

Appraisal Summary Table

Option	Objective	Description	Problems	Present Value of Costs to Public Accounts £82.530m
Objective	Sub-objective	(a) Qualitative Impacts	(b) Quantitative Assessment	
ENVIRONMENT	Noise	Properties near the existing A11 in Elveden will experience an overall significant noise decrease due to the significant reduction in traffic passing through the village. The facades of 7 properties which face the new A11 route towards the north of Elveden will see a noise increase greater than 5dB. Properties along the sections of existing route where there is no significant realignment will experience decreases in noise. This is because any increases in noise due to the increase in line speed are more than compensated for by the reduction in noise due to the thin surfacing. Properties shielded by environmental screens will experience significant decreases.	Estimated Population Annoyed without Scheme in 15th Year: 36  Estimated Population Annoyed with Scheme in 15th Year: 33  Net Noise Annoyance in 15th Year: -3 people  With the Scheme in place 14 properties would experience increased noise levels of more than 3dB in 2028 compared to the baseline Do Minimum situation in 2013. 18 properties would experience reductions in noise levels of more than 3dB in 2028 compared to the baseline Do Minimum situation in 2013.	Net Present Value of noise of proposal = £122k
	Local Air Quality	The scheme has as an overall beneficial impact, primarily due to realignment of the A11 around Elveden. There are no AQMAs in the study area and no new AQMAs will need to be declared as a result of the proposal. Concentrations are within the objectives in all future scenarios.	Air quality changes in PM10 and NO2: 128 properties experience improvement 34 properties experience deterioration 0 properties experience no change.	PM10: -14.0 NO2: -49.36
	Greenhouse Gases	The scheme results in a net increase in Carbon emissions over the 60 year appraisal period, compared to the Do-Minimum scenario. This is due to increased traffic volumes together with increased km travelled and higher speeds with the scheme.	Carbon Emissions increase (tonnes): 60 year = +79,651 Opening yr = +1,525	Net Present Value of Emissions (60 yrs) = -£2.682m
	Landscape	The scheme would have a Large Adverse impact in year 1 reducing to moderate adverse in year 15 on the agriculture, heathlands & forest character types as mitigation in the form of planting matures. The scheme would have a Large Adverse Impact in Year 1 remaining large adverse in Year 15 on the parklands character type due to the impacts on the War Memorial through the movement of the road closer to the site. The inclusion of the NMU Underpass would not increase this impact. Overall the Scheme would have a Large Adverse Impact in Year 1 reducing to Moderate Adverse in Year 15.	Not applicable	Moderate Adverse - 2
	Townscape	The Scheme will have a Moderate beneficial impact on the Estate Village Character Area in Year 1, remaining moderate beneficial in year 15, resulting from the movement of the road away from the village through the inclusion of the bypass. The Holiday Village Character Area would have a neutral impact remaining neutral in year 15. Taken as a whole the landscape impact would be slight beneficial on the townscape, as this single beneficial impact would not mitigate for all of the adverse impacts on the remaining landscape character areas.	Not applicable	Slight Beneficial - 5
	Heritage of Historic Resources	The scheme will have a moderate adverse impact on 2 heritage assets. The setting of the war memorial (moderate importance) is impacted by the inclusion of the NMU Underpass with the historic parish boundary being severed by the underpass. There will be direct impacts through topsoil stripping on the Romano British farmstead (Moderate/High importance) immediately west of the B1106 junction. The scheme will have slight adverse impact on 31 sites in total. There will be Moderate beneficial impacts on the How hill tumulus Scheduled Monument, and a very large beneficial impact to the Elveden Conservation area as a result of moving the road away from these	Not applicable	Slight Adverse - 3

	Biodiversity	<p><b>HABITATS</b> The scheme would have neutral impact on Breckland SAC &amp; SPA habitats and associated SSSI units with mitigation. There would also be neutral impacts on the PRVs, cut-off channel, Mildenhall Woods and the Elveden Farm tracks. There would be slight adverse impacts on the habitats in the bypass area. There would be a moderate to large beneficial impact on the Rex Graham Reserve SAC/SSSI as a result of the road moving further away from the site.</p> <p><b>SPECIES</b> With mitigation there would be neutral impacts on the Annex 1 Bird Species, and invertebrates. There would be slight adverse impacts on Bats due to severance, and deer due to interruption of deer movement patterns and potential mortality. There would be slight beneficial impacts on reptiles through provision of habitat in the new deer visibility zones, and moderate to large beneficial impacts on GCN through improvements to the breeding ponds close to the Scheme.</p>	Not applicable	Neutral - 4
	Water Environment	A water course (the cut-off channel) & the major aquifer are present within the Scheme. Mitigation measures designed in consultation with the Environment Agency would reduce any impact to neutral through the incorporation of pollution control measures and sensitive design. Two private water supplies would be affected by the scheme. Mitigation measures would ensure that no property would be left without a viable source of water.	Not applicable	Neutral - 4
	Physical Fitness	There are beneficial impacts from the reduction of severance through links to the PROW network and the inclusion of the NMU underpass, as well as benefits to health associated with the inclusion of the bypass and a reduction in severance for the Elveden Estate. There will be some access routes stopped up however, which will have some minor adverse impacts. There is low usage of the PROW network. Overall the impact would be neutral	Not applicable	Neutral - 4
	Journey Ambience	The scheme would provide major benefits to >10,000 vehicle travellers through the provision of additional traveller facilities, reduction in driver stress from congestion, and reduced fear of accidents through the incorporation of deer visibility zones and a central reserve. Overall there would be a large beneficial impact.	Not applicable	Large Beneficial - 7
<b>SAFETY</b>	Accidents	Existing road is sub-standard single carriageway with limited opportunities for overtaking & conflict with slow moving & oncoming vehicles. The scheme provides a higher standard road with lower accident rates which translates into a reduction in accidents over the life of the scheme.	Link Accident Savings: 1,011 Casualty Savings: 1,682 Junction Accidents Savings: 108 Casualty Savings:192	Link PVB = £113.891m Junction PVB = £4.158m Const/Maintenance = -£6.363m Total PVB = £111.686m
	Security	Those aspects relating to security will be unchanged by the Scheme	Not applicable	Neutral - 4
<b>ECONOMY</b>	Public Accounts	The scheme will require public capital investment for construction. Small operating costs disbenefit (0.9% of business users PVB) owing to longer scheme length. Tax revenues will be accrued over the life of the scheme equivalent to 22% of the investment cost.	Central Govt PVC = £82.530m (Central Govt PVC = Investment costs of £100.590M minus indirect tax revenues of £18.060m) Local Govt PVC = £0.0m	PVC = £82.530m
	Business Users and Providers	Journey time savings accrue to users, due to reduced delays and higher operating speeds on the scheme. Construction and maintenance savings accrue, due primarily to maintenance travel time savings.	Business Users travel time & operating costs PVB = £853.107m  Construction & maintenance PVB = £22.303m	PVB = £875.410m
	Consumer Users	Journey time savings accrue to users, due to reduced delays and higher operating speeds on the scheme. Small operating costs disbenefit (1.7% of business users PVB) owing to longer scheme length. Small operating costs disbenefit (0.9% of business users PVB) owing to longer scheme length. Construction and maintenance savings accrue, due primarily to maintenance travel time savings.	Consumer Users travel time & operating costs PVB = £411.772m  Construction & maintenance PVB = £25.578m	PVB = £437.350m

**Appraisal Summary Table**

	Reliability	Not assessed as INCA software not available.	INCA software not available.	n/a
	Wider Economic Impacts	The Scheme promotes the dispersal of investment to the north-east of the East Anglian Region. Productivity in the region would be improved through increased time saving by business users and promotion of agglomeration of businesses.	Not Calculated	Moderate Beneficial - 6
<b>ACCESSIBILITY</b>	Option Values	The Scheme will result in no change to the transport services available	Not calculated	n/a
	Severance	There would be reduced severance in Elveden Village due to the proposed bypass removing the traffic from the area. There would be reduced severance to Elveden byways 3 & 4, and the inclusion of the NMU underpass would reduce severance further through the provision of a dedicated crossing point, and linkages to Icklingham byway 7.	Not applicable	Slight Beneficial - 5
	Access to the Transport System	Access to road going transport facilities remains unchanged. The nearest railway running East/West through Thetford would be unaffected.	Not applicable	Neutral - 4
<b>INTEGRATION</b>	Transport Interchange	Not Applicable	Not applicable	n/a
	Land-Use Policy	There would be beneficial impacts on PPS1 & PPG13 through improvements to the road network, and the inclusion of the NMU underpass. There would be slight adverse impacts on PPS 7 and PPS9 through impacts on the loss of woodland and farmland.	Not applicable	Neutral - 4
	Other Government Policies	There would be Slight adverse impacts on PPS9 and PPG15, PPG16 due to impacts on environment, landscape, archaeology and the historic environment. There would be neutral impacts on PPS25 and PPS23 regarding flood risk and pollution control. There would be slight beneficial impacts on PPG15 & PPG24 through the removal of traffic through the Elveden Village and Elveden Conservation area. There would be beneficial impacts associated with PPG17 through improved accessibility of recreational features associated with the NMU underpass. Overall the impact on National Policy would be Neutral	Not applicable	Neutral - 4