERTY
- 10.5 COMMUNITY LAND
- 10.6 DEVELOPMENT LAND
- 10.7 AGRICULTURAL LAND
- 10.8 WOODLAND
- 10.9 SUMMARY

Figures:

- 10.1 Agricultural Land Classification.
- 10.2 Scheme Overlay on Land Use. Key Sheet & Sheets 1- 4

11.0 EFFECTS OF TRAFFIC NOISE AND VIBRATION.

- 11.1 INTRODUCTION
- 11.2 METHODOLOGY
- 11.3 EXISTING SITUATION
- 11.4 ENVIRONMENTAL EFFECT
- 11.5 MITIGATION
- 11.6 VIBRATION
- 11.7 SUMMARY

Tables:

- 11.1 Existing Noise Level Band 50-60 dB(A)
- 11.2 Current Noise Level Band 60-70 dB(A)
- 11.3 Current Noise Level Band >70 dB(A)
- 11.4 Noise Insulation Assessment

Figures:

- 11.1 Traffic Noise Levels: Location Plan.
- 11.2 Traffic Noise Levels: Handcross.
- 11.3 Traffic Noise Levels: East Park to Home Farm.
- 11.4 Traffic Noise Levels: Merrivale to Stanbridge View.
- 11.5 Traffic Noise Levels: Properties assessed over 300m from Scheme.

12.0 EFFECTS ON PEDESTRIANS, EQUESTRIANS, CYCLISTS AND THE COMMUNITY

- 12.1 INTRODUCTION
- 12.2 METHODOLOGY
- 12.3 EXISTING SITUATION
- 12.4 MITIGATION AND ENVIRONMENTAL EFFECT
- 12.5 SUMMARY

Tables:

- 12.1 Pedestrian Journeys
- 12.2 Equestrian Journeys
- 12.3 Cyclist Journeys
- 12.4 Schedule of Diversions

Figures:

- 12.1 Pedestrians, Equestrians and Cyclists Plan.

13.0 EFFECTS ON VEHICLE TRAVELLERS.

- 13.1 INTRODUCTION
- 13.2 METHODOLOGY
- 13.3 VIEW FROM THE ROAD - EXISTING SITUATION
- 13.4 VIEW FROM THE ROAD - MITIGATION
- 13.5 VIEW FROM THE ROAD - ENVIRONMENTAL EFFECT
- 13.6 DRIVER STRESS - EXISTING CONDITIONS

- 13.7 DRIVER STRESS- MITIGATION
- 13.8 DRIVER STRESS - ENVIRONMENTAL EFFECT
- 13.9 SUMMARY

14.0 EFFECT ON WATER QUALITY AND DRAINAGE.

- 14.1 INTRODUCTION
- 14.2 EXISTING SITUATION
- 14.3 MITIGATION MEASURES
- 14.4 ENVIRONMENTAL IMPACTS

Figures:

- 14.1 Interceptor, Reedbed and Outfall Location Plan.
- 14.2 Drainage Catchment (Existing).

15.0 EFFECTS ON GEOLOGY AND SOILS

- 15.1 INTRODUCTION
- 15.2 EXISTING SITUATION
- 15.3 MITIGATION
- 15.4 ENVIRONMENTAL EFFECT
- 15.5 SUMMARY

Figures:

- 15.1 Geological Sketch Map of the Weald and Neighbouring Areas.

16.0 EFFECTS ON POLICIES AND PLANS.

- 16.1 INTRODUCTION
- 16.2 METHODOLOGY
- 16.3 WEST SUSSEX COUNTY COUNCIL
- STRUCTURE PLAN 1993
- 16.4 CENTRAL MID SUSSEX LOCAL PLAN 1992
- 16.5 SUMMARY

Figures:

- 16.1 Policies and Plans.

17.0 ENVIRONMENTAL IMPACT TABLES

- 17.1 INTRODUCTION
- 17.2 APPRAISAL GROUPS
- 17.3 LAND USE TABLE
- 17.4 MITIGATION TABLE

18.0 ALTERNATIVE ROUTES CONSIDERED

- 18.1 INTRODUCTION
- 18.2 HANDCROSS VILLAGE TO CHAINAGE 500
- 18.3 CHAINAGE 500 TO SLAUGHAM JUNCTION
- 18.4 SLAUGHAM JUNCTION TO WARNINGLID JUNCTION TIE-IN
- 18.5 THE PREFERRED ROUTE
- 18.6 THE PUBLISHED ROUTE
- 18.7 SUMMARY

Figures:

- 18.1 Handcross Village to Chainage 500 - Route Alignment.
- 18.2 Chainage 500 to Slaugham Junction - Blue Route.
- 18.3 Chainage 500 to Slaugham Junction - Red Route.
- 18.4 Chainage 500 to Slaugham Junction - Orange Route.
- 18.5 Chainage 500 to Slaugham Junction - Brown Route.
- 18.6 Slaugham Junction - Diamond Interchange.
- 18.7 Slaugham Junction to Warninglid Tie - In Route Alignment.
- 18.8 Chainage 500 to Slaugham Junction - Published Route.

19.0 CONSULTATION TABLE

- 19.1 INTRODUCTION
- 19.2 CONSULTATION TABLE
- 19.3 PREVIOUS CONSULTATIONS

1.0 INTRODUCTION

1.1 THE PROPOSALS

- 1.1.1 The Secretary of State for Transport has published a detailed scheme for improving the A23 between Handcross and Warninglid. This scheme is the final section of the planned improvement of the A23 between the M23 and Brighton. Figure 1.1 shows the scheme within the context of the wider region and the existing major road network.
- 1.1.2 The published scheme is a development of the proposals which were the subject of a local consultation in 1991 and it takes account of comments received. These proposals were for an extra lane in each direction to the existing A23 between Warninglid and Handcross, plus a climbing lane up Handcross Hill. The proposed carriageway provision is unchanged, but the horizontal and vertical alignments have been refined and some engineering details have been changed to reduce the impact of the scheme on areas of Nature Conservation Importance, Ancient Woodland and other neighbouring property.
- 1.1.3 The published scheme is 3.4 kilometres long (just over two miles) and would widen the existing two-lane dual carriageway to a three-lane dual carriageway (See Figure 1.2). A fourth lane would be added northbound between Slaugham Junction and Handcross Junction as a climbing lane for slow moving traffic. The vertical alignment of the road would be improved to give adequate forward visibility to drivers. The horizontal alignment would be improved to eliminate the bends on Handcross Hill. Junction slip roads would also be improved to increase the space available for traffic to manoeuvre. The whole length of the scheme would be lit.
- 1.1.4 All private accesses onto the A23 would be closed and alternatives provided where necessary. A service road would be built beside the northbound carriageway, south of Slaugham Junction, to serve properties west of the A23, north of Warninglid Junction. A two-way cycleway would be provided on the west side of the A23 between Warninglid and Staplefield Road.
- 1.1.5 The improvement of the road layout can mostly be achieved within the existing highway boundaries. However, additional land is required to accommodate the climbing lane, the service road and any realignments of the road. Further land would also be required to accommodate landscaping and other essential mitigation measures.
- 1.1.6 The bridges over Staplefield Road would be extended to provide the extra width necessary to carry the improved A23 by filling the gap between them and by widening out on the eastern side. The culverts under the A23 carrying the River Ouse and Anne's Wood Stream would be replaced and an entirely new highway drainage system would be provided.
- 1.1.7 The existing road construction would be broken out and the material recycled within the works.

1.2 THE ENVIRONMENTAL STATEMENT

- 1.2.1 This Environmental Statement is issued in accordance with EC Directive 85/337 as applied by section 105A of the Highways Act 1980.
- 1.2.2 The Environmental Statement describes the scheme, including information on the site, the design and the size of the works. It includes the data required to identify and assess the main effects which the scheme is likely to have on the environment. In addition, it describes the measures envisaged in order to avoid, reduce and if possible remedy significant adverse effects.
- 1.2.3 The Environmental Statement comprises of three parts:
- (i) Volume 1 is a comprehensive document containing all the relevant information about the scheme.
 - (ii) The Non-Technical Summary is a brief report summarising the principle sections of Volume 1.
 - (iii) Volume 2 contains a detailed assessment of environmental effects by subject area.
- 1.2.4 Details of the scheme are also contained within a draft Side Roads Order published by the Secretary of State under the Highways Act 1980. This includes details of alterations to existing roads, public rights of way and private accesses affected by the scheme.
- 1.2.5 A draft Compulsory Purchase Order for all the land required for the scheme would be published shortly.

1.3 AVAILABILITY OF INFORMATION

- 1.3.1 Copies of the Draft Order and accompanying plans, and the Environmental Statement may be inspected free of charge during normal office hours from 11th November 1994 to 17th February 1995 at the following locations:

The Department of Transport
Room S3/15
2 Marsham Street
LONDON SW1P 3RB

Highways Agency(SECPD)
Federated House
London Road
Dorking
Surrey RH4 1SZ

West Sussex County Council
Highways and Transportation
Department
County Hall
Chichester
West Sussex PO19 1RL

Mid Sussex District Council
Planning Department
'Oaklands'
Oaklands Road
Haywards Heath
West Sussex RH16 1SS

1.3 AVAILABILITY OF INFORMATION (CONTINUED)

1.3.1 (Cont)	Country Gardens London Road Handcross RH17 6BA	Spar Post Office & Stores High Street Handcross RH17 6BJ
-----------------	---	---

Copies of the Environmental Statement may be purchased from the Highways Agency, South East Construction Programme Division, at the address above at a cost of:

Volume 1: £100 (Environmental Statement)
Volume 2: £120 (Environmental Study Reports)

An exhibition of the proposals would be held, the arrangements for which have been detailed in the Non-Technical Summary.

1.4 COMMENTS

1.4.1 If you wish to comment on the Environmental Statement you should write not later than the 17th February 1995 to:

Highways Agency (SECPD)
Federated House
London Road
Dorking
Surrey RH4 1SZ

2.0 DESCRIPTION OF THE AREA

2.1 INTRODUCTION

2.1.1 This section of the A23 is located in West Sussex approximately 7km south of Crawley (see Figure 1.1). The scheme lies within the geographical area of the Weald (see Figure 15.1). This area comprises the clay Vales of Sussex and Kent and the intervening sandstone ridge. These lie between the chalk escarpments of the North and South Downs. To the north of the scheme at Handcross Village, the area is characterised by a range of undulating hills, to the south towards Warninglid, the area is the more gentle lowlands associated with the valley of the River Ouse.

2.1.2 The area is predominantly rural and there are few properties directly adjacent to the road. The area is lightly populated with a few small villages and hamlets within the study area (see Figure 2.1). On the periphery of the study area there are large towns to the north at Crawley, to the west at Horsham and to the east at Haywards Heath (see Figure 2.2).

2.2 LOCAL FEATURES

2.2.1 The area is located within the St Leonards Forest district of the High Weald Area of Outstanding Natural Beauty (AONB) (see Figure 2.2). Designated in 1966, the AONB covers an area of 560 square miles of undulating sandstone hills of the Weald which lie between the North and South Downs. The typical features of this area of the Weald are its deep wooded valleys known as gills, hammer ponds constructed to drive forge hammers of the early iron founding industry, extensive woodlands (many of which are remnants of ancient woodland dating back before 1600 AD), mansions with parklands, gardens and arboreta, ridge top villages, narrow lanes with hedgerows and vantage points with extensive views across the main valleys.

2.2.2 There are no Nature Reserves or Sites of Special Scientific Interest in the immediate vicinity of the road although it does pass through ancient woodlands which are also areas of significant ecological interest and conservation value. Ancient woods are those which have had a continuous woodland cover since 1600 AD and have only been cleared for underwood or selective timber production. Their importance is that many of them are believed to be the surviving remnants of, or closely resemble, the primeval forests of this country. The Sussex Inventory of Ancient Woodlands lists three ancient woods in the vicinity of the scheme; East Park Wood, West Park Wood and Anne's Wood.

2.2.3 In April 1991, West Sussex County Council published 'A Nature Conservation Strategy for West Sussex' and adopted the concept of Sites of Nature Conservation Importance (SNCIs). Following a joint survey with the District Councils, English Nature and Sussex Wildlife Trust, West Park Wood together with the adjoining Homestead Wood was identified, in May 1992, as an SNCI.

- 2.2.4 In addition to the designated ancient woodlands, the locality contains several other areas of mature, predominantly broad leaved woodland and long established hedgerows containing mature trees. Although these areas have no classification they are considered important elements in the landscape of the High Weald AONB generally and make a significant contribution to the conservation value of the area.
- 2.2.5 The River Ouse, although the main watercourse of the area, is at this stage only a small stream. The water quality of the river is classified by the National Rivers Authority as being "good".

2.3 LOCAL COMMUNITIES

2.3.1 Handcross Village

- 2.3.1.1 Handcross is one of the larger villages in the area and is split into two sections by the A23. The buildings to the west of the A23 consist mostly of 20th century estate development, much of which was built by the local authority since 1945. The eastern section is older and is centred around the High Street which was the main road to Brighton until the construction of the A23 trunk road. Although most of the buildings are Victorian, some, which are listed, date back to the 18th century or earlier. Part of the village was designated a Conservation Area in March 1990 (see Figure 6.1).

2.3.2 Waminglid Village

- 2.3.2.1 This small village is located on the B2115 (Cuckfield Lane) approximately 1.5km west of the A23. Dating back to Saxon times, the village has connections with the medieval iron industry of the area. The Street, which is the original core of the village, contains a number of listed buildings and forms the focus of the Conservation Area designated in 1969. During the 20th century the village has spread eastward along Cuckfield Lane, the most recent development being a small local authority housing scheme and infilling of sites between existing properties.

2.3.3 Staplefield Village

- 2.3.3.1 Staplefield is located, at its nearest point, approximately 1km east of the A23 at the junction of the B2114 with several minor rural roads. The village is centred on the large green known as Staplefield Common. The overall character of the village is one of low density housing interspersed with open spaces and fields. The village contains many groups of trees and individual specimens, which are important elements of the village's character. The buildings in the village are predominantly residential and include a range of ages and styles. Few of the houses are listed as being of special merit, but generally they are of high quality with mature gardens. Their variety adds to the character of the village. The village was designated as a Conservation Area in 1984 (see Figure 6.1).

2.3.4 Slaugham Village

2.3.4.1 Located slightly less than 1km west of the A23, Slaugham was originally one of the iron producing villages of the area. The village has a linear shape and is composed of approximately 20 buildings tightly grouped on either side of Park Road, which continues as a private road/bridleway northwards through Slaugham Park towards Handcross Village. The village shows a variety of building styles and ages with houses dating back to the 15th century, many of which are listed as being of architectural or historical significance. The entire village was designated a Conservation Area in 1984 (see Figure 6.1).

2.4 THE EXISTING ROUTE CORRIDOR

2.4.1 Adjacent to East Park and south of Slaugham Junction the wide central reserve to the existing A23 contains a series of mature trees. These were incorporated into the central reserve when the A23 was dualled in 1964, and groups of semi-mature trees and bushes were planted at the same time. The mature trees are of the same species as in the adjacent Ancient woodland areas. Many are in a poor condition, being over mature and having been damaged in the storm of 1987. They may also have suffered from disturbance caused by the construction of the second carriageway when the A23 was dualled, despite the brick walls constructed around their trunks in areas where the ground level was raised.

2.4.2 Extensive verge planting was undertaken when the dual carriageway was constructed. With the invasion of many self-sown indigenous species of trees and shrubs, the planting has taken on a natural character which complements the surroundings. The verge vegetation is now fairly mature and forms an integral part of the landscape of the existing road. This is especially true where it fronts the woodland areas and provides an edge to the canopy.

2.5 THE EXISTING HIGHWAY NETWORK

2.5.1 The A23 London to Brighton trunk road provides easy access to the south coast and the national motorway network. The section between Handcross and Warninglid Junction also provides local traffic access to villages in the area (see Figure 2.2).

2.5.2 From Handcross the B2110 provides access to villages east of the A23 such as Balcombe and Turners Hill. The B2114 gives access to Staplefield village to the south east. West of Handcross the A279 provides access to Lower Beeding and eventually to the town of Horsham.

2.5.3 Slaugham Junction provides access to the villages of Slaugham and Staplefield via the minor road C96.

2.5.4 Warninglid Junction provides access via the B2115 to Warninglid village to the west, and Slough Green village and Haywards Heath town to the east.

- 2.5.5 To the north of this scheme, the A23 Pease Pottage to Handcross Improvement is currently under construction and was completed this year (1994). This is a high standard dual three lane road and with a 1 metre hard strip either side of the carriageways and access restricted to left turns only. This section is lit throughout and has a cycleway crossing the slip road merge and diverge lanes adjacent to the southbound carriageway, 300m north of Horsham Road bridge.
- 2.5.6 To the south of this scheme, the Warninglid to Sayers Common Improvement was completed in 1993. This is also a high standard dual three lane road with a 1 metre hard strip either side of the carriageways and access restricted to left turns only. This section is lit throughout and has a cycleway adjacent to the northbound carriageway, which finishes approximately 500m north of Warninglid Junction.

3.0 BACKGROUND

3.1 THE EXISTING ROAD

3.1.1 Introduction

3.1.1.1 The existing A23 between Horsham Road bridge and Stanbridge View (see Figure 3.1) is a dual two lane road. The southbound carriageway is the original A23 trunk road, upgraded in 1936, whilst the northbound carriageway was constructed in 1964. The extensive hedge line with mature trees (see Figure 8.1) which bordered the original A23 was retained and incorporated in the central reserve during the 1964 improvement works.

3.1.2 General Description

3.1.2.1 The A23 passes through Handcross village in a cutting up to 6m deep, continuing southward through a minor cutting where slip roads merge and diverge adjacent to the Handcross Market Gardens. The road then descends at a grade of 1:15 (6.7%) for approximately 400m before going through a reverse right-left bend. At this location the road is on embankment adjacent to West Park and in shallow cutting adjacent to East Park. The road continues to descend, going onto a shallow embankment before crossing over Staplefield Road by means of two concrete arch bridges (Slaugham Bridge). Merge and diverge slip roads are located north and south of Slaugham Bridge. From the bridges the road continues to fall at a grade of approximately 1:27 (3.7%) onto a length of embankment which passes over the River Ouse. The ground then starts to rise and the road goes into a shallow cutting before crossing Anne's Wood stream on embankment. The road continues at grade, gradually rising, and passing Stanbridge Place and an old gravel pit to the east and the Country Gardens Garden Centre and the Happy Eater restaurant to the west.

3.1.3 Existing Road Features

3.1.3.1 There are several laybys located along the existing road:

- (i) Large segregated layby south of Horsham Road bridge adjacent to southbound carriageway. This layby contains an R.A.C. box.
- (ii) Layby north of Slaugham Junction adjacent to northbound carriageway. This is sometimes used by a mobile snack bar and attracts heavy goods vehicles.
- (iii) Layby north of Merrivale adjacent to northbound carriageway.
- (iv) Small layby adjacent to northbound carriageway at Stanbridge View.

3.1.3.2 A bus stop is located on the slip road into Handcross on the northbound carriageway.

3.1.3.3 There are safety fences provided intermittently along the A23, either because of physical conditions or in order to reduce the consequences of vehicles leaving the carriageway. There is no continuous barrier along the central reserve.

3.1.3.4 There are a number of existing commercial and residential accesses directly onto the existing road :

Southbound carriageway:

- (i) Handcross Market Garden
- (ii) East Park Farm
- (iii) East Park House, East Park Cottage
- (iv) Stanbridge Farm, Stanbridge Place

Northbound Carriageway:

- (i) Stanbridge View, Stanbridge Nursery, Pitts Head
- (ii) Happy Eater Restaurant
- (iii) Country Gardens House
- (iv) Country Gardens (North, Middle, South)
- (v) Merrivale

3.1.3.5 There are also several field accesses directly onto the existing road (see Figure 3.1)

3.1.3.6 There are four footpaths that have direct access onto the existing road:

- (i) Footpath S4 south of Horsham Road bridge.
- (ii) Footpath S9 north of Slaugham Junction.
- (iii) Footpath S15 north of Stanbridge Place.
- (iv) Footpath S14 north of Merrivale.

There is no provision for pedestrians crossing the carriageways at these locations.

3.1.3.7 There is a footway adjacent to the southbound carriageway running between the access to Handcross Market Gardens and East Park House and Cottage. There are no segregated provisions for cyclists along this section of the existing road other than to use the main carriageway.

3.1.3.8 Lighting columns are situated between Horsham Road bridge and East Park. The columns are either 10m or 12m high and are located in the central reserve and verges.

3.1.3.9 There are a small number of statutory authorities with apparatus in the existing highway all of which would have to be moved should the improvement be carried out.

3.2 THE PROBLEM

3.2.1 Existing Road Geometry

- 3.2.1.1 The existing road has sections where the horizontal and vertical road geometry does not comply with current highway design standards.
- 3.2.1.2 From the Highway Standard TD9/93 "Highway Link Design" the absolute minimum stopping distance for this standard of road is 215 metres and the desirable minimum is 295 metres. The available visibility falls below these standards in several locations.
- 3.2.1.3 Where the road passes over the brow of Handcross Hill, the current alignment allows a forward visibility of only 160 metres. Merge and diverge manoeuvres also occur at the slip roads in this location.
- 3.2.1.4 The reverse right-left bend between East Park and West Park means that drivers have poor forward visibility due to the mature tree line in the central reserve and the poor horizontal geometry.
- 3.2.1.5 South of Slaugham Junction across the ridge of Mill Hill the forward visibility for drivers is as low as 80 metres, due to the poor vertical alignment.
- 3.2.1.6 All but one of the merge and diverge lengths on the slips roads at Handcross and Slaugham Junctions are below the Highway Standard TD 22/92 "Layout of Grade Separated Junctions". The sub-standard lengths vary between 50 and 120 metres.

3.2.2 Accidents

- 3.2.2.1 Accident data for this section of the A23 has been collected by West Sussex County Council. The accidents were recorded from the end of 1990 to the end of 1993. The results are shown in Table 3.1.
- 3.2.2.2 The majority of accidents are evenly distributed over the full length of the road (see Figure 3.2). However, there are groupings of accidents at the top of Handcross Hill, on the bends adjacent to East Park and on the section south of Slaugham Junction. It is possible that the poor road geometry in these locations is a significant factor in the cause of the accidents.
- 3.2.2.3 During the period over which the accidents were recorded there were road works being undertaken both to the north and to the south of this proposed scheme.

Table 3.1

WEST SUSSEX COUNTY COUNCIL

**RECORDED ACCIDENTS - A23 HANDCROSS TO WARNINGLID
1990-1993**

Severity	Number	Percentage (%)
Slight	33	80.5
Serious	7	17.1
Fatal	1	2.4
TOTAL	41	100

3.3 THE EXISTING AND FORECAST TRAFFIC FLOWS

- 3.3.1 Figure 3.3 shows the annual average daily traffic figure for 1994, 1998 and 2013 should the scheme not be built.
- 3.3.2 The Highway Standard TD 20/85 "Traffic Flows and Carriageway Width Assessment" show that the existing 1994 flows already exceed the capacity of the existing road. The appropriate provision from the standard for these flows is that of a dual three lane all purpose road. One metre wide hardstrips are required, with access severely restricted allowing left turns only. No gaps are permitted in the central reserve at minor junctions, with any major junctions generally being grade separated.

3.4 THE EFFECTS OF THE SCHEME

- 3.4.1 A well planned and efficient infrastructure system is vital to the economic prosperity of the country. A comprehensive motorway and trunk road network facilitates the movement of goods and services throughout the country and to key locations for export.
- 3.4.2 In May 1989, the Government published the White Paper "Roads for Prosperity" which announced a greatly expanded programme of motorway and trunk road construction to relieve congestion on major roads between cities and towns in England. The upgrading of the A23 trunk road is part of the National Roads programme. In 1994 the Government published a review of the roads programme, which confirmed the importance of the scheme.

- 3.4.3 The A23 trunk road between the M23 and Brighton provides easy access to the south coast and the motorway network. Its improvement would result in a number of economic benefits which include improved journey times and the likelihood of less accidents.
- 3.4.4 The addition of a lane on each carriageway, a northbound climbing lane between Slaugham Junction and Handcross and the improvement to the horizontal and vertical geometry would increase the capacity of the road. The details of the scheme are described in Section 4.0 of this Volume. Figure 3.3 shows the predicted traffic flows for the scheme. The higher capacity of the road would ease congestion which would otherwise occur on the existing road.
- 3.4.5 There is a substantial amount of work required to Statutory undertaker's apparatus. The major part of the work is to re-align the British Telecom trunk route from its current position which varies between the verges and the central reserve, to the verge of the new verge provision. There are also minor diversion or re-alignment of other pipes, ducts and overhead cables.
- 3.4.6 The new means of access from the B2114 would provide a safer alternative for East Park Farm, East Park House and East Park Cottage together with Handcross Market Garden.
- 3.4.7 Stanbridge Farm and Stanbridge Place would be provided with a new access from the C96 Staplefield Road - adjacent to Slaugham Bridge. This new access will also enable entry to the various fields whose existing access from the A23 is proposed to be stopped up.
- 3.4.8 The service road proposed would provide access for all properties and premises on the west of the A23 between Slaugham Bridge and Warninglid. A one day survey of vehicles using these properties was carried out in August 1994 and 960 vehicles were counted.
- 3.4.9 Field accesses stopped up, where alternative means of access do not already exist, would have new access provided for in the scheme unless replacement is not required.
- 3.4.10 The bus stop located on the slip road into Handcross on the northbound carriageway would be relocated to a safer position in Handcross Village.

4.0 PUBLISHED SCHEME

4.1 DESCRIPTION OF THE SCHEME

4.1.1 Figures 4.1 and 4.2 show the Engineering Details and Landscaping Proposals of the scheme.

4.1.2 Engineering Details

4.1.2.1 The published scheme would widen the existing dual two lane road to a dual three lane road. One metre hard strips would be provided either side of the carriageways. A fourth lane would be provided northbound between Slaugham Junction and Handcross Village as a climbing lane. This is recommended by the Highway Standard TD 9/93 "Highway Link Design", given the design year predicted traffic flows and the steepness of the gradient of Handcross Hill which is 1:15 (6.7%). There would be no direct access to the A23 except at junctions where movements would be restricted to left turns only. This would be done in order to comply with the Highway Standard TD 20/85 "Traffic Flows and Carriageway Width Assessment". Where existing direct accesses are closed, alternative means of access would be provided when appropriate.

4.1.2.2 At the following locations specific improvements would be provided to ensure the safe and free flowing movement of vehicles on this section of the A23:

- i) Improvement of sub-standard vertical alignments especially crossing the ridge of Mill Hill and at Handcross Hill.
- ii) Improvement of sub-standard horizontal road geometry especially adjacent to East Park.
- iii) Improvement of diverge and merge taper lengths at the junction slip roads throughout the scheme.
- iv) Removal of commercial, residential and field accesses directly onto the A23.
- v) Provision of highway lighting throughout the scheme.

4.1.2.3 A private means of access would be constructed from the B2114 to serve Handcross Market Garden, East Park Farm, East Park Cottage and East Park House. This would provide alternative access for these properties whose present direct access onto the A23 is proposed to be stopped up.

- 4.1.2.4 A private means of access would be constructed from Staplefield Road (C96), east of Slaughtam Junction, running south adjacent to the A23, serving Stanbridge Place, Stanbridge Farm and the fields in the area whose direct access onto the A23 is proposed to be stopped up. Part of this track would also act as a diversion for footpath S15.
- 4.1.2.5 A service road would be provided to the west of the A23, between Stanbridge View and Merrivale, to provide access to Stanbridge View, Happy Eater, Country Gardens House, Little Stanbridge, Country Gardens Garden Centre and Merrivale.
- 4.1.2.6 A cycleway/footway would be provided adjacent to either the service road or the northbound carriageway, from Stanbridge View to Staplefield Road. Crossing points would be provided at junctions to ensure the safe passage of cyclists across merge and diverge tapers.
- 4.1.2.7 A 4m wide central reserve would be provided throughout the length of the scheme, again to reduce land take generally, but especially in West Park Wood and Country Gardens. Safety fences would be provided along the length of the central reserve and in the verges, where required by the Highway Standard TD 19/85 "Safety Fences and Barriers".
- 4.1.2.8 Road signing would be provided in accordance with the Traffic Signs Manual published by the Department of Transport. It has been considered inappropriate to provide sign gantries.
- 4.1.2.9 A layby would be provided in the service road just north of the Happy Eater.
- 4.1.2.10 Bypass interceptors and reed beds would be provided to treat carriageway drainage to maintain water quality in existing streams/watercourses. The reed beds would also act as balancing ponds, attenuating the flow into watercourses during storms. The existing dry weather flow into areas of woodland would be by direct outfall and would not be significantly altered by the scheme.

4.1.3 Landscaping and Nature Conservation

- 4.1.3.1 The main aims of the planting proposals for the scheme would be:
 - i) To restore the edge of the canopy of the mature woodlands by a combination of new planting along the highway verges. Offsite woodland management by agreement with the affected landowners would further enhance the restoration of the canopy edge.

- ii) To replace screening where lost and/or to reinforce the screening effect where practicable by planting wide woodland strips along the highway boundary. Additional off-site planting to reinforce hedgerows by agreement with the affected landowners would again further mitigate the loss of screening.
 - iii) To replace/reinforce the nature conservation value of the planting along the highway boundary as a linear habitat linking together the fragmented areas of mature woodland.
- 4.1.3.2 The emphasis for plant selection would be to use native, mainly deciduous species, that would be complementary to the vegetation of the adjacent areas, both visually and ecologically and that would restore the corridor as far as possible to its existing appearance.
- 4.1.3.3 Because of the primary concern to limit the effect of the scheme on adjacent areas of nature conservation importance, the opportunity to soften the appearance of cuttings and embankments has been restricted to two situations, both of which are on existing highway land.
- i) At the redundant section of carriageway opposite East Park, the existing road would be broken out and the ground graded to merge with the adjacent landform.
 - ii) At the island formed by Slaugham northbound slip road, the area of waste ground would be infilled to form a continuous slope between the edge of the slip road and the main carriageway.
- 4.1.3.4 Screen fencing would be erected, by agreement, on the boundary of residential property adjoining the road where the existing screening would be lost.
- 4.1.3.5 Topsoil from areas of Ancient Woodland would be conserved separately for re-use on the appropriate section of the new verges.
- 4.1.3.6 The seed mix would be selected to be sympathetic with the adjacent land and would incorporate native grasses and herbaceous species.
- 4.1.3.7 Clearance up to the new highway boundary would be supervised by the Landscape Architect to reduce the extent of damage to adjacent vegetation to a minimum. Tree surgery would be carried out to trees retained within the highway boundary and, by agreement with the affected landowner, to trees on the edge of neighbouring land.

4.1.3.8 Wildlife fencing of the scheme would be carried out along the highway boundary over most of the length of the scheme to limit the occurrence of wildlife road accidents. Two tunnel crossings would be constructed to maintain wildlife access to traditional pathways and crossings of the existing A23. This is described in more detail in Volume 2, Section 5.0: "Ecology and Nature Conservation" of this Environmental Statement.

4.2 DESCRIPTION OF THE ROUTE

- 4.2.1 The scheme would begin at Handcross Village where the A23 passes under the Horsham Road bridge in an existing cutting up to 6m deep. It is envisaged that an approximately 70m long retaining wall would be provided to the west of the improved road in order to accommodate the merge lane for the northbound on-slip road from the A279. This would enable all new work to be within the existing highway boundary, preserve the existing highway boundary hedgerow and mitigate the impact of the scheme on the church and adjacent properties. The weighbridge facility would remain at its present location, being separated from the northbound carriageway by a small retaining wall. The existing layby adjacent to the southbound carriageway would be lost to accommodate the additional running lane. It is expected that an approximately 300m long retaining wall approximately 2m high with a maximum height of 3m would be provided adjacent to the southbound on-slip road in order to accommodate the merge lane from the Brighton Road and remain within the existing highway boundary. Cycleway crossings would be located on the southbound on-slip road and northbound off-slip and on-slip road to ensure the safe movement of cyclists.
- 4.2.2 From Handcross Junction the scheme would descend at an approximate gradient of 1:17 (5.9%) onto an embankment up to 5m high. It is proposed that the embankment would have 60° planted slopes. This would preserve the existing hedgerow in the area where possible and hence mitigate the impact on the adjacent properties. The road would then continue into a cutting with 45° slopes up to 7m deep on the east side of the road and up to 1.5m on the west side of the road as the sub-standard right-left reverse bend is improved.
- 4.2.3 At Slaugham Bridge the scheme would be on an embankment as Staplefield Road is crossed. The on-slip and off-slip roads for Staplefield Road at Slaugham Bridge would be improved. In addition cycleway crossings would also be provided on the slip roads to facilitate the safe movement of cyclists. It is proposed that there would be infilling between the two separate arch structures of Slaugham Bridge as well as widening to the east to accommodate the additional carriageway provision, climbing lane and slip road tapers that would need to be carried over the bridge.
- 4.2.4 South of Slaugham Bridge the scheme would descend at a gradient of 1:35 (2.8%) onto an embankment up to 4m high as the River Ouse passes beneath the road. The scheme would continue through a cutting up to 5m deep where the road level is approximately 2m lower than existing and then onto a minor embankment over Anne's Wood stream.

4.2.5 From Anne's Wood Stream the scheme would continue gradually rising at 1:30 (3.3%) to Stanbridge View and then tie in to the existing dual three lane road to the south. A service road would be located adjacent to the northbound carriageway to provide the properties between Warninglid and Slaugham Junction with a safe access onto the improved A23.

4.3 LAND USE

4.3.1 The scheme would require landtake from residential and commercial properties as well as agricultural land. The only demolition required would be the garage at "Merrivale".

4.3.2 Residential Property

4.3.2.1 A total of about 0.969 hectares would be required from the following properties: Slaugham Park (West Park Wood), East Park House (woodland garden), Merrivale, Little Stanbridge, Country Gardens House and Stanbridge View. Of this total, approximately 0.437 hectares is currently used for garden and 0.532 hectares is woodland.

4.3.3 Commercial Property

4.3.3.1 A total in the region of 1.067 hectares of land would be required from Country Gardens Garden Centre and the Happy Eater. Some of this land is used for gardens.

4.3.4 Agricultural Land

4.3.4.1 The land adjacent to the A23 is predominantly classed as Grade 3 with an area of Grade 4 on either side of the River Ouse crossing. No information regarding subdivision of the Grade 3 land into sub-grades 3a and 3b was available from the Ministry of Agriculture, Fisheries and Food.

4.3.4.2 The scheme would result in the loss of about 3.075 hectares of agricultural land. Of this total about 1.320 hectares is Grade 3 and 1.755 hectares is Grade 4.

4.3.5 Woodland

4.3.5.1 In addition to the land required from West Park Wood which has been described under 4.3.2.1 a total of about 0.069 hectares would be required from East Park Wood (south).

4.3.6 Future Land Use

4.3.6.1 Of the total land required it is expected that about 0.328 hectares would be required for hard surfaces such as carriageways and footways, and about 4.852 hectares would be for embankments, cuttings and other landscape works.

- 4.3.6.2 In addition to the landtake already detailed, a total in the region of 1.409 hectares would be required in order to construct new access arrangements for Handcross Market Garden, East Park Farm, East Park House, East Park Cottage, Stanbridge Place, Stanbridge Farm and Merrivale.

4.4 CONSTRUCTION AND MAINTENANCE

4.4.1 Construction

- 4.4.1.1 It is expected that the scheme would take 24 months to construct.
- 4.4.1.2 Temporary access to land of a total area of about 0.792 hectares outside the proposed highway boundary would be required in order to construct the reed beds and access tracks, re-grade streams, plant shrubs and trees, and erect fencing.
- 4.4.1.3 For the majority of the construction period two lanes of traffic would be kept open in each direction. This would be achieved by narrow lanes or other approved means such as short term tidal flows at peak periods.
- 4.4.1.4 A reasonable standard of access would be provided to all properties and premises which currently have direct access from the A23. This would be achieved either by the construction of the new private means of access, by construction of temporary accesses or by maintenance of the existing access during construction.
- 4.4.1.5 Preliminary estimates show that the disposal of 68,000 cubic metres of material would be required. In consultation with the Planning Department of West Sussex County Council, two disposal sites have been identified; Warnham, north of Horsham and Small Dole, north of Shoreham (see Figure 1.1). It is estimated that 100 lorry movements a day for a period not greater than 5 months would be required to remove the surplus material. The Contractor would not be permitted to allow lorry movements through the local villages or local road network for either access to site or disposal. The actual site of disposal would be left to the Contractor working within the statutory planning framework.

4.4.2 Maintenance

- 4.4.2.1 Maintenance would be in accordance with Highway Agency's current practices.
- 4.4.2.2 Further details can be found in the Highway Agency Code of Practice for Routine Maintenance.

5.0 EFFECTS ON AIR QUALITY

5.1 INTRODUCTION

- 5.1.1 This section describes the effect of the scheme on air quality. Air quality in the context of this statement is the quantity and concentration of exhaust gases from vehicles using the A23.

5.2 METHODOLOGY

- 5.2.1 The assessment method of air quality which is described in Volume 11, Section 3, Part 1 of the Department of Transport's Design Manual For Roads and Bridges has two parts. The first, which is the "Localised Air Quality Assessment", addresses the concentration of gases at certain locations along the scheme. If the concentration of exhaust gases is shown to be above certain levels then a more detailed investigation is carried out. The second part is one in which an "Overall Impact Assessment" is undertaken.

5.3 LOCALISED AIR QUALITY ASSESSMENT

- 5.3.1 Only properties within 200m of either side of the new road were assessed for pollutants from the scheme, since all indications are that beyond this distance levels of pollutants associated with vehicle exhausts drops to the background level.

- 5.3.2 In forecasting the magnitude of the impact of the scheme on air quality a comparison has been made between pollutants at the present time and pollutants at the proposed year of opening with and without the scheme being built. Details of assessed pollutant levels can be seen in Volume 2, Section 2.0: "Air Quality" of this Environmental Statement.

- 5.3.3 The pollutants assessed were carbon monoxide, hydrocarbons and nitrogen dioxide. When comparing the pollutants generated by envisaged traffic on the existing road in the opening year without the scheme being built, against pollutants generated by the envisaged traffic in the opening year with the scheme being built, the levels of carbon monoxide and hydrocarbons remain or decrease slightly, while the level of nitrogen dioxide increases slightly. However, the levels for all three pollutants are assessed as being lower in the year of opening than at present. None of the pollution levels in the year of opening, regardless of whether the scheme is built or not, are above the designated threshold levels given in the Design Manual of Roads and Bridges.

5.4 OVERALL IMPACT ASSESSMENT

- 5.4.1 This assessment looks at the total emission of pollutants from vehicles using the road in a 12 month period. The pollutants generated by the envisaged traffic on the existing road in the opening year without the scheme being built were compared with pollutants generated by the envisaged traffic in the opening year with the scheme being built. A similar comparison was done for the worst year within 15 years of the proposed scheme opening. In this case the worst year is the fifteenth year. Details of emissions can be seen in Volume 2, Section 2.0 of this Environmental Statement.

5.4.2 The pollutants assessed were carbon monoxide, hydrocarbons, oxides of nitrogen and carbon dioxide.

5.4.3 There is a small change in emission for all pollutants in the opening year which agree with the vehicle speed/emission relationships which are known to exist, whereby carbon monoxide and hydrocarbon emissions decrease as congestion decreases, whilst oxides of nitrogen and carbon dioxide increase as congestion decreases.

5.4.4 The reductions in carbon monoxide, hydrocarbons and oxides of nitrogen in the 15 years after the opening year is as a result of improvements in vehicle technology and would not be offset by traffic growth during this period. The increase in carbon dioxide is due to the predicted increase in traffic growth. This is judged to override any reductions due to vehicle technology.

5.5 **MITIGATION**

5.5.1 The overall effect of the scheme is to improve air quality in the vicinity of the A23. The reduction in congestion in the short term and in the 15 years after opening gives benefit from the reduction of carbon monoxide and hydrocarbon emissions. Hence it is not envisaged that any specific mitigation measures would be required for the effect of the scheme on air quality.

6.0 CULTURAL HERITAGE

6.1 INTRODUCTION

6.1.1 This section describes the effect the scheme would have on ancient monuments, archaeological sites, buildings of special architectural or historic interest, old villages, historic gardens and parkscapes that are an important part of the present day heritage from the past development of our civilisation.

The following abbreviations have been used throughout this section of the statement.

WSCC	West Sussex County Council
MSDC	Mid Sussex District Council
RPGE	Register of Parks and Gardens of Special Historical Interest in England, compiled by English Heritage.
EN	English Nature
SMR	Sites and Monuments Record
SAM	Scheduled Ancient Monuments

6.2 METHODOLOGY

6.2.1 A desk study was undertaken based upon data contained in the County Sites and Monuments Record (SMR), and other material provided by West Sussex County Council and Mid Sussex District Council. Additional research was undertaken following up references contained in the SMR and other appropriate publications. An examination was also carried out of early maps and other sources.

6.2.1 Two sets of aerial photographs (Cartographical Services Ltd - 1:3,000 scale December 1984 and JAS Air - 1:14,000 scale September 1988) were examined for evidence of archaeological remains.

6.2.3 A walk-over survey was undertaken in 1993 to locate all recorded sites on the ground and to look for any additional sites that might be observed. Particular attention was paid to the possibility of locating evidence of Roman and Medieval mining activity and other features in the woodland areas that would not be apparent from the aerial photographs. No new features were identified from either the examination of the aerial photographs or the walk-over survey.

6.2.4 An assessment of the visual impact of the road on sites of cultural heritage importance has been made, the details of which are given in Volume 2, Section 6.0: "Landscape Effects" of this Environmental Statement.

6.2.5 The most important sites in the area are covered by several designations. To avoid repetition a full description is given only once with cross referencing to other entries in the Statement.

6.2.6 The location of all sites of cultural heritage importance are shown on Figure 6.1, and are cross referenced to the text using their SMR or Listed Building number.

6.3 ENVIRONMENTAL EFFECT - ARCHAEOLOGICAL SITES

6.3.1 The significance of the archaeological remains has been assessed on the basis of their status in terms of national, regional or local importance.

National SAM or archaeological remains being scheduled and protected under the Ancient Monuments and Archaeological Areas Act 1979 or suitable for scheduling.

Regional Sites listed in the SMR or other sources, which are of reasonably well defined extent, nature and date and significant examples in the regional context.

Local Sites listed in the SMR or other sources which are either of very low potential or minor importance.

6.3.2 Scheduled Ancient Monuments

6.3.2.1 A fuller description of the existing situation and impact of the scheme can be found in Volume 2, Section 3.0: "Cultural Heritage" of this Environmental Statement.

6.3.2.2 *Slaugham Place*

SMR Number 4606 [SAM No 143]
Status National.

- Scheduled Ancient Monument
- Grade II* Listed Building (No 184).
- Grade II Listed English Heritage Register RPGE.
- MSDC Archaeological Sensitive Area.

Description Slaugham Place comprises the ruined remains and gardens of an Elizabethan Manor erected by John Thorpe for Sir Walter Covert in 1579-81. The garden, which lies to the east of the arches comprises formal rows of yews which are the most complete surviving example in Sussex of this early style of garden planting. The ruins are presently in private ownership and form part of the garden of the Moat House (see Listed Buildings) which is situated at their south west-corner.

Existing Situation

Views out are limited to those in a north-westerly direction towards Slaugham Village and north-easterly towards the A23 which where closest is at a range of 360 metres. During the summer, traffic on the A23 is effectively screened by mature planting on the highway boundary and by mature intervening hedgerows. During winter, traffic is visible intermittently between the Ouse crossing and north of Slaugham Junction. Traffic on the A23 contributes to the main background noise and is considered to detract from the otherwise rural ambience of the site.

Impact of Scheme

- Land Use - None.
- Visual Impact - Slight.

The partial loss of planting on the highway boundary would increase the visibility of traffic on the A23, especially during winter when the trees of the intervening hedgerows are bare of leaves. To mitigate this impact a 10 metre wide strip adjacent to the road would be planted with a woodland mix. This would fairly quickly form an effective screen to traffic but it would be many years before the tops of the lighting columns would be concealed and at night the lampheads would be visible extensively between the Ouse crossing and East Park. Further screening and hence further reduction of the slight impact would be possible by planting to reinforce the intervening hedgerows, as a result of any agreement with the affected landowners.

- Traffic Noise - Slight increase.
- Gradual increase resulting from traffic growth.

6.3.3 Other Archaeological Sites Listed in SMR

6.3.3.1 The SMR is compiled by the County Archaeological Officer (West Sussex County Council) and contains information about all known archaeological remains. Listing in the SMR does not in itself confer any protection on a site, however most are covered by some other designation which does confer protection.

6.3.3.2 The following list shows the site followed by a summary of the impacts. A fuller description, status and statement as to the existing situation can be found in Volume 2, Section 3.0: "Cultural Heritage" of this Environmental Statement.

Slaugham Mill	SMR Number 3969	Impact - None
St Mary's Parish Church, Slaugham	SMR Number 3955	Visual Impact - Slight Traffic Noise - Slight Land Use - None

Slaugham Park	SMR Number 2782	Visual Impact - Slight Traffic Noise - Slight Increase Land Use - Negligible.
Nymans House and Gardens	SMR Number 4301	Visual Impact - Slight Traffic Noise - Slight Land Use - None
Roman Altar Stones, Nymans	SMR Number 4300	Impact - None
Blackfold Furnace	SMR Number 4298	Impact - None
Roman Pottery, Hillhouse Farm	SMR Number 4299	Impact - None
Staplefield Place (now school)	SMR Number 2783	Visual Impact - Slight. Noise - Not assessed but considered to have no significant change.
Stanbridge House	SMR Number 2785	Visual Impact - Slight. Noise - Slight
Palaeolithic Hand axe, Southland Farm	SMR Number 3967	Impact - None
Roman Coin, Knaresborough House	SMR Number 3968	Impact - None
Prehistoric Flint Pick, Truggers	SMR Number 3957	Impact - None
Flints, Southland Farm	SMR Number 3964 3965, 3966	Impact - None

6.4 ENVIRONMENTAL EFFECT - CONSERVATION AREAS

6.4.1 Areas of land or groups of buildings that are considered to be of special architectural or historic interest, the character or appearance of which it is sought to preserve or enhance the local area may be designated by Local Planning Authorities as 'Conservation Areas' under the Planning (Listed Buildings and Conservation Areas) Act 1990. Although a local designation, conservation areas may also be of national importance. A fuller description of the existing situation and impact of the scheme is detailed in Volume 2, Section 3.0: "Cultural Heritage" of this Environmental Statement.

6.4.2 Handcross Village

Description Handcross is already severed by the A23. The buildings of the western section comprise mostly of 20th century housing estate developments, The eastern section is older and is centred on the High Street. The village was designated as a Conservation Area in 1990.

Existing Situation The conservation area of the village is completely screened from direct view of the A23. At night, the properties on the east side of the B2114 at the southern end of the conservation area are slightly affected by lightspill from the existing lighting on the A23. Traffic on the A23 contributes to the background noise, but it is considered that noise from traffic on the A279 and the B2114 has the greater impact on the conservation area.

Impact of Scheme

- Visual Impact - Slight benefit.
The proposed change from low pressure sodium lighting to high pressure sodium with cut-off lampheads would eliminate light spill, otherwise there would be no change.
- Noise and Severance - Slight benefit.
It is considered that the improvement of the A23 would encourage the transfer of traffic that presently use the A279 and B2114 as a through route. This would reduce traffic levels in the conservation area.

6.4.3 Warminglid Village

Description This small village is located at the cross-roads of the B2115 (Cuckfield Lane) and Slaugham Lane/The Street, approximately 1.5km west of the A23.

Existing Situation Although situated on the ridge of low hills followed by the B2115, which forms the southern watershed of the Ouse Valley, views northwards and eastwards from the village towards the A23 are restricted by the large areas of mature woodland that lie between it and the road, and the A23 is not visible from the conservation area. Traffic on the A23 is audible at the eastern edge of the village, whilst not assessed is deemed to have no impact on the conservation area.

Impact of Scheme None.

6.4.4 Staplefield Village

Description	Staplefield is located at its nearest point approximately 1 km east of the A23 at the junction of the B2114 (the pre 1800 AD road to Brighton) with several minor rural roads. The village is centred on a large triangular green known as Staplefield Common, and its overall character is one of low density housing interspersed with open spaces and fields. The village was designated as a Conservation Area in 1984.
Existing Situation	During summer these trees together with the intervening landform block views of the A23 except where the road rises towards Warninglid Junction. During winter, traffic on the A23 can be glimpsed intermittently south of Mill Hill. The lighting at Warninglid Junction is conspicuous. Traffic on the A23 is audible and whilst not assessed, is considered not to be intrusive. The noise from the traffic currently using the B2114 is considered to be more significant in the conservation area.
Impact of Scheme	<ul style="list-style-type: none">• Visual Impact - Slight.• Noise - No significant change.• Traffic - The improvement to the A23 would be likely to encourage the transfer of traffic who presently use the B2114 as a through route. This would reduce traffic levels in the conservation area.

6.4.5 Slaugham Village

Description	This small village is located less than 1 km west of the A23, and was formerly one of the 'iron villages' of the Sussex Weald. The entire village was designated as a Conservation Area in 1984.
Existing Situation	Views towards the A23 are restricted by a combination of the intervening landform and woodland, and in summer the road can only be seen in the vicinity of the Happy Eater, at that range that it is not considered intrusive. During winter when the trees of the intervening hedgerows are bare of leaves, traffic can also be glimpsed occasionally between Slaugham Junction and Mill Hill, but again it has little impact. The lighting at Warninglid Junction is conspicuous. Traffic on the A23 is audible as a background noise and whilst not directly assessed is not considered to be intrusive.

- | | | |
|------------------|---|---|
| Impact of Scheme | <ul style="list-style-type: none"> • Visual Impact • Noise • Traffic | <ul style="list-style-type: none"> - Slight. - Slight (barely perceptible) increase. - It is considered that the improvement of the A23 would reduce the possible incidence of traffic diverting through the village as a result of accidents or road works on Handcross Hill. |
|------------------|---|---|

6.5 ENVIRONMENTAL EFFECT - LISTED BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST

6.5.1 Lists of buildings considered to be of special architectural or historic interest are compiled by the Secretary of State for National Heritage on advice from English Heritage, under Section 1 of the Planning (Listed Buildings and Conservation Areas) Act, 1990.

Listed buildings are classified in grades to show their relative importance. The full description and status of the assessed locations are contained in Volume 2, Section 3.0: "Cultural Heritage" of this Environmental Statement.

LOCATION	Number	IMPACT
St Mary's Parish Church, Slaughtam	List No 169	Slight visual impact
Rock Cottage, Slaughtam	List No 170	Slight visual impact.
Bosworths, Slaughtam	List No 171	Slight visual impact.
Chantry House, Slaughtam	List No 172	Impact - None.
No 7 The Green, Slaughtam	List No 173	Impact - None.
No 9 The Green, Slaughtam	List No 174	Impact - None.
Foyles, Slaughtam	List No 175	Slight visual impact.
Nos 1 and 3 Bosworths Cottages, Slaughtam	List No 176	Impact - None.

Kent Cottage, Slaugham	List No 177	Slight visual impact.
Nos 1 and 3 Carpenters, Slaugham	List No 178	Slight visual impact.
No 6 The Green, Slaugham	List No 179	Slight visual impact.
Gonners, Slaugham	List No 180	Slight visual impact.
Nos 1 and 2 The Cottage, Slaugham	List No 181	Impact - None.
Naylands, Slaugham	List No 183	Slight visual impact.
Slaugham Place	List No 184	Slight visual impact.
The Moat House, Slaugham Place	List No 185	Slight visual impact.
Stanbridge Farm (House)	List No 186	Moderate visual impact.
Old Park	List No 187	Slight visual impact.
Coldharbour, Warninglid	List No 188	Slight visual impact.
Knaresborough House, Warninglid	List No 189	Impact - None.
Fridays Farmhouse, Warninglid	List No 190	Slight visual impact.
Hillbury, Handcross	List No 208	Impact - None.
Royal Oak Public House, Handcross	List No 209	Impact - None.
Nymans House, Handcross	List No 215	Slight visual impact.
Slaugham Park House	List No 182	Slight visual impact.
White House Farm	List No 299	Impact - None.
Whitehouse Cottage	List No 300	Impact - None.

North Hall Cottage	List No 302	Slight visual impact.
North Hall	List No 301	Slight visual impact.
Barn (North Hall)	List No 301A	Slight visual impact.
The Jolly Tanners, Staplefield	List No 305	Impact - Nonc.
Farthings, Handcross	List No 306	Slight visual impact.

6.6 ENVIRONMENTAL EFFECT - HISTORIC PARKSCAPES

6.6.1 English Heritage Register of Parks and Gardens of Special Historical Interest in England (RPGE)

6.6.1.1 English Heritage compiles a non-statutory Register of Parks and Gardens of Special Historic Interest, the purpose of which "is to record their existence so that highway, planning authorities and developers know that they should try to safeguard them when planning new road schemes and new developments generally."

6.6.1.2 Registered park and gardens are classified to show their relative importance.

Grade I Parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them of exceptional interest.

Grade II* Parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them, if not of exceptional interest, nevertheless of great quality.

Grade II Parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them of special interest.

6.6.1.3 Within the study area Nymans House and Gardens, Grade II* and Slaugham Place, Grade II are registered. These have been previously discussed under Section 6.3 of this volume and further reference should be made to Section 3.3 of Volume 2, for a fuller description and assessment of impacts.

6.6.2 Historic Parkscapes Listed by West Sussex County Council

6.6.2.1 The designated boundaries of these parkscapes have been taken as shown on historical Ordnance Survey maps.

6.6.2.2 Nymans, Staplefield Place (now school) and Stanbridge House have previously been discussed under Section 6.3. Reference should be made to section 3.3.3 of Volume 2 for a fuller detailed description and assessment of impact.

6.6.3 Effect of the Scheme on Historic Parksapes

6.6.3.1 Although the proposals would have a slight visual impact when viewed from these areas, the effect would be limited to generally a very small loss of amenity and would not significantly alter the setting of the properties with which they are associated.

6.7 ENVIRONMENTAL EFFECT - NATIONAL TRUST PROPERTY

6.7.1 Nymans Estate

6.7.1.1 Nymans is a large estate which occupies much of the land on the east side of the A23 between Handcross and Slaugham Junction. Since 1954 it has been owned by the National Trust at which time it was declared 'inalienable'. The most important part of the estate with regard to cultural heritage is Nymans House and Gardens that has been described under section 3.3.3.4 of Volume 2. The agricultural land of the estate has been tenanted to a local farmer and the houses at East Park leased as private residences, and the National Trust has indicated that it would be prepared in principle to sell the land required to construct the proposed scheme. The total area of land required would be 0.781 hectares. Other effects of the proposals are described in the appropriate section of the Environmental Statement.

6.8 SUMMARY

6.8.1 There are several recorded sites of archaeological or cultural heritage interest in the study area, the most important of which is Slaugham Place which is a Scheduled Ancient Monument.

6.8.2 No further sites were discovered from the examination of aerial photographs and the walk-over survey that was undertaken. Since West Sussex has been well studied by antiquarians and archaeologists it was not considered that further field work was warranted. Nevertheless, the consultant archaeologist would be retained to offer advice, and arrangements would be made for recording any unexpected archaeological finds discovered during the construction period.

- 6.8.3 The only direct impact on any area of cultural heritage interest would be the landtake of 0.781 hectares of 'inalienable' land at East Park owned by the National Trust. This area is well away from Nymans House and Gardens however and is not considered to be of special heritage value and the Trust has agreed in principle that there would be no objection to its acquisition.
- 6.8.4 The proposed scheme would increase the visual impact of the A23 when viewed from several of the areas of cultural heritage interest, although generally this would be mitigated when the proposed screen planting is established. In particular, the proposed 10 metres woodland strip to be planted along the eastern boundary between Slaugham Junction and Mill Hill (see Section 9.3), would reduce the impact of traffic along that section of the road when viewed from Slaugham Place and Slaugham Village. The introduction of lighting would, however, have a more significant effect, and would in some cases result in the route being visible at night, especially in winter, from areas which otherwise would have no view of the road or traffic. The effect would be mainly limited to a loss of amenity and there would be no significant alteration to the historical setting of any of the sites.

7.0 **DISRUPTION DUE TO CONSTRUCTION**

7.1 **INTRODUCTION**

7.1.1 This section of the statement seeks to address the effects which may arise as a result of the construction work - either within the site of the main work or as a result of diversions which may have to take place in advance at a distance from the main work. However, with this particular scheme it is not envisaged that any advanced diversions would be necessary.

7.1.2 The effects of the scheme during construction may include nuisance due to noise, dust or vibration or may be in the form of longer travel times, loss of convenience and amenity, the impact on wildlife, ecology and adjacent watercourses and the impact of construction traffic including earth moving operations in the adjacent area.

7.1.3 If constructed to programme, the scheme would take 24 months.

7.1.4 Further information relating to disruption due to construction is located in Volume 2, Section 4.0 of this Environmental Statement.

7.2 **METHODOLOGY**

7.2.1 The proposed scheme would follow closely the existing A23 and most of the construction of the new carriageway would be within the existing highway.

7.2.2 Assessment of likely Construction noise levels at certain locations has been done in accordance with the method in the British Standard BS 5228 "Noise Control on Construction and Open Sites".

7.2.3 From the guidelines published in Volume 11 of the Department of Transport's Design Manual for Roads and Bridges, it is shown that beyond 100m from the site boundary only 1 in 5 people are likely to be seriously bothered by construction nuisance. The area of consideration has therefore been defined using this value and Figure 7.1 shows the extent. Other locations outside the 100m band all have a reduced likelihood of experiencing nuisance by reason of their greater distance from the works. However, the occupiers may experience disruption as road users and would generally be aware of the work.

7.2.4 The location of watercourses and ecologically sensitive areas identified within the 100m band are also considered for the possible effects of construction of the works.

7.3 **MITIGATION**

7.3.1 In order to limit the impact on travellers in general, the Contractor would be required, under the Contract, to programme the sequence of construction and earth moving to enable two lanes of traffic to flow in each direction for the majority of the construction period. This could be achieved by narrow lanes or other approved means.

7.3.2 The Contractor would also be required to maintain a reasonable standard of access to all properties and premises which currently have access from the A23 either by the

construction of the new permanent means of access, by construction of temporary accesses or by other agreed methods.

7.3.3 The dust and dirt, which is likely to be produced during the earthworks construction, would be required, under the Contract, to be controlled by the Contractor.

7.3.4 The Contractor would be bound under the Contract to limit the noise emission from the construction of the scheme. Levels would be agreed with the Local Authority and included in the Contract along with a control and monitoring system.

7.3.5 Where properties are likely to be eligible for secondary glazing for noise reduction of road traffic noise, this would usually be installed before the work starts so the occupiers have the benefit during the construction period.

7.3.6 The scheme has been designed to reduce the impact on ecologically sensitive areas and during the construction period Contract Conditions and restrictions would ensure these are protected.

7.4 ENVIRONMENTAL EFFECT OF EARTH REMOVAL

7.4.1 Preliminary estimates show that there would be a removal of some 70 000 cubic metres of surplus material that would need disposal off site. This would involve an estimated 100 lorry journeys a day for a period for approximately 5 months. The volumes of excavation and deposition around the site are not large in volume but are in numerous locations. This would require careful programming to ensure the minimum number of traffic management changes were employed to limit driver confusion. However, the Contract would prohibit the use of local roads for all construction vehicles except for light vans and cars.

7.4.2 The Contractor would be responsible for the location of the site compound together with the storage of materials. Conditions within the Contract would control the impact this would make. The Contractor would be required to restore any land used for this purpose to its existing condition.

7.5 ENVIRONMENTAL EFFECT OF CONSTRUCTION NOISE

7.5.1 Properties close to the road in Handcross would experience an increase of up to 3dB(A) during construction. The property "Summer Hill" on Brighton Road, it is estimated, would have an increase up to 10dB(A) for 3 periods of less than a duration of 1 week, during tie-in operations.

7.5.2 Properties at East Park can expect to be subject to levels approximately 2dB(A) above the existing 68dB(A) level used for the period to construct an embankment and cutting. The work is estimated to take about 12 weeks and because of the need to work on each separately it is likely to be done in two 6 week sessions.

- 7.5.3 Home Farm Cottages, although outside the 100m band, are directly opposite the bridge work at Slaugham Junction. Noise levels might be expected to be in the region of 73dB(A), if no mitigation measures were undertaken, for possibly 3 periods of 2 weeks, during any piling operations. However, construction noise levels contained within the Contract would place a limit on the Contractor which would reduce the impact on this property due to construction noise.
- 7.5.4 The properties known as Merrivale, Little Stanbridge and the Garden Centre, together with Stanbridge Place are assessed as being subject to noise levels in the region of 95dB(A), due to their proximity to the carriageway, for a period of 4 weeks while the existing carriageway is being broken out, and up to 80dB(A) for possibly 3 periods of about a week for carriageway re-construction. Merrivale would also likely to suffer from levels in the regions of 85dB(A) for 3 periods of about a month during the 3 months when the Anne's Wood Stream culvert is constructed.
- 7.6 **ENVIRONMENTAL EFFECT ON THE ECOLOGICAL AND ARCHAEOLOGICAL AREAS CLOSE TO THE SITE.**
- 7.6.1 During the construction period Contract restrictions and conditions would seek to protect ancient woodlands at West Park from contaminated run-off as well as from direct damage and disturbance. Ecologically sensitive areas of existing vegetation within the highway boundary that are not being disturbed would also be protected.
- 7.6.2 During the construction of the new culverts on Anne's Wood Stream and the River Ouse, limitations within the Contract would impose on the Contractor the requirement to control pollution from the construction works and not to impede the flow regimes to the watercourses. The sizing of any new culverts would improve the existing flow regimes which currently cause blockages upstream.
- 7.6.3 During construction, practices would be established that would reduce the likely risk of disturbance and pollution to the existing drainage system. The Contractor would be required to maintain highway drainage during construction and where appropriate have replacement drainage systems in place before the existing ones are removed. Conditions relating to the siting of any settling ponds and disposal of water off-site during the contract would be subject to specific Conditions of Contract.
- 7.6.4 There are no sites of archaeological interest in the assessment area that would be affected by the works.
- 7.7 **SUMMARY**
- 7.7.1 Controls over the Contractor and other existing legislation would ensure that the Contractor, during construction, would reduce or eliminate adverse impacts of the works.

8.0 EFFECTS ON ECOLOGY AND NATURE CONSERVATION

8.1 INTRODUCTION

8.1.1 This section describes the effect the scheme would have on the ecology of the area adjacent to the road, and to its value for nature conservation.

8.1.2 Ecology is the scientific study of living organisms and their relationship both with their environment and with each other. Nature conservation is concerned with maintaining a viable population of the Country's (or more locally, an area's) characteristic flora and fauna and the communities they comprise.

8.2 METHODOLOGY

8.2.1 A desk study of the existing ecology was undertaken based upon material provided by English Nature, West Sussex County Council's County Ecologist, Mid Sussex District Council Planning Department and Sussex Wildlife Trust.

8.2.2 Historical maps were examined with regard to the age of the woodland areas (refer to list in Volume 2, Section 3.0: "Cultural Heritage") and their present composition ascertained by site inspection.

8.2.3 Designated Sites of Special Scientific Interest (SSSI's), Sites of Nature Conservation Importance (SCNI's), Ancient Woodlands and other Old Woodlands, and Tree Preservation Orders within the study area are shown on Figure 8.1.

8.2.4 The following surveys were undertaken to ascertain the appropriate level of information for assessment of the effects the scheme would have on ecology and nature conservation. The dates of these surveys, together with the details, are contained in Volume 2, Section 5.0 of this Environment Statement.

- (i) An ecological survey of parts of East and West Park Wood and areas adjacent to the road.
- (ii) A specialist survey of badger activity in the vicinity of the route.
- (iii) A Chemical and Biological Assessment of the Water Quality of the watercourses adjacent to the A23.
- (iv) A specialist survey of Bryophytes in East and West Park Woodlands.
- (v) A survey of wintering birds adjacent to the A23.

8.2.5 The existing habitat and vegetation on either side of the road has been mapped at 1/2500 scale. An overlay of the proposed scheme plotted on this map (see Figure 8.2) has been used in the assessment of the impact of the scheme on the ecology and nature conservation value of the area.

8.3 EXISTING SITUATION

8.3.1 There are no Nature Reserves or Sites of Special Scientific Interest in the immediate vicinity of the section of the road under study, or likely to be affected by the scheme. The A23 between Handcross and Warninglid passes through an area of countryside of significant ecological interest and nature conservation value, particularly between Handcross and Slaugham Junction where most of the mature woodland on both sides of the road is designated as ancient semi-natural woodland part of which has been designated a Site of Nature Conservation Importance by West Sussex County Council. All of the scheme is within the High Weald Area of Outstanding Natural Beauty. The existing situation is described more fully in Volume 2, Section 5.0 of this Environmental Statement.

8.3.2 Ancient Woodland

8.3.2.1 Ancient woodlands are those which have had a continuous woodland cover since 1600 AD. Their importance is that many of them are believed to be the surviving remnants of, or to closely resemble the primeval forests of this country. The extent of these areas has greatly diminished and those which remain are considered to be a valuable resource to be protected. Three Ancient Woodlands are located adjacent to the road corridor as shown on Figure 8.1.

8.3.2.2 *East Park Wood*

The wood is divided into two parts. East Park Wood (north) lies to the north of East Park House and adjoins the boundary of the A23. East Park Wood (south) adjoins the southbound slip road at Slaugham Junction. The two areas are joined together by mature woodland to form a continuous wooded area.

8.3.2.3 *West Park Wood*

This area is also sometimes referred to as Orange Gill Wood. It lies between Handcross and Slaugham Junction, the A23 forming its eastern boundary. A feature of the area is the stream Orange Gill which flows through the wood in a steep sided valley. Such gill woodlands are considered to be important in Sussex and the area has been designated as a Site of Nature Conservation Importance (SNCI).

8.3.2.4 *Anne's Wood*

This wood lies to the west of the A23, south of Slaugham Junction and extends from Country Gardens to Warninglid. The woodland is set back from the highway.

8.3.2.5 The ecological survey by the International Centre of Landscape Ecology, Loughborough University (ICOLE) confirmed the high conservation value of the ancient woodland areas, compared with other mature woodland.

- 8.3.2.6 West Park Wood was found to contain a rich and diverse floral and faunal community with a varied age structure. The survey of lower plant species concluded that the wood had a poor number of species. This was attributed to proximity of the road and the sensitivity of bryophytes to air pollution.
- 8.3.2.7 East Park Wood was considered to be less interesting by comparison, and it was concluded that it would be less damaging in ecological terms to take land from the east side of the road.

8.3.3 Other Mature Woodlands and Hedgerows

- 8.3.3.1 In addition to the ancient woodlands described above, there are several other areas of mature broad-leaved woodland and long established hedgerows adjacent to the A23 (see Figure 8.1). Although not classified, they are an important element in the landscape of the area and are of significant conservation value. They provide a variety of habitats and form a network of wildlife corridors linking areas of ancient woodland. Particularly important in this respect are the wooded banks of the River Ouse and its tributaries which, although overgrown and neglected, provide linear habitats along which wildlife of the water courses can move.

8.3.4 Central Reserve

- 8.3.4.1 North and south of Slaugham Junction there are areas in the central reserve that contain several mature trees which were retained when the dual carriageway was constructed and groups of semi-mature trees and bushes planted at the same time (see Figure 8.2). The mature trees are of the same species as the adjacent ancient woodland although many are in poor condition, being overmature and having been damaged in the storms of 1987.

8.3.5 Tree Preservation Orders

- 8.3.5.1 Tree preservation orders in the area have been notified by Mid Sussex District Council (see Figure 8.1).

SV/1/TPO/84 Individual tree in the grounds of the Red House at the southern end of Handcross Village.

SV/1/TPO/89 Group of trees in Mill Hill on the eastern side of Slaugham Manor.

8.3.6 Highway Verge Planting

- 8.3.6.1 Extensive planting of the highway verges was carried out when the dual carriageway was constructed in 1964. The planting has taken on a natural character and being fairly mature forms an integral part of the landscape of the existing road.

8.3.6 Highway Verge Planting (Continued)

This is especially true where it fronts the woodland areas and provides an edge to the canopy.

8.3.7 Scrub

8.3.7.1 There are two areas of scrub land in the vicinity of the road (see Figure 8.2).

8.3.7.2 *West Park*

An area of bracken with scattered scrub has developed at the north end of West Park Wood which was, until 1990, a mature conifer plantation. Several young birch and oak trees have established themselves through natural regeneration and if allowed the area would develop into a woodland resembling the adjacent ancient woodland.

8.3.7.3 *Country Gardens/Happy Eater*

A large area of scrub has developed between the A23 and the eastern edge of Anne's Wood. The land appears to have been left in an abandoned condition for several years and, if allowed, would develop into a woodland resembling the adjacent woodland.

8.3.8 Hedges

8.3.8.1 Hedges were planted along the highway boundary when the dual carriageway was constructed in 1964 (see Figure 8.2). They are located along the west side of the road, south of East Park and extensively along both sides of the road south of Slaugham Junction. They are of only modest conservation interest although they do form a linear route for wildlife between the more substantial areas of vegetation.

8.3.9 Agricultural Land

8.3.9.1 Most of the farmland in the area is resown grassland used for grazing cattle and horses with some fields used for arable cropping in rotation (see Figure 8.2). This is of no special conservation value.

8.3.9.2 Field No. 5600/5792 south east of Slaugham Junction is an exception. It comprises of rough grazing on semi-improved grassland with areas of marsh on which hard rush has established, and other areas of gorse. Overgrazing has made this field of moderate conservation value.

8.3.10 Watercourses

8.3.10.1 This section focuses on the ecological and nature conservation value of the watercourses.

8.3.10 Watercourses (Continued)

A description of the hydrology of the area and of the highway drainage is given in Section 14 of this volume: "Effects on Water Quality and Drainage".

8.3.10.2 Samples of aquatic invertebrates were taken by ICOLE from Orange Gill and the River Ouse during their ecological survey in 1992. A full chemical and biological assessment of all the watercourses was carried out by ICOLE in 1993.

8.3.10.3 *River Ouse*

This river, although the main watercourse of the area, is in fact little more than a stream. It flows west to east passing through a culvert under the A23 south of Slaugham Junction (see Figure 8.2c). The National Rivers Authority gives the river area a 1B classification which is "good". The results of ICOLE's assessment were generally consistent with this, although the river would not be considered to be of ecological importance.

8.3.10.4 *Orange Gill*

This stream has its source at the north end of West Park Wood near the sewage works from where it flows in a southerly direction roughly parallel to the A23 until its junction with the River Ouse, approximately 100m west of the A23 (see Figure 8.2a).

The stream is an essential component of West Park Wood. It is charged by the sewage works as well as flushes from water logged ground which occur where ground water seeps from water bearing strata which outcrop on the sides of the valley. The varied vegetation of these areas adds significantly to the diversity of habitat in the woodland and they are therefore considered to be important features.

The overall scores for invertebrate during ICOLE's assessment were low, being attributed to overshadowing by the dense woodland cover. The highest scores were found downstream.

8.3.10.5 *East Park Stream*

This stream has its source at the north end of East Park Wood and flows initially in a south-easterly direction before turning south-west to its junction with the River Ouse (see Figure 8.2a & b). Highway drainage is discharged into the stream where it is culverted under the Staplefield Road. The results of ICOLE's survey show a reduced invertebrate score and increased biological oxygen demand downstream of the outfall, but the presence of pollution sensitive species would indicate that generally there is not a significant problem. Downstream of the Staplefield Road the stream flows in a shallow hedge lined watercourse.

8.3.10.6 *Anne's Wood Stream*

This watercourse is a significant tributary to and is of a similar size to the River Ouse. West of the A23 it branches into several minor streams and ditches which drain a large catchment between Mill Hill and the B2115, many of which issue from springs (see Figure 8.1). Generally the banks of these streams are wooded and for the most part flow through the area of Anne's Wood ancient woodland. Downstream of the A23, the gradient of the stream slackens, and its bed meanders through a woodland strip to its junction with the Ouse approximately 300m east of the highway boundary. The results of the sampling undertaken by ICOLE were similar to those obtained for the River Ouse. Bullhead fish (*Cottus gobio*) were netted during the invertebrate sampling. Highway drainage is discharged into the stream on both side of the road.

8.3.10.7 *Garden Centre Stream*

This minor watercourse, which is little more than a ditch emerges from the hedgerows on the west boundary of the A23, south of the Happy Eater, where it is fed by highway drains (see Figure 8.2c). The watercourse used to be fed also from the Stanbridge stream on the east side of the A23 which flowed westwards to a 450mm diameter culvert, until that ditch was altered as part of the Warninglid to Sayers Common Scheme (see 8.3.10.8). From its issue, the stream flows in a north-westerly direction in a shallow heavily vegetated ditch on the edge of a narrow strip of mature woodland and scrub to connect with Anne's Wood Stream via a small pond adjacent to the Garden Centre. Sampling was complicated by low flow conditions and dense vegetation, however the invertebrate count would indicate that there are no significant pollution problems.

8.3.10.8 *Stanbridge Stream*

Prior to the works carried out under the Warninglid to Sayers Common Improvement this minor stream which issues from the pond at the abandoned clay pit flowed westwards and was diverted under the A23 (see Figure 8.2c). In 1992 the ditch was recut to drain eastward and now takes the highway drainage from the A23 into the stream which flows north-eastwards between Stanbridge Farm/Stanbridge House and Stanbridge Grange Farm before joining the River Ouse approximately 500 metres downstream of the A23.

In the grounds of Stanbridge House the stream passes through an ornamental pond. The analysis undertaken by ICOLE revealed that the stream had a relatively high pH, otherwise the water in the stream was of good quality despite it being supplied mainly by run-off from the road.

8.3.11 Badgers

8.3.11.1 A survey undertaken by Mid Sussex Badger Protection Group during March 1993 located ten sets belonging to four groups of badgers in the vicinity of the A23. Two crossing points were identified where several deaths have been recorded.

8.3.12 Deer

8.3.12.1 Roe and Muntjac deer have been seen in the woods on either side of the road, although there have not been any reports of accidents involving deer.

8.4 MITIGATION MEASURES

8.4.1 The alignment of the scheme would, where possible, avoid disturbance of existing boundaries.

8.4.2 Embankment slopes of 60° and cutting slopes of 45° would be provided adjacent to East and West Park Woods to reduce the impact and hence loss of land in these areas.

8.4.3 Between Slaugham Junction - Anne's Wood Stream and Stanbridge Place - Stanbridge Stream on the east, and between Slaugham Junction, Mill Hill and Country Gardens - Happy Eater on the west, a 10 metre wide woodland strip would be planted along the highway boundary to replace the lost boundary and reduce visual impact.

8.4.4 Separate carriageway drainage and land/ground water drainage systems would be provided. This would protect watercourses from pollution in the event of accidental spillage of toxic materials whilst maintaining the dry weather flows for important ecological areas.

8.4.5 Interceptors and reedbeds/balancing ponds would treat all carriageway drainage. They would improve water quality and assist in helping to prevent flooding and scour to the existing watercourses.

8.4.6 Fencing to discourage the crossing of the A23 by wildlife would be erected along the highway boundary, and tunnels provided at crossing points.

8.4.7 Embankment and cutting slopes would be planted with native species.

8.4.8 All hedgerows lost as a result of the scheme would be replaced where possible.

8.5 ENVIRONMENTAL IMPACT

8.5.1 Areas of woodland, hedgerows and other land losses are detailed in Environmental Impact Tables in Section 17 of this volume.

8.5.2 Ancient Woodland

8.5.2.1 The proposed alignment of road together with the embankment/cutting slopes would reduce the loss and hence impact on Ancient Woodland of the scheme.

8.5.2.2 *East Park Wood (North)*

There would be no encroachment along the highway boundary. However, the new access road for properties at East Park would generally follow the lie of an existing track and would require some clearance on both sides to allow for the passage of large vehicles.

8.5.2.3 *East Park Wood (South)*

A narrow strip along the edge of this area would be disturbed to allow realignment of the southbound slip road at Slaughtam Junction.

8.5.2.4 *West Park Wood (SNCI)*

Two narrow strips of woodland would be required along the edge of this area.

8.5.2.5 The loss of existing vegetation from the highway verge would have the effect of opening up the woodland edges. This would result in a reduction of their seclusion and a risk of damage from windblow. However, following the 1987 storm damage, the edge of the woodlands recovered and this, combined with the planting of verges, would result in the habitat recovering to a condition similar to the present in the long term.

8.5.2.6 A benefit of the scheme would be the removal of the laybys and the wide verges used for informal parking reducing the extent of rubbish tipping and trespass which at present is a particular problem in West Park Wood.

8.5.3 Other Mature Woodland and Hedgerows

8.5.3.1 Generally there would be little disturbance to the mature woodland and hedgerows adjacent to the A23 with the exception of the following areas.

8.5.3.2 *East Park*

Woodland that forms part of the gardens of East Park House would be required. This area contains many mature trees and provides a mature habitat that is complimentary to the adjacent areas of ancient woodland. The opening of the edge would increase the risk of windblow damage, particularly because the remaining trees are exposed on the crest ridge. However, the planting on the cutting slope would in the long term restore the woodland edge to a corridor similar to the present.

8.5.3.3 *West Park Wood*

In addition to the ancient woodland referred to previously, other areas of mature woodland would be required. The largest part of the area is conifer plantation at the northern end of the wood and is of low conservation interest. An area of mature mixed woodland would also be required, which is of greater value as it is complementary to the ancient woodland. The main effect of these losses would be opening up of the woodland edge which would be restored when the new edge planting was established.

8.5.3.4 *Mill Hill*

The widening of the road and improvement of its vertical alignment across the east ridge of Mill Hill would result in extensive disturbance along the western boundary along this section. Although mostly only semi-mature highway verge planting would be affected. This section of hedgerow also contains several mature trees. Their loss would have similar ecological significance. A total of 17 trees would be lost. Because of their isolation these trees are not considered to be of particular conservation value and their loss would have minor ecological significance.

8.5.3.5 *Anne's Wood*

The construction of the service road tapers and the new access road to the Stanbridge area would result in the loss of woodland that follows the course of Anne's Wood Stream. The regrading of the Garden Centre Stream would also result in a loss of woodland. However, as only the tip of the areas nearest to the A23 and the Garden Centre Stream would be affected, the impact on their conservation value would only be slight.

8.5.4 **Central Reserve**

8.5.4.1 The scheme would result in the loss of all 49 of the mature trees in the central reserve. It is not considered that these trees warrant special protection as their retention would increase the disturbance to adjacent woodland which are considered to be more valuable.

8.5.5 **Tree Preservation Orders**

8.5.5.1 There would be no effect on trees with preservation orders.

8.5.6 **Highway Verge Planting**

8.5.6.1 The scheme would result in the loss of most of the highway verge planting on both sides of the road. The only substantial areas unaffected would be islands of planting at Handcross Junction and Slaughtam Junction and on the embankment adjacent to West Park.

8.5.6.2 There would be a significant loss of mature semi natural habitat and would also open up woodland edges with the resulting loss of seclusion and increased risk of damage from windblow.

8.5.6.3 The proposed 10 metre wide planting strips, although primarily intended to provide visual screening would also be complimentary to and link together the areas of woodland. This would to some extent mitigate the loss of verge planting.

8.5.7 Scrub

8.5.7.1 *West Park*

The realignment of the northbound slip road at Handcross would require an area of scrub. Apart from the direct loss of habitat that would result, there would be no adverse effects.

8.5.7.2 *Country Gardens/Happy Eater*

The construction of the service road would necessitate only a limited encroachment onto the edge of the area. However, the reedbed would require significantly more land. This would be sited where the existing ground conditions are damp and would therefore be an appropriate feature in this area that would add to rather than detract from the value of the habitat.

8.5.8 Hedges

8.5.8.1 The scheme would result in the loss of 1325 metres of boundary hedge. The reinstatement of hedges, which when established would provide a reinforced linear habitat, that would be of much greater conservation value than the present hedges.

8.5.9 Agricultural Land

8.5.9.1 The scheme would result in the loss of agricultural land comprising improved grass, semi-improved pasture and arable planting, part of this would be to establish woodland strips as well as to form reedbeds for water treatment. Both of these uses would enhance the overall conservation value of the land.

8.5.10 Watercourses

8.5.10.1 The scheme drainage system would separate ground water drainage from the surface water run-off from the highway. This would allow the road drainage to be treated, initially through interceptors, but additionally by passing the effluent through reedbeds before discharge into the surrounding watercourses.

8.5.10 Watercourses (Continued)

8.5.10.1 The reedbeds would be banded to form balancing ponds sized to attenuate peak flows during storms. This storage capacity would also allow for the discharge to be contained and treated in the event of an incident involving the spillage of toxic materials. The proposals would thus improve the water quality of the streams and protect them from accidental pollution following a road accident. A further benefit of the reedbeds would be the habitat that would be created on what is presently mostly open field or semi-improved grassland.

8.5.11 Wildlife

8.5.11.1 The scheme would not directly affect any of the badger setts. The proposed wildlife fencing would encourage badgers to cross the widened A23 by the tunnels proposed. Although this would increase the barrier effect it is thought there would be sufficient habitat on each side of the road for this not to be detrimental to the social patterns of the setts. The Staplefield Road underpass would continue to provide a relatively safe crossing point.

8.5.11.2 Consideration has been given to providing deer fencing, although conservationists advise that there would be some risk that deer might gain access to the road corridor and become trapped there by the fencing. The proposed wildlife fencing would act as a partial barrier that would deter deer from straying onto the road under normal circumstances but which they would be able to jump if necessary.

8.5.11.3 The removal of laybys and informal parking on the verges would remove the present problem of trespass, and the disturbance this causes to wildlife.

8.6 SUMMARY

8.6.1 The most significant ecological impact would be the loss of mature woodland, especially the semi-natural ancient woodland at West Park which forms part of Orange Gill SSSI. The area affected is relatively small, however, and should not be critical to the viability of the remaining habitat.

8.6.2 The loss of the other less mature areas of woodland, hedgerow and verge planting would also be significant because they either form an edge to, or link together, the areas of ancient woodland, and are therefore an integral part of the overall woodland habitat. This loss would be mitigated by the proposed replanting which when established would more or less recreate and, in some situations, improve on the existing conditions.

8.6.3 The loss of mature trees from the central reserve would be of minor ecological significance.

8.6.4 Because the widening would be contained within or immediately adjacent to the existing corridor of what is presently a major road, it is not likely that there would be a significant increase in its impact on wildlife in its vicinity. No rare or protected species were found that would be directly affected by the works. The construction of two tunnel crossings and the provision of wildlife fencing would reduce the likelihood of badger deaths from road accidents without adversely affecting their access to suitable habitat. The removal of the laybys would reduce any problems of disturbance caused at present by trespass from the road.

8.6.5 The proposed drainage system would allow for the treatment of surface water effluent from the road and its containment in the event of an accidental spillage of toxic materials. The existing pattern of ground water movement and dry weather flows would be maintained. The proposals would improve the water quality in the watercourses as well as protecting the environment of the areas of special ecological value. The reedbeds would create a useful additional habitat type.

9.0 EFFECTS ON LANDSCAPE

9.1 INTRODUCTION

9.1.1 The Handcross to Warninglid section of the A23 is in the St Leonards Forest District of the High Weald, an Area of Outstanding Natural Beauty. Effects of the proposed scheme on the landscape will be described in this section of the statement. A more detailed description can be seen in Volume 2, Section 6.0 of this Environmental Statement.

9.2 EXISTING LANDSCAPE

9.2.1 The assessment of the landscape of the existing A23 is shown in Figure 9.1.

9.2.2 Handcross to Slaugham Junction

9.2.2.1 The A23 passes through Handcross Village in a deep cutting which makes its impact slight. Lighting of the carriageway extends 600m south from the Horsham Road Bridge in Handcross. South of here the road makes a fairly steep descent down towards Slaugham Junction mostly enclosed by mature woodlands on either side. The central reserve contains several mature trees that are a distinct feature of the road. The woodland and ridges on both sides generally hide the road.

9.2.2.2 East Park Cottage and East Park House on the east side of the road are well screened by trees apart from views down the access drive.

9.2.2.3 Slaugham Park on the west side of the road is situated on high ground. Surrounding land and intervening woods currently hide views of the A23 from both house and garden although a view of the area just south of Slaugham Junction is visible from the first floor.

9.2.3 Slaugham Junction to Warninglid Tie-in

9.2.3.1 The section of the A23 between Slaugham Junction and the tie-in to the completed scheme to the south crosses the broad slightly undulating valley bottom of the River Ouse before rising towards Warninglid Junction.

9.2.3.2 The land on the east is mostly gently undulating farmland with fields enclosed by hedgerows containing several mature trees. Views of the A23 are more open but are still restricted.

9.2.3.3 Home Farm has views of the A23 just south of Slaugham Junction but they are filtered by intervening mature trees and hedgerows making impact only slight.

- 9.2.3.4 Stanbridge Place some 700m south has a narrow but dense strip of coniferous woodland bordering the A23 and a cypress hedge adjacent to the access drive blocking views of A23 except obliquely to the south. Properties close by but much further back at Stanbridge Farm and Stanbridge House have their view of the road sufficiently screened or filtered by garden planting, hedgerows and other planting.
- 9.2.3.5 The west side of the A23 is initially on an embankment with several mature trees in the central reserve, but as it passes east of the ridge at Mill Hill the road is in a densely planted cutting which blocks the fields beyond from it. The road is then level with the adjoining land up to the southern end of the improvement.
- 9.2.3.6 The bungalow "Merrivale" 700m south of Slaugham Junction although close to the A23 is sheltered by the proximity of mature woodland, its high garden walls and by its own low level.
- 9.2.3.7 Country Gardens Centre, just south contains two houses - Little Stanbridge and Country Gardens House and has an open frontage with the A23. It is screened only by groups of semi-mature trees and shrubs on the wide verge. The Happy Eater restaurant adjacent to it also has an open view onto the A23.
- 9.2.3.8 Stanbridge View is a property situated on higher ground as the land rises towards Warninglid. A cutting on the border with the road together with a mature hedgerow at the top reduces the road's impact slightly. The A23 to the north is clearly visible until the ridge at Mill Hill and then again at long range as it climbs Handcross Hill. The road is again lit from here southwards.

9.3 MITIGATION AND ENVIRONMENTAL EFFECT

- 9.3.1 The landscape assessment of the proposed scheme is shown in Figure 9.2. Lighting would be introduced along the whole route for improved safety and to keep in line with improvements to the A23 to the north and south. The lighting would be conspicuous in an otherwise dark countryside. The effects of direct lighting to properties close to the road would be reduced by cut-off heads on the lights. A more detailed statement can be found in Volume 2, Section 6.0 of the Environmental Statement.
- 9.3.2 **Handcross to Slaugham Junction**
- 9.3.2.1 Although the carriageway in Handcross would be widened, use of earthworks and retaining walls for the cutting are likely to make its impact slight. Changes in types of lighting used would provide a slight benefit for several properties.
- 9.3.2.2 The increase in size of the northbound slip road would result in the loss of existing verge planting and boundary hedge. This would cause a moderate impact on North Lodge. Proposed planting would provide effective screening and in the long term there would be a slight benefit.

9.3.2.3 On the east side disturbance would be limited mainly to the wide grass verge with little change to views from properties to the east. Trees would be removed from the central reserve changing the character of the road for drivers and making the route more visible but these views are at a range that the impact would only be slight.

9.3.2.4 The screening to the front of East Park House and cottage should not be significantly affected but approximately 100m south of East Park a cutting up to 7m high would begin which would involve some land take reducing the effectiveness of the wood as a screen. A screen fence would be erected at the top of the slope to mitigate the impact. The cutting would also be very intrusive from the road but once planting to replace the present woodland edge is established there would not be much difference. East Park would not be directly lit by the proposed new lighting but the illuminated road corridor would be clearly visible through the trees.

9.3.2.5 There would be an embankment on the west side of up to 7m but as it would still be screened by extensive woodland its visual impact would not be significant. There would be some temporary scarring of the woodland edge, when viewed from the road, until the planting had become established. The introduction of highway lighting would have a significant impact on the view from Slaugham Park although it would not be visible during the day except in the vicinity of Slaugham Junction where they would be barely noticeable. However, at night, an illuminated corridor would be seen from directly east of Slaugham Park to Warninglid Junction.

9.3.3 Slaugham Junction to Warninglid Tie-In

9.3.3.1 The introduction of lighting would probably be visible at night from Home Farm and from Staplefield Village. A 10m wide strip of planting with a woodland mix between Slaugham Junction and to a point 500m south of Stanbridge Place would be established which would 're-hide' traffic after it had become visible due to loss of present highway planting. It would, however, take several years for the new planting to hide the lighting columns. Beyond this, the rest of the east side to the tie-in to the built scheme, to the south, would only have the disturbed boundary hedge replanted. This is due to the fact that the elevation of the carriageway allows attractive views from the road across the Ouse Valley and that this section is not overlooked at close range.

9.3.3.2 A similar 10m strip would be established on the west side of the road between Slaugham Junction and Mill Hill for similar reasons. The reduction in the road level between Mill Hill and Merrivale would increase the barrier effect of the land and there would be sufficient planting remaining to hide both the traffic and the lighting columns.

- 9.3.3.3 The construction of a service road alongside the northbound carriageway between Merrivale and Stanbridge View would result in a loss of all the existing boundary hedgerow. Although Anne's Wood would continue to screen the A23 from more distant points to the west there would be a substantial impact to properties between Anne's Wood and the A23.
- 9.3.3.4 Merrivale would only be temporarily affected by the widened road itself since a screen wall is proposed to be built along the new highway boundary. The impact of traffic would be similar to that at present. However, the close proximity of lighting would cause the property to be directly lit.
- 9.3.3.5 A 10m wide strip similar to that described in 9.3.3.1 would be planted between the buildings of the Country Gardens to its border with the Happy Eater to the south to replace the lost hedgerow. Little Stanbridge would lose a narrow planted strip. Due to the property's close proximity to the A23 the main effect would be an increase in scale of the road. However, little could be done to mitigate the road's impact. A screen fence would be erected in front of Country Gardens House to replace the present planting on the highway boundary. Both these properties would be directly lit by the proposed new lighting. However, the impact of traffic on these properties would be similar to that at present .
- 9.3.3.6 The main effect of the scheme to the Happy Eater would be from the increased scale and changed character of the road.
- 9.3.3.7 Stanbridge View would lose its existing boundary planting and hence screening. New screen fencing could be established to mitigate the visual impact. The property would be directly lit by the proposed lighting and the impact would be substantial.

9.4 SUMMARY

- 9.4.1 The A23 passes through attractive countryside. The present road is generally well screened and only a few properties close to the road are impacted by it.
- 9.4.2 The effects of the scale of the widened carriageway and the straightening of bends and the narrowing of the central reserve together with the introduction of lighting columns would significantly alter its character. The overall effect however, would be of a major road passing through attractive countryside.
- 9.4.3 Initially the impact on several properties close to the road would increase. Substantial areas of proposed planting once established would in many places be a benefit. However, the introduction of lighting would have a significant impact.

10.0 EFFECTS ON LAND USE

10.1 INTRODUCTION

10.1.1 This section describes the effects that landtake and changed access arrangements required by the scheme would have on the land as a primary resource and on its use for residential, commercial, industrial, agricultural and other purposes. Figure 10.1 shows the land use classification.

10.2 METHODOLOGY

10.2.1 An assessment has been made of the landtake the scheme would require from residential and commercial property and any buildings that would be demolished.

10.2.2 An assessment has been made of the scheme impact on agricultural land. Specific areas assessed are landtake, land use, severance caused by the scheme, and major accommodation works required by the scheme. The Ministry of Agriculture, Fisheries and Food (MAFF) has classified agricultural land and produced the Agricultural Land Classification maps. These have been the primary source of information for the assessment.

10.2.3 Areas of community land, such as village greens, common land, garden allotments, and public open spaces, in the area have been identified and the likely impact of the scheme on them has been assessed.

10.2.4 Land designated for new development in the vicinity of the road has been identified and an assessment made of the scheme impact on these areas. District and local plans have been the primary source of information for this assessment.

10.2.5 The existing situation, mitigation and environmental effect is discussed on a land use basis under the main sections of private, commercial and agricultural land. A more detailed discussion is found in Volume 2, Section 7.0 of this Environmental Statement. Section 17.0 of this Volume contains the areas of landtake associated with the scheme.

10.3 RESIDENTIAL PROPERTY

10.3.1 Summer Hill, Land Reference No 1

10.3.1.1 This property is situated to the east side of the southbound slip road at Handcross Junction and is surrounded by a mature garden. Access to the property is from a private drive which is shared with two adjacent properties.

10.3.1.2 The proposed scheme would not require any landtake, but it may be necessary to adjust the levels of the entrance drive to tie-in with the reduced levels of the slip road. It is unlikely that these works would cause any disturbance to the garden area.

10.3.2 East Park Farm (House), Land Reference 3

10.3.2.1 The farmhouse is situated on the east side of the group of properties at East Park, and is approached by a track from the west which joins the southbound carriageway of the A23.

10.3.2.2 The direct access from the A23 would be closed. A new private means of access would be provided from the B2114 which would be shared with Handcross Market Garden and the two other properties at East Park to give access to the existing track approximately 100 metres in from the present entrance.

10.3.3 East Park Cottage, Land Reference 5

10.3.3.1 The house, which is situated approximately 60 metres from the road, is approached from the west by a drive through, a mature woodland garden, from the A23 by an entrance at chainage 910. The entrance is shared with East Park House.

10.3.3.2 The direct access from the A23 would be closed. A new private means of access would be provided from the B2114 which would be shared with Handcross Market Garden and the two other properties at East Park. The point of entrance to the property would remain roughly the same and there would not be any disturbance to the garden area.

10.3.4 East Park House, Land Reference 6

10.3.4.1 The house, which is located approximately 60 metres from the road, is approached from the west by a drive, through a mature woodland garden, which is gained from the A23 by the entrance shared with East Park Cottage. The property is at the north end of a large garden, the eastern edge of which borders the A23 over a length of 300 metres. The direct access from the A23 would be closed. A new private means of access would be provided from the B2114 which would be shared with Handcross Market Garden and the two other properties at East Park.

10.3.4.2 The land required is part of an area of mature woodland which has been underplanted with shrubs and developed with a pergola and grass walks to form an informal extension to the garden. In the west side of the woodland garden, which overlooks the A23, traffic can be seen through gaps in the trees. Because it is on the far side of a ridge, the face of the cutting for the A23 would not be visible from the house but the loss of mature trees, in addition to being a significant reduction of the garden area, would lessen the effectiveness of the wood as a screen to the A23. To mitigate the impact on the amenity of the garden it is proposed that a screen fence would be erected which, because it would be sited along the top of the slope, would be more effective than the present fence which is below the line of vision. Further mitigation may be achieved by transplanting from the lost land, and further off site planting in agreement with the landowner.

10.3.5 Stanbridge Place and Stanbridge Place (Flat), Land Reference 8

10.3.5.1 There are two buildings occupied as residences on this property. The main house is set back approximately 60 metres from the road. The smaller residence which comprises a flat above a garage is situated only 25 metres from the road. Both properties are behind a screen wall that runs along the highway boundary. Access to the property is from the private drive to Stanbridge Farm which is gained directly from the southbound carriageway of the A23. The access to the A23 would be closed. A new private access would be formed which would enter the northern boundary of the property as a branch off the new private means of access from the Staplefield Road. This is considered to be a safer arrangement and hence a benefit. The new access would disturb the garden. Mitigation of this disturbance could be effected by agreement with the landowner.

10.3.6 Stanbridge Farm (House), Land Reference 9

10.3.6.1 The house is set back approximately 200 metres from the A23 and is approached by a private drive which joins the southbound carriageway at chainage 2575. The access from the A23 would be closed. A new access would be formed which would enter the northern boundary of the property as a branch off the new private means of access from Staplefield Road. This is considered to be safer and hence a benefit.

10.3.7 Slaugham Park Estate, Land Reference 17

10.3.7.1 Slaugham Park Estate occupies all the land immediately to the west of the A23 between Handcross Junction and Slaugham Junction and comprises extensive areas of woodland and parkland which provide a setting for the manor house which is set back more than 300 metres from the A23. Access to the property is by Park Road at North Lodge, which joins the northbound slip road at Handcross, or at the South Gate, which is at the northern end of Slaugham Village.

10.3.7.2 The re-alignment would result in landtake from West Park Wood. The affected area is all mature woodland or recently felled plantation that is on the eastern boundary of the estate. The extent of the encroachment would be reduced by the use of an embankment with a 60 degree slope. The effect of the landtake would be to increase the visual impact of traffic on the A23 as a result of a partial loss of screening. When viewed from Slaugham Place the impact would only be slight. However, when viewed from the path along the west bank of Orange Gill the impact would be moderate. Once the proposed planting has been established after 15 years, the edge of the woodland would be restored and the extent to which traffic could be seen would be no greater than at present.

- 10.3.7.3 In addition to the landtake, it is anticipated that a wayleave would be required for construction of a diverted foul sewer between Brighton Road and the sewage works in West Park Wood. The wayleave would be for a length of approximately 90 metres through the wood and would require an approximately 5 metre wide path to be cleared through 60 metres of mature conifer plantation and 30 metres of mature mostly deciduous woodland. These works would not have any significant effect on the amenity of the estate.
- 10.3.7.4 Minor works would be required to connect ground water drainage and culverts from East Park into the existing tributaries of Orange Gill. This work would be carried out with access from the highway corridor in a manner that would reduce disturbance within the woodland area. No highway drainage would be discharged into the woodland.
- 10.3.7.5 An area of highway land south of East Park would be isolated by the eastwards realignment of road. This would be reinstated and planted to form an extension to West Park Wood.

10.3.8 Merrivale, Land Reference 18

- 10.3.8.1 This cottage is situated between Anne's Wood Stream and Country Garden Centre and is accessed directly from the A23. Despite its close proximity to the highway the cottage is remarkably secluded. The construction of the widened embankment for the new service road would require landtake from the garden and would result in the demolition of the free standing garage and screen wall on the eastern boundary of the property. The existing access from the A23 would be closed. It is proposed that access would be provided using the existing roads through the adjacent garden centre to connect with the existing drive on the west side of the cottage which would be resurfaced. A new screen wall would be constructed along the new eastern boundary of the property. Except for the new lighting and increase in noise levels, the impact of the road and traffic after construction would be similar to that at present.

10.3.9 Little Stanbridge, Land Reference 16a

- 10.3.9.1 This property screened from the A23 only by groups of semi-mature trees and shrubs which extend beyond the property's boundary onto the wide highway verge. Vehicle access is through the garden centre. The proposed scheme would require landtake as a strip along the new highway boundary. This would result in an increase in visual and noise intrusion and would experience significant disturbance during the construction period. Vehicle access would be maintained from the new garden centre access off the new service road.

10.3.10 Country Gardens House, Land Reference 16b

10.3.10.1 The property is situated immediately to the south of Little Stanbridge and is set slightly further back from the A23. The house is partially screened from the highway by mature planting on the boundary of its garden and semi-mature trees on the highway verge. The access to the property is directly from the A23. The entrance to the property would remain in the same position. However, access would be from the new service road rather than directly from the A23.

10.3.10.2 The proposed scheme would result in a landtake of a 3 metre strip along the highway boundary. The loss of this garden would increase the visual impact of the A23. To mitigate this impact it is proposed to erect a screen fence along the highway boundary.

10.3.11 Stanbridge View, Land Reference 14

10.3.11.1 This property is situated on the west side of the A23 at the southern end of the scheme. A new access, which is shared with Pitts Head Gypsy Site to the north, was formed as part of the recently completed Warninglid to Sayers Common Scheme. The landtake from this property would be a strip approximately 7m wide. This would represent a significant impact on both the property and garden. It is proposed to erect screen fencing on the highway boundary to mitigate this impact. Further mitigation could be achieved by planting in agreement with the landowner. The point of access would remain the same but would be onto the proposed new service road.

10.3.12 Pitts Head Gypsy Site, Land Reference 20

10.3.12.1 This privately owned caravan site is situated to the west of the A23, by the scheme boundary. A new access to the area, which is shared with Stanbridge View/Nursery, was formed as part of the recently completed Warninglid to Sayers Common Scheme. There would be no landtake from this property. The point of access would remain the same. However, access would be off the new service road and no longer directly from the A23. The new arrangement would be a significant improvement in terms of both safety and convenience and is considered a benefit. There would be no significant disruption during construction.

10.4 COMMERCIAL PROPERTY

10.4.1 Handcross Market Garden, Land Reference 2

10.4.1.1 This small market garden occupies land owned by the National Trust east of the A23 just south of the Handcross southbound slip road. The entrance to the market garden is at the point at which the slip road and the A23 merge. Direct access can be gained from the A23. Pedestrian access is also by the slip road although there is no footway to Handcross.

10.4.1.2 The existing entrance would be closed. A new means of access would be provided from the B2114 which would be shared with the three other properties owned by the National Trust at East Park.

10.4.1.3 It is assumed that most of the trade is local or regular customers. The new access route via the B2114 would, for most customers, be as convenient and much safer than the existing route. The effect of the proposals are considered to be beneficial for the property.

10.4.2 Country Gardens, Land Reference 16

10.4.2.1 The scheme would result in landtake from the front of the property along the developed northern part of the garden centre. The landtake would be a strip approximately 4 metres wide. To the south of the Country Gardens House the width of land to be acquired would be approximately 14 metres to allow for a 10 metre wide woodland strip to be planted along the new boundary. To the south of the Garden Centre Stream, the woodland strip would continue to the boundary of the Happy Eater.

10.4.2.2 The effect of the landtake in front of the buildings would be to prevent use of the existing front car park. Sufficient land exists at the rear of the site to form additional car parking to compensate for this loss.

10.4.2.3 To the south of the Country Gardens House, the landtake for the woodland strip would reduce the area available for informal recreation. When established, the screening effect of the new planting would be significantly greater than the existing hedge which contains only a few semi-mature trees.

10.4.2.4 Access to the garden centre would be from the new service road, with a new entrance formed along the southern boundary of the Country Gardens House and with the existing entrance/exit road changed to exit only. The exit at the northern end of the site, adjacent to the Merrivale, would be closed. It is proposed that the access to Merrivale would be through the Garden Centre access. Advance direction signs would be provided on the A23 south of Warninglid Flyover and north of Warninglid Slip Road to inform motorists of the route to the Garden Centre with a sign on the service road indicating the entrance. The relative ease and safety of access from the new service road would create a benefit for the garden centre. There would be significant disturbance during construction.

10.4.3 Happy Eater, Land Reference 15

- 10.4.3.1 The Happy Eater motorists restaurant is the first stage of the redevelopment of this area for which planning consent has also been granted for a Filling Station and Travel Lodge. All the development would be along the A23 frontage of the site, with the area of scrub woodland at the rear left undisturbed. The proposed scheme would require a strip of land approximately 13 metres wide at its maximum to be acquired along the frontage of the site to the north of the existing access and an approximately 5m wide strip to the south of the existing access.
- 10.4.3.2 Access to the Happy Eater would be from the new service road, using the existing entrance. Advanced direction signs would be provided on the A23 south of Warninglid Flyover and north of Warninglid Slip Road with a sign on the service road indicating the entrance. The new arrangement would be a significant improvement in terms of both safety and convenience and is considered a benefit.
- 10.4.3.3 During the construction period there would be some disruption as a result of works on the property's boundary and because of traffic management on the A23. The phasing of the work would be the responsibility of the Contractor, however he would be required to maintain access at all times.

10.4.4 Stanbridge Nursery, Land Reference 14

- 10.4.4.1 This small nursery garden occupies land adjacent to Stanbridge View which is in the same ownership. A new access to the area, which is shared with Pitts Head Gypsy Site to the north, was formed as part of the recently completed Warninglid to Sayers Common Scheme. The effect on this property and land would be as described under 10.3.11. Advanced signing would be provided on the A23 south of Warninglid Flyover and north of Warninglid Junction with a sign on the service road indicating the entrance. The new arrangement would be a significant improvement in terms of both safety and hence considered a benefit. There would be no significant construction disturbance.

10.4.5 Stanbridge Farm (Recording Studio), Land Reference 9

- 10.4.5.1 One of the buildings on this property is used as a recording studio. The effect of the scheme would be as described for the residence under 10.3.6.

10.4.6 Nymans Estate, Land Reference 4

- 10.4.6.1 Nymans is a large estate which occupies much of the land on the east side of the A23 between Handcross and Slaugham Junction. Since 1954 it has been owned by the National Trust at which time it was declared 'inalienable'. The proposed scheme would not have any effect on the land use of this area.

10.5 COMMUNITY LAND

10.5.1 There are no areas of community land in the vicinity of the scheme which would be affected by the proposals.

10.6 DEVELOPMENT LAND

10.6.1 There are no designated areas for development in the vicinity of the scheme which would be affected by the proposals.

10.6.2 Planning consent has been granted for the development of a Filling Station and Travel Lodge at the Happy Eater site. The scheme does not affect the feasibility of the development.

10.7 AGRICULTURAL LAND

10.7.1 Information taken from the Agricultural Land Classification of England and Wales is shown on Figure 10.2. Of the areas shown as agricultural land, several are in permanent non-agricultural use, and some land classified as being primarily in non-agricultural use is used for agricultural purposes. The current land use has been shown on Figure 10.1 and this has been used at the basis for the assessment of the effects of the proposals. The land adjacent to the A23 is predominantly classed as Grade 3 with an area of Grade 4 on either side of the Ouse Crossing. No information regarding the subdivision of the Grade 3 land into sub-grades 3a and 3b was available from the Ministry of Agriculture Fisheries and Food (MAFF).

10.7.2 Home Farm, Staplefield, Land Reference 7

This business owns several fields on both sides of the A23 south of Slaugham Junction and also farms some land which is owned by the National Trust.

10.7.2.1 Field 5636 (owned by National Trust): Grade 3

The landtake required would represent a loss of only 5% of the total area and would not significantly affect the size or shape of the field for efficient working. The present access to the field which is from Staplefield Road would not be affected.

10.7.2.2 Field 5600/5792: Grade 4

Compared with the overall area, the landtake required would represent a loss of 45% which, in addition to the fragmented shape and wet ground conditions of the land that would remain, would significantly reduce the usefulness of the field. The existing access off the A23 is not currently used and access is obtained via other fields. However, it is proposed to provide access to this field directly off the new access to properties in the Stanbridge area. This would be 100 metres further away from the farm buildings, and its location relative to the slip road from Slaugham Junction would make it more difficult to drive stock along the road between the farm and the field. It would also be designated as a Public Footpath as a

diversion to footpath S15 whose connection with the A23 would be stopped up at the highway boundary near Stanbridge Place.

10.7.2.3 *Field 6463: Grades 3 and 4*

Compared with the overall area, the loss of land would represent a 9% reduction in the size of the field, but would not alter the basic shape for ease of operating machinery. In addition to the permanent landtake, a 6 metre wide wayleave would be required along the southern edge of the field for the construction of the drainage outfall and for access to construct and maintain the reedbed that would be sited in field no. 7759 to the east. A surfaced track would not be required, but the need to allow access would preclude arable cropping of the area. The existing access from the A23 would be closed. New alternative accesses would be provided using the new access to the properties in the Stanbridge area. The new arrangement would be a significant improvement on the present arrangement that entails a lengthy journey and a hazardous exit onto the A23.

10.7.2.4 *Field 7759: Grade 4*

The landtake would represent 16% of the present area. This would not significantly affect the area's value as a woodland plantation. Access to the area would remain unchanged.

10.7.2.5 *Field 6776/0082: Grade 3*

The landtake required would represent less than 1/2% of the present area. The existing access from the A23 would be closed, although this is seldom used and an alternative more convenient and safer access already exists from the Staplefield to Warninglid Junction road to the east.

10.7.2.6 *Field 3900: Grades 3 and 4*

The landtake required would represent nearly 20% of the area of the field but would not significantly alter its basic shape or usefulness. Access would remain as at present which is from the fields to the west and south which are gained from Slaughman Manor.

10.7.2.7 *Field 4366: Grade 3 and 4*

The landtake required would represent less than 3% of the area of the field and would not significantly alter its shape or usefulness. The existing access from the A23 would be closed. This is seldom used and the normal and safer access via Slaughman Manor would remain unaffected.

10.7.2.8 The total area of land to be acquired from Home Farm amounts to 2.453 hectares. However, the overall loss of agricultural land would be 3.323 hectares if the effect of the access track to the Stanbridge area and loss of land rented from the National Trust is taken into account. Of this land 1.201 hectares is Grade 3 and 2.122 hectares is Grade 4. With exception of field 5600/5792, which is of low agricultural value, the landtake would not significantly affect the future usefulness of the fields. The existing accesses to the A23 would all be closed. Because of the heavy traffic on the A23 they are unsuitable and seldom used at present, and in any case more convenient and safer alternatives already exist or could be provided. Compared with the overall area of land farmed the area of landtake would be small, and the other effects of the scheme would have minimal effect on the viability of the farming unit.

10.7.3 Stanbridge Place (Flat), Land Reference 19

There are three parcels of agricultural land that are owned by the occupant of Stanbridge Place (Flat). None of the areas are in agricultural production.

10.7.3.1 *Field 7036 (north part): Grade 3*

No land would be acquired, but the proposed new access to the properties in the Stanbridge area would result in the reduction of the pasture land, 7% of the present area of the field. Fencing arrangements to the field would be agreed with the owner.

10.7.3.2 *Field 7036 (south part): Grade 3*

No land would be acquired, but the proposed access track to Stanbridge Place would result in a loss of 13% of the garden area. Use of this part of the access track would be private to the occupants of the two residences at Stanbridge Place.

10.7.3.3 *Field 6926: Grade 3*

The access track would result in the reduction of pasture land by 7%. This would have a marginal effect on the value of the area for grazing but the position of the track would reduce the usefulness of the area for training because a significant part of the field would be effectively severed. Since the need for access to field 6909 would be infrequent, gates could be provided at either end of the track, and disturbance as a result of use of the access track would be slight. Overall the loss of pasture would be significant, but would not affect the number of horses carried on the land. The presence of the new access would have a greater effect, arising from disturbance as a result of its use and the reduction of the effective area of field 6926 which is used for training. The access would however facilitate movement between the house and the fields and would provide a new equestrian route to Staplefield Road.

10.7.3.4 Field 6919 (north part): Grade 3

This field contains the drive to Stanbridge Farm (house) and is not in agricultural production. The proposed private means of access to Stanbridge Farm would result in a loss of 14% of the area of the field. Use of this part of the access track would be private to the occupants of Stanbridge Farm and the owner of field 6909.

10.7.4 Field 6909, Land Reference 13

10.7.4.1 This field is owned in isolation from other property in the vicinity of the scheme. Access is from the drive to Stanbridge Farm (house). A landtake representing 10% would be required for the scheme. This would reduce the stocking capacity of the field, but in the absence of knowledge of other land managed by the same farmer it is not possible to assess what effect it would have on the overall enterprise. Access to the A23 via the drive to Stanbridge Farm would be closed, with alternative access provided by the access track from Staplefield Road. This would provide safe access to this plot and hence is considered a benefit.

10.7.5 Field 6919 (south part), Land Reference 9

10.7.5.1 This field contains the drive to Stanbridge Farm (house) and is not in agricultural production. The proposed private means of access to Stanbridge Farm would result in a loss of 1% of the area of the field. Use of this part of the access track would be private to the occupants of Stanbridge Farm and the owner of field 6909.

10.8 WOODLAND

10.8.1 The scheme would require some woodland in addition to that required from West Park Wood which has been described under 10.3.7.2.

10.8.2 East Park Wood (south), Land Reference 4

A narrow strip of land along the edge of this wood would be required in order to allow the realignment of the southbound slip road at Slaugham Junction.

10.9 SUMMARY

An on-line improvement reduces the need for significant amounts of land. The scheme alignment has been developed recognizing the importance of land use in this rural setting, more particularly that of ancient woodland. Whilst there is land required for mitigation of the scheme, which marginally increases the land loss, this land is considered essential to properly mitigate the scheme.

11.0 EFFECTS OF TRAFFIC NOISE AND VIBRATION

11.1 INTRODUCTION

- 11.1.1 This section of the statement describes the effect on local properties of noise and vibration generated by traffic using the scheme.
- 11.1.2 The detailed assessment of traffic noise and vibration is contained within Volume 2, Section 8.0 of this Environmental Statement.

11.2 METHODOLOGY

- 11.2.1 An assessment has been made of all properties and other relevant locations where existing traffic is likely to be increased or decreased by at least 25% in the year 2012.
- 11.2.2 The noise levels for individual properties have been calculated according to the prediction method in the Department of Transport's document "Calculation of Road Traffic Noise". This method is valid for locations between 4m and 300m from the scheme. Beyond 300m the varying effects of wind and temperature combine to make forecasting difficult in most circumstances. The Transport Road Research Laboratory's Supplementary Report 425 "Rural Traffic Noise Prediction - an approximation" is the approved method for locations further than 300m from the scheme.
- 11.2.3 Noise nuisance levels have been assessed. Noise nuisance is defined as "a feeling of displeasure evoked by noise". In the period following a change in traffic flow people may find appreciable benefits or disbenefits where noise changes are as low as 1dB(A). Noise nuisance levels have been estimated for the existing road and for the scheme in 2012.
- 11.2.4 Individual properties have been assessed for secondary insulation under the Noise Insulation Regulations 1975.

11.3 EXISTING SITUATION

- 11.3.1 A total of 89 residential properties lie within 300m of the scheme with vast majority of them located in Handcross (See Figure 11.1). Other properties are located at East Park, Home Farm, the Stanbridge area and in the vicinity of the Happy Eater. Existing noise levels in the year 1994 have been calculated for 23 individual properties. These properties have been chosen either because of their proximity to the road or because they were considered likely to experience noise levels that would be representative for a neighbouring group of properties. Figure 11.2, 11.3 and 11.4 show these individual property locations and existing noise levels in 1994. In addition, several properties beyond 300m from the scheme were assessed. These were Nymans, Slaugham Park, Slaugham Place, Slaugham Manor and Stanbridge House. Figure 11.4 shows the property locations and the current noise levels in 1994.

- 11.3.2 From the calculations for the 23 individual properties, the noise levels for all 89 properties have been estimated. Twenty-nine properties have current noise levels in the band 50-60dB(A), 47 are in the noise band 60-70dB(A) and 13 are in the noise band >70dB(A).

11.4 ENVIRONMENTAL EFFECT

- 11.4.1 The noise levels from the existing road and for the scheme in 2012 are shown for the 23 individual properties on Figure 11.2, 11.3 and 11.4. These results have been used to estimate the noise levels in 2012 for all 89 properties. Tables 11.1, 11.2 and 11.3 show the likely increases and decreases in noise for the existing road and scheme in 2012. Each table relates to the current noise band previously mentioned.
- 11.4.2 Tables 11.1, 11.2 and 11.3 show the number of properties estimated to be likely to experience an increase or decrease in nuisance levels with and without the scheme being built.
- 11.4.3 When comparing the effects of traffic noise if the scheme was built against the existing road with no improvement in 2012, 14 properties are predicted to experience an increase in noise of between 1 and 3 d(A). Four properties are predicted to experience a decrease in noise of between 3 and 5 d(A).
- 11.4.4 When comparing the scheme with the existing road in 2012 for a change in nuisance level, 7 properties are likely to experience a greater nuisance. However, 4 properties would experience a decrease in nuisance level.
- 11.4.5 Noise levels were also calculated for the following properties that are more than 300 metres from the scheme: Nymans, Slaugham Park, Slaugham Place, Slaugham Manor and Stanbridge House. Figure 11.5 shows the property locations and the calculated noise levels. It can be seen that the increase in noise levels due to the scheme would not be greater than 1dB(A).
- #### 11.5 MITIGATION
- 11.5.1 Properties were assessed to see if they were likely to qualify for noise insulation. The Highways Authority are obliged to provide secondary insulation to habitable rooms of homes affected by traffic noise for the new scheme.
- 11.5.2 The prequalification for this provision is if the noise level experienced by the property exceeded 68 d(A) for the year 2012, together with an increase of 1 d(A) from the scheme, when compared against the existing noise level.
- 11.5.3 Table 11.4 shows the properties assessed and the ones that would be likely to qualify for noise insulation.
- 11.5.4 The possible use of noise barriers for properties was examined but the benefits were not sufficient to justify the cost.

11.6 VIBRATION

- 11.6.1 Ground-borne vibrations caused by traffic only occur when vehicles pass over uneven surfacing and are limited to the immediate vicinity of the road. Air-borne vibration only occurs with properties within a few metres of the carriageway. In view of the fact that the scheme involves re-constructing the carriageway throughout the improvement, ground vibration should not be a problem, and there are no buildings where the improvement reduces the distance from the road to such a degree as to there being any likelihood of air-borne vibration.

11.7 SUMMARY

- 11.7.1 As the scheme is intended to be improved along the lines of the existing A23 the likelihood of any large scale changes in the noise levels as a result of the improvement is small. The change in the physical position of the road is relatively small and so changes in noise levels would also be small. Until recently a 3dB(A) noise difference was taken to be a noticeable change in noise level detected by the human ear and only one property was predicted to have an increase greater than this. Properties at eleven locations are assessed as being likely to be eligible for noise insulation. These are Caburn, North Lodge, Summer Hill, East Park House, East Park Cottage, Merrivale, Little Stanbridge, Country Gardens House, Stanbridge Place, Stanbridge Place (Flat), Stanbridge View.

NOISE ASSESSMENT SUMMARY TABLE

TABLE II.1: EXISTING NOISE LEVEL BAND 50-60 dB(A)

	Residential		Commercial		Industrial		Community Facilities		Comments
	The Scheme	Existing Situation	The Scheme	Existing Situation	The Scheme	Existing Situation	The Scheme	Existing Situation	
Increase in Noise Level									
1 - < 3	15	12	1	1	0	0			
3 - < 5	0	0	0	0	0	0			
5 - < 10	0	0	0	0	0	0			
10 - < 15	0	0	0	0	0	0			
> 15	0	0	0	0	0	0			
LA10, 18hr dB									
< 20%	29	29	-	-	-	-			
20 - < 30%	0	0	-	-	-	-			
30 - < 40%	0	0	-	-	-	-			
> 40%	0	0	-	-	-	-			
Decrease in Noise Level									
1 - < 3	0	0	0	0	0	0			
3 - < 5	0	0	0	0	0	0			
5 - < 10	0	0	0	0	0	0			
10 - < 15	0	0	0	0	0	0			
> 15	0	0	0	0	0	0			
LA10, 18hr dB									
< 20%	0	0	-	-	-	-			
20 - < 30%	0	0	-	-	-	-			
30 - < 40%	0	0	-	-	-	-			
> 40%	0	0	-	-	-	-			

NOISE ASSESSMENT SUMMARY TABLE

TABLE 11.2: CURRENT NOISE LEVEL BAND 60-70 dB(A)

	Residential		Commercial		Industrial		Community Facilities		Comments
	The Scheme	Existing Situation	The Scheme	Existing Situation	The Scheme	Existing Situation	The Scheme	Existing Situation	
Increase in Noise Level									
1 - < 3	40	29	2	2	1	1	Church		
3 - < 5	1	0	0	0	0	0			
5 - < 10	0	0	0	0	0	0			
10 - < 15	0	0	0	0	0	0			
LA10, 18hr dB > 15	0	0	0	0	0	0			
Increase in Nuisance Level									
< 20%	40	47	-	-	-	-	Church		
20 - < 30%	3	0	-	-	-	-			
30 - < 40%	0	0	-	-	-	-			
> 40%	0	0	-	-	-	-			
Decrease in Noise Level									
1 - < 3	0	0	0	0	0	0			
3 - < 5	4	0	0	0	0	0			
5 - < 10	0	0	0	0	0	0			
10 - < 15	0	0	0	0	0	0			
LA10, 18hr dB > 15	0	0	0	0	0	0			
Decrease in Nuisance Level									
< 20%	4	0	-	-	-	-			
20 - < 30%	0	0	-	-	-	-			
30 - < 40%	0	0	-	-	-	-			
> 40%	0	0	-	-	-	-			

NOISE ASSESSMENT SUMMARY TABLE

Table 11.3: CURRENT NOISE LEVEL BAND >70 dB(A)

	Residential		Commercial		Industrial		Community Facilities		Comments
	The Scheme	Existing Situation	The Scheme	Existing Situation	The Scheme	Existing Situation	Engineering Layout	Do Minimum	
Increase in Noise Level	1 - < 3	8	3	1	0	0			
	3 - < 5	0	0	0	0	0			
	5 - < 10	0	0	0	0	0			
	10 - < 15	0	0	0	0	0			
	> 15	0	0	0	0	0			
LA10, 18hr dB									
Increase in Nuisance Level	< 20%	9	-	-	-	-			
	20 - < 30%	4	-	-	-	-			
	30 - < 40%	0	-	-	-	-			
	> 40%	0	-	-	-	-			
Decrease in Noise Level	1 - < 3	0	0	0	0	0			
	3 - < 5	0	0	0	0	0			
	5 - < 10	0	0	0	0	0			
	10 - < 15	0	0	0	0	0			
	> 15	0	0	0	0	0			
LA10, 18hr dB									
Decrease in Nuisance Level	< 20%	0	-	-	-	-			
	20 - < 30%	0	-	-	-	-			
	30 - < 40%	0	-	-	-	-			
	> 40%	0	-	-	-	-			

TABLE 11.4 - NOISE INSULATION ASSESSMENT

NOISE LEVEL LA10 18hrdB(A)				
Location	Existing Road 1994	The Scheme 2012	Difference in noise level	Likely to qualify for noise insulation
West Lodge	65.4	66.6	+1.2	NO
Talgarth	62.0	63.0	+1.0	NO
Viburnum	65.5	66.9	+1.4	NO
The Laurels	62.3	65.0	+2.7	NO
Claerwen	53.5	55.5	+2.0	NO
Caburn	77.9	80.4	+2.5	YES
Southend Cottage	74.0	74.8	+0.8	NO
North Lodge	66.6	69.0	+2.4	YES
Jindalee	65.2	63.0	-2.2	NO
North Lodge (Nymans)	64.1	65.6	+1.5	NO
Summer Hill	76.0	77.6	+1.6	YES
The Rectory	67.4	65.1	-2.3	NO
East Park Farm	64.9	66.4	+1.5	NO
East Park House	68.2	71.3	+3.1	YES
East Park Cottage	68.1	70.9	+2.8	YES
Home Farm	61.3	63.2	+1.9	NO
Merrivale	76.9	79.1	+2.2	YES
Little Stanbridge	79.6	81.6	+2.0	YES
Country Gardens House	75.2	76.7	+1.5	YES
Stanbridge Farm	63.5	65.2	+1.7	NO
Stanbridge Place	70.7	73.0	+2.3	YES
Stanbridge Place (Flat)	74.4	77.0	+2.6	YES
Stanbridge View	76.0	78.9	+2.8	YES

12.0 EFFECTS ON PEDESTRIANS, EQUESTRIANS, CYCLISTS AND THE COMMUNITY

12.1 INTRODUCTION

12.1.1 This section of the statement assesses the effect of the scheme on local journeys made by non-motorists. Figure 12.1 shows the location of the features referred to in the text. There are several designated Rights of Way in the study area indicated on the West Sussex County Council's Definitive Footpath Map. Since the Slaugham/Cuckfield Rural Parish boundary crosses several of these paths, two reference numbers are sometimes given, however in Figure 12.1 only the Slaugham Parish references are given.

12.1.2 The development of footpaths in the area can be seen from the historical maps contained in Volume 2, Section 3.0 of this Environmental Statement.

12.2 METHODOLOGY

12.2.1 A 6 day survey of pedestrians, equestrians and cyclists was carried out at the end of April 1994. Tables 12.1 - 12.3 show the results.

12.2.2 There was also a walk-over survey and examination of the footways and verges in April 1993.

12.3 EXISTING SITUATION

12.3.1 There are five public rights of way in the area, two of them (Slaugham 14 and Slaugham 15) are considered to form a continuous route across the A23. Although the A23 is considered very difficult to cross at present, these footpaths may be considered to provide a continuous east-west link and are therefore considered together.

12.3.2 Slaugham 14 consists of steps up the side of the cutting leading to a path which crosses fields to Slaugham Place and then continues to Slaugham Village. There is evidence of light use, and the line of the path can be seen crossing the field between the A23 and Slaugham Manor. Slaugham 15 is a signposted footpath that leads at first eastwards, then across a field in a south-easterly direction to join a track at Stanbridge House and then on to Staplefield Road at Stanbridge Grange Farm.

12.3.3 The footpath Slaugham 4 which used to cross the A23 connecting Park Road with Brighton Road, now is reduced to a short path. There were no observed crossings of A23 at this point although a few people were observed using the paths after leaving vehicles in the layby at the bottom of the path.

- 12.3.4 Slaugham 9 is a signposted footpath which starts at a stile in the highway boundary just north of Slaugham Junction on the southbound carriageway, then leads in a north-easterly direction across fields to the B2114 at East Park Cottages. The fields have been cultivated and resown, and there is no actual track to follow, or desire line evident, that would suggest frequent use. There is no path within the highway boundary connecting with the start of the path, but the grass verge southwards is sufficiently wide to give access to the Staplefield Road via the southbound slip road.
- 12.3.5 Slaugham 7a and 7b, otherwise known as Park Road is a private road, running through Slaugham Park Estate between Slaugham Village and Handcross Village, which is designated as a bridleway.
- 12.3.6 There is a surfaced footway, approximately 1 metre wide and set 4 metres back from the kerb line which runs along the east verge of the A23 from Handcross Slip Road to the access to East Park House. The path is overgrown and deteriorating. It is considered that very little use, if any, is made of this footway.
- 12.3.7 Although there is no direct footway to Handcross Market Garden, pedestrian access to the premises is taken along Brighton Road and the A23 southbound slip road. It is considered that very light use is made of this pedestrian route to the market garden.
- 12.3.8 There are no designated equestrian routes that cross the A23 and no equestrians were observed using the road or verges. However, there is evidence of equestrian use of Staplefield Road verges under Slaugham Junction and Park Road.
- 12.3.9 There are no cycleways in the study area although cyclists were observed using the local road network as well as the A23. The improvement of the A23 from Sayers Common to Warninglid Junction created a two way cycleway adjacent to the northbound carriageway.
- 12.3.10 Facilities in the area include shops in Handcross Village, Handcross Market Garden, Nymans, Country Gardens Centre, The Happy Eater restaurant and Stanbridge Nursery. Observations indicate that all access to these facilities is by car, with little by pedestrians.

12.4 MITIGATION AND ENVIRONMENTAL EFFECT

12.4.1 Slaugham 14 and 15

- 12.4.1.1 The scheme would widen the A23 to 3 lanes on each carriageway making crossing the A23 at road level unsafe. The construction of a grade separated footbridge or underpass would be both expensive and intrusive, and could not be justified considering the light use of this path. It is not proposed to leave a gap in the central reserve safety fence.
- 12.4.1.2 It is proposed however that part of the new means of access to be built from Staplefield Road to the properties in the Stanbridge area would be designated a Public Footpath. On the west side of the

A23, the proposed cycleway would provide a new surfaced pedestrian access between the Staplefield Road and the B2115 Cuckfield Lane which would also include access to the eastern end of Footpath Slaugham 14.

12.4.1.3 Table 12.4 shows the effect on journey lengths that would occur for pedestrians using these routes.

12.4.1.4 Visually the impact of the proposals from these footpaths would be slight. Neither path has views southwards, and both have views directly to the road screened by the thick verge/highway boundary vegetation which would be substantially retained. The tops of lighting columns may be visible in places and both paths would have views of the A23 north of the Staplefield Road junction as it climbs Handcross Hill, over which the increased scale of the upgraded road would be appreciable. At a range of 700 - 2100 metres the impact would be slight.

12.4.1.5 It is considered that the main use of these footpaths is for recreational use. Given the current safety implications of crossing the A23, the increased distance is considered to be only a slight impact given the benefit of increased safety.

12.4.2 Slaugham 4

12.4.2.1 The upgrading of the A23 would remove the layby and parking which currently provides the majority of pedestrians using this footpath. It is highly dangerous to cross the A23 at road level and it is not considered that the path's light use would justify any alternative provision. It is proposed to close this footpath. It is considered that the impact of the loss of this footpath would be negligible.

12.4.3 Slaugham 9

12.4.3.1 The proposal would shorten this right of way by 4.5m at its connection to the A23. The route would be maintained using the grass verge. Visually, the proposed cutting at East Park would initially have a significant impact when viewed from approximately the first 200 metres closest to the A23. However, this impact would diminish to being similar to the existing after the new planting had matured in about 15 years.

12.4.4 Slaugham 7a and 7b

12.4.4.1 The proposals would not affect this right of way, nor the suitability of the Staplefield Road for equestrians. There is considered to be the possibility of minor visual impact from the proposed lighting columns.

12.4.5 **Footway to East Park**

12.4.5.1 The existing accesses to East Park Farm and to East Park House/Cottage would be closed off and the footway removed. Future pedestrian access would be by the proposed new private means of access serving the East Park properties, off the B2114 Staplefield Road. Measured from the centre of Handcross Village the distance would be about 1080 metres compared with about 980 metres, an increase in the region of 100 metres. Visually, the new route through the woods would be significantly more pleasant than the existing footpath beside the A23. This re-routing is hence considered to be a benefit.

12.4.6 **Handcross Market Garden**

12.4.6.1 The existing access would be closed, with a new access provided off the B2114 Staplefield Road via the new means of access to East Park. Measured from the centre of Handcross Village the distance would be approximately 600 metres compared with about 400 metres, an increase in the region of 200 metres. This is considered the visually more attractive and safer pedestrian access and is of a greater benefit than disbenefit, despite the increase in distance.

12.4.7 **Equestrians**

12.4.7.1 It is considered that there is no impact on provision for Equestrians.

12.4.8 **Cyclists**

12.4.8.1 It is proposed to construct a surfaced cycleway along the western verge of the A23 between Warninglid Junction and Slaugham Junction as part of a cycleway being created along the A23 between London and Brighton. The cycleway would also provide a continuous pedestrian access to properties on the west side of the road. Alternative routes already exist for cyclists between Handcross and Warninglid, which are remote from the A23. It is also proposed to create segregated cycle crossing points on all junction slip roads.

12.4.8.2 It is considered this provision would be a significant benefit for cyclists on the A23.

12.4.9 **Communities**

12.4.9.1 It is considered that the scheme would have little or no impact on the pedestrian, cyclist and equestrian provision for the communities. However, with the improvement of traffic provision with the scheme, it is anticipated that through traffic on adjacent local highway network would be reduced. It is considered that this reduction of vehicles would be a benefit to the existing pedestrian, cycles and equestrian travel patterns on the adjacent road network.

12.5 SUMMARY

- 12.5.1 With the scheme being an on-line road widening along the existing route there would be little impact to the existing pedestrian, cyclist and equestrian facilities.
- 12.5.2 During construction there may be some disturbance to pedestrians using the existing footpaths. This would be reduced by the requirements within the contract to maintain all Rights of Way until alternatives are available.
- 12.5.3 Equestrians may also experience some disturbance due to the construction works on Slaugham Bridge. Control on construction noise levels, mud and dust on Staplefield Road and hours of working would be in the contract documents which would help to reduce the impact for equestrians.
- 12.5.4 Overall it is considered that the provision made for cyclists and pedestrians within the scheme would provide a benefit.

TABLE 12.1

PEDESTRIAN JOURNEYS

	TUES	WED	THUR	FRI	SAT	SUN
Slaugham 4	0	1	0	0	4	0
Slaugham 7a & 7b	51	23	37	51	51	124
Staplefield Road	9	5	7	3	7	23
Slaugham 14 & 15	0	0	2	4	0	0
A23 near Garden Centre. (S14 and S15)	0	1	1	0	3	2

TABLE 12.2

EQUESTRIAN JOURNEYS

	TUES	WED	THUR	FRI	SAT	SUN
Slaugham 4	-	-	-	-	-	-
Slaugham 7a & 7b	0	0	0	2	4	6
Staplefield Road	6	6	8	2	0	6
Slaugham 14 & 15	-	-	-	-	-	-
A23 near Garden Centre. (S14 and S15)	-	-	-	-	-	-

TABLE 12.3

CYCLIST JOURNEYS

	TUES	WED	THUR	FRI	SAT	SUN
Slaugham 4	-	-	-	-	-	-
Slaugham 7A & 7B	0	2	3	1	8	24
Staplefield Road	7	5	6	12	15	40
Slaugham 14 & 15	-	-	-	-	-	-
A23 near garden Centre (S14 and s15)	3	0	6	1	13	42

TABLE 12.4

SCHEDULE OF DIVERSIONS

Description of pedestrian journey once the scheme is completed	EXISTING	PROPOSED	INCREASE
Slaugham 14 to Slaugham 15 via proposed cycleway/footpath and means of access	250m	1390m	1140m
Slaugham Village to Slaugham 15 via Staplefield Road and the proposed means of access	1270m	1550m	280m
Slaugham Place to Slaugham 15 via proposed cycleway/footpath and means of access	680m	1850m	1170m

13.0 EFFECTS ON VEHICLE TRAVELLERS

13.1 INTRODUCTION

13.1.1 This section deals with the effects on vehicle travellers that cannot be included in the cost benefit analysis because they are not quantifiable in financial terms. The locations described in this section are identified on figures in previous sections.

13.2 METHODOLOGY

13.2.1 The assessment comprises of two sections: The View from the Road and Driver Stress.

13.2.2 The view from the existing road has been described and an assessment made of the impact the scheme would have on that view, taking into account any proposed mitigation.

13.2.3 The methodology for the assessment of driver stress relates driver stress to traffic flow and is dependant on average journey speeds. The results of the detailed assessment are contained in Volume 2, Section 10.0 of this Environmental Statement.

13.3 VIEW FROM THE ROAD - EXISTING SITUATION

13.3.1 In the vicinity of the Handcross Junction mature woodland bounds both sides of the road and prevents extensive lateral views. However, there is a brief view across the Ouse Valley which is soon blocked by the trees in the central reserve and by bends in the road opposite East Park.

13.3.2 The woodlands on both sides of the existing road adjacent to East Park give a sense of enclosure along this section. In addition the screening of traffic on the opposite carriageway effectively reduces the apparent scale of the route to that of a single carriageway.

13.3.3 The only elements that detract from the view from the road are sections of verge where the grass has been destroyed by traffic. This is most noticeable on the northbound carriageway adjacent to West Park where an extensive section is used as an informal extension to the layby.

13.3.4 South of Slaugham Junction the countryside is more open than that to the north. However, the range of views is generally limited by rising ground immediately adjacent to the road. Where the road crosses the east ridge of Mill Hill, the elevation allows forward views in both directions.

13.3.5 The view northbound is the more attractive because the A23 bends out of sight beyond Slaugham Junction and it is the woods and parklands of Handcross Hill that can be seen.

13.3.6 In the view southwards, the A23 is conspicuous and the commercial developments on the west side detract from the otherwise undeveloped countryside adjacent to the road.

13.3.7 South of the Happy Eater the A23 climbs to cross the ridge of high ground that forms the southern watershed of the Ouse valley. Views to the west are restricted by the face of road cuttings and hedgerows on the highway boundary or by the mass of Anne's Wood. To the east, however, the vegetation on the highway boundary consists only of a clipped hedge and the road's elevation, especially where it is on an embankment, affords broad and attractive views out in a northerly to easterly direction across the valley to the hills of the High Weald.

13.4 VIEW FROM THE ROAD - MITIGATION

13.4.1 A broad woodland screen would be planted at Handcross Junction adjacent to the northbound off-slip road.

13.4.2 Cutting slopes would be planted adjacent to the northbound carriageway just south of Slaugham Junction and adjacent to the southbound carriageway in the Stanbridge area.

13.4.3 A 10 metre wide strip would be planted adjacent to the northbound carriageway just south of Slaugham Junction and adjacent to the southbound carriageway in the Stanbridge area.

13.4.4 Hedges affected by the scheme would be reinstated.

13.5 VIEW FROM THE ROAD - ENVIRONMENTAL EFFECT

13.5.1 The scheme would cause disturbance to woodlands, verge vegetation and hedges on both sides of the road. Initially this would give a scarring effect to the canopy edge and in some locations would open up new views from the road. However, this would only be temporary as the proposed planting, once matured in approximately 15 years, would maintain the existing view from the road. There are some locations where permanent new views would be formed by the scheme.

13.5.2 The removal of the mature trees from the central reserve would increase visibility along the line of the route. Looking uphill in a northbound direction the view would generally be contained by the adjacent woodland, emphasising the impact of the increased scale and altered character of the road. In a southbound direction, however, travellers descending Handcross Hill would have an attractive view across the Ouse Valley.

13.5.3 The removal of mature woodland adjacent to the southbound carriageway south of East Park would open up a view in a north-easterly direction that would be appreciated by northbound travellers.

13.5.4 As the road crosses the east ridge of Mill Hill, the view north would be affected by the loss of trees from the central reserve and by the straightening of bends opposite East Park, making the road corridor more prominent. Although the quality of the road corridor would be reduced these changes would not significantly diminish the travellers appreciation of the surrounding landscape

13.5.5 The view south from Mill Hill would be less changed except that the altered vertical alignment would emphasise the increased scale and changed character of the road.

13.6 DRIVER STRESS - EXISTING CONDITIONS

13.6.1 All sections of the existing road are classified as giving high driver stress. This is due to the high traffic flows per lane, tending to low average speeds and hence driver frustration.

13.7 DRIVER STRESS - MITIGATION

13.7.1 An additional lane to each carriageway, a climbing lane northbound between Slaugham Junction and Handcross, the improved horizontal and vertical alignment and adequate route signing would be provided. All these features would lead to a reduction in driver stress.

13.8 DRIVER STRESS - ENVIRONMENTAL EFFECT

13.8.1 The majority of the scheme is classified as giving high driver stress and this is mainly due to the high predicted traffic flows. However, the additional lane and the improved alignment increases the average traffic speed to above 80 kph. It has been shown that increased traffic speed raises driver perception of accidents and hence increases driver fear. However, this is mitigated by the improvement of highway geometry provision.

13.8.2 The northbound carriageway between Slaugham Junction and Handcross Junction is classified as giving moderate driver stress. This would be due to slightly lower traffic flows per lane than on other sections.

13.8.3 It is considered that the improvement of advanced signing and the provision of a service road to the commercial properties between Warninglid Junction and Slaugham Junction, on the northbound carriageway, would reduce driver stress.

13.9 SUMMARY

13.9.1 Driver stress

13.9.1.1 The level of driver stress, for the scheme, remains largely unchanged in comparison to the existing road. The additional lanes would reduce the flow per lane to two thirds of its existing value. This, combined with the improved geometry, can only improve the situation for the driver and hence be a significant benefit.

13.9.2 View from the Road

13.9.2.1 Disturbance to the vegetation would result from the scheme, initially opening up some views. However, the proposed planting, designed to screen the road from neighbouring property, would, when established, block off these views and in the long term the effect would be similar to the present.

13.9.2.2

An exception would be just north of Slaugham Junction, where a view from the northbound carriageway to the tree enclosed fields south of East Park would be opened up. In addition, the removal of the central reserve trees would emphasise the changed character and increased scale of the road as well as open up a view south across the landscape of the Ouse Valley to the benefit of drivers.

14.0 EFFECT ON WATER QUALITY AND DRAINAGE

14.1 INTRODUCTION

- 14.1.1 Section 11.0 of Volume 2 of this statement contains information on Water Quality and Drainage
- 14.1.2 The Government sets the standards for water quality and is committed to improving its quality when it is reasonably possible.
- 14.1.3 The National Rivers Authority (NRA), which was established by the Water Act 1989, is the regulatory body responsible for the approval of drainage schemes where their interests may be affected.
- 14.1.4 It is the task of the National Rivers Authority as the statutory regulating body to approve drainage schemes where their interests are likely to be affected.
- 14.1.5 The NRA have been consulted during the design of the scheme and where appropriate their comments have been taken into account.

14.2 EXISTING SITUATION

- 14.2.1 The existing system, most of which was installed when the second carriageway was added in 1964, is based on gulleys and french drains.
- 14.2.2 Little detail exists as to where the outfalls are or if any of the run-off is treated before entering the adjacent water courses.
- 14.2.3 The larger of the local water courses - the River Ouse - rises to the west of the scheme and flows under the A23. The arrangement of the original culvert and the extensions, which have been added at later dates, is unsatisfactory. There are changes in direction which cause waterborne debris to block the flow and cause flooding upstream.
- 14.2.4 Anne's Wood stream also forms a major drainage path. It too runs under the A23 in an old culvert which has been extended and has problems with waterborne debris.
- 14.2.5 On a lesser scale Orange Gill, East Park stream, Stanbridge stream and the Garden Centre stream are part of the overall system and take differing proportions of highway drainage. Figure 14.1 show the catchment areas of these watercourses.
- 14.2.6 The Water Quality, as measured by the NRA in the Stanbridge area, is equivalent to a '1b' classification for the River Ouse and thus it can be described as a "Cyprinid River".

14.3 MITIGATION MEASURES

- 14.3.1 In the proposed design of the system for this scheme, it is envisaged that all the carriageway run-off would be treated by bypass interceptors to filter out solids and certain other pollutants.
- 14.3.2 It is also proposed that all the water, including the one in 5 year storm flow, should pass through reed beds. These are planned to serve the dual purpose of providing storage capacity to limit discharge rates, and to clean the water by biological means.

14.4 ENVIRONMENTAL IMPACTS

- 14.4.1 The overall impact of the scheme, in terms of water quality and drainage, would be that of an improvement upon the existing system.
- 14.4.2 Currently the water from the highway appears to join the ground water or the local streams without treatment other than the traps on the road gulleys.
- 14.4.3 The proposed scheme would provide the opportunity to prevent pollutants, from the highway surface water or a chemical spillage, from reaching the watercourses. This would be achieved either by the action of the bypass interceptors or the reed beds.
- 14.4.4 The reed bed areas would be designed to include storage capacity that would enable the outfall into the adjacent watercourse to be controlled. This feature would help prevent flooding and scour in the watercourses. The highway drainage would be released slowly and the discharge would have a negligible contribution to the peak flow in the watercourses.
- 14.4.5 Section 8.0: "Ecology and Nature" discusses the impact in these terms in more detail.

15.0 EFFECTS ON GEOLOGY AND SOILS

15.1 INTRODUCTION

15.1.1 This section describes the effects of the scheme on the geology and soils of the area.

15.1.2 Soils and geology play an important part in determining the environmental character of an area. Rocks have a major influence on the land form as well as providing the parent material from which soils are created. Soil chemistry and structure strongly influence the type of vegetation which occurs naturally in an area. In addition, the soil would also have a considerable influence on the types of agricultural and horticultural practices an area can support. An assessment has been made of the potential impacts of the scheme on both the soil and underlying rocks in the area.

15.2 EXISTING SITUATION

15.2.1 The scheme lies within the geographical area known as the Weald (see Figure 15.1), which is considered to be the region between the chalk escarpments of the North and South Downs. Geologically the Weald comprises of the two Wealden clay Vales of Sussex and Kent and the intervening sandstone ridge composed of the Hastings Beds.

15.2.2 Within the study area two broad belts of distinctive scenery may be recognised, each reflecting the local geology, namely the undulating area of the High Weald and more gentle lowland area of the Weald Clay.

15.2.3 High Weald

15.2.3.1 The first of these belts in the north of the study area corresponds to an outcrop of Hastings Beds, comprising Upper Tunbridge Wells Sand, Cuckfield Stone Lower Tunbridge Wells Beds, Wadhurst Clay and Ashdown Beds. At Handcross Village the Hastings Beds reach 145m above sea level. The ground slopes south and south-westwards from here, the Hastings Beds outcrop being characterised by rolling country with deeply incised, steep-sided wooded valleys.

15.2.3.2 The sandy formation of Hastings Beds give rise to generally well drained, light silty to sandy soils as well as pockets of clay and silty clay. Many of these soils are covered by areas of woodland, although they also provide good arable land.

15.2.3.3 The River Ouse contains alluvial deposits consisting of clay silts, silty clays and gravels.

15.2.4 Weald Clay

15.2.4.1 The land on the Hastings Beds outcrop falls away gently to the second area of scenery, which is a broad belt of lowland marking the outcrop of Weald Clay. This comprises Upper Weald Clay, Horsham Stone, Lower Weald Clay and Grinstead Clay.

15.2.4.2 The Weald Clay gives rise to slightly undulating country, sloping gently south, south-westwards. Locally, thin beds of limestone (Sussex Marble), ironstone and sand form minor scarps. Much of the Weald Clay area is used as pasture land.

15.2.5 Geological Structure of the Area

15.2.5.1 Geological maps show extensive faulting over the southern part of the study area. There are two faults trending east-west, the North Boundary and South Boundary faults which are connected by minor faulting.

15.2.5.2 The North Boundary Fault crosses the A23 just south of Country Gardens and marks the geological boundary between the Upper Tunbridge Wells sand to the north and Weald Clay to the south. This fault is associated with the occurrence of several clay pits from which ironstone was extracted.

15.2.5.3 The South Boundary fault crosses the A23 just north of the Southern limit of the scheme. This fault marks the geological boundary between the Weald Clay in the north and Lower Grinstead Clay and Cuckfield Stone to the south.

15.2.6 SSSI and RIGS Designated Areas

15.2.6.1 The study area does not contain any designated geological or geomorphological sites of Special Scientific Interest or Regionally Important Geological Sites.

15.2.7 Hydrogeology

15.2.7.1 The River Ouse supplies water to a pumped storage reservoir downstream of the study area at Barcombe. Approximately 30,000 cu m/annum of ground water is abstracted from the Tunbridge Wells Sand, although no licensed points are located in the study area.

15.3 MITIGATION

- 15.3.1 The scheme would remain within the existing highway boundary where possible, being constructed with cutting slopes of 45° and embankment slopes of 60° in some locations. This would limit the impact of the scheme on the geology and soils in the vicinity of the road to a negligible effect. A more detailed examination of the relationship between the scheme and the adjacent geology can be found in Volume 2, Section 12.0 of this Environmental Statement.

15.4 ENVIRONMENTAL EFFECT

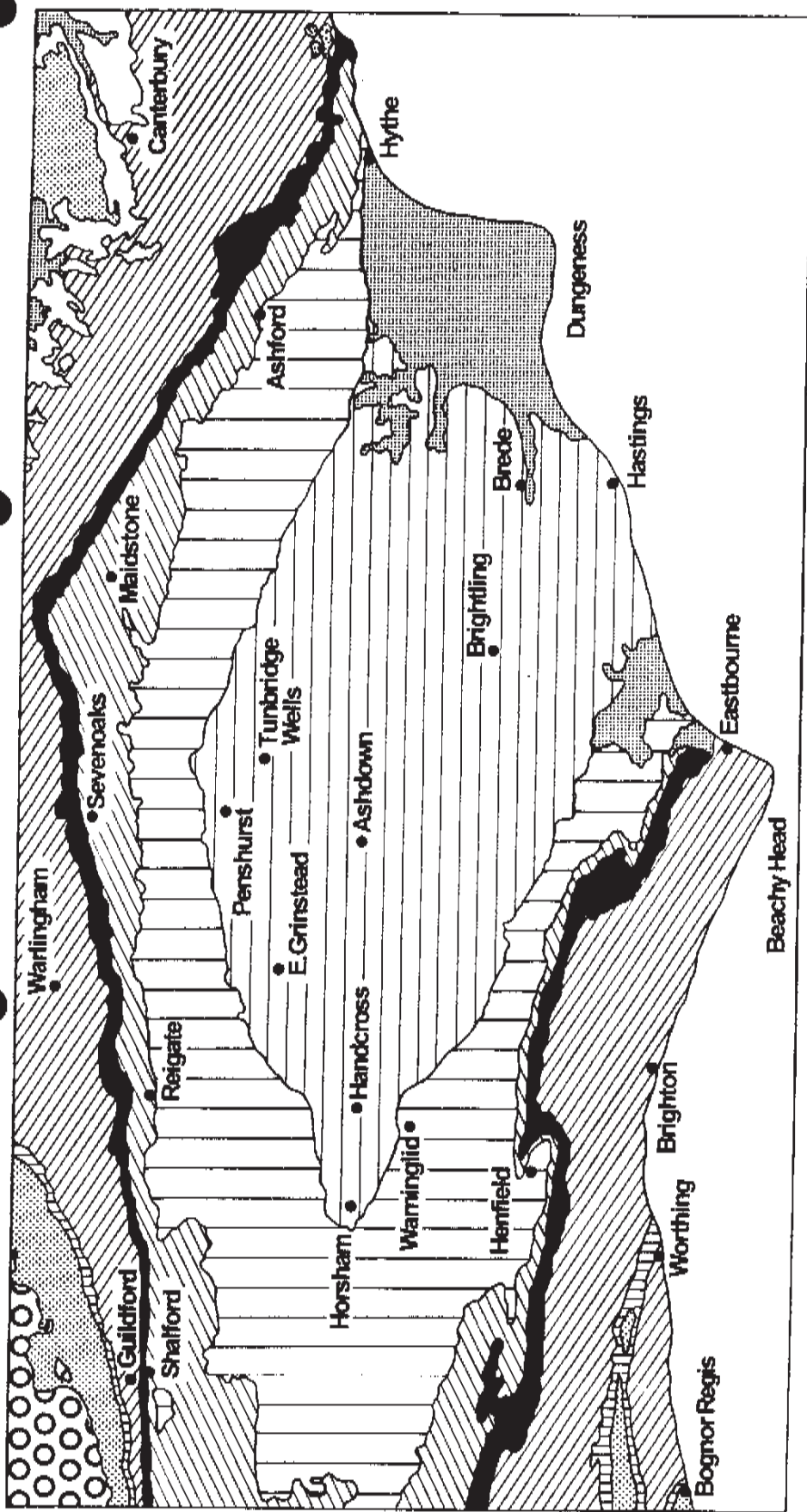
- 15.4.1 There would be sections of cutting required at Handcross and adjacent to East Park, exposing Tunbridge Wells Sand at these locations. However, it is proposed that these cut slopes would be planted.
- 15.4.2 The construction of an embankment adjacent to West Park would impose a surcharge on the Upper Tunbridge Wells Sand and overlying clay. This may temporarily affect ground water flow patterns into Orange Gill stream but would not affect the use of Upper Tunbridge Wells sand as an aquifer.
- 15.4.3 The scheme would largely remain within the existing road corridor and therefore the overall impact on the geology and soils of the area would be minimal.

15.5 SUMMARY

- 15.5.1 The scheme would largely remain within the existing road corridor and therefore the overall impact on the geology and soils of the area would be negligible.

GEOLOGICAL SKETCH MAP OF THE WEALD AND NEIGHBOURING AREAS

Figure 15.1



- | | | | | | |
|--|--------------------------------|--|-----------------------------------|--|----------------|
| | Alluvium | | Woolwich, Reading and Thanet Beds | | Weald Clay |
| | Lenham Beds, Netley Heath Beds | | Chalk | | Hastings Sands |
| | Bracklesham and Bagshot Beds | | Gault and Upper Greensand | | Purbeck |
| | London Clay | | lower Greensand | | |

16.0 EFFECTS ON POLICIES AND PLANS

16.1 INTRODUCTION

16.1.1 The development plan system provides the basis on which decisions about the development and use of land are made. Development plans are prepared by local planning authorities within the framework of national and regional policies and any strategic planning advice.

16.2 METHODOLOGY

16.2.1 The study is located entirely within the boundaries of West Sussex County Council and Mid Sussex District Council. The policies of these councils are reviewed by reference to the Structure Plan and Local Plan respectively. The current Structure Plan is the 1993 update. The current Local Plan was adopted in 1992.

16.2.2 Edited extracts of each policy considered to be relevant to the proposed improvement of the A23 are included together with an assessment of the effect of the scheme.

16.2.3 Information contained on the Key Diagram that is published with the Structure Plan and Proposals Map that is published with the Local Plan has been shown as Figure 16.1: Policies and Plans.

16.3 WEST SUSSEX COUNTY COUNCIL - STRUCTURE PLAN 1993

The relevant policies are given in the chapters on General Strategy, the Countryside, the Built Environment, Transport and Waste Disposal.

16.3.1 General Strategy ('G' Policies)

16.3.1.1 Policy Number: G1

Summary Great weight is to be attached to protecting and improving the rural environment, and great care to be taken to maintain the attractiveness of the county.

Effect The design of the scheme and environmental mitigation measures have been developed to reduce the environmental effect of the proposals on this rural countryside.

16.3.1.2 Policy Number: G4

Summary Infrastructure, such as transport networks, is to be in place before development is normally permitted.

Effect Handcross to Warringlid is the only section of the A23 between the M23 and Brighton that has not been improved. The present alignment and carriageway provision is inadequate for existing traffic volumes. The improved road would support the development policies for the County.

16.3.1.3 *Policy Number: G8*

Summary Development of an integrated transportation network is necessary to provide safe and adequate means of travel for people and the movement of freight. A particular objective is to improve accessibility between the Coastal Districts and Central Sussex.

Effect The scheme would meet high traffic growth predictions to the year 2013, and would relieve congestion and delays, whilst improving safety. Access between the Coastal Districts and Central Sussex would also be improved.

16.3.2 **The Countryside ('C' Policies)**

16.3.2.1 *Policy Number: C1*

Summary Generally, the countryside is to be protected from development. Where development is to take place in the countryside, the land taken should be kept to the minimum necessary to achieve a quality environment.

Effect The scheme involves the on-line improvement of an existing major road through the countryside. Relatively small amounts of land outside the highway boundary would be required. The extent of the landtake has been reduced by the use of retaining walls, 60⁰ embankments and 45⁰ cuttings. Most of the land is required to carry out landscaping, to construct alternative access routes or drainage treatment to mitigate the environmental effect of the scheme.

16.3.2.2 *Policy Number: C2*

Summary Development, including roads, that would be harmful to the visual quality, distinctive characteristics and quiet enjoyment of the Areas of Outstanding Natural Beauty (AONB) should only be allowed if essential.

Effect Effect of the scheme on the landscape character and quality of the area of the St Leonards Forest District of the High Weald Area of Outstanding Natural Beauty, through which it passes, would be slight. The scheme is necessary because the present alignment and carriageway provision is inadequate to meet existing and predicted traffic volumes.

16.3.2.3 *Policy Number: C3*

Summary Only in compelling circumstances would development be permitted which affects Sites of Special Scientific Interest (SSSI) or other sites of nature conservation importance.

Effect There are no SSSIs in the immediate vicinity of the scheme or which would be likely to be affected by the scheme.

There would be some landtake from West Park Wood, a Site of Nature Conservation Importance (SNCI), which is an area of Semi-natural Ancient Woodland.

The drainage proposals would maintain the existing hydrological features of Orange Gill and protect the watercourses from pollution from the highway.

16.3.2.4 *Policy Number: C4*

Summary Only in compelling circumstances would development be permitted on the best quality agricultural land.

Effect The scheme would result in the loss of 3.858 hectares of agricultural land, of both Grade 3 and Grade 4. No information regarding the subdivision of Grade 3 land into sub-grades 3a and 3b was available from MAFF. This loss is limited to agricultural land adjacent to the A23 and is not considered to be prime agricultural land.

16.3.2.5 *Policy Number: C7*

Summary Importance is attached to the need to safeguard agricultural and horticultural production and forestry.

Effect The effect of the loss of land on individual farms would be slight. New means of access have been proposed where necessary to replace existing direct accesses from the A23.

None of the woodland adjacent to the road is commercial forestry.

16.3.2.6 Policy Number: C14

Summary Particular care is to be taken to protect AONB's, SSSI's and other sites of natural conservation importance. The practical measures to be taken would include:

- (1) The conservation of woodlands, trees and hedgerows.
- (2) The conservation of significant wildlife corridors.
- (3) The creation and conservation of local nature reserves.
- (4) Promotion of tree planting, especially broadleaves.
- (5) Screening eyesores.
- (6) Landscaping new roads appropriately and managing existing highway land for amenity and nature conservation.
- (7) Encouraging private and voluntary countryside management and improvement schemes.
- (8) Conserving historic features including archaeological sites.

Nature Conservation

Effects The alignment of the preferred route was selected and the design of the scheme has been developed to minimise its impact on areas of nature conservation importance.

Woodland management and extensive planting using native species is proposed to restore the woodland edge and create wildlife corridors. In some situations the proposals would result in long term nature conservation benefits.

Two tunnel crossings and fencing would be provided to protect wildlife from road accidents.

The proposed drainage system would improve water quality in the streams and protect the environment of the areas of special ecological interest from pollution. The reedbeds would create a useful additional wetland habitat.

Landscape

Effects Since the scheme is an on-line improvement and would necessitate only limited disturbance beyond the present boundary, the impact on the landscape character would be slight. The main effect would be of scarring to the edge of the woodlands when viewed from within the road corridor. The woodland edge would be restored by planting of the highway verges. Planting by agreement with the landowners offsite would further restore the woodland edge.

The realignment of the carriageways at East Park and the loss of mature central reserve trees would accentuate the line of the road through the woodlands of Handcross Hill when viewed from the south only.

Except for a few properties immediately adjacent to the road, the visual impact of the scheme would only be slight. Substantial areas of planting are proposed that, when established, would screen the road more effectively than at present.

During daytime the lighting would only be visible from a few properties close to the road, but at night the lighting would be visible from a wider range and would detract from the rural character of the area. Full cut-off lanterns would be used to minimise glare and lightspill.

Heritage

Effects An area of land owned by the National Trust would be disturbed at East Park. It is not however a part of Nymans Estate that is of special heritage value and the Trust has stated that it would not object in principle to the Department of Transport buying the land.

The scheme would have no direct impact on known sites of archaeological or heritage interest. There would be some visual impact on some of the sites of heritage importance.

16.3.3 The Built Environment ('B' Policies)

16.3.3.1 Policy Number: B3

Summary The best buildings are to be conserved, including those in villages and the countryside, with protection to their setting and views of them from public places.

Effect The scheme would have no direct effect on any Listed Building or Conservation Area.

16.3.3.2 *Policy Number: B5*

Summary The fabric and setting of archaeological sites is to be preserved.

Effect No archaeological site would be directly affected by the scheme.

16.3.4 Transport (T Policies)

16.3.4.1 *Policy Number: T1*

Summary The main traffic flows should be channelled onto the Strategic Road Network. This includes a list of Motorway and Primary Routes which the Council has agreed with the Department of Transport, which includes the M23/A23 Trunk Road.

Effect The scheme would reduce congestion and provide capacity to meet projected traffic growth to the year 2013.

16.3.4.2 *Policy Number: T2*

Summary The Council encourages the early completion of road improvements listed by the Department of Transport in 'Roads for Prosperity' and subsequent White Papers, which includes the Handcross to Warringlid section of the A23 Trunk Road, subject to their effect on the environment being acceptable.

Effect The scheme would result in the completion of the planned improvement of the A23 route between the M23 and Brighton, envisaged in the National Trunk Road Programme.

The alignment of the preferred route was selected and the design of the scheme has been developed to minimise its effect on the environment, which overall would be slight. Extensive mitigation measures are proposed, which in some cases would enhance the environment of the road corridor.

16.3.4.3 *Policy Number: T4*

Summary Traffic management measures should be introduced where they would:

- reduce the number and severity of accidents;
- improve the flow of traffic;
- reduce problems caused by heavy vehicles;
- improve facilities for pedestrians and cyclists and minimise conflicts between them and traffic;
- improve the quality of the environment.

Effect The proposed scheme would provide a high standard road designed to meet present and future traffic flows. The improvement of the alignment of the road, slip roads and other sub standard features would reduce the number and severity of accidents, and the lighting would improve safety at night. The provision of a climbing lane would remove congestion caused by lorries on Handcross Hill.

A new route would be created for pedestrians and cyclists between Warninglid Junction and Slaugham Junction. No provision would be made to cross the A23 at road level. Footpath S4 would be closed. Footpath S15 would be diverted. Measures would be taken to protect wildlife and facilitate their safe crossing of the road.

16.3.4.4 *Policy Number: T6*

Summary Provision of motorists facilities is encouraged except in AONBs.

Effect The proposed service road would facilitate access to the Happy Eater restaurant which is understood to have planning consent for expansion to include a Filling Station and Travel Lodge. All other laybys on the existing A23 would be removed.

16.3.5 Waste Disposal ('W' Policies)

16.3.5.1 Policy Number: W1

Summary A reduction in waste disposed by landfill is sought through the encouragement of alternatives, particularly recycling.

Effect Materials arising from the breaking out of the existing carriageways would be recycled within the works.

Approximately 70,000 cubic metres of excavated material, surplus to the works, would be disposed of off site to licensed tips or other approved locations.

16.4 CENTRAL MID SUSSEX LOCAL PLAN 1992

16.4.1 The relevant policies are described under chapters dealing with the Rural Environment, the Built Environment, Countryside Recreation and Tourism, Mobility, Handcross and the Smaller Settlements.

16.4.2 Chapter 2: The Rural Environment

16.4.2.1 Policy Number: CM2/1

Summary There is a general presumption against development in the countryside shown on the Proposals Map as 'Countryside Area of Development Restraint'.

Effect The whole scheme would be within the 'Countryside Area of Development Restraint'. Since the proposals are for an on-line widening of an existing trunk road, they would not constitute the development of a new element in the countryside.

16.4.2.2 Policy Number: CM2/2

Summary Within an Area of Outstanding Natural Beauty the aim to conserve natural beauty is regarded as the overall priority and particular attention would be paid to siting, design, materials and screening of developments in order to ensure that they do not detract from its landscape quality.

Effect The scheme is within the St Leonard's Forest District of the High Weald Area of Outstanding Natural Beauty. The effect of the scheme on the landscape character and quality of the area would be slight. Since the widening would be mostly on-line, the improved road would not be a new element in the landscape although its increased scale would be apparent from some viewpoints. The introduction of lighting would at night be a new element in an otherwise dark rural setting.

Extensive landscaping would be carried out to mitigate the impact of the scheme on the landscape of the area generally and from individual viewpoints.

16.4.2.3 *Policy Number: CM2/4*

Summary Development would not normally be permitted which would involve the loss of high quality agricultural land (Grades 1, 2 or 3a), or which would adversely affect the established farm pattern, or lead to the subdivision of agricultural land into unproductive units

Effect The scheme would result in the loss of a total of 3.858 hectares of agricultural land, none of which is considered to be of 'prime' quality. The effect of the loss of land on individual farms would be slight. New means of access have been proposed where necessary to replace existing direct accesses from the A23.

16.4.2.4 *Policy Number: CM2/10*

Summary The Local Planning Authority would seek the retention and conservation of woodlands and hedgerows which are important in the landscape, or as natural habitats, or historically. Encouragement would be given to the proper management of the existing woodlands and hedgerows and to trees and hedgerow planting with appropriate species. Tree Preservation Orders would be made where trees are at risk and are of visual importance in the landscape, or in the villages themselves.

Effect The alignment of the scheme was selected and the design of the scheme has been developed to minimise its impact on the surrounding woodlands and hedgerows which are of landscape and nature conservation importance. No trees which are protected by TPOs would be affected.

16.4.2.5 *Policy Number: CM2/11*

Summary The Local Planning Authorities would not normally permit development proposals which have a detrimental impact on nature conservation interests and wildlife habitats. There would be a strong presumption against development on Sites of Special Scientific Interest, Nature Reserves, Ancient Woodland or other areas of importance to wildlife. Particular attention would be paid to the design and layout of any new development permitted in the plan area so as to minimise the impact on features of nature conservation importance and to take advantage of opportunities for habitat creation wherever possible.

Effect The alignment of the scheme was selected and the design of the scheme has been developed to reduce its impact on the areas of importance for nature conservation.

The most significant nature conservation impact would be the loss of approximately 1 hectare of mature woodland, especially the area of semi-natural ancient woodland of West Park that forms part of Orange Gill SNCI. The loss of other less mature woodland, hedgerows and verge vegetation would also be significant because these areas form an edge to, or link together the areas of ancient woodland and are therefore an integral part of the overall habitat. The loss of mature trees from the central reserve would be of minor ecological significance. Woodland management and extensive planting using native species is proposed to restore the woodland edge and create wildlife corridors. In some situations the proposals would result in long term nature conservation benefits. Two tunnel crossings and fencing would be provided to protect wildlife from road accidents without.

The proposed drainage system would improve water quality in the streams and protect the environment of the areas of special ecological interest from pollution. The reedbeds would create a useful additional wetland habitat.

16.4.2.6 *Policy Number: CM2/12*

Summary The Local Planning Authority would have regard to the archaeological merits of the site and where development would affect a site of archaeological interest, provision of adequate time and finance should be made by the developer to enable records to be made before the particular features of the site are lost. Development affecting the site or setting of a scheduled or other monument of national importance would be resisted.

Effect No archaeological site would be directly affected by the scheme.

16.4.3 **Chapter 3: The Built Environment**

16.4.3.1 *Policy Number: CM3/1*

Summary A high priority is placed on protecting Listed Buildings and their settings.

Effect The scheme would have no direct effect on any Listed Building.

16.4.3.2 *Policy Number: CM3/2*

Summary Particular attention is paid to the need to conserve the character and appearance of designated Conservation Areas. Trees and hedgerows should be retained. Where felling or removal is unavoidable, replanting would be required.

Effect The villages of Handcross, Slaugham, Staplefield and Warninglid all contain designated Conservation Areas. None of these areas would be directly affected by the scheme. However, there would be a slight visual impact from small parts of the conservation areas of Slaugham and Staplefield villages.

16.4.3.3 *Policy Number: CM3/6*

Summary Development would not normally be permitted at the expense of trees which have a significant public amenity value. Tree Preservation Orders would be made where trees are at risk and are of special importance in the locality.

Effect No trees which are protected by TPOs are affected.

16.4.4 Chapter 6: Community and Recreational Facilities

16.4.4.1 *Policy Number: CM6/3*

Summary There is a presumption against development which would involve the loss, or significant reduction of a public or private community or recreation facility.

Effect The scheme would not have any effect on any community or recreational facility. It is anticipated there would be a reduction in 'through' traffic in the communities.

16.4.4.2 *Policy Number: CM6/7*

Summary Development that would result in the loss of existing allotments would be resisted.

Effect There would be no effect on the allotments at Handcross Village.

16.4.4.3 *Policy Number: CM6/12*

Summary Development would not be permitted unless it can be adequately drained.

Effect The drainage proposals have been developed after consultation with the National Rivers Authority.

The culverts for the River Ouse and Anne's Wood Stream crossings would both be replaced. A new drainage system would be provided. The existing pattern of land and groundwater drainage would be maintained to avoid disturbing the hydrology of the area. All carriageway drainage would be piped through bypass interceptors to bunded reedbeds before discharge into the surrounding watercourses. This system would provide treatment of the highway drainage during normal conditions, allow containment of pollutants in the event of a spillage of toxic material, and attenuate flows to prevent flooding during storm conditions. The foul sewer would be diverted between Brighton Road, Handcross and the Sewage Works.

16.4.5 Chapter 7: Countryside Recreation & Tourism

16.4.5.1 *Policy Number: CM7/1*

Summary The District Council would seek to ensure that existing countryside recreation facilities and opportunities are retained and where appropriate improved.

Effect The scheme would not effect any recreational facilities except footpaths and cycleways as described in CM7/5 and CM7/6 below.

16.4.5.2 *Policy Number: CM7/5*

Summary The Local Planning Authority would seek to safeguard the footpath and bridleway network and would support appropriate proposals for its revision and extension.

Effect A continuous safety fence would be provided in the central reserve. No provision would be made for pedestrians to cross the A23 other than by the existing bridges at Handcross, Slaugham and Warninglid. Footpath S4 at Handcross would be closed, and footpath S15 would be diverted in the Stanbridge area to Slaugham Junction sharing use of the new private means of access.

16.4.5.3 *Policy Number: CM7/6*

Summary The Local Planning Authority would encourage the development of safe and attractive cycle facilities, including the establishment of a cycleway network within Mid Sussex District, incorporating non-segregated cycle routes.

Effects A new cycleway would be provided beside the northbound carriageway between Warninglid and Slaugham Junctions as part of the Brighton to Crawley cycle route. Continuation northwards would be by Slaugham Village or Staplefield Village using the local road network.

16.4.6 Chapter 8: Mobility and Car Parking

16.4.6.1 Policy Number: CM8/1

Summary Support is given in principle for the proposed improvement of the A23 between Handcross and Warninglid, subject to the selection of a satisfactory alignment and subject to appropriate measures being taken to minimise its environmental impact.

Effects The alignment of the preferred route was selected and the design of the scheme and mitigation measures have been developed to minimise the environmental impact of the proposals.

16.4.7 Chapter 13: Handcross

16.4.7.1 Policy Number: CM13/2

Summary A site on the western side of the Old Brighton Road (Handcross Southbound Slip Road) has been allocated for car parking.

Effect The scheme would not affect this proposal.

16.4.8 Chapter 16: The Smaller Settlements

16.4.8.1 Policy Number: CM16/1

Summary The villages of Slaugham and Staplefield are expressly excluded from the built up area definition. Countryside policies and where appropriate policies relating to Conservation Areas and AONBs are applicable.

Effect The effect of the scheme would be limited to a slight visual impact from a small area of the villages.

16.5 SUMMARY

- 16.5.1 Both West Sussex County Council and Mid Sussex District Council support the planned improvement of the A23 between Handcross and Warninglid in principle, but subject to the proposals having an acceptable effect on the environment.
- 16.5.2 The alignment of the scheme was selected, and the design of the scheme and mitigation measures have been developed to reduce the environmental impact on the area. The overall effect would be only slight, and the proposals are therefore generally in accordance with the policies of the local authorities concerned.

17.0 ENVIRONMENTAL IMPACT TABLES

17.1 INTRODUCTION

17.1.1 This section is a summary of the environmental assessment. The information is in tabular form and describes the likely impacts of the scheme, taking into account mitigation measures proposed.

17.1.2 Appraisal Groups

17.1.2.1 This summarises all the relevant impacts on Local People and Their Communities, Travellers, The Cultural and Natural Environment, and Policies and Plans.

17.1.3 Land Use Table

17.1.3.1 This table lists the existing land use and quantifies the areas of land required by the scheme. The future use of the land is described as well as land required during construction.

17.1.4 Mitigation Table

17.1.4.1 This table lists proposed measures for reducing the environmental impact of the scheme.

17.2 APPRAISAL GROUPS

1. Local People and their Communities
2. Travellers
3. The Cultural and Natural Environment
4. Policies and Plans

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS						
1.0 RESIDENTIAL	Properties Demolished	number	0	0							
		Noise									
		Ambient Noise Band	Increase in Noise Level	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15						
		50-60 dB(A)	15	0	0	0	0				
		60-70 dB(A)	40	1	0	0	0	0	0		
		>70 dB(A)	8	0	0	0	0	0	0	0	
		Ambient Noise Band	Increase in Nuisance Level	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%						
		50-60 dB(A)	29	0	0	0	0	0	0		
		60-70 dB(A)	40	3	0	0	0	0	0		
		>70 dB(A)	9	4	0	0	0	0	0		
	Ambient Noise Band	Decrease in Noise Level	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15							
	50-60 dB(A)	0	0	0	0	0	0	0			
	60-70 dB(A)	4	0	0	0	0	0	0			
	>70 dB(A)	0	0	0	0	0	0	0			
	Ambient Noise Band	Decrease in Nuisance Level	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%							
	50-60 dB(A)	0	0	0	0	0	0	0			
	60-70 dB(A)	4	0	0	0	0	0	0			
	>70 dB(A)	0	0	0	0	0	0	0			
	Location of Impact:										
	Substantial		Merrivale Country Gardens House Little Stanbridge	Country Gardens House Little Stanbridge	Merrivale Garage demolished						
	Moderate		East Park House (garden) East Park Cottage (garden) North Lodge Home Farm Stanbridge Place Stanbridge View	Stanbridge View Merrivale							

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
	Visual Impact (1st year winter)	Slight	Summer Hill East Park Farm House East Park Cottage Slaugham Park Stanbridge Farm Stanbridge House Stanbridge Grange Farm Slaugham Manor Hill House Farm	Summer Hill East Park Cottage and garden Stanbridge Farm Hill House Farm North Lodge East Park House and Garden Home Farm Stanbridge Place The Rectory Farm Hill East Park Farmhouse Slaugham Park Stanbridge House Slaugham Manor	
	Visual Impact (Year 15 summer)	Location of Impact: Substantial Moderate	Little Stanbridge Merrivale Country Gardens House Stanbridge View North Lodge Home Farm	Little Stanbridge Country Gardens House Merrivale Stanbridge View	

GROUP F: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
	Visual Impact (Year 15 summer)	Slight	East Park Cottage and Garden East Park House and Garden Stanbridge House Summer Hill East Park Farm House Stanbridge Place Slaugham Manor Slaugham Park Stanbridge Farm Hill House Farm Stanbridge Grange Farm	East Park Cottage and Garden East Park House and Garden Summer Hill Stanbridge Place Stanbridge Farm Hill House Farm Stanbridge Grange Farm North Lodge Home Farm Slaugham Park Stanbridge House East Park Farm House Slaugham Manor	
	None	None	Slaugham Park The Rectory Tarn Hill		
	Severance (a) Relief to existing severance (b) Imposition of new severance	Location of Severance	None East Park Farm, East Park Cottage, East Park House - direct access to A23 closed. Alternative access from B2114 Staplefield Road. Stanbridge House, Stanbridge Grange Farm, Stanbridge Farm, Stanbridge Place - direct access to A23 closed. Alternative access from East Park access at Slaugham Junction. Merrivale - direct access to A23 closed, alternative access from Garden Centre access.	N/A N/A N/A N/A	All direct access from the A23 would be closed off. All access to private property would be maintained until the alternative accesses have been constructed.

GROUP F: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
	Disruption due to Construction	Location of Disruption	East Park Farm East Park Cottage East Park House East Park Wood Merrivale Stanbridge Place Country Gardens House Summer Hill Little Stanbridge Slaugham Park (West Park Wood) Stanbridge View	N/A	
2.0 COMMUNITY FACILITIES	Properties Demolished	Number	0	0	
	Noise	Ambient Noise Band	Increase in Noise Level	Increase in Noise Level	
		50-60 dB(A)	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15	
		60-70 dB(A)	0 0 0 0 0	0 0 0 0 0	
		>70 dB(A)	1 0 0 0 0	0 0 0 0 0	Church
		Ambient Noise Band	Increase in Nuisance Level	Increase in Nuisance Level	
		50-60 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%	
		60-70 dB(A)	0 0 0 0 0	0 0 0 0 0	
		>70 dB(A)	1 0 0 0 0	1 0 0 0 0	Church
		Ambient Noise Band	Decrease in Noise Level	Decrease in Noise Level	
		50-60 dB(A)	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15	
	60-70 dB(A)	N/A	N/A		
	>70 dB(A)				
	Ambient Noise Band	Decrease in Nuisance Level	Decrease in Nuisance Level		
	50-60 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%		
	60-70 dB(A)	N/A	N/A		
	>70 dB(A)				
	Visual Impact (1st year winter)	Location of Impact: Substantial Moderate Slight	None None Church	N/A N/A N/A	

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
3.0 INDUSTRIAL	Visual Impact (Year 15 summer)	Location of Impact: Substantial Moderate Slight	None None Church	N/A N/A N/A	
	Severance a) Relief of existing severance b) Imposition of new severance	Location of Severance	None None	N/A N/A	
	Disruption during Construction	Location of Disruption	None	N/A	Church
	Properties Demolished	Number	0	0	
	Noise	Ambient Noise Band	Increase in Noise Level	Increase in Noise Level	
		50-60 dB(A)	1-<3 3-<5 5-<10 10-<15 >15	1-<3 3-<5 5-<10 10-<15 >15	
		60-70 dB(A)	0 0 0 0 0	0 0 0 0 0	
		>70 dB(A)	1 0 0 0 0	1 0 0 0 0	
		Ambient Noise Band	Increase in Nuisance Level	Increase in Nuisance Level	
		50-60 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%	
	60-70 dB(A)	N/A	N/A		
	>70 dB(A)				
	Ambient Noise Band	Decrease in Noise Level	Decrease in Noise Level		
	50-60 dB(A)	1-<3 3-<5 5-<10 10-<15 >15	1-<3 3-<5 5-<10 10-<15 >15		
	60-70 dB(A)	0 0 0 0 0	0 0 0 0 0		
	>70 dB(A)	0 0 0 0 0	0 0 0 0 0		
	Ambient Noise Band	Decrease in Nuisance Level	Decrease in Nuisance Level		
	50-60 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%		
	60-70 dB(A)	N/A	N/A		
	>70 dB(A)				
	Visual Impact 1st Year Winter	Location of Impact: Substantial	None	N/A	

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
INDUSTRIAL (Cont)		Moderate Slight	Unit on Brighton Road None	N/A N/A	
	Visual Impact Year 15 Summer	Location of Impact: Substantial Moderate Slight	None None None	N/A N/A N/A	
	Severance a) Relief to existing severance b) Imposition of new severance Disruption due to Construction	Location of Severance Location of Disruption	None Footpath S4 at Handcross would be closed None	None None	
4.0 COMMERCIAL	Properties Demolished	Number	0	0	
	Noise	Ambient Noise Band	Increase in Noise Level	Increase in Noise Level	
		50-60 dB(A)	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15	
		60-70 dB(A)	1 0 0 0 0	1 0 0 0 0	
		>70 dB(A)	2 0 0 0 0	2 0 0 0 0	
		Ambient Noise Band	3 0 0 0 0	1 0 0 0 0	
		50-60 dB(A)	Increase in Nuisance Level	Increase in Nuisance Level	
		60-70 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%	
		>70 dB(A)	N/A	N/A	
		Ambient Noise Band	Increase in Noise Level	Increase in Noise Level	
	50-60 dB(A)	1-3 3-5 5-10 10-15 >15	1-3 3-5 5-10 10-15 >15		
	60-70 dB(A)	0 0 0 0 0	0 0 0 0 0		
	>70 dB(A)	0 0 0 0 0	0 0 0 0 0		
	Ambient Noise Band	Increase in Nuisance Level	Increase in Nuisance Level		
	50-60 dB(A)	<20% 20-30% 30-40% >40%	<20% 20-30% 30-40% >40%		
	60-70 dB(A)	N/A	N/A		
	>70 dB(A)				

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
COMMERCIAL (Cont)	Visual Impact (1st Year Winter)	Location of Impact: Substantial Moderate Slight	Handcross Garden Centre Happy Eater Handcross Market Garden None	Handcross Garden Centre Happy Eater None Handcross Market Garden	
	Visual Impact (Year 15 Summer)	Location of Impact: Substantial Moderate Slight	Happy Eater Handcross Garden Centre Stanbridge View (Nursery) Handcross Market Garden Stanbridge Farm (Recording Studio)	Happy Eater Handcross Garden Centre Stanbridge View (Nursery) Handcross Market Garden Stanbridge Farm (Recording Studio)	
	Severance a) Relief to existing severance b) Imposition of new severance	Location of Severance	None Direct access from A23 to Handcross Market Garden closed. Alternative access from B2114 Staplefield Road. None - Happy Eater None - Handcross Garden Centre	N/A N/A	
	Disruption during Construction	Location of Disruption	Handcross Market Garden Happy Eater Handcross Garden Centre Stanbridge View (Nursery) Stanbridge Farm (Recording Studio)	N/A	
5.0 COMMUNITIES	Properties Demolished	Number	0	0	
	Noise				
	Visual Impact (1st Year Winter)	Location of Impact: Substantial Moderate	None Handcross Village East Handcross Village West	0 No change No change	

GROUP F: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
COMMUNITIES (Cont)		Location of Impact: Slight	Five Ways Properties on Cuckfield Way Staplefield Village	Five Ways Properties on Cuckfield Way Staplefield Village Handcross Village East Handcross Village West Slaughton Village Properties beside Staplefield Road	
	Visual Impact (Year 15 Summer)	Location of Impact: Substantial Moderate Slight	None None Handcross Village East Handcross Village West Five Ways Properties on Cuckfield Way Staplefield Village	None None Handcross Village East Handcross Village West Five Ways Properties on Cuckfield Way Staplefield Village	
	Severance (a) Relief to Existing Severance (b) Imposition of New Severance Disruption during Construction	Location of Severance Location of Disruption: Substantial Moderate Slight None	None Footpath S4 None None Traffic using Slaughton-Staplefield Road would be subject to restrictions during construction. None	None N/A No change No change No change No Change	Footpath S4 at Handcross would be closed

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
6.0 RESIDENTIAL	Lighting	Location of Impact: Substantial	Merrivale Little Stanbridge Country Gardens House	Merrivale Country Gardens House Stanbridge View Stanbridge Place	Considerable visual effects of light spillage at night and light columns during day.
		Moderate	East Park House (Garden) East Park Cottage (Garden) North Lodge Home Farm Stanbridge Place Stanbridge View	East Park House (Garden) East Park Cottage (Garden) North Lodge Home Farm	Lighting significant at night Lighting significant at night
		Slight	Summer Hill East Park House East Park Cottage Slaughtam Park Stanbridge Farm Stanbridge Stanbridge Grange Farm Slaughtam Manor Hill House Farm East Park Farm House	Slaughtam Place Hill House Farm Stanbridge Grange Farm Stanbridge Farm Slaughtam Park Summer Hill	Lighting would be visible
		None	The Rectory Tarn Hill	East Park Farm House The Rectory Tarn Hill	Effect of road lighting significant
7.0 COMMERCIAL	Lighting	Location of Impact: Substantial Moderate Slight	Handcross Garden Centre Happy Eater Handcross Market Garden None None	Handcross Garden Centre Happy Eater Handcross Market Garden None	Lighting would have no significant effect

GROUP 1: LOCAL PEOPLE AND THEIR COMMUNITIES

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
8.0 INDUSTRIAL	Lighting	Location of Impact: Substantial Moderate Slight	None None Unit on Brighton Road	None Unit on Brighton Road None	
9.0 COMMUNITIES	Lighting	Location of Impact: Substantial Moderate Slight None Slight Benefit	Handcross Village East Handcross Village West Fiveways Properties on Cuckfield Way Staplefield Village Slaugham Village Slaugham Village Properties beside Staplefield Road Slaugham Village Properties beside Staplefield Road Handcross Village East/West	Handcross Village East Fiveways Properties on Cuckfield Way Staplefield Village Slaugham Village Properties beside Staplefield Road	Low pressure sodium changed to high pressure sodium with cut-off lampheads.

GROUP 2: TRAVELLERS

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
1.0 TRAVELLERS AMENITY VEHICLE USERS AMENITY	View from the Road	Location: Handcross-Slaugham Junction	Attractive countryside typical of St Leonard's Forest district of the High Weald AONB. Central Weald Plateau (south) zone steep, narrow wooded valley. Proposals would result in: - some scarring to canopy which would be reinstated on proposed planting. - The Works would open up views from the road on northbound slip road to Handcross. The realignment to southbound slip road at Slaugham Junction would open up an attractive view of fields surrounded by mature woodland to the south of East Park. - Removal of mature trees from central reservation would increase visibility along line of the route.	Attractive countryside typical of St Leonard's District on the High Weald AONB. - Central Weald Plateau (south) zone steep narrow wooded valley, mainly deciduous woodland prevents lateral views. - View southwards from Handcross Junction across Ouse Valley restricted by bends in road opposite East park. - Trees in central reservation contribute to enclosure and visual continuation of woodland from West Park - East Park Woods.	The increased scale and altered character of the road would be very apparent. The loss of the mature central reserve trees would accentuate the width of the road corridor. The pleasure of passing through the attractive countryside of High Weald AONB, however, would remain largely unaltered.
		Location: Slaugham Junction Warminglid Tie In	Weald Intermediate Zone Undulating landform, wooded slopes and hedgerows surrounding farm and pasture arable land. Loss of vegetation due to proposals between Slaugham Junction and the Happy Eater will open up views over farmland in the short term. Proposed planting will screen views in long term.	-Weald Intermediate Zone - undulating landform, wooded slopes and hedgerows surrounding permanent pasture and arable land. -Views out restricted by mature hedgerows. Where the road crosses the east ridge of Mill Hill becomes elevated thus allowing views both north and south. -Views north-eastwards across Ouse Valley between Happy Eater and Warminglid Junction.	

GROUP 2: TRAVELLERS		EFFECTS		UNITS		THE SCHEME		EXISTING ROAD		COMMENTS	
SUB GROUP					Location						
2.0 PEDESTRIANS AND EQUESTRIANS AMENITY	Severance (new)					Slaugham 4 Slaugham 15 (a short length)	No change No change		Footpath S4 at Handcross would be closed. No provision would be made to cross the A23 at Road level. Existing steps encourage unsafe crossing of road		
	Change in Amenity					Slaugham 4 - closed off	No change		Usage may change as a result of alterations to other routes.		
	Public Right of Way: Footpath					Slaugham 7a and 7b no direct impact	No change				
	Public Right of Way: Bridlepath					Slaugham 9 route shortened by a few metres	No change				
	Public Right of Way: Footpath					Slaugham 14 link to Slaugham 15 redirected via PMA to Stanbridge	No change				
	Cycleway					Improved		Brighton to southern Boundary of scheme complete.	A new cycleway would be provided between Warminglid and Slaugham Junction as part of the planned Brighton to Crawley cycle route, which would also give pedestrian access to properties on the west side of the road.		
	Community effects					None	No change		There will be no effect on access to community facilities.		
3.0 TRAVELLER AMENITY VEHICLE USERS AMENITY	Driver Stress					Handcross to Slaugham Junction (southbound)					
		Average hourly flow per lane, in flow units/hour				Average Journey Speed km/hr		Average Journey Speed km/hr			
		Under 1200 1200 - 1600 Over 1600				Under 60 60-80 Moderate High High	Under 60 High High High	Under 80 Over 80 Low Moderate Moderate High			

GROUP 2: TRAVELLERS

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
	Driver Stress (cont)	Average hourly flow per lane, in flow units/1 hour Under 1200 1200 - 1600 Over 1600	Slaughham Junction to Warminglid (southbound) Average Journey Speed km/hr Under 60 High High High Handcross to Slaughham Junction (northbound) Average Journey Speed km/hr Under 60 High High High	Average Journey Speed km/hr Under 60 High High High Average Journey Speed km/hr Under 60 High High High	Over 80 Low Moderate High Over 80 Low Moderate High Average Journey Speed km/hr Under 60 High High High Over 80 Low Moderate High Average Journey Speed km/hr Under 60 High High High Over 80 Low Moderate High
		Average hourly flow per lane, in flow units/1 hour Under 1200 1200 - 1600 Over 1600	Slaughham Junction to Warminglid (northbound) Average Journey Speed km/hr Under 60 High High High	Average Journey Speed km/hr Under 60 High High High	Over 80 Low Moderate High Average Journey Speed km/hr Under 60 High High High Over 80 Low Moderate High
		Average hourly flow per lane, in flow units/1 hour Under 1200 1200 - 1600 Over 1600	Slaughham Junction to Warminglid (northbound) Average Journey Speed km/hr Under 60 High High High	Average Journey Speed km/hr Under 60 High High High	Over 80 Low Moderate High Average Journey Speed km/hr Under 60 High High High Over 80 Low Moderate High

The improvement of the road alignment and reduction in congestion would reduce driver stress.

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
<p>1.0 SCHEDULED ANCIENT MONUMENTS</p> <p>1 Slaughtam Place National Importance Scheduled Ancient Monument Grade II Listed Building Grade II listed English Heritage RPGE MSDC Archaeological Sensitive area</p>	<p>Visual impact (yr 1 winter) Noise Severence</p>		<p>Slight Slight None</p>	<p>None No Change None</p>	<p>Summer year 15 proposed planting will significantly reduce visual impact.</p>
<p>2.0 ARCHAEOLOGICAL SITES LISTED IN SMR</p> <p>1 Slaughtam Mill Regional Importance MSDC Archaeological Sensitive Area Grade II Listed Building</p> <p>2 St Mary's Parish Church Slaughtam Regional Importance Grade II Listed Building MSDC Archaeological Sensitive Area MSDC Conservation Area</p> <p>3 Slaughtam Park Regional Importance WSOC Historic Parkscape Grade II Listed Building</p> <p>4 Nymans House, Gardens and Estate National Importance Grade II Listed English Heritage RPGE Grade II Listed Building EN Inventory Ancient Semi-natural Woodland (part) National Trust Ownership (part) MSDC Conservation Area (part)</p>	<p>Visual Impact Noise Severence</p> <p>Visual Impact Noise Severence</p> <p>Visual Impact Noise Severence</p>		<p>None None None</p> <p>Slight Slight None</p> <p>Slight Slight None</p> <p>Slight Slight None</p> <p>Slight Slight (in Gardens) Direct access to East Park Properties from A23 severed, alternative access provided from B2114.</p>	<p>None None None</p> <p>None No change None</p> <p>None No Change None</p> <p>None No change None</p>	<p>Summer year 15 proposed planting will significantly reduce visual impact.</p>

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
<p>5 Blackford Furnace Regional Importance MSDC Archaeological Sensitive Area</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>6 Roman Alter Stone, Nymans Regional Importance</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>7 Hillhouse Farm, Roman Pottery Local Importance</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>8 Staplefield Place (now school) Regional Importance</p>	<p>Visual Impact Noise Severance</p>		<p>Slight None None</p>	<p>None None None</p>	
<p>9 Stanbridge Grange Regional Importance</p>	<p>Visual Impact Noise Severance</p>		<p>Slight Slight None</p>	<p>No change No change None</p>	
<p>10 Southland Farm Local Importance (Palaeolithic Hand Axe)</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>11 Kinastonough House Local Importance (Roman Coin) Archaeological Sites Listed in SMR</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>12 Truggers Local Importance (Prehistoric Flint Pick)</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	
<p>13 Southlands Farm Local Importance (mesolithic, neolithic bronze age flints)</p>	<p>Visual Impact Noise Severance</p>		<p>None None None</p>	<p>None None None</p>	

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
<p>3.0 CONSERVATION AREAS</p>					
<p>1 Hindcross Eastern half designated a Conservation Area in 1990</p>	<p>Visual Impact Noise Severence</p>		<p>Slight benefit Slight benefit Slight benefit</p>	<p>None No change None</p>	<p>Change from low pressure sodium lighting to high pressure sodium with cut-off lampheads</p>
<p>2 Warmingid Designated a Conservation Area in 1969</p>	<p>Visual Impact Noise Severence</p>		<p>No change No change No change</p>	<p>None None None</p>	
<p>3 Staplefield Designated a Conservation Area in 1984</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change No change</p>	<p>None None None</p>	<p>Impact will be reduced by summer year 15.</p>
<p>4 Slaughtam Designated a Conservation Area in 1984</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change No change</p>	<p>No change No change No change</p>	
<p>4.0 LISTED BUILDINGS OF SPECIAL ARCHITECTURAL OR HISTORIC INTEREST</p>					
<p>1 St Mary's Parish Church, Slaughtam Grade II MSDC Archaeological Sensitive Area Slaughtam Conservation Area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change None</p>	<p>No change No change None</p>	
<p>2 Rock Cottage, Slaughtam Grade II Slaughtam Conservation Area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change None</p>	<p>No change No change None</p>	<p>Lighting visible in winter.</p>
<p>3 Bosworths, Slaughtam Grade II Slaughtam Conservation Area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change None</p>	<p>No change No change None</p>	<p>Lighting visible in winter</p>

GROUP 5: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
4 Chandry House, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		None No change None	No change No change None	
5 The Green, Slaughtam Grade II Slaughtam Conservation Area (18th Century Cottage)	Visual Impact Noise Severence		None No change None	No change No change None	
6 The Green, Slaughtam Grade II Slaughtam Conservation Area (17th Century two storey house)	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible in winter
7 Foyles, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		Slight No change None	No change No change None	
8 Nos 1 & 3 Boswordis Cottages, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		None No change None	No change No change None	
9 Kent Cottage, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible in winter
10 Nos 1 & 3 Carpenters Arms, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible in winter
11 The Green, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible in winter
12 Gunners, Slaughtam Grade II Slaughtam conservation Area	Visual Impact Noise Severence		Slight No change None	No change No change None	Restricted view of lighting in winter

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
13 Nos 1 & 2 The Cottage, Slaughtam Grade II Slaughtam Conservation Area	Visual Impact Noise Severence		None No change None	No change No change None	
14 Naylands, Slaughtam Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Significant effect of road lighting.
15 Slaughtam Place Grade II Scheduled Ancient Monument Grade II Listed English Heritage RPGI MSDC Archaeological Sensitive Area	Visual Impact Noise Severence		Slight No change None	No change No change None	Impact of road when viewed from garden.
16 The Moat House, Slaughtam Place Grade II Grade II Listed English Heritage RPGE	Visual Impact Noise Severence		Slight No change None	No change No change None	Impact of road will become slight by summer year 15. Lighting visible at night.
17 Starbridge Farm Grade II	Visual Impact Noise Severence		Moderate No discernible change None	No change No change None	Lighting visible at night
18 Old Park Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Increased scale of road is illuminated at night evident.
19 Cold Harbour, Warringild Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible at night.
20 Knaresborough House, Warringild Grade II	Visual Impact Noise Severence		None No change None	No change No change None	
21 Fildays Farmhouse, Warringild Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	

GROUP 5: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
22 Hillsbury, Handcross Grade II	Visual Impact Noise Severence		None No change None	No change No change No change	
23 Royal Oak Public House, Handcross Grade II	Visual Impact Noise Severence		None No change None	No change No change None	
24 Nymmer's House, Handcross Grade II Grade II Listed English Heritage RPCIE WSCC Historic Parkscap National Trust Ownership	Visual Impact Noise Severence		Slight No change None	No change No change None	
25 Slaughterham Park House Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	
26 Whitehouse Farm Grade II	Visual Impact Noise Severence		None No change None	No change No change None	
27 Whitehouse Cottage Grade II	Visual Impact Noise Severence		No change No change None	No change No change None	Lighting visible at night.
28 North Hall Cottage Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible at night.
29 North Hall Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible at night.
30 Barn (North Hall) Grade II	Visual Impact Noise Severence		Slight No change None	No change No change None	Lighting visible at night.

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
<p>31 The Jolly Tanners, Staplefield Grade II</p>	<p>Visual Impact Noise Severence</p>		<p>No change No change None</p>	<p>No change No change None</p>	<p>Lighting extensively visible at night.</p>
<p>32 Farthings, Handcross Grade II</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change None</p>	<p>No change No change None</p>	
<p>5.0 ENGLISH HERITAGE REGISTER OF PARKS AND GARDENS OF SPECIAL HISTORICAL INTEREST IN ENGLAND (RPGE)</p>					
<p>1 Nymen's House and Gardens Grade II National Importance Grade II Listed English Heritage RPGE WSOC Historic Parkscap Grade II Listed Building EN Inventory Ancient Semi-Natural Woodland National Trust Ownership (part) MSDC Conservation area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight Slight (woodland) Direct access to east Park from A23 severed. Alternative access from B2114.</p>	<p>No change No change None</p>	
<p>2 Slaughtam Place Grade II National Importance Scheduled Ancient Monument Grade II Listed Building Grade II Listed English Heritage RPGE MSDC Archaeological Sensitive Area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight Slight None</p>	<p>No change No change None</p>	

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB-GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
<p>6.0 HISTORIC PARKSCAPES LISTED BY WEST SUSSEX COUNTY COUNCIL</p> <p>1 Nymans House and Gardens Grade II National Importance Grade II Listed English Heritage RPGE WSOC Historic Parkscapes Grade II Listed Building EN Inventory Ancient Semi-Natural Woodland National Trust Ownership (part) MSDC Conservation area</p>	<p>Visual Impact Noise Severence</p>		<p>Slight Slight (woodland) Direct access to east Park from A23 severed. Alternative access from B2114.</p>	<p>No change No change None</p>	
<p>2 Staplefield Place (now school) Regional Importance</p>	<p>Visual Impact Noise Severence Visual Impact Noise Severence</p>		<p>Slight Not discernible None Slight No change None</p>	<p>No change No change None No change None</p>	
<p>3 Stanbridge Grange Regional Importance WSOC Historic Parkscapes</p>					
<p>7.0 NATIONAL TRUST PROPERTY</p> <p>1a Nymans House and Gardens National Importance Grade II Listed English Heritage RPGE WSCE Historic Parkscapes Grade II Listed Building EN Inventory Ancient Semi-Natural Woodland National Trust Ownership (part) MSDC Conservation Area</p> <p>b) Nymans Estate (not including house and garden) WSOC Historic Parkscapes EN Inventory Ancient Semi-Natural Woodland</p>	<p>Visual Impact Noise Severence</p>		<p>Slight No change None</p>	<p>No change No change None</p>	<p>Landsake 0.473 ha for road construction.</p>

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
8.0 ST LEONARD'S FOREST DISTRICT OF THE HIGH WEALD AONB	Landscape Landscape Effect	Total ha Agriculture ha Residential ha (gardens) Commercial ha (not including East Park House-in residential) Woodland ha	6.59 3.858 0.969 1.220 0.542	No change No change No change No change No change	All areas of landtake within AONB. The proposed widening would be mostly on-line and would necessitate only limited disturbance beyond the present highway, the impact of the scheme on the landscape character of the area would be slight. Realignment of the carriageways at East Park and the loss of mature central reserve trees would accentuate the line of the road through the woodland of Handcross Hill when viewed from the south. Disturbance to the existing verge planting would initially result in traffic becoming more visible than at present. Views of the road would continue to be filtered by intervening vegetation, except for a few properties adjacent to the road, the effect would be slight.

GROUP 5: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
9.0 NATURE AND LANDSCAPE					The introduction of lighting would add a new element that would detract from the rural setting of the road. During daytime the columns would only be visible from a few properties close to the road, but at night the lighting would be visible from a wide area.
a) Ancient Woodland	Area of land lost	East Park Wood (North) ha	0.393	No change	New PMA - East Park Properties goes through East Park Wood.
		East Park Wood (South) ha	0.069		
		West Park Wood ha (Orange Gill Wood)	0.135	No change	A narrow strip of landlake would be included from the Ancient Woodland. No individual rarities were found and the affected area is relatively small, therefore its loss would be critical to the viability of the remaining habitat.
b) Replanted Ancient Woodland	Area of land lost	ha	0	No change	
c) Site of Nature Conservation Importance	Area of land lost	West Park Wood ha (Orange Gill Wood)	0.135	No change	

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB-GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
d) Other Mature Woodland and Hedgerow	Area of land lost	Fast Park Wood (Gardens of house) ha	0.314	No change	Landtake for excavation of cutting on East side of the road.
		West Park Wood ha	0.240	No change	0.170 ha of Conifer plantation, 0.070 ha of Mature Mixed Woodland lost.
		Anne's Wood ha	0.318	No change	New access road to Slanbridge would result in loss of Woodland and the mature hedgerow at its junction with the Slaughtam-Slapfield Road.
		Slanbridge Access Road ha	0.036	No change	
e) Tree Preservation Orders	Number	Central Reservation (no. of trees lost)	49	No change	29 oak, 16 beech, 3 ash, 1 holly. The loss of mature trees from the central reservation would be of minor ecological significance.
	Number	West Verge (no. of trees lost)	17	No change	8 lime, 5 oak, 2 birch, 1 crack willow, 1 false acacia.
		SV/ITPO:84	No effect	No change	Individual tree in the grounds of the Red House at the southern edge of Handkross Hill.
		SV/ITPO:89	No effect	No change	Group of trees on Mill Hill, Slaughtam Manor.

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
f) Highway Verge Planting	Area of land lost	ha	3.650	No change	Proposals would result in loss of some highway verge.
g) Scrub	Area of land lost	ha	0.882	No change	Landtake for realignment of the northbound slip road to Handross and service road and reedbed at Country Gardens.
h) Hedges: Maintained Hedges Old Hedgerows	Linear metres lost Linear metres lost	1,325 m 20 m	No change No change	Removal of hedges: North Lodge - West Park Wood East Park Garden - East Park Wood Slaughnam Northbound slip road River Ouse Crossing West Country Gardens - Happy Eater Stanbridge Stream - change 3075 east Stanbridge View	
i) Agricultural Land	Area of land lost	ha	3.858	No change	2.465 ha improved pasture 1.393 ha semi improved pasture
j) Amenity Grassland	Area of land lost	ha	0.467	No change	There would be an increase in carriageway run off compared with the existing road.
k) Watercourses	Reedbed Interceptors	ha	0.30	None	Discharge would be from northbound Slaughnam slip road via an interceptor and a reedbed.
	Location	Orange Gill		No change	

GROUP 3: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
		River Ouse linear metres	15 m	No change	Existing surface water drains would be replaced by a single outfall. Existing culvert under the A23 replaced and extend eastwards to provide crossing for new PMA to Stanbridge.
		Anne's Wood Stream linear metres	5 m	No change	Existing surface water drains would be replaced by a single outfall.
		East Park Stream linear metres regraded	210 m	No change	Existing culvert under A23 replaced and extended eastwards to provide crossing for new PMA to Stanbridge.
		Garden Centre Stream/Stanbridge Stream linear metres regraded	375 m	No change	Discharge would be from south of Slaughter Junction via an interceptor and a reedbed. Flows to be returned to those prior to the Warringid-Sayers Common scheme.
					Stanbridge Stream would be terminated on highway boundary, outfall from Warringid - Sayers Common scheme redirected under A23 and discharged through oil interceptor and reedbed into Garden Centre stream.

GROUP 5: THE CULTURAL AND NATURAL ENVIRONMENT

SUB GROUP	EFFECTS	UNITS	THE SCHEME	EXISTING ROAD	COMMENTS
l) Badgers	General Effect		Crossing points provided	No change	The proposed drainage system would improve the water quality in the watercourses and protect the environment of areas of special ecological interest. Badger proof fencing to be erected along highway boundary. Funnels to be provided at known crossing points.
m) Deer			No change	No change	The impact of the scheme would be minimal.
n) Geology and Soils			Minimal	No change	There would be a slight increase in carbon dioxide, but a significant drop in levels of other exhaust gasses.
o) Air Quality			Slight	No change	

GROUP 4: POLICIES AND PLANS

POLICY	AUTHORITY	INTEREST	THE SCHEME	EXISTING ROAD	COMMENTS
1a) Structure Plan Policy Number T2	West Sussex CC	Encourage completion of improvement of A23 subject to acceptable environmental effect.	The scheme would be the final section of the improvement of the M23/A23 route between London-Brighton. The overall environmental effect would be slight. Mitigation measures are proposed which in some cases would produce environmental gains.	No change	
1b) Local Plan Policy Number CM8/1	Mid Sussex DC	Improvement of A23 subject to environmental constraints	The alignment of the preferred route was selected and the design of the scheme and mitigation measures have been developed to minimise the environmental impact of the scheme. The overall effect would be slight.	No change	
2 Structure Plan Policy Number T1	West Sussex CC	Encourage use of strategic route	The scheme would reduce congestion and provide capacity to meet projected traffic growth to 2015. This would encourage use of the route in preference to local roads.	Congestion would increase with growth in traffic, and would lead to increased use of local roads.	
3 Structure Plan Policy number T4	West Sussex CC	Measures to reduce accidents, improve flow of traffic, reduce problems caused by heavy vehicles, improve facilities for pedestrians and cyclists and improve quality of the environment.	The scheme would provide a high standard route designed to meet present and future traffic flows, and improvements in the roads alignment and substructural features would reduce accidents. One redundant footpath would be closed and another diverted, but a new route would be created for pedestrians and cyclists between Warmingflid and Slaughtam junctions. Measures to improve water quality and protect badgers would be undertaken.	Traffic congestion, delays and accidents would continue to increase with traffic growth.	
4a) Structure Plan Policy number G4	West Sussex CC	Infrastructure to support development.	The scheme would complete the improvement of the A23 Trunk Road between London-Brighton and support the development policies for the county.	Traffic congestion, and delays would continue to increase and have an adverse effect on development.	The present alignment and carriageway provision is inadequate for existing traffic volumes.

GROUP 4: POLICIES AND PLANS

POLICY	AUTHORITY	INTEREST	THE SCHEME	EXISTING ROAD	COMMENTS
4b) Local Plan Policy number CM7/1, CM7/5 and CM7/6	Mid Sussex DC	Retention and development of informal countryside recreation.	One redundant footpath would be closed and another diverted, but a new route would be provided for cyclists and pedestrians between Warminglid and Slaughtam Junctions.	No change	
5a) Structure Plan Policy number C1	West Sussex CC	Development in the countryside	A relatively small area of land would be required mostly for environmental mitigation works	No change	The scheme is an on-line improvement of an existing major road through the countryside.
5b) Local Plan Policy number CM2/1	Mid Sussex DC	Restraint of development in the countryside	The scheme is in the 'countryside' but as an on-line widening would not be considered as a new development.	n/a	
5c) Local Plan Policy number CM6/3	Mid Sussex DC	Protection of community or recreational facilities	No change	No change	
6a) Structure Plan Policy number G1	West Sussex CC	Protecting and improving the environment	The route selection, design, development and mitigation measures seek to minimise environmental effects. The drainage scheme would protect from pollution and improve water quality in watercourses.	Environmental conditions would continue to deteriorate with traffic growth.	
6b) Local Plan Policy number CM6/12	Mid Sussex DC	Provision of adequate drainage	The new system would improve water quality in streams and protect environment from pollution. Culverts would be replaced.	No change - the surrounding level would continue to be at risk from pollution.	
7 Structure Plan Policy number G8	West Sussex CC	Transportation	The scheme would relieve congestion and meet high traffic growth predictions to 2013. The scheme would improve access between the coastal districts and central Sussex.	Traffic congestion, delays and accidents would continue to increase with traffic growth.	The present alignment and carriageway provision is inadequate for existing traffic volumes. The proposal is one of a number of schemes to improve transportation for which the Department of Transport, Highways Agency and Local Authorities are responsible.

GROUP 4: POLICIES AND PLANS				COMMENTS	
POLICY	AUTHORITY	INTEREST	THE SCHEME	EXISTING ROAD	
8a) Structure Plan Policy number T6	West Sussex CC	Provision of motorists facilities	The scheme would improve access to the Happy Eater restaurant. Lay-bys used by mobile snack bars would be removed.	Access to the Happy Eater would get more difficult with traffic growth. Use of lay-bys by mobile snack bars and wide verges for informal parking would become increasing problem with traffic growth. No change	
8b) Local Plan Policy number CM102	Mid Sussex DC	Proposed car park at Brighton Road, Handcross	No change	No change	
9a) Structure Plan Policy number C3	West Sussex C	Areas of importance for nature conservation	There would be a landtake of 0.135 hectares from Orange Gill SNCI. No rare or protected species would be affected, and the loss would not be critical to the viability of the remaining Wood.	No change - the area would continue to be at risk from pollution from the highway.	The alignment of the route and development of the scheme design sought to minimise the impact on this area. Woodland management and planting would be undertaken to restore the woodland edge. The drainage proposals would maintain the existing hydrological features of Orange Gill and protect the watercourses from pollution from the highway.
9b) Local Plan Policy number CM2/11	Mid Sussex DC	Protection of areas of ecological and nature conservation importance	There would be a landtake of 0.135 hectares from Orange Gill SNCI. No rare or protected species would be affected, and the loss would not be critical to the viability of the remaining Wood.	No change - the area would continue to be at risk from pollution from the highway.	
10a) Structure Plan Policy number C2	West Sussex CC	Areas of Outstanding Natural Beauty and their setting.	The effect of the scheme on the landscape character and quality of the High Weald AONB would be slight.	No change	
10b) Local Plan Policy number CM2/2	Mid Sussex DC	Area of outstanding Natural Beauty	The effect of the scheme on the landscape character and quality of the High Weald AONB would be slight	No change	

GROUP 4: POLICIES AND PLANS

POLICY	AUTHORITY	INTEREST	THE SCHEME	EXISTING ROAD	COMMENTS
11a) Structure Plan Policy number C14	West Sussex CC	Conservation of landscape and wildlife habitats	<p>Because the scheme is mostly on-line the effect on the landscape character and quality of the area would only be slight. Apart from a few properties close to the road the visual impact would only be slight. At night the area of visual impact would be increased by the introduction of lighting which would detract from the rural character of the area.</p> <p>The alignment of the preferred route and development of the scheme design has sought to minimise the impact on wildlife habitats. The main effect would be the loss of ancient woodland including part of Orange Gill SSSI. The effects would be mitigated by planting to restore woodland edges and create wildlife corridors. The drainage system would protect the hydrology and water quality of the area. Badgers would be protected.</p> <p>Some land owned by the National Trust would be required which is not of special heritage value. There would be a slight visual impact on some sites of heritage importance but their historic setting would not be altered.</p>	<p>Slight change resulting from increase in traffic volume.</p> <p>The water courses would remain at risk from pollution.</p> <p>Badgers would remain unprotected.</p>	<p>Several of the areas of nature conservation interest adjacent to the A23, including Orange Gill would benefit from management aimed to enhance their habitat potential. This is beyond the powers of the Highways Agency.</p>
11b) Local Plan Policy number CM6/6	Mid Sussex DC	Protection of trees	<p>No trees protected by TPOs are affected</p>	<p>No change</p>	
11c) Local Plan Policy number CM6/7	Mid Sussex DC	Protection of allotments	<p>No change</p>	<p>No change</p>	
12 Structure Plan Policy number C7	West Sussex CC	Agricultural production	<p>Land would be required from 3 farms - New means of access would replace existing direct access from the A23. The changes would have only a slight effect of the working of the farms.</p>	<p>The existing accesses from the A23 would become more difficult and less safe with growth in traffic.</p>	<p>The existing accesses are difficult and unsafe to use because of the high volume and speed of traffic on the A23.</p>

GROUP 4: POLICIES AND PLANS					
POLICY	AUTHORITY	INTEREST	THE SCHEME	EXISTING ROAD	COMMENTS
13a) Structure Plan Policy number C4	West Sussex CC	High grade agricultural land	Total landtake 3,858 hectares Grade 3 (all) 1,736 hectares Grade 4 2,122 hectares	No change	No information was available from MAFF regarding the sub division of Grade 3 land to categories 3a and 3b.
13b) Local Plan Policy number CM2/4	Mid Sussex DC	Production of high grade agricultural land and agricultural production.	Total landtake 3,858 hectares Grade 3 (all) 1,736 hectares Grade 4 2,122 hectares Land would be required from 3 farms, new means of access would replace existing direct access from the A23. The changes would have a slight effect on the working of farms.	Existing accesses from the A23 would become more difficult and less safe with traffic growth.	No information was available from MAFF regarding the sub division of Grade 3 land to categories 3a and 3b.
14a) Structure Plan Policy number B3	West Sussex CC	Protection of Listed Buildings and Conservation Areas	The scheme would have no direct effect, but some would experience slight visual impact. This would not alter their setting.	No change	
14b) Local Plan Policy number CM2/1	Mid Sussex DC	Protection of listed buildings and their settings	The scheme would have no direct effect, but some would experience slight visual impact. This would not alter their setting.	No change	
14c) Local Plan Policy number CM2/2	Mid Sussex DC	Protection of conservation areas and their settings	The scheme would have no direct effect, but some would experience slight visual impact. This would not alter their setting.	No change	
15a) Structure Plan Policy number B5	West Sussex CC	Protection of Archaeological sites	The scheme would have no direct effect, but some would experience slight visual impact. This would not alter their setting.	No change	
15b) Local Plan Policy number CM2/12	Mid Sussex DC	Protection of Archaeological sites	The scheme would have no direct effect, but some would experience slight visual impact. This would not alter their setting.	No change	
16 Structure Plan Policy number W1	West Sussex CC	Recycling of waste	Materials arising from breaking out existing carriageways would be recycled within works. Approximately 70,000m ³ of surplus excavations would be disposed of off-site to licensed tips	n/a	

17.3 LAND USE TABLE

LAND USE		Area required Permanently			Area Required Temporarily during Construction	Comments
Existing Use	Area for Carriageway Footways and other Hard Surfaces (ha)	Area for Verges, Embankments, Cuttings and Other Landscape Works (ha)	Total Area (ha)			
1.0 RESIDENTIAL PROPERTY						
Slaughm Park West Park Wood	0.069	0.463	0.532	0	(0.045) ha 430 m ² of landtake required for wayleave for diverted foul sewer.	
East Park House	0.144	0.170	0.314	0		
Merrivale	0.009	0.024	0.033	0		
Little Stanbridge	0.003	0.003	0.006	0		
Country Gardens House	0.004	0.012	0.016	0		
Stanbridge View	0	0.068	0.068	0		
2.0 COMMERCIAL PROPERTIES						
Country Gardens	0.019	0.929	0.948	0.447	0.153 ha required for new access	
Happy Eater	0	0.119	0.119	0		
3.0 OTHER PROPERTIES						
Nyman's Estate						
East Park House (woodland garden)	0.144	0.170	0.314	0		
Field 5636 (leased to farm)	0.078	0.320	0.398	0		
East Park Wood South	0	0.069	0.069	0		
East Park Wood North	0	0	0	0	0.473 ha required for PMA	
4.0 DERELICT LAND						
	0	0	0	0		

Existing Use	Area required Permanently			Area Required Temporarily during Construction	Comments
	Area for Carriageway Footways and other Hard Surfaces (ha)	Area for Verges, Embankments, Cuttings and Other Landscape Works (ha)	Total Area (ha)		
5.0 AGRICULTURAL LAND					
Grade 3					
Home Farm, Staplefield	0.078	0.320	0.398	0	0.105 ha required for PMA
Field 5636 (NT)	0	0.129	0.129	0.115	
Field 6463	0	0.046	0.046	0	
Field 6776/0082	0.001	0.522	0.523	0	
Field 3900	0	0.018	0.018	0.025	
Stanbridge Place	0	0	0	0	0.180 ha required for PMA
Field 7036 (north)	0	0	0	0	0.043 ha of garden required for PMA
Field 7036 (south)	0	0	0	0	0.068 ha required for PMA
Field 6926	0	0	0	0	0.011 ha required for PMA
Field 6919 (north)	0	0.207	0.207	0	
Field 6909	0	0	0	0	
Stanbridge Farm	0	0	0	0	0.010 ha required for PMA
Field 6919 (south)	0.079	1.242	1.321	0.140	
Grade 3 totals			1.738		
OVERALL TOTAL GRADE 3					
Grade 4					
Home Farm, Staplefield	0	1.157	1.157	0.045	0.235 ha required for PMA
Field 5600/5792	0	0.128	0.128	0.019	0.131 ha required for PMA
Field 6463	0	0.301	0.301	0	
Field 7759	0	0.064	0.064	0	
Field 3900	0	0.106	0.106	0	
Field 4366	0	0	0	0.122	
Field 6986	0	0	0	0.006	
Field 7198	0	1.756	1.756	0.192	
Grade 4 totals			2.122		
OVERALL TOTAL GRADE 4					

Existing Use	Area required Permanently			Area Required Temporarily during Construction	Comments
	Area for Carriageway Footways and other Hard Surfaces (ha)	Area for Verges, Embankments, Cuttings and Other Landscape Works (ha)	Total Area (ha)		
6.0 WOODLAND					
East Park Wood South Anne's Wood Plot 3305 Plot 3331	0 0 0	0.069 0 0	0.069 0 0	0 0.008 0.004	

17.4 MITIGATION TABLE

MITIGATION TABLE

MITIGATION MEASURE	LOCATION, PURPOSE AND FORECAST BENEFIT	CAPITAL COST	FORECAST MAINTENANCE REQUIREMENT, METHOD AND COST	COMMENT
Revised horizontal alignment	Chainage 750-1450. Eastern alignment To reduce effect on West Park Ancient Woodland/SNCI	£13,000	No specific extra requirement	Alignment results in increased landtake from National Trust property.
Enhancement steepened to 60P	Chainage 650-1075, West To reduce effect on West Park Ancient Woodland/SNCI	£60,000	Periodic maintenance required to ensure integrity of system Access from highway land at bottom of slope, to comply with H & S requirements for steep slopes. Lane closure not necessary.	Reduction in landtake.
Retaining Structures	Chainage 0-120, West To avoid disturbance to boundary of Church on Horsesham Road. Chainage 280-400, East To maintain screen planting on highway boundary.	£250,000	Periodic maintenance required to ensure integrity of system Access from verge to comply with H & S requirements for steep slopes. Lane closure necessary.	'Green' wall construction.
Separate carriageway drainage from land/ground water drainage	To protect water courses from pollution in the event of accidental spillage of toxic materials.	£12,000	Maintenance costs increased <i>pro rata</i> with increased provision.	
Provision of interceptors and reedbed/balancing ponds to carriageway drainage	To improve water quality and prevent flooding.	£95,000	Regular maintenance required to reedbeds/balancing ponds. Maintenance from pond side on land acquired for scheme. £5,000/year	Additional landtake required for siting of reedbeds/balancing ponds, to be taken from farmland.
Ground modelling (additional cutting)	Chainage 50-200, West To soften appearance of cutting at Handcross northbound slip road.	£7,000	No specific extra requirement	Land within existing highway boundary.
Ground modelling (additional filling)	Chainage 1625-1720, West To remove area of wasteland and enhance visual screen, at Slaughtern northbound slip road	£5,000	No specific extra requirement	Land within existing highway boundary. Reduction in quantity of surplus excavations to tip.

MITIGATION TABLE

MITIGATION MEASURE	LOCATION, PURPOSE AND FORECAST BENEFIT	CAPITAL COST	FORECAST MAINTENANCE REQUIREMENT, METHOD AND COST	COMMENT
Visual screen fences	Chainage 0-220, East To maintain screen for 11 residential properties on west side of Brighton Road, Handcross Chainage 900-1230 To screen 2 residential properties at East Park Chainage 2540-2570 To screen residential property at Country Gardens House	£11,000	No specific requirement.	Fence would become property of adjacent landowner.
Screen wall	Chainage 2370-2390, West To screen residence at Merrivale	£5,000	None	Wall would become property of adjacent landowner.
Wildlife fencing and tunnel crossings	Fencing Chainage 600-2800, East and Chainage 200-2850, West Crossings at Chainage 1050 and 2350 To protect badgers from road accidents whilst allowing access to traditional paths	£47,000	No specific maintenance required.	
Tree surgery and off-site planting	Chainages 600-1230 at Slaughtern southbound slip road, East and Chainage changes 350-1600 and 2000-2370 West To restore edge of mature woodlands	£31,000	£2,250/year	After 3 years establishment maintenance would become responsibility of landowner.
Additional planting width	Chainages 1650-2320, East. To screen view from residential properties at Staplefield Village, and prevent glare to traffic southbound on A23 from vehicles on PMA. Chainage 2580-2790, East. To screen residential properties at Stanbridge.	£75,000	Annual maintenance cost. Access from highway land. £3,750/year	Additional landtake from farmland.

MITIGATION TABLE

MITIGATION MEASURE	LOCATION, PURPOSE AND FORECAST BENEFIT	CAPITAL COST	FORECAST MAINTENANCE REQUIREMENT, METHOD AND COST	COMMENT
Additional planting width (cont)	Chainage 1620-2110, West To screen view from Slaugham Place RPGE and Slaugham Village Chainage 2580-2850, West To screen view from residential properties at Country Gardens.			
Off-site planting	Chainage 1620-2110, West To reinforce existing hedgerows to screen view from Slaugham Place RPGE.	£4,000	Annual maintenance costs £350/year.	After 3 years responsibility of landowner.
Garden works	East Park House, Stanbridge Farm (House), Stanbridge Place, Mernivale, Little Stanbridge, Country Gardens House. To restructure gardens of residential properties that have been disturbed by scheme.	£17,000	None	Landowner responsible for maintenance.
Reduced column height and HPS full cut-off lanterns	All lighting. To minimise impact of lighting on properties adjacent to road and landscape of AONB generally.	£27,000	Increased running and maintenance costs. £5,000/year	
Private Means of Access	B2114 to East Park To provide safe alternative to existing access from A23 which would be closed Staplefield Road to Stanbridge To provide safe alternative to existing access from A23 which would be closed: diversion of footpath S15 which would be stopped at Highway boundary, and maintain access to reedbed/balancing pond.	£75,000 £200,000	None Contribution to maintenance cost because of access to reedbed.	

MITIGATION TABLE

MITIGATION MEASURE	LOCATION, PURPOSE AND FORECAST BENEFIT	CAPITAL COST	FORECAST MAINTENANCE REQUIREMENT, METHOD AND COST	COMMENT
	Merrivale/Garden Centre To provide safe alternative to existing access from A23 which would be closed	£40,000	None	

18.0 ALTERNATIVE ROUTES CONSIDERED

18.1 INTRODUCTION

18.1.1 At an early stage, it was decided that only improvements along the existing A23 corridor were feasible. Apart from the geometric design standards, the main constraints on route alignment within the existing road corridor were environmental rather than engineering.

18.1.2 The route was divided into three sections for the consideration of different options:

- Handcross village to Chainage 500.
- Chainage 600 to Slaugham Junction.
- Slaugham Junction to Warninglid Junction tie-in.

18.1.3 Before considering these sections, the feasibility of retaining the broad central reserve containing trees was investigated. Although they make a contribution to the character of the existing road, the condition of the trees is generally poor and they are of low conservation significance. Therefore, it was concluded that their retention could not be justified, especially considering the increased landtake necessary in areas of high conservation value, or where the boundary planting was important for screening the road from adjacent properties.

18.2 HANDCROSS VILLAGE TO CHAINAGE 500

18.2.1 With the unaltered Horsham Road Bridge as a fixed point and the need to tie-in to the north and southbound slip roads, there was limited scope for alternative alignments in this area. The increased width of the improved road would necessitate disturbance on both sides, but the proposed construction of retaining walls would limit the road to within the existing highway boundary and only semi-mature verge planting would be lost (see Figure 18.1).

18.2.2 Between Chainage 200 - 500 the existing road is straight, and because of the generous width of the existing verges and the central reserve, the upgraded road could almost be accommodated within the existing highway boundary. However, where it was necessary to improve the vertical alignment and junction tapers, existing semi-mature verge vegetation would be lost. Rather than encroach on both sides, it was considered preferable where possible to align the route to one side or the other to limit the extent of disturbance that would be apparent. It was considered that the narrow margin of mature vegetation on the eastern boundary, which is critical for screening the road from adjacent properties, was more important than the woodland to the west, which although mature is outside the part of West Park Wood which is designated as Ancient Woodland and as a Site of Nature Conservation Importance. However the extent of disturbance beyond the existing western boundary would be very slight and few, if any, mature trees would need to be cleared.

- 18.2.3 The improvement of the junction tapers would necessitate some further disturbance. On the east side, to maintain the screening provided by the boundary vegetation a retaining wall would be constructed. However, on the west side where only semi-mature verge planting and recently felled plantation land would be affected and where screening is less important, this was not considered to be desirable and a new cutting would be formed beyond the existing boundary. Figure 18.1 shows the route alignment through this section.

18.3 CHAINAGE 500 TO SLAUGHAM JUNCTION

- 18.3.1 Between chainage 500 and the southbound slip road to Slaugham - Staplefield Road, the need to improve the sub-standard curves to the double bend passing East Park would necessitate deviation from the present road alignment. Four options were considered which were developed in sequence in response to information obtained from surveys and consultations.

18.3.2 The Blue Route

- 18.3.2.1 This option was developed first because it avoided what was considered to be 'inalienable' National Trust land, and was likely to have the least visual impact. The alignment would be to the west of the existing road (see Figure 18.2) with a maximum embankment height of 15 metres and a landtake of 2.3 hectares from West Park woodland, but no landtake from the east. In addition this option would require a diversion of part of Orange Gill stream. This was the option forming the basis of the consultation in 1991.

18.3.3 The Red Route

- 18.3.3.1 After discussions with the National Trust it was established that because the gardens and arboretum of Nymans Estate would not be affected, purchase of Trust Land adjacent to the A23 would be possible. This option, which moved to the east of the Blue Option, would reduce the impact on West Park Wood (see Figure 18.3) and the diversion of Orange Gill would be avoided. A landtake of 1.2 hectares from West Park and 0.9 hectares from East Park would be required.

18.3.4 The Orange Route

- 18.3.4.1 Previously it was considered that the woodlands either side of the A23 were of similar value. However, after surveys undertaken by the International Centre of Landscape Ecology (ICOLE) and studies by West Sussex County Council's ecologist, West Park Wood was found to be significantly more important and worthy of protection. Thus, the Orange Route was developed, being slightly east of the existing A23 (see Figure 18.4), avoiding landtake from West Park Wood but taking 2.2 hectares from East Park. To achieve this an 11 metre deep cutting would be required in East Park.

18.3.5 The Brown Route

18.3.5.1 The Orange Route was felt to be unacceptable, partly because of the extent of cutting that would be visible, but mainly because of the impact the realigned road would have on properties at East Park. The Brown Route was then developed as a compromise between the Orange and Red Routes which sought to reduce the extent of impact of East Park whilst limiting to an acceptable minimum the impact on West Park (see Figure 18.5). An embankment with a maximum height of 8 metres would be required, with a landtake of 1.3 hectares from West Park and 0.6 hectares from East Park. The Brown Route, between chainage 500 and Slaugham Junction, was preferred as it would achieve the best balance between the overall impact of the improvement in the Area of Outstanding Natural Beauty, on the amenity of neighbouring properties in East Park and the protection of areas of ancient woodland.

18.4 SLAUGHAM JUNCTION TO WARNINGLID JUNCTION TIE-IN

- 18.4.1 In order to maintain the standard verge width across Slaugham Bridge it would be necessary to infill between the two existing arches. In addition to accommodate improved north and southbound sliproads widening of the existing bridge would be required. However a 'no bridgeworks' solution was considered, requiring a full diamond interchange in order to improve the north and south bound on slip road tapers (see Figure 18.6). A landtake of 0.7 hectares from OS field No. 5600 south-east of Slaugham Bridge would be required. The option was rejected because the cost saving was not considered to justify the increased environmental impact that would be incurred.
- 18.4.2 South of Slaugham Junction, the generous width of the existing verges and central reserve would accommodate the improved road with only a minor increase in the width of the highway corridor.
- 18.4.3 Adopting the principle that, rather than encroach on both sides, the overall impact would be least if the disturbance were restricted to one side only, consideration was given as to whether an eastern or western alignment would be preferable. In the absence of other constraints of particular importance, limiting the visual impact of the road was considered to be the prime consideration. In this respect, the importance of the vegetation along the eastern boundary for screening the road from the residential properties at Home Farm and in the Stanbridge area was considered to be more important than that on the western boundary, where the properties close to the A23 at present have an open aspect (which in case of the commercial properties might be considered beneficial by their proprietors). Also, whereas a new access route from the minor roads could be provided to Stanbridge Farm and Stanbridge Place, this would not be feasible to the properties to the west of the A23, which it is proposed would be served by a new service road parallel to the northbound carriageway.

A western alignment was thus preferred. the proximity of the Garden Centre (Country Gardens) and Merrivale to the road however limited the extent to which this could be achieved, and because it would be necessary to undertake some earthworks to improve the vertical alignment where the present road undulates, some disturbance would occur to the semi-mature highway planting along sections of the eastern verge. Figure 18.7 shows the route alignment through this section.

18.5 THE PREFERRED ROUTE

18.5.1 The Preferred Route would be constructed symmetrically about the centre line of the existing road until chainage 200 (see Figure 18.1). South of here the alignment would be slightly to the west of the existing road until chainage 500 (see Figure 18.1) where the Brown Route (see Figure 18.5) alignment would be followed until Slaugham Junction. Infilling and widening of the existing Slaugham Bridge would be required from where the alignment continues to the west of the existing road until the Warninglid Junction tie-in is reached (see Figure 18.7).

18.6 THE PUBLISHED ROUTE

18.6.1 Following further consultation after the Preferred Route Announcement the Preferred Route was further developed. The alignment was modified through West Park and East Park Woods and steeper embankment slopes were included, to further reduce the landtake required in those areas (see Figure 18.8).

18.7 SUMMARY

18.7.1 The Published route would achieve the following:

- An improved geometrical alignment.
- Reduce the likely number of injuries due to traffic accidents.
- Provide highway capacity for predicted traffic growth.
- Safer alternative access for properties on the A23.
- Provide a safe segregated provision for commercial properties on the A23.
- Improve the highway drainage arrangement and water quality at outfall.

19.0 CONSULTATIONS

19.1 INTRODUCTION

- 19.1.1 The final section of Volume 1 of the Environmental Statement consists of a list of the consultations undertaken "during the preparation of the Statement". For this scheme this has been interpreted as the period since the "Preferred Route Announcement".
- 19.1.2 The recent consultations have been with individuals or bodies where detailed information was required.
- 19.1.3 This section is also required to have details of previous consultations. Section 19.3 contains a summary in this respect.

19.2 CONSULTATION TABLE

CONSULTEE	CONSULTATION DATE	SUBJECT
West Sussex County Council (Planning)	October '93	Environmental & Planning constraints generally. Archaeological assessment. Lower plant survey. Right of way and cycle route.
	December '93	
	January '94	
	March '94	
National Trust	November '94	National Trust land. National Trust land.
	December '93	
Mid Sussex District Council (Planning)	October '93	Environmental and planning constraints generally. Cultural heritage and archaeology.
	October '93	
English Heritage	December '93	Archaeological assessment. Landscape and nature conservation.
	October '93	
Countryside Commission	October '93	Ecology and conservation.
English Nature	January '94	Lower plant survey.
National Rivers Authority (Southern Region)	October '94	Drainage and water quality
	January '94	Water Quality Assessment

CONSULTEE	CONSULTATION DATE	SUBJECT
Fortes	Feb '93 April '93 May '93 Aug '94	Slip Road arrangement
Mid Sussex Badger Protection Group	March/April '93	Badger survey
West Sussex County Council	March-June '93	Points of detail
Mr G W Pritchard- Gordon	Summer '93	Land take/bends/ barriers
	October/November '93	Embankment/land take West Park Wood
Bus Operators	June '93	Confirmation of bus stops
WSCC	July, August/Sept '93	Weigh bridge
Stanbridges Area Occupiers/ Owners	Spring '94	Access track alignment

19.3 PREVIOUS CONSULTATIONS

- 19.3.1 A Local Public Consultation exercise was undertaken in early 1991 when the Department of Transport consulted those thought to be directly affected by the proposed scheme (Brown Route). There has not been a public consultation because of the nature of the improvement and number of people directly affected by the scheme.
- 19.3.2 The consultation took the form of a consultation letter followed by informal site meetings followed by subsequent correspondence and discussions.
- 19.3.3 Following the consultation the "Brown Route" was confirmed as the "Preferred Route" and agreement to further discussions with landowners with the aim of agreeing alternative access arrangements. Recommendations were also made to develop the scheme to reduce the environmental impact



HIGHWAYS
AGENCY



TRUNK ROAD IMPROVEMENT PROPOSALS

An Exhibition of the Proposals will be held at:

HANDCROSS COUNTY PRIMARY SCHOOL
LONDON ROAD
HANDCROSS

on

Friday 25 November 1994
Saturday 26 November 1994

6pm to 9pm
10am to 4pm

You are invited to visit the exhibition

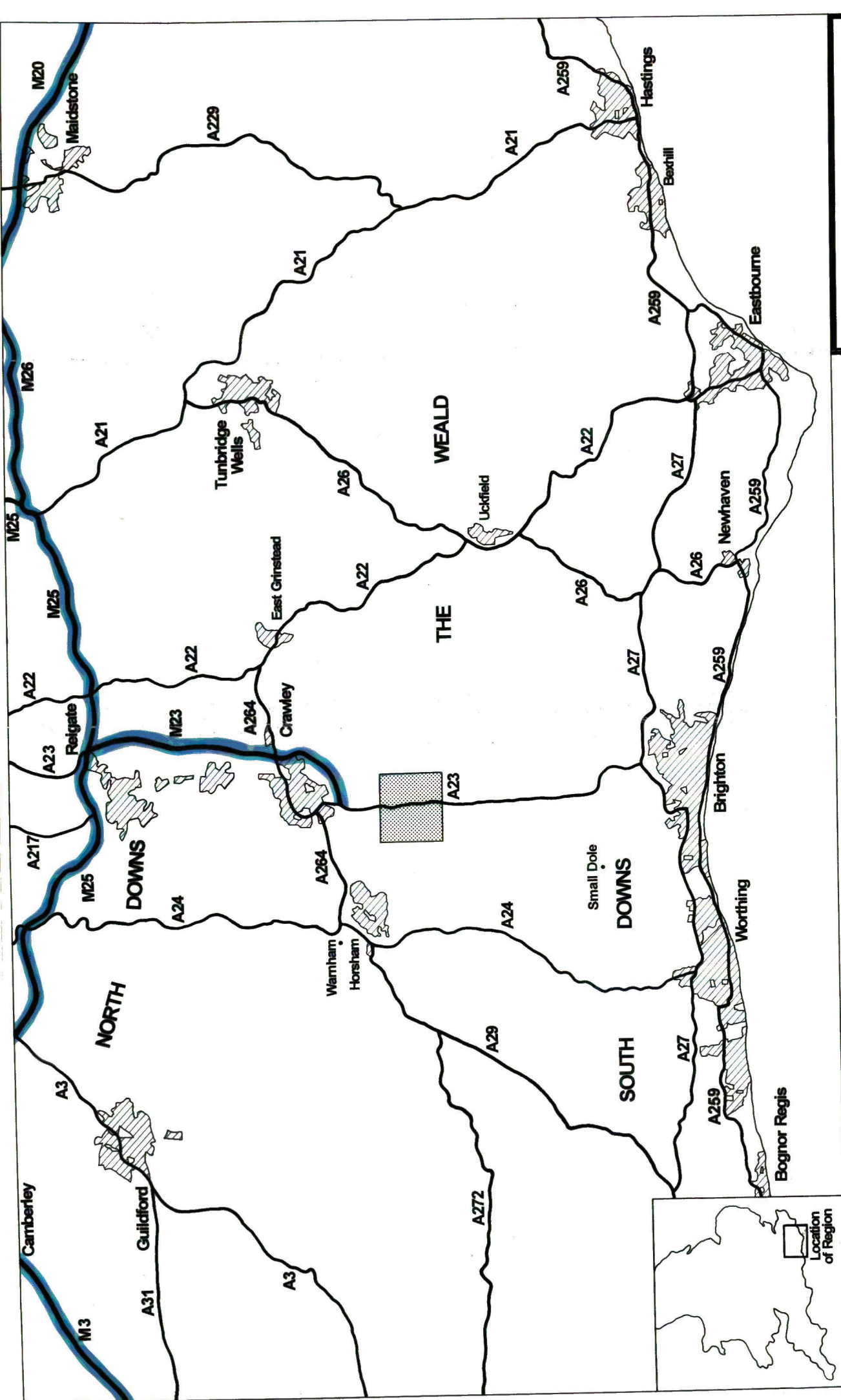
Plans and general details of the proposals, together with proposed measures to reduce the environmental impact, will be on display. Representatives of the Highways Agency and their consulting engineers, Carl Bro Group, will be present to explain the proposals and answer questions.

A23

**HANDCROSS TO WARNINGLID
IMPROVEMENT**

NOVEMBER 1994

ENTRY TO THE EXHIBITION IS FREE



**REGIONAL CONTEXT
PLAN**

Figure 1.1



Scale 1 : 285000

-  Scheme Location
-  Motorway
-  Major Road
-  Major Population Centre



- LEGEND**
- Scheme
 - Stream/Watercourse
 - Existing Road
 - Service Road
 - Two-way cycleway

SCALE 1 : 10000



NORTH



THE SCHEME

Figure 1.2



LOCATION PLAN



1000 metres



LEGEND SCALE 1 : 10000

-  Designated Ancient Semi-Natural Woodland
-  Old Woodland
-  Site of Nature Conservation Importance
-  Watercourse

Figure 2.1



EXISTING LOCAL HIGHWAY NETWORK

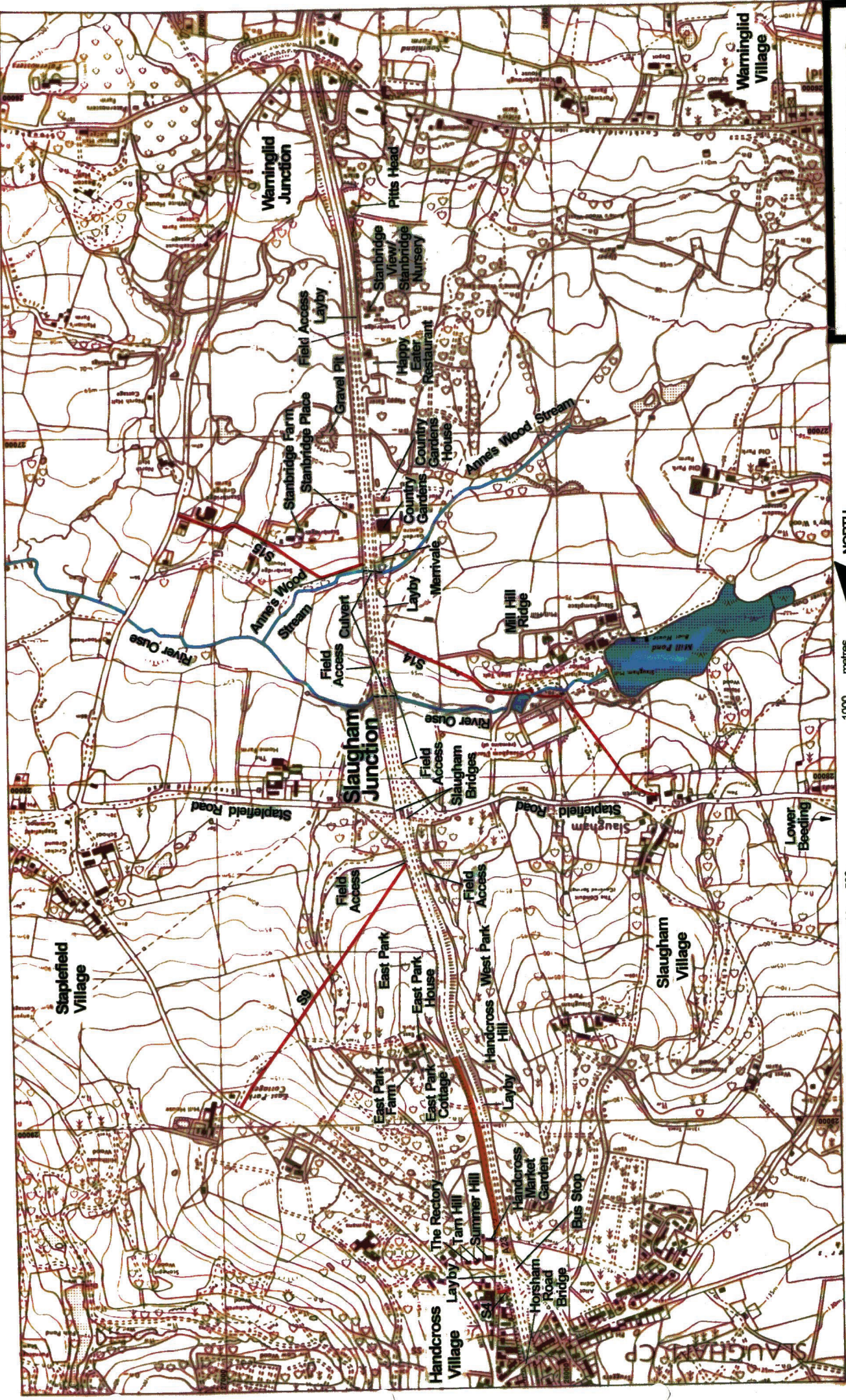
Figure 2.2



SCALE 1/50000

Boundary of High Weald Area of Outstanding Natural Beauty





THE EXISTING ROAD AND FEATURES




Figure 3.1

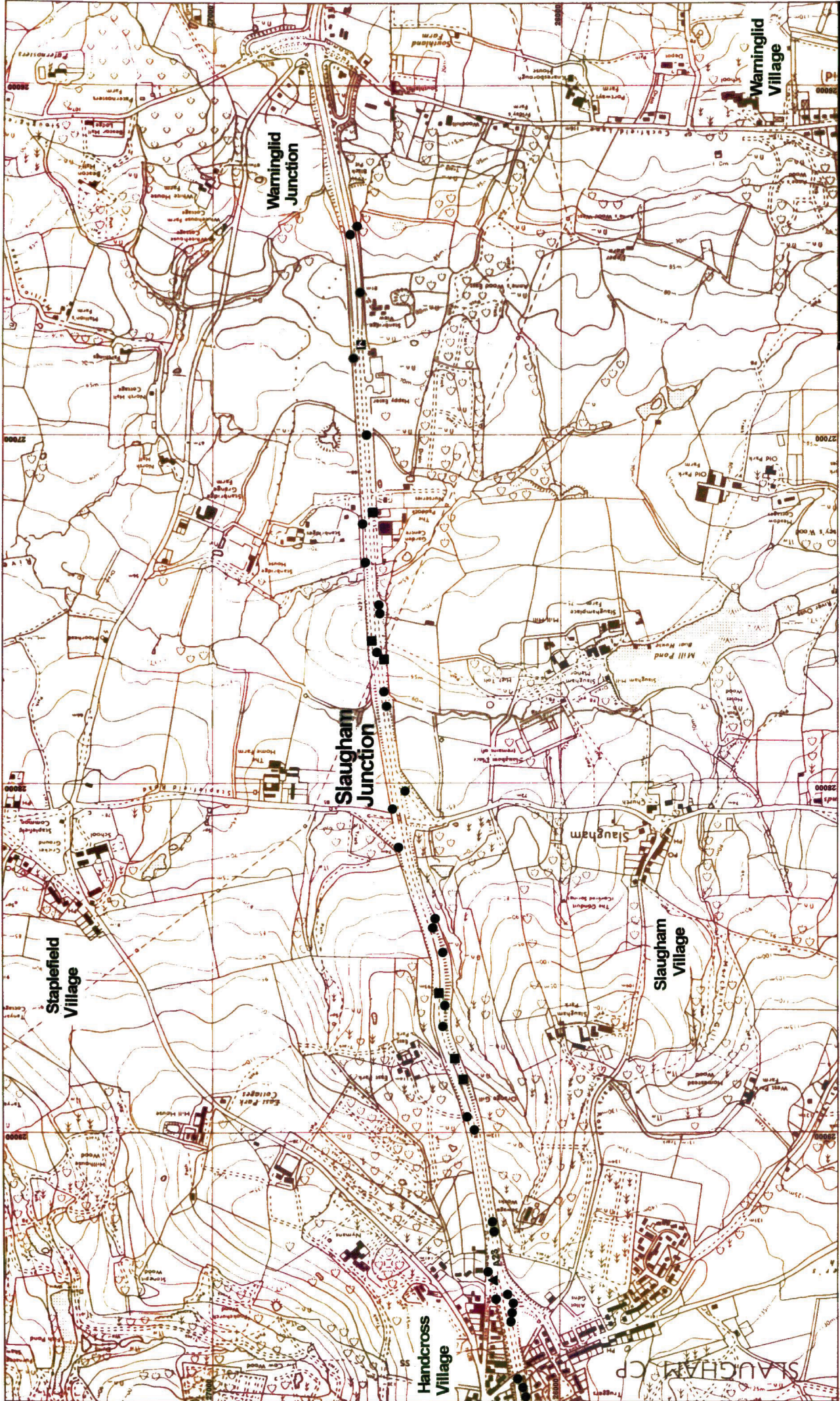


1000 metres



SCALE 1 : 10000

- LEGEND**
-  Footpath
 -  Stream / Watercourse
 -  Footway



**ACCIDENT LOCATION
PLAN**

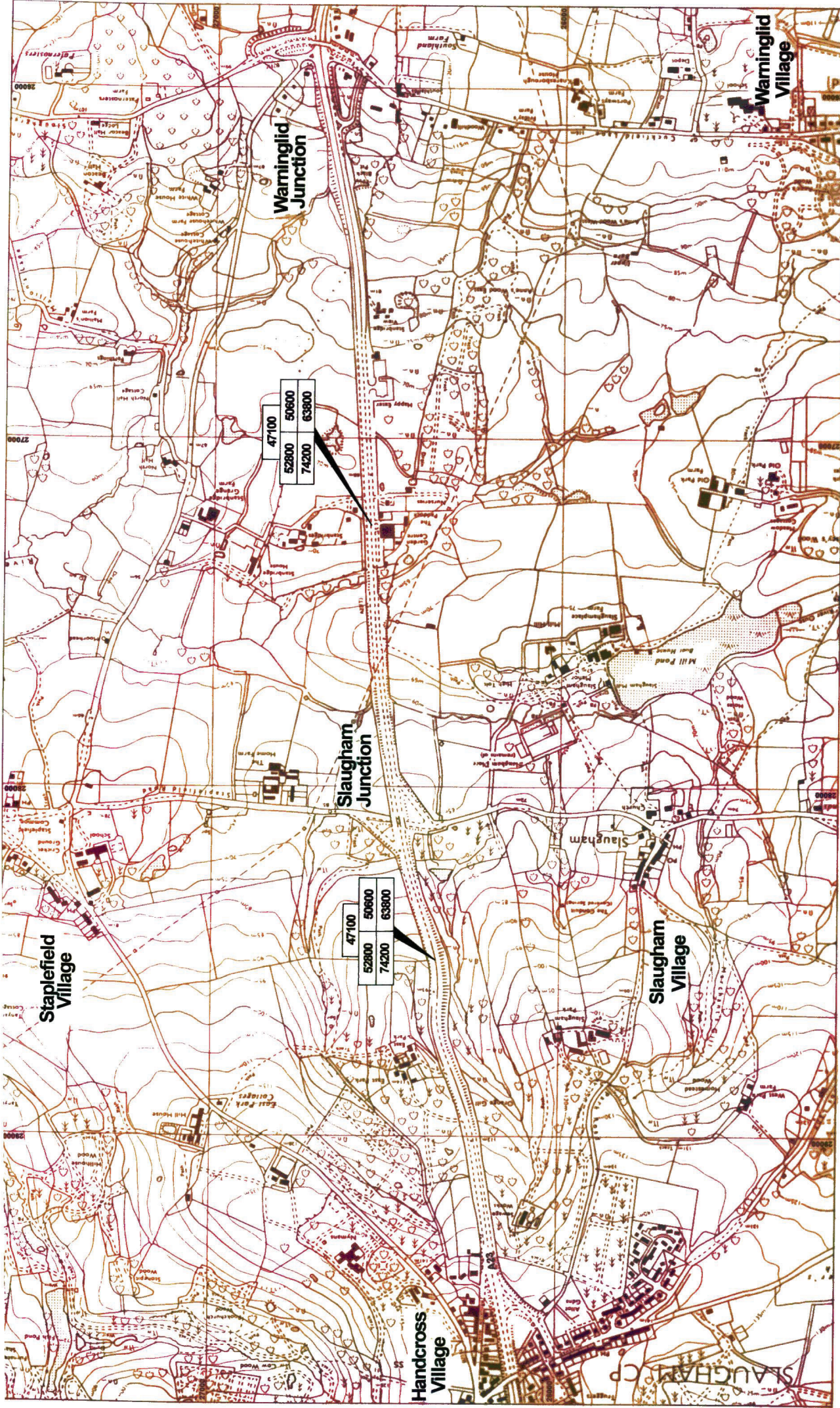
Figure 3.2



SCALE 1 : 10000

LEGEND

- Slight
- Serious
- ▲ Fatal



**EXISTING AND PREDICTED
TRAFFIC FLOWS**

Figure 3.3



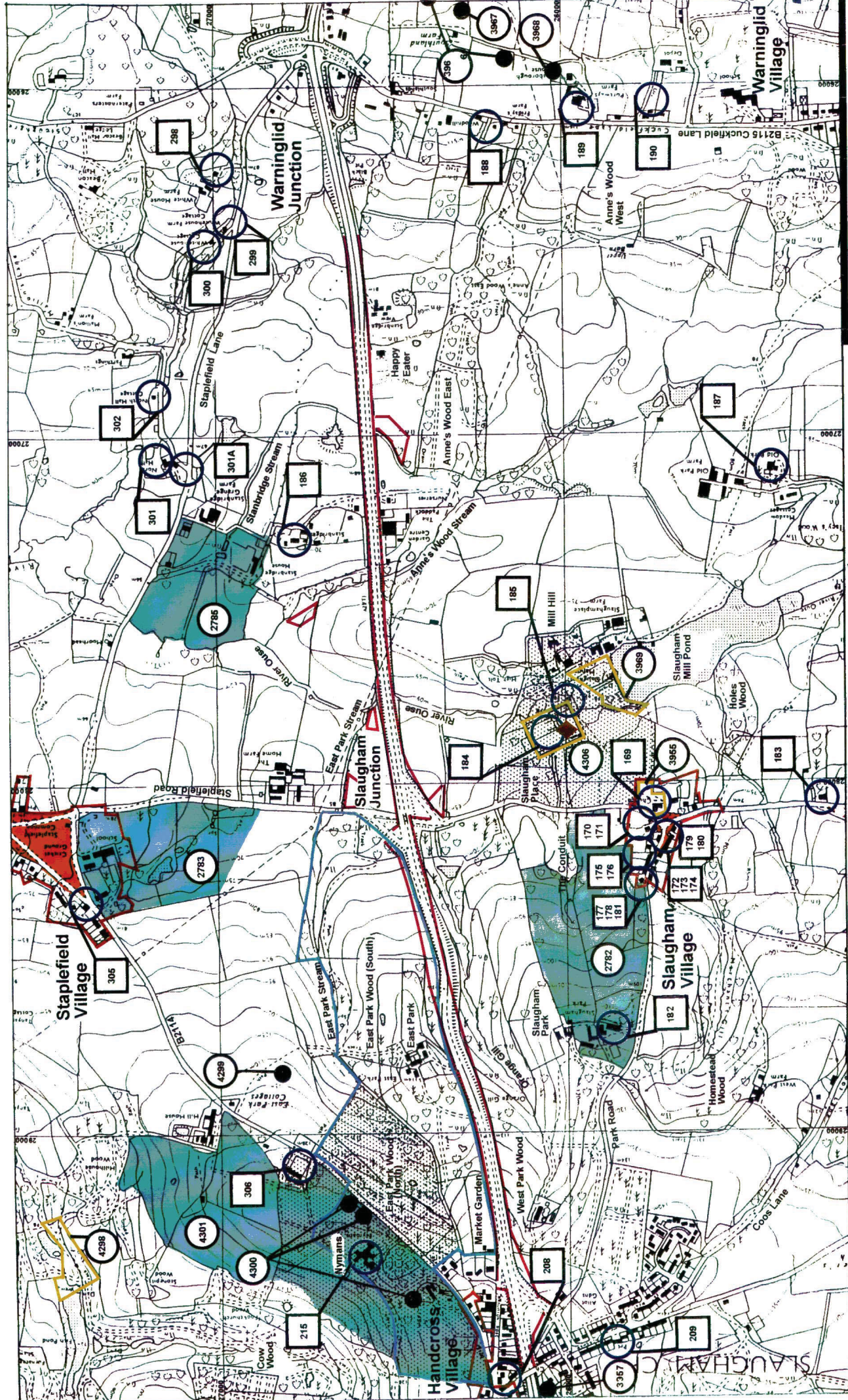
SCALE 1 : 10000

LEGEND

Traffic figures shown on the diagram are the average flows in both directions for a 24 hour period

Current Year
Scheme Opening Year
Scheme Design Year

1994
1998 High Growth
1998 Low Growth
2013 High Growth
2013 Low Growth



CULTURAL HERITAGE CONSTRAINTS

Figure 6.1

Base map reproduced from Ordnance Survey Map © Crown Copyright.

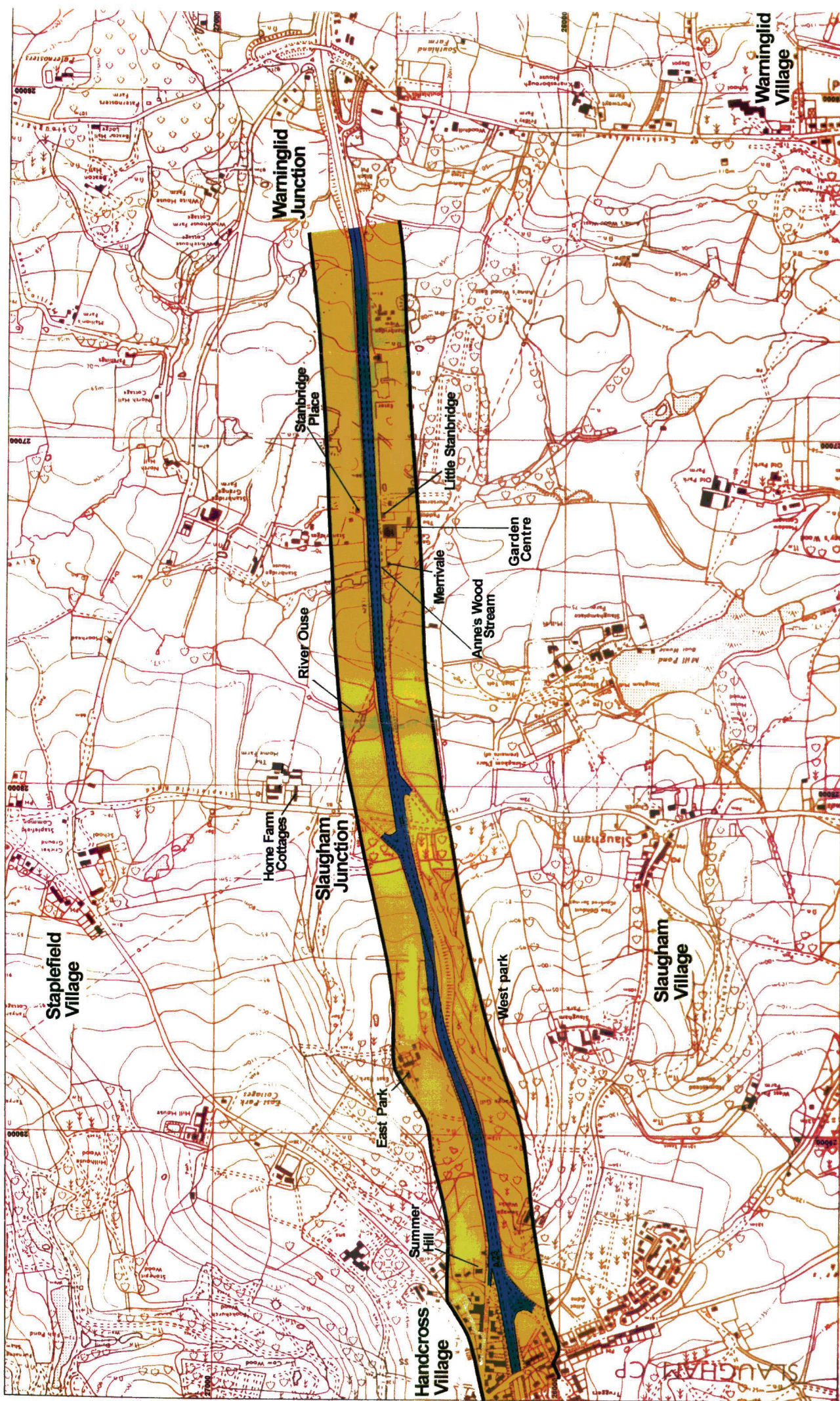
LEGEND

- Listed Buildings
- Scheduled Ancient Monument
- Listed Park or Garden
- Archaeological Site or Find
- Archaeological Sensitive Area
- Historic Parkscape
- National Trust Property
- Conservation Area
- Site No (West Sussex County Planning Department Records)
- Listed Building No (West Sussex Planning Department Records)
- Staplefield Common Ref. CL 315
- Slaughtam Village Green Ref. VG 68
- Limit of Proposed Earthworks

SCALE 1 / 10,000

0 100 200 300 400 500 1000 metres

NORTH



LEGEND

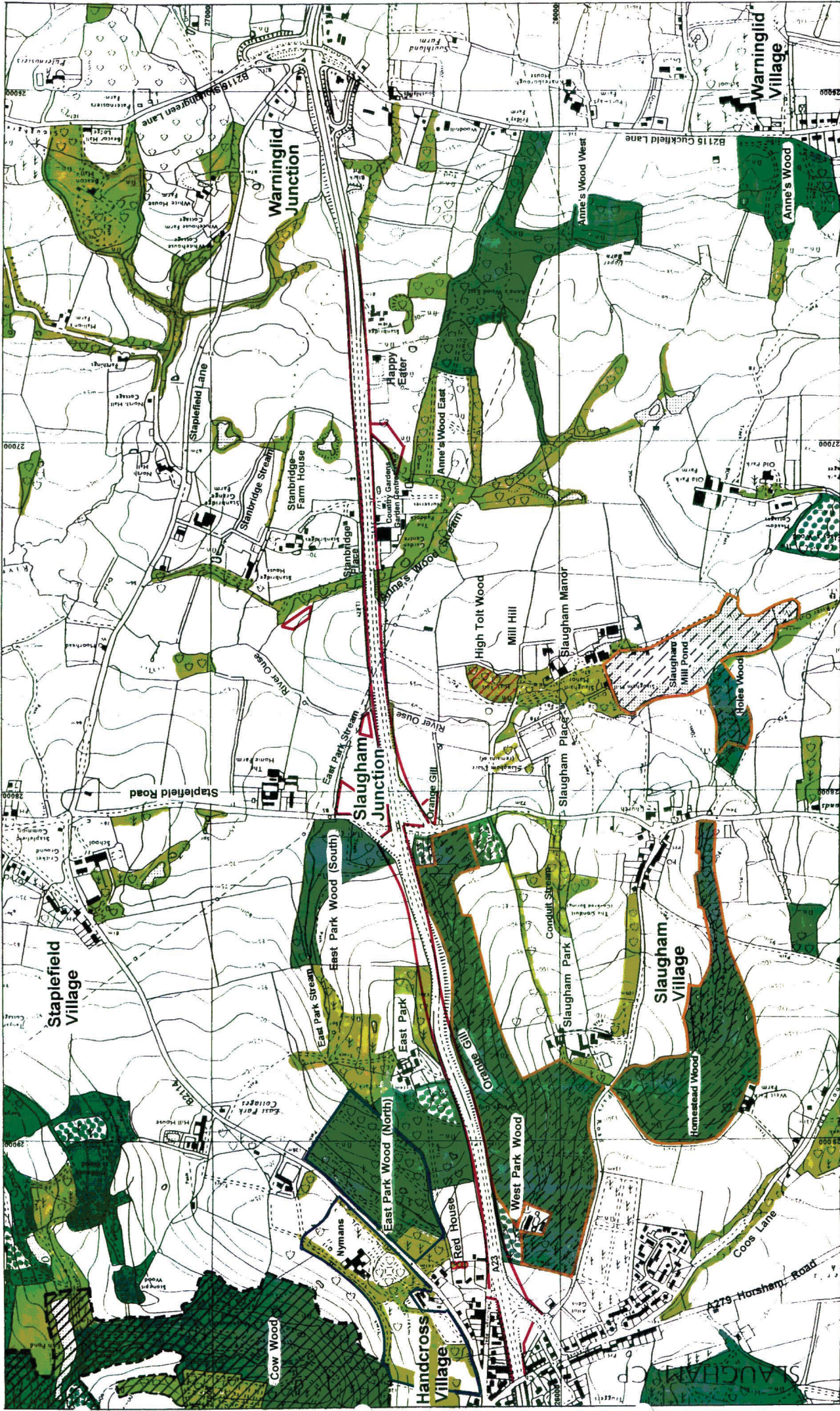
- Scheme
- Assessment Area
- 100m Limit of Assessment

SCALE 1/10000



DISRUPTION DUE TO CONSTRUCTION ASSESSMENT

Figure 7.1



LEGEND

- Ancient Semi-Natural Woodland
- Ancient Replanted Woodland
- Other Old Woodland not Designated
- Tree Preservation Order (Group)
- Tree Preservation Order (Individual)
- Site of Special Scientific Interest
- National Trust Areas Open to Public
- Site of Nature Conservation Importance
- Limit of Proposed Earthworks

SCALE 1 / 10,000

0 100 200 300 400 500 1000 metres
















NORTH

NATURE CONSERVATION STATUS







Figure 8.1

Base map reproduced from Ordnance Survey Map © Crown Copyright.








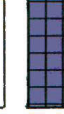
Woodland & Scrub

-  Mature Semi-Natural Broadleaved
-  Mature Semi-Natural Mixed (Predominantly Broadleaved)
-  Felled Mature Semi-Natural Broadleaved
-  Mature Coniferous Plantation
-  Mature Mixed Plantation (Predominantly Coniferous)
-  Felled Mature Coniferous Plantation
-  Semi-Mature Broadleaved Trees & Shrubs (Highway Verges)
-  Mature Individual/Parkland Trees (Broadleaved)
-  Mature Individual/Parkland Trees (Coniferous)
-  Mature Garden Woodland
-  New Planting
-  Dense/Continuous Scrub
-  Scattered Scrub
-  Boundary of Designated Ancient Semi-Natural Woodland
-  Boundary of Listed Site of Nature Conservation Importance







Hedgrows & Boundaries

-  Intact Hedge (Species Poor)
-  Defunct Hedge (Species Poor)
-  Intact Hedge - With Trees
-  Hedgerow - Species Rich
-  Wall
-  Close Board Screen Fence





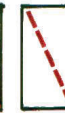



Grassland & Other Landuse

-  Semi-Improved Grassland
-  Improved Grassland Pasture
-  Cultivated Land
-  Scattered Bracken
-  Garden (Ornamental)
-  Allotment Garden
-  Industrial/Commercial Land
-  Nursery Garden

Water & Wetland

-  Standing Water
-  Running Water
-  Dry Stream/Ditch
-  Swamp
-  Marsh (In Area of Semi-Improved Grassland)
-  Marsh (In Semi-Natural Broadleaved Woodland)

Scheme Overlay

-  Centre Line of Road
-  Outside Verge of Road
-  Limit of Earthworks
-  New Access Track
-  Cycleway
-  Retaining Wall
-  Reedbed
-  Fenceline

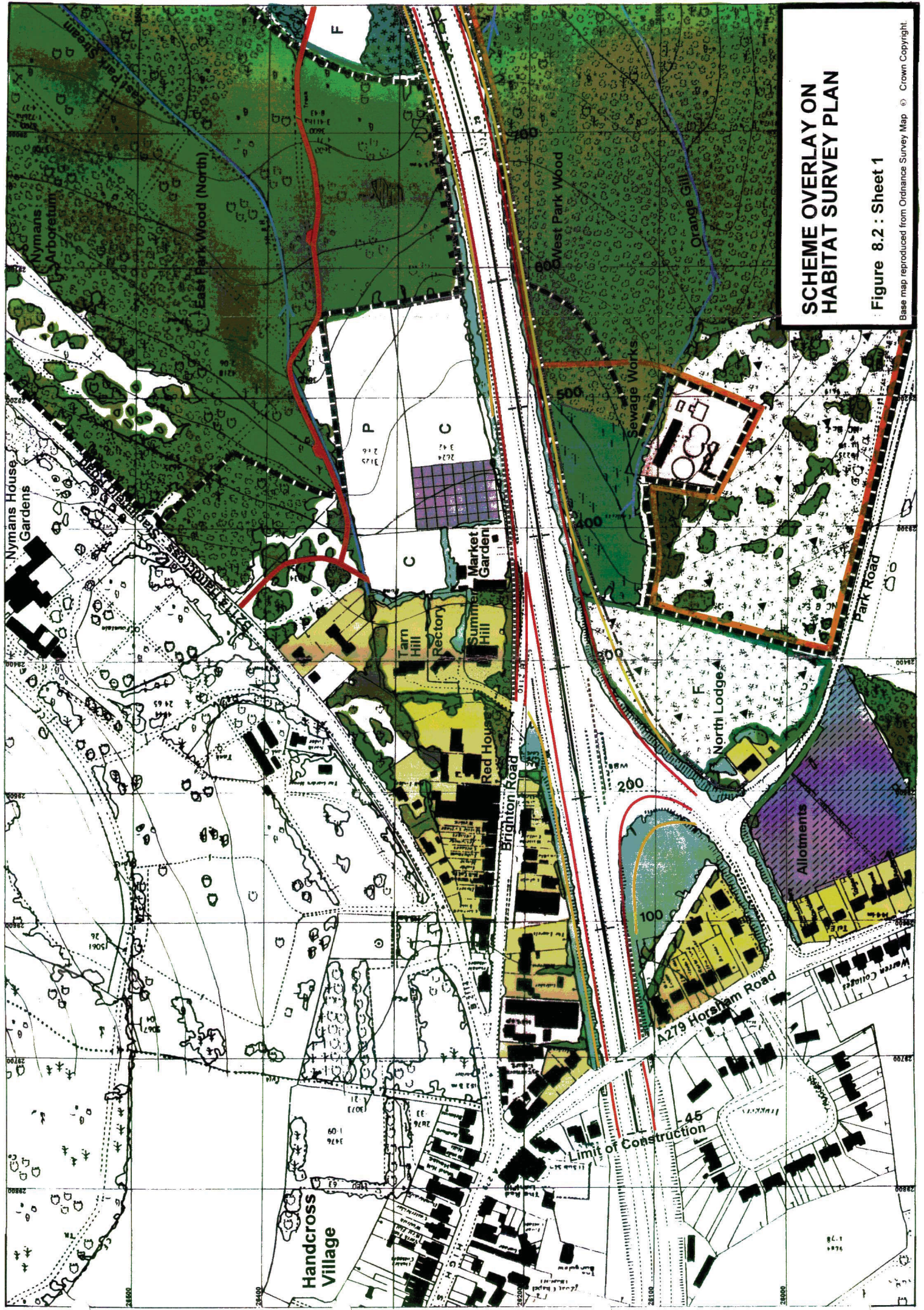
LEGEND

SCALE 1 / 2,500



**SCHEME OVERLAY ON
HABITAT SURVEY PLAN**

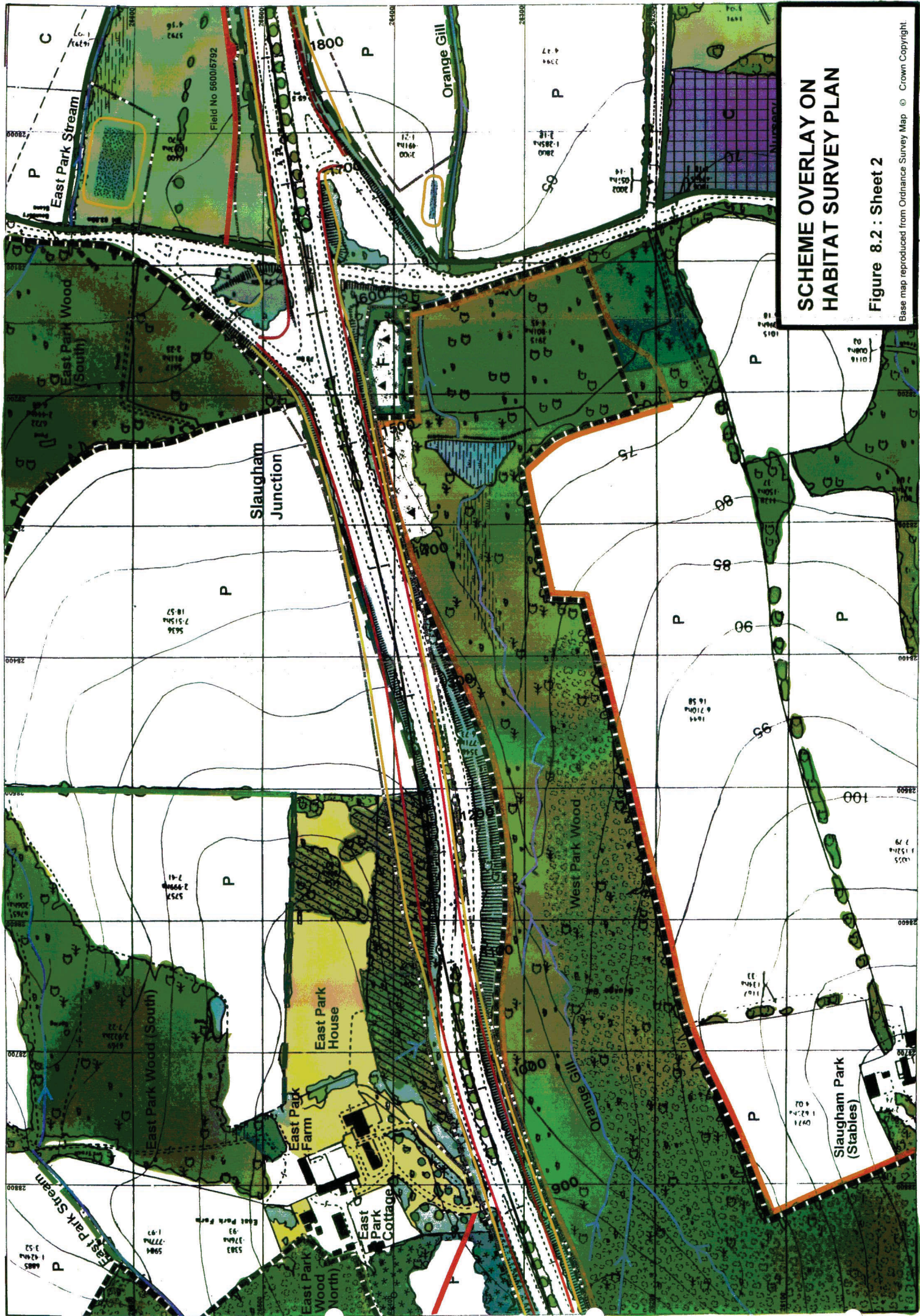
Figure 8.2 : Key Sheet



**SCHEME OVERLAY ON
HABITAT SURVEY PLAN**

Figure 8.2 : Sheet 1

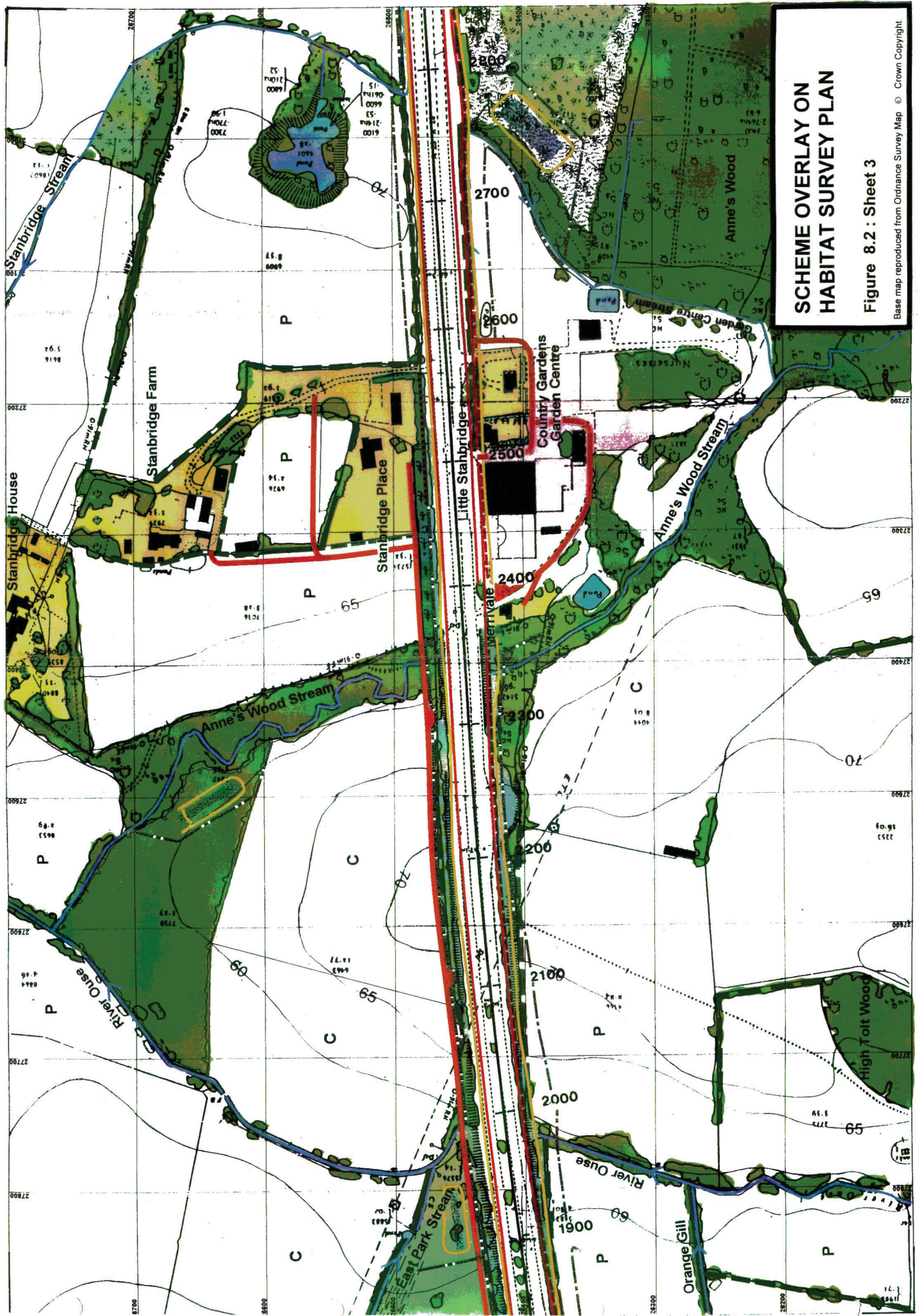
Base map reproduced from Ordnance Survey Map © Crown Copyright.



**SCHEME OVERLAY ON
HABITAT SURVEY PLAN**

Figure 8.2 : Sheet 2

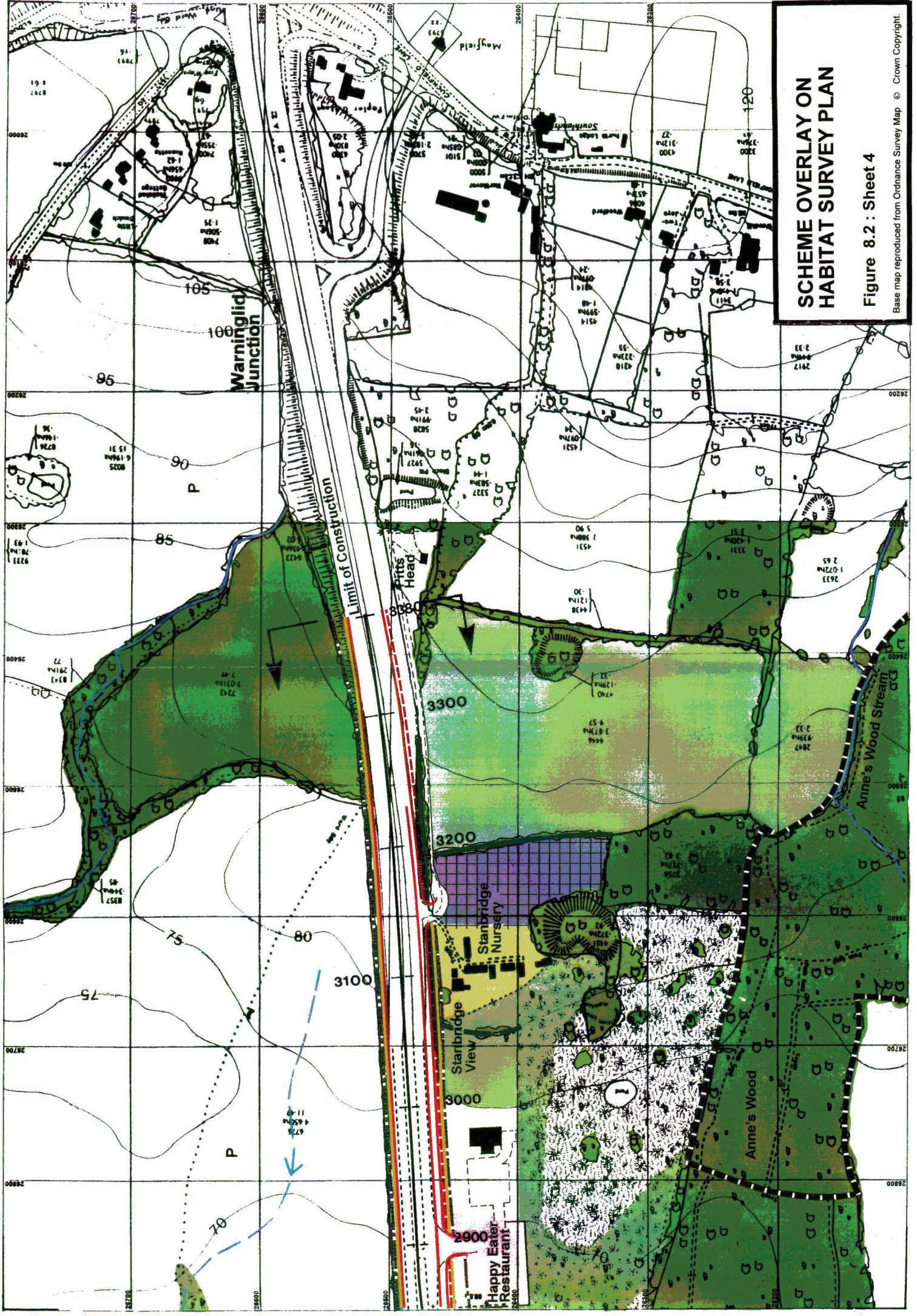
Base map reproduced from Ordnance Survey Map © Crown Copyright.



**SCHEME OVERLAY ON
HABITAT SURVEY PLAN**

Figure 8.2 : Sheet 3

Base map reproduced from Ordnance Survey Map © Crown Copyright.



**SCHEME OVERLAY ON
HABITAT SURVEY PLAN**

Figure 8.2 : Sheet 4

Base map reproduced from Ordnance Survey Map © Crown Copyright.



LANDSCAPE ASSESSMENT OF EXISTING ROAD

Figure 9.1

Base map reproduced from Ordnance Survey Map © Crown Copyright.










NORTH

1000 metres

0 100 200 300 400 500

SCALE 1 / 10,000

LEGEND

-  Visual Barrier Mature Hedgerow (Continuous)
-  Mature Hedgerow (Intermittant)
-  Visual Barrier Mature Woodland Edge
-  Visual Envelope Landform
-  Clipped Hedge
-  Intermediate Landform Barrier
-  Mature Woodland
-  Road in Cutting
-  Screen Wall / Fence



LANDSCAPE ASSESSMENT OF SCHEME

Figure 9.2

Base map reproduced from Ordnance Survey Map © Crown Copyright.

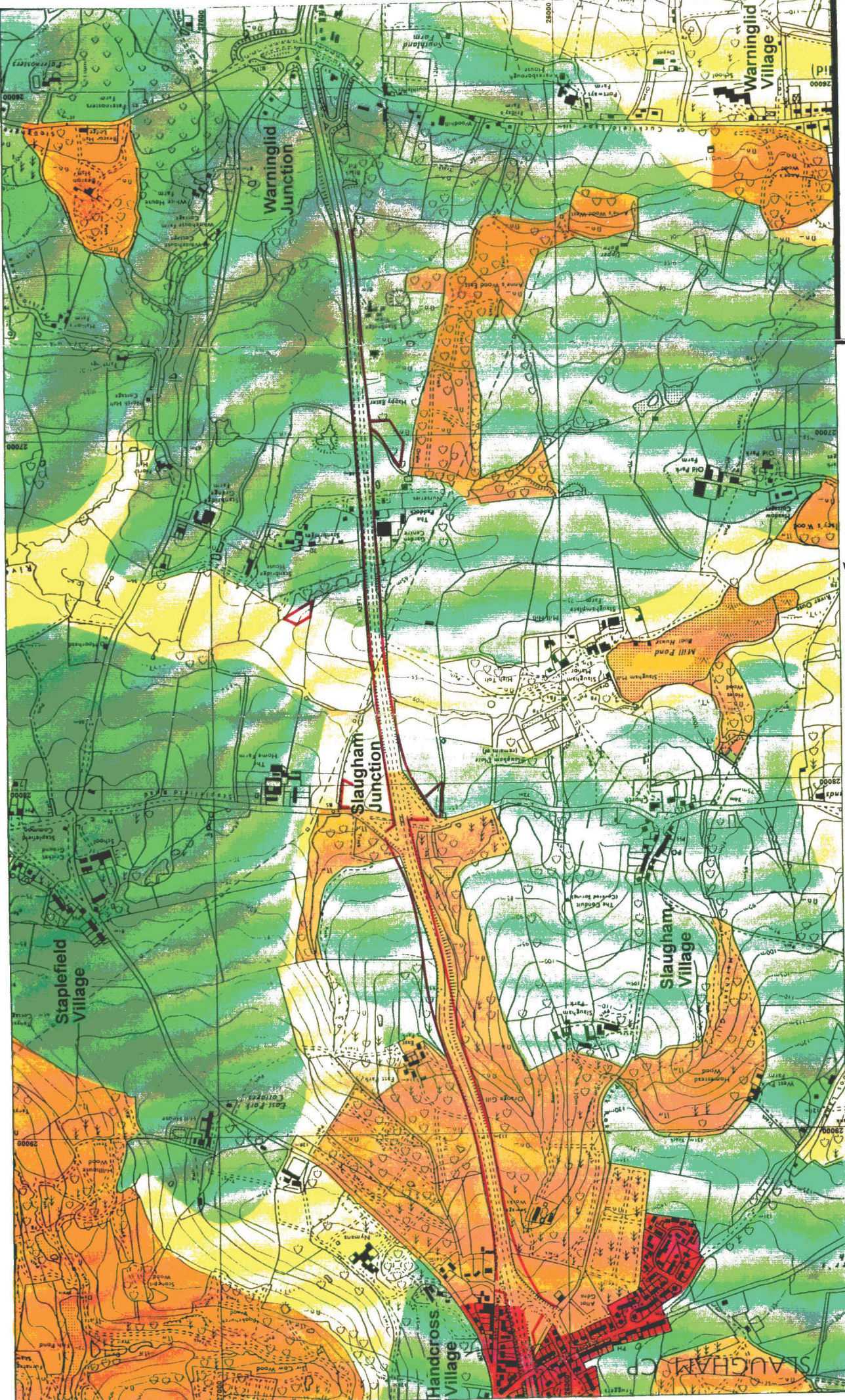
LEGEND SCALE 1 / 10,000

	Visual Barrier Mature Hedgerow (Continuous)		Proposed Scheme Alignment
	Mature Hedgerow (Intermittant)		Clipped Hedge
	Visual Barrier Mature Woodland Edge		Intermediate Landform Barrier
	Visual Envelope Landform		Mature Woodland
			Road in Cutting
			Screen Wall / Fence

1000 metres

0 100 200 300 400 500

NORTH



AGRICULTURAL LAND CLASSIFICATION

Figure 10.1
Base map reproduced from Ordnance Survey Map © Crown Copyright

LEGEND

- Land predominantly in urban use
- Other land primarily in non-agricultural use
- Agricultural land Grade 3
- Agricultural land Grade 4

SCALE 1 / 10,000










0 100 200 300 400 500 metres

Limit of Proposed Earthworks

NORTH

(Information taken from Agricultural Land Classification of England and Wales Sheet 182, Brighton and Worthing 1972)

LEGEND

	Built up Area
	Commercial Property
	Rural Residence / Gardens
	Allotments
	Nursery Garden
	Caravan (Gypsy) Site
	Woodland
	Farmland - Grade 3
	Farmland - Grade 4
	S15 Public Right of Way
	Field Number Reference
	Land Ownership Boundary with Reference
	Land Occupancy with Reference
	Boundary of National Trust Property of Heritage Interest



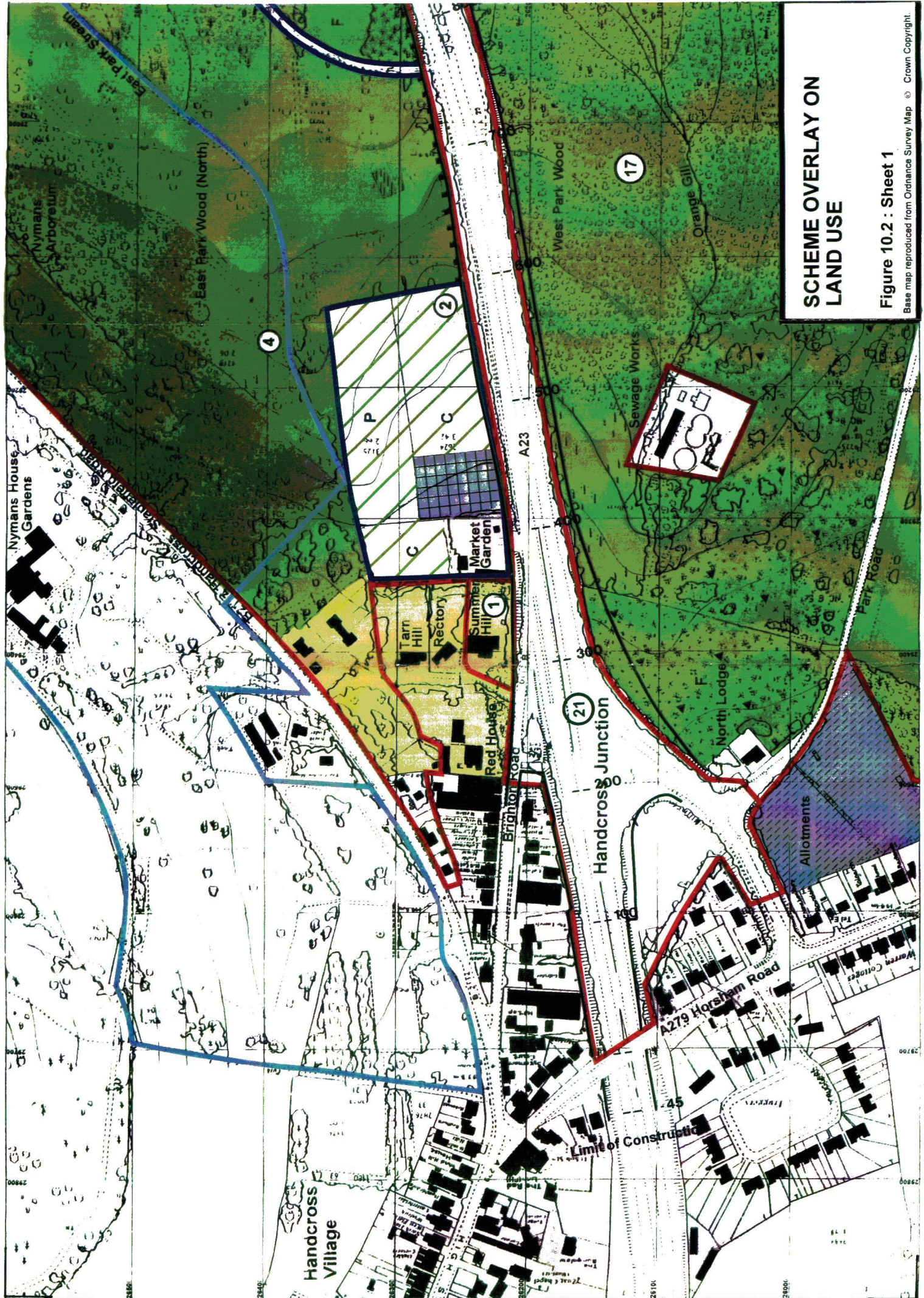
SCALE 1 / 2,500



NORTH

**SCHEME OVERLAY ON
LAND USE**

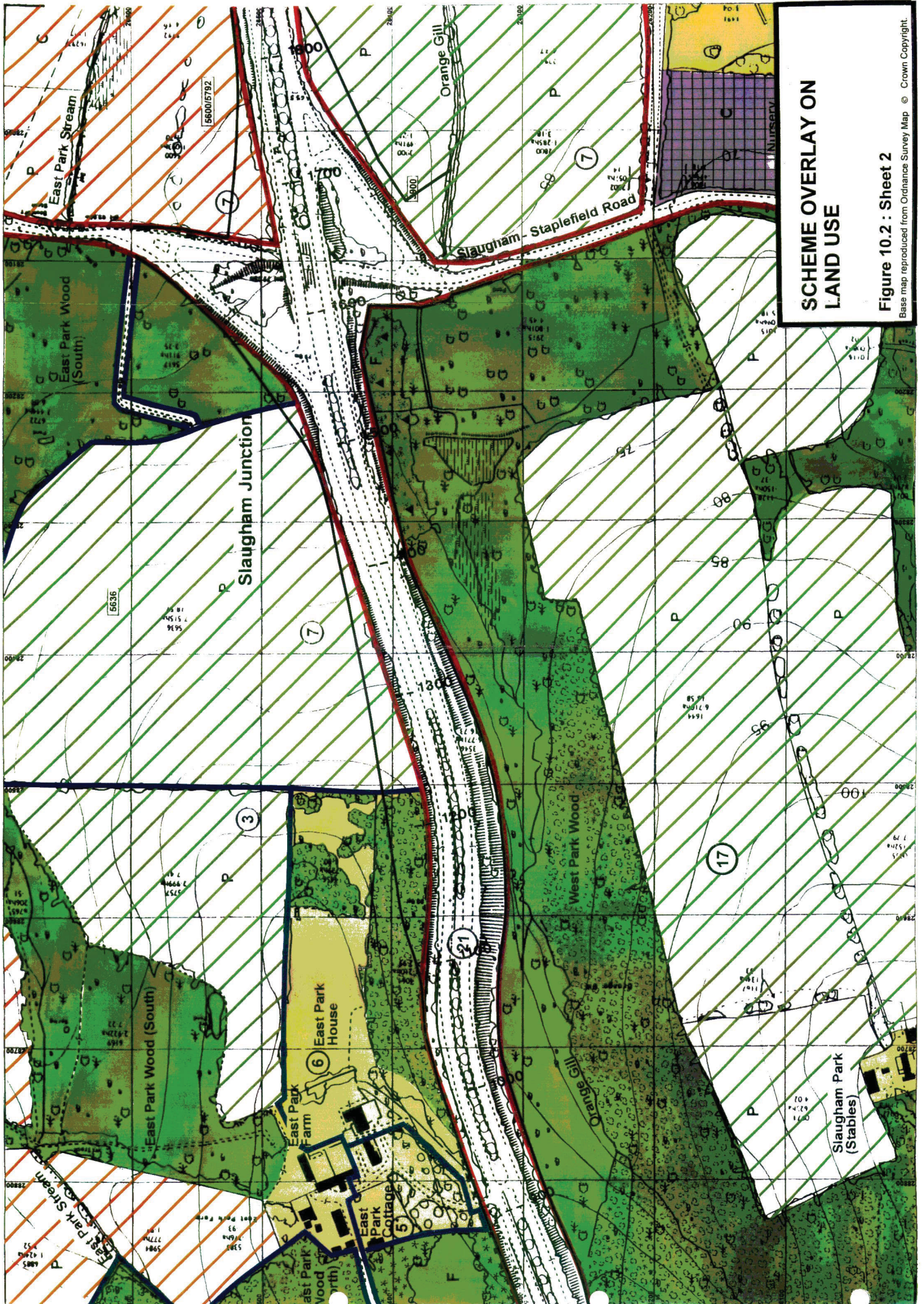
Figure 10.2 : Key Sheet



**SCHEME OVERLAY ON
LAND USE**

Figure 10.2 : Sheet 1

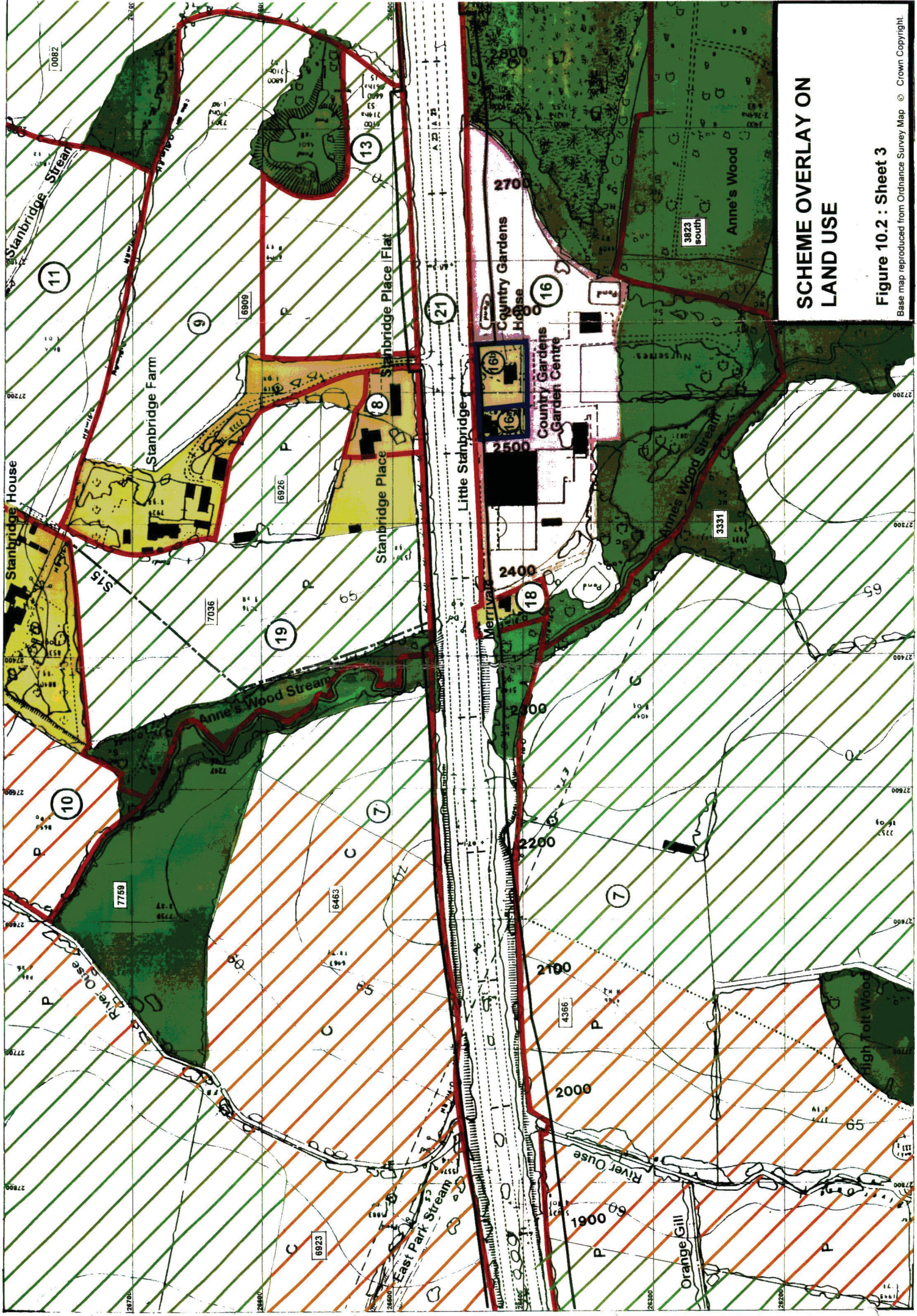
Base map reproduced from Ordnance Survey Map © Crown Copyright.



**SCHEME OVERLAY ON
LAND USE**

Figure 10.2 : Sheet 2

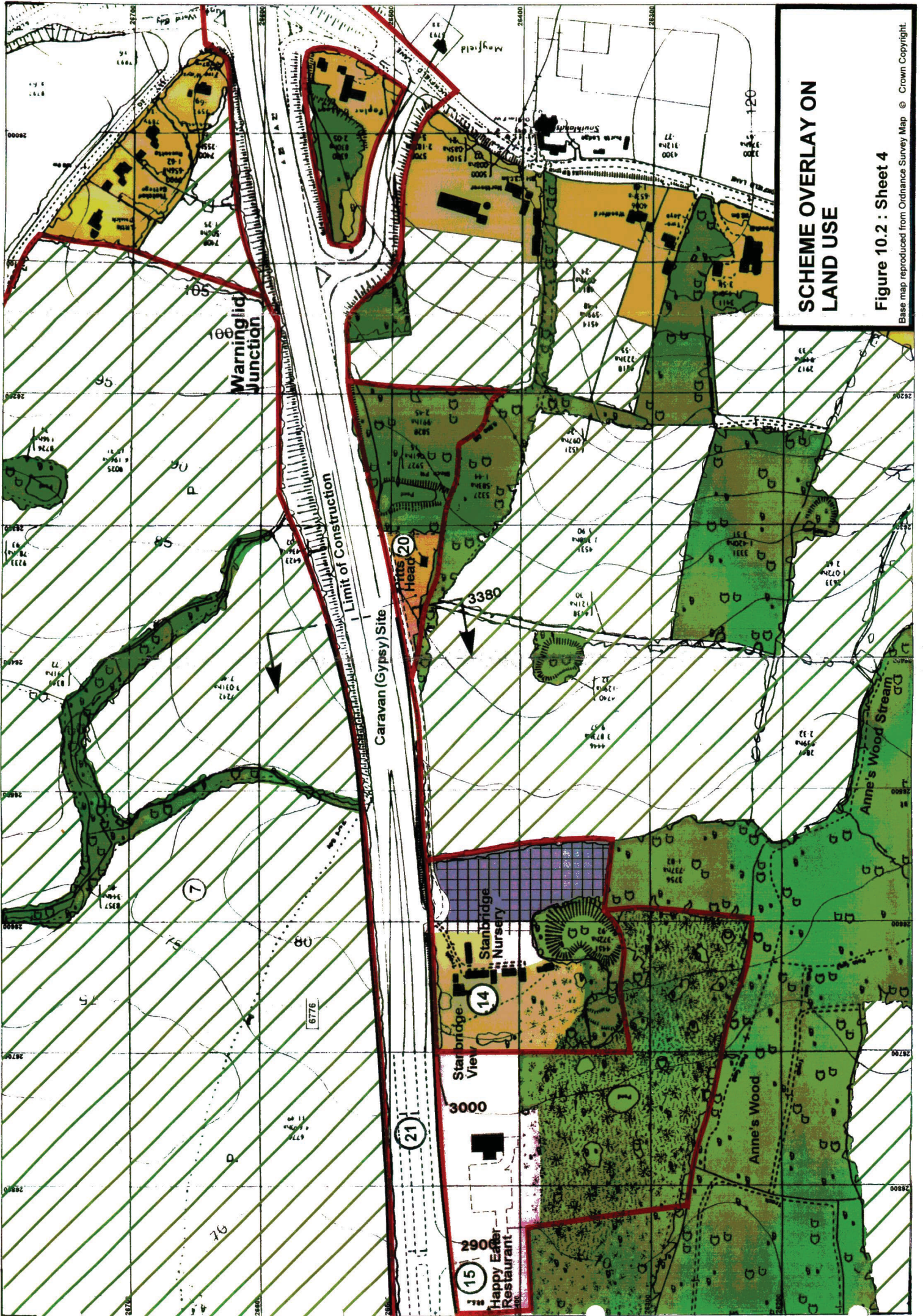
Base map reproduced from Ordnance Survey Map © Crown Copyright.



SCHEME OVERLAY ON LAND USE

Figure 10.2 : Sheet 3

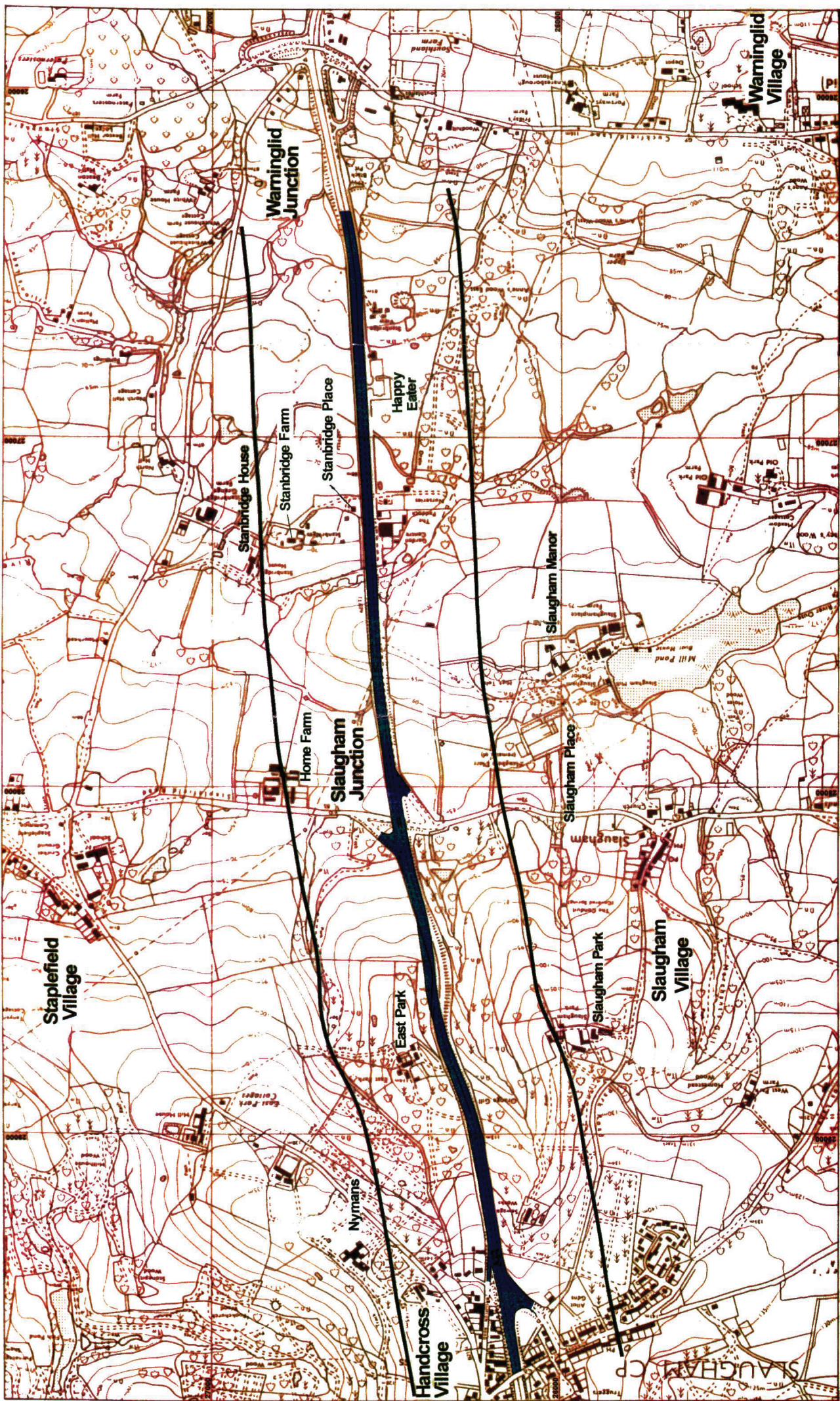
Base map reproduced from Ordnance Survey Map © Crown Copyright.



SCHEME OVERLAY ON LAND USE

Figure 10.2 : Sheet 4

Base map reproduced from Ordnance Survey Map © Crown Copyright.



**TRAFFIC NOISE LEVELS:
LOCATION PLAN**

Figure 11.1

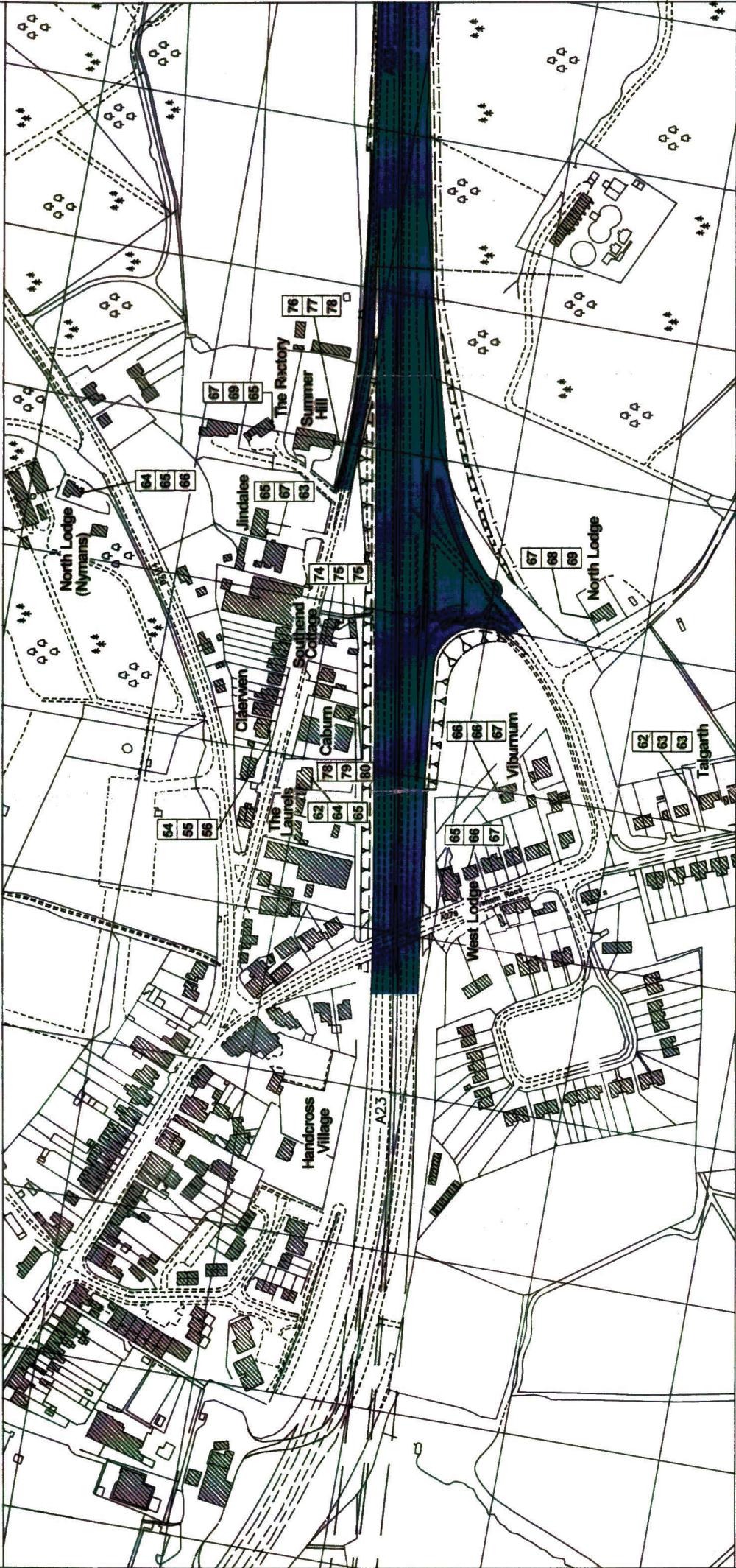
NORTH



SCALE 1/10000

LEGEND

-  Scheme
-  300m Limit of Assessment



LEGEND

- Scheme
- Property Assessed

SCALE 1 : 2500



- 65 Ambient Noise Level in 1994 *
- 66 Predicted Existing Noise Level in 2012 *
- 67 Predicted Scheme Noise Level in 2012 *
- * Rounded to Nearest Whole Number [dB(A)]

**TRAFFIC NOISE LEVELS :
HANDCROSS**

Figure 11.2



**TRAFFIC NOISE LEVELS :
EAST PARK TO
HOME FARM**
Figure 11.3

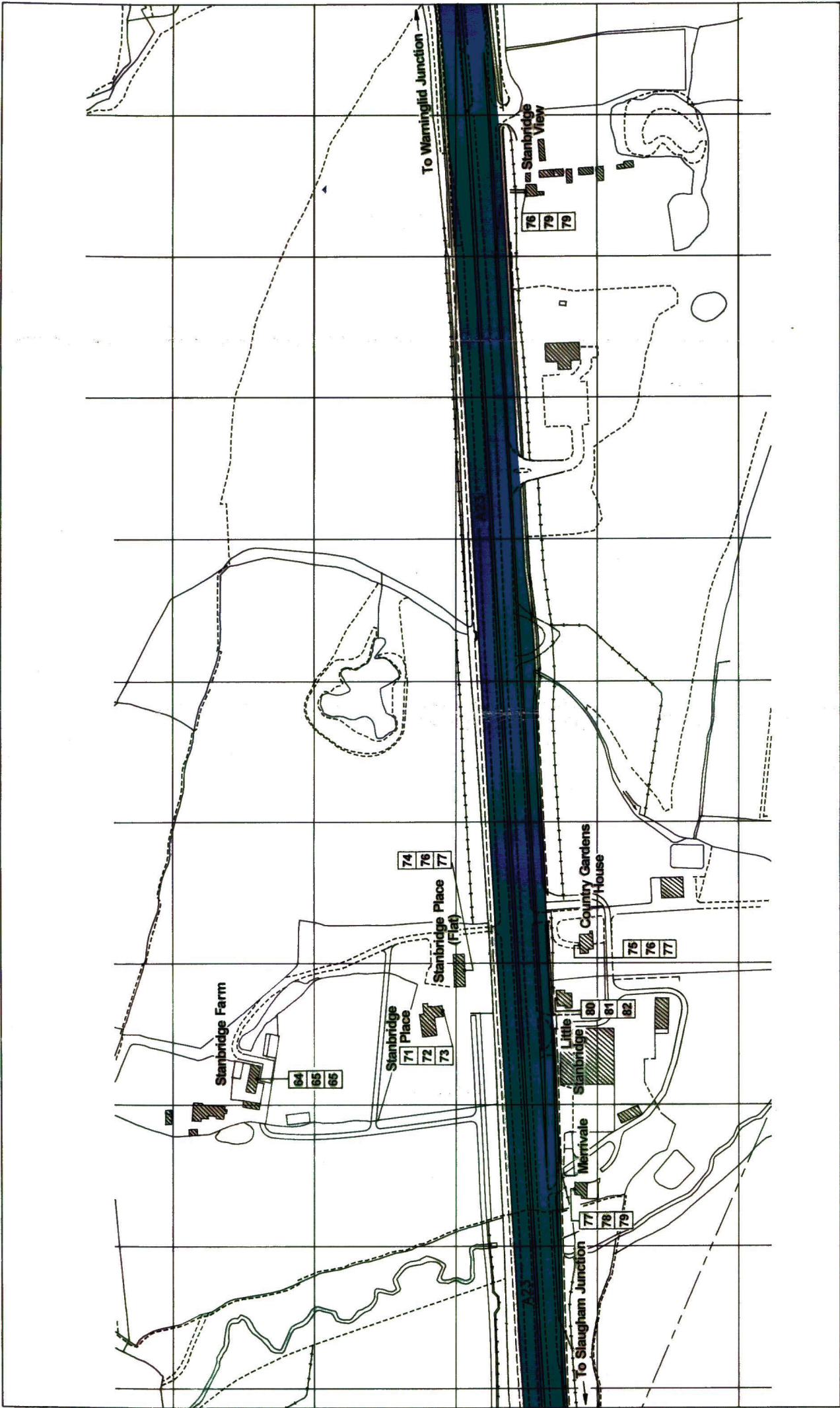


SCALE 1 : 2500

- 65 Ambient Noise Level in 1994 *
- 66 Predicted Existing Noise Level in 2012 *
- 67 Predicted Scheme Noise Level in 2012 *
- * Rounded to Nearest Whole Number [dB(A)]

65	66	67	*
----	----	----	---

- Scheme
- 300m Limit of Assessment

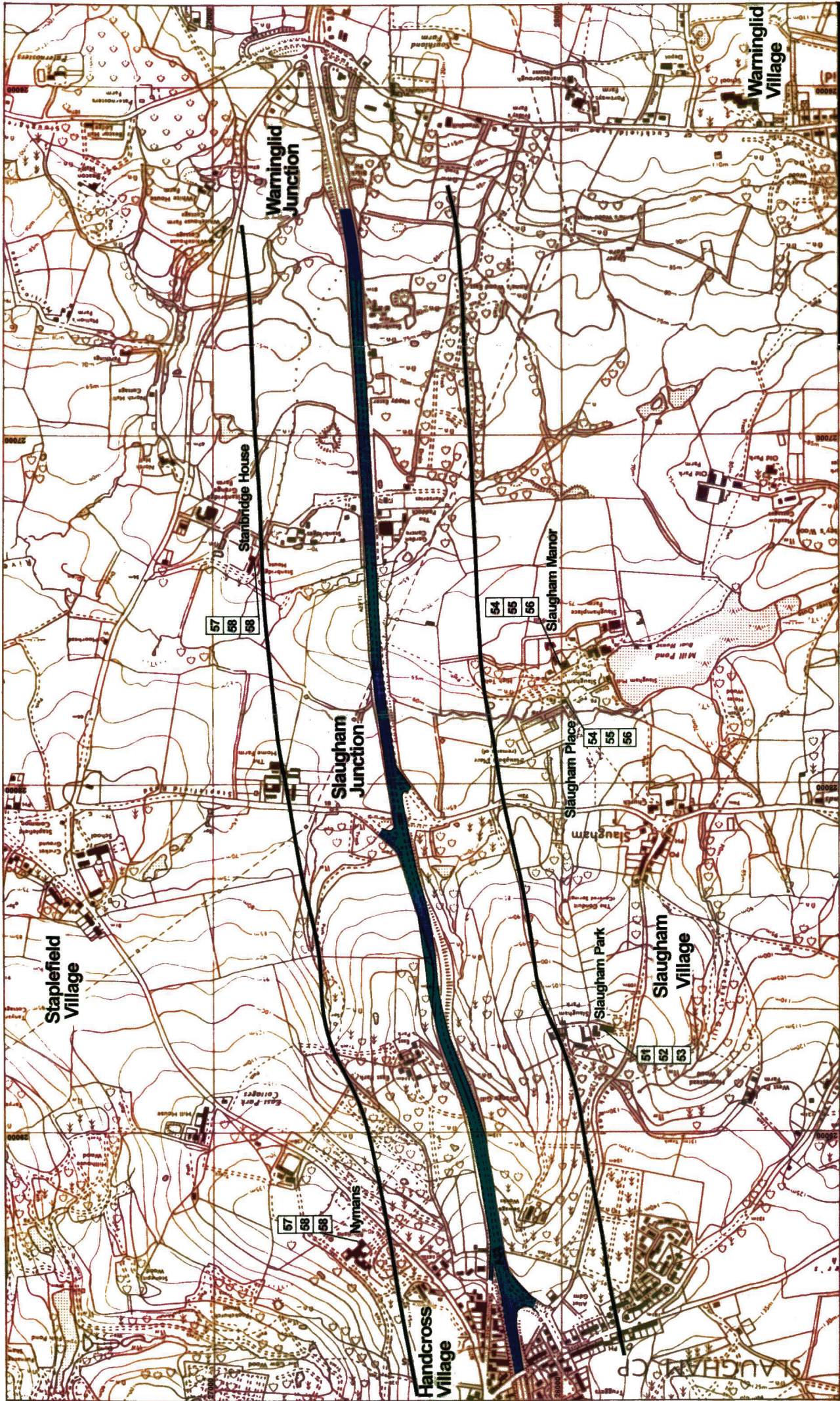


SCALE 1 : 2500

Scheme

- 65 Ambient Noise Level in 1994 *
- 66 Predicted Existing Noise Level in 2012 *
- 67 Predicted Scheme Noise Level in 2012 *
- * Rounded to Nearest Whole Number [dB(A)]

**TRAFFIC NOISE LEVELS :
MERRIVALE TO
STANBRIDGE VIEW
Figure 11.4**



**TRAFFIC NOISE LEVELS:
PROPERTIES ASSESSED
OVER 300m FROM SCHEME**
Figure 11.5



SCALE 1/10000

- LEGEND**
-  Scheme
 -  300m Limit of Assessment
 -  Nymans Individual Property Assessed

- 51 Ambient Noise Level in 1994 *
 - 52 Predicted Existing Noise Level in 2012 *
 - 53 Predicted Scheme Noise Level in 2012 *
- * Rounded to nearest Whole Number [dB(A)]



PEDESTRIANS, EQUESTRIANS AND CYCLISTS PLAN

Figure 12.1

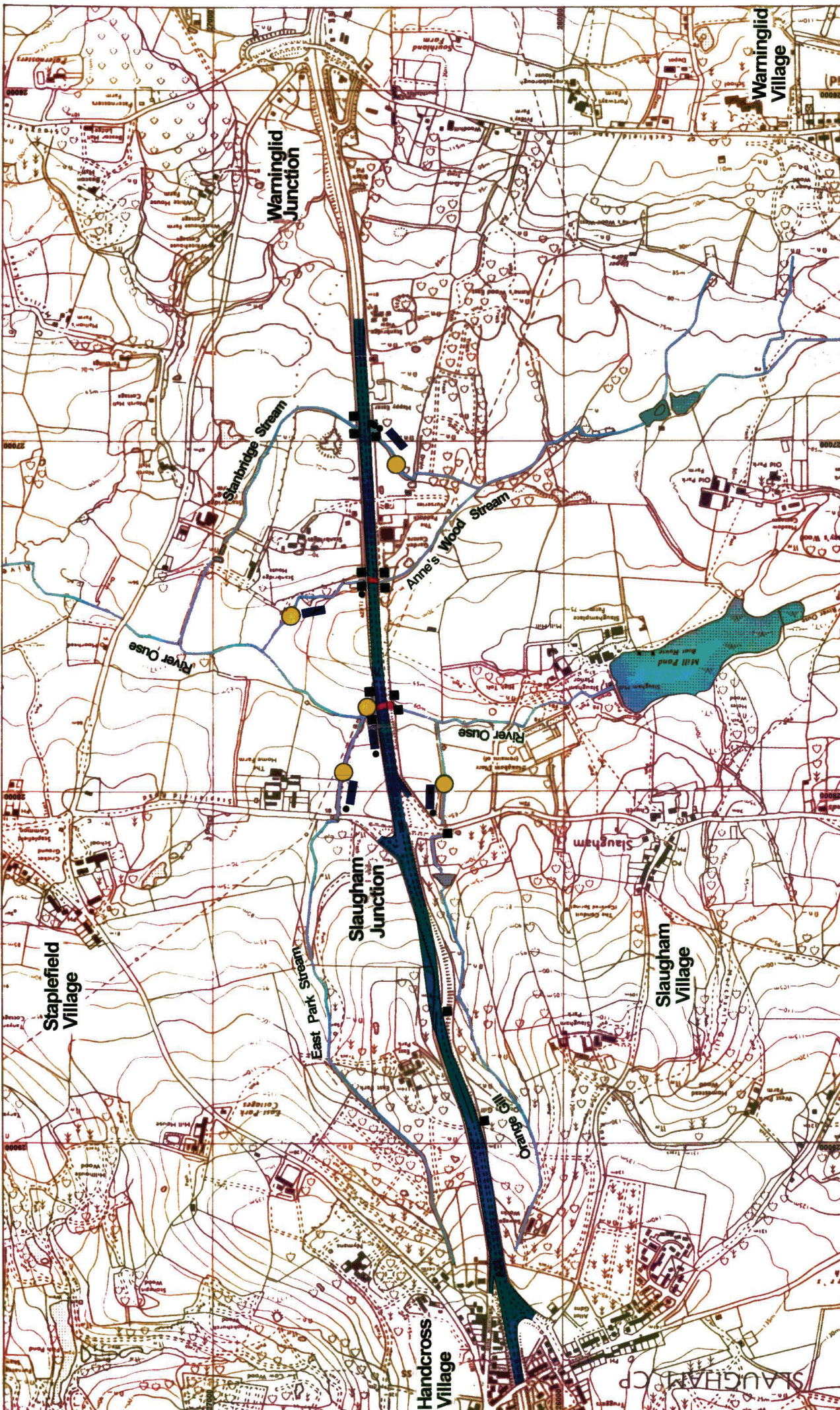


1000 metres

0 100 200 300 400 500

SCALE 1/10000








- LEGEND**
- Scheme
 - Proposed Combined Cycleway/Footpath
 - Pedestrian Access
 - Existing Combined Cycleway/ Footpath
 - Public Right of Way : Footpath (No. in accordance with Slaughton Parish)
 - Public Right of Way : Bridleway (No. in accordance with Slaughton Parish)
 - Footpath Diversion from S14 to S15
 - Route from Slaughton Village to S15 via Staplefield Lane
 - Existing Footway



INTERCEPTOR, REEBED AND OUTFALL LOCATION PLAN

Figure 14.1

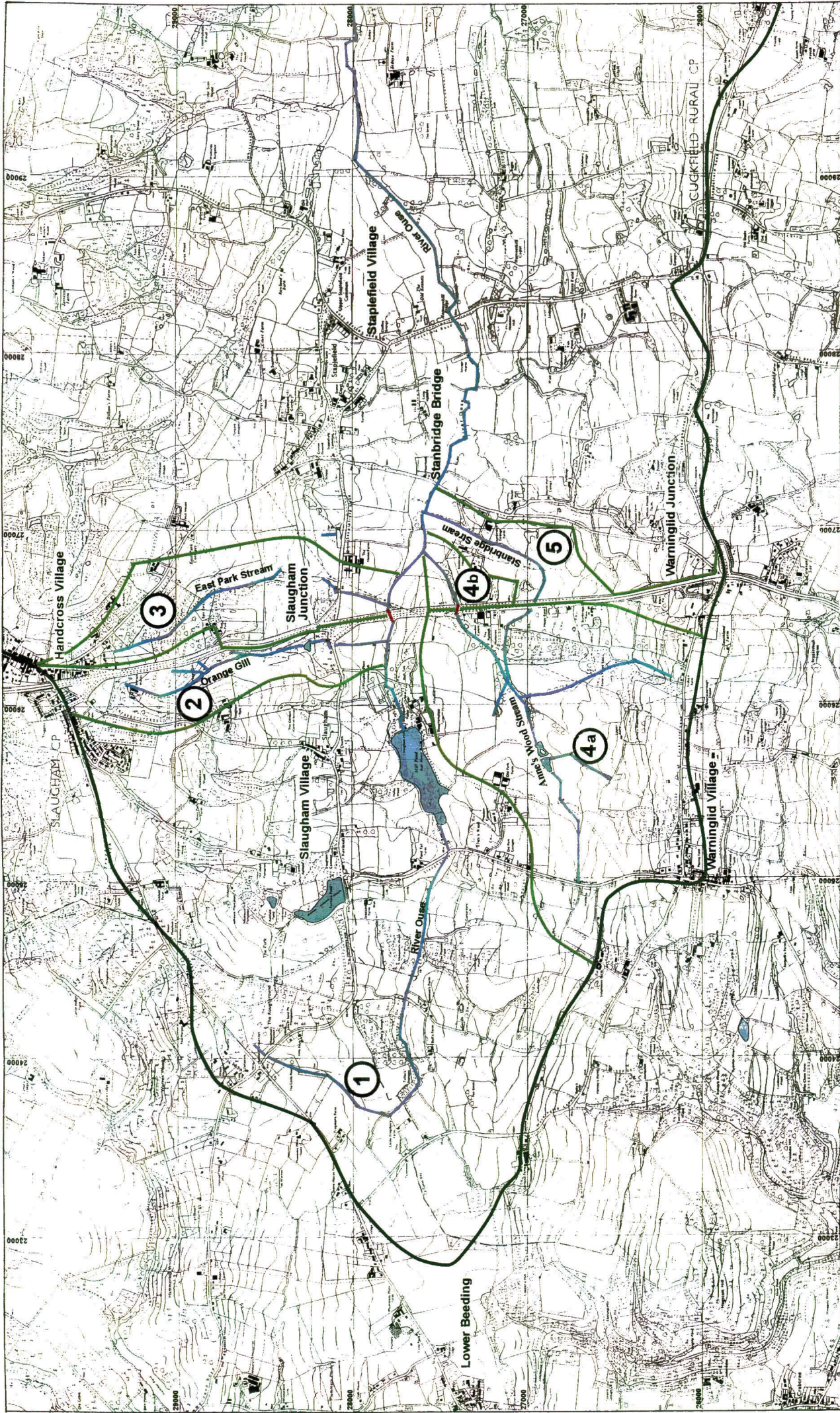
LEGEND

	Scheme		Proposed Carriageway Runoff Outfall
	Watercourse		New Culvert
	Proposed Bypass Interceptors		Ground and Surface Water Outfall
	Proposed Reedbed		

SCALE 1/10000

0 100 200 300 400 500 1000 metres

NORTH

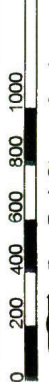


DRAINAGE CATCHMENT (EXISTING)










Figure 14.2

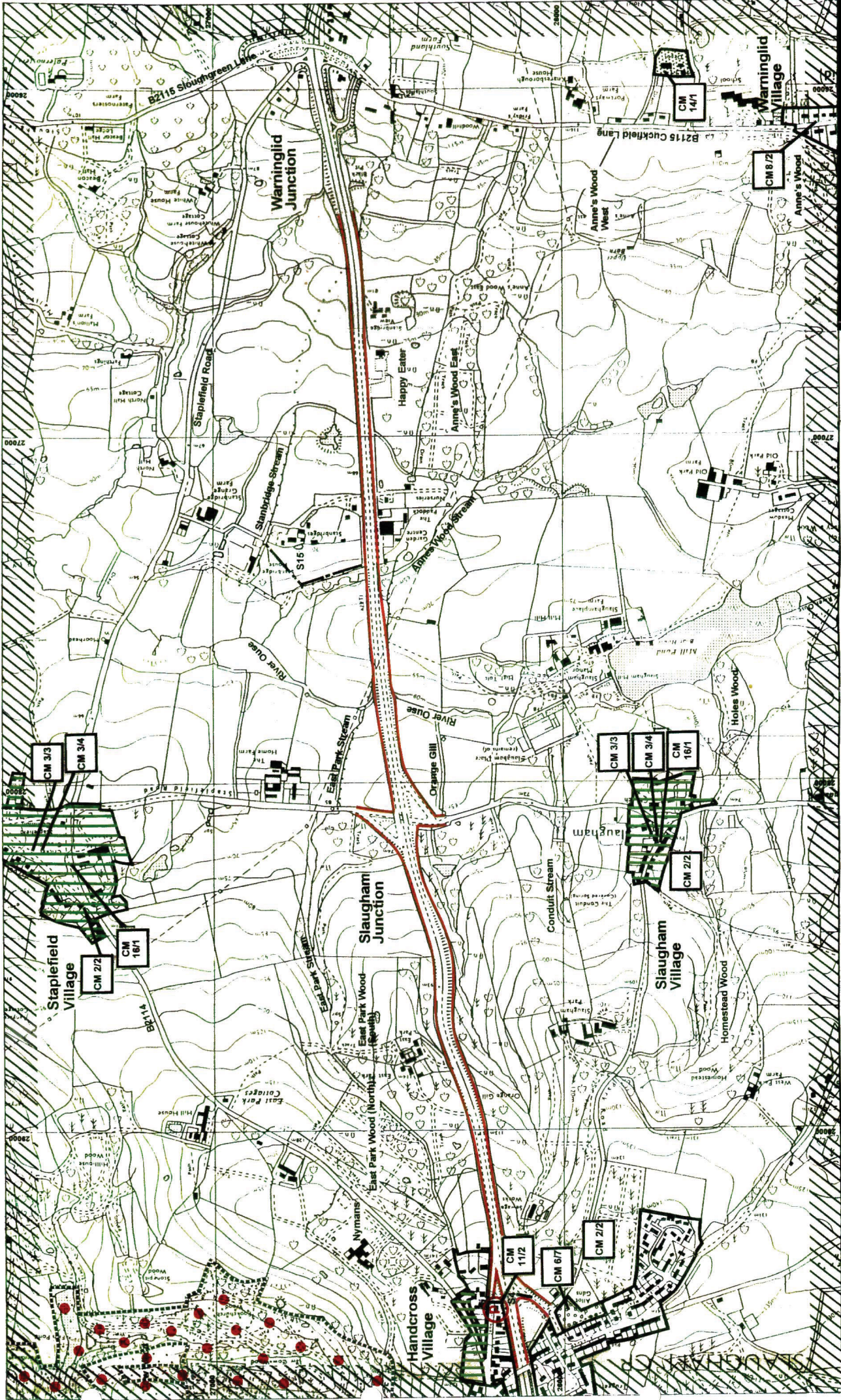


2000 metres



SCALE 1 / 20,000

-  Boundary of Ouse Catchment
-  Sub Catchment Boundary
-  River Ouse Catchment upstream of Tributaries affected by A23 Drainage
-  Orange Gill Catchment
-  East Park Stream Catchment
-  Anne's Wood Stream Catchment upstream of A23
-  Anne's Wood Stream Catchment downstream of A23
-  Stanbridge Stream Catchment
-  Existing Culvert



LEGEND

- Built-up Area Boundary
- Policy Area
- Site of Special Scientific Interest
- Allotments
- Conservation Area
- High Weald Area of Outstanding Natural Beauty
- Countryside Area of Development Restraint
- A23 Road Improvements
- Car Parking

SCALE 1 / 10,000

0 100 200 300 400 500 1000 metres

NORTH

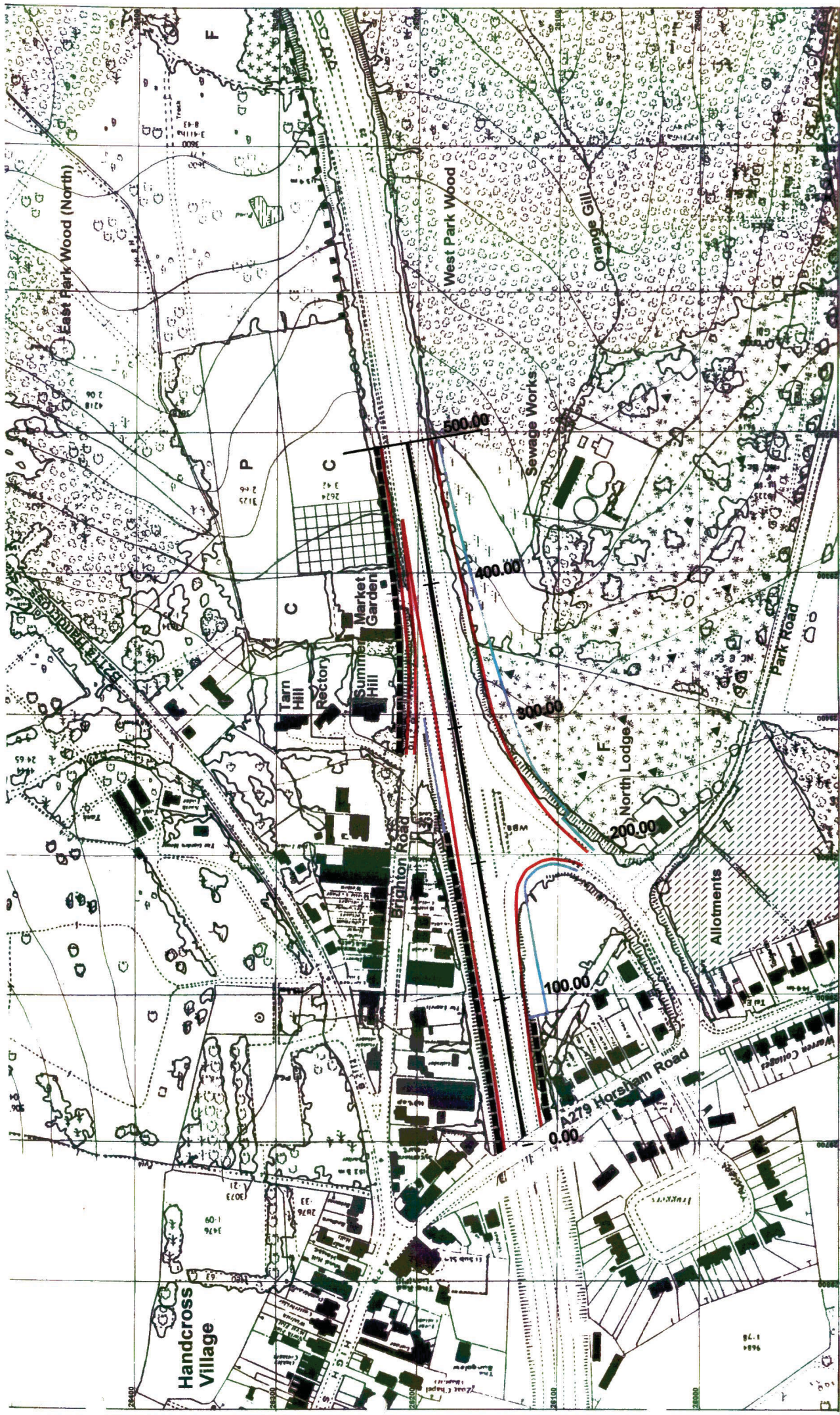
POLICIES AND PLANS MAP

Figure 16.1

Policies which apply as defined by the Structure Plan within the boundary of West Sussex County Council
 G 1 G4 G8A C 1 C2 C3 C4 C 14 B 3 B 5 1 1 T 2 T 6

Policies which apply as defined by the Local Plan within the boundaries of the Mid Sussex District Council
 CM 2/1 CM 2/2 CM 2/4 CM 2/10 CM 2/11 CM 2/12 CM 3/1 CM 3/3 CM 3/6 CM 7/1 CM 7/5 CM 7/6

Base map reproduced from Ordnance Survey Map © Crown Copyright.

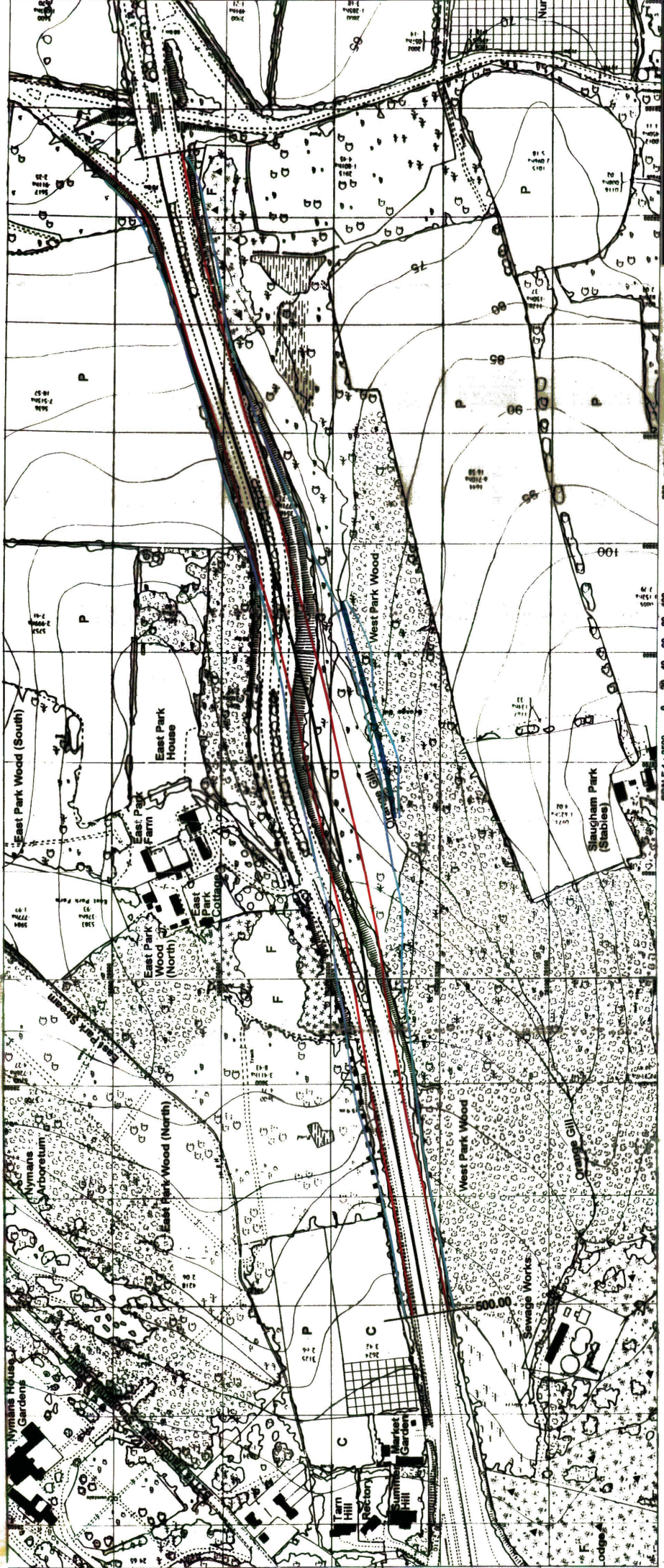


**HANDCROSS VILLAGE TO
CHAINAGE 500
ROUTE ALIGNMENT**
Figure 18.1



LEGEND

-  Centre line of Road
-  Limit of Road Including Verge
-  Limit of Earthworks
-  Retaining Wall

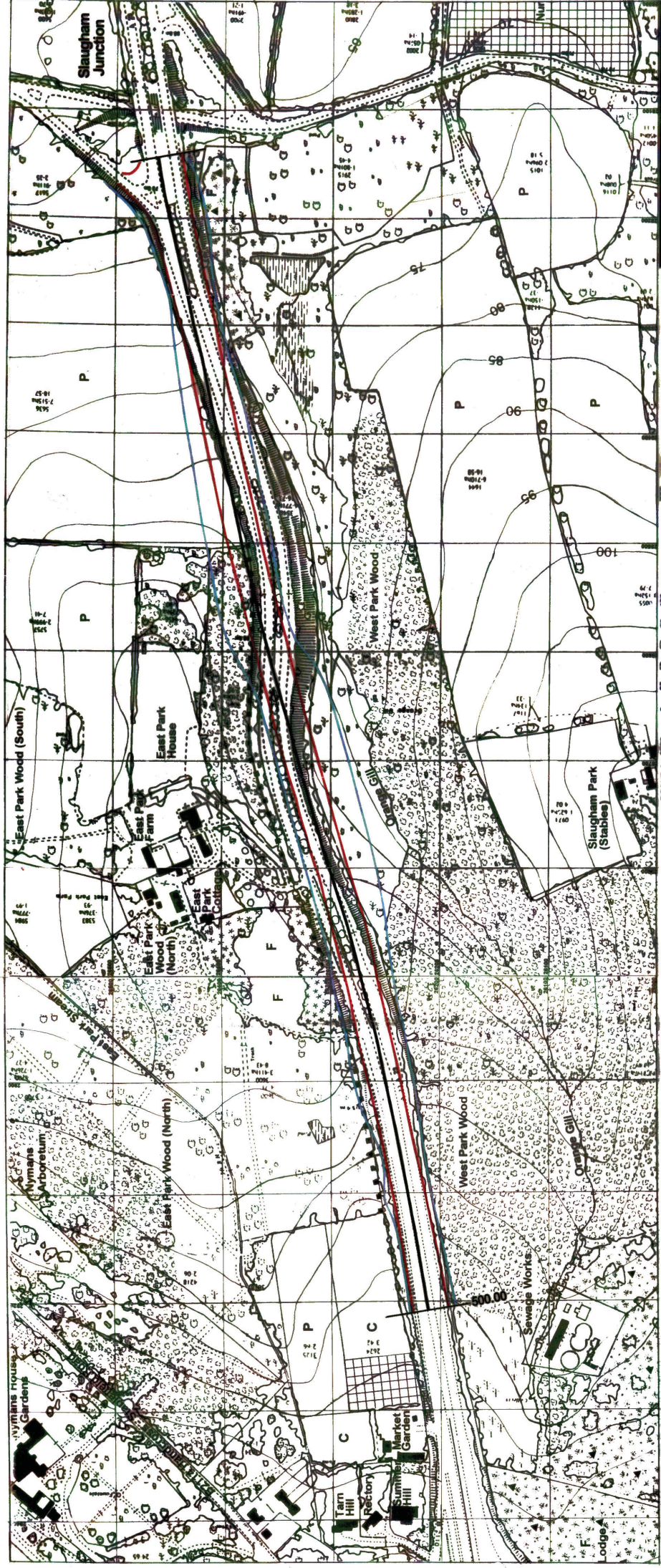


**CHAINAGE 500 TO
SLAUGHTAM JUNCTION
BLUE ROUTE**
Figure 18.2

NORTH



- LEGEND**
-  Centre line of Road
 -  Limit of Road Including Verge
 -  Limit of Earthworks
 -  Diverted Stream

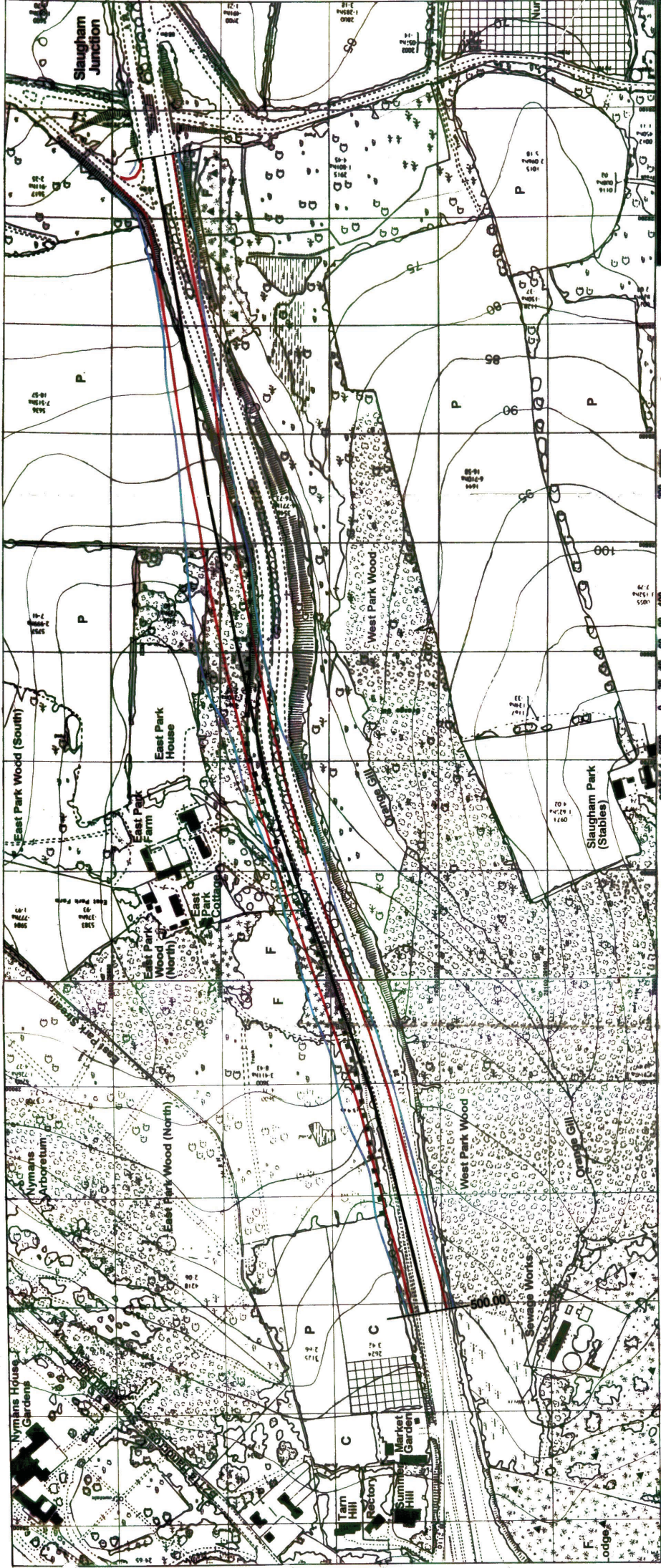


**CHAINAGE 500 TO
SLAUGHAM JUNCTION
RED ROUTE**
Figure 18.3



LEGEND

-  Centre line of Road
-  Limit of Road including Verge
-  Limit of Earthworks

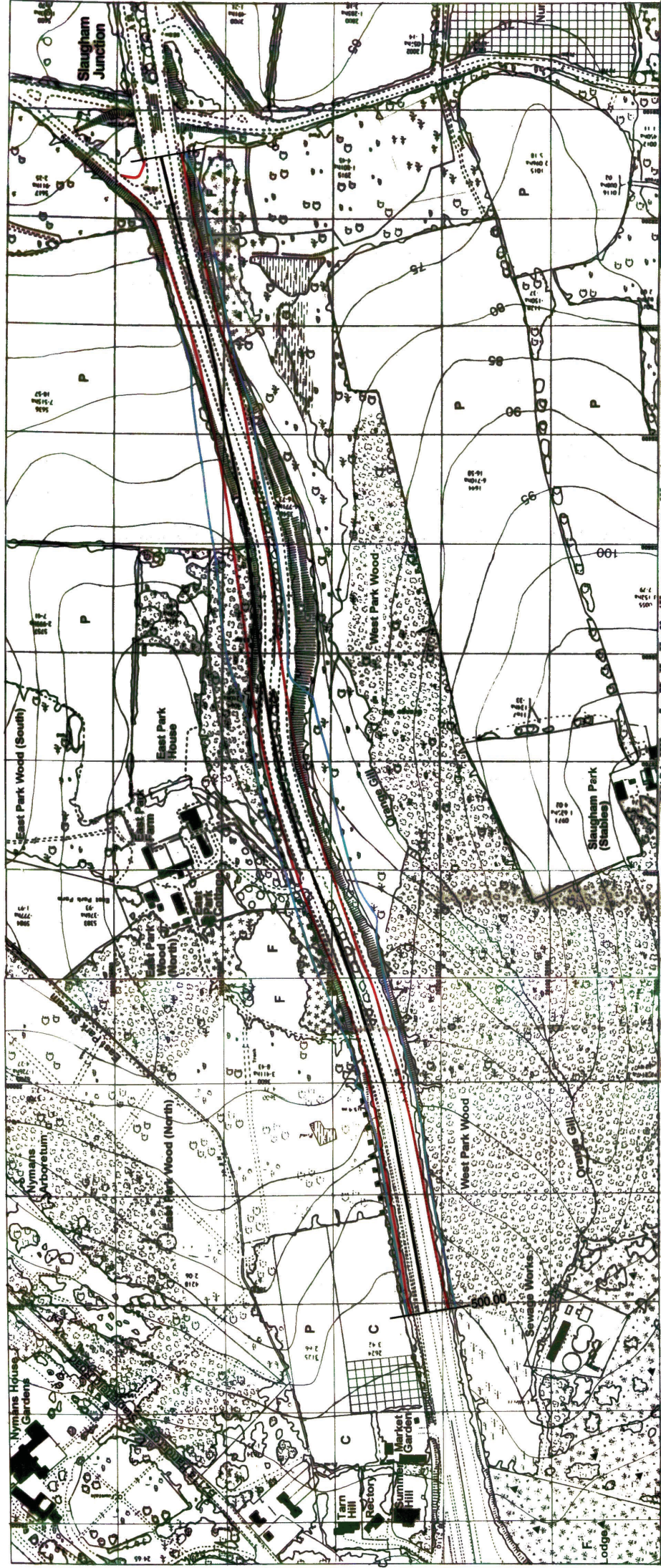


**CHAINAGE 500 TO
SLAUGHTERHAM JUNCTION
ORANGE ROUTE**
Figure 18.4



LEGEND

-  Centre line of Road
-  Limit of Road Including Verges
-  Limit of Earthworks

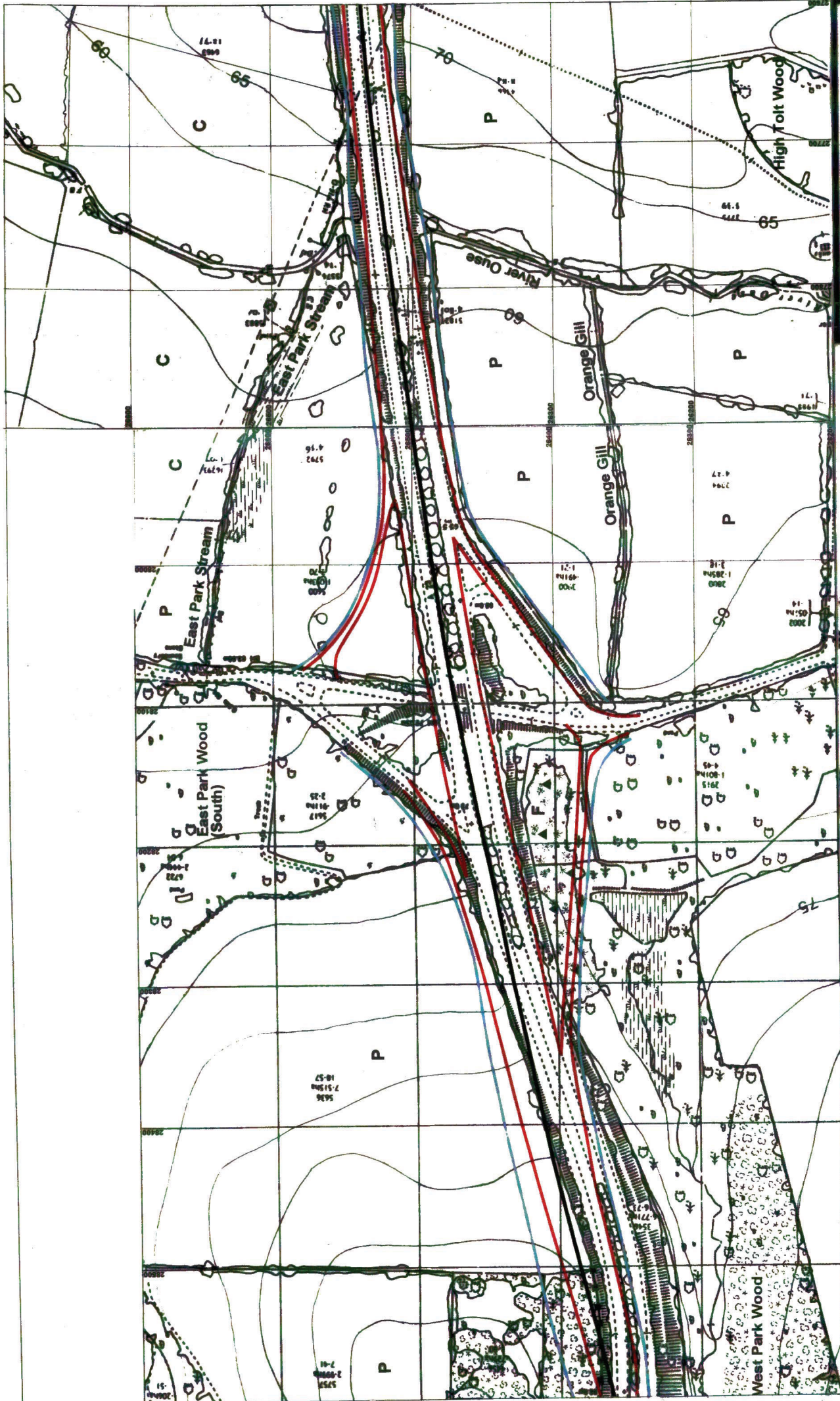


**CHAINAGE 500 TO
SLAUGHTAM JUNCTION
BROWN ROUTE**
Figure 18.5



LEGEND

-  Centre line of Road
-  Limit of Road including Verge
-  Limit of Earthworks



**SLAUGHAM JUNCTION
DIAMOND INTERCHANGE**

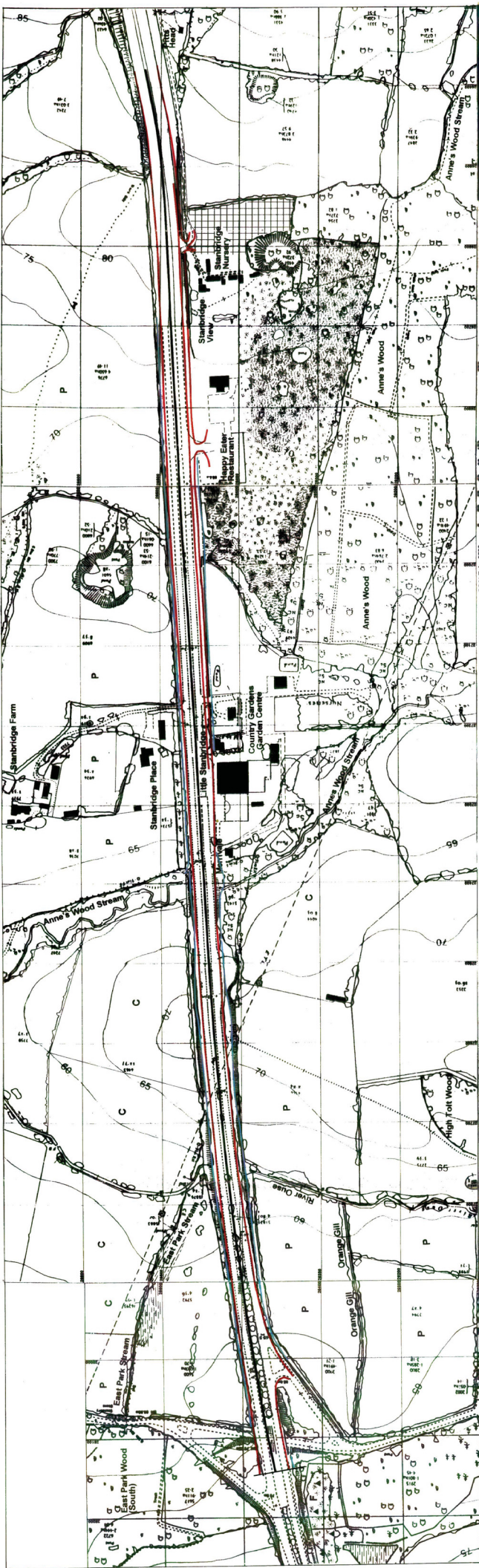
Figure 18.6



SCALE 1 : 2500

0 20 40 60 80 100 200 metres




- LEGEND**
-  Centre line of Road
 -  Limit of Road including Verge
 -  Limit of Earthworks



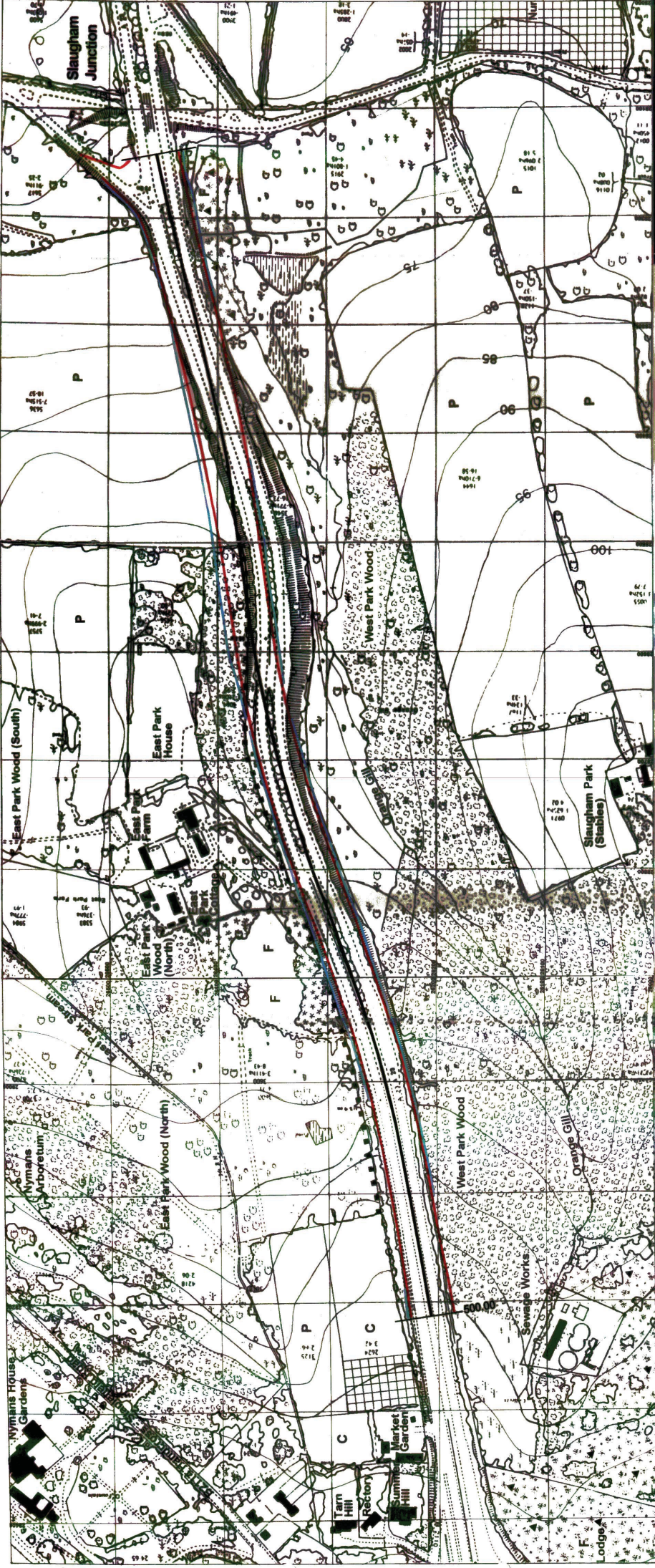
**SLAUGHTAM JUNCTION
TO WARNINGLID
TIE-IN ROUTE ALIGNMENT**
Figure 18.7

SCALE 1:2500

LEGEND

-  Centre line of Road
-  Limit of Road Including Verge
-  Limit of Earthworks

NORTH



**CHAINAGE 500 TO
SLAUGHTAM JUNCTION
PUBLISHED ROUTE**
Figure 18.8

NORTH

SCALE 1 : 2500

LEGEND

-  Centre line of Road
-  Limit of Road Including Verge
-  Limit of Earthworks

