17.0 Cumulative Effects (Updated Effect Interactions Tables)

17.1 Assessment of Intra-Project Cumulative Effects

17.1.1 As there is no established EIA methodology for assessing and quantifying the combined effects of individual effects on sensitive receptors, the following approach therefore uses the defined residual effects outlined with the Technical Chapters of the ES to determine the potential for interactions between effects, and consequently the potential for significant intra-project cumulative effects.

17.1.2 This section provides an assessment of potential effect interactions between the relevant environmental topics on identified sensitive receptors during construction and operation of the Proposed Development. The results of the assessment presented in this section are following implementation of the recommended mitigation measures, as described with Chapters 6 – 16 and Volume 2.

17.1.3 The effect interactions presented in **Tables 17.10** and **17.11** below are based on professional judgements made by technical specialists who have completed the technical assessments, taking into account the baseline conditions at the Site and in the surrounding area together with the findings from the various technical studies. To ensure a proportionate approach, both negligible and neutral effects have been disregarded.

17.1.4 In terms of effect interactions, the following sensitive receptors have been identified due to their sensitivity as assessed in this ES:

- Existing commercial uses on-site and in the area;
- Future on-site commercial occupants;
- Existing residential uses in the surrounding area;
- Future on-site residential uses;
- Existing below and above ground heritage assets;
- Social Infrastructure;
- Existing transport infrastructure.

Effect Interactions During Demolition and Construction

17.1.5 **Table 17.10** comprises a summary matrix for the construction works, showing the potential effect interactions following implementation of the recommended mitigation measures, based on the assessments presented within Chapter 6 – 16 and Volume 2

Table 17.10: Matrix of Residual Effect Interactions – Demolition and Construction Phase

Receptor	Residual Effect	Scale and Nature of Residual Effects	Potential for Intra-Project Cumulative Effects / Effect Interactions
Residential Dwellings & Commercial Premises	**Noise and Vibration** Noise from construction works (Receptors 1 & 2)	Major Negative (Significant)	**No**. All effects are related to Noise and Vibration.
	Noise and Vibration Noise from construction works (Receptors 3, 4, 6, & 24)	Moderate Negative (Significant)	
	Noise and Vibration Noise from construction works (Receptors 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 & 23)	Minor Negative (Not Significant)	
	Noise and Vibration Vibration from construction works (Receptor 2)	Moderate Negative (Significant)	
	Noise and Vibration Vibration from construction works (Receptor 1, 3, 4, 5, 8, 10, 11, 12, 13, 14, 24)	Minor / Moderate Negative (Not Significant / Significant)	

	Noise and Vibration Vibration from construction works (Receptor 6, 7, 9, 15, 18, 19, 21, 22, 23)	Minor Negative (Not Significant)	
Archaeology	**Archaeology** Loss of fragmented archaeological remains of early/mid-20th century development. Loss of the bases of agricultural features such as field boundaries	Minor Negative (Not Significant)	**No.** No Effects to interact with.
On-site Habitats	**Ecology** Scattered trees, introduced shrub and scattered scrub	Minor Positive (Not Significant)	**No.** No Effects to interact with.
Global Climate	**Climate Change** Impacts from lifecycle stages A1 – A5	Minor Negative (Not Significant)	**No.** No Effects to interact with.
Existing Employment	**Socio-economics** Loss of existing employment on-Site	Minor Negative (Not Significant)	**No.** No Effects to interact with.

Table 17.11: Matrix of Residual Effect Interactions – Operational Phase

Receptor	Residual Effect	Scale and Nature of Residual Effects	Potential for Intra-Project Cumulative Effects / Effect Interactions
Residential Dwellings	**Noise and Vibration** Noise from Building Services (Receptor 24, 6, 8, 16 & 17))	Minor Negative (Not Significant)	**Yes.** In relation to Minor Negative Effects to Residential receptors from Noise and Vibration With, Moderate to Major Negative Effects on Daylight / Sunlight to Residential Receptors.
	Noise and Vibration Internal Noise within the Proposed Development (Receptor 24)	Minor Negative (Not Significant)	
	Noise and Vibration External Noise across the Proposed Development (Receptor 24)	Minor Negative (Not Significant)	
	Daylight and Sunlight Potential loss of daylight and / or sunlight (3, 5, 7, 9 Blackburn Road, Asher House, Nido House, 73 Lithos Road – 67 Lithos Road (Odd and Even Numbers), 66 Lithos Road - 54 Lithos Road (Odd and Even Numbers), 54 A-D Rosemont Road, 32-48 Rosemont Road (Even Numbers Only), 30 Rosemont Road, 26 Rosemont Road, 24 A-C Rosemont Road, 22	Moderate to Major Negative (Significant)	

	A-C Rosemont Road, 20 A-C Rosemont Road, 16 Rosemont Road, Holiday Inn (Hotel), 142-150 Finchley Road, 17 Canfield Place, 23-27 Canfield Place, 1-108 Broadfield, 170-182 Broadhurst Gardens).		
	Daylight and Sunlight Potential loss of daylight and / or sunlight (8 Rosemont Road, 2 Rosemont Road, 140 Finchley Road, 164 Broadhurst Gardens, 166 Broadhurst Gardens, 168 Broadhurst Gardens).	Minor Negative (Not Significant)	
Train Divers	**Daylight and Sunlight** Potential for solar glare occurrence for train drivers (View point 01, 02, 03, 04, 07, 08, 09, 13)	Minor Negative (Not Significant)	**No.** No Effects to interact with
Pedestrians & Cyclists	**Transport** Decrease in severance, fear and intimidation.	Moderate Positive (Significant)	**No.** All effects are related to Transport.
	Transport Decrease in delay.	Minor Positive (Not Significant)	
Surface Water	**Water Resources**	Minor Positive (Not Significant)	**No.**

	No increase in runoff & no reduction in quality of runoff.		No Effects to interact with
Foul Sewerage	**Water Resources** Increased loading on the sewer system.	Minor Negative (Not Significant)	**No.** No Effects to interact with
Public Realm	**Wind Microclimate**	Major Negative (Significant)	**Yes.** In relation to: Major Negative effect to Moderate Negative effects to Open Space Provision Minor Positive effects to Playspace Provision
	Socio-economics Open Space Provision	Moderate Negative (Significant)	
	Socio-economics Provision of Playspace.	Minor Positive (Not Significant)	
Housing Stock	**Socio-economics** Increased housing provision.	Moderate Positive (Significant)	**No.** No Effects to interact with.
Healthcare	**Socio-economics** Provision of medical facility on-site.	Moderate Positive (Significant)	**No.** No Effects to interact with.
Local Economy	**Socio-economics** Increase spending in the area.	Moderate Positive (Significant)	**No.** No Effects to interact with
Greenhouse Gases / Global Climate	**Climate Change**		**No.**

	Operational Energy. Lifecycle stages B1 – B5. Operational Traffic.	Minor Negative (Not Significant) Minor Negative (Not Significant) Minor Positive. (Not Significant)	All effects are related to Greenhouse Gases / Global Climate
Townscape Character Areas	**Townscape and Visual** Improvements and enhancements to the quality of TCA1.	Moderate Beneficial (Significant)	**Yes.** In relation to Beneficial Townscape effects to Townscape Character Areas With, Moderate to Major Neutral effects to Local and longer distance views.
Local and longer distance views	**Townscape and Visual** Improvement and enhancement to views.	Moderate to Major Neutral (Significant)	