

Table 2.1 – Appraisal Summary Table

A14 Ellington to Fen Ditton Improvement 19 August 2009 (Pre-PI)		Description: New off-line route between Ellington & Fen Ditton, crossing the A1, River Great Ouse & East Coast main line, passing south of Buckden landfill site, Wood Green, north of Buckden, Offord Cluny, Hilton & Conington. Online widening between Fen Drayton & Lolworth then runs offline north of Bar Hill to M11 J14. Online widening of Cambridge Northern Bypass between J14 & Fen Ditton. Parallel LAR between Fen Drayton, M11 J14, with junctions at Fen Drayton /Trinity Foot, Bar Hill, Dry Drayton & M11 J14. A14 & Railway viaduct replacement in Huntingdon by at-grade links to the local road network. A14 dual 3 lanes, with dual 2 lanes west of A1, LARs to be dual 2 lanes. A1 widened to dual 3 lane past Brampton.	Problems: High levels of traffic congestion especially during peak periods with poor & unreliable journey times, safety; traffic diverting onto unsuitable routes; community severance. Poor geometry and substandard at-grade junctions.	Present Value of Costs to Public Accounts -£300.1M	
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE ASSESSMENT	ASSESSMENT	
ENVIRONMENT	Noise	Dominant noise sources in area are A14 between Ellington & Fen Ditton & A1 between Alconbury & Brampton. Noise would be reduced over the detrunked A14 but increased in area of new road. By 2031 with scheme, number of properties experiencing a noise level above 68 LAeq, 18h & an increase in noise = 121. No properties over 80dB. In all areas within 600m of A14 & A1, night-time levels are approximately 6dB below those during the day. Adjacent to local roads, difference is approximately 10dB. In rural areas away from traffic the day to night noise difference is 2-4dB. The pattern of day - night noise differences would be altered by the scheme.	Do Minimum 3,804 people annoyed by noise. With Scheme 3,308 people annoyed by noise. With Scheme houses experiencing disbenefit = 121, houses experiencing benefit = 329. Change in population annoyed = 496 people (208 houses)	Change in population annoyed (Yr 15) = -496 PVB (Residential) = £18,678,850	
	Local Air Quality	Overall improvement in local air quality. No exceedences of AQS objectives or EU Limit Values for 2015 Do-Minimum or Do-Something. Improvements in air quality in three AQMAs at Brampton, Huntingdon & Hemingford - Fenstanton. Some deterioration and some improvement at properties in the South Cambridgeshire A14 corridor AQMA. No other AQMAs likely to be affected. Three properties would be demolished with the scheme. Change of less than 5% in mass emissions (tonnes) with scheme in opening year: NO _x : +267, PM ₁₀ +10.	No. properties with improvement: 19,211 (NO ₂), 15,731(PM ₁₀). No. properties with deterioration: 4,953 (NO ₂), 4,523 (PM ₁₀)	Concentrations weighted for exposure: NO ₂ : -21,084 PM ₁₀ : -6,154	
	Greenhouse Gases	The increase in greenhouse gases is the result of the increase in vehicle kilometres travelled with the scheme.	Change in Carbon Emissions over 60 year appraisal period (tonnes) = 4,484,311. Change in Carbon Emissions in opening year (tonnes) = 32,424	Net present value of carbon emissions of proposal (£) = -185,290,849	
	Landscape	Scheme passes through mostly open, large scale arable landscape with some woodlands, valley floodplains and fenland. Large adverse effect on Ouse Valley landscape character which is deemed as being of high value. Offline section - large adverse effects on landscape pattern & tranquillity. Online section - slight adverse effects on landscape pattern & tranquillity & on settings of nearby villages. Lighting would adversely affect rural character.	Not Applicable.	Large Adverse	
	Townscape	Beneficial effects in Huntingdon due to removal of viaduct and trunk road traffic, but adverse effects due to partial loss of townscape spaces & addition of lighting. Traffic reductions through towns and villages would benefit character, access and human interaction.	Not Applicable.	Slight Beneficial	
	Heritage of Historic Resources	Scheme would result in the loss of buried archaeological remains, none of which are statutorily designated. Scheme would enhance the settings of two Scheduled Monuments. Scheme would physically adversely affect one Conservation Area, the settings of several others and the settings of a number of Listed Buildings. Scheme would not be entirely at variance with the form, scale and pattern of the historic landscape.	Not Applicable.	Moderate Adverse	
	Biodiversity	No impacts on statutory designated sites. Scheme would result in some loss of habitat within Buckden Gravel Pits CWS resulting in adverse impacts on important bird populations using this CWS & adjacent River Great Ouse CWS. Majority of effects on biodiversity features are neutral. Habitat creation would result in positive effects on undesignated habitats & on populations of great crested newt, reptiles & water voles. Due to loss of habitat within badger social territories & uncertainty regarding whether badgers would use artificial badger setts there would be residual adverse effects.	Not Applicable	Moderate Adverse	
	Water Environment	Design would avoid impacts on groundwater, surface water quality, flood risk, abstractions, discharges and ecology. Improvements to pollution control (through ponds, reduced spillage risk), attenuation (in ponds), reduction in impermeable area near Huntingdon giving a slight benefit.	Not Applicable.	Slight Beneficial	
	Physical Fitness	New & improved linkages to rights of way network, new circular routes, LAR & NMU routes & new two-way cycleway would provide NMU journey opportunities.	No Quantitative Assessment undertaken.	Neutral	
	Journey Ambience	Driver frustration, stress & fear of accidents expected to reduce through the provision of high quality trunk and county routes. Lay-bys provided on the trunk road sections. Improvement in travellers views particularly for the offline section.	Not Applicable.	Large Beneficial	
	SAFETY	Accidents	Scheme improves safety in the A14 corridor through the provision of an improved standard of carriageway. The benefit is in part eroded due to an increase in traffic on the A14 due to the impact of variable demand & strategic re-assignment of traffic. There is a forecast reduction in accidents numbers and in fatal, serious and slight casualties.	Accidents: -2939, Fatal Casualties: -35, Serious Casualties: -375, Slight Casualties: -3725.	Accident PVB of £119.9m
		Security	Removal of at-grade junctions and crossings and reduction in congestion would reduce perception of risk and personal injury.	Not Applicable.	Moderate Beneficial
	ECONOMY	Public Accounts	Current estimated construction cost is £1113.6m in 2006 Q2 prices. This becomes £740.7m when expressed as a 2002 present value. The total forecast scheme present value of cost increases due to a net additional future maintenance cost of £24.7m, but is offset by forecast indirect taxation of £1,065.5m due to the additional revenue to central government from fuel taxation. The overall scheme PVC is -£300.1m.	Central Govt PVC = -£300.1m; Local Govt PVC = nil.	PVC -£300.1m
Trans, Economic, Efficiency: BU, TP		Scheme generates large benefits for business users from travel time and vehicle operating cost savings.	Users PVB = £759.5m; Transport Providers PVB = -£1.2m; Other PVB = nil.	PVB £758.2m	
Transport Econ. Effic.: Consumers		Scheme generates large user benefits for consumers from travel time savings partially offset by vehicle operating cost disbenefits as some traffic would have to travel further.	Users PVB = £215.9m, Overall BCR = -3.1.	PVB £215.9m	
Reliability		Additional traffic within the A14 corridor would result in a forecast increase in incidents, although the incidents due to accident rate would be lower. Provision of increased capacity, separate trunk and County roads would mean that delay associated with incidents would be significantly reduced resulting in considerable improvements in journey time reliability.	PVB = £321m as assessed using INCA (excluded from the main monetised assessment following advice from the Overseeing Organisation).	Large Beneficial	
Wider Economic Impacts		The scheme is neither within nor serves a designated regeneration area.	Changes in jobs/employment not quantified.	Neutral	
ACCESSIBILITY	Option values	No change.	No change.	Neutral	
	Severance	Several rights of way truncated and diverted along new offline route. Segregated NMU facilities at key junctions and new NMU routes and LAR particularly for sections 2 and 3 would provide improved linkages between settlements and improve accessibility.	No Quantitative Assessment undertaken.	Slight Beneficial	
	Access to the Transport System	Provision for access to bus routes provided for the Fen Drayton to Girton section. Journey time reliability improved for routes along A14 corridor. Huntingdon proposal caters for access to the main line station.	-	Slight Beneficial	
INTEGRATION	Transport Interchange	No effects or change to passenger or freight interchanges.	-	Neutral	
	Land-Use Policy	Supports policies at all levels which promote improvements to the A14, associated developments and improvements in accessibility. Conflicts with environmental objectives seeking protect local biodiversity, landscape and heritage resources and minimise risk of climate change. Facilitates greater number of key policies than hinders resulting in beneficial integration.	Not Applicable.	Beneficial	
	Other Government Policies	Scheme conflicts with overarching objectives of NE & DCMS in conserving & enhancing biodiversity & landscape. Facilitates DFT objectives in reducing congestion, improving local accessibility but hinders those seeking less dependency on road transport & DECC objectives of reducing greenhouse gas emissions which contribute to climate change.	Not Applicable.	Neutral	