



THE DEPARTMENT  
OF TRANSPORT

**A16 PARTNEY BYPASS  
ENVIRONMENTAL STATEMENT**

**VOLUME 1**

DEPARTMENT OF TRANSPORT  
EAST MIDLANDS NETWORK MANAGEMENT DIVISION  
CRANBROOK HOUSE  
CRANBROOK STREET  
NOTTINGHAM  
NG1 1EY

Telephone (0602) 476121

January 1993

DEPARTMENT OF TRANSPORT  
A16 PARTNEY BYPASS  
ENVIRONMENTAL STATEMENT

This Environmental Statement is issued in accordance with E.C. Directive 85/337/EEC as applied by Section 105A(2) of the 1980 Highways Act

This Environmental Statement is published concurrently with Draft Orders for the scheme and is supplemented by a 'Non-technical Summary', a copy of which is enclosed in Appendix 3. Copies of the Non-technical Summary are available free of charge to the public on request from the Department of Transport (Tel 0602 476121). The Environmental Statement consists of three volumes which may be purchased separately. Volume 1 covers all aspects of the Statement and includes a summary of the detailed environmental surveys carried out. Volume 2 contains the complete reports prepared following the detailed environmental surveys concerning landscape, ecology, archaeology and noise. Volume 3 details the impact of the scheme on elements of the ecology in the area which might be at risk by general disclosure and is available from the Department of Transport to registered ecological groups.

Any person wishing to comment on the Statement should do so in writing to the address shown below by 25 March 1993

The Department of Transport  
East Midlands Regional Office  
Network Management and Construction Division  
Cranbrook House  
Cranbrook Street  
Nottingham NG1 1EY

CONTENTS - VOLUME 1 - ENVIRONMENTAL STATEMENT

1.0	INTRODUCTION	1
2.0	CHOICE OF PUBLISHED SCHEME	4
3.0	DESCRIPTION OF THE PUBLISHED SCHEME	7
4.0	THE SITE AND SITE ENVIRONMENT	9
4.1	General Context	9
4.2	Existing Road Network	9
4.3	The Landscape and Topography of the Route	10
4.4	Settlements	10
4.5	Cultural Heritage	11
4.6	Land Use	12
4.7	Recreation	12
4.8	Ecology	13
4.9	Geology and Geomorphology	15
4.10	Archaeological Sites	16
4.11	Water	16
4.12	Climate	17
4.13	Planning Policies	17
5.0	ASSESSMENT OF ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION	19
5.1	Route Planning	19
5.2	Visual Impact	19
5.3	Physical Effects on the Land	25
5.4	Traffic Noise	25
5.5	Emissions to the Air	27
5.6	Agricultural Land	29
5.7	Recreation	29
5.8	Local Roads and Transport	30
5.9	Ecology	31
5.10	Archaeological Sites	32
5.11	Water and Highway Drainage	32
5.12	Highway Lighting	33
5.13	Temporary Effects During Road Construction Disturbance due to Construction Noise, Pollution, Haul Roads and Construction Access	33

**APPENDIX 1 - Data on Environmental Effects (Appraisal Framework) 1 - 13**

Group 1	- Travellers	1
Group 2	- Occupiers	3
Group 3	- Users of facilities	6
Group 4	- Policies for Enhancing the Area	7
Group 5	- Transport, Development and Economic Policies	10
Group 6	- Financial Effects	11
Annex 1	- Public Consultation Responses	12
Annex 2	- Statutory Authorities Responses	13

**APPENDIX 2 - FIGURES**

Figure 1	- Location Plan
Figure 2	- Alternative Routes Plan
Figure 3a	- Existing Conditions - Dalby Hill to Maddison Lane
Figure 3b	- Existing Conditions - Maddison Lane to Sausthorpe Road Junction
Figure 4	- Traffic Flows
Figure 5	- Planning Constraints
Figure 6	- Engineering and Landscape Proposals

**APPENDIX 3 - NON-TECHNICAL SUMMARY**

**CONTENTS - VOLUME 2 - SPECIALIST SURVEY REPORTS**

1. Landscape Report
2. Ecological Survey Report
3. Archaeological Survey Report
4. Noise Assessment Report

**CONTENTS - VOLUME 3 - CONFIDENTIAL SUPPLEMENTARY REPORT**

## 1.0 Introduction

- 1.1 The village of Partney (population 255) lying on the eastern dip slope of the Lincolnshire Wolds limestone escarpment is located at the junction of the A16 and A158 some 43 kilometres (27 miles) east of Lincoln. Much of the village lies in the north east quadrant formed by the junction of the two roads. The village itself lies on the southern edge of the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and contains a number of listed buildings in close proximity to the existing road
- 1.2 The A16 forms part of the strategic National Trunk Road network providing long-distance communications between Stamford in the south and Grimsby in the north, passing through Spalding, Boston and Louth. In addition, the road serves the local needs of smaller towns and villages. (see Figure 1)
- 1.3 Lincolnshire lies to the east of the country's main lines of road communications but through traffic, both commercial and recreational, has a marked effect upon the county. Considerable traffic passes through the county originating from or destined for the major industrial areas of the East Midlands, South Yorkshire and South Humberside. The Humber and East Anglian ports in particular are responsible for substantial volumes of heavy goods vehicles. The holiday facilities of the Lincolnshire Coast in the Mablethorpe and Skegness areas attract up to three million visitors a year and are reputed to contain the highest density of static caravans in the world. These areas generate very substantial traffic flows during the summer months.
- 1.4 Many of the towns and villages in Lincolnshire are located on the County Strategic Road Network (which includes the A16) thus exposing local residents to all the environmental disadvantages associated with substantial volumes of traffic through residential areas.
- 1.5 The A16 north of its junction with the A158 presently carries 3800 vehicles per day of which 15% are heavy goods vehicles. However due to holiday facilities in the area the daily flow increases to over 7000 per day in August. Records show that in the 4 years 1987-1990 there have been 11 personal injury accidents in Partney and on the surrounding road network (within 1 mile of village centre on A16 and A158) one of which was fatal.

- 1.6 The existing road through Partney has very poor horizontal alignment, visibility and carriageway width. Footways are narrow or non-existent and many properties have direct access onto the A16. In the centre of Partney southbound A16 traffic must negotiate the 'STOP' sign at the junction with the A158. Traffic volumes and inadequate footways combine to sever the village and its inhabitants.
- 1.7 The 1975 Roads Programme included for the comprehensive improvement of the A16 between Stamford and Grimsby. This was withdrawn in favour of individual schemes in the 1981 Policy for Roads White Paper and subsequent White Papers including the latest one in 1990. The line of a western bypass for Partney was protected by the Planning Authority against development until 1982 when such protection was withdrawn. The current proposals were first published as a Preferred Route on 26 April 1991 and were again protected against development.
- 1.8 The objectives of the Governments road programme are:
- (i) Assisting economic growth by reducing transport costs;
  - (ii) Improving the environment by removing through-traffic from unsuitable roads in towns and villages;
  - (iii) Enhancing road safety.

The proposed A16 Partney Bypass fulfills these objectives.

- 1.9 The construction of an A16 Partney Bypass, as currently proposed, would relieve the village of a large proportion of the through traffic thus bringing relief to the problems caused by severance between residential property and the facilities of the village and improve road safety and many other aspects of the village environment.

- 1.10 As the northern section of the bypass cuts through part of the Lincolnshire Wolds Area of Outstanding Natural Beauty it would inevitably affect the rural environment, the local ecology and cause some visual intrusion into this attractive open landscape. This Environmental Statement describes the site and the scheme, it assesses the overall impact on the environment of the proposals and the measures proposed to mitigate the adverse effects. The reasons for the choice of the Published Scheme are also described.

## 2.0 Choice Of Published Scheme

- 2.1 Feasibility studies for an A16 Partney Bypass considered alternative route corridors as illustrated in Figure 2.
- 2.2 The 'Blue Route' to the east of Partney and 'Red Route Alternatives 1, 2 and 3' to the west of Partney were examined in detail before 'Red Route Alternative 1' was chosen as the basis for the Published Scheme described in Section 3.
- 2.3 The 'Blue Route' commences at the base of Dalby Hill diverging south east from the existing trunk road. A new 'T' junction would provide local access to Partney. The route would curve gently south east, almost parallel to Maddison Lane before curving southwards to a new roundabout junction on the A158, it would then curve southwest of Partney Village to a proposed roundabout at the junction of the A16 and A158. The route would primarily be in shallow cutting north of the A158 junction and low embankment south of the A158 junction, except at the approaches to the crossing with Hardings Lane where it would be in cutting of up to 6m.
- 2.4 Due to the horizontal and vertical constraints the route would have no overtaking opportunities and as overtaking sections are not available on the adjoining sections of the trunk road the bypass would not conform to the Departmental Standards for single carriageway roads. The Blue Route would have a major environmental impact with 73 properties experiencing visual intrusion and 8 properties visual obstruction. Because of its length, 60% longer than the other alternatives, it would impinge on a greater area of the Lincolnshire Wolds Area of Outstanding Natural Beauty and on agricultural land than the other alternative. Routes further east would cut deeper into the AONB and be longer and thus less economically viable. Trunk road traffic would be required to negotiate an additional roundabout junction than with the Published Route.
- 2.5 This route is 1.0km longer than the existing A16 through Partney and it is probable that a significant volume of trunk road traffic would continue to use the existing route in preference to the bypass. Consequently the full benefits of the bypass would not be realised.



- 2.6 'Red Route Alternative 2' would commence at the base of Dalby Hill where a new 'T' junction would provide local access to Partney Village. It would follow the same horizontal and vertical alignment as the Published Route until it reached public footpath PPF123 where it would turn southeast to rejoin the existing A16 at a new roundabout junction just north of Partney Hall. The route would have no overtaking sections due to horizontal and vertical constraints and as overtaking sections are not available on the adjoining sections of trunk road the bypass would not conform to Departmental Standards for single carriageway roads. An additional roundabout would be introduced on the Trunk Road compared to the Published Route.
- 2.7 The environmental impact of this route would be similar to that of the Published Route, except that Partney Hall, a Grade II listed building and properties to the south of the village, would experience an increase in visual intrusion and traffic noise. The route would require slightly less agricultural land to be taken than the Published Route. Six properties to the south of the scheme would be severed from the rest of the village.
- 2.8 'Red Route Alternative 3' would commence at the base of Dalby Hill where a new 'T' junction would provide local access to Partney Village. The route would run south almost parallel to the existing trunk road to reconnect just south west of Partney Hall, passing within 50-80 metres of the rear of 20 properties to the west of Dalby Road. A new roundabout junction would provide access to the A158 just north of Partney Hall which would experience an increase in visual intrusion and traffic noise. Most of the route would be at existing ground level or on low embankment. This route would be intrusive to the rear of properties which front the west side of the existing trunk road and currently enjoy open agricultural land, a stream and mature trees at the rear. Much of this woodland and the stream, together with its wildlife, would be removed by this Alternative.

- 2.9 The route would have no overtaking sections due to horizontal and vertical constraints and as overtaking sections are not available on the adjoining sections of trunk road the bypass would not conform to Departmental Standards for single carriageway roads. The free flow of trunk road traffic would be interrupted by an additional roundabout than with the Published Route. The Grange and 6 properties to the south of the scheme would be severed from the rest of the village. This route would require less agricultural land than the Published Scheme or the other alternatives.
- 2.10 Routes further west than "Red Route Alternative 1" are longer, more costly and produce greater farm severance. They would cut deeper into the AONB and encroach on the site of Special Scientific Interest (SSSI) to the north on Dalby Hill. Their impact on properties would be less than with the other alternatives.
- 2.11 The improvement of the existing A16 through Partney would require the demolition of 12 properties including 2 Grade 2 listed buildings and would not relieve the village of traffic noise or severance. The construction works would cause substantial disruption to both travellers and villagers.
- 2.12 The draft Order plans now published define the Published Scheme which is based very closely on the 'Red Route Alternative 1'

**3.0 Description Of The Published Scheme (Refer to Figure 6)**

- 3.1 The Published Scheme would consist of a single carriageway road, 7.3 metres wide with 1.0 metre wide hardstrips to each side. It can conveniently be divided into 3 sections which, travelling southwards are as follows:

Northern Section - Northern Junction to Parish Boundary 0-500m

- 3.2 The route diverges from the existing trunk road on a right hand bend and slight downhill gradient at or slightly above the existing ground level to cross the stream on the Dalby/Partney Parish boundary. This is crossed on a localised embankment of up to 4 metres in height through which the stream would be culverted. A new 'T' junction would be provided with the superseded trunk road to give access between Partney village and the north.

Central Section - Parish Boundary to Langton Beck 500-1250m

- 3.3 Between the two streams the road follows a straight horizontal alignment and almost straight southly down grade. It enters a slight cutting at Chainage 550 which reaches a maximum depth of 3.5 metres at Chainage 950. Continuing southwards this depth reduces and at Chainage 1100 changes to an embankment of maximum height 1.5 metres before crossing the culverted Langton Beck. Agricultural access to land on the west of the bypass would be maintained by the provision of an access track along the western highway boundary from Chainage 720 metres to the existing A158. Footpaths PPF123 and PPF354 would cross at-grade with the assistance of stiles and steps at Chainages 740 and 900 metres respectively.

Southern Section - Langton Beck - Southern Extent 1250-1450m

- 3.4 Between Langton Beck and the improved roundabout junction with the A158 the road, which continues with a straight alignment, lies on a slight embankment.

A new roundabout junction with the A158 would be provided immediately west of the existing roundabout with the existing approach roads modified over short lengths. A redundant length of Sausthorpe Road would be utilised for field accesses and landscaping purposes. Access to Partney Service Station and Stoneleigh would be from the modified Spilsby Road. The new roundabout would be lit using fully cut off high pressure sodium lights. These pinky white lights reflect virtually no light upwards thereby minimising light pollution.

#### 4.0 The Site And Site Environment

##### 4.1 General Context

- 4.1.1 The landscape around Partney is characterised by intensively managed fields associated with the alluvial plain of the River Lynn valley. To the east a parkland landscape predominates with the village itself lying on the southern edge of the Lincolnshire Wolds Area of Outstanding Natural Beauty.

##### 4.2 Existing Road Network

- 4.2.1 The length of the existing trunk road to be bypassed is a single carriageway road. It commences in the south at its roundabout junction with the A158 Sausthorpe Road, passes through the village to finish at the base of Dalby Hill to the north of Partney.
- 4.2.2 Starting from the A158 Sausthorpe Road roundabout, the A16 proceeds northwards coexistent with the A158, negotiating three sharp bends with a gently rising gradient until it reaches its junction with the Skegness Road adjacent to Partney Church. The A158 leaves the A16 at a 'T' junction at which the A158 has priority and southbound A16 traffic must negotiate a 'STOP' sign. The road continues northwards through the village where the carriageway narrows to as little as 5.7 metres as it passes the church. Gently sweeping on a westward curve the road leaves the village before turning northwards at the base of Dalby Hill. North of the 'STOP' sign the vertical alignment of the existing road falls steeply within the village before gently rising up to the base of Dalby Hill.
- 4.2.3 The horizontal and vertical alignments are well below current standards over the majority of its length with many properties' accesses being directly onto the trunk road. Pedestrian facilities are poor in the village particularly on the east side where there is only a narrow or intermittent footway. The high traffic flows, the majority of it through traffic, causes severance between residential property on the west side and the church, school, other facilities and the remainder of the village on the east side. Traffic noise, vibration and fumes further degrade the village and the life of its inhabitants.
- 4.2.4 The existing road is described in Figures 3a and 3b.

#### 4.3 The Landscape and Topography of the Route

- 4.3.1 A detailed appraisal of the landscape has been prepared by Landscape Architects and their Landscape Report appears in full in Volume 2. The main points are summarised in the following paragraphs (Refer to Figure 5).
- 4.3.2 Partney is situated within a generally low lying area of gently undulating topography in the valley of the River Lynn, the land rising to the north, west and south.
- 4.3.3 To the north of Partney lies the **Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB)**, a statutory designation. The land to the south of the AONB is designated by Lincolnshire County Council as an **Area of Great Landscape Value** (See para 4.13.4).
- 4.3.4 Within the River Lynn floodplain, the Spilsby Sandstone provides interest in the form of undulating landscape features. Two minor streams rising in the Lincolnshire Wolds, flow southwards either side of Dalby Hill and converge to the west of Partney before joining the River Lynn
- 4.3.5 Vegetation which fringes the river, streams and drainage ditches, together with small isolated woods and copses, and hedgerow vegetation, provide valuable elements within a generally open and relatively featureless landscape.

#### 4.4 Settlements

- 4.4.1 Partney is a predominantly brick-built village accommodating approximately 100 dwellings and a population of approximately 250. It has developed along the two main roads, the A16 and the A158, with the most significant group of buildings on the A16 in the vicinity of the Church
- 4.4.2 A number of farm settlements (Partney Farm, Brewery Farm, Minster Farm, Skendleby Holme Farm, Field Farm, Dalby Hall Farm, Model Farm and Mill Farm), exist in the areas around Partney itself.

4.4.3 The small town of Spilsby lies some 2.5 kilometres (1.5 miles) to the south of Partney, occupying a slightly elevated location. Villages in the vicinity include Sausthorpe (3 km [1.9 miles] from Partney), Hundleby (3 km [1.9 miles]), Ashby by Partney (2.5 km [1.5 miles]), Scremby (3 km [1.9 miles]) and Skendleby (3 km [1.9 miles]). (Refer to Volume 2, Landscape Report, Figure 1).

#### 4.5 Cultural Heritage

4.5.1 There are six buildings and one monument which are **Grade II listed** (buildings of special interest) within Partney. The locations of these are indicated on Figure 5 and are:-

8/45	Partney Parish Church
8/46	Memorial Stone
8/47	The Grange
8/48	Hornbeck House
8/49	Ivy House
8/50	Hill Crest
8/51	Partney Hall

4.5.2 Partney Hall is located some 50 metres to the east of the existing A158. The Grange is located approximately 160 metres to the west of the A16. Ivy House and Hill Crest are also set back from existing roads, but The Church and Hornbeck House are situated on the roadside of the existing A16.

4.5.3 There are no **Scheduled Ancient Monuments** or **Conservation** areas within the Partney Study area. There are 8 references in the **Lincolnshire County Council Sites and Monuments Records (SMR's)** in the vicinity of the scheme.

4.5.4 Archaeological issues are addressed separately in Section 4.10.

#### 4.6 Land Use

- 4.6.1 The land surrounding Partney is predominantly agricultural, primarily arable, and classified by the Ministry of Agriculture Fisheries and Food (MAFF) as Grades 2 and 3, (Grade 1 is the highest quality, Grade 5 the lowest). (Refer to Figure 5).
- 4.6.2 In the vicinity of the proposed scheme **Grade 2 agricultural land** is found between Langton Beck and the stream to the north. Land lying further to the north and further south is classified as Grade 3 agricultural land. Permanent pasture exists on the elevated ground to the north of Spilsby. Horticulture is a minor land use to the west of Partney at Brewery Farm.
- 4.6.3 The agricultural land is generally well managed, with field enclosures defined by drainage channels and hedgerows. Vegetation within these hedgerows is predominantly thorn and elder, occasionally with hedgerow trees and generally of variable quality.
- 4.6.4 A number of small woodlands and copses are well established within the study area, principally in association with watercourses, wetlands, waterbodies and the numerous drainage channels. (Refer to Volume 2, Landscape Report, Figures 3 and 5).
- 4.6.5 Minor streams are associated with areas of wetland which are unsuitable for intensive cultivation. These areas support semi-natural scrub vegetation which is both visually and ecologically significant.
- 4.6.6 A parkland landscape exists at The Park, Grebby Park, and Scremby Park some 2 kilometres (1.25 miles) east of Partney which are predominantly grazed meadow parkland with some mature trees.

#### 4.7 Recreation

- 4.7.1 There are no public recreation facilities within Partney village, although Partney Primary School has some sports and play facilities within the confines of its grounds.



4.7.2 There are a number of public footpaths in the environs of Partney most having a north-south orientation. Two footpaths cross the area east-west and run from The Grange to Partney Cottage referenced 'Partney Public Footpath 123' (PPF 123) on the Lincolnshire County Council's Definitive Footpath Plan, and Monks Lane towards Partney Farm (PPF 354). Some local lightly-trafficked lanes are also used for recreational purposes.

#### 4.8 Ecology

4.8.1 An ecological field survey was undertaken within a limited area to the north west, west and south west of Partney in April and May 1992; adopting the standard phase 1 habitat survey technique developed by English Nature. Lists of plant and fauna species were compiled and the survey report which defines the study area appears in full Volume 2. The principal points are summarised in the following paragraphs.

4.8.2 There are no Sites of Special Scientific Interest (SSSI's) in the vicinity of the scheme, however, immediately to the north there is an SSSI designated for its geological interest.

4.8.3 The principal land use in the area is arable farming and the majority of this is currently under cereal and potato production with limited areas of natural habitats.

4.8.4 Three streams and a field drain occur in the area with generally deep and steep sided channels, regularly maintained and with little aquatic or marginal vegetation. Some banks support coarse grasses and common herbs typical of the rough verges and hedgerows in the area, together with a limited amount of aquatic species. Several damaged Alders exist along the field drain and these offer valuable habitat for hole-nesting birds and bats. There are three ponds within the area. Two of these are at Partney Cottage, they contain no open water being dominated by nettle and sweet-grass, but may have amphibian interest. The third pond has recently been formed to the south of The Grange and has not had time to develop aquatic and marginal plant communities.

- 4.8.5 An area of marshy grassland, between the stream and arable land to the northwest of Partney is dominated by grasses and rushes. Several areas of grassland can be classified as poor semi-improved grassland, including the entrance to The Grange, an adjacent small field, and a small field east of the A158/A16 roundabout. In the vicinity of the scheme field corners and margins are dominated by willowherb and nettle to the north and by butterbur in the southern areas.
- 4.8.6 The hedgerows are mainly unmanaged, discontinuous, and in places no longer stock proof. They comprise predominantly native species of hawthorn, elder, blackthorn and rose, with willow and alder particularly adjacent to streams and ditches. The small stream to the north west of Partney accommodates adjacent woodland areas, with alder, birch, oak and willow tree species recorded and the woodland surrounding the area noted as Partney Cottage is a mixed plantation of beech, copper beech, sycamore and crack willow.
- 4.8.7 The area supports a range of common bird species as listed within the Appendix to the Ecological Survey Report. There is a healthy population of rabbits in the area, warren creation facilitated by the sandy substrata. Rabbits are particularly in evidence in the woodland, scrub and hedges in the vicinity of Partney Cottage and the adjacent stream.
- 4.8.8 No bats were recorded during the habitat survey. Observations of invertebrates were limited due to the time of year in which the survey was undertaken. The appendix to the Ecological Survey Report indicates the butterfly species observed in May, and it is likely that a range of invertebrate species typical of urban areas, gardens and arable farmland would be apparent during the field season.
- 4.8.9 The ecological survey has located a small area of mixed habitat types associated with the stream to the north west of Partney and the wooded area at Partney Cottage, which are of local ecological interest in the context of an intensively farmed area. Most of the area however, comprises arable land of low ecological interest bordered by deepened streams/ditches, rough verges or hawthorn dominated hedgerows. Although these field boundaries are not of high intrinsic ecological value, they do allow common butterfly, bird and plant species to exist within this arable farmland.

#### 4.9 Geology and Geomorphology

4.9.1 Within the Partney area, drift deposits overlie rocks of Upper Jurassic and Lower Cretaceous Ages. In order of increasing age these soils and rocks comprise:

Drift deposits	- Recent Alluvium
	- Head
	- Glacial Till
Lower Cretaceous	- Tealby Clay
	- Claxby Ironstone
	- Spilsby Sandstone
Upper Jurassic	- Kimmeridge Clay

4.9.2 To the west of Partney, the geology comprises the Spilsby Sandstone and Kimmeridge Clay, with Alluvium occurring in the south and locally in stream beds. Land to the south of the village is underlain by the Kimmeridge Clay Head and with overlying drift deposits of Glacial Till and Alluvium. To the east of Partney, the Spilsby Sandstone is overlain with Glacial Till.

4.9.3 The Claxby Ironstone and Tealby Clay are present on the lower and upper slopes of Dalby Hill respectively. Dalby Hill is the principal positive topographical feature. The area to the south and southwest of the village is low lying and underlain by alluvial deposits along the drainage courses. The geomorphology as a whole has been influenced by glacial activity with Glacial Till overlying Upper Jurassic and Lower Cretaceous strata to the south and east of Partney.

4.9.4 The Spilsby Sandstone is a potential aquifer while the Kimmeridge Clay will tend to act to resist the passage of water. Springs are unlikely to form at the east-west interface between the sandstone and clay because the strata dip to the north. The superficial drift deposits are generally too clayey to be significant water bearing strata.

4.9.5 A Site of Special Scientific Interest (SSSI), designated for its significance as representing the only exposure of the Roach Stone, a calcareous sandstone developed in the Fulletby Beds of the Southern Wolds, is located to the north of the scheme, adjacent to the A16.

**4.10 Archaeological Sites**

- 4.10.1 A Preliminary Archaeological Survey was carried out by Archaeological Consultants during June 1992. Their report, which defines the study area, appears in full in Volume 2 of this Statement and is summarised in the following paragraphs.
- 4.10.2 Eight records were found on the **Lincolnshire County Council Sites and Monuments Records** in proximity to the scheme generally relating to Anglo Saxon and Romano-British remains.
- 4.10.3 Aerial photographs show crop marks which indicate the possible existence of several buried archaeological features, in the area. Field reconnaissance was limited by extensive areas under crop, however, field margins produced pottery sherds and flint flakes were found across the entire area examined.

**4.11 Water**

**4.11.1 Water Quality**

- 4.11.2 The National Rivers Authority Pollution Control Department has classified all major water courses using a system of chemical classification adopted by the Department of the Environment. This classification of River Water Quality comprises five broad categories which also give an indication of the type of fish populations the water course is able to support. The classification can be summarised as follows.

**River Class Potential Uses**

- 1A High quality water supply, fisheries and amenity
- 1B Less high quality than 1A but usable for substantially the same purposes.
- 2 Moderate fisheries and amenity
- 3 Low grade abstraction, sporadic fish presence.
- 4 Grossly polluted and likely to cause nuisance.

4.11.3 The River Lymn is generally Class 1B. Langton Beck and the stream immediately north of it which both form tributaries of the River Lymn are small and slow flowing in summer with less high quality.

4.11.4 The proposed route lies in the Spilsby Sandstone between Chainage 0 and Chainage 1100 which is classified as a minor 'type B' aquifer. The other materials passed through being too discontinuous or clayey to be considered aquifers. Ground water is abstracted from this aquifer for crop irrigation at six locations within a radius of 3.5 kilometres of Partney. At Fordington, Anglian Water abstracts water from the aquifer from depths of between 80 and 95 metres via 5 boreholes.

#### 4.12 Climate

4.12.1 The climate in Partney is not dissimilar from the general climate of the area with lower than average rainfall and cold winters. The climate is unlikely to pose particular problems for the design, construction or use of the bypass.

#### 4.13 Planning Policies

4.13.1 Planning Policies relevant to the area are contained in the following documents:

"Lincolnshire County Council Structure Plan", published in 1981.

"East Lindsey District Council Local Plan", (Draft) published in January 1992.

4.13.2 The major designated areas are shown on the Planning Constraints Plan in Figure 5.

4.13.3 There are no areas designated as National Nature Reserves, Sites of Special Scientific Interest, Sites of importance for Nature Conservation, Special Protection Areas or areas defined under the Ramsar Convention within the area shown in Figure 5.

- 4.13.4 The study area lies partly within the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) which was designated by the Secretary of State for the Environment in 1973. The village of Partney lies within an area which extends around the edge of the AONB which is recognised by Lincolnshire County Council as being an Area of Great Landscape Value (AGLV).
- 4.13.5 Dalby Hill SSSI is a statutory site of nature conservation importance located immediately north of the scheme. The site is notified for its geological interest and is located in a lay-by adjacent to the A16, some 500 metres to the north of the proposed northern intersection of this road with the proposed bypass (NGR: TF 409 695).
- 4.13.6 Partney Village contains six listed buildings and one listed monument, see Section 4.5.1, all of which are Grade II listed. Most are set back from the existing roads, but the Church and Hornbeck House, occur on the roadside of the existing A16.

## 5.0 Assessment Of Environmental Effects And Proposed Mitigation Measures

### 5.1 Route Planning

5.1.1. The impact of this road scheme on the environment has been minimised by detailed planning and consideration of route options prior to the preferred route selection as described in Section 2.

5.1.2. Subsequently Landscape Architects worked with the Engineers in the refinement of the Preferred Route alignment. The impact on the village has been minimised by locating the route to the west of the built up area, thereby removing severance within the village and at a distance of generally over 200 metres from residential properties on Dalby Road to limit the impact. The central portion of the bypass, opposite the main part of the village, would be in a cutting to reduce the noise and visual impact. The impact on property and the area in general would be further reduced by forming a slight mound of 1-1.5 metres high to the east of the route between Chainages 250 metres and 1200 metres. These mounds would screen the majority of the traffic from view whilst retaining longer distance views. The mounds would be constructed from material taken from the cutting and would be gently sloped on the eastern side and the land offered back to their original owners.

5.1.3. As with all projects of this scale, there are inevitably unavoidable compromises between engineering solutions, costs and environmental effects. Where this has occurred compensatory measures would be taken, for example dense screen planting would eventually help to compensate for lost hedgerow habitat.

### 5.2 Visual Impact

The visual impact of the scheme is assessed in detail in the Landscape Report reproduced in full in Volume 2 of this Statement and summarised in the following paragraphs.

5.2.1. This section examines the impact of the existing A16 and the proposed bypass on the properties within Partney and its surrounding area. The likely impact of the proposed route has been considered in terms of visual obstruction and visual intrusion in accordance with the methodology described in the MEA (Manual of Environmental Assessment) and the more recent Department of Transport guidance.

Visual Obstruction:	This is defined as the likely blocking of a view by a road structure, and can only occur where route is constructed on embankment (not in cutting or at grade).
Visual Intrusion:	This is defined as the likely change in the quality of an existing view caused by a road or associated infrastructure, and can occur where route is on embankment, at grade, or in up to 4 metres of cutting. Intrusion is caused by elements in the view which by their shape, size, colour, reflective surface, emitted light or movement are consciously or subconsciously felt to be discordant or out of harmony with the general scene.

Landscape proposals which have been designed to mitigate the impact of the proposed route are described in detail below and illustrated in Figure 6. It should be borne in mind that the planting would take some time to mature and it would not have any instant effect.

#### Existing visual impact of the A16

- 5.2.2 A large proportion of the properties in Partney, particularly those located immediately adjacent to the A16, experience high levels of visual intrusion in their views towards the existing road. For some properties, in particular south of Partney, the degree of intrusion is mitigated by mature hedgerows and tree cover. In contrast the views from the rear of the majority of properties are of open countryside, containing no significant intrusive elements. Construction of the bypass would considerably reduce the volume of traffic within the village.



### Assessment of visual impact

- 5.2.3 The route choice and its vertical alignment have been chosen to take full advantage of the natural topography and existing vegetation of the area helping it to fit sympathetically into the landscape and reduce visual intrusion. The following assessment of visual impact, summarises the extent of visual intrusion associated with the northern, central and southern sections of the proposed route, and presents in detail, proposed mitigation measures, to further integrate the road alignment into the landscape.

#### Northern Section

- 5.2.4 The route initially passes through the AONB for a distance of approximately 400 metres, within a fairly open landscape, with a lack of screening elements. Over this section, the alignment would be on a low embankment, continuing across the shallow valley formed by a tributary of the River Lynn, north-west of Partney. A number of properties would have unrestricted views towards the proposed junction and would experience medium levels of visual intrusion. This includes two cottages, to the north of the junction, and a further two cottages which lie approximately 95 metres south-east of the junction. At the stream crossing, the highway would be on an embankment with a maximum height of 4 metres and would be particularly intrusive when viewed from within the AONB, from the existing A16 and from two properties, the 'Laurels' and a neighbouring bungalow to the north of Partney which would both experience medium levels of visual intrusion.

- 5.2.5 The following planting proposals have been prepared to mitigate these effects and integrate the road alignment into the landscape: (ref: Figure 6)

- **Planting at the northern end of the bypass, adjacent to the proposed junction with the existing A16 (Chainage 200m)**

Tree and shrub planting within this area would help to assimilate the proposed junction and screen views to the north of Partney. Planting would be integrated with retained hedgerows but would be constrained by the need to maintain visibility splays and overhead power cables.

- Earthworks and shrub planting to the east of the carriageway, south of the proposed junction with A16 (Chainage 200-550m)

Over this section, the proposed road would be on a slight embankment up to 1.3 metres in height, and would be particularly intrusive when viewed from the public footpath on Dalby Hill, within the AONB, the existing A16 and two cottages to the north of Partney. This would be mitigated by low mounding and shrub planting to the east of the carriageway. This mounding would have a shallow profile, and the outer face would have a maximum gradient of 1 in 10 and the land would be offered back to the original owners for return to agricultural use.

- Planting on the side slopes of the proposed embankment to east and west of route (Chainage 420- 530m)

At this stream crossing, the route would be on embankment, with a maximum height of 4 metres. Planting the side slopes, within the highway boundary would help mitigate views from 'The Laurels', the adjacent bungalow, and a pair of cottages further to the north. This would also reduce the impact on the setting of the AONB and on long distance views from the public footpath on Dalby Hill.

#### Central Section

- 5.2.8 South of the stream crossing, the route would enter a cutting with a maximum depth of 3.5 metres. Over this section properties along the western edge of Partney may experience some visual intrusion, but this would be limited given the effect of the cutting and the screening afforded by existing mature woodland which extends along the minor valley west of the village.

The Grange, a Grade 2 listed building would be likely to experience medium visual intrusion given its close proximity to the proposed route (70 metres east). Over this section the route would be in deep cutting and the extent of visual intrusion would be further mitigated by mature woodland in the grounds of this property.

Two footpaths which pass along farm access tracks, cross the route in an east-west direction, and at-grade crossings are proposed. Both footpaths appear to be used and walkers views would be significantly affected.

Distant views towards this central section of the route would be experienced by north bound traffic on the A16 descending the Spilsby/Hundleby ridge, south of the proposed by pass.

5.2.9 The following mitigating landscape proposals have been designed to integrate the road alignment and minimise visual intrusion, particularly on views to the west of Partney.

- **Planting on the side slopes of the cutting within this central section of the route.**

Planting on the side slopes of the cutting within this central section would provide features of interest to road users and would respond to the existing pattern of truncated hedgerows by locating areas of dense planting on cutting slopes adjacent to hedgerows. Planting would become less dense and more intermittent in areas between hedgerows. Planting would also integrate with the footpath crossings having due regard for visibility requirements.

- **Planting and earthworks to the east of the proposed alignment.**

Low mounding with a maximum height of 1.5 metres, would help screen views from the east, particularly as the route emerges from cutting. The eastern side of this mounding would be regraded to a shallow profile with a maximum gradient of 1 in 10 and the land offered back to the original owners for return to agricultural use. Planting would link sections of severed hedgerows and provide enhanced screening.

#### **Southern Section**

5.2.10 The route emerges from the cutting, and continues across the River Lynn floodplain, on low embankment, approximately 1.5 metres in height, terminating at a proposed roundabout with the A158.

A number of properties to the south of Partney village would experience low levels of visual intrusion, including the Grade 2 listed buildings of Partney Hall, Hillcrest and Ivy House. Three other neighbouring properties would also experience low visual intrusion. Views from Brewery Farm to the west and a newly constructed house at Mill Farm to the south would be restricted by intervening vegetation and the effect of distance. It is considered that both properties would experience low visual intrusion.

The alignment would pass close to the filling station, and approximately 4 neighbouring properties which are adjacent to the proposed roundabout at the southern end of the route. The properties have extensive views from the rear, northwards over open countryside. Within these views the proposed route would create medium visual intrusion for all but the most westerly property closest to the proposed route, which would experience high levels of visual intrusion.

5.2.11 Landscape proposals to mitigate the effect of the proposed alignment when viewed from the properties outlined above, existing roads and higher ground to the south

- **Planting and mounding to the east of the proposed alignment (south of 1100 to 1250 metres)**

Tree and shrub planting would help mitigate visual intrusion from Partney Hall and neighbouring properties and also for travellers on the A16, where the proposed route would emerge from cutting onto low embankment. This proposed mounding and planting is within a confined area of land which would be severed by the route alignment and is not considered viable for agriculture.

- **Planting and mounding in severed field to east of the route (south of 1250 metres)**

Dense tree and shrub planting and low mounding would help mitigate high and medium levels of visual intrusion experienced by the adjacent properties

- **Planting within areas of redundant highway adjacent to A158, west of the proposed roundabout**

Planting to integrate with agricultural hedgerows, to mitigate views of new route from A158, and to provide features of interest for road users. Planting would have regard for field access and visibility splays.

- **Planting within the roundabout, and in the area of redundant highway immediately south of the roundabout**

Planting to integrate with agricultural hedgerows, to mitigate views of new route from A158, and to provide features of interest for road users. Planting to have regard for field access and visibility splays

### 5.3 Physical Effects on the Land

- 5.3.1. Construction of the bypass would involve the excavation of cuttings and the formation of embankments by the standard bulk earthworks methods used within the road construction industry. Material excavated from the cuttings would be re-used within the site to form embankments and earth screening mounding and consequently only limited amount of material, approximately 3,000 cubic metres, representing about 350 lorry loads, would require disposal offsite.
- 5.3.2. Geotechnical investigations have been carried out to determine the local soil parameters. Side slopes would be graded at the appropriate angle to ensure stability. Cut-off drains and ditches would be provided at the tops of cuttings and toes of embankments where necessary to minimise erosion by surface water run-off
- 5.3.3 The proposed scheme would have no long term physical effect on the land.

### 5.4 Traffic Noise

- 5.4.1. **Noise may be defined as unwanted sound.** Road traffic noise arises from numerous sources, including engine, transmission, exhaust and tyres. Although traffic noise is being controlled and reduced by improved vehicle design, it remains a major environmental impact

5.4.2 The standard calculation method for determining the road traffic noise level is given in the publication 'Calculation of Road Traffic Noise' (HMSO) and is dependent on a combination of traffic flow, traffic speed, road gradient, and surface texture, and for individual properties dependent on distance from road, angle of exposure, land form etc. The method enables comparative values for traffic noise to be obtained for different situations.

5.4.3. Sound levels are conventionally measured in Decibels (dB) using the A weighting which corresponds to the perception of noise by the human ear. Due to the wide range in intensities experienced the Decibel scale is logarithmic. A table of common levels of sound in Decibels (dB(A)) is given below:

Sound Level dB(A)	Situation
40 - 50	Rural area
55	Quiet background conversation
60	General office
72	Passenger car at 60km/hr and 7m distance
85	Heavy diesel lorry at 40km/hr and 7m distance
90	Hazard to hearing from continuous exposure
95	Pneumatic drill (muffled) at 7m distance

5.4.4. Because the Decibel scale is logarithmic, a doubling of perceived loudness anywhere in the scale causes a change of 10dB(A). A change of 1dB(A) in traffic noise is generally considered imperceptible. A variation in traffic noise alone must be 2dB(A) or greater to be distinguishable. A doubling of traffic flow would cause a noise increase of 3dB(A), similarly halving the traffic flow would reduce the noise by 3dB(A).

- 5.4.5. A noise assessment has been carried out and appears in full in Volume II and estimates of the number of properties experiencing noise level changes are summarised in the Appraisal Framework in Appendix I. The predicted noise level changes are a comparison of noise levels prevailing immediately before the opening of the bypass with the maximum expected within 15 years of opening and therefore includes the impact of 15 years traffic growth.
- 5.4.6. The bypass would reduce noise levels by up to 15 dB(A) and by implication vibration levels, at 52 properties with frontages onto the existing A16. Thirteen properties would however be subjected to increases in noise levels of 0-10dB(A), but would not be eligible for offers of noise insulation as the relevant noise levels would be less than the required 68 dB(A) needed to satisfy condition (i) of the Noise Insulation Regulations published by HMSO in 1988. Earth mounding carried out as part of the landscaping has not been included in the assessment of noise but would be likely to reduce the noise impact of the traffic.
- 5.4.7. The bypass would provide a considerable net improvement to the village environment in terms of noise. This is quantified in the Appraisal Framework in Appendix I.
- 5.5. Emissions to the Air
- 5.5.1. The Department of Transport's Manual of Environmental Appraisal (MEA) suggests that emissions affecting air quality will be the usual motor vehicle exhaust gases, comprising mainly carbon monoxide, hydrocarbons, oxides of nitrogen, smoke (usually associated with diesel engines) and lead (petrol engines only) although this has been substantially reduced by the widespread use of leadfree fuel. Above certain concentrations, these constituents represent potential health hazards.
- 5.5.2. Pollutant concentrations are directly related to vehicle flow and are affected by wind conditions, however, in calculations it is assumed the wind speeds are low. Concentrations decrease rapidly with distance from the traffic and with increases in vehicle speed as the engines of free moving traffic operate more efficiently than stationary or slow moving vehicles, resulting in lower concentration of pollutants. At 200m from a road concentrations are negligible.

- 5.5.3. Preliminary calculations are based upon the concentrations of carbon monoxide (CO) in parts per million (ppm) as a means of identifying potential problems. The level of concentration of CO used by the Department to define an air pollution problem is an exposure more than once a year to an eight hour average concentration of carbon monoxide exceeding nine parts per million (ppm). This is based on US Federal Air Quality standard which is close to the European Office of the World Health Organisation's criteria of 10 mg/m<sup>3</sup> (10 ppm) as an 8 hour mean. The level of 9 ppm over an 8 hour day is indicated if the annual average peak hour concentration exceeds 4 ppm in any of the first 15 years after opening.
- 5.5.4. Estimates of carbon monoxide concentrations described below are those predicted 15 years after the opening of the bypass compared with the present road network in the same year. The comparison illustrates the benefit of the proposed bypass in terms of improved air quality within the built-up environment.
- 5.5.5. Calculations indicate that within 15 years of opening 2012, the peak hour traffic flows would give rise to carbon dioxide concentrations of 2.1 ppm, 5 metres from the proposed bypass. This is half the value at which the MEA recommends a study is carried out to determine if an air quality problem exists. At 20 metres from the bypass the carbon monoxide would be reduced to 1.4 ppm.
- 5.5.6. In contrast to this, many properties lie within 5 metres of the existing A16 where the slower speeds and 'STOP' junction currently give rise to concentrations of carbon monoxide of 5 ppm which, it is estimated, would rise to 8 ppm by 2012 if the bypass were not built.
- 5.5.7. To conclude, the provision of a bypass would result in an improvement in air quality along the existing A16. The proposed bypass would be sufficiently remote from the village development to afford complete removal of through traffic pollution. The open countryside and faster traffic speeds on the bypass would assist rapid dispersal of emission gases.



## 5.6 Agricultural Land

- 5.6.1 The effect of severance would be most severe in respect of a farm with a land holding used for wheat and potato production and covering the central and southern parts of the scheme between Chainage 700 and Chainage 1340. The farm is primarily of Grade 2 land and is owned by 3 landowners. The proposed bypass would take 4.6 hectares of land and separate nearly 5 hectares of land under 1 ownership to the north east of Stewart House from the main land holding. A new access track on the western boundary of the bypass would provide access from Sausthorpe Road for all 3 landowners to the land on the west of the bypass. Field accesses to the east from the existing A16 would be unaffected.
- 5.6.2 Two further land holdings of Grade 3 and Grade 2 land respectively at the north of the scheme between Chainage 180 and Chainage 500 would be severely affected. The first, a mixed arable field adjacent to the Trading Post would have 1.1 hectares taken by the bypass leaving 0.5 hectares with access to the east and 0.6 hectares severed to the west of the proposed bypass. The other land holding, attached to The Grange and currently lying fallow, would have 0.8 hectares removed by the bypass and 1.2 hectares to the west would be severed. In both cases, land severed to the west would not be provided with access from the bypass. Access to the land lying to the east of the scheme would be unaffected.
- 5.6.3 At the northern end of the scheme 2 small land areas would be required for the scheme. In both cases the small area of land loss, 0.5 and 0.4 hectares, would be at the edge of a large land holding and would have minimal impact.

## 5.7 Recreation

- 5.7.1 The published route crosses two public footpaths which extend to the west of Partney, the first linking Partney Cottage to the Grange (PPF 123), and the second, further south follows Monks Lane towards Partney Farm (PPF354). The bypass would be in cutting at this point, but both rights of way would be maintained by the incorporation of stiles and steps to facilitate walkers. The use made of the footpaths is not considered sufficient to justify the cost of providing a footbridge or its impact on the surroundings.
- 5.7.2 The scheme is not expected to have any further impact on recreational facilities.

5.8. Local Roads and Transport

- 5.8.1. The existing roads would remain unaltered except for connections to the new trunk road by an improved roundabout at the south and a new priority junction to the north, which would provide safe access to the trunk road network. The road system would therefore continue to serve local needs with the advantage of A16 through traffic having been removed.
- 5.8.2. On Dalby Road it is predicted that 95% of the traffic would be removed by the bypass. Consequently Dalby Road would become a quiet village road serving only local needs with an improvement in safety and amenity.
- 5.8.3. Spilsby Road, where the A16 and A158 co-exist, the predicted reduction in traffic is 43%, leading to improved safety and amenity, for local users and through traffic on the A158.
- 5.8.4. Public Transport services would not be significantly affected by the proposed bypass with bus routes continuing to be available through the village. The provision of the bypass should facilitate the punctual operation of buses particularly during the summer months.

**Facilities for Pedestrians**

- 5.8.5. Where available, the network of footways adjacent to the existing road would be retained. Alterations would be necessary at the A158 Sausthorpe Road roundabout to provide safe crossing locations for pedestrians to minimise vehicle/pedestrian conflicts.
- 5.8.6. Following completion of the bypass Lincolnshire County Council would become the Highway Authority for Dalby Road and could introduce traffic calming measures such as narrowing this road to provide new footways for safer pedestrian movements. The provision of these suggested improvements do not form part of this bypass proposal. Footways would not be provided along the bypass and specific pedestrian facilities would not be provided at the northern priority junction, where no footways currently exist.

- 5.8.7 In summary, pedestrian journey times would not be significantly affected but where these were previously along or involved crossing the existing trunk road they would be improved. There would be a general improvement in safety and a reduction of exposure to high volumes of traffic in the holiday periods.

#### Facilities for Cyclists

- 5.8.8 High speed routes can present an unsafe environment to cyclists, however the provision of a 1 metre hard strip on either side of the new bypass would provide a suitable facility for cyclists travelling along the new road. Alternatively, cyclists could continue to use the existing route through Partney which would carry significantly less traffic than currently and consequently be more attractive and safer.

#### 5.9 Ecology

- 5.9.1 The proposed route alignment for the Partney bypass would predominantly take arable land of low ecological interest. It would not impinge on the geological interest of the Dalby Hill SSSI, the semi-improved grassland and scrub habitat associated with it, or the woodland at Partney Cottage which is considered to be of local ecological interest.
- 5.9.2 The alignment would cross an area of local ecological interest associated with the minor watercourse on the Parish Boundary to the north-west of Partney. The route would cross this minor valley on embankment, resulting in the loss of small areas of scattered scrub, woodland and marshy grassland habitat. The wildlife routes adjacent to the stream would be maintained.
- 5.9.3 The route would also cross Langton Beck and affect a tributary to the south of the central cutting. This would require a short diversion of the tributary which is steep sided and regularly maintained and therefore considered to be of relatively minor importance in ecological terms. The wildlife corridor along Langton Beck would be maintained.
- 5.9.4 Several hedges and rough verges would also be crossed and 3 mature trees would be lost, in the area of the minor watercourse to the north-west of Partney, as described above. Subject to landowners requirements, accommodation works would be designed to re-establish hedgerows using locally native species in addition to the planting proposed as part of the landscaping described in section 5.2.

5.9.5 The long term impact of the scheme on the ecology of the area would not be significant.

#### 5.10 Archaeological Sites

5.10.1 The proposed route would not affect the crop marks identified by the survey nor would it have an adverse effect on the scheduled Sites and Monuments (Lincolnshire County Council) in the area. No concentrations of pottery sherds or flint flakes were found which might indicate an archaeological feature of substantial interest exists which could be affected by the works. Further site survey work is not warranted however archaeological observation would be maintained during excavation in order to detect and record any archaeological finds.

#### 5.11 Water and Highway Drainage

5.11.1 Consultations with the National Rivers Authority have been carried out and, subject to detailed design, their approval obtained to the mitigation measures proposed to protect the land and ground waters.

##### Land Drainage

5.11.2 The bypass would interrupt existing drainage systems and influence natural land drainage patterns. Two water courses would be culverted under the new bypass and surface water ditches and drains diverted to maintain the existing land drainage. The culverts would be designed to accommodate a 1 in 100 year flood event and provide marginal strips for wildlife. Land drains would be intercepted and diverted to convenient discharge points.

##### Control of Pollution

5.11.3 To minimise the impact of the new road on water courses and their aquatic life, flora and fauna, pollution would be controlled by various methods to the National Rivers Authority's requirements including the National Rivers Authority document "Policy and Practice for the Protection of Ground Water" currently in draft form for consultation. Firstly, low level, day-to-day pollution would generally be retained within the highway drainage systems by means of trapped gullies or filter drains. Secondly, as part of the highway drainage system lined containment ditches with cut-off facilities would be constructed to provide the opportunity to contain and remove larger scale accidental pollution prior to the outfall.

#### **Groundwater**

- 5.11.4 The bypass would be drained via gullies and filter materials into pipes and lined ditches before outfalling to local water courses thereby providing minimal risk to groundwaters. Soakaways would not be provided. The proposed cutting, of up to 3.5 metres depth, would be partially through the Spilsby sandstone aquifer however the maximum anticipated depth of working would be 1.5 metres above the current water table and therefore unlikely to threaten the quality of the ground water.

#### **5.12 Highway Lighting**

- 5.12.1 The bypass would not be lit except at the southern roundabout where the existing lighting would be replaced using high pressure sodium, fully cut-off lights to minimise the light spillage and impact.

#### **5.13 Temporary Effects During Road Construction**

##### **Disturbance due to Construction Noise, Pollution, Haul Roads and Construction Access**

- 5.13.1 Based on experience from similar schemes the duration of construction would be twelve months. The most disruptive construction activities would be earth moving and the transportation of materials to and from site. This would mainly affect users of the existing A16 during the construction period.
- 5.13.2 Temporary nuisance and annoyance to road users, including cyclists, pedestrians and local residents due to construction would be closely monitored and controlled by the use of contractual working restraints. In particular these would control access to the site, cleaning of road surfaces, construction noise and dust.
- 5.13.3 Access to the bypass and haul road during construction would be restricted to the existing A16 and A158 at the northern and southern junctions and agreed with the local Highway Authority.
- 5.13.4. Occupiers of properties, although in most cases remote from the road construction, would suffer some increased noise, but noise limits would be controlled contractually and together with working times would be agreed with the Local Authority's Environmental Health Officer.

- 5.13.5 Nighttime working would not be permitted except in an emergency.
- 5.13.6 Farm enterprises could be similarly affected by road construction. The effect of noise and especially dust, dirt and contaminated run-off would be controlled by the application of contractual working restraints.
- 5.13.7 Temporary fuel and other storage facilities would be sited or protected to minimise the risk of pollution from accidental spillage.

## Appendix 1

### Data on Environmental Effects (Appraisal Framework)

#### Notes

A summary of the environmental effects of the preferred scheme is provided in tabular form in this Appendix. The format and the methods of assessment follow that of the appraisal framework specified in the Department of Transport's Manual of Environmental Appraisal. The frameworks summarise the overall effects of construction and operation of the preferred scheme and describe the implications of not constructing the scheme within columns headed 'do-minimum'.

The summary of the environmental effects of the preferred scheme, as presented within the frameworks, has been derived from more detailed work comprising consultations with Statutory Authorities and other bodies, desk studies, fieldwork and computer modelling.

A16(M) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 1: TRAVELLERS		EFFECT		PUBLISHED ROUTE		DO MINIMUM		COMMENTS	
SUB GROUP	EFFECT	UNITS	High Growth	Low Growth	High Growth	Low Growth	High Growth	Low Growth	
Car Users	Time Savings	£m (PVB)	1.349	0.722	0	0			<p>A. Each column shows the improvement of the published scheme over the Do Minimum option.</p> <p>B. Present values of Benefits (PVB) is for the 30 year period from the expected date of opening 1996 and discounted to 1988 prices at 8%.</p> <p>C. It is assumed that the national average figures for vehicle occupancy and costs will apply.</p> <p>Low and High Growth are statistics derived from factors pertaining to the increase in traffic flow from low to high.</p> <p>Local accident rates for 1985-1990 apply.</p> <p>The figures indicate the probable total reduction in casualties over the whole 30 year assessment period. Construction of the scheme is expected to save between 66 and 80 casualties in the period representing 26% of all casualties. 43 casualties were recorded between 1987 and 1990 inc.</p>
	Vehicle Operating Cost Savings	£m (PVB)	0.111	0.106	0	0			
Users of Light Goods Vehicles	Time Savings	£m (PVB)	0.358	0.172	0	0			
	Vehicle Operating Cost Savings	£m (PVB)	0.034	0.029	0	0			
Users of Other Goods	Time Savings	£m (PVB)	0.192	0.097	0	0			
	Vehicle Operating Cost Savings	£m (PVB)	0.074	0.066	0	0			
Bus Operators and Passengers	Time Savings	£m (PVB)	0.093	0.059	0	0			
	Vehicle Operating Cost Savings	£m (PVB)	0.009	0.010	0	0			
All Vehicle Travellers	Value of Accident Savings	£m (PVB)	0.391	0.249	0	0			
	Predicted casualties	Number	High Growth 9 56 162	Low Growth 6 48 133	High Growth 9 74 223	Low Growth 7 62 184			
Driver Stress	View from road		Low		Moderate				
	Traffic delays during construction		Scenic/agricultural, although views will be restricted by proposed landscaping		Residential				



A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 1 : TRAVELLERS (CONTD)					
SUB GROUP	EFFECT	UNITS	PUBLISHED ROUTE	DO MINIMUM	COMMENTS
Pedestrians	Change in Amenity		Reduction of traffic through village will be a significant improvement as footpath facilities are poor.	Traffic congestion in the summer months will continue to reduce pedestrian amenity	Construction of the bypass is predicted to lead to a reduction in traffic on the existing A16 of 95% through Partney village (north of Skegness Road) in the year of opening Skegness Road). Between Sauthrope Road and Skegness Road the reduction is predicted to be 43%
	Safety		Reduction of traffic through village will improve safety particularly to those wanting to cross from the residential properties on the west of the village to the amenities on the east of the village such as the shop, the church and the school	Traffic growth will cause the existing dangers to increase	
Severance (new)			Slight Public Footpaths PPF123 and PPF354 would be severed by the bypass. Crossing facilities would be provided at-grade with the assistance of stiles and steps	Severance in the village would continue to worsen as traffic flows increase	
	Relief from existing severance		Severance of public footpaths would be greatly reduced within the village by the reduced traffic flows	Existing severance will worsen as growth of traffic continues	

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 2 : OCCUPIERS		PUBLISHED ROUTE		DO MINIMUM		COMMENTS
SUB-GROUP	EFFECT	UNITS	Number	None	None	
Residential: Premises	Properties demolished	Number				
	Noise	Number of facades of houses experiencing an increase of more than: 15dB(A) 10-15dB(A) 5-10dB(A) 3-5dB(A) 0-3dB(A)	0 0 2 2 9		0 0 0 0 65	Changes in noise are difference between the forecasts for the Published Scheme in 2012 and existing levels in 1992 and include for predicted traffic growth over this period. Units are dB(A) L10 18 hr (6am-midnight). Houses may have a facade with an increase in noise and another experiencing a decrease
	Visual Construction	Number of facades of houses experiencing a decrease of more than: 5dB(A) 0-5dB(A) 5-10dB(A) 3-5dB(A) 0-3dB(A)	0 16 9 1 26		0 0 0 0 0	
Visual intrusion	Number of properties within 300m of control line subject to: Low Moderate High		0 0 0		0 0 0	No obstruction because existing and proposed roads are generally at grade or in cutting
	Number of properties subject to: High Medium Low		1 9 9		No change No change No change	Intrusion predominantly caused by vehicle movement which will be reduced by existing hedgerows and trees and proposed ground modeling in the form of false cutting extending along the eastern side of the bypass

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 2 : OCCUPIERS (CONTD)						
SUB-GROUP	EFFECT	UNITS	PUBLISHED ROUTE	DO MINIMUM	COMMENTS	
Residential Premises (Continued)	Severance a) Relief to existing severance		Substantial relief for Partney due to diversion of Trunk road traffic	No improvement, continued traffic growth will increase existing severance caused by A16 and A158		
	b) Imposition of new severance		None	None		
	Disruption during construction		7 houses within 100m of site will be affected	None	A 12 month construction period is envisaged	
Commercial Premises	a) Change in traffic noise	1) Partney Service Station	a) 0-3 dB(A) increase b) Medium c) None d) No change e) Roundabout construction will affect the garage	a) 0-3 dB(A) increase b) No change c) None d) No change e) No change	a) Between 1992 and 2012	
	b) Visual intrusion		a) 0-3 dB(A) increase	a) 0-3 dB(A) increase		
	c) Visual obstruction		a) 0-3 dB(A) reduction b) Low c) None d) No change e) None	b) No change c) None d) No change e) No change	e) A 12 month construction period is envisaged	
	d) Severance	2) Builders Yard	a) 0-3 dB(A) reduction b) Low c) None d) No change e) None	a) 0-3 dB(A) increase	a) Between 1992 and 2012	
	e) Disruption during construction					

A16(T) PARTNEY BYPASS  
 ASSESSMENT FRAMEWORK  
 GROUP 2 - OCCUPIERS (CONTD)

SUB-GROUP	EFFECT	UNITS	PUBLISHED ROUTE	DO MINIMUM	COMMENTS
Farming	Land Take	Numbers of farms affected by land take	6	None	
		Hectares of land (grades): Grade 2 Grade 3	4 0 (0-9) 3 4 (2-4)	0 0	Based on MAFF Land Classification. Cost of land acquisition and compensation included in Group 6 Areas include land to be acquired for landscaping purposes
	Severance	No. of units affected	2 units will suffer slightly increased severance 1 unit will suffer moderately increased severance		
	Access		Access maintained by existing and new field accesses. Existing accesses improved by reductions in traffic flows	Traffic growth will make existing accesses more hazardous	

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 3: USERS OF FACILITIES					
SUB GROUP	EFFECT	UNITS	PUBLISHED ROUTE	DO A MINIMUM	COMMENTS
a) Parney Church	Change in traffic noise	dB(A)	-0-15 decrease to west facade	0-3 increase	Between 1992 and 2012
	Effect on access		Access improved by substantial reduction in traffic particularly in summer months	Traffic particularly in the summer months would continue to cause problems	No footway exists outside the church access onto the A16
b) Garage	Changes in traffic		Directly passing traffic flows reduced	Passing traffic will continue to increase	
	Effect on access		Access modified without detriment	No change	
c) Builders Yard	Change in traffic		Reduced traffic improves safety of access	Use of access will become potentially more dangerous with increases in traffic 13%	

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 4 : POLICIES FOR ENHANCING THE AREA					
POLICY	AUTHORITY	INTEREST	PUBLISHED ROUTE	DC MINIMUM	COMMENTS
To protect the landscape in Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB)	Countryside Commission Department of Environment Lincolnshire County Council East Lindsey District Council	Length of route in AONB	400m	No change	The AONB covers approx. 525sq.km. 550m of the existing trunk road which would be bypassed lies in the southern fringe of the AONB.
		View of route from AONB	Visual quality of AONB will be affected particularly in views from Dalby Hill but will not affect the skyline. Appropriate landscaping and mounding is proposed	No change	
To protect the landscape in Areas of Great Landscape Value (AGLV)	Lincolnshire County Council East Lindsey District Council	Length of route for AGLV	900m	No change	
		View of route from AGLV	Visual quality of AGLV affected particularly in views from Dalby Hill. Landscaping and earth mounding will minimise impact.	No change	
		Preservation of trees	Low impact. Four mature trees removed. Extensive re-plantings proposed	No change	
To protect areas of importance for nature conservation	English Nature Department of Environment Lincolnshire County Council East Lindsey District Council	Dalby Hill Site of Special Scientific Interest (SSSI)	No effect	No change	

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 4: POLICIES FOR ENHANCING THE AREA (CONTD)		INTEREST	PUBLISHED ROUTE	SO MINIMUM	COMMENTS
To protect listed buildings	English Heritage Department of Environment Lincolnshire County Council East Lindsey District Council	Partney Parish Church Grade I	250m from route. Will substantially reduce traffic adjacent to Church (west facade)	5 metres from existing A16 Traffic growth will increase severance and noise impact on church use and church visitors	
		Memorial Stone Grade II	265m from route in the grounds of Partney Parish Church	2 metres from existing A16 Impact from traffic would increase with time	
		The Grange Grade I	62 metres from route Extensive mitigation measures proposed	160 metres from existing A16 No change	
		Hornbeck House Grade II	245 metres from route substantial relief from traffic	5 metres from existing A16 Impact from traffic would increase with time	
		Key House Grade II	300 metres from route substantial relief from traffic	20 metres from existing A16 Impact from traffic would increase with time	
		Partney Hall Grade II	225 metres from route substantial relief from traffic	20 metres from existing A16 Impact from traffic would increase with time	
		Hill Crest Grade I	300 metres from route substantial relief from traffic	20 metres from existing A16 Impact from traffic would increase with time	

**A16(T) PARTNEY BYPASS  
ASSESSMENT FRAMEWORK  
GROUP 4 : POLICIES FOR ENHANCING THE AREA (CONTD)**

POLICY AUTHORITY	INTEREST	PUBLISHED ROUTE	DO MINIMUM	COMMENTS
To protect sites of archaeological and historical interest	Department of Environment Lincolnshire County Council	Recorded Sites and Monuments Records (SMR) listed below are the 7 entries within 100m of the bypass		Further details can be found in Volume 2
	Partney Church TF 410683	250 metres from proposed route Substantial relief from traffic to west facade	5 metres from existing A16 Impact from traffic would increase with time	Site is of regional importance
	Fragments of Anglo-Saxon pottery from a cemetery which was destroyed in 1850 TF 410684	Over 250m from proposed route	Adjacent to existing A16	Site is of local importance
	Roman-British pottery and prehistoric worked flints found at The Grange TF 403685	100 metres from proposed route No change	100 metres from existing A16 No change	Site is of local importance
	Human remains found in 1826 TF 412682	510 metres from proposed route	250 metres from existing A16	Site is of local importance
	Late medieval and post medieval pottery found	470 metres from proposed route	250 metres from existing A16	Site is of local importance
	Supposed site of 7th century monastery TF 412683	470 metres from proposed route	250 metres from existing A16	Site is of local importance
	Fossil Tooth found in 1822 TF 401675	500 metres south of proposed route No change	150 metres from existing A16	Site is of local importance



A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK GROUP 5 : TRANSPORT, DEVELOPMENT AND ECONOMIC POLICIES					
POLICY	AUTHORITY	INTEREST	PUBLISHED ROUTE	DOMINANT JIM	COMMENTS
Assist economic growth by reducing transport costs	Department of Transport Lincolnshire County Council	Reduction in journey length	A16 reduced in length by 270 metres A518, No change	A16 and A158 No change	Monetary savings appear in Group 1
		Removal/improvement of junctions	'Stop' sign junction removed from through route  A15/A158 roundabout improved	Delays will increase with traffic growth  No change	Monetary savings appear in Group 1  Monetary savings appear in Group 1
To improve the environment by removing through traffic from unsuitable roads in towns and villages	Department of Transport Lincolnshire County Council	Removal of through traffic from Partney	Traffic on Dalby Road reduced by 95% Traffic on Spilsby Road reduced by 43%	Traffic flows will continue to increase with time	
		Reduction in car/pedestrian conflict	Substantial reduction in traffic on Dalby Road and Spilsby Road	Conflict will increase with time	Reductions in accidents appear in Group 1
To enhance road safety	Department of Transport Lincolnshire County Council	Removal/improvement of junction	'Stop' sign junction bypasses A16/A158 roundabout improved	Increasing traffic with time will increase potential for accidents	
		Provision of adequate road widths and visibility	Scheme designed to meet Departmental Standards	No change Provision of adequate standards could only be achieved by considerable demolition of existing property adjacent to road	Savings in accidents are itemised in Group 1

A16(T) PARTNEY BYPASS  
 ASSESSMENT FRAMEWORK  
 GROUP 6: FINANCIAL EFFECTS  
 SUB GROUP: EFFECTS

Department of Transport	UNITS	PUBLISHED ROUTE		DO MINIMUM	COMMENTS
		\$m (PVC)	\$m (PVC)		
Construction Cost	\$m (PVC)	0.854		0	Costs are discounted from year of expected expenditure to 1988 at 1988 prices PVC = Present Value of Costs
Land Costs	\$m (PVC)	3.068		0	
Maintenance Costs	\$m (PVC)	0.024		0	
Total Costs	\$m (PVC)	0.944		0	
Total Quantified Monetary Benefit	\$m (PVB)	High Growth 2.612	Low Growth 1.512	0	Includes savings in time, vehicle operating costs and accidents as Group 1. PVB = Present Value of Benefits
Net present value compared with Do-Minimum	\$m (NPV)	1.668	0.568	0	NPV = Net Present Value

Low and High Growth figures are derived from factors pertaining to the increase in traffic flow from low to high

A16(T) PARTNEY BYPASS ASSESSMENT FRAMEWORK ANNEX 1 PUBLIC CONSULTATION RESPONSES			
SUB GROUP	AUTHORITY	RESPONSE	COMMENTS
Official Bodies	RAC Morning Services	The proposal to provide a bypass is welcomed and the preferred route is supported by the organisation	No exhibition was held. A pamphlet publishing the Department of Transport's Preferred Route Announcement was sent to "Official Bodies" and a copy delivered to every property in Partney Village. The pamphlet welcomed comments on the proposals which were placed on deposit for 6 weeks in Partney Post Office and local Council Offices
	Ministry of Defence	No comment	
	Sports Council	No observations to be made	
	The National Trust	No properties affected and therefore no comments to make	
	Freight Transport Association	The proposed bypass is welcomed	
	Skegness District Internal Drainage Board	The proposed development is outside the Board's area and the Board has no further observations to make	
	The Oil and Pipelines Agency (OPA)	No objections to the scheme, pipelines are not affected	
	The National Grid Company Plc	No apparatus affected by the proposed scheme	
	English Nature	The SSSI to the north of the scheme should be avoided. Contact to be made with the local warden.	Contact has been made with the local warden
	East Lindsey District Council	The route is supported with the proviso that it should not jeopardise any future bypass of Partney by the A158	The proposals do not jeopardise the provision of a bypass of Partney by the A158
The Public	No written responses were received however the reactions noted within the village whilst delivering the pamphlets were very favourable towards the bypass		

A16(T) PARTNEY BYPASS  
 ASSESSMENT FRAMEWORK  
 ANNEX 2 STATUTORY AUTHORITIES RESPONSES

SUB GROUP	AUTHORITY	RESPONSE	COMMENTS
Statutory Authorities	East Midland Electricity Plc	The scheme would affect plant at the northern end	Responses received following requests for information on the impact of the scheme on their respective services Cost estimates of modifying the plant have been included in Group 1 of the framework
	Lincolnshire County Council	The scheme would affect two public footpaths	
	Mercury Communications	No plant affected	
	Anglian Water Services Ltd	No plant affected	
	National Rivers Authority	Scheme to be considered taking into consideration all NRA requirements. Scheme specific proposals to be discussed	
	British Gas	No plant affected	
	British Telecommunications Plc	Plant would be affected adjacent to the Sauthorse Road roundabout	

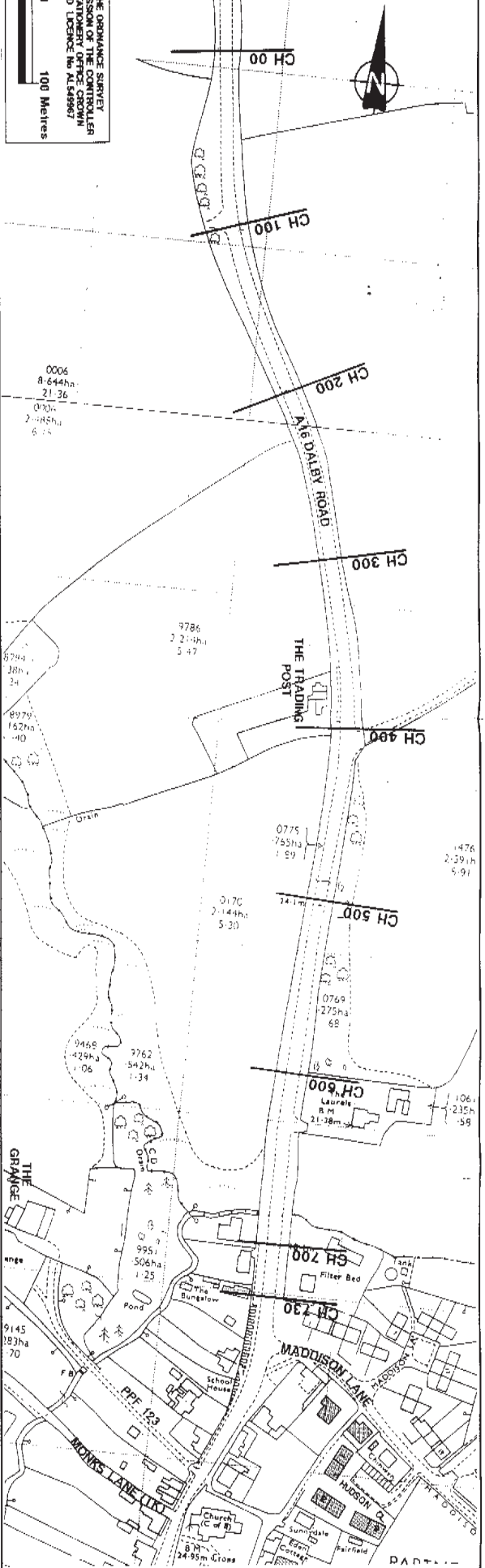
Appendix 2 - Figures

Figure 1	Location Plan
2	Alternative Routes Plan
3a and 3b	Existing Conditions
4	Traffic Flows
5	Planning Constraints
6	Engineering and Landscaping Proposals

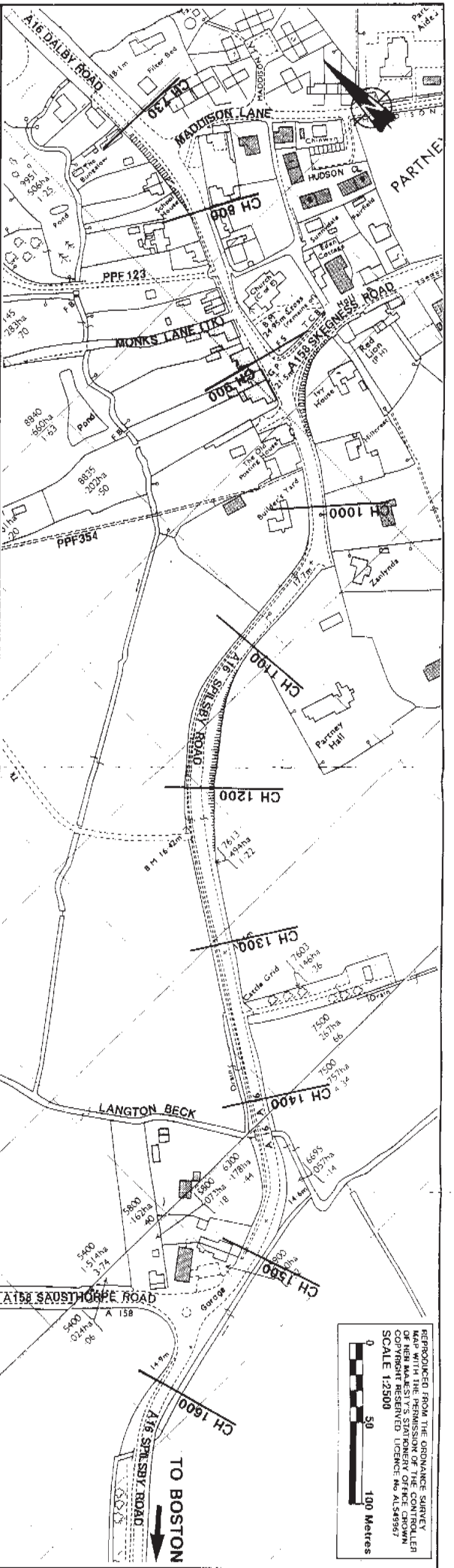
REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. COPYRIGHT RESERVED. LICENCE No. AL 54967 SCALE 1:2500



TO SOUTH

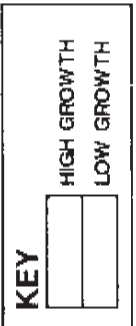
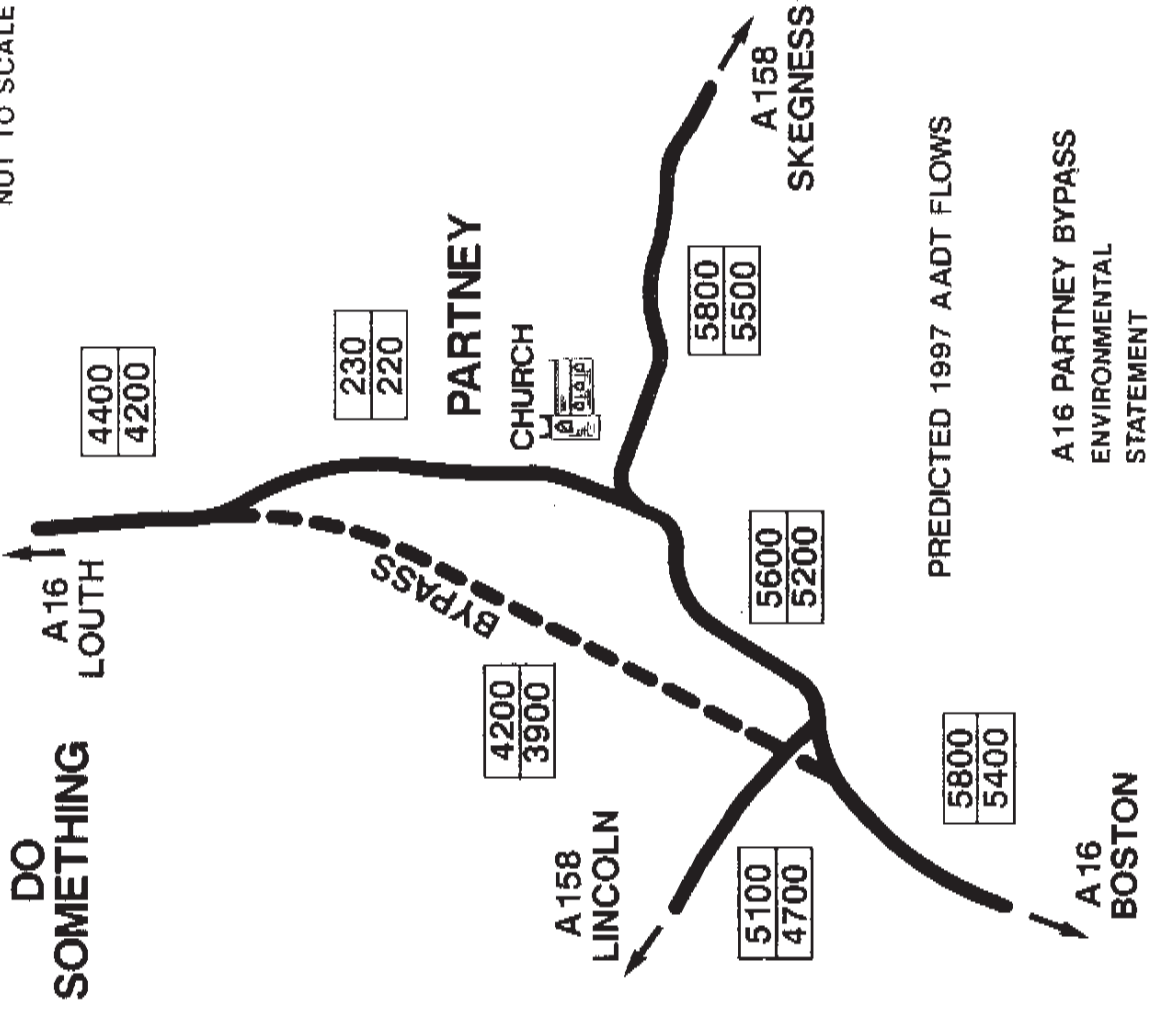


Chainage (metres)	Carriageway Width (metres)	Footways (width)	Speed restrictions	Street lighting	Major and Minor accesses onto the trunk road	Personal injury Accidents 1987 - 1990	Signs and Carriageway markings
0	7.3m (level) Carriageway	None present	Subject to national speed limit	None	None	<ul style="list-style-type: none"> <li>□ Fatal</li> <li>△ Serious</li> <li>○ Slight</li> </ul>	Centre Line Markings
100							
200							
300							
400							
500							
600							
700							
730	Footway (1.5m)	Footway (1.5m)	None present	Footway (1.5m)	Footway (1.5m)	Footway (1.5m)	Footway (1.5m)

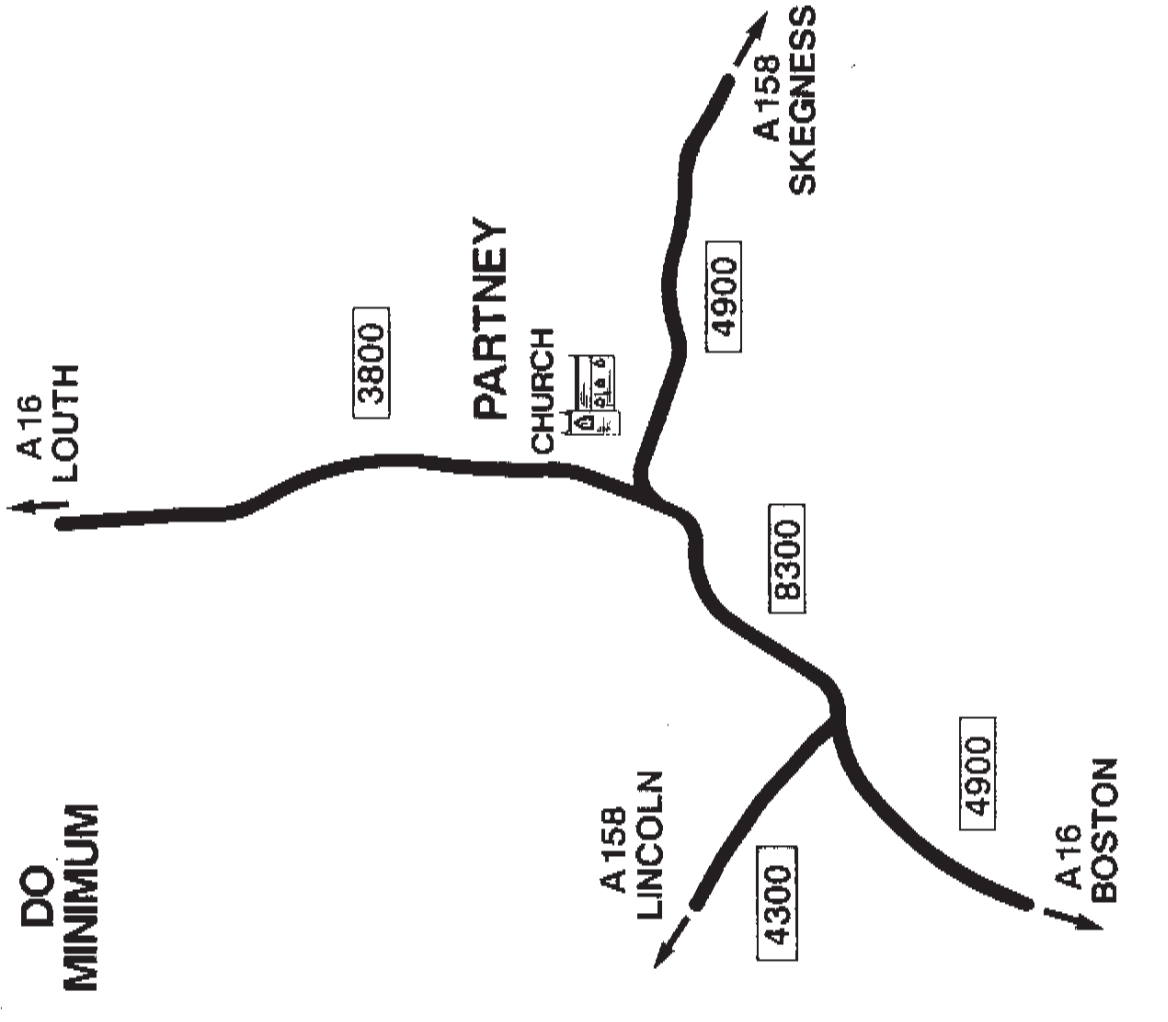


<b>DEPARTMENT OF TRANSPORT EAST MIDLANDS REGIONAL OFFICE</b>	<b>A16 EXISTING TRUNK ROAD STANDARDS</b>	<b>MADDISON LANE TO SAUSTHORPE ROAD JUNCTION</b>	<b>Fig 3B</b>
Carriage Width (metres)	Taper 91   Taper 57   Taper 85	Carriageway 71 - 74	
Footways (width)	None present   Footway (1.2m)   None present   Footway (1.3m)   Footway (1.3m)   None present		
Speed restrictions		Subject to national speed limit	
Street lighting		Lit	
Major and Minor accesses onto the trunk road	Maddison Lane   Slegness Road		
Personal Injury Accidents (1987 - 1990)	Public Footpath 123   Public Footpath 354   Public Footpath 354		
Signs & Carriageway markings	Centre Line Markings   Overtaking Southbound Only   No Overtaking   Overtaking Southbound Only   No Overtaking   Centre Line Markings   No Overtaking   Centre Line Markings		
Chordage (metres)	730   800   900   1000   1100   1200   1300   1400   1500   1600		

NOT TO SCALE



**FIGURE 4**  
**TRAFFIC FLOWS**





Appendix 3

Non-Technical Summary



UNCLASSIFIED

TOLLGATE HOUSE

HA 044/027/000077 1

ENVIRONMENT & LANDSCAPE  
Environmental Statement

11/03/2001 15:08:23

**A16 PARTNEY BYPASS – ENVIRONMENTAL  
STATEMENT VOL. 1 01/93**



MHA 44/27/77# 1#

**KEY**

**WESTERN ROUTE OPTIONS**

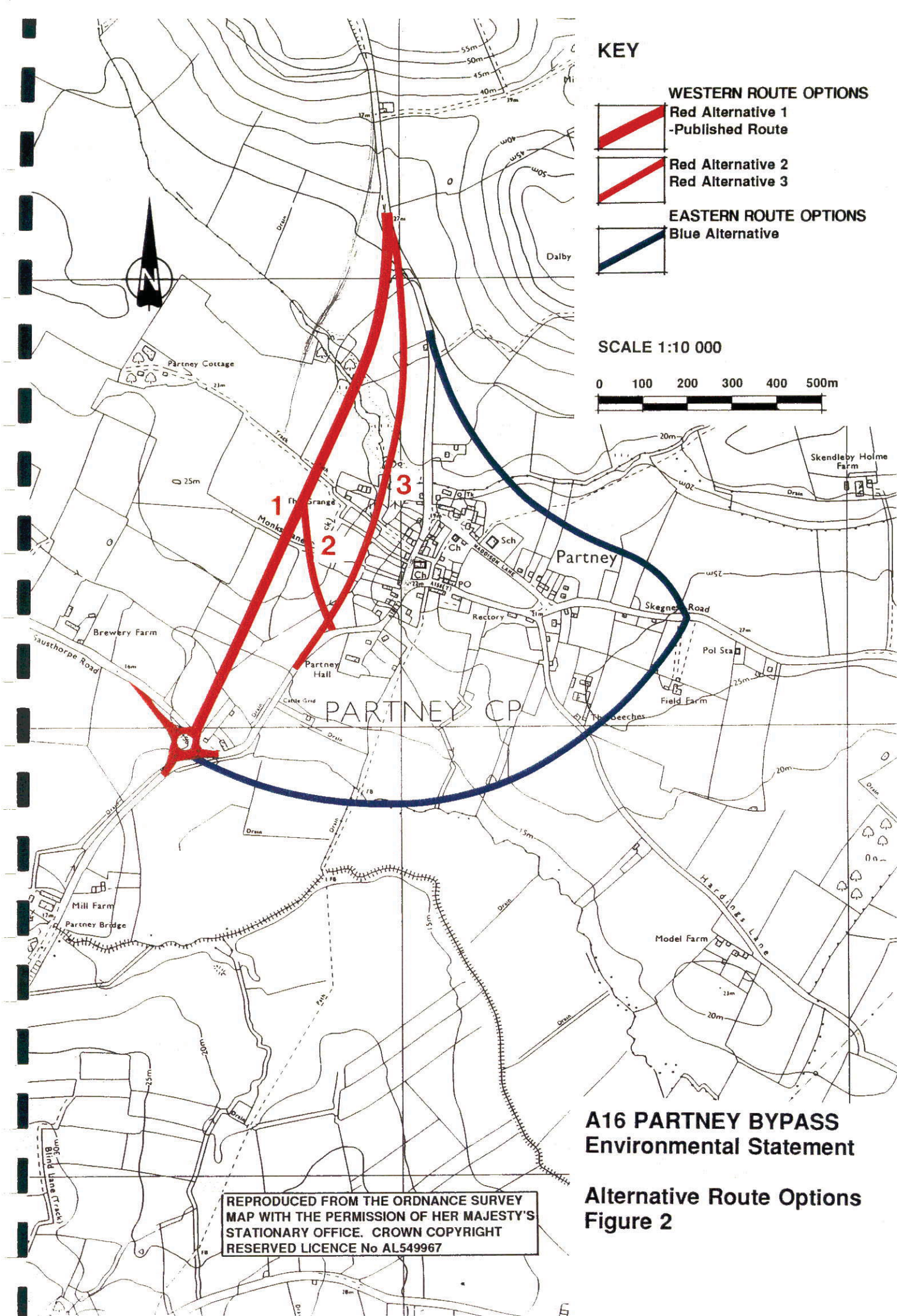
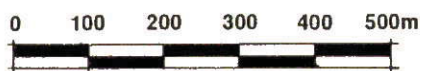
 **Red Alternative 1**  
-Published Route

 **Red Alternative 2**  
**Red Alternative 3**

**EASTERN ROUTE OPTIONS**

 **Blue Alternative**

**SCALE 1:10 000**






REPRODUCED FROM THE ORDNANCE SURVEY  
MAP WITH THE PERMISSION OF HER MAJESTY'S  
STATIONARY OFFICE. CROWN COPYRIGHT  
RESERVED LICENCE No AL549967

**A16 PARTNEY BYPASS  
Environmental Statement**

**Alternative Route Options  
Figure 2**

**KEY**

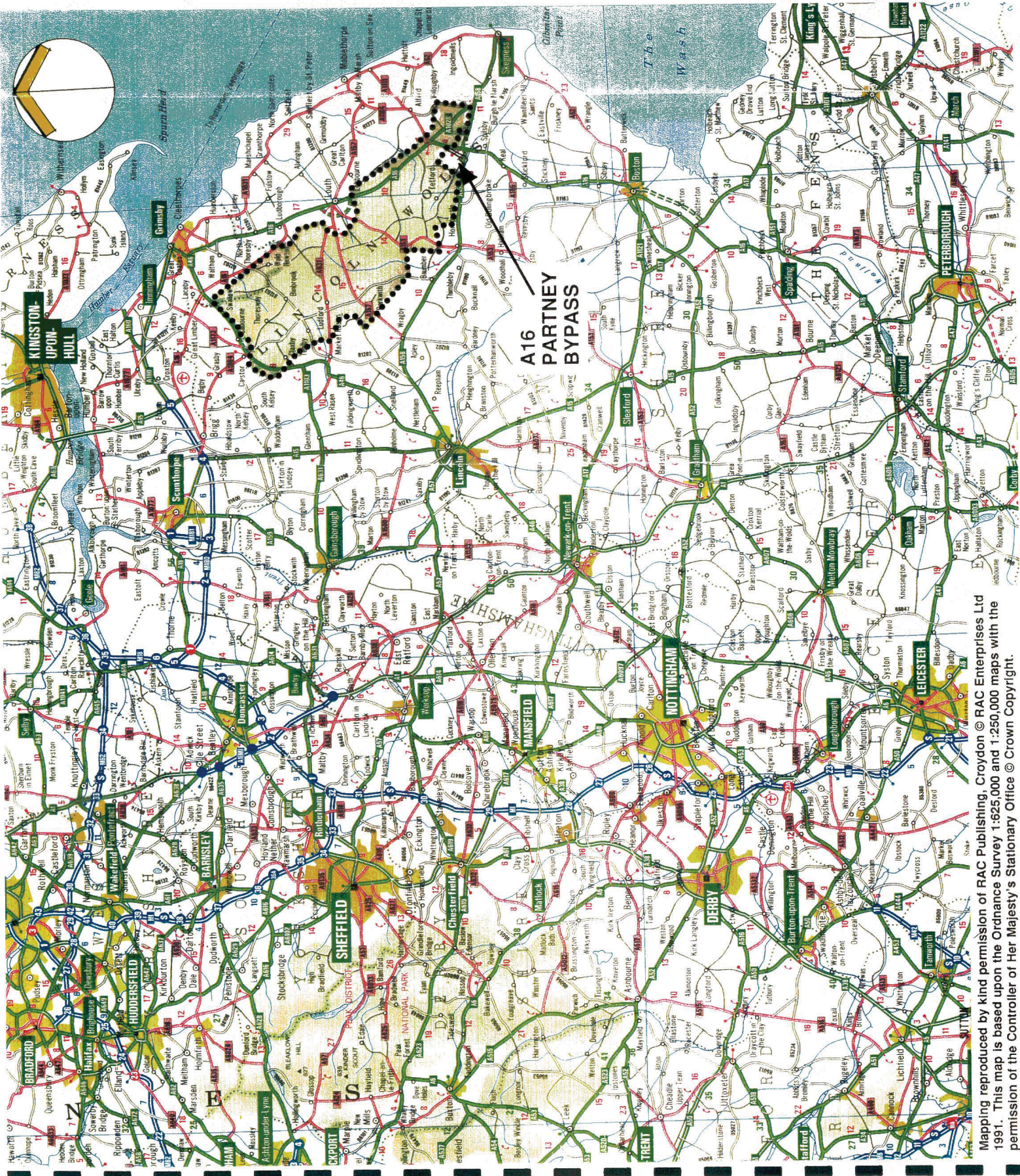
-  **PRIMARY ROUTE**  
Grand itinéraire  
Hauptverkehrsstraße  
Strada di comunicazione principale  
Carretera de tránsito
-  **OTHER A ROAD**  
Route principale  
Strada principale  
Carretera nacional
-  **DUAL CARRIAGEWAY**  
Route à chaussées séparées  
Zweibahnstraße  
Carretrate separate  
Via de dos calzadas

 **LINCOLNSHIRE WOLDS**  
AREA OF OUTSTANDING NATURAL BEAU

Scale 1:500,000





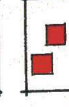





**A16 PARTNEY BYPASS**  
Environmental Statement  
Location Plan  
Figure 1



Mapping reproduced by kind permission of RAC Publishing, Croydon © RAC Enterprises Ltd 1991. This map is based upon the Ordnance Survey 1:625,000 and 1:250,000 maps with the permission of the Controller of Her Majesty's Stationary Office © Crown Copyright.

**KEY**

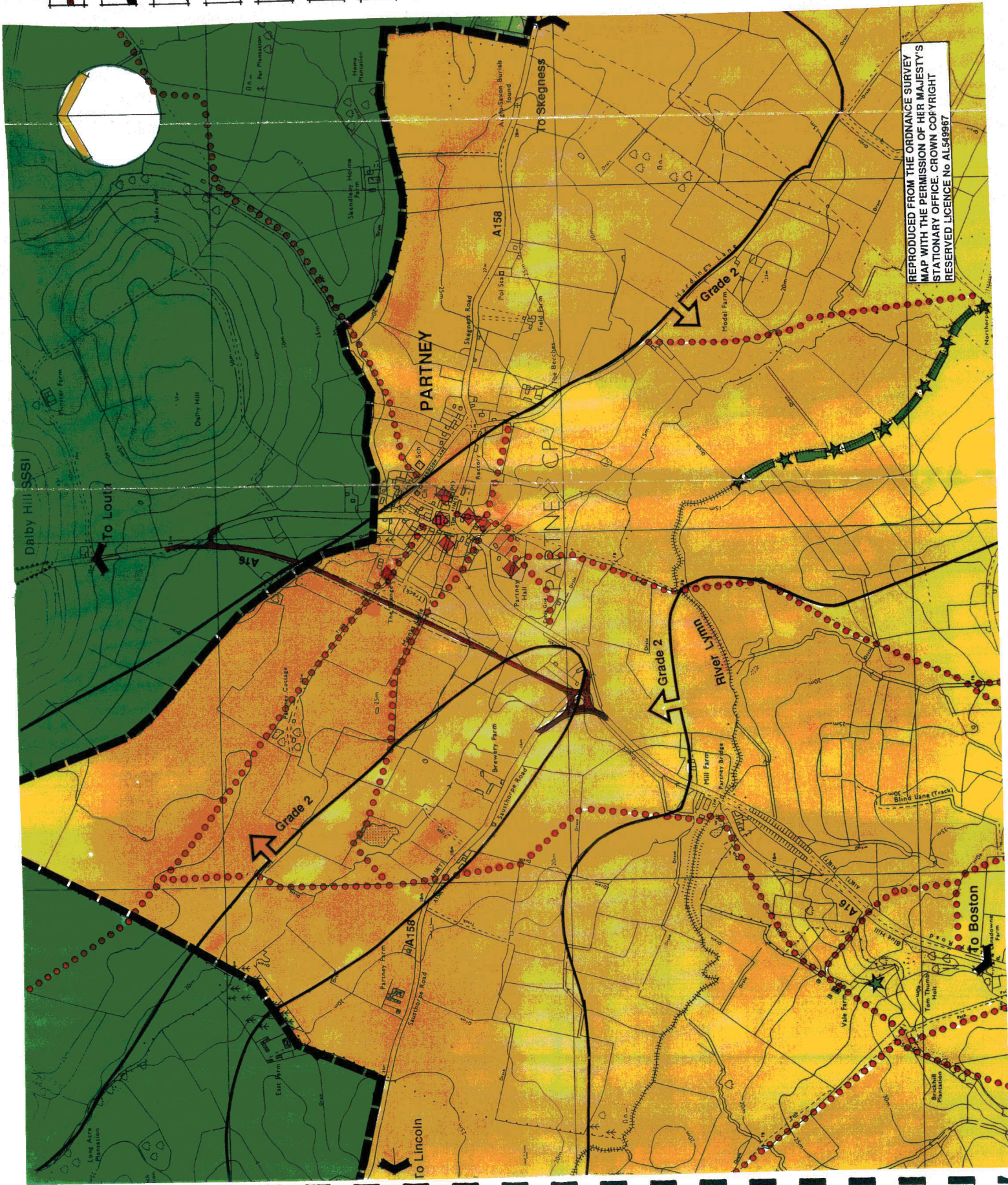
-  Proposed route alignment
-  Boundary of Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB)
-  Area of Great Landscape Value (AGLV)
-  Public footpath
-  Listed buildings
-  Boundary of Dalby Hill Site of Special Scientific Interest: (SSSI)
-  Non-statutory sites of nature conservation interest
-  Grade 2 Agricultural Land Agricultural land outside this tract is classified Grade 2

SCALE 1:10 000



**A16 PARTNEY BYPASS  
Environmental Statement**

**Planning Constraints  
Figure 5**

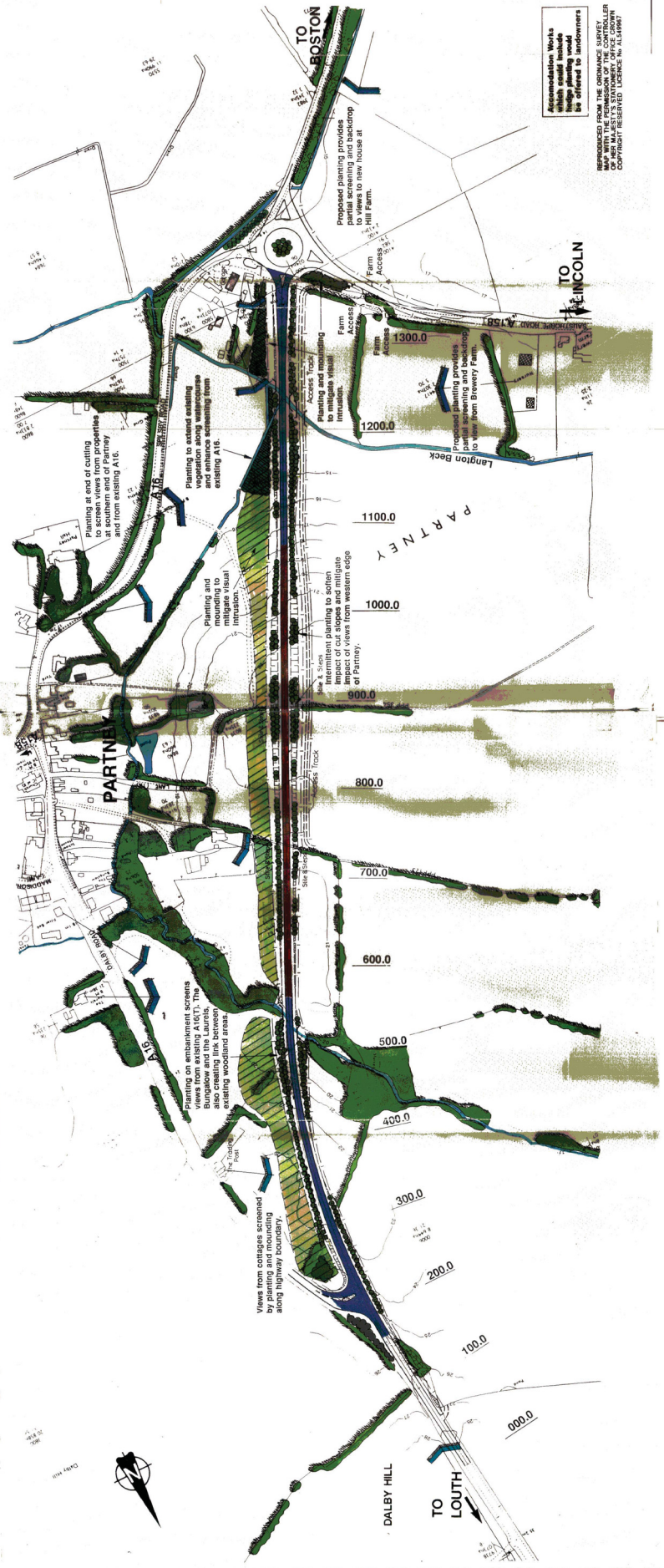


REPRODUCED FROM THE ORDNANCE SURVEY  
MAP WITH THE PERMISSION OF HER MAJESTY'S  
STATIONARY OFFICE. CROWN COPYRIGHT  
RESERVED LICENCE NO. AL549967

KEY

- Existing woodland or areas unaffected by scheme
- Existing hedgerows unaffected by scheme
- Proposed planting of mixed tree/shrub
- Proposed planting of mixed tree/shrub associated with highway boundary
- Proposed planting type (dense woodland type)
- Line of route in cutting
- Line of route on embankment
- Line of route at grade
- Existing views from properties
- Proposed replanting works with land offered back to landowner
- Proposed replanting and planting
- Watercourses

SCALE 1:2500



Accommodation Works  
 are not to be undertaken  
 until the planning work  
 has been completed and  
 is offered to landowners

REFERENCE FROM THE ORDNANCE SURVEY  
 MAP WITH THE PERMISSION OF THE CONTROLLER  
 GENERAL OF THE MAPS AND GENERAL  
 COMPASS, LONDON. LICENCE N. A. 1.1.1987

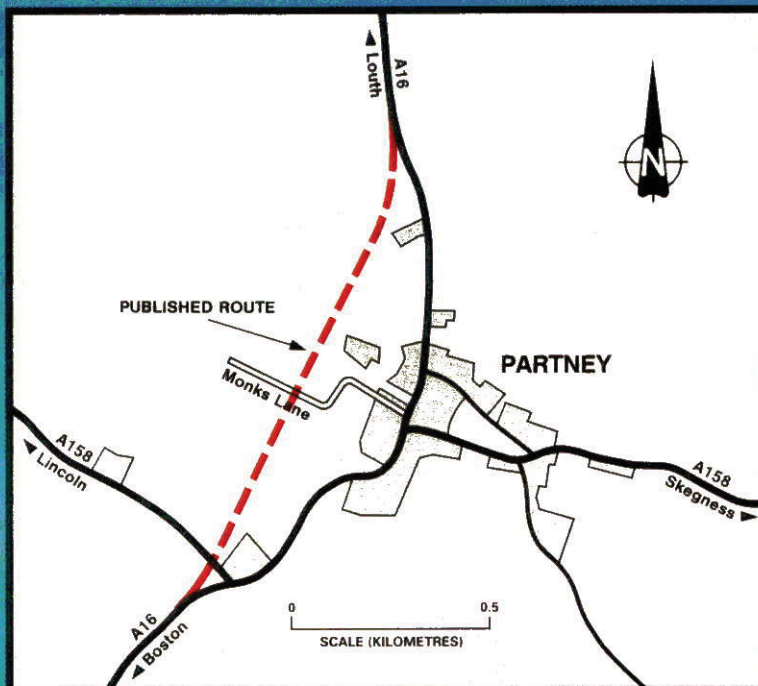
A16 PARTNEY BYPASS  
 Environmental Statement  
 Engineering and  
 Landscape Proposals  
 Figure 6



THE DEPARTMENT  
OF TRANSPORT

# A16 PARTNEY BYPASS

## ENVIRONMENTAL STATEMENT Non-Technical Summary



The Environmental Statement is issued in accordance with E.C. Directive 85/337/EEC as applied by Section 105A of the Highways Act 1980.

This document provides a non-technical summary of the full Environmental Statement.

The full Statement is placed on deposit with draft Orders for the scheme and is available for inspection at the locations shown on the back of this document.

Any person wishing to comment on the Statement should do so in writing to the address shown below not later than 25 March 1993.

Department of Transport  
East Midlands Region  
Cranbrook House  
Cranbrook Street  
Nottingham NG1 1EY

Tel: (0602) 476121

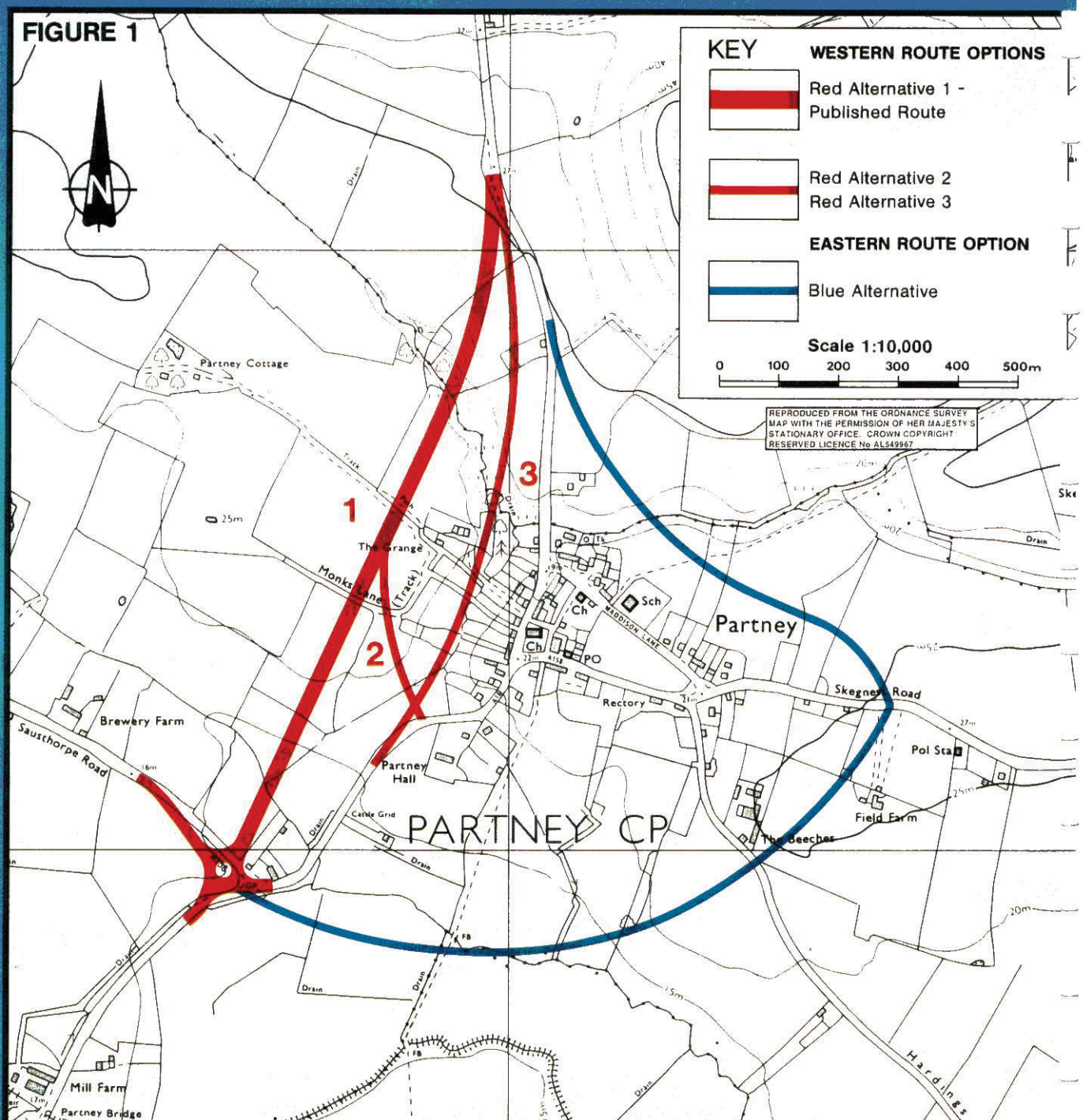
January 1993

## 1. Introduction

The village of Partney lies on the A16 at its junction with the A158 Horncastle to Skegness Road. The construction of an A16 Partney Bypass would relieve the village of a large proportion of through traffic bringing relief to the problems caused by severance and improvements to road safety and other aspects of the village environment.

## 2. Choice of Published Scheme (Refer to Figure 1)

Since 1988 various routes for a bypass of Partney have been considered. Improvement of the existing road would require considerable demolition of property and not relieve the village of traffic. Eastern routes were found to be less economic and more environmentally damaging than those to the west. Western Alternatives 2 and 3 do not provide adequate overtaking opportunities, require an additional junction on the A16 and have a greater impact on Partney than Alternative 1, the Published Scheme.





## 6. Main Features and Environmental Effects of the A16 Partney Bypass

- Length:** 1.3 km (0.8 miles)
- Proposed Standard:** 7.3 metres wide single carriageway.
- Structures:** Two stream culverts, approximately 2 metres wide.
- Lighting:** Road lighting is proposed at the roundabout.
- Accidents:** Over 70 casualties could be saved over a 30 year period as a result of building the bypass.
- Landtake:** 7.7 hectares of land would be taken of which 4 hectares is Grade 2 and 3.7 hectares Grade 3 under the MAFF classification. Six farms are affected.
- Properties Demolished:** None.
- Pedestrian Safety:** Removal of traffic in Partney would reduce pedestrian/vehicle conflicts and accidents involving pedestrians should decrease.
- Pedestrian Severance:** Two public footpaths would be affected by the bypass. Crossing facilities would be provided. Severance on two footpaths routes across the existing A16 would be reduced.
- Principal Views:** The road would be visible in views from the edge of the Lincolnshire Wolds AONB and would intrude into the views from 19 properties.
- Landscape:** There is some adverse affect on the setting of the Lincolnshire Wolds AONB. This would be minimised by the use of tree planting and ground modelling.
- Noise:** It is estimated that 26 properties in Partney would experience a significant decrease in noise levels whilst only 4 properties would experience an increase in noise of over 3dB(A)\*
- Pollution:** A reduction of traffic in Partney would mean a reduction in air pollution and general dirt and dust nuisance. Although the bypass would pass through areas of land not at present subject to emissions, traffic would move more freely and should create a minimum of exhaust fumes.
- Construction:** Eight dwellings within 100m of the road would experience increased noise during construction. The contractors would be required to comply with measures limiting the amount of noise and dirt from the works. Based on experience from similar schemes a 1 year construction period is anticipated.

\* 3dB(A) is the smallest change in noise levels at which people detect a long term reduction or increase in traffic noise.

## 7. Further Information

The full Environmental Statement and the draft Orders may be inspected at the following locations.

Department of Transport  
2 Marsham Street  
London SW1

East Lindsey District Council  
County Offices  
Tedder Hall  
Manby Park  
Louth  
Lincs LN11 8UP

Department of Transport  
East Midlands Region  
Cranbrook House  
Cranbrook Street  
Nottingham NG1 1EY

Spilsby Library  
2 West End Villas  
Spilsby  
Lincs PE23 5ED

Lincolnshire County Council  
County Offices  
Newland  
Lincoln LN1 1YL

Partney Post Office  
Scremby Road  
Partney  
Nr Spilsby  
Lincs PE23 4PG

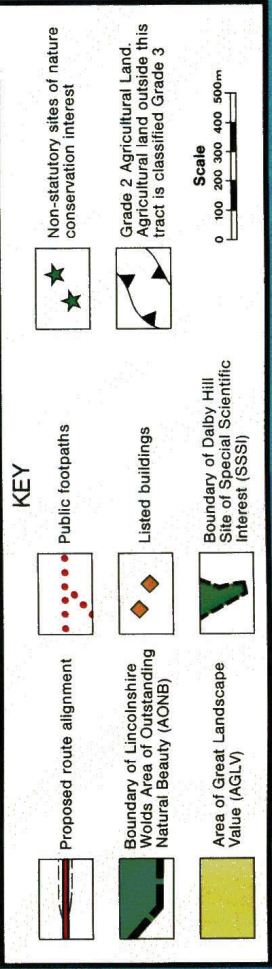
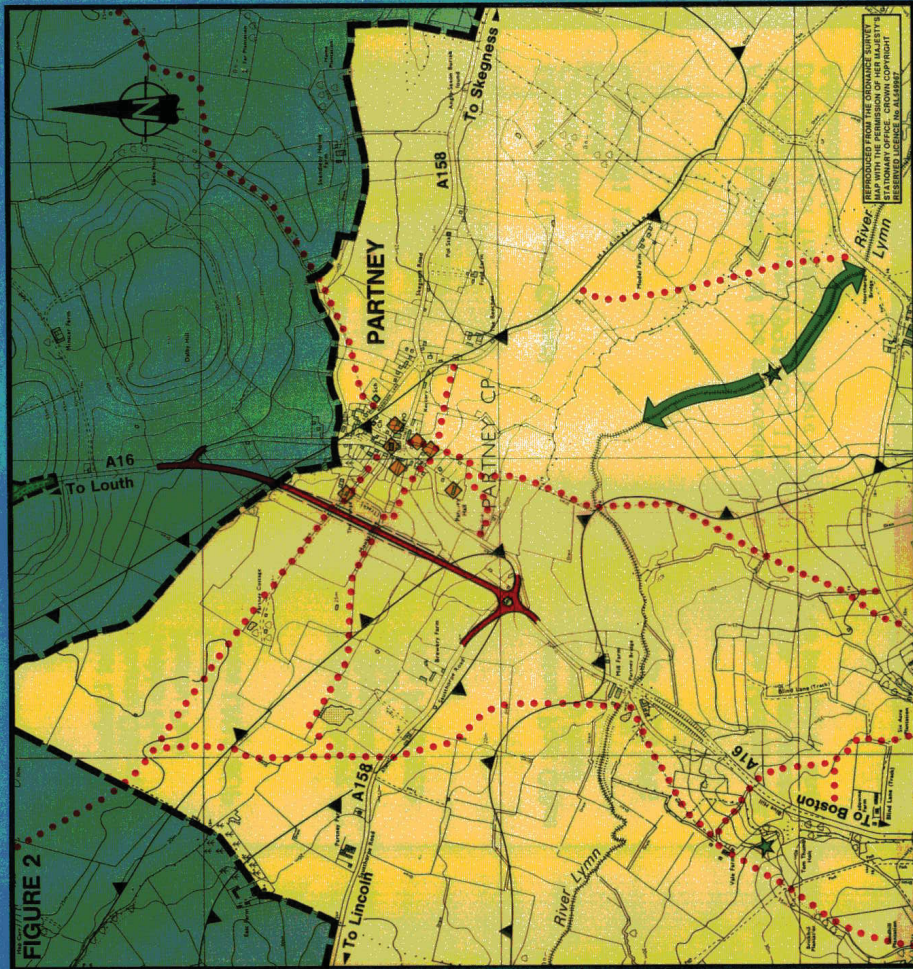
A public Exhibition of the proposals will be held at the Victory Hall, Partney on Thursday 21 January 1993 from 11.00 am to 8.00 pm. Representatives from the Department of Transport and there Consultants will be present to answer questions. Admission is free.



THE DEPARTMENT  
OF TRANSPORT

### 3. Description of the Published Route (Refer to Figure 2)

The bypass would consist of a single carriageway road 1.3 kilometres long. It would commence south of the village with an improved roundabout connection to the A158. The scheme would pass to the west of the village to rejoin the existing A16 at the base of Dalby Hill north of Partney.



### 4. The Site and Site Environment (Refer to Figure 2)

Partney is a small village situated on the A16 Trunk Road in eastern Lincolnshire. It is approximately 43 kilometres (27 miles) east of Lincoln and 16 kilometres (10 miles) west of the holiday resort of Skegness. The village has a population of approximately 250 people. The main residential area and village centre are located either side of the A16 with some residential property to the west and with the school, post office and church to the east. On an average day 3800 vehicles, of which 600 are lorries, use the A16 through Partney.

The pattern of traffic is not spread evenly through the year and during the summer, the busiest time, the number of vehicles can reach 7100 per day. These traffic flows through the village will increase substantially over the years ahead unless a bypass is provided.

Partney village lies on the southern edge of the Lincolnshire Wolds Area of Outstanding Natural Beauty. A tributary of the River Lynn flows to the south of Partney. This river valley landscape is intensively farmed for wheat and potatoes. Dalby Hill is to the north of the village. Fields here are small and are mainly used for arable farming. It is a landscape characterised by hedgerows and woodland copses.

Areas of ecological interest are limited to hedgerows, water courses and their marginal vegetation. There are no Sites of Special Scientific Interest (SSSIs) in the immediate area although further north on the A16 there is an SSSI designated for its geological interest. Sites of recorded archaeological interest are mainly confined within the limits of the village. Six Grade II listed buildings and one Grade II listed monument lie in the village. Most are set back from the road but the Church and Hornbeck House have frontages onto the A16.

### 5. Assessment of Environmental Effects and Proposed Mitigation Measures

The impact of the scheme has been reduced by the route choice which, compared with routes to the east of Partney, has less adverse impact on property, agriculture and the environment whilst offering good value for money.

Landscape Architects and Ecologists have worked with the Engineers to ensure the line and levels of the Published Scheme have been designed to reduce its impact.

Extensive landscaping would be undertaken along the highway boundary and adjacent land to help screen views from nearby properties, integrate the new road and, in time, provide replacement habitats for wildlife. On an average day the bypass would remove 3600 vehicles from the village leaving approximately 200 vehicles on the existing A16. This would reduce noise levels for the majority of the residents of Partney and would result in a substantial improvement in air quality along the existing road. Approximately 7.7 hectares of predominantly agricultural land would be required for the scheme. This is the minimum amount of land required for construction, integration and screening. New field accesses would be provided to help reduce the impact on farming.

Careful consideration has been given to ensure the new junctions are adequate and safe for all road users including pedestrians and cyclists. Stiles and steps down the cutting slope would be provided to assist walkers where the two public footpaths cross the route. Silt and oil traps together with special ditches would be provided to protect streams and ground waters from pollution. A confidential report about the scheme's impact on elements of the ecology which might be at risk by general disclosure is available to those with a legitimate conservation interest.