Appendix C: Appraisal Summary Table, October 2005

A453 Widening **M1 Junction 24 to A52 Nottingham**	**Description:** Widening of the existing A453 between M1 Junction 24 and Farnborough Road junction in Clifton (total length about 12 km) to Dual 2 lane (D2AP) standard in the rural section and to a single 4 lane (S4) carriageway through Clifton. (Expected year of opening is 2011; design year 2026)	**Problems:** Congestion due to high traffic flows, low standard of existing road provision (S2) and regular flow interruptions due to gradients and traffic incidents. Accident rate is higher than the national average. Existing traffic flow on the rural section is 25,000 AADT and 32,000 AADT through Clifton.	**Present Value Cost:** **£76.2M** **BCR: 1.50**

OBJECTIVE	SUB-OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE MEASURE	ASSESSMENT
ENVIRONMENT	**Noise**	There is likely to be an increase in noise levels, particularly for houses in the urban section of the scheme because of the increased traffic flows and widened road. The main areas affected would be the Nobel Road and Barton Green residential areas at the Clifton end of the route. The appraisal does not take account of possible future mitigation.	Population annoyed in year 2026 Do-Minimum (DM) = 1384 Do-Something (DS) = 1866	Year 2026 – Net difference: (DS – DM): Increase in population annoyed = 482
	Local Air Quality	Local air quality is expected to deteriorate at all locations, particularly adjacent to the Nobel Road and Barton Green residential areas at the Clifton end of the route. This is due to the widening of the existing road and the increased traffic flows in relation to the Do-Minimum. The proposed scheme is not situated within an AQMA	Properties experiencing a decrease in air quality: 1841 Properties experiencing better air quality = 0	Year 2011 – Net difference (DS – DM): PM_{10} = 281 NO_2 = 1416
	Greenhouse Gases	The scheme will give an increase in greenhouse gases as a result of a general increase in traffic speed and a significant increase in traffic flow. No rail emissions have been taken account of as this is a road specific scheme.	DM CO_2 = 22506 tonnes DS CO_2 = 50053 tonnes	Increase in CO_2 = 27547 tonnes (2026)
	Landscape	Lighting is not proposed for the rural section but widening is likely to increase the impact of the road corridor on existing landscape, including the mature landscape area/open space network, Leicestershire and Nottinghamshire Wolds.	Not applicable	Slight adverse
	Townscape	Loss of some mature trees and green verge will impact on adjacent residential properties in Clifton. Views of the University campus and the Man of Trent public house are likely to be affected.	Not applicable	Moderate adverse
	Heritage of Historic Resources	Partial loss of Clifton Green is likely to have a slight impact on the character/appearance of Clifton Conservation Area, and any archaeological resources associated with the five archaeological sites and two archaeological constraints areas.	Not applicable	Slight adverse
	Biodiversity	No protected species identified at this stage. Landtake along the rural section could potentially affect parcels of woodland, arable and pasture land with hedgerows and unimproved flood meadow.	Not applicable	Slight adverse
	Water Environment	Encroachment onto a small area of flood plain along the rural section would occur. Scheme design would include measures to address water quality, outfall systems and spillage containment.	Not applicable	Neutral
	Physical Fitness	Improvements to the existing substandard carriageway and the introduction of optimised crossing facilities could potentially encourage more walking and cycling.	No. of cyclists and pedestrians not calculated at this stage.	Slight Beneficial
	Journey Ambience	The proposed higher design standard of the A453 is likely to reduce stress and fear of accidents for all users.	Not applicable	Moderate beneficial
SAFETY	**Accidents**	Not applicable	Saving of 15 accidents / year, 4 of which would be fatal or serious.	LG NPV £11.82M HG NPV £13.54M
	Security	Perception of risk of personal injury will be slightly reduced due to the improved carriageway standard and measures to encourage pedestrians and cyclists to use controlled crossing points.	Not applicable	Slight Beneficial
ECONOMY	**Public Accounts**	Not applicable	Central Government PVC = £76.2M Local Government PVC = £0	PVC = £76.2M
	Business Users & Providers	Not applicable	Business PVB = £24.0M Private Sector PVB = £-9.6M Other Impacts PVB = £0	PVB = £14.4M
	Consumer Users	Not applicable	Net Consumer PVB = £88.2M	PVB = £88.2M
	Reliability	Moderate benefits from reduced congestion resulting in improved journey time and reliability for transport users.	Not applicable	Moderate Beneficial
	Wider Economic Impacts	Not applicable at this stage	Not applicable at this stage	Not applicable at this stage
ACCESSIBILITY	**Option values**	Widening of the existing road is unlikely to produce any significant changes in existing transport services.	Not applicable	Neutral
	Severance	Pedestrians and cyclists within Clifton will benefit from improved crossings and signalised junctions.	Not applicable	Slight Beneficial
	Access to Transport System	The impact on existing access to the transport system of widening the existing road is expected to be negligible.	Not applicable	Neutral
INTEGRATION	**Transport Interchange**	New accesses to the proposed Parkway Rail Station and the proposed park and ride facility to the south of Clifton could facilitate interchange between car and non-car modes of transport.	Not applicable	Moderate beneficial
	Land-Use Policy	Contributes to transport policy objectives at all levels. Scheme design would incorporate measures that satisfy the policy requirements relating to heritage and archaeological issues.	Not applicable	Beneficial
	Other Government Policies	The overall impact on other government policies is likely to be negligible.	Not applicable	Neutral