

APPRAISAL SUMMARY TABLE

Option: A47 Thorney bypass: Dual carriageway bypass to the north of Thorney		Description: Dual carriageway all purpose trunk road, approximately 5 km in length. Connections to existing network via terminal roundabouts on A47 at Hightrees Farm and Pigeon's Off Farm and roundabout on Station Road between Nos 71 and 87.	Problems: Accident rates higher than average with clusters at bends and minor junctions. 16,000 vpd (19% HGV) causes severance, noise and pollution in Thorney (pop 2,200). Trunk road traffic suffers severe delays in peak periods	Present Value Cost: £14.658m (1998 market prices, discounted to 1998)
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE MEASURE	ASSESSMENT
ENVIRONMENT	Noise	Benefits throughout noisier areas of village (A47). Some disbenefits to quieter outlying areas.	Do Min: 281 people annoyed. Scheme: 124 people annoyed	Estimated population annoyed by noise: 157 fewer people annoyed with the scheme than without it.
	Local Air Quality	Overall, improvement in air quality at properties in a potential air quality management area due to proposed bypass.	Improvement at 590 properties Deterioration at 0 properties	Concentrations weighted for exposure – 581 PM ₁₀ , -6969 NO ₂
	Greenhouse Gases	Increase in CO ₂ emissions due to changes in speed and fleet composition with the proposed bypass		Increase in CO ₂ emissions of 1184 t with the scheme
	Landscape	The road on low embankment would affect the village fringe, restricting the current long distance open views. Lighting at roundabouts would have some visual intrusion. Mitigation planting would take time to establish.	Not applicable	Moderate Adverse
	Townscape	Removal of the bulk of the traffic, particularly HGVs, would allow the attractive townscape of Thorney to be appreciated more fully. No proposals are included in the scheme for environmental enhancement of the existing A47 but the opportunity is there for improvement.	Not applicable	Moderate beneficial
	Cultural Heritage	The preferred route option is likely to adversely impact upon the drainage system of the area, an effect that could be neutralised by appropriate mitigation. There would be an opportunity to survey the drains and identify any buried soils as an evaluation technique to identify any archaeological potential prior to construction.	Not applicable	Slight adverse

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	Biodiversity	Some loss of mature and old trees with potential cavities harbouring bats. Mitigation should address minor losses to species-poor grassland and ditch habitat	Not applicable	Minor Adverse
	Water Environment	The water environment is important in terms of biodiversity, land drainage and the floodplain. The road impact is expected to be negligible, except a minor impact on local biodiversity. Overall, the impact of the road is likely to be insignificant, although the effect on the floodplain and on the biodiversity of the Nene Washes and The Wash is predicted to be of low significance.	Not applicable	Slight adverse impact
	Physical Fitness	Would encourage walking and cycling on the existing A47 once the traffic has been removed. Bypass would not encourage walking and cycling due to the speed and volume of traffic	Not applicable	Moderately beneficial
	Journey Ambience	The bypass would result in a reduction in travellers stress through the provision of a higher quality road surface. Once the bypass is operational, traveller stress for those continuing to use the existing A47 would be reduced as congestion is relieved. Although subjective, the bypass may improve journey ambience as the traveller may experience high quality views over an open fenland landscape.	Not applicable	Slight/Moderate beneficial
SAFETY	Accidents	There have been a total of 37 recorded personal injury accidents in the 5 year period between 1996 and 2000 within the A47 Thorney Envelope.	The proposed bypass could reduce overall personal accidents by 20%	PVB £4.295m
	Security	Not applicable	None	
ECONOMY	Transport Economic Efficiency	-	Opening Year 2005. Total journey time saved in the year of opening would be 69,000 hours. Journey time savings along the trunk road would be 1.4 minutes during the peak period and 0.8 minutes during the off peak.	Users: NPV £19,872m Private Providers: NPV £0.126m Public Providers: NPV £-14.783m Other Government: NPV £1,243m
	Reliability	-	Not applicable	Not applicable
	Wider Economic Impacts	-	Not applicable	Not applicable

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ACCESSIBILITY	Option values	Not applicable	Not applicable	£0m
	Severance	With the provision of a footbridge over Station Road, all people wishing to make pedestrian movements would be able to do so although there may be some hindrance to movement. Construction of the bypass would result in the reduction in severance for pedestrians and cyclists using the existing A47 due to the traffic being removed	Not applicable	Slight adverse.
	Access to the Transport System	-	Not applicable	
INTEGRATION	Transport Interchange	Not applicable	Not applicable	
	Land-Use Policy	The A47 Thorney Bypass facilitates transport policy objectives at a national, regional and local level	Not applicable	Beneficial
	Other Government Policies	-		