



# NORTHSTOWE

## Phase 3B

Environmental Statement  
Non-technical summary

March 2020



Homes  
England



# **NORTHSTOWE PHASE 3B**

## Environmental Statement Non-Technical Summary

MARCH 2020



## Version Control

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This report dated 31 March 2020 has been prepared for Homes England (the “Client”) in accordance with the terms and conditions of appointment dated 01 March 2018 (the “Appointment”) between the Client and **Arcadis Consulting (UK) Limited** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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# 1 Introduction

## 1.1 Project Context

Homes England ('the Applicant') is seeking Outline Planning Consent for Northstowe Phase 3B ('the proposed Development'), the development of land at Northstowe within the administrative area of South Cambridgeshire District Council (SCDC). Northstowe Phases 1 and 2 have been consented and are currently under construction with Phase 1 partially occupied.

The proposed Development forms part of Northstowe Phase 3 which also includes Phase 3A. Phases 3A and 3B are located to the south and north of the planned Northstowe town centre respectively. Together, Phases 3A and 3B will deliver the remaining balance of up to 5,000 homes (approximately 4,000 in Phase 3A and 1,000 in Phase 3B) and complete the planned 10,000 homes within the new town of Northstowe.

Northstowe Phase 3A is being brought forward as a separate Outline Planning Application and therefore this document only covers the proposal for the construction and operation of Northstowe Phase 3B. Phase 3A is considered in the assessment in terms of cumulative effects.

The proposed Development (Phase 3B) comprises up to 1,000 homes, a primary school, secondary mixed-use zone (with retail, services, community, leisure, employment and residential uses), open space and landscaped areas, engineering and infrastructure works, with details of appearance, landscaping, layout, scale and access reserved.

## 1.2 Environmental Impact Assessment

An Environmental Impact Assessment (EIA) has been undertaken for the proposed Development as it comprises more than 150 dwellings and has the potential to have significant environmental effects. The aim of the EIA process is to:

- Understand how the proposed Development may affect the environment and how environmental constraints may affect the design.
- Identify measures to avoid or reduce predicted adverse effects.
- Enhance the environment where appropriate through environmental design.

The Environmental Statement (ES) documents the EIA process and provides the decision-makers (SCDC) with the environmental information they require to inform their decision about whether to grant consent for the proposed Development. The EIA has been prepared in accordance with the requirements of the Town and Country Planning (EIA) Regulations 2017 (SI 2017 No.571) (the 'EIA Regulations').

This Non-Technical Summary summarises the Environmental Statement in non-technical language.

## 1.3 Scoping the EIA

A Scoping Report was submitted to SCDC in November 2018 to request their opinion on the scope of the ES. The scoping opinion was received in March 2019 and the following technical topics were agreed to be included within the ES:

- Chapter 5: Agriculture and Soils
- Chapter 6: Air quality
- Chapter 7: Biodiversity

- Chapter 8: Climate
- Chapter 9: Cultural heritage
- Chapter 10: Ground conditions
- Chapter 11: Health
- Chapter 12: Landscape and visual impacts
- Chapter 13: Noise and vibration
- Chapter 14: Socio-Economics
- Chapter 15: Transport
- Chapter 16: Waste and resource management

In addition, whilst not scope into the ES at the time, a Flood Risk Assessment and Drainage Strategy has been prepared and submitted with the Outline planning application. This is summarised as an appendix to the ES.

## 1.4 Consultation and Engagement

Throughout the preparation of the ES, consultation has been undertaken with a range of statutory and non-statutory bodies such as the local authorities, Environment Agency, Natural England and Historic England. This engagement has included the collation of relevant data, discussions about assessment methodologies and potential mitigation measures to reduce the potential environmental effects of the proposed Development.

Public consultation and engagement have also taken place at three key stages in developing the masterplan and application documents. This is reported in the Stakeholder and Community Engagement Report submitted with the Outline Planning Application.

## 2 The Proposed Development and the Application Site

### 2.1 The Proposed Development

The proposed Development comprises up to 1,000 homes, a primary school, secondary mixed-use zone (with retail, services, community, leisure, employment and residential uses), open space and landscaped areas, engineering and infrastructure works, with details of appearance, landscaping, layout, scale and access reserved.

The location of the proposed Development is shown in Figure 1 in Section 2.2 and more particularly detailed in the Design and Access Statement and the Parameter Plans (Document Refs: Height: 5709-OPA-3B-03-V4; Movement and Access: 5709-OPA-3B-02-V4; Open Space and Land Use: 5709-OPA-3B-01-V4).

A range of housing types, sizes and tenures is intended so as to provide a wide choice of housing options for different households. The mix of housing types and sizes will be determined at the reserved matters stage and aims to be policy compliant.

The Application proposes to provide up to 40% of the dwellings on site as affordable housing. The total amount of affordable housing delivered will depend upon a range of viability considerations consistent with the Local Plan and national planning policy. With respect to affordable tenure mix, the proposals for affordable housing will contain a variety of affordable tenure types to meet local needs. The precise tenure mix will be subject to agreement with SCDC.

As shown on the Open Space and Land Use parameter plan, housing will be located across the Application Site. The secondary mixed-use zone will provide opportunities to use ground floor space for shops, services, community, leisure, office or residential, responding to the needs of the local community as it evolves. The total capacity of the ground floor space in the secondary mixed-use zone is calculated as a maximum of 1,320m<sup>2</sup> for the purposes of this assessment. The secondary mixed-use zone is located immediately adjacent to the primary school on the west side of the main route into the site (see Open Space and Land Use parameter plan).

A two-form entry primary school is proposed and will have an area of 2.4ha comprising approximately 2,200m<sup>2</sup> of floorspace. Public provision for early years education will be accommodated within the primary school.

The proposed Development includes 16.26ha of open space, which comprises formal and informal open space and children's play space.

The proposed Development includes green and blue infrastructure provision, including public open space (comprising space for informal recreation and play), sustainable drainage system features, allotments and community orchards.

Access to the proposed Development for all travel modes will be from a revised junction of the B1050/ Station Road. There will also be access to the combined footpath and cycleway adjacent to the CGB to the north. There is also the potential for additional future access from the east for pedestrians, cyclists and vehicles (including emergency vehicles) and this is reflected in the masterplan for the site although the development is not reliant on it.

The proposed Development is envisaged to comprise buildings of predominately 2-3 storeys in height. There will be a two storey zone along the 'Phase 1 edge' to the south east. and a maximum of four storeys or up to 14.5m above ground level in specific key locations as identified on the Building Heights parameter plan. Residential densities are expected to range from areas of up to 34 dwellings per hectare (dph) to 41-60dph in higher density areas and will average 40 dph.

## 2.2 The Application Site

The Northstowe Phase 3B Application Site, hereafter referred to as the 'Application Site', is approximately 47ha comprising a large arable field with a central woodland copse around a small pond (see Figure 1). The central copse is connected to the eastern hedgerow boundary by a 250m long water filled ditch and to the B1050 by a 350m extent of hedgerow. A second water filled ditch extends 160m in a south west direction from the copse.

The Application Site is bounded by residential and commercial properties along Station Road to the east with the Cambridgeshire Guided Busway (CGB) line running along the northern boundary. The Application Site is contained by hedgerow within a large area of arable fields to the west and the B1050 to the South.

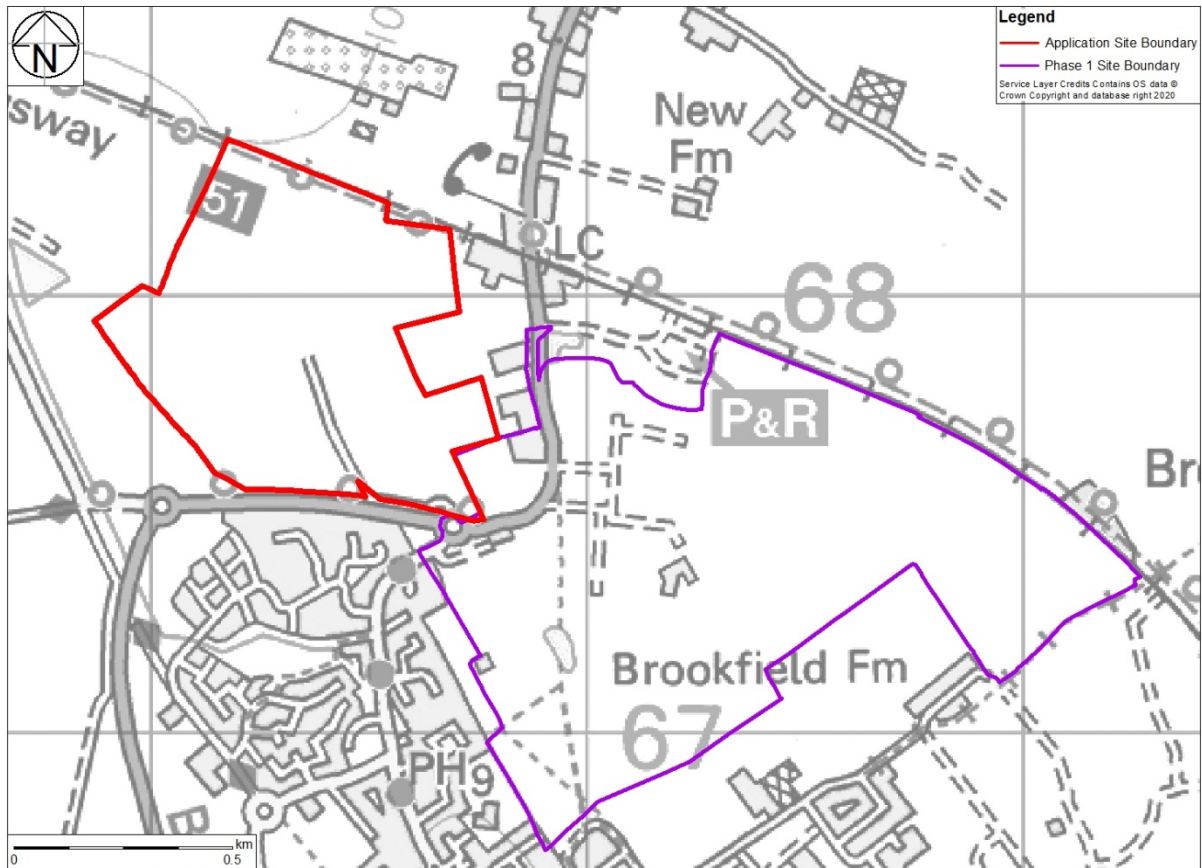
To the west are arable fields intersected by Over Road which runs in a north west direction. Two attenuation ponds are situated either side of Over Road.

The surrounding area is predominantly occupied by farmland to the north, west and south-west. Northstowe Phase 1 largely occupies the area to the south east and Longstanton village lies to the south of the Application Site and the B1050. There is a ribbon of mixed residential and agricultural development along an extent of Station Road to the north east of the Application Site and the CGB towards Willingham.

Two parcels of land situated immediately adjacent to the eastern boundary of the Application Site and between Station Road and the CGB line have potential for residential development. Endurance Estates Land and Digital Park could accommodate around 150 and 100 homes respectively in line with the overall allocation under Policy SS/5 in the SCDC Local Plan (2018).



Figure 1 Application Site



### 3 Development Need and Consideration of Alternatives

#### 3.1 The Need for the Proposed Development

The National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how these are expected to be applied. The NPPF makes it clear that the overarching objective of the planning system in England is to deliver sustainable development, including to “*support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations*”.

The NPPF also explains that “the supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities”.

The Northstowe site was first allocated as a location for a new town in the 2003 Cambridgeshire and Peterborough Structure Plan, which previously formed part of the Development Plan for the Cambridgeshire and Peterborough area. Northstowe was subsequently allocated as a major development site within the South Cambridgeshire Core Strategy (2007).

SCDC adopted the Northstowe Area Action Plan (NAAP) in 2007, which identifies Northstowe for the creation of a new town of 10,000 homes together with associated facilities and infrastructure.

The South Cambridgeshire District Council Local Plan was adopted in September 2018. The Local Plan states that development will be required to meet the objectively assessed need in the district for 19,500 homes over the period 2011-2031, including affordable housing.

Northstowe as a whole is expected to provide 10,000 homes within the current Local Plan period and beyond, of which the proposed Development will deliver up to 1,000 homes. The proposed Development is therefore needed to contribute towards meeting the established need for homes, including affordable homes, in accordance with both national and local policy.

## **3.2 Alternatives to the Proposed Development**

### **Alternative Sites**

In November 2000, the Regional Planning Guidance for the East of England (RPG 6) first identified the need for a new settlement to serve growth in the Cambridge Sub-Region. Following an extensive search for the most sustainable sites, the Northstowe site was selected and allocated as a location for a new town in the 2003 Cambridgeshire Peterborough Structure Plan. Northstowe was subsequently allocated as a major development site within the South Cambridgeshire Core Strategy (2007).

The current South Cambridgeshire Local Plan (2018) sets out the development strategy for South Cambridgeshire through to 2031. The strategy includes a number of major site allocations, including Northstowe which is intended to provide 10,000 new homes together with associated facilities and infrastructure throughout and beyond the current Local Plan period. The proposed Development is located wholly within the Local Plan site allocation.

Outline planning consent for Northstowe Phases 1 and 2 has been granted and development is underway. There is a separate outline planning application for Phase 3A comprising up to 4,000 homes. The proposed Development comprises Phase 3B of the town and will deliver up to 1,000 of the 10,000 homes required at Northstowe (the final phase), together with a primary school, open space and a secondary mixed-use zone.

It is clear that the location of Northstowe for a new town, as well as the inclusion of the Application Site as part of the town, has been properly assessed through the statutory plan-making process and is firmly established in planning policy. It was therefore not considered to be appropriate or relevant to consider alternative sites for the proposed Development. Equally, the alternative of not developing the Application Site would result in the new town being incomplete and leave a shortfall of 1,000 homes required to achieve the Local Plan target.

### **Alternative Masterplan Options**

The layout and design of the proposed Development has been informed by environmental influences, technical considerations and feedback from a series of community and stakeholder engagement events, discussion with statutory and non-statutory bodies, as well as presentations to design review panels.

The preparation of the masterplan was also informed by technical inputs from ecology, heritage and landscape specialists to draw on the intrinsic characteristics of the Application Site, retaining the woodland copse and providing the opportunity to enhance biodiversity across the Application Site. These retained landscape features form key character generators for the new neighbourhoods within the proposed Development.

The key principles that underpin each of the design iterations are as follows:

- Creating a direct vehicular access point on the site's southern boundary via improvements to the existing roundabout on Station Road;
- Retaining the existing copse and hedgerows woodland within an integrated network of green infrastructure;
- Creating pedestrian and cycle links to Phase 1, and improve connectivity to the Phase 1 Local Centre and the Town Centre within Phase 2; and

- Responding to the surrounding context with suitable design approaches.

The initial Masterplan was presented to stakeholders and the public in the consultation in November 2018. The masterplan was further developed and shaped in response to continued stakeholder engagement sessions, including presentations to the Design Council Review Panel and Cambridgeshire Quality Panel, as well as technical assessments and inputs.

The resultant Masterplan has therefore been arrived at following a thorough iterative process and design evolution that considered alternatives in order to ensure that negative environmental effects could be minimised, and positive environmental effects maximised.

## 4 Technical Assessments Summary

### 4.1 Overview

This section provides a summary of the technical assessment chapters in the ES. This includes a summary of the methodology, baseline and anticipated 'residual' environmental effects of the proposed Development after ways to reduce and mitigate impacts have been taken into account.

### 4.2 Agriculture and Soils

An assessment has been undertaken on the effects of the proposed Development on agriculture and soils during both the construction and operational phases.

Baseline data for this assessment included detailed soil information as well as the agricultural value of soils within the site. Agricultural value was determined using the Agricultural Land Classification (ALC), which grades soils according to their versatility and productivity.

Agricultural land within the Application Site is predominantly combinable crops with a small area of a woodland copse. The results of historic and current agricultural land classification surveys show that there is a mix of grades of soils in the Application Site, including soil that is considered to be the Best and Most Versatile (BMV) grade (i.e. highly valuable agricultural soils).

During construction the soils would be handled in accordance with published best practice guidelines to ensure they are suitable for their intended use. The construction phase would be expected to result in the loss of 46ha of agricultural land, including 33.47ha of BMV land. This is considered to be a **Major Adverse** effect which is **Significant** in terms of the EIA Regulations. The associated effect on agricultural businesses is considered to be **Negligible** and **Not Significant**. However, this effect is unavoidable if the site is to be developed for housing as allocated in the Local Plan.

Residual effects on agriculture and soils occur during the operation phase would be minimal, although a **Negligible** effect relating to fly-tipping on agricultural premises is anticipated which is considered to be **Not Significant** in terms of the EIA Regulations.

### 4.3 Air Quality

An assessment has been undertaken on the effects of the proposed Development on air quality during both the construction and operational phases.

SCDC and Cambridgeshire County Council (CCC) monitors nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM) at various locations in proximity to the Application Site. SCDC's monitoring data suggests that the area in the vicinity of the proposed Development is generally of a good air quality and demonstrates that there have been no exceedances of the annual mean or short-term air quality objectives in the past five years.

Potential construction phase air quality impacts from dust have been assessed as a result of earthworks, construction and trackout activities. It is considered that the use of good practice control measures, which are included in the Strategic CEMP (Construction Environmental Management Plan) would provide suitable mitigation for a development of this size and nature.

Potential operational phase impacts from vehicle exhaust emissions have been assessed by predicting air quality conditions at sensitive locations both with and without the proposed Development in place. Results were subsequently verified using local air quality monitoring data. Computer modelling was also undertaken in order to predict pollutant concentrations across the Application Site as a result of emissions from the highway network.

The proposed Development design includes a number of features that promote good air quality and minimise exposure to pollutants. Taking into account these measures, residual effects on air quality from the construction and operation phases are likely to be **Negligible** which is **Not Significant** in terms of the EIA Regulations.

## 4.4 Biodiversity

An assessment has been undertaken on the effects of the proposed Development on biodiversity during both the construction and operational phases.

Baseline data was identified following a review of designated sites in the vicinity of the Application Site, as well as habitats and species present within the Application Site identified through ecological surveys.

There are four Sites of Special Scientific Information (SSSIs) within 5km of the Application Site. Habitats present within the Application Site are varied. Arable land makes up 80.9% of the Application Site while species-poor semi-improved grassland accounts for 11.63%. The remainder of the Application Site is comprised of improved grassland, semi-natural broadleaved woodland, semi-improved neutral grassland, scrub, standing water, ditches and broad-leaved scattered trees.

Species recorded at the Application Site include breeding birds, farmland birds, owl, bats, water vole, badger, reptiles, great crested newts, otter and brown hare.

Avoidance and reduction of impacts on biodiversity has been integrated into the design of the proposed Development. The biodiversity value of the green infrastructure has been maximised, such as using sustainable urban drainage systems treatment areas to be designed as replacement habitat for amphibians, water vole and bats. Key wildlife corridors within the Application Site are being retained or created with tunnels and other connective measures adopted to avoid or minimise fragmentation of habitats. Throughout the Application Site, habitats have been retained, buffered, created and/or enhanced.

Measures have also been incorporated into the proposed Development to avoid and minimise effects on species, such as through the retention and planting of new trees, retaining, buffering and enhancing valuable habitats.

Following the adoption of the broad range of mitigation measures, residual adverse effects on habitats and species at the Application Site as a result of both the construction and operation of the proposed Development would be **Not Significant** in terms of the EIA Regulations. The creation and enhancement of habitats incorporated into the proposed Development including off-site mitigation for farmland birds would deliver an overall net gain for biodiversity.

## 4.5 Climate

An assessment has been undertaken on the effects of the proposed Development on climate during both the construction and operational phases. The assessment is divided into two separate assessments:

- The effects on the climate from greenhouse gas emissions arising from the proposed Development.
- Vulnerability of the proposed Development to climate change.

A desktop study has established existing greenhouse gas emissions and extreme climate events (and frequency) that occurs within the study area.

The Strategic CEMP sets out the procedures for the minimisation of greenhouse gas emissions during construction, including the implementation of energy efficient measures. Mitigation measures have also been embedded into the design of the proposed Development to ensure it minimises the overall carbon footprint where possible. For example, the proposed homes would be as energy efficient as possible through the use of energy efficient lighting and high levels of insulation.

The assessment for the effect on climate concludes that the amount of greenhouse gas emissions predicted to be generated by the proposed Development during construction and operation would not affect the ability of the UK Government to meet its carbon reduction targets and as such would be **Not Significant** in terms of the EIA Regulations.

The design of the proposed Development will be optimised to reduce its vulnerability to the potential impacts of climate change (e.g. changes in extreme weather patterns, flood risk). The assessment concluded that effects on the proposed Development generated by climate change would be **Not Significant** in terms of the EIA Regulations.

## 4.6 Cultural Heritage

An assessment has been undertaken on the effects of the proposed Development on cultural heritage during both the construction and operational phases.

There are two non-designated heritage assets within the Application Site and a wide range of heritage assets including designated archaeological remains, non-designated heritage assets, designated Listed Buildings and Conservation Areas in the surrounding area.

The assessment has determined the significance of effects on these assets through consideration of their value/importance and the magnitude impacts.

Impacts on heritage assets would be avoided or minimised wherever possible. This would involve excavation (preservation through archaeological record) and preservation of the assets in situ.

Taking into consideration the above mitigation measures, residual effects on heritage assets would mostly be Neutral but there would be a **Moderate/Large Adverse** effect on a Roman settlement with Saxon continuation. Mitigation in the form of excavation of this asset which would be partially or wholly removed by development would be 'preserved by record' (as undertaken across Phase 1 and Phase 2), however this does not mitigate the permanent partial or complete loss and would remain a large adverse effect.

and **Slight Adverse** effect on a Listed Building (Village Water Pump) which would be temporary during construction. The Moderate/Large adverse effect is considered to be **Significant** in terms of the EIA Regulations while the Slight Adverse effect is considered to be **Not Significant**.

The proposed Development has incorporated heritage assets into the design in order to minimise adverse operational effects. Archaeological evaluation and recording of the Roman settlement with Saxon continuation asset would be 'preserved by record' thus contributing to our knowledge of how people lived on the site in the past.

Measures such as screening by vegetation, maintaining open space and enhancing the accessibility and potential appreciation of the assets have been adopted to minimise adverse effects and, for one heritage asset (Fishpond Cottages), would be expected to result in a **Slight Beneficial** effect which is considered to be **Not Significant** in terms of the EIA Regulations.

## 4.7 Ground Conditions, Contamination and Hydrogeology

An assessment has been undertaken on the effects of the proposed Development on ground conditions, contamination and hydrogeology during both the construction and operational phases.

A desktop study and site investigations have been carried out to determine and analyse the Application Site's geology and ground conditions, including contamination, geodiversity, minerals, hydrology, ground gas, hydrogeology and unexploded ordnance.

Contamination has not been encountered at the Application Site, however, areas of any contaminated soils will be determined prior to earthworks as detailed within the Strategic CEMP. Moreover, the Application Site is Low Risk in terms of unexploded ordnance.

During construction measures included in the Strategic CEMP and the Outline Site Waste Management Plan (SWMP), would ensure that adverse effects as a result of ground conditions are minimised.

During the operational stage the proposed Development would utilise Sustainable Urban Drainage Systems to manage surface water. It also avoids abstracting groundwater or including deep basements and structures in the design.

The residual adverse effects during the construction and operation phases on human receptors are considered to be **Slight Adverse** which is **Not Significant** in terms of the EIA Regulations. Residual effects on all other receptors (geology, hydrogeology, surface water and buildings/infrastructure) are considered to be **Neutral** and **Not Significant**.

## 4.8 Health

An assessment has been undertaken on the effects of the proposed Development on health during both the construction and operational phases.

Baseline data evaluated in the assessment relate to the themes of population, employment and economy, deprivation, health profile, diet and nutrition, physical activity and mental health and wellbeing for South Cambridgeshire.

Residual adverse effects as a result of the construction phase are limited. The construction site could potentially reduce the quality of the living environment for those living in proximity to the construction. It could also attract security issues at the construction site (when compared with the Application Site's current use) or, due to the influx of construction workers, place slightly more pressure on the capacity of local health services, transport infrastructure and open spaces. However, these effects are all considered to be **Not Significant** in terms of the EIA Regulations. The construction phase would also result in **Moderate Beneficial** effects associated with access to work and training, which is **Significant** in terms of the EIA Regulations.

During the operation phase of the proposed Development there would be health benefits to existing local residents as well as residents of the proposed Development. These would include benefits related to the quality and mix of housing (particularly through the provision of affordable housing); access to healthcare services and open spaces; active travel opportunities; access to healthy food; crime reduction; access to work and training; social cohesion; minimising the consumption of resources; and climate change related effects. A number of these effects are considered to be **Moderate or Major Beneficial** which are **Significant** in terms of the EIA Regulations.



## 4.9 Landscape and Visual Impact

An assessment has been undertaken on the effects of the proposed Development on landscape and visual impact during both the construction and operational phases.

The assessment gathered baseline data for the Application Site, including data on:

- Landscape character, which included data at local, regional and county scales, the historic environment, vegetation, land-use, tranquillity and site-features; and
- Visual amenity, which considers the theoretical visibility of the proposed Development from 16 different viewpoints and considers the potential impacts on visual amenity for different groups of people (e.g. road users, local residents or users of nearby Public Rights of Way).

The proposed Development incorporates various measures designed to ensure that impacts of the construction phase on landscape character and visual amenity are avoided or minimised, including screening (such as through strategically retained or planted vegetation) and managing the risk of light pollution (such as through reducing light levels outside of working hours and utilising shields).

Residual effects on landscape character and visual amenity during the construction phase range from **Negligible** to **Minor Adverse** which are **Not Significant** in terms of the EIA Regulations.

The proposed Development would include an integrated greenway, interconnected and multifunctional green and blue spaces, walking and cycling routes and outdoor playing spaces. As such, during the operation phase residual effects on landscape character and visual amenity would range from **Negligible** to **Minor Beneficial** which are **Not Significant** in terms of the EIA Regulations.

## 4.10 Noise and Vibration

An assessment has been undertaken of the effects of the proposed Development on noise and vibration during both the construction and operational phases.

Desk studies identified the sources of noise in the local environment. Consultation with the Local Planning Authority was then carried out to establish an appropriate baseline noise survey scheme. Site surveys were then used to monitor the noise environment over a range of time periods.

Noise generated during the construction phase would be minimised through measures set out in the Strategic CEMP and controlled through active measures including detailed complaint procedure, community liaison and compliance monitoring. The assessment concludes that noise and vibration associated with the construction phase would be **Negligible/Minor Adverse** which is **Not Significant** in terms of the EIA Regulations.

The design of the proposed Development is such that noise is minimised during the operation phase. This includes a considerate layout of the proposed Development and provision for acoustic screening where necessary. Noise associated with retail or commercial activities in the secondary mixed-use zone would be mitigated through various measures, including a careful layout and acoustic fencing of noise generating activities. The layout and orientation of residential properties and the primary school incorporated into the proposed Development would be designed to minimise adverse effects.

The assessment concludes that noise and vibration associated with the operation phase would be **Negligible/Minor Adverse** which is **Not Significant** in terms of the EIA Regulations.

## 4.11 Socio-Economics

An assessment has been undertaken on the effects of the proposed Development on socio-economics during both the construction and operational phases.

The assessment gathered baseline data related to population, housing, employment, economy, deprivation, health care and health determinants, community facilities, education, recreation and travel modes.

Embedded within the proposed Development are various elements that would help to ensure that adverse effects on the socio economics are avoided or minimised whilst beneficial effects are enhanced through the provision of one new primary school open space and play provision in addition to greenways.

The construction phase of the proposed Development would generate jobs and provide opportunities for local skills development which is considered to be **Moderate Beneficial** and **Significant** in terms of the EIA Regulations. Ensuring the construction areas are cordoned off from the public, implementing a range of health and safety measures, screening, controlling work hours and managing street lighting would ensure that adverse effects on local residential amenity and public safety would be limited to **Minor Adverse** which is **Not Significant** in terms of the EIA Regulations.

During the operation phase, the provision of new homes (including affordable homes), new employment opportunities, new open space as well a new primary school would deliver **Major Beneficial** effects in relation to local housing needs and **Moderate Beneficial** effects on the users of the primary school and secondary mixed-use zone community spaces. All of these effects are considered to be **Significant** in terms of the EIA Regulations.



## 4.12 Transport

An assessment has been undertaken on the effects of the proposed Development on transport during both the construction and operational phases.

The assessment gathered data related to the walking and cycling environment, designated cycling routes, planned walking and cycling improvements, public transport, the highway network, traffic flows and accidents and safety.

During the construction phase of the proposed Development a Construction Traffic Management Plan (CTMP) would be implemented to minimise the effects of construction traffic on local transport. The CTMP would be likely to incorporate various measures, such as identifying safe routes for construction traffic; identifying local sources of construction materials to reduce distances travelled; encouraging car sharing, walking and cycling amongst construction employees; providing full staff welfare facilities on-site; regular sweeping of roads and adequate on-site parking spaces.

Residual effects of the construction phase on transport include effects on pedestrian amenity as well as fear and intimidation; an increase in pedestrian and driver delay to due additional vehicles on the highway network; and a reduction in road safety, particularly for vulnerable road users, due to the introduction of large vehicle types on the network. Mitigation measures, such as those included within the Strategic CEMP and CTMP for development phases, would be expected to help ensure that effects would be limited to **Minor Adverse** and **Not Significant** in terms of the EIA Regulations.

During the operation phase, the nature of the proposed Development is such that it would minimise the need for residents to travel due to the provision of necessary services, such as the primary school and access the wide range of employment, facilities and services in Northstowe as a whole. Moreover, substantial opportunities for the use of sustainable travel modes will be provided and the Framework Travel Plan will provide additional mitigation.

During operation the proposed Development would result in a permanent increase in local traffic, including some degree of change in local pedestrian amenity, driver and pedestrian delay, fear and intimidation and accidents and safety. These effects are considered to be **Negligible/Minor Adverse** and **Not Significant** in terms of the EIA Regulations.

## 4.13 Waste and Resource Management

An assessment has been undertaken on the effects of the proposed Development on waste and resource management during both the construction and operational phases.

The assessment calculated the likely construction and excavation waste as well as the likely waste generated during operation of the proposed Development, including household and commercial waste. The assessment also identified the existing rates of waste arisings and the proportion of this that is recycled.

The proposed Development has been designed to minimise waste arisings during the construction phase by adopting key principles including reusing and recovering materials; off-site manufacture; optimisation of materials; efficient delivery systems; and flexibility and adaptation for potential future uses. The Outline SWMP would be implemented to monitor and review waste minimisation and management on construction sites.

The total quantity of excavation and construction waste during the construction phase would have a **Slight Adverse** effect on the capacity of waste management and land fill facilities, which is considered to be **Not Significant** in terms of the EIA Regulations.

During operation, waste arisings from the proposed Development would have a **Slight Adverse** effect on the capacity of waste management and landfill facilities, which is considered to be **Not Significant** in terms of the EIA Regulations.

#### 4.14 Cumulative Effects

The assessment has considered the potential for intra and inter-project cumulative effects. Intra-cumulative effects arise when multiple different types of effects (e.g. air quality and noise) combine to have an increased effect on a receptor (e.g. local residents). Inter-project cumulative effects cover the potential for combined effects between the proposed Development and other off-site developments that are expected to occur (e.g. Northstowe Phase 3A).

The assessment identified all the receptors that would be subject to intra-project cumulative effects and considered the extent to which these effects could interact with one another resulting in residual effects of a greater significance than those already identified.

Intra-project cumulative effects would arise on existing residents, early occupants of the proposed Development whilst construction is ongoing, construction workers and local businesses as a result of various adverse effects (i.e. dust; noise; visual amenity; traffic) interacting with one another. The assessment concluded that any cumulative effects on these receptors would be temporary, very limited in scale and not raise any residual effects above **Minor Adverse** which is considered to be **Not Significant** in terms of the EIA Regulations.

The potential for inter-project cumulative effects during the operation phase resulting from the combination of adverse effects with those from other developments relating to visual amenity and traffic on local residents, residents of completed properties, local businesses and users of the local PRow network were identified. The assessment concluded that these cumulative adverse effects would not raise residual effects above **Minor Adverse** which is considered **Not Significant** in terms of the EIA Regulations. During operation there would also be **Moderate and Major Beneficial** cumulative effects relating to socio-economics (provision of housing, community spaces and school places) and health effects (housing, open space, access to work, social cohesion, accessibility, crime, healthy food and resources). These beneficial effects are considered to be **Significant** in terms of the EIA Regulations.

#### 4.15 Mitigation and Monitoring

As a result of the assessments, requirements for mitigation have been identified as well as ongoing requirements to monitor residual effects. These are set out in the summary chapters of the ES.

Arcadis Consulting (UK) Limited

Arcadis House  
34 York Way  
London N1 9AB  
United Kingdom  
T: +44 (0)20 7812 2000

[arcadis.com](https://www.arcadis.com)

