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Network Rail

Oxford Corridor Phase 2 Capacity Improvement Scheme

Environmental Impact Assessment – Environmental Statement: Chapter 16 – Conclusions

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Contents

16. CONCLUSIONS 1

16.1 Overview 1

16.2 Environmental Impact Assessment 1

16.3 Results of the Assessment 1

16.4 Conclusion 5

Tables

Table 16.1: Residual effects of the Scheme 2

16. CONCLUSIONS

16.1 Overview

16.1.1 The Oxford Corridor Phase 2 Capacity Improvement Scheme (the Scheme) has been designed to improve efficiency at Oxford Station, allowing for future improvements to the area. The Scheme would involve provision of a new track and platform (Platform 5), a new western entrance building, realignment of Botley Road and replacement of the bridge, and realignment of Roger Dudman Way including the replacement of Sheepwash Bridge.

16.1.2 All technical terms used in this chapter are explained within Appendix 1.5 – Glossary and Acronyms.

16.2 Environmental Impact Assessment

16.2.1 As a result of consultation and the Scoping Opinion issued by Oxford City Council (see Volume 4 – Appendix 1.1), nine environmental topics were taken forward for assessment within the Environmental Impact Assessment (EIA) process. The assessment took into account the mitigation already embedded into the Scheme design such as dedicated cycling and pedestrian provision under Botley Road Bridge. This mitigation is listed in Table 2.1 within Chapter 2 – Description of the Scheme. In addition, the assessment assumed that the Scheme would follow general good practice measures during construction, such as damping down soil on dry or windy days. The good practice, construction measures have been included within the Code of Construction Practice contained within Volume 4 – Appendix 2.1.

16.3 Results of the Assessment

16.3.1 The assessment identified significant adverse and beneficial effects that the Scheme would have on the environment without further mitigation in place. For those topics with significant adverse effects, additional mitigation measures have been proposed where applicable to reduce the impacts. For the majority of issues, the residual effects with mitigation would not be significant. There are three adverse effects that may remain significant during operation. All significant residual effects are shown in Table 16.1.

Table 16.1: Residual effects of the Scheme

Potential Effect	Receptor(s)	Likely effect without additional mitigation	Additional Mitigation Measure(s)	Residual Effects
Construction				
Inter-cumulative effects	Landscape Town Character Areas 2B and 2E.	Cumulative loss of landscape features	Not applicable during construction. Replacement planting mitigates against any long-term significant effects.	Temporary adverse effect – Significant
Inter-cumulative effects	Visual receptors 2, 6, 8, 9, 10, 12, 15	Cumulative visual intrusion during construction	Not applicable during construction. Replacement planting mitigates against any long-term significant effects.	Temporary adverse effect – Significant
Inter-cumulative effects	Oxford Green Blue Infrastructure Network	Cumulative loss of trees and vegetation	Not applicable during construction. Replacement planting mitigates against any long-term significant effects.	Temporary adverse effect – Significant
Operation[1]				
Major loss of valuable, protected, landscape components.	Tree Preservation Orders (TPO)	Major Adverse Effect – Significant	Not applicable	Moderate adverse effect - Significant
Improvements to the built form and public realm would benefit the character of Botley Road and the western approach into the city.	Visual Receptor 7 – Botley Road facing the new western entrance	Moderate Beneficial Effect – Significant	Not applicable	Moderate beneficial -- Significant

[1] Operational landscape effects are taken to be after 15 years to allow vegetation to grow

Potential Effect	Receptor(s)	Likely effect without additional mitigation	Additional Mitigation Measure(s)	Residual Effects
Operational noise from the railway.	Cripley Road	Major adverse effect in terms of noise change but overall noise level is below the fixed SOAEL threshold.	250m long absorptive noise barrier to west facing boundary of railway station site.	Major adverse – Significant effect in terms of noise change but overall noise level is below the fixed SOAEL[2] threshold. With the identified mitigation in place there are residual effects, but these have been mitigated as much as practicable in line with the context of sustainable development and the NPSE[3].
Change in amenity value	Pedestrians and users of community, commercial and residential receptors	Beneficial effect – Significant (Oxford Station)	Not applicable	Beneficial effect – Significant (Oxford Station)
Landscape amenity and access to green/open space (human health aspects)	Jericho and Osney Ward, Carfax Ward.	Beneficial effect – Significant	Not applicable	Beneficial effect – Significant
Transport network and usage (human health aspects)	Jericho and Osney Ward, Carfax Ward, North Ward.	Beneficial effect – Significant	Not applicable	Beneficial effect – Significant

[2] Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur

[3] NPSE - Noise Policy Statement for England

Potential Effect	Receptor(s)	Likely effect without additional mitigation	Additional Mitigation Measure(s)	Residual Effects
Fluvial (river) flooding of the Scheme	Botley Road and western entrance	Major effect – Significant	A long-term emergency plan is required for flood events. This is required for both the western entrance to the station and Botley Road. This would include signing up to the Environment Agency's 'Floodline' flood alert and flood warning system and potential road and facility closures. Alternative measures should also be explored to mitigate flooding of the Scheme. Options could involve providing flood resilience measures.	Major adverse – Significant The Scheme would still flood with mitigation, but impacts would be reduced.
Surface Water Flooding of the Scheme	Botley Road and western entrance	Major effect – Significant	The potential for 30l/s discharge to existing sewers would be explored, however the capacity of the existing sewer network may prevent this from being a viable option. Drainage would be designed for the 1% (1 in 100) AEP event plus 40% allowance for climate change, and to prevent surface water flooding in this location. If this cannot be achieved additional mitigation measures such as road closure during flood events would be implemented.	Minor adverse – Not significant (if drainage can be designed to 1% (1 in 100) AEP plus climate change event.) Major adverse – Significant (if it cannot).

16.4 Conclusion

16.4.1 There were found to be no significant construction effects as a result of the Scheme. Due to the design of the Scheme and the implementation of good practice measures (as contained within Appendix 2.1 – Code of Construction Practice) no construction effects would be expected to be significant.

16.4.2 The cumulative assessment indicated that there would be the potential for inter-cumulative effects (i.e., effects in combination with other developments) on the landscape and visual amenity of the area. These effects would be short term and dependent on the ultimate timing of the various developments concerned. Replacement planting proposed as part of the other developments and the Scheme would together mitigate against any long-term significant effects.

16.4.3 Three adverse operational effects were found to be significant: loss of trees subject to a TPO; operational railway noise; and flooding of the Scheme partly as a result of climate change.

16.4.4 Five trees and part of one tree group subject to a TPO would be removed during construction of the Scheme. As this would be a permanent loss of designation, it has been counted as an operational loss to the landscape. Replacement planting has been proposed which would mitigate loss of the trees, but not the designation. This degree of tree loss is a worst-case scenario; Network Rail is committed to investigate retention of these trees through detailed design.

16.4.5 The increase in noise levels due to operation of the railway would be partially mitigated by installation of an environmental barrier. In addition, the perception of an increase in noise generally decreases over time, reducing its significance. The absolute noise levels would not be significant and would not require the provision of noise insulation.

16.4.6 The Scheme is liable to flood, both along the Botley Road and at the western entrance. This is due to the proximity of the River Thames and projected increases in flooding due to climate change. Measures have been proposed to alleviate the effects of flooding. It should be noted that in the event that the western entrance floods, the majority of the surrounding area would also likely be flooded.

16.4.7 Network Rail is committed to providing a world class, sustainable railway station. The Scheme would produce a significant beneficial effect on the general amenity of the area around the western entrance. There are also likely to be significant health benefits due to the improved amenity and increased use of sustainable transport networks. Network Rail also intends to

further develop the Scheme to allow for retention of existing trees where practicable and to provide for increased bicycle parking provision. To further the sustainable aims of the Scheme, a green roof and a living wall (among other vegetation planting), have been provided within this Scheme.

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