10 SUMMARY AND RESIDUAL EFFECTS

Introduction

10.1 This chapter summarises the mitigation measures and residual effects identified in each of the technical assessments included in the ES, which has been prepared to accompany the application for:

> *"Demolition of existing college buildings, removal of hard-surfacing, site clearance and groundworks together with the redevelopment of the site to provide 212 residential units across a collection of buildings up to 5 storeys in height; together with associated parking for 110 vehicles, cycle parking, open space and landscaping."*

10.2 The Development has been subject to an iterative design process. As this process progressed measures have been incorporated into the Development in order to avoid, reduce or offset significant environmental effects. Where this has not been possible, further mitigation measures have been proposed and are set out in Table 10.1 below along with the residual effects of the Development following mitigation.

Table 10.1: Significance Table

Stage	Effect	Mitigation	Residual Significance
Townscape & Visual Effects			
Construction	TCA 8 - Langhorn Drive	• Controlling the lighting of construction compounds and machinery to minimise upward and outward light pollution through lantern design, direction and baffling, and ensuring that the minimum area only is lit, for the minimum period of time while satisfying other health and safety requirements; • Restricting the movement of stockpiles to minimise vehicle tracking across the Site and perception of instability in the townscape; and • Locating compounds and stockpiles in the least visible locations with the Site, including for rendering of facades to aid in integrating their form within views.	Minor Adverse
	Site		Moderate Adverse
	Site Context Photograph 5		Moderate Adverse
	Site Context Photograph 11		Moderate Adverse
	Site Context Photograph 12		Moderate Adverse
	Site Context Photograph 13		Moderate Adverse
	Site context Photograph 14		Moderate Adverse
	Site Context Photograph 18		Moderate Adverse
Operation	TCA 8 - Langhorn Drive	• The implementation and	Minor Beneficial

Stage	Effect	Mitigation	Residual Significance
	Site	maintenance of the hard and soft landscape proposals throughout the lifetime of the Development, including advanced planting where practicable (and within first available planting season).	Moderate Beneficial
	Site Context Photograph 5		Moderate Beneficial
	Site Context Photograph 11		Moderate Beneficial
	Site Context Photograph 12		Moderate Beneficial
	Site Context Photograph 13		Moderate Beneficial
	Site context Photograph 14		Moderate Beneficial
	Site Context Photograph 18		Moderate Beneficial
Transport and Access			
Construction	Severance	Preparation of Outline Construction Environmental Management Plan (CEMP) (Appendix 5.1) which sets out details of management measures to be implemented during construction, including measures to control delivery routing, timings and frequencies. A detailed CEMP, to include a Construction Logistics Plan (CLP) and Construction Method Statement. To be secured by planning condition.	Negligible
	Driver Delay		Negligible
	Pedestrian and Cycle Amenity and Delay		Negligible
	Fear and Intimidation		Negligible
	Accidents and Safety		Negligible
	Parking		Negligible
	Public Transport		Negligible
Operation	Severance	Implementation of a detailed Travel Plan and Delivery & Servicing Plan. To be secured by planning condition. Improvements to access at Egerton Road for pedestrians and cyclists only including new crossing facilities. Additional on-street parking provision on Egerton Road including the addition of a car club bay/space.	Negligible
	Driver Delay		Negligible
	Pedestrian and Cycle Amenity and Delay		Negligible
	Fear and Intimidation		Negligible
	Accidents and Safety		Negligible
	Parking		Negligible
	Public Transport		Negligible
Air Quality			
Construction	Fugitive dust emission impacts on amenity and health	Mitigation measures to mitigate fugitive dust emissions during construction, Examples include: use of dust suppression systems; minimising Site runoff of water or mud; fully enclosing Site where possible; maintaining an inspections schedule and monitoring all complaints in a log book. *Submission of outline CEMP (Appendix 5.1).* Measures will be secured by planning conditions on the future permission, which will require further details to be submitted for approval by way of a detailed CEMP prior to construction	Negligible and Not Significant

Stage	Effect	Mitigation	Residual Significance
		of the Development.	
Operation	Road traffic vehicles exhaust emissions associated with vehicles travelling to and from the Site	A number of mitigation measures have been identified for inclusion within the Development to encourage the use of sustainable transport modes and manage vehicle flow around the Site. These include the implementation of a Travel Plan, provision of secure cycle parking and the installation of electric vehicle charging points throughout the Site.	Negligible and Not Significant
Noise			
Construction	Construction Noise	Management measures, legislative and local authority controls such as Good Practice, compliance with requirements of BS 5228:2008. Submission of outline CEMP (Appendix 5.1). Measures will be secured by planning conditions on the future permission, which will require further details to be submitted for approval by way of a detailed CEMP prior to construction of the Development.	Minor Adverse
Operation	Suitability of the Site for residential Development	Localised mitigation, double glazing, plant noise condition not to exceed background level at existing receptors or above 45dB L_{Aeq} at future residents.	Negligible
	Road traffic noise	None Required.	Negligible

Interactive Effects

10.3 Regulation 4 (2) states that an ES must include a description of the aspects of the environment likely to be significantly affected by the Development and the interrelationship between these effects. There is no published methodology for determining the significance of interactive or synergistic effects. Combining effects with respect to one environmental discipline with another has to be qualitative and is necessarily based on judgment. Therefore, a matrix system has been used to indicate where such effects would likely occur for the construction and operational phases, highlighting where effects occur to a common receptor. This has been informed by the residual effects of the Development (as identified above in Table 10.1) and are those effects where greater than negligible effects have been identified, where they relate to a common receptor. The findings of this exercise are set out in Table 10.2 below.

Table 10.2 Interactive Effects

Effect	Local Population	Users of the Local Road Network
	Construction Phase	
Views of vehicles and machinery being used during the demolition and construction period	✓	✓
Disruption to users of the local road network	✓	✓
Demolition and Construction dust	✓	×
Demolition and Construction noise (plant and machinery)	✓	×
	Operational Phase	
Views of the Development	✓	×
Effects to the Highway network	✓	✓
Operational road emissions	✓	×
Noise from traffic associated with the operation of the Development	✓	×
New Public Realm Creation	×	×

*indicates where an effect may occur.

10.4 The proposed demolition and construction works, as set out in Chapter 5, are considered most likely to give rise to potential interactive effects, given the scale of the Development and its urban context. During the demolition and construction phase it is considered that interactions could potentially occur between temporary noise effects and adverse townscape and visual effects on nearby residential receptors. Individually these effects are expected to range from negligible to moderate adverse at worst (as set out in Table 10.1 above). It is therefore considered that the interactive effects during demolition and construction on the surrounding area would also range from negligible to moderate adverse at worst. Any moderate adverse effects would be temporary in duration and are likely to be associated only with the peak periods of demolition and construction activity.

10.5 Appropriate mitigation during the demolition and construction phase has been identified in the ES as necessary, such as best practice measures to reduce or eliminate potential adverse environmental effects of demolition and construction as far as possible. Furthermore, the Construction Methodology and Phasing Chapter (see Chapter 5) proposes a programme, which will ensure that the Development would be implemented in the most efficient manner. This includes measures which have been incorporated into the Outline Construction Environmental Management Plan (CEMP) (refer to Appendix 5.1) for the Development (see Chapter 5 for further details). Measures set out in the outline CEMP will be secured by planning conditions on the future permission, which will require further

details to be submitted for approval by way of a detailed CEMP prior to construction of the Development. Relevant legislative requirements would also need to be adhered to.

10.6 Operational phase effects have been assessed and reported in full within the technical chapters of the ES and the residual effects are summarised in Table 10.1. No significant adverse effects have been predicted during operation, with the exception of some moderate adverse effects on townscape and views.