14.0 SUMMARY AND RESIDUAL EFFECTS

Introduction

14.1 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 a full planning permission for the demolition and clearance of existing structures and the construction of 583 residential dwellings, commercial floorspace, access and landscaping on land currently occupied by a Homebase store on Forest Road, Walthamstow.

14.2 The Development has been subject to an iterative design process. As this process progressed measures have been incorporated into the development parameters 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 14.1 below along with the residual effects of the Development following mitigation.

Table 14.1: Significance Table

Stage	Effect	Mitigation	Residual Significance
Air Quality			
Construction Phase	Dust Deposition	Mitigation measures from the highly recommended category of the London guidance etc for high risk sites, to be implemented through a CEMP secured by a planning condition.	Negligible
	Increased concentrations of suspended particulate matter	Mitigation measures from the highly recommended category of the London guidance etc for high risk sites, to be implemented through a CEMP secured by a planning condition.	Negligible
Completed Development	Increased concentrations of traffic-related pollutants	N/A	Negligible
Noise and Vibration			
Construction Phase	Construction noise	Control through Section 61 agreement. Best practicable means from COPA. Mitigation measures as advised in BS 5228. Controlled through CEMP.	Moderate - Minor Adverse
	Construction vibration	Piling strategy to select low impact methods. Mitigation measures as advised in BS 5228. Controlled through CEMP.	Minor Adverse - Negligible
	Construction traffic on local network	N/A	Negligible
Completed	Building services noise	Plant strategy to be	Negligible

Stage	Effect	Mitigation	Residual Significance
Development		designed to meet LBWF requirements. Attenuators/ enclosures / screens/ other mitigation where required	
	Vibration and re-radiated noise from railways affecting future occupants of Development	N/A	Negligible
	Changes to traffic flows on local network	N/A	Negligible
Climate Change			
Construction Phase	Construction vehicle movements	N/A	Negligible
Completed Development (Vulnerability of the Development to Climate Change)	Projected increase in mean summer and winter temperatures.	N/A - No significant climate change resilience effects have been identified	Negligible
	Projected increase in annual precipitation.	N/A - The area will be protected by flood defences that were designed with climate change effects in mind.	Negligible
	Projected decrease in mean summer precipitation.	N/A - No significant climate change resilience effects have been identified	Negligible
	Extreme weather events (such as heavy and/or Prolonged precipitation and storm events).	N/A - No significant climate change resilience effects have been identified	Negligible
Completed Development (Effects of the Development on Climate Change)	Vehicular Emissions	Travel Plan to promote sustainable travel.	With the implementation of mitigation measures, minor adverse to negligible effects are expected locally and negligible effects nationally.
	Building Emissions	N/A	Negligible
	Indirect Emissions (Energy)	N/A	Negligible
Townscape and Visual Effects			
Construction Phase	Townscape Features	Hoarding/screening Lighting control Working hours control Compound and stockpiling siting Control of movement of materials Tree protection	Moderate adverse
	Views		Moderate adverse to Minor Adverse
	Townscape Character		Moderate adverse to Negligible Adverse
Completed Development	Townscape Features	Articulation Materials Planting Landscape maintenance and management plan	Moderate Beneficial
	Views		Moderate Adverse to Moderate Beneficial
	Townscape Character		Neutral to Moderate Beneficial

Stage	Effect	Mitigation	Residual Significance
Daylight, Sunlight and Overshadowing			
Construction Phase	Daylight, sunlight and overshadowing	N/A	Construction phasing has not been assessed or modelled in the chapter. The effects of the construction phase would be similar or less than those of the completed development
Completed Development	Daylight, sunlight and overshadowing	Mitigation has been undertaken in the design phase of the programme, working closely with JTP architects to reduce instances of undesirable daylight and sunlight	Whilst there are some instances that are recognised as Moderate Adverse, there are a number of buildings that are considered Negligible and Minor Adverse. The results of the daylight and sunlight methodologies demonstrate initial shortfalls when applying the strict application of the BRE Guidelines, recognition of the low lying baseline condition has been extended and the retained values are considered encouraging for the neighbouring context. Given the retained values and vast number of Negligible instances, the overall residual effect is considered Minor Adverse.
Wind Microclimate			
Construction Phase (on site)	Wind conditions at the demolition and construction Site	N/A	Moderate Beneficial (not significant) to Minot Beneficial (not significant)
Construction Phase (off site)	Wind conditions on thoroughfares at the vicinity of the Site (windiest season)		Negligible (not significant) to Minor Beneficial (not significant)
	Wind conditions at entrances to the existing developments (windiest season)		Negligible (not significant)
	Wind conditions at the existing Bus stops and pedestrian crossings in the vicinity of the Site (windiest season)		Negligible (not significant)
	Existing amenity areas around the Development (summer season)		Negligible (not significant)
Completed Development (on site)	Wind conditions on thoroughfares (windiest season)	Increasing the height of the proposed hedge from 1.5m to 2m at the north-western corner and adding 1.5m high 2m wide at	Moderate Beneficial (not significant) to Negligible (not significant)

Stage	Effect	Mitigation	Residual Significance
		least 50% porous screen at the south-western corner along the southern façade (north-west of measurement location 38)	
	Wind conditions at entrances to the Development (windiest season)	N/A	Negligible (not significant) to Moderate Beneficial (not significant)
	Wind conditions at ground floor amenity spaces (summer season)		Negligible (not significant)
	Wind conditions at elevated levels (summer season)		Negligible (not significant)
	Strong wind exceedances	Three 4m high decidous trees (north, north-west of measurement location 39) or 1.5m high 2m wide at least 50% porous screen at the south-western corner to reduce the corner accelerating winds	Significant
Completed Development (off site)	Wind conditions on thoroughfares at the vicinity of the Site (windiest season)	N/A	Negligible (not significant)
	Wind conditions at entrances to the existing developments (windiest season)		Negligible (not significant)
	Wind conditions at the existing Bus stops and pedestrian crossings in the vicinity of the Site (windiest season)		Negligible (not significant)
	Existing amenity areas around the Development (summer season)		Negligible (not significant)
Cultural Heritage			
Construction Phase	Low Potential for encountering Early Prehistoric flintwork, if present would comprise residual, isolated material from truncated head deposits in the far west of the site	N/A	Minor Adverse
	Low Potential for Later Prehistoric occupation and associated activity across the site		Minor Adverse
	Low Palaeoenvironmental potential associated with thin band of isolated alluvium identified at western boundary		Minor Adverse
	Low Potential for		Minor Adverse

Stage	Effect	Mitigation	Residual Significance
	Roman activity		
	Low Potential for Saxon and Medieval settlement and occupation activity		Minor Adverse
Construction Phase cont.	Low Potential for Post Medieval settlement, if present Post Medieval would more likely comprise agricultural activity and land division	N/A	Minor Adverse / Negligible
	Good Potential for survival of Modern foundations and allotment activity		Negligible
	Thorpe Coombe Hospital (Original House Only)	CEMP	Minor Adverse
	Old Butchers Shop adjacent to Number 76		Minor Adverse
	Walthamstow House (Corpus Christi School)		Minor Adverse
	Assembly Hall to SE of Town Hall		Minor Adverse
	War Memorial, Waltham Forest Town Hall		Minor Adverse
	Walthamstow Town Hall		Minor Adverse
	Brookscroft		Minor Adverse
	Gates, gatepiers and railings at Walthamstow Civic Centre		Minor Adverse
	Walthamstow Civic Centre pair of flagpoles in forecourt to south of centre		Minor Adverse
	Walthamstow Civic Centre 8 pairs of gatepiers in forecourt to south of centre		Minor Adverse
	Wood Street Library		Moderate Adverse
	Woodside Junior School		Minor Adverse
	Hawker Siddley Power Transformers (offices only)		Minor Adverse
	St Gabriel's Church		Minor Adverse
	Waltham Forest College		Minor Adverse
Completed Development	Thorpe Coombe Hospital (Original House Only)	High quality design	Minor Adverse
	Old Butchers Shop adjacent to Number 76		Minor Adverse
	Walthamstow House (Corpus Christi School)		Minor Adverse
	Assembly Hall to SE of Town Hall		Minor Adverse
	War Memorial, Waltham Forest Town		Minor Adverse

Stage	Effect	Mitigation	Residual Significance
	Hall	High quality design	
	Walthamstow Town Hall		Minor Adverse
	Brookscroft		Minor Adverse
	Gates, gatepiers and railings at Walthamstow Civic Centre		Minor Adverse
	Walthamstow Civic Centre pair of flagpoles in forecourt to south of centre		Minor Adverse
	Walthamstow Civic Centre 8 pairs of gatepiers in forecourt to south of centre		Minor Adverse
	Wood Street Library		Minor Adverse and Minor Beneficial
	Woodside Junior School		Minor Adverse and Minor Beneficial
	Hawker Siddley Power Transformers (offices only)		Negligible
	St Gabriel's Church		Negligible
	Waltham Forest College		Negligible
Biodiversity			
Construction	*Ecological Designations* No likely effects	No mitigation required	Negligible
	Onsite Features Non-significant habitat losses, potential impacts on faunal species and risk of spread of invasive species	General construction safeguards; soft felling of bat potential tree; clearance of nesting bird habitat outside breeding season or following nesting bird checks; appropriate control/disposal of invasive species	Negligible
Completed Development	*Epping Forest SAC and SSSI* Increase in recreational pressure	Provision of SAMM and SANG	Negligible
	Lee Valley SPA/Ramsar Increase in recreational pressure	No mitigation required	Negligible
	Other Ecological Designations No likely effects	No mitigation required	Negligible
	Onsite Features Non-significant habitat losses	Habitat and faunal enhancements	Moderate beneficial

Interactive Effects

14.3 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. The findings of this exercise are set out in Table 14.2 below.

Table 14.2 Interactive Effects

Effect	Local Population	Users of the Local Road Network	Air Quality
Construction Phase			
Views of vehicles and machinery being used during the demolition and construction period	*	*	
Construction Noise (plant and machinery)	*		
Construction Dust	*		*
Creation of Construction employment	*		
Operational Phase			
Views of the Development	*	*	
New housing and opportunities for employment	*	*	*

*indicates where an effect may occur.

14.4 Table 14.2 shows that during the construction phase, the local population may experience interactive adverse effects in relation to views of construction works, disruption to the local road network and construction noise. Simultaneously, beneficial effects are likely to arise from employment opportunities for construction workers and those in employment associated with the supply chain will occur in the local areas.

14.5 During operation, the local population will benefit from new housing and opportunities for employment. However, adverse effects would be associated with altered townscape views.

Conclusion

14.6 Without the Development of the Site, it is assumed that the Site would remain covered in hardstanding and the home improvement store, Homebase, unless another planning application was approved and implemented. , None of the beneficial and adverse effects identified within Table 14.2 would arise. 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. This is particularly true with regards to the effects that the Development has relating to townscape and long-distance views. The Site is to help meet LBWF's housing needs, with a mix of affordable housing. Further mitigation measures have been proposed, to be secured via

planning conditions or development contributions, as set out in Table 14.1, along with the residual effects of the Development following mitigation.