

All proposals and associated cost estimates are subject to future detailed site investigations, detailed design and market cost increases.

Table 1 below seeks to rank the 6 junctions along the A27 in priority of construction, on the premise that the ranking will be reviewed as each junction mitigation scheme is completed, as their changes may have a material impact on the ranking.

PBA Ranking	Jct No	Jct Name
1	13	Fishbourne Roundabout
2	16	Bognor Road Roundabout
3	18	Portfield Roundabout
4	19	Oving Junction
5	14	Stockbridge Junction
6	15	Whyke Junction

This suggested phasing would allow the review of the northern and southern bypasses to continue and not delay any bid process whilst maintaining economic growth in the area. Other Authorities and stakeholders may have a different view of the preferred phasing of the A27 mitigation schemes.

A high-level analysis of the Jacobs CDC Local Plan Costs (March 2013) and the Highways England A27 improvements costs (October 2016) was undertaken to inform the proposed mitigation schemes for the A27 junctions. High-level cost estimations were also undertaken for the proposed Inner Chichester and Wider Chichester mitigation schemes.

Table 2 below shows a summary of the estimated costs for each Mitigation Area.

Mitigation Area	Scenario 1		Full Implementation	
	Lower Project Cost	Upper Project Cost	Lower Project Cost	Upper Project Cost
Inner Chichester City	£1,490,000	£1,490,000	£1,877,400	£1,877,400
Wider Chichester Area	£1,043,000	£1,043,000	£2,235,000	£2,235,000
A27 Corridor including Stockbridge Link Road	£48,040,000 (£48,510,000)	£59,940,000 (£64,570,000)	£48,040,000 (£48,510,000)	£59,940,000 (£64,570,000)
Overall Total Project Costs	£50,573,000 (£51,043,000)	£62,473,000 (£67,103,000)	£52,152,400 (£52,622,400)	£64,052,400 (£68,682,400)

Note: HE Inflation adjusted costs included in brackets

The total cost for the implementation of scenario 1 proposed mitigation works is estimated to be between **£50.57m - £67.1m**.

The total cost for the full implementation of the proposed mitigation works is in the range of **£52.15m - £68.68m**.

A review of the A27 Chichester Bypass – Economic Assessment Report (July 2016) was undertaken to inform high-level assumptions of the potential HE operation and maintenance costs for the proposed mitigation schemes over a 60-year appraisal period.

The estimated operation and maintenance cost for the A27 junctions over a 60-year period is estimated to be between **£7.75m - £9.68m**.

Air Quality and Noise Assessments

This study has also assessed the potential air quality and noise impacts of the development that would be provided for through the different growth options considered for the proposed Local Plan.

Air Quality

From the assessment of the increase in traffic and the atmospheric dispersion modelling undertaken, the air quality effects on human health receptors of road traffic generated by the Local Plan Review are considered likely to not be significant. This is the case, for both scenario 1 with 650 dwellings per annum with mitigation measures, and the worst-case scenario 3 with 1,000 dwellings per annum. Outside of current air quality management areas (AQMAs), Local Plan traffic is unlikely to lead to additional breaches of National Air Quality Objectives (NAQOs). Within existing AQMAs, with the Local Plan traffic in place, there are no predicted exceedances of NAQOs.

Reductions in baseline deposition are projected to occur as a result of improvements in background pollutant concentrations in the future. Such potential reductions in nitrogen deposition are likely to outweigh the predicted increases in deposition as a result of the Local Plan. Given the extent and location of the road traffic impacts on designated sites, the Local Plan impact on ecological receptors in relation to air quality is deemed to be unlikely to be of significance.

Overall, it is concluded that there are no projected significant air quality constraints to the Chichester Local Plan Review 2016-2035.

Noise

The noise impact assessment considers the likely change in noise levels due to changes in traffic flows as a result of developments included within the emerging Chichester Local Plan. The assessment is based on Annual Average Weekday Traffic (AAWT) 18-hour traffic flows and follows relevant industry guidance including Design Manual for Roads and Bridges (DMRB) published by Highways England.

Based on the worst-case Scenario 3 without mitigation, the assessment shows that changes in traffic levels on fifteen existing roads are likely to result in increases in noise levels above the guidance threshold stated in DMRB. They therefore merit further investigation. Assessments with mitigation in place for Scenario 1, the preferred option, have also been undertaken. The assessment shows that changes in traffic levels on five existing roads are likely to result in changes in noise levels above the guidance thresholds stated in DMRB and therefore merit further investigation. Whilst the mitigated option in place for Scenario 1 provides a reduction in the number of impacts compared to Scenario 3 without mitigation, further investigations could be undertaken for the roads impacted. This could include baseline surveys and acoustic modelling to confirm the impacts. Measures in the form of traffic calming and low noise surface treatments could also be reviewed as part of any future design.

Sustainable Travel Options

The study has undertaken an overview of options which could be considered in the medium term to long term as alternate or complementary mitigation measures to the junction schemes proposed for Chichester. The report also provides an overview whether they are a viable sustainable option.

Based on an analysis of the 2011 Census data for Chichester District, it is considered that a typical park and ride scheme would be likely to have limited scope to capture weekday peak trips due to the limited number of workers currently in Chichester City Centre.

A park and ride is likely to be best served as a retail/tourist off peak scheme. It is estimated to cost between £1 to £2 Million for a 400 to 1000 spaces (in addition to £500k operational cost yearly subject to type of bus and level of revenue return). The success of a scheme would be dependant in part on the provision of bus priority measures on the main links into/out of Chichester City. An ideal location