

SUMMARY OF ENVIRONMENTAL EFFECTS TABLE

Option		Description	
OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE ASSESSMENT
ENVIRONMENT	Noise	<p>During the construction phase, mitigation measures will be employed to reduce noise levels as far as is practicable. Any residual noise impacts are predicted to be minor, temporary and short term in nature.</p> <p>Once the new junction is operational, the majority of noise impacts on local sensitive receptors will be negligible. For a small number of properties located on the northern parts of Eden Street and Wye Street, there may be some minor impacts, but this is a worse case scenario and this is not predicted to be a significant change to the current situation.</p>	See calculations in Section 9.0 of the Environmental Assessment Report
	Local Air Quality	<p>During construction, impacts on local air quality as a result of emissions from ground contamination during remediation works is predicted to be minor to negligible should the recommended mitigation measures be put in place.</p> <p>During the operational phase of the scheme, impacts from increased road vehicle exhaust emissions are predicted to be minor to negligible. Exceedences of the relevant annual mean air quality Objectives have not been predicted at any location of relevant exposure during 2009 or 2010 with or without the scheme.</p>	See calculations in Section 4.0 of the Environmental Assessment Report
	Landscape	The landscape sensitivity of the site has been assessed as low. This reflects the fragmented nature of the landscape components, its existing highway dominated character and its capacity to accommodate significant change. There will be no significant effects arising from the new junction, and the planting that will be included as part of the scheme will help to ensure that effects on receptors with potential views of the new road are negligible, both during the daytime and the night time.	N/A
	Townscape	A Townscape Assessment was not undertaken for this scheme because the scheme is located in the an area of urban fringe and the potential views from the small number of houses with views onto the scheme (from the south) are dealt with in the Landscape Visual Assessment described above and in section 7 of this report.	N/A

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	Heritage of Historic Resources	There will be no impacts on built heritage assets or the historic landscape as a result of the new junction. Any previously unrecorded archaeological remains within the footprint of the proposed junction are likely to have been destroyed or substantially truncated by the modern landfilling and disturbance within the area. Therefore the effects on these will be neutral. In addition, the effects on organic deposits are considered to be negligible due to the extent of modern disturbance and landfilling within the area which will have substantially dewatered and led to the degradation of features within this area.	N/A
	Biodiversity	The proposed junction is unlikely to result in any significant effects on biodiversity. However, some short-term impacts could be expected due to both the temporary and permanent loss of habitats. A minor impact is also anticipated to arise a result of the disturbance to fauna during construction. The potential for enhancement measures, particularly additional habitat diversity and structure within the proposed landscape planting will help to mitigate for these impacts.	N/A
	Water Environment	During construction there is potential for sediment laden run-off to be generated that could enter either surface water drains or the River Derwent. It is also considered likely that shallow groundwater will be encountered within service and drainage excavations, which are likely to require dewatering and the water generated may also be particulate laden. Following implementation of mitigation measures, it is predicted there will only be a minor adverse effect on the water environment, in a worst-case scenario or pollution incident. Once the junction is operational, impacts on the existing surface water run-off regime, flooding and the groundwater environment will be negligible.	N/A
	Physical Fitness	Once mitigation measures are implemented, there will be no significant residual effects on the pattern of traffic movements surrounding the junction or the surrounding community. However, journey times across the junction may be slightly increased due to the new geometry of the junction for non-motorised users (e.g. pedestrians, cyclists and equestrians),	See calculations in Section 12.0 of the Environmental Assessment Report

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	Journey Ambience	<p>The new junction will operate within capacity and hence congestion and delays will be reduced. Visibility for drivers will be increased, footpaths and cycle paths will be segregated from the carriageway and crossings will be controlled – all these measures will contribute to the reduction driver stress, particularly along the mainline carriageway. However, there may be some elevation of driver stress as a result of the larger, more complex, replacement junction. Overall though, it is considered that the scheme will have a beneficial impact on driver stress. Views from the new junction are predicted to remain similar to those currently experienced.</p> <p>Construction traffic, in a worse case scenario, is predicted to only result in a percentage increase in overall traffic flows of less than 0.15%. It is therefore considered that the effects on the local highway network will be negligible.</p>	N/A
	Land Use	<p>Existing footpaths and cycleways will not be affected by the new junction. No demolition of buildings is required in order to construct the highway improvement and there will be no loss of land used either for community or agricultural uses. The new junction is required to provide access to the New Raynesway development (land use EP2) so it will therefore have a major beneficial impact upon this development land by virtue of enabling the development. It will also provide for a future access into development land EP4, resulting in an additional moderate beneficial impact.</p> <p>The proposed works will also result in removal, screening and sorting of the landfill materials that currently exist on the site, and therefore will result in a slight beneficial impact on the ground conditions local to the site.</p>	N/A