

Appraisal Summary Table: A57/A628 Mottram – Tintwistle Bypass and A628/A616 Route Restraint Measures

Name: A57/A628 Mottram - Tintwistle Bypass & A628/A616 Route Restraint Measures		Description: Existing sub standard and congested single carriageway road within villages of Mottram, Hollingworth and Tintwistle, to be bypassed with a dual carriageway (D2AP) in a 200m tunnel below Mottram, single carriageway road, plus single carriageway link road. A controlled corridor comprising traffic signal restraint measures, speed limits, improved junctions and pre-emptive accident remedial measures along the bypass and the A628 and A616 trunk roads as far as M1 junction 35A to deter a transfer of traffic from other cross Pennine routes.	Problems: Severe congestion resulting in environmental problems in built up areas	Present Value Cost to Government £97.37m
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE MEASURE	ASSESSMENT
ENVIRONMENT	Noise	The Scheme would move traffic flows away from dwellings along the bypassed A57/A628, reducing traffic noise levels. Where the Scheme is introduced there would be increases in traffic noise levels. Changes in traffic flows would result in changes in traffic noise at dwellings removed from the area of the Scheme. The Assessment scores indicate an increase in Net Present Value, and 36 more people annoyed as a result of the Scheme.	Estimated Population Annoyed: 6622 Do-Something: 6657	Change in Population annoyed (Yr15) = +36 PVB (Residential) = +£11,597
	Local Air Quality	AQMA declared across Mottram and Hollingworth for annual average NO ₂ . NO ₂ monitoring indicates exceedances of the AQS objective at properties along the A57 and A628. In the Do-Minimum, there are predicted exceedances of the annual average NO ₂ EU Limit Value around the A57 Mottram Moor between Stalybridge Road and Back Moor. In the Do-Something, there is a reduction in the number of properties predicted to exceed the annual average NO ₂ EU Limit Value compared to the Do-Minimum. The existing AQMA would be reduced in size and there would be no creation of a new AQMA in the Do-Something. The net total assessment scores indicate an overall improvement in NO ₂ and PM ₁₀ in the Do-Something. The benefits are accrued, as although there are more properties that have a small deterioration than improvements, the total improvements are greater and outweigh the total deterioration. NOx emissions increase by 62 tonnes per year and PM ₁₀ emissions by 1.7 tonnes per year in the Do-Something compared to the Do-Minimum.	PM ₁₀ levels Improve 10282 PM ₁₀ levels made worse 19214 PM ₁₀ / NO ₂ levels No Change 0 NO ₂ levels Improve 13942 NO ₂ levels made worse 15554	PM ₁₀ -657.76 NO ₂ -2284.18
	Greenhouse Gases	The Scheme is forecast to slightly increase kilometres travelled by car and slightly reduce kilometres travelled by freight vehicles over the modelled network, over 60 years. Freight represents about 23% of the total km in 2030, but its much lower fuel efficiency than cars (per km), coupled with diesel's slightly higher carbon content than petrol, means that there is an overall carbon saving.	Saving of 19.916 tonnes of carbon emissions over 60 years, across the modelled network (calculations based on 12hr daily flows. Conversion factor from 12hr to AADT = 1.1693)	Total PVB = £592,000 (using central carbon price estimates)
	Landscape	Bypass located within a predominantly high quality rural landscape on the prominent south facing slopes of Longendale. Eastern end of bypass located within the Peak District National Park where, despite mitigation, it would adversely affect landscape character, quality and tranquility, and be visible in valued views from open access moorland and the Pennine Bridleway. The western part of the bypass between M67, the Mottram showground roundabout and the junction with Mottram Moor would have street lighting. Lighting also proposed at the eastern roundabout at Tintwistle.	Not applicable	Large Adverse
	Townscape	Townscape (including locally within 2 Conservation Areas) enhanced along the detrunked A57/A628 within the bypassed villages due to improved human interaction and a sense of place and scale restored through removal of through traffic (including a reduction in the proportion of HGV traffic) and incorporation of traffic calming measures.	Not applicable	Slight Beneficial
	Heritage of Historic Resources	Regionally important Mottram Old Mill destroyed & 20 other archaeological sites of local value directly impacted. 2 cottages of local interest demolished. Slight beneficial effects on 2 Conservation Areas due to reduction in traffic flows but those in Tintwistle outweighed by loss of open space within Conservation Area where the bypass passes through. Setting of 8 listed buildings would slightly benefit through improvement of setting by reduced traffic flow, but offset by slight adverse effects on settings of a further 14.	Not applicable	Moderate Adverse
	Biodiversity	Slight adverse impact on Landslow Green SBI, Hollingworth Hall Wood SBI/Hollingworth Reservoir & Swallows Wood Nature Reserve DWS, non-designated vegetation habitat, terrestrial invertebrates, aquatic invertebrates, fish (brown trout), breeding birds and badgers due to disturbance and loss of habitat. The summary assessment score reflects two 'moderate adverse' scores, attributed to both the loss of heathland and mosaic at Holybank Quarry and Tintwistle Low Moor and to the loss of grassland adjacent to Arnfield Brook which supports the pink waxcap; a fungus listed in the UK BAP and Section 74 of the CROW Act 2000.	Not applicable	Moderate Adverse
	Water Environment	Traffic would transfer from the existing route where water runoff discharges directly to local watercourses, to the bypass, which would include attenuation and water treatment, resulting in reduced risk of accidental spills and improved water quality. There would be minor negative impacts on groundwater flows in the vicinity of the Mottram Tunnel possibly affecting some private water abstractions.	Not applicable	Neutral
	Physical Fitness	No NMU routes would be closed. Diversions of 12 recreational routes would lead to increases in physical activity. Reduced traffic on detrunked roads in villages is likely to reduce severance & encourage increased cycling and walking. All journeys are unlikely to increase by 30 minutes.	0	0
	Journey Ambience	Improved facilities, views, information and reduced route uncertainty for users of the bypass and extended study area would, on balance, enhance journey ambience for over 20,000 travellers a day. Though frustration and fear of accidents would decrease along the existing A57/A628 route and bypass, traveller stress would increase within the extended study area due to increased traffic flows, reduced speeds and localised queuing.	Over 20,000 travellers a day in the year of opening	Slight Beneficial
SAFETY	Accidents	Accidents expected to increase in number as traffic flow projected to rise, but reduce in severity with application of traffic signal restraint measures and pre-emptive accident remedial measures. A small number of slight accidents during maintenance are forecast.	Change in number of: Fatal casualties = -16 Serious casualties = -32 Slight casualties = +499 Change in number of PIAs = +604	PVB = £3.240m
	Security	The introduction of restraint would increase the requirement to stop at traffic signals in remote locations.	Not Applicable	Slight Adverse
ECONOMY	Public Accounts	The future cost of highway maintenance for the de-trunked, bypassed road would be borne by Tameside Borough Council, whilst the HA would bear the costs of the bypass. These costs have been forecast over 60 years in light of the present condition of the route and the expected traffic volumes, using standard unit costs and maintenance intervals. Construction, land and other investment costs would all be borne by the HA. These have been estimated by Carillion and are current at 02/01/07.	Central Govt PVC = £94.43m Local Govt PVC = £2.95m	Total PVC = £97.38m
	Transport Economic Efficiency	A variable trip matrix assignment model has been used to forecast the impacts of the Scheme in terms of reduced average journey time for all cross-Pennine journeys. It has been assumed that traffic on the bypassed route is free-flowing at nights and at weekends, so benefits quoted relate to weekday daytime traffic only. The Scheme would relieve a significant bottleneck experienced by all users of the road to be bypassed which is close to congested capacity as a result of conflicting north-south and east-west traffic and high flows. Savings would also arise from reduced delays to traffic during road resurfacing, compared to the Do-Minimum. Business Users and Transport Providers: Improvements to journey time and vehicle operating costs should result from an increase in road capacity. Consumers: Improvements to journey time should result from an increase in road capacity.	Business vehicle operating cost savings = £38m. Business Journey time savings = £121m. Consumer vehicle operating cost savings = £3m. Consumer Journey time savings = £59m.	Business Users: PVB = £158.73m Consumer Users: PVB = £56.27m
	Reliability	With the addition of the Scheme, journey time reliability is expected to improve, particularly for long distance travellers.	Not applicable	Large Beneficial
	Wider Economic Impacts	The time and reliability savings are likely to lower freight costs significantly, which would be passed on to consumers and encourage existing firms involved in east-west trade, to grow. The route is also an important commuting route and the time savings are calculated to significantly improve access for employers to the local labour market and vice versa. The bypass would also improve access to a 2.7ha brownfield site intended for use as a supermarket to service the community of Hattersley. With the exception of an estimated 244 new jobs in the proposed supermarket, the bulk of new jobs arising from improved access to markets are 'potential' only.	Potential changes in the number of jobs in the regeneration area (RA) as a result of Scheme in forecast year= 2,706. Potential changes in the number of RA residents in employment as a result of Scheme in forecast year = 3,008.	
ACCESSIBILITY	Option Values	The Scheme would have no effect on option values.	Not applicable	Neutral
	Severance	Overall, community severance in Mottram, Hollingworth and Tintwistle would reduce for pedestrians crossing the existing road to access community facilities. New severance would occur where paths traversed by the bypass. Overbridges, subways and diversions would maintain existing crossing points on 12 paths crossed by the Scheme together with new at-grade crossings with pedestrian controlled traffic lights at the proposed new Mottram Moor and Townhead Farm junctions. Increased traffic in extended study area has potential to increase severance and reduce journey amenity, however, mitigation measures would include new speed limits, additional traffic signals at Flouch junction, Langsett and Midhopestones, signs, rumblestrips and speed cameras.	Population affected: Mod -ve 275, Slight -ve 364, Neutral 480, Slight +ve14, Mod +ve 2,491, Large +ve 1,749	Slight Positive
	Access to the Transport System	No changes made to public transport system. Pedestrian access to bus stops/railway stations within & adjacent to bypassed villages would improve due to reduced severance. Reduced congestion on local roads in villages should improve bus reliability.	Not applicable	Neutral
INTEGRATION	Transport Interchange	There is no provision for passenger interchanges with the Scheme.	Not applicable	Neutral
	Land Use Policy	Nationally, beneficial on the policy in a number of transport white papers and policy documents (which emphasise the need for a safe and efficient trunk road network to benefit the economy and alleviate congestion, severance and the other adverse environmental impacts associated with traffic in settlements) and PPG13 (Transport), but adverse impacts on policy in PPG2 (Green Belt), PPS7 (Sustainable Development in Rural Areas) and PPS9 (Biodiversity and Geological Conservation). Regionally, key (geographically specific) policy support, in principle, for the Scheme given in policies T10 of RPG13, Element 8 of the SPITS and Transport Policy 14 of the Derby and Derbyshire Structure Plan, with adverse impacts on the other (less geographically specific) regional policy. Locally, key (geographically specific) policy support, in principle, for the Scheme given in policies TR2 of the High Peak LP, Policy T3 of the Tameside UDP, Policy LT4 of the Peak District NPA LP and Policy WR23 of the Barnsley UDP, with adverse impacts on the other (less geographically specific) local policies.	Not applicable	Beneficial
	Other Government Policies	Key policies positively affected relate to the economy, which emphasise the need for a safe and efficient trunk road network, benefiting the economy and improving employment. Key policies adversely affected emphasise the need for the protection of a range of environmental issues including energy, climate change, heritage and biodiversity.	Not applicable	Adverse