



View along the Cantley Stream Valley to Hethersett Church, from within the Strategic Gap landscape

The Racecourse Hub, Thickthorn Junction Gateway Zone

Landscape Strategy



1	Introduction	
1.1	Study scope	3
1.2	Methodology and report structure	3
2	Development proposals	
2.1	Planned highways infrastructure	6
2.2	Development proposals	8
3	Landscape planning policy context	
3.1	Overview - landscape policy context	10
3.2	Thickthorn Junction area - landscape policy context	12
3.3	Natural environmental and heritage assets	16
4	Baseline studies	18
4.1	Landscape appraisal	18
4.2	Visual appraisal	22
5	Opportunities and constraints	
5.1	Analysis - predicted landscape and visual effects	26
5.2	Opportunities and constraints	32
6	Mitigation	
6.1	Landscape strategy	34
6.2	Conclusion	34
Annex		
A	Viewpoint analysis	36



Highways-dominated landscape - existing Thickthorn Junction

1.1 Study scope

This report has been prepared by Sheils Flynn to inform the concept masterplanning process and in support of GNLP representations for a landscape-led development close to the planned new highways infrastructure and extension to the park-and-ride) at the A47/A11 Thickthorn Junction.

Recognising that this new highways infrastructure will result in changes to the character of the Hethersett-Cringleford Strategic Gap, the trustees of the Wychwood House Estate have commissioned a study to understand the likely landscape and visual effects of development adjacent to the extended Thickthorn Junction infrastructure. This Landscape Strategy supports the case for an integrated package of built development and green infrastructure which will secure an appropriate high quality A47 gateway landscape and enable permissive access linking Hethersett and Cringleford across the Strategic Gap. The findings will help to inform the preparation of a Parkland Management Plan.

The location of Thickthorn Junction, the associated potential sites for built development and an area with potential for controlled permissive recreational access are shown on Figure 1. The components of the scheme are:

- commercial development on the parcels of land that will be subdivided by the proposed new link between Cantley Lane South and the B1172 (Norwich Road) (Sites A and B);
- a care village development and health spa on

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- Site boundary - Sites A, B and C
- Area with opportunity for controlled permissive pedestrian and cycle routes with new outdoor recreational and leisure facilities
- Hethersett-Cringleford Strategic Gap

Figure 1 - Site location

land immediately to the west of the above site (Site C); and

- subject to planning approval for Sites A, B and C, controlled permissive public pedestrian and cycle routes, with new outdoor recreation and leisure facilities, within the Wychwood House estate and surrounding farmland.

Together, these proposals would enable a programme of landscape enhancement and sustainable public access on land which is on the doorstep of Hethersett and Cringleford. A multi-use route between Hethersett and Cringleford along Cantley Stream could also connect to Thickthorn Park-and-Ride and to a future possible Thickthorn Railway Station.¹

The report provides a robust assessment of the landscape and visual sensitivity of the potential development site in the context of the new highways works and the associated proposed extension to the Thickthorn Park-and-Ride. It records a landscape-led masterplanning process and demonstrates how new built development associated with the planned highways works can be the catalyst for the delivery of new green infrastructure and a multi-use route connecting settlements and employment areas.

1.2 Methodology and report structure

This study comprises a broad landscape and visual appraisal of development proposals which informs a concept masterplan for the development sites

within their wider landscape context. It has been carried out in accordance with the approach outlined in the Guidelines for Landscape and Visual Impact Assessment (LVIA) but is not a full LVIA (as part of an Environmental Statement) as the development proposals are at an early stage.² The methodology involves the following sequence of tasks:

- **A description of the development proposals** - the planned new highways infrastructure at the Thickthorn Junction and the proposed extension to the Thickthorn Park-and-Ride, together with outline proposals for commercial development adjacent to the Thickthorn Junction and residential development in the form of a care village on land to the west of the junction which would enable the delivery of extensive green infrastructure connections within the countryside in the centre of the Strategic Gap (Section 2).
- **An overview of the landscape planning policy context** for the Site. This section also includes a more detailed analysis of landscape planning policy in the vicinity of the Thickthorn Junction and an assessment of relevant natural environmental and heritage designations (Section 3).
- **An appraisal of the baseline landscape and visual conditions** which provide the context for these developments. The baseline assessment will record existing landscape character and sensitivity and will identify the key landscape receptors that

are likely to be affected by the scheme, including relevant identified characteristics and sensitivities of the Strategic Gap landscape³. It will also assess the extent of possible visibility of the Site and the views and viewpoints which describe the way the development might be experienced by different groups of people. It will take account of the new highways infrastructure and extension to the park-and-ride (Section 4).

- **Opportunities and constraints in the form of an analysis of the landscape and visual effects** predicted as a result of the development proposals, the mitigation of any adverse effects and the associated opportunities for permissive public access and wider landscape enhancement (Section 5).
- **A landscape strategy** for the Thickthorn Junction Gateway Zone and the Hethersett-Cringleford Strategic Gap which integrates the planned highways infrastructure development, sets out design parameters for appropriate development and provides a development-led opportunity to deliver permissive public access, including via a new multi-user route linking the two settlements along the stream valley and across the Strategic Gap. This strategy incorporates a suggested approach to defining a landscape for the Hethersett-Cringleford Strategic Gap which is defensible long term. (Section 6).

¹ Railfuture East Anglia, Response to draft Greater Norwich Local Plan, 14 March 2020, page 5

² Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute and Institute of Environmental Management and Assessment, April 2013, Paragraph 1.11

³ South Norfolk Local Landscape Designations Review - Strategic Gaps/Important Breaks, Chris Blandford Associates, 2012



Glimpsed views to the existing A11, looking north from the footpath along the Norwich-Ely railway line



Figure 2b - Proposed extension to the Thickthorn Park-and-Ride

Note - this drawing shows an earlier version of the link road layout, which has been updated (Ref. Figure 2a)



View across the farmland that will be the site of the new Cantley Lane South to B1172 Link Road and the Park and Ride extension

2.3 Proposals for a Community Hub development at the Thickthorn Junction Gateway Zone

Figure 3 shows the location of the proposed development sites, A, B and C in relation to the proposed Thickthorn Park-and-Ride extension and the planned Highways England A47/A11 Thickthorn Junction improvement works. The cluster of highways infrastructure (including park and ride) development and potential development sites in this area is referred to as the 'Thickthorn Junction Gateway Zone' in this report.

Sites A (1.4ha) and B (2.2ha) are considered suitable for small-scale commercial development, providing flexible space for entrepreneurs and community enterprise development.

The preferred option for Site C is for the development of a Care Village because this type of development would have obvious synergy with the surrounding parkland and also because of its close proximity to strategic transport infrastructure.

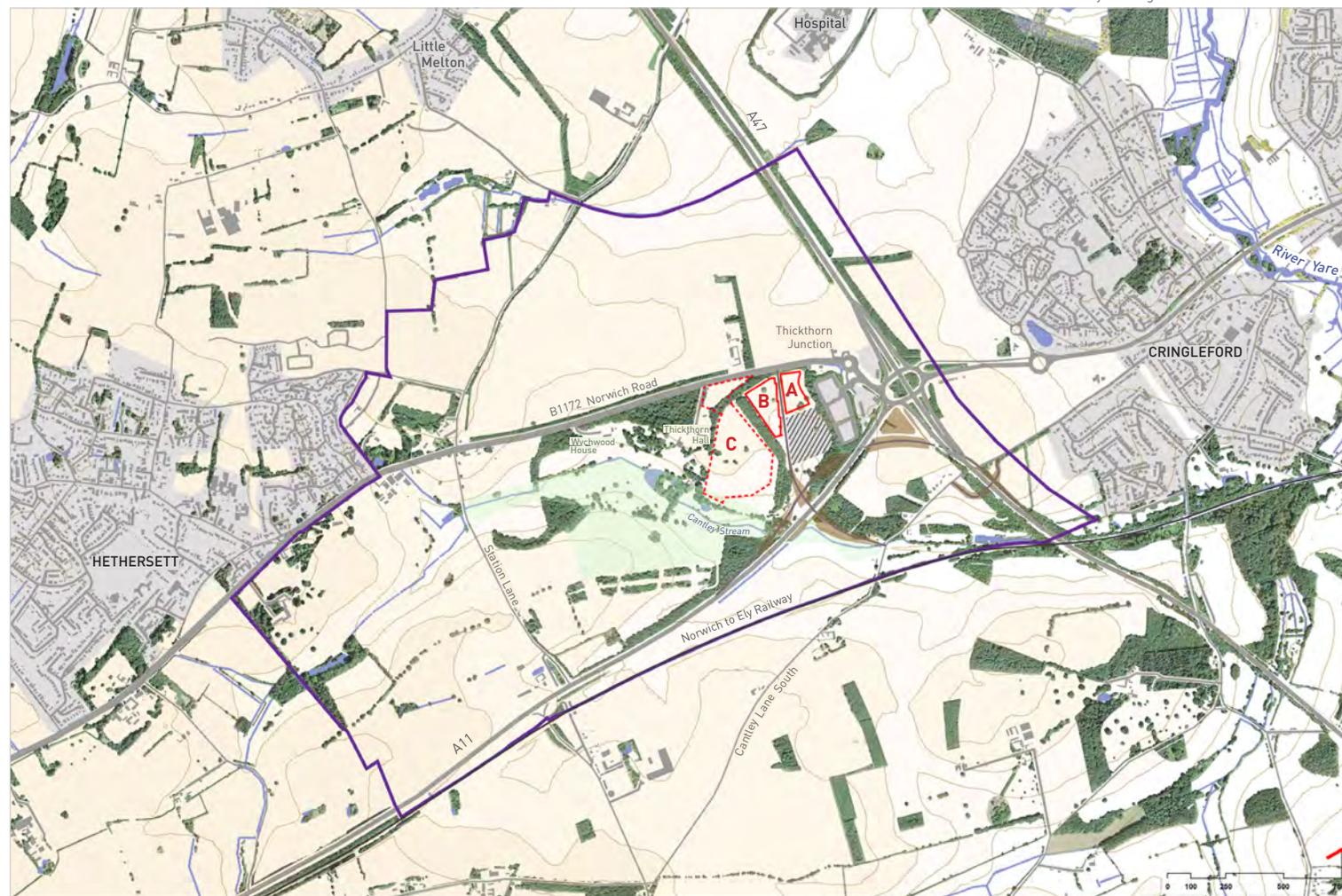
For all these sites, bespoke, high quality development would be required, in keeping with this parkland setting and gateway location.

Site C is shown with a dashed boundary to indicate that the layout of this site will be informed by the landscape and visual appraisal in Sections 3 and 4 of this report.



Design reference images - bespoke, high quality buildings providing flexible space for entrepreneurs and community enterprise development

-  Site boundary - Sites A, B and C
 -  Area with opportunity for controlled permissive pedestrian and cycle routes
 -  A11/A47 Thickthorn Junction Improvement (roads + associated embankments)*
 -  NCC Park-and-Ride extension
 -  Woodland
 -  Contour line (interval 10 m)
 -  Land over 40m
 -  Land 30-40m
 -  Land 20-30m
 -  Principal built-up areas
- South Norfolk Local Plan**
-  Hethersett-Cringelford Strategic Gap (Policy DM 4.7)



* The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 3 - Site context

3.1 Overview - landscape policy context

Figure 4 shows the geography of relevant landscape planning policies, as set out in the adopted South Norfolk Local Plan, which consists of the Joint Core Strategy⁴, the Development Management Policies Document⁵ and the Site Specific Allocations and Policies Document⁶.

The focus of the **Core Strategy** is sustainable growth, balancing the need for development with the protection, management and enhancement of natural built and historic environmental assets. Key policies of relevance to this study are:

Policy 1: Addressing climate change and protecting environmental assets – all development will be located and designed to use resources efficiently, minimise greenhouse gas emissions and be adapted to a changing climate. Of specific relevance are the detailed requirements for minimising flood risk, making efficient use of land and improving the resilience of ecosystems through ensuring continuity of habitats and providing a multi-functional green infrastructure network.

Policy 2: Promoting good design - All development will be designed to the highest possible standards, creating a strong sense of place. Of relevance are the

requirements for respecting local distinctiveness through consideration of the landscape setting of settlements, including the urban-rural transition and the treatment of 'gateways'; landscape character and historic environment character, ensuring cycling and walking friendly neighbourhoods; and the use of sustainable materials.

The **Development Management Policies Document** makes reference (Policy DM3.8) to the need for high quality design; for development to result in positive improvement; for the protection and enhancement of the environment and existing locally distinctive character; and for innovation. It refers to guidance on complementing vernacular architecture and built form contained in the South Norfolk Place-Making Guide⁷ and guidance on reinforcing and conserving distinctive local landscape character, that is set out in the South Norfolk Landscape Assessment⁸.

The Thickthorn Junction highways works and adjacent site for proposed developments are within the Norwich Southern Bypass Landscape Protection Zone (NSBLPZ) which is drawn to conserve and enhance the landscape setting of Norwich (**Policy DM 4.6**). The whole of this area is therefore subject to the NSBLPZ policy which states that all development proposals in the NSBLPZ *should have regard to protecting the openness of the Zone and, where possible, enhancing the landscape setting of*

the southern bypass, including the practice of wild flower planting and management regimes.

Policy DM 4.6 also refers to specific 'Undeveloped Approaches' and 'Gateways' to Norwich. The Thickthorn Junction forms part of the Undeveloped Southern Approaches identified along the B1172 Norwich Road, the A11 and the Norwich to Ely Railway. *All development proposals within the visual zone of influence viewed from the identified Undeveloped Approaches to Norwich should reinforce and avoid undermining the rural character of the Undeveloped Approaches to Norwich.*

The Thickthorn Junction area and the development sites are within the **Hethersett-Cringelford Strategic Gap, Policy DM 4.7**. The objective of Policy DM 4.7 is *to maintain the segregation and individual identities of certain settlements in the Norwich Policy Area and so avoid areas of development 'sprawl' which would be detrimental to the rural character of the area* (Para 4.65, DMPD). The policy therefore seeks to conserve the undeveloped character of these areas - *Within 'Strategic Gaps' development that would result in a loss of the sense of openness and which diminishes the gap between the settlements in question will be resisted* (Para 4.66, DMPD).

Figure 4 also shows the sites allocated for development in the **Site Specific Allocations and Policies Document**⁹ and the **Cringelford Neighbourhood Development Plan**.¹⁰

⁴ Joint Core Strategy for Broadland, Norwich and South Norfolk, Adopted March 2011; amendments adopted January 2014, Greater Norwich Partnership

⁵ Development Management Policies Document, South Norfolk Council, Adopted October 2015

⁶ Site Specific Allocations and Policies Document, South Norfolk Council, Adopted October 2015

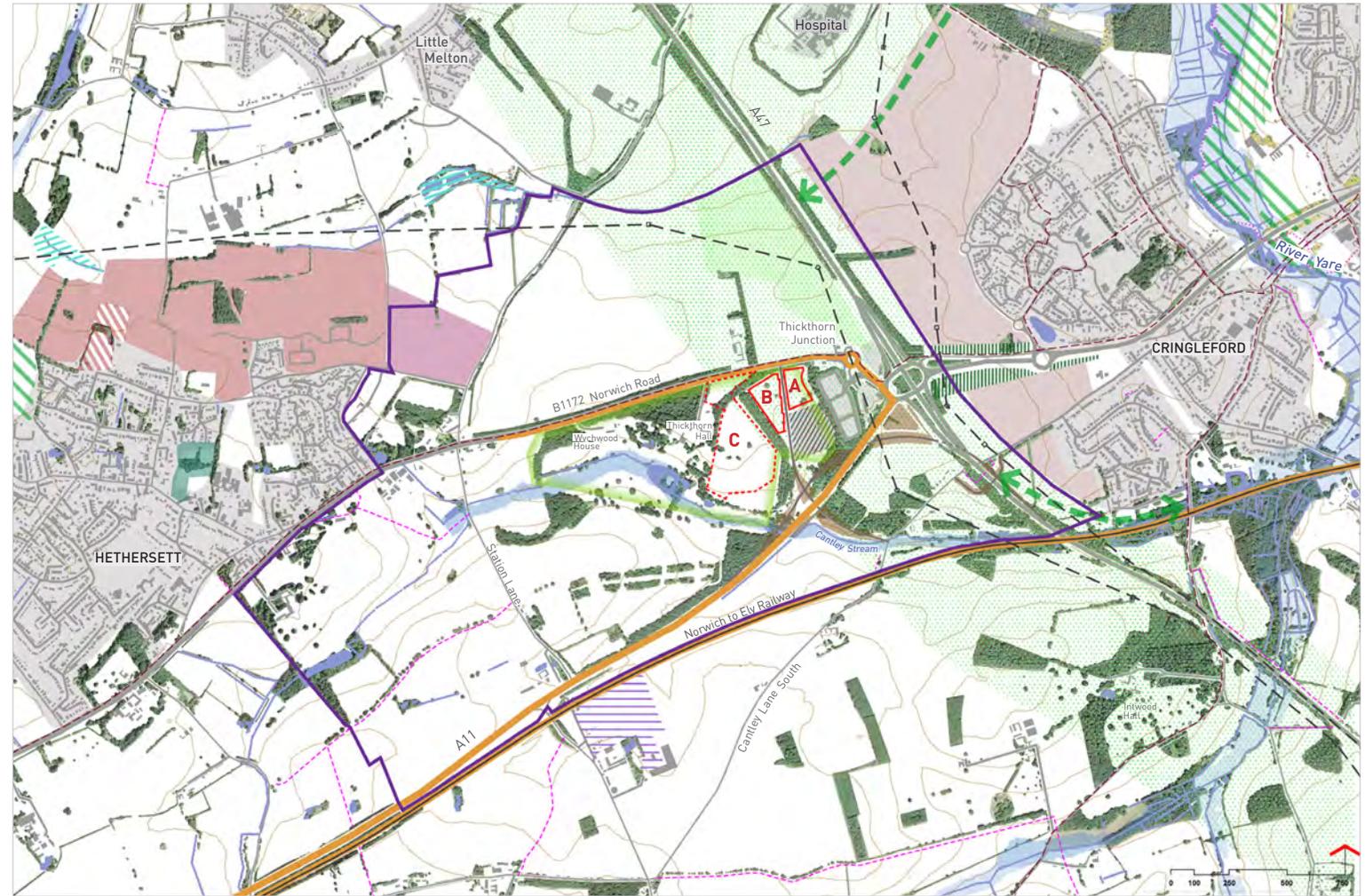
⁷ South Norfolk Place-Making Guide SPD, South Norfolk Council, 2012

⁸ South Norfolk Landscape Assessment, Land Use Consultants, 2001

⁹ Ref. Footnote 6, page 10

¹⁰ Cringelford Neighbourhood Development Plan 2013-26, Adopted February 2014

-  Site boundary - Sites A, B and C
 -  A11/A47 Thickthorn Junction Improvement (roads + associated embankments)*
 -  NCC Park-and-Ride extension
 -  Woodland
 -  Contour line (interval 10 m)
 -  Principal built-up areas
 -  Overhead power lines
 -  Public right of way
 -  Riverside walk
 -  Local cycle route
- South Norfolk Local Plan**
-  Mixed Use Allocation
 -  Area with planning approval for residential development (2011/1804)
 -  Care home allocation
 -  Open Space Amenity
 -  Important Local Open Space
 -  Hazardous Installations Consultation Zone
 -  Strategic Gap (Policy DM 4.7)
 -  Southern Bypass Protection Zone (DM 4.6)
 -  County Historic Parks and Gardens
 -  County Wildlife Sites
 -  Undeveloped approaches to Norwich (DM 4.6)
- Cringleford Neighbourhood Development Plan**
-  Flood zone
 -  35m Gateway Zone and new planting
 -  Residential development allocation
 -  Open Farmland/Countryside
 -  Green Infrastructure Corridors



* The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 4 - Landscape planning policy context

3.2 Thickthorn Junction - landscape policy context

The Thickthorn Junction and proposed development sites are on the eastern fringes of the Hethersett to Cringleford Strategic Gap (DM 4.7). The area also falls within the Norwich Southern Bypass Protection Zone (DM 4.6), within part of a historic parkland identified in the County Historic Parks and Gardens register and is traversed by two of the routes classified as undeveloped approaches to Norwich (DM 4.6).

This section considers these policies in more detail, noting in particular the changes to the character and condition of the landscape that can be anticipated as a result of the planned Thickthorn Junction improvements and the proposed extension to the Thickthorn Park-and-Ride.

The relevant landscape planning policies are described here to set the context for the baseline studies and landscape strategy that follow in Sections 4-6.

3.2.1 Hethersett to Cringleford Strategic Gap

The function and (then) boundaries of the Hethersett to Cringleford Strategic Gap were justified in a review undertaken in 2012¹¹ which was based on a landscape and visual appraisal. The review considered the extent to which land designated as a Strategic Gap helped to:

- avoid coalescence and so protect the separate

identities of settlements; and

- maintain the openness of the land, thereby retaining the existing settlement pattern.

The detailed landscape and visual appraisals undertaken for each Strategic Gap in 2012 focused particularly on factors that contribute to rural character, the openness of each Strategic Gap and the prevention of settlement coalescence. For instance the factors considered included landscape context, topography and drainage, vegetation, land uses, access and movement (including public rights of way), visual characteristics and a sense of leaving or departing from a settlement.

The 2012 Review justified the designation of the Hethersett-Cringleford Strategic Gap, but with boundaries amended to reflect features that could be clearly identified on the ground. It considered that the pattern of farmland, hedgerows, trees, woodland and historic parkland contributes to the *setting and separate identities of the adjacent settlements*. This was a relatively high level appraisal, not least because the landscape within the historic parkland and alongside the Cantley Stream within the centre of the Strategic Gap is not accessible to the public.

The appraisal relied on a selection of landscape and visual appraisal photographs, taken from publicly accessible viewpoints, and an accompanying narrative, which described the contribution these selected areas make to the rural character of the Strategic Gap and its openness, including the availability of views and the degree of inter-visibility

between viewpoints and adjacent settlements.

However, only one of the selected viewpoints (Photograph C) considered the landscape in the vicinity of Thickthorn Junction and the proposed sites. It records the *visual clutter* associated with the *lighting columns, high voltage overhead power line, petrol station and park-and-ride facility* at the A11/A47 intersection and notes that *These features sit in a predominantly rural landscape with a well-treed horizon. The rural landscape surrounding this transport 'hub' provides an important contribution to the openness of the gap/break as perceived by users of the A11, A47 and B1172 roads that pass through this part of the gap*. Figure 5 shows the location of Photograph C and provides a comparison between the view in the 2012 (as illustrated in the 2012 Review) and the same view taken in March 2020.

The Strategic Gap boundaries that were designated in the Local Plan are informed by the 2012 Review,. However the designated Strategic Gap boundaries reflect changes to the settlement pattern in this area; they enclose an area that is broader north-south but more restricted east-west than that described in the 2012 Review. Figure 6 shows the changes in the boundary of the Hethersett-Cringleford Strategic Gap since 2011, including those recommended in the 2012 Review.

With the implementation of the new highways infrastructure at the Thickthorn Junction and the extensive allocations for built development on the fringes of Hethersett and Cringleford, the character

¹¹ Ref. Footnote 3, page 4



Figure 5 - Thickthorn Junction - visual character, 2012 and 2019

of the Strategic Gap is again set to change.

The visual clutter described in Photo C (2012 Review) remains and will be increased when the Highways England Thickthorn Junction improvements are implemented. This extensive highways infrastructure and the land allocated for development on the fringes of Hethersett and Cringleford (including the preferred housing allocations to the north of Hethersett) will erode the rural character and tranquillity of the Strategic Gap.

3.2.2 Landscape setting of Norwich

The new highways infrastructure and extension to the Thickthorn Park-and-Ride will also reduce the functional integrity of the Norwich Southern Bypass Landscape Protection Zone NSBLPZ, which was *identified in an area where there are high levels of visual accessibility to and from the road to a predominantly open rural area that plays an important part in making the landscape setting of Norwich*¹².

This area also falls within landscape planning policy designations that are specifically intended to conserve the wider landscape setting of Norwich.

Firstly, it is within one of the (two) broad Key Views 'cones' towards Norwich from the edge of the plateau to the south and west of the city: *Within these 'cones' all development proposals should ensure they do not obstruct the long views to and from the city*¹³.

Secondly, it is within the viewshed of two of the routes designated as Undeveloped Approaches. *These are routes that have a very distinctive rural character and that afford views across the surrounding countryside and to Norwich.....the Policy will ensure all development within the wider zone of visual influence visible from the transport corridors is designed to reinforce and avoid undermining the rural character experienced when travelling along the Undeveloped Approaches to Norwich.*¹⁴.

This policy also refers to designated 'Gateways' to Norwich which are considered to mark the 'arrival' into the urban area of Norwich. One of the three Gateways is at Cringleford, on the A11 to the east of the A47. It forms part of the suite of designations concerned with conserving the landscape setting for Norwich but is not affected by the development proposals at the Thickthorn Junction.

These relevant policy designations are shown in detail on Figure 6a and (for the Viewing Cones and Gateways) Figure 6b.

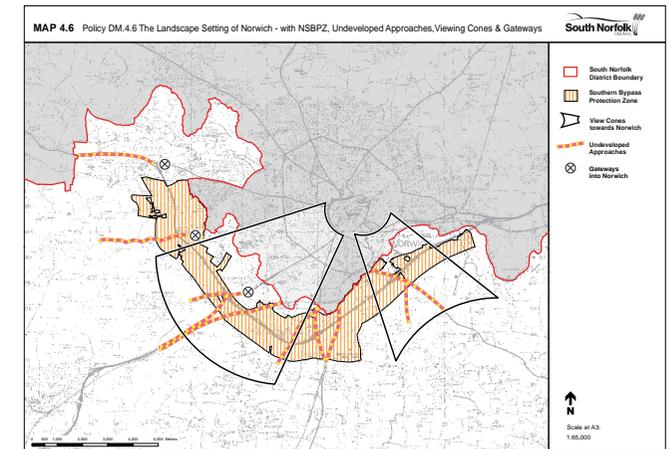


Figure 6b - Extract from the Development Management Plan Document, South Norfolk Local Plan (Map 4.6) to show the location of NSBLPZ, Undeveloped Approaches, Viewing Cones and Gateways on the SW fringes of Norwich

¹² Ref. Footnote 5, page 10, para. 4.56

¹³ Ref. Footnote 5, page 10, para. 4.59 and the inset map

¹⁴ Ref. Footnote 5, page 10, para. 4.60

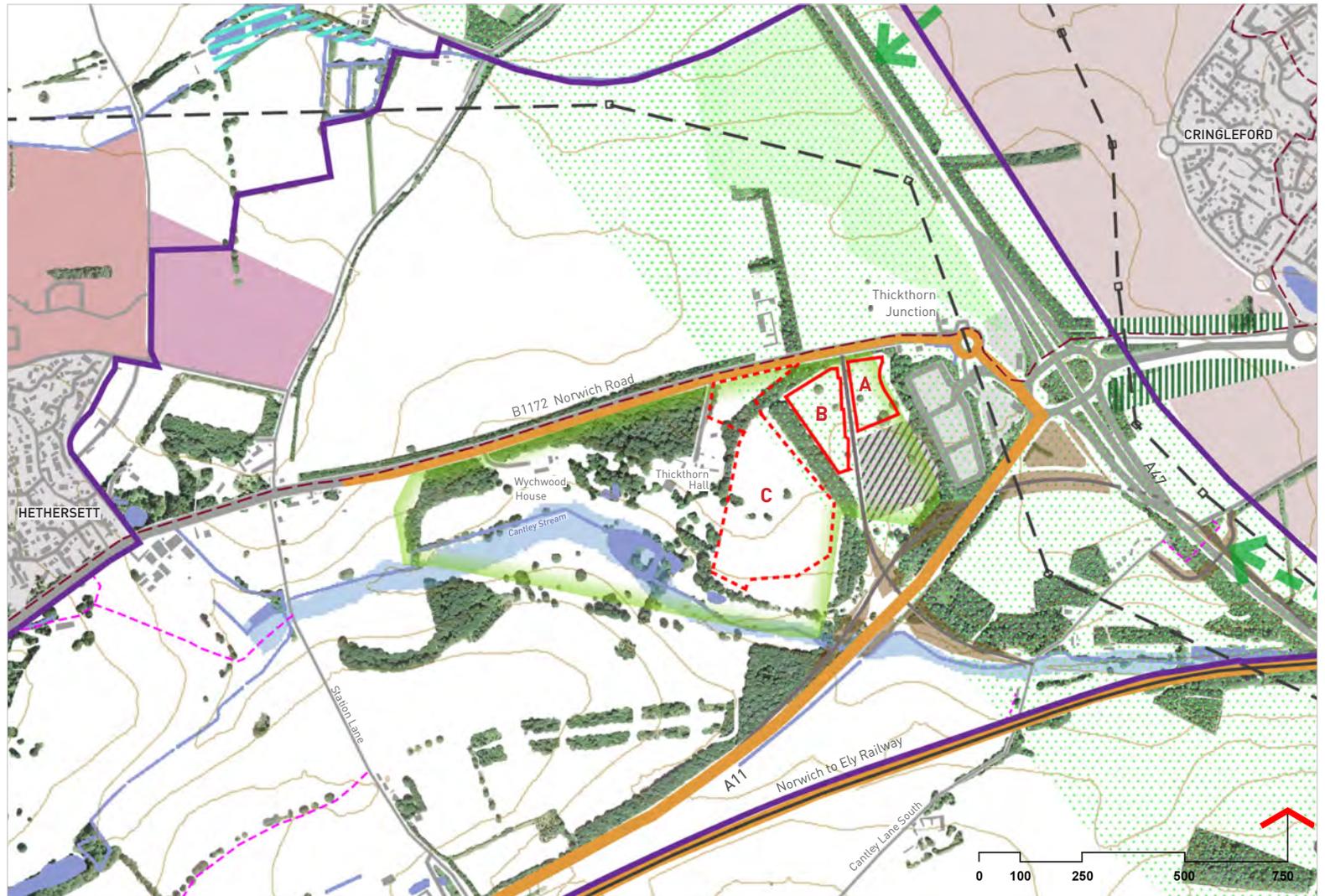
- Site boundary - Sites A, B and C
- A11/A47 Thickthorn Junction Improvement (roads + associated embankments)*
- NCC Park-and-Ride extension
- Woodland
- Contour line (interval 10 m)
- Principal built-up areas +
- Overhead power lines
- Public right of way
- Riverside walk
- Local cycle route

South Norfolk Local Plan

- Mixed Use Allocation
- Area with planning approval for residential development (2011/1804).
- Strategic Gap (Policy DM 4.7)
- Southern Bypass Protection Zone (DM 4.6)
- County Historic Parks and Gardens
- County Wildlife Sites
- Undeveloped approaches to Norwich (DM 4.6)

Cringleford Neighbourhood Development Plan

- Flood zone
- 35m Gateway Zone and new planting
- Residential development allocation
- Open Farmland/Countryside
- Green Infrastructure Corridors



* The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 6a - Thickthorn Junction Landscape Planning Policy Context (local scale)

3.3 Natural environmental and heritage assets

Figure 7 shows the natural environmental and heritage assets found in the landscape context of the Thickthorn Junction Gateway Zone.

3.3.1 Natural environmental assets

Figure 7 shows that the only areas within the local vicinity of Thickthorn Junction that are of nature conservation value are belts of deciduous woodland associated with the historic parklands of Thickthorn Hall and Cantley Wood and the floodplain wetlands and meadows along Cantley Stream¹⁵. Further afield, there is a concentration of nationally important wetland Priority Habitats on and adjacent to the River Yare floodplain, with areas of floodplain grazing marsh and good quality semi-improved grassland. A more isolated cluster of wetland habitat at Braymeadow to the north east of Hethersett is also designated as a County Wildlife Site (CWS) of regional importance for nature conservation.

3.3.2 Heritage assets

Two Bronze Age round barrows in the woods to the south east of the A11 corridor are scheduled monuments.

A 19th C milestone on the Norwich Road just north of the Thickthorn Junction, Thickthorn Hall and parts of the kitchen garden walls and a building associated

with Thickthorn Hall are designated as grade II listed buildings.

Thickthorn Park is described in the Norfolk Historic Environment Record (NHER) as *an early 19th century landscape park surrounding Thickthorn Hall. The park includes a medieval moat that was turned into an ornamental lake, a late 19th century kitchen garden, early 19th century lodges and concrete greenhouses from the 1930s*¹⁶. It is not on the national register of historic parks and gardens but is registered on the county list and so is considered to be of regional importance for its heritage value. The lodge to Thickthorn Park, which is north of the Thickthorn Park-and-Ride is not listed, but is considered (in the NHER) to be part of Thickthorn Park.

¹⁵ Priority Habitats (S41 NERC Act, 2010)

¹⁶ <http://www.heritage.norfolk.gov.uk/record-details?MNF33732>

- Site boundary - Sites A, B and C
- Woodland
- Contour line (interval 10 m)
- Principal built-up areas and development allocations
- Public right of way
- Nature conservation designations**
- County Wildlife Sites
- Priority Habitats (S41)**
- Deciduous woodland
- Good quality semi-improved grassland
- Lowland meadow
- Traditional orchard
- Woodpasture and parkland
- Coastal and floodplain grazing marsh
- Lowland fens
- Heritage designations**
- ✦ Scheduled monuments
- Listed building Grade II*
- Listed Building Grade II
- Conservation area (Cringleford)
- Nationally registered historic parks and gardens
- County registered historic parks and gardens



Figure 7 - Natural environmental and heritage assets

4.1 Landscape Appraisal

The character and distinctive features of landscapes which form the setting to the Thickthorn Junction area are described in the South Norfolk Landscape Assessment¹⁷.

Figure 8 – Landscape Character shows the relevant part of this landscape classification within the vicinity of the Thickthorn Junction. Each landscape character area reflects variations in landscape character which relate to the underlying geology and soils of the area and the evolving patterns of settlement and land use. The district level landscape character areas all ‘fit’ within the broader landscape types, which reflect the underlying patterns of geology soils, landform and land cover.

The Site is within the Tributary Farmland with Parkland landscape type (C) and the geographically specific Yare Tributary Farmland with Parkland landscape character area (C1). Relevant (selected) **key characteristics** of the latter are:

- *Shelving landform with a gently undulating topography created by small tributary valleys cutting through the landscape providing a variety of open/more intimate landscape settings and long/framed views*
- *Transitional landscape between the upland plateau (Wymondham – Hetherset) and the principal Yare valley which forms part of the transition between the rural and urban landscape*

- *Peaceful farmland with small farm woodlands and intermittently wooded tributary valleys*
 - *Presence of large parkland estates, particularly associated directly with the tributary valleys. Estate railing, boundary fences, tree-lined avenues and traditional wooded parkland contribute to landscape character*
 - *A sense of impenetrability & remoteness, despite the presence of major transport corridors which create corridors of movement and noise in this otherwise peaceful landscape*
 - *Yare minor tributary streams are elusive and usually hidden within the landscape by topography or trees*
 - *Arable and pastoral farmland with more pastoral land uses within the immediate tributary valley corridor. Fields surrounded by sparse hedges and hedgerow trees, with occasional mature/veteran oaks forming a distinctive feature alongside the lanes*
 - *High number of large dwellings set in extensive grounds, including characteristic large detached halls and manor houses, usually constructed of brick associated with the parkland estates of Keswick, Intwood, Thickthorn and Colney. These are frequently screened by woodland and therefore visible only at close range*
 - *Intermittent long views to the City of Norwich.*
- The landscape character assessment highlights the strong variations between the intimate small valleys

of the tributary streams and the exposed arable farmland, and between the peaceful narrow rural lanes and the noise of some of the county’s principal transport corridors.

The principal **sensitivities and vulnerabilities** of the Yare Tributary Farmland with Parkland are identified as:

- *Proximity to Norwich and the loss of rural farmland character through urban development*
- *Loss of clarity of the rural-urban divide created by the Yare Valley*
- *Incremental change including the upgrading of the rural lane network (eg kerbing and lighting) plus isolated developments resulting in a more urban character*
- *Gently shelving topography and long views make this area particularly sensitive to the location of any new development/infrastructure and the potential impact on views to the City*
- *Loss and degradation in the character of historic parkland and designed landscapes, particularly with changing uses and demands*
- *Loss of mature tree boundaries (without replacement) resulting in further ‘opening up’ of views plus loss of woodland*
- *Suburbanisation of field and parkland boundaries.*

The section on **landscape strategy** refers to the need to conserve the peaceful rural character of the landscape and to maintain clarity and distinction

¹⁷ Ref. Footnote 5 on page 10

-  Site boundary - Sites A, B and C
-  Woodland
-  Contour line (interval 10 m)
-  Principal built-up areas and development allocations

Landscape character types and areas - South Norfolk Landscape Assessment, 2001

-  C: Tributary Farmland with Parkland
C1: Yare Tributary Farmland with Parkland
-  D: Settled Plateau Farmland
D1: Wymondham Settled Plateau Farmland
-  F: Valley Urban Fringe
F1: Yare Valley Urban Fringe

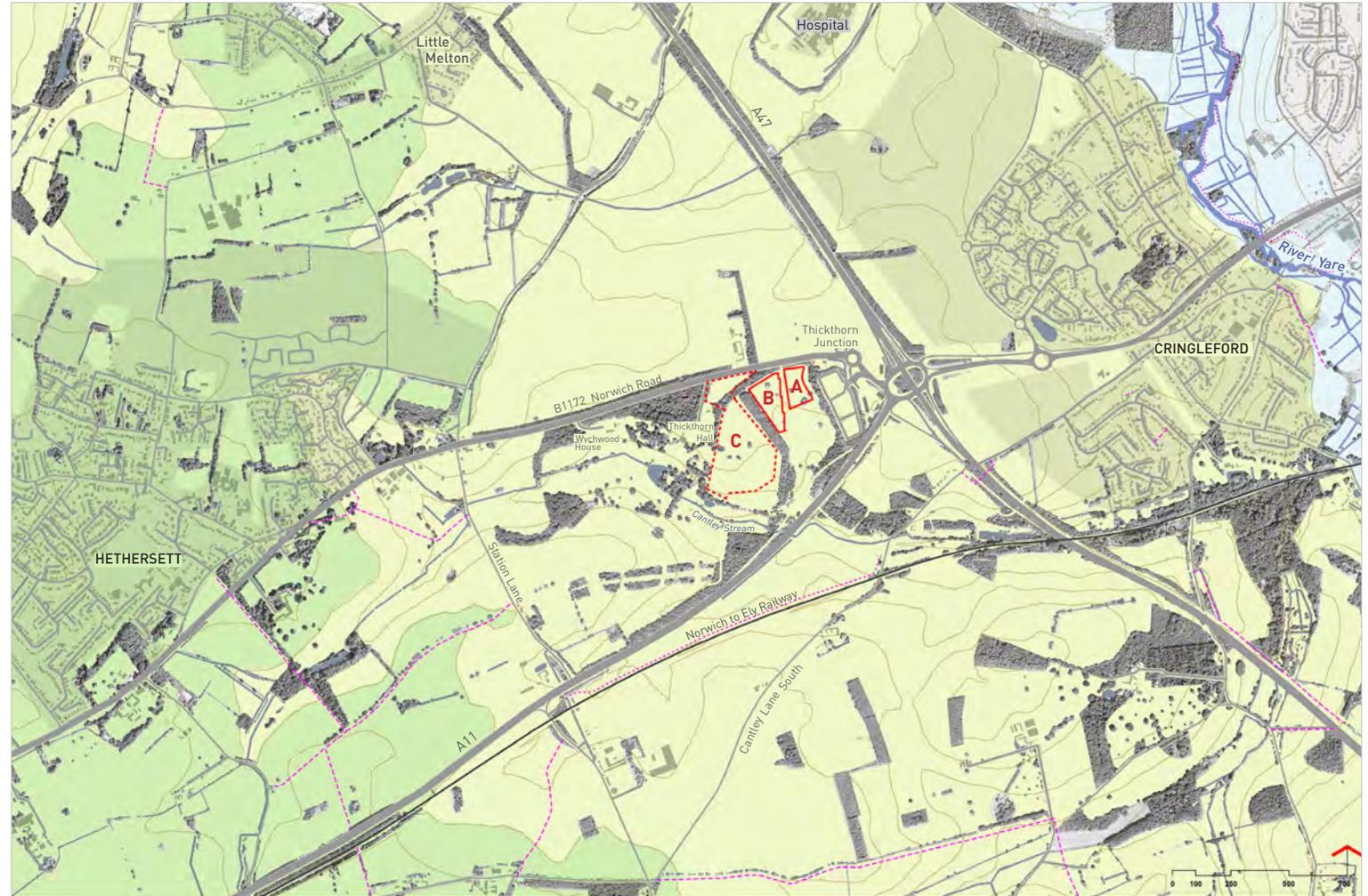


Figure 8 - Landscape character

with the urban edge of Norwich. This could include:

- *Conservation of the narrow tributary corridors with their areas of grazed pasture and wet woodland*
- *Conservation and enhancement of the historic parklands and designed landscapes and in particular ensuring that provision is made for appropriate long term management of these landscapes as new uses for sites come forward*
- *Management of the small farm woodlands which contribute to the more enclosed character, plus renewal of boundary hedgerow trees*
- *Maintenance of the character of the rural lane network*

Finally, the section entitled **Development Considerations** is of particular relevance:

Any development must consider the character and landscape assets of the Yare Tributary Farmland with Parkland. This will necessitate consideration of the following criteria:

- *Respect the sparsely settled character of the area with small villages, isolated buildings of vernacular character and large institutional buildings in extensive grounds*
- *Protect the quality, character and setting of the key landscape assets, notably the characteristic tributary corridors and the historic parklands*
- *Seek to ensure the restoration and management of historic landscapes as a condition of permission for new uses/development within these*

areas

- *Consider impact of proposals on the intricate rural lane network – avoid widening, kerbing, lighting which will quickly impart a more urban character*
- *Consider impact on key views from the higher plateau landscape, adjoining character areas and views towards the City*
- *Ensure that the rural character of the landscape of the Norwich Southern Bypass Protection Zone is maintained and that differential development north and south of the road does not erode the unity of the character area.*

The Thickthorn Junction Gateway Zone is to the east of the historic Thickthorn Hall parkland landscape, although Thickthorn Hall and its parkland is screened from the junction by dense belts of woodland. The former historic parkland extends to the eastern edge of the existing Thickthorn Park-and-Ride but this eastern part of the parkland has a degraded character. The former parkland adjacent to Thickthorn Hall (Site C) has been replaced by a large arable field and, while there are some remnant specimen mature parkland trees in the field adjacent to the park-and-ride, this area is strongly influenced by road infrastructure with a proliferation of associated signage, lighting, extensive parking (the park-and-ride), access roads and services, including a Travelodge, cafes and a petrol filling station. The character of the landscape in the Thickthorn Junction Gateway Zone is also influenced by two major sets of overhead power lines, which run along the east and

west sides of the A47 corridor and are aligned close together in the eastern part of the Strategic Gap.

This is a major junction and the location of one of the six park-and-ride interchanges on the periphery of Norwich. The planned highways infrastructure and proposed extension to the park-and-ride will ensure that the dominance of road infrastructure is set to increase.

The alignment of the parkland edge woodlands and the slope of the valley, with views directed eastwards towards the A47, Cringleford and the city of Norwich, ensure that landscape of the Thickthorn Junction Gateway is perceived as a component of the A47 corridor and not as part of the parkland.

By contrast, the arable fields and parkland to the west of the Thickthorn Junction gateway have an enclosed and relatively rural character. Views to the small Cantley Stream valley are hidden by belts of woodland, but this secluded tributary valley, which flows through an attractive historic parkland landscape, is a secret gem. Note that the above description applies to the eastern part of the Cantley Stream (south of Thickthorn Hall); the part of the stream corridor to the west of the lake has been realigned and the watercourse flows within a steep-sided channel. There is an opportunity to restore the natural character of the stream in this part of the parkland.

The layout of the valley, lake, specimen trees, wooded dell, avenues and farm courtyard buildings is composed to provide a sequence of framed views and attractive circular walks - within the valley there are views westwards to the tower of Hethersett

BOX 1 - Landscape receptors

Locally distinctive landscape elements and features and perceptual aspects of landscape character and setting which form the context to the site and are relatively sensitive to development:

- The landscape setting of Thickthorn Hall and its associated outbuildings which are grade II listed buildings
- The visually important perimeter tree belts on the outer fringes of the Thickthorn Hall parkland, which provide enclosure and a wooded backdrop to local views
- The remnant historic parkland of Thickthorn Hall, with its specimen trees, avenues, lake, formal walks and framed views
- The diverse mosaic of woodland, wetland and riparian habitats along the Cantley Stream valley
- The secluded, tranquil and deeply rural character of the Cantley Stream valley as it passes through the parkland of Thickthorn Hall.
- Local views (from within the parkland) to Hethersett Church and Thickthorn Hall
- The wider landscape setting of Norwich – specifically the rural character experienced when travelling along the ‘undeveloped approaches’ to Norwich along the B1172, the Norwich-Ely railway and the A11
- The rural, undeveloped character of views to and from the A47 Southern Bypass (within the NSBLPZ)
- The distinctive landscape setting of Cringleford and the rural undeveloped character of the landscape of the Strategic Gap which separates the settlements of Hethersett and Cringleford

Thickthorn Gateway - landscape context



Wychwood House estate and Thickthorn Hall parkland - landscape context



Church while the walk along the ridge to the south of the parkland offers more open views back to both Wychwood House and Thickthorn Hall. However, the valley within the parkland is not currently accessible to the public.

The landscape of Site C is perceived as part of the enclosed farmland and valley landscape while the landscape of Sites A and B is perceived as part of the landscape of the A47 road corridor and the Thickthorn Junction Gateway. The existing belt of trees which separates Sites B and C would ensure that this local landscape pattern is conserved. The development would enable public access along a multi-user route through the parkland and the replanting and management of the Thickthorn parkland woodlands so that their contribution to local landscape character and quality is sustained into the future.

It will be important to develop a landscape-led strategy for development which conserves and enhances the landscape elements and features and perceptual aspects of landscape character which form the context to the site and are relatively sensitive to development (listed in Box 1 on page 21). These 'landscape receptors' are the components of the landscape that are considered likely to be affected by the scheme; they are therefore relevant factors which may be used as criteria for making informed judgements about landscape change. A high quality development that is structured to retain and strengthen these key aspects of landscape character will reinforce local identity and sense of place.

4.2 Visual appraisal

Figure 9a illustrates the Zone of Theoretical Visibility (ZTV) for the Thickthorn Junction Gateway Sites, on the assumption that it would be developed to accommodate a variety of 2-4 storey buildings within a wooded setting: on Site C, buildings would be a maximum of 2.5 storeys).

Figure 9a also identifies a set of 6 representative viewpoints from publicly accessible routes (roads or public rights of way) which can be used to describe the way views to the new development might be experienced.

Figure 9b (the inset) provides an estimate of the more extensive ZTV that may be available following construction of the proposed Cantley Lane South to Norwich Road link road (which will be elevated) to give some indication of the predicted areas of visibility from this road. View 7 is taken from ground level, but is from a point that is predicted to be on the alignment of this proposed road.

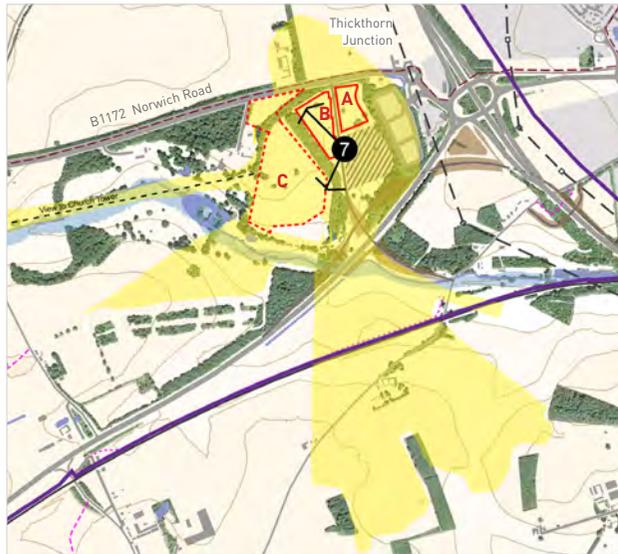
Note that the ZTV shown on Figure 9a is drawn conservatively, in that it shows the broad area over which it is possible to see glimpsed views of the Sites between existing woodlands and belts of mature trees. The ZTV on Figure 9a shows that the Thickthorn Junction and existing Park-and-Ride areas are generally well screened by the layering of trees and mature hedgerows. The existing belt of mature mixed woodland to the west of the Park-and-Ride and the established belts of mixed woodland alongside the A47 are particularly significant in

BOX 2

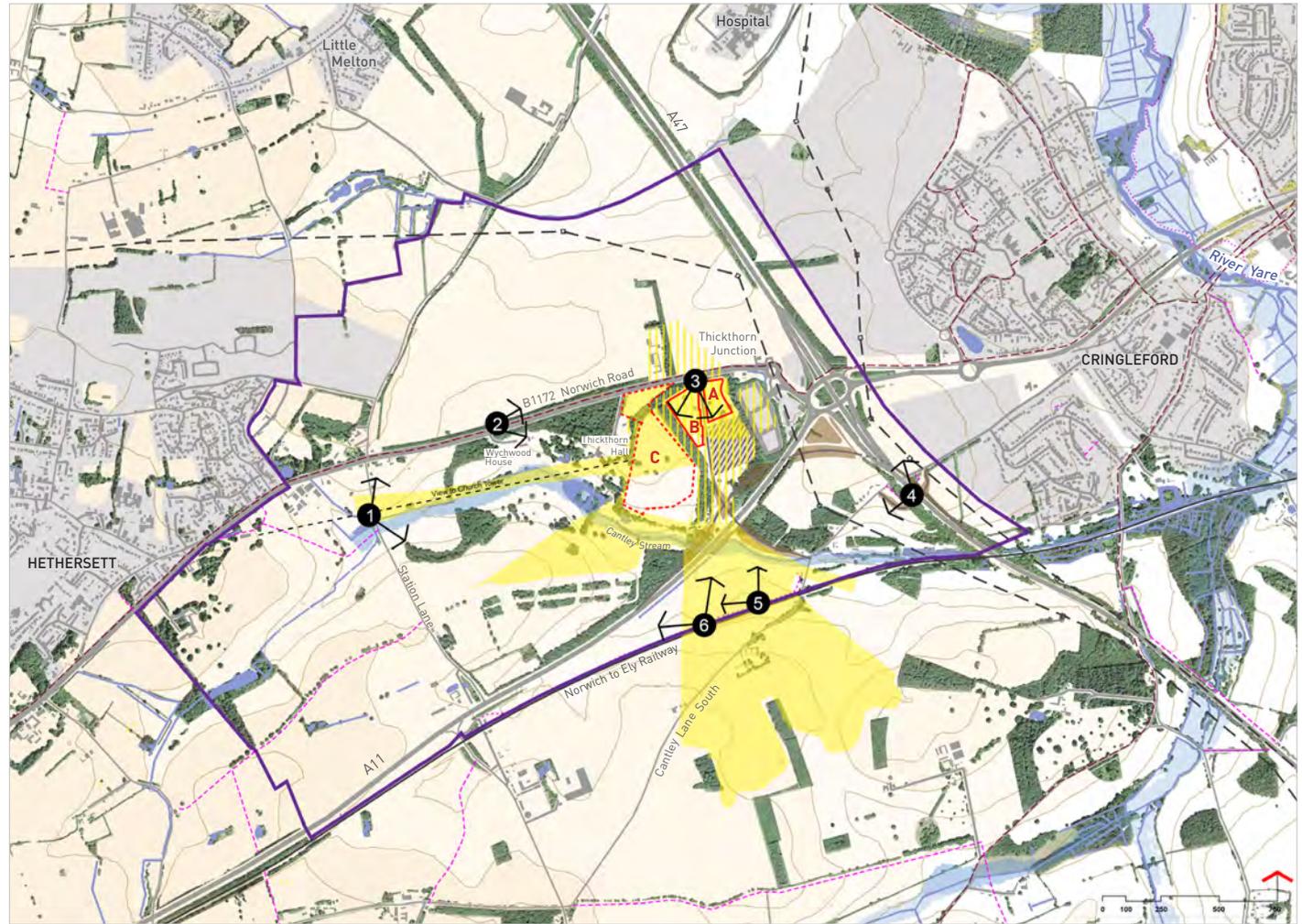
Relevant considerations in making judgements about degrees of visual sensitivity

Potential visibility of the change proposed	Numbers of people likely to be at the viewpoint	Their reason for being in the landscape	The likelihood that the change could be mitigated
HIGH VISUAL SENSITIVITY			
Clear visibility	Many viewers	Walkers on recreational route	Limited scope to mitigate change
Partial visibility	Some viewers	Walkers/ cyclists on prow and motorists on scenic route	Some scope to mitigate change
Glimpsed view	Few viewers	Motorists on 'ordinary' roads	Reasonably good scope to mitigate change
LOW VISUAL SENSITIVITY			

Figure 9b - Estimated extent of ZTV following construction of the elevated Cantley Lane to Norwich Road Link Road



- Site boundaries - Sites A, B and C
- H.E. A11/A47 Thickthorn Junction Improvement*
- NCC Park-and-Ride extension
- Woodland
- Contour line (interval 10 m)
- Land over 40m
- Land 30-40m
- Land 20-30m
- Principal built-up areas + development allocations
- Hethersett-Cringleford Strategic Gap (South Norfolk Local Plan Policy DM 4.7)
- Zone of Theoretical Visibility (ZTV)
- Possible extent of views in winter
- Representative viewpoints



* The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 9a - Visual assessment

screening views to the existing road infrastructure. There are some longer glimpsed views to the more elevated parts of Sites B and C from the public right of way along the Norwich-Ely Railway (which is also representative of views from parts of the A11 to the north). A view from Station Road to the west provides an opportunity for views to the tower of Hethersett Church from within the parkland (and potentially from the edge of Site C).

The ZTV in Figure 9b shows that a more extensive area of the Thickthorn Junction Gateway Zone is predicted to be visible from the proposed elevated Cantley Lane South to Norwich Road Link Road.

The views from each of the 7 representative viewpoints are illustrated in Annex A, along with a commentary on the sensitivity of visual receptors and notes on the visual effects predicted as a result of the development. Judgements about levels of visual sensitivity take account of the extent to which the Site is visible, the relative sensitivity of its visual receptors and the accessibility of the views to members of the public. The balance of considerations is summarised in Box 2 on page 22.¹⁸

The following analysis of the visual sensitivity of the Site indicates variations in visual sensitivity which

can be used to guide the masterplanning process.

Viewpoint 1, from Station Lane, also has moderately-high visual sensitivity because visual receptors are likely to be pedestrians and cyclists, as well as motorists, on a rural lane and because this view contributes to the landscape settings of the settlement of Hethersett and of the Church of St Remigius, Hethersett, which is a grade II* listed building. The skyline to the right of Thickthorn Hall would be sensitive to any development in this view.

Viewpoints 5 and 6 from the public right of way alongside the Norwich-Ely Railway have moderately high visual sensitivity because visual receptors are on a public footpath and have chosen to walk in the countryside for recreation. There is a possibility that buildings and construction might be visible through the existing trees from this viewpoint, although there is scope to mitigate any adverse visual impacts, not least by adjusting the layout of development in Site C so that there is no built development on the more elevated part of the site.

Viewpoints 3 and 7 from the Norwich Road and future Cantley Lane South to Norwich Road Link Road have moderate visual sensitivity; visual receptors will be motorists on a busy road on the approach to an existing junction with park-and-ride facilities and will have low susceptibility to the proposed development. These viewpoints will be transformed when the proposed Cantley Lane South to Norwich Road link road is implemented; the proposed high quality commercial development at Sites A and B will be visible but would be perceived as an appropriate

component of the Thickthorn Junction Gateway Zone. It is possible that there would be some views to parts of Site C from the elevated portion of the link road; there is some scope to mitigate any visual impacts (See Sections 3 and 4 of this report).

Viewpoints 2 and 4 show that the Sites are not visible from the Norwich Road or from the elevated footbridge over the A47 to the south of Cringleford.

The analysis shows that Sites A, B and C are not generally visible within their wider landscape context but that the northern parts of the sites, which are on the more elevated slopes, have relatively high visual sensitivity. The whole of the Thickthorn Junction Gateway Zone is likely to become more visible following construction of the planned Thickthorn Junction Highways Improvements.

¹⁸ Landscape Character Assessment Series: Topic Paper Six - Techniques and Criteria for Judging Capacity and Sensitivity, The Countryside Agency and Scottish Natural Heritage, 2005. Our approach draws on the methodological framework provided by Natural England's Topic Paper 6, which is widely used as guidance for making judgements about landscape sensitivity and capacity to accommodate development.



Fields alongside Cantley Stream in the Wychwood House Estate parkland

5.1 Analysis - predicted landscape and visual effects

Drawing on the basic methodology for landscape and visual impact assessment (LVIA)¹⁹, the analysis in this section considers the potential landscape and visual effects that may arise as a result of the proposed developments, while also taking account of the planned highways improvements and proposed extension to the Thickthorn Park-and-Ride. This is a high level landscape and visual appraisal (not a formal LVIA) and its purpose is to inform the concept masterplan for proposed development on Sites A, B and C, ensuring that the layouts is specifically designed to minimise and mitigate any predicted adverse landscape and visual effects.

5.1.1 Predicted landscape effects

In predicting landscape effects, the analysis (Table 1 on page 27) considers the potential interactions between the 'landscape receptors' identified in Section 4.1 (see Box 1) and the development proposals. Given the relevance of the planned highways works and park and ride extension to the immediate landscape context of Sites A, B and C, it also considers the predicted landscape effects resulting from these changes.

5.1.2 Predicted visual effects

Table 2 on page 29 shows a similar analysis for predicted visual effects.



View to Hethersett Church tower from parkland of the Wychwood House Estate

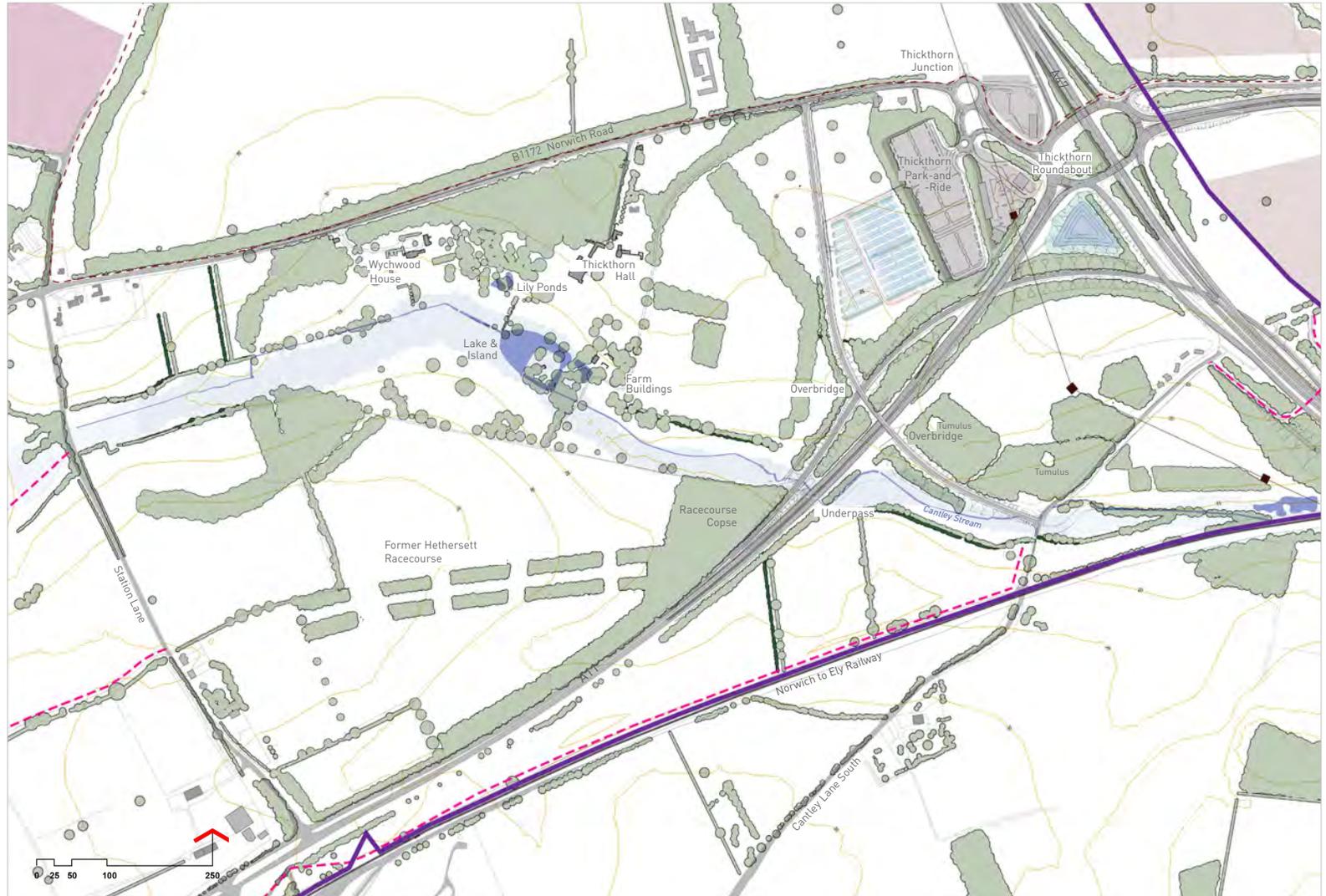
¹⁹ Ref. Footnote 2, page 4

TABLE 1 - Analysis - predicted landscape effects

Landscape receptors (baseline studies)	Predicted landscape effects resulting from the Thickthorn Junction highways improvements and extension to the park and ride	Predicted landscape effects resulting from the development proposals (Sites A, B and C), assuming the highways improvements and park-and-ride extension are implemented
The landscape setting of Thickthorn Hall and its associated outbuildings grade II listed buildings	Most views to the new road junction from the listed buildings will be screened by thick tree belts; the elevated Cantley Lane South to Norwich Road Link Road may be visible on the skyline and traffic noise will have a negative influence	Development on Sites A and B will have no effect. Development of a care village on Site C could potentially have some adverse landscape effects, depending on the detailed layout. However, the landscape setting and outlook of the listed buildings is directed towards the parkland to the south and west rather than to the east and there is scope to mitigate any adverse effects on this large site
The visually important perimeter tree belts on the outer fringes of the Thickthorn Hall parkland, which provide enclosure and a wooded backdrop to local views	No predicted effects on the tree belts, although two mature trees will be lost. The elevated Cantley Lane - Norwich Road Link will be visible on the skyline, disrupting the unity and rural character of the wooded backdrop to local views	No predicted effects on the perimeter tree belts - opportunities to reinforce this landscape element and the sense of treed enclosure on the eastern fringes of the Thickthorn Hall Parkland
The remnant historic parkland of Thickthorn Hall, with its specimen trees, avenues, lake, formal walks and framed views	Major adverse predicted effects on the character and quality of the historic parkland; the remnant parkland is already degraded in the Thickthorn Junction gateway zone but its remaining parkland characteristics will be severely damaged, including the quality of the ride/access drive to Thickthorn Hall from the eastern lodge.	Minor additional adverse effects on the quality and character of the remnant historic parkland on the eastern fringes of the estate.
The diverse mosaic of woodland, wetland and riparian habitats along the Cantley Stream valley	Some adverse effects predicted, particularly during construction, but scope to improve quality, extent and diversity of wetland habitat mosaic in longer term	Beneficial effects predicted - restoration of the Cantley Stream in the western part of the parkland; extensive wetland habitat creation and enhancement and improved long-term management
The secluded, tranquil and deeply rural character of the Cantley Stream valley as it passes through the parkland of Thickthorn Hall.	Some loss of tranquillity, due to increased highways infrastructure, lighting and traffic noise nearby	Some loss of tranquillity as a result of public access, but overall benefit in terms of improved health and quality of life. The existing enclosed landscape character would provide a tranquil setting for the care village development
Local views (from within the parkland) to Hethersett Church and Thickthorn Hall	Minor adverse effect on distant view from Station Road to Thickthorn Hall as elevated Link Road will break the skyline	View to Hethersett Church from within parkland will (for first time) be available to the public.

Landscape receptors (baseline studies)	Predicted landscape effects resulting from the Thickthorn Junction highways improvements and extension to the park and ride	Predicted landscape effects resulting from the development proposals (Sites A, B and C), assuming the highways improvements and park-and-ride extension are implemented
The wider landscape setting of Norwich - specifically the rural character experienced when travelling along the 'undeveloped approaches' to Norwich along the B1172, the Norwich-Ely railway and the A11	There will be major adverse effects on the enclosed (well treed and wooded) character of these approach roads to Norwich during the construction stages of the works; in time, the new roads will be integrated by extensive tree planting, but this approach will have a more urban character, not least because most of the Thickthorn Junction area, including the park-and-ride and service facilities, will be visible in the extensive elevated views from the new Cantley Lane to Norwich Road Link Road (and associated overbridges).	Development on Sites A and B would also result in an adverse landscape effect on the rural character of these undeveloped approaches but, since the change would be experienced in conjunction with the changes due to the highways works and park-and-ride extension, it may be perceived as relatively minor.
The rural, undeveloped character of views to and from the A47 Southern Bypass (within the NSBLPZ)	The existing views from the A47 do not have a rural character; the skyline is dominated by overhead power lines and the road corridor is enclosed by belts of mature woodland, which restrict views. However, there are clear views to the Thickthorn Park-and-Ride and services (Travelodge, Macdonalds etc.) where there are breaks in the tree cover. The new highways infrastructure will lead to a moderate increase in the built-up character of the junction area, particularly during construction and before new planting is established.	Development on Sites A, B and C will not result in additional changes to the character of views from the A47.
The distinctive landscape setting of Cringleford and the rural undeveloped character of the landscape of the Strategic Gap which separates the settlements of Hethersett and Cringleford	The A47 corridor functions as a divisive landscape element and forms a clear boundary to the landscape setting of Cringleford in approaches from the west. The Thickthorn Junction Gateway Zone and any works to the east of the A47 corridor will not influence the distinctive landscape setting of Cringleford. The planned works will lead to an increase in the extent and visibility of road infrastructure, with two new overbridges, link roads, embankments, culverts and a 50% increase in the extent of the park-and-ride, with associated signage, lighting and traffic noise. These works will result in a permanent change to a more built-up (less rural) landscape character in the eastern part of the Strategic Gap.	Development on Sites A and B will lead to a further increase in the built-up character of the Thickthorn Junction although the change to high quality, well landscaped commercial/ community development will be appropriate and potentially beneficial within the context of a major transport interchange at one of the principal gateways to Norwich. The layout of a care village development on Site C can be designed to conserve the rural undeveloped character of the Strategic Gap; there will be some adverse landscape effects, but these will be balanced by a step change in the provision of high quality multi-functional green infrastructure and arrangements for the long-term management of the historic parkland.

- Woodland
- Roads
- Contour line (interval 5 m)
- Public right of way
- Cycleway
- Strategic Gap boundary
- Development allocations
- Rural river habitat



Note: The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 10 - Thickthorn Junction Gateway (detail)

TABLE 2 - Analysis - predicted visual effects (see also Annex A)

Visual receptors (baseline studies)	Predicted visual effects resulting from the Thickthorn Junction highways improvements and extension to the park and ride	Predicted visual effects resulting from the development proposals (Sites A, B and C), assuming the highways improvements and park-and-ride extension are implemented
Viewpoint 1 - looking east from Station Lane	No predicted visual effects - the elevated part of the Cantley Lane South to Norwich Road Link Road would not be visible in this view.	No predicted additional visual effects, as any risk that buildings/construction might be visible on the distant skyline can be mitigated by careful layout and design
Viewpoint 2 - looking east from the B1172 Norwich Road	No predicted visual effects as a result of the highways improvements/park-and-ride extension works.	No predicted visual effects
Viewpoint 3 - looking south from the B1172 Norwich Road (adjacent to Site B)	This view will be completely transformed by the planned works, from a rural remnant parkland to a landscape dominated by highways infrastructure. The new Cantley Lane South to Norwich Road Link Road will cross the field (with one of the two overbridges clearly visible) and the viewpoint is (approximately_ located at the junction between this new roads and the Norwich Road. The extension to the park-and-ride will extend to the eastern side of the link road and so the whole of the left-hand side of the view will be dominated by this car park. The view to the new car park will gradually soften as the proposed enclosing tree planting becomes established, but the layout of the car park, with the main internal road aligned along the carriageway of the link road, will ensure that the view remains relatively urban.	Development on Sites A and B would be highly visible from this view, which would be changed from that of a highways and parking dominated interchange to the landscape of a high quality business park.
Viewpoint 4 - looking north-west from the existing footbridge over the A47	This existing footbridge will be demolished and moved further to the south. Given these planned changes (and the increased distance between the Site and the future location of the A47 footbridge) there are no predicted visual effects as a result of the highways improvements/park-and-ride extension works.	No predicted visual effects

Visual receptors (baseline studies)	Predicted visual effects resulting from the Thickthorn Junction highways improvements and extension to the park and ride	Predicted visual effects resulting from the development proposals (Sites A, B and C), assuming the highways improvements and park-and-ride extension are implemented
Viewpoint 5 - looking north from the prow alongside the Norwich-Ely Railway (FP6)	There are glimpsed views through the trees to the A11 and to the elevated slopes of the Cantley Stream valley (which are closer to the B7211 Norwich Road). The proposed Cantley Lane South to Norwich Road link (with associated overbridges) is aligned across part of this high land and is predicted to be visible from Viewpoint 5 (and possibly also from the A11 which runs parallel to the railway line/footpath and just to the north of this Viewpoint). Highways infrastructure will therefore have a stronger influence in this view.	There is a possibility that buildings and construction on Sites A and B might be visible through the existing trees from this viewpoint, although there is scope to mitigate any adverse visual impacts. The layout of built development on Site C can be designed to avoid any visual impacts. Overall no long term predicted visual effects.
Viewpoint 6 - looking north from the prow alongside the Norwich-Ely Railway (FP6), slightly to the west of Viewpoint 5	There are glimpsed views through the trees to the A11 and to the elevated slopes of the Cantley Stream valley (which are closer to the B7211 Norwich Road). The proposed Cantley Lane South to Norwich Road link (with associated overbridges) is aligned across part of this high land and is predicted to be visible from Viewpoint 5 (and possibly also from the A11 which runs parallel to the railway line/footpath and just to the north of this Viewpoint). Highways infrastructure will therefore have a stronger influence in this view.	There is a possibility that buildings and construction on Sites A and B might be visible through the existing trees from this viewpoint, although there is scope to mitigate any adverse visual impacts. The layout of built development on Site C can be designed to avoid any visual impacts. Overall no long term predicted visual effects.
Viewpoint 7 - looking west from the future Cantley Lane South to Norwich Road Link Road. Note: not a valid LVIA viewpoint as this location is not currently publicly accessible	This view is not from a location that is currently accessible to the public so it is not a valid LVIA viewpoint. However, it is from a point along the future Cantley Lane South to Norwich Road Link Road which will be elevated and it is predicted that the highways infrastructure associated with the Thickthorn Junction Gateway Zone (including the existing and extended Thickthorn Park-and-Ride) would generally be prominent, forming a relatively built-up landscape context to this view.	It is predicted that there would be clear views north and east across Sites A and B and also to parts of Site C from this future elevated link road. The change to high quality, well landscaped office development (on Sites A and B) will be appropriate and potentially beneficial within the context of a major transport interchange at one of the principal gateways to Norwich. It is predicted that any glimpsed views to a future care village development on Site C could be mitigated through a carefully designed layout of buildings and landscape.

5.2 Opportunities and constraints

Figure 11 interprets the implications of the landscape and visual analysis (in Section 5.1) for the concept design process. The components of this drawing are:

The landscape setting of Thickthorn Hall - this is the 'visual envelope' of the historic hall and outbuildings - i.e. the area from which there are views to and from the buildings. The focus is the historic parkland to the south of the hall, with framed views to the lake (the site of the original medieval moated hall) and the shallow Cantley Stream valley. The landscape setting also includes the important view which connects Thickthorn Hall and the tower of Hethersett Church.

The visually important perimeter tree belts on the outer fringes of the Thickthorn Hall parkland, which provide enclosure and a wooded backdrop to local views. The woodland belts include those surrounding the existing historic parkland, as well as the extensive shelterbelts which subdivide the arable fields to the east of Thickthorn Hall and, at a broader scale, the belts of trees along the principal road corridors and surrounding the existing Thickthorn Park-and-Ride. All contribute a valued sense of rural containment within the Hethersett-Cringleford Strategic Gap.

The remnant historic parkland of Thickthorn Hall - Figure 11 shows the area of existing remnant parkland and a wider area where the former historic parkland is relatively degraded and has no visual connectivity with the historic parkland core.

Riparian habitats and rural character along the Cantley Stream corridor - The sequence of wetland

habitats along the narrow corridor of Cantley Stream, a tributary of the River Yare, support a zone of relatively high biodiversity, with areas of wet meadow, pasture, marsh, lines of trees and open water that extend along the floodplain to the east of the existing lake. There is an opportunity to restore the natural alignment and floodplain of the Cantley Stream through the western part of the parkland. This physical landscape connection between Hethersett and Cringleford is also an exceptionally attractive landscape feature and a focus for rural views. It is the part of the Strategic Gap landscape where a sense of tranquillity, seclusion and contact with nature is most keenly perceived.

The undeveloped approaches to Norwich - the area which forms the visual context to the routes which are designated as the 'undeveloped approaches to Norwich'. There are views from the A11 across parts of the farmland on either side of the road, but views along the B1172 Norwich Road are limited by enclosing belts of trees. The rural character of the designated undeveloped approaches is degraded in the Thickthorn Junction area.

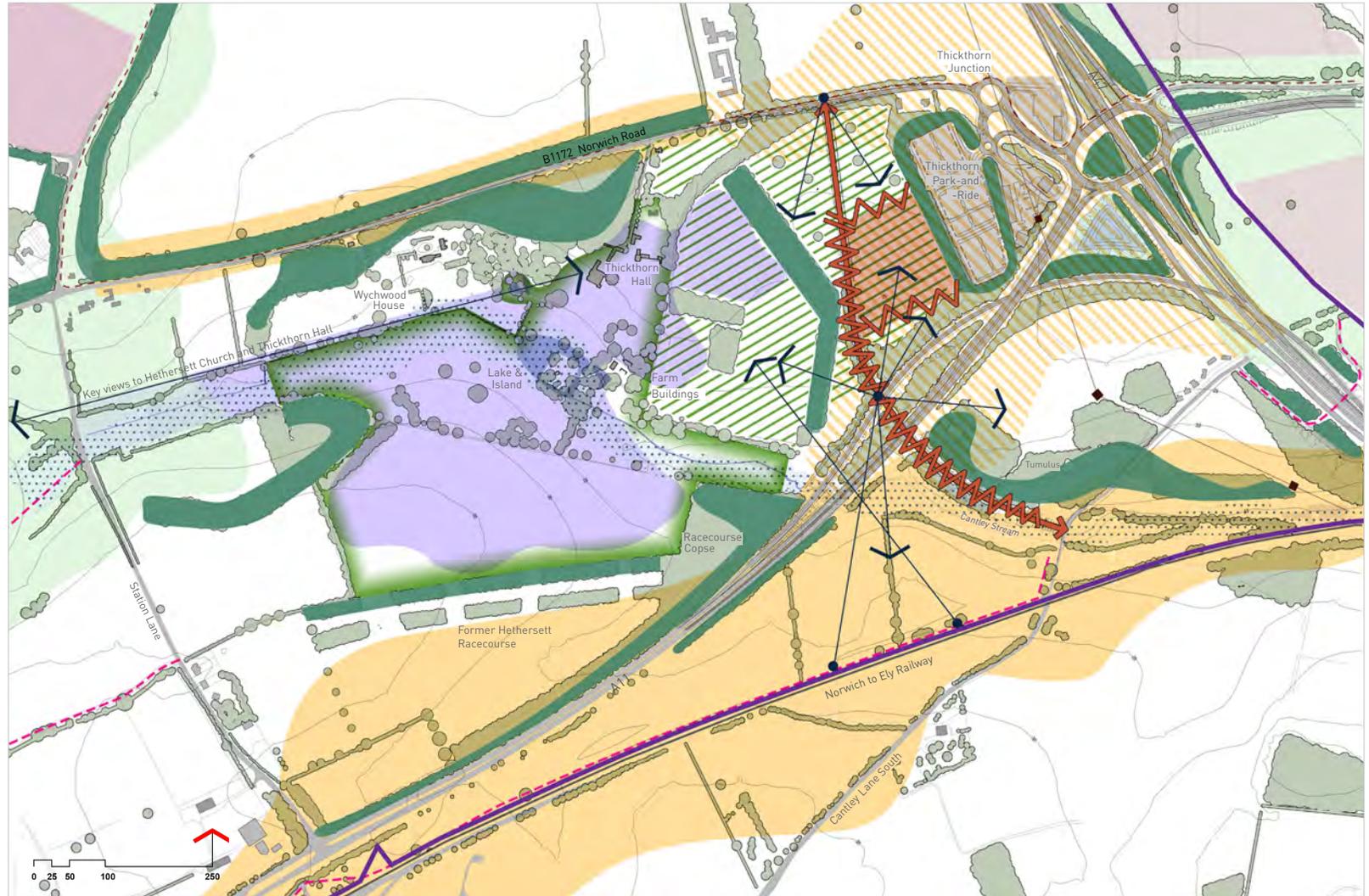
Landscape settings of settlements - the landscape setting of Cringleford extends to the A47 corridor; that of Hethersett is influenced by the viewshed of Hethersett Church tower and the 'layering' of tree belts on the western fringes of the Wychwood House estate, which contribute to the sense of approach to The settlement of Hethersett. Figure 11 shows zones where the perceived landscape settings of Hethersett and Cringleford are clear and distinctive

and areas where this sense of landscape setting is degraded by poor quality views.

The undeveloped rural character of views from the A47 corridor - views are generally contained by the belts of trees along the A47, but the Thickthorn Junction area is exposed and (at a local scale) does not form part of the area in which views from the A47 have a rural undeveloped character.

Relevant views from visual receptors - the views south from the B1172; north from the public right of way along the Norwich-Ely railway; and west from the (future) elevated Cantley Lane South to Norwich Road link are particularly relevant considerations in relation to the concept design context of Sites A, B and C.

-  Woodland
-  Contour line (interval 5 m)
-  Public right of way
-  Cycleway
-  Strategic Gap boundary
-  Rural river habitat
-  Development allocations
-  Visual setting of Thickthorn Hall
-  Important groups of enclosing trees
-  Intact parkland character
-  Degraded parkland character
-  Undeveloped approaches
-  Degraded approaches
-  Settlement setting of Cringleford
-  Visually intrusive Park-and-Ride
-  Visually intrusive Cantley Lane South to Norwich Road link
-  Views that are particularly relevant in considering proposals for Sites A, B and C



Note: The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 11 - Opportunities and constraints

6.1 Landscape strategy

Figure 12 sets out a landscape strategy for the development of Sites A, B and C in response to the detailed landscape and visual appraisal process. It suggests an appropriate mitigation strategy for the predicted landscape and visual effects associated with the development of Sites A, B and C and the proposed highways infrastructure. The key elements of the strategy are:

Extensive woodland planting enclosing and screening the new highways infrastructure and built development, including from the railway corridor to the south

Subdivision of Site C into three units, separated by blocks of woodland, so that the core village development can be integrated within its landscape context.

Alignment of a woodland belt across the higher land in the centre of Site C to screen the site in the sensitive views from the A11 and public right of way along the railway to the south

Restoration of the Cantley Stream within the western part of the parkland to a natural, functional floodplain with a sequence of wetland habitats

A functional network of permissive pedestrian/cycle routes connecting the settlements of Hethersett and Cringleford along the Cantley Stream valley, with links to the park and ride and B1172 Norwich Road

Permissive open access land within the wider Wychwood House Estate, providing a superb,

accessible recreational asset for the local communities of Hethersett and Cringleford.

6.2 Conclusion

This landscape strategy demonstrates that commercial development on Sites A and B and a bespoke care village development on Site C can be accommodated within this landscape context without causing unacceptable adverse effects on the character of the landscape and/or the way that it is perceived.

It also suggests that development of Sites A, B and C offers a wider opportunity to integrate and mitigate the adverse landscape and visual impacts associated with the development of the planned highways infrastructure and park-and-ride extension.

In addition, the landscape strategy shows how an integrated approach to development at the Thickthorn Junction Gateway could be accomplished without compromising the value which is attached to this landscape in the form of planning policy, environmental and heritage designations. Indeed it has the potential to deliver enhancements to the character, quality of the Strategic Gap landscape, as well as high quality green infrastructure with significant recreation, landscape, heritage and biodiversity benefits.

Overall the landscape strategy would:

- **Reinforce existing planning policy** by enhancing the wider landscape context of the

junction beyond the established highway boundary. High quality development within a landscape which is carefully designed to conserve the parkland character of the Wychwood House estate will enhance the rural character of the landscape within the Strategic Gap and reinforce the concept of the 'undeveloped approaches' to Norwich.

- **Establish a robust landscape edge to the Strategic Gap**, implemented as an integrated component of the new highways infrastructure development, which mitigates the urbanising influence of the highways and enhances the landscape of the NSBLPZ and, at a broader scale, the landscape setting of Cringleford.

- **Transform the accessibility, quality and value of the Strategic Gap landscape** by providing extensive permissive public access within the Wychwood House estate. Development of a sensitively designed, bespoke development, which benefits from direct recreational and visual links to the core parkland, could secure the provision of this high quality green infrastructure on the doorsteps of Hethersett and Cringleford which contributes to the wider delivery of the Greater Norwich green infrastructure network.

-  Woodland
-  Contour line (interval 5 m)
-  Public right of way
-  Cycleway
-  Strategic Gap boundary
-  Development allocations
-  New structural/screening landscape
-  Rural river habitat
-  New water line
-  Open access land
-  Strategic pathway/cycleway link
-  Other recreational pathway
-  Site access
-  New development
-  Community focus: cafe/toilets/play



Note: The Highways England scheme for the A11/A47 Thickthorn Junction is shown in DRAFT form (July 2019). The layout is subject to update

Figure 12 - Development principles

The Racecourse Community Hub
Thickthorn Junction Gateway Zone
Landscape Strategy

Annex A
Viewpoints 1-7

Approximate extent of site



Viewpoint 1 - Looking east from Station Lane

View from Station Lane, looking east along the Cantley Stream valley and through the parklands of the Wychwood House estate to the Thickthorn Junction Gateway Zone. Thickthorn Hall is just visible between the mature woodland belts. The pylon supporting the overhead power lines which is visible on the skyline to the right of Thickthorn Hall is within the existing Thickthorn Park-and-Ride. The woodlands of the Wychwood House estate form the backdrop to views along the Cantley Stream valley and it is clear that the skyline to the right of Thickthorn Hall would be sensitive to any development in this view.

Visual receptors are motorists, walkers and cyclists on a rural lane. Their susceptibility at this viewpoint is judged to be moderate as it is likely that this lane will be used for recreation as well as for vehicular travel. Viewpoint 1 is judged to have high value as it contributes to the landscape setting of the Church of St Remigius, Hethersett, which is a grade II* listed building and also to the landscape setting of the settlement of Hethersett. It is also within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. Overall visual receptor sensitivity is moderate-high.

Viewpoint 1 - Data

Coordinates : Latitude: 52° 35' 57.28" N Longitude: 1° 11' 48.96" E
 Elevation (based on OS) : 26m AOD
 Distance from Site : 1.1 km

Conditions

Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 13:06 pm

Viewpoint 1 - Location





Viewpoint 2 - Looking east along the B1172 Norwich Road

View from the B1172 Norwich Road at the entrance to Wychwood House, looking east. The road is enclosed by mature tree belts, but there is a longer view through the trees at the driveway entrance at this point - the woodland belt that forms the backdrop to this glimpsed view is on the western boundary of Site C. The land within Site C is fully screened by this woodland and is not visible.

Visual receptors are motorists on a busy road and their susceptibility is judged to be low. Viewpoint 2 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. It is also within one of the designated 'undeveloped approaches to Norwich (policy DM 4.6). Overall visual receptor sensitivity is moderate-low.

Viewpoint 2 - Data

Coordinates : Latitude: 52° 36' 8.41" N Longitude: 1° 12' 13.05" E
 Elevation (based on OS) : 30m AOD
 Distance from Site : 0.6 km

Conditions

Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 12:57 pm

Viewpoint 2 - Location



← Approximate extent of Site B



Viewpoint 3 - Looking south from the B1172 Norwich Road (adjacent to Site B)

View due south from the B1172 which shows the existing rural character of the landscape in the eastern part of the Strategic Gap close to the location of the proposed junction between the future Cantley Lane South to Norwich Road link. This is a landscape that is set to change - the rural character of this part of the Strategic Gap will be lost because the proposed link road will subdivide this field and the proposed extension to the Park-and-Ride will dominate the view to the left of the photograph.

Visual receptors are motorists on a busy road on the approach to an existing junction with park-and-ride facilities. They are judged to have low susceptibility to the proposed development. Note this view will be transformed when the proposed Cantley Lane South to Norwich Road link road is implemented; the proposed high quality commercial development at Sites A and B will be visible but would be perceived as an appropriate component of the Thickthorn Junction Gateway Zone. Viewpoint 3 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. It is also within one of the designated 'undeveloped approaches to Norwich and within the Norwich Southern Bypass Landscape Protection Zone (policy DM 4.6). Overall visual receptor sensitivity is moderate-low

Viewpoint 3 - Data

Coordinates : Latitude: 52° 36' 13.86" N Longitude: 1° 12' 59.14" E
 Elevation (based on OS) : 33m AOD
 Distance from Site : 0.1 km

Conditions

Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 11:18 am

Viewpoint 3 - Location





Viewpoint 4 - Looking north west from the existing footbridge over the A47

View north west from the footbridge over the A47 to the south west of Cringleford. This footbridge connects the centre of Cringleford with Cantley Lane South and thus with public rights of way within the countryside to the west of the A47 corridor. The photograph shows that the Site is completely screened by the existing woodlands and tree belts that enclose the A47 corridor. However, a proportion of these existing trees will be felled as part of the Thickthorn Junction Improvement works and this existing footbridge will be demolished and moved further to the south. Given these planned changes (and the increased distance between the Site and the future location of the A47 footbridge), it is predicted that the land within the Site will be fully screened by woodland and will not be visible from the future A47 footbridge.

Visual receptors are pedestrians on a public footpath who have chosen to walk in the countryside and their susceptibility is judged to be high. Viewpoint 4 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area* and is also within the Norwich Southern Bypass Landscape Protection Zone (policy DM 4.6). Overall visual receptor sensitivity is moderate-high.

Viewpoint 4 - Data

Coordinates : Latitude: 52° 35' 58.70" N Longitude: 1° 13' 42.90" E
 Elevation (based on OS) : 33m AOD
 Distance from Site : 0.75 km

Conditions

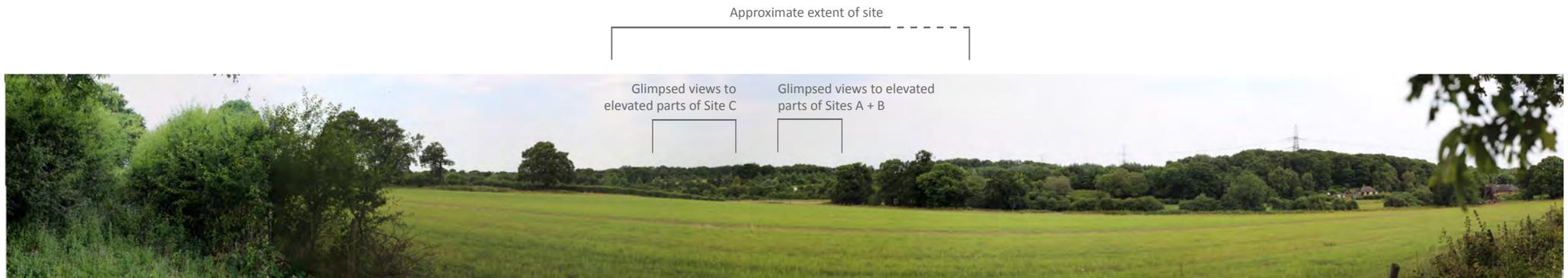
Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 10.27 am

Viewpoint 4 - Location





Viewpoint 5 - Looking north from the public right of way alongside the Ely-Norwich railway

View north from the public right of way alongside the Norwich-Ely Railway (FP6). The existing road infrastructure is relatively well screened. However, there are glimpsed views through the trees to the A11 and to the elevated parts of Sites A, B and C. The proposed Cantley Lane South to Norwich Road link is aligned across part of this high land and is predicted to be visible from Viewpoint 5 (and possibly also from the A11 which runs parallel to the railway line/footpath and just to the north of this Viewpoint). There is a possibility that buildings and construction might be visible through the existing trees from this viewpoint, although there is scope to mitigate any adverse visual impacts, not least by adjusting the layout of development on Site C so that there is no built development on the more elevated part of the site.

Visual receptors are pedestrians on a public footpath who have chosen to walk in the countryside and their susceptibility is judged to be high. Viewpoint 5 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. Overall visual receptor sensitivity is moderate-high.

Viewpoint 5 - Data

Coordinates : Latitude: 52° 35' 44.66" N Longitude: 1° 13' 9.61" E
 Elevation (based on OS) : 26m AOD
 Distance from Site : 0.4 km

Conditions

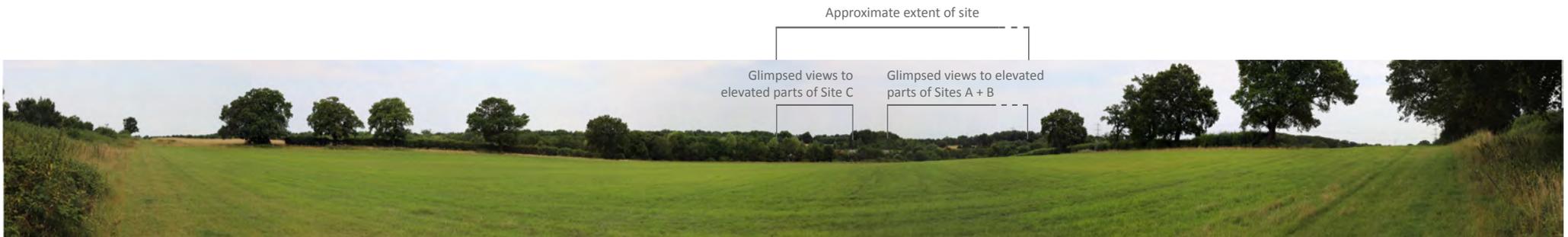
Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 12.11 pm

Viewpoint 5 - Location





Viewpoint 6 - Looking north from the public right of way alongside the Ely-Norwich railway

View north from the public right of way alongside the Norwich-Ely Railway (FP6), slightly to the west of Viewpoint 5. The existing road infrastructure is relatively well screened. However, there are glimpsed views through the trees to the A11 and to the elevated parts of Sites A, B and C. The proposed Cantley Lane to Norwich Road link is aligned across part of this high land and is predicted to be visible from Viewpoint 6 (and possibly also from the A11 which runs parallel to the railway line/footpath and just to the north of this Viewpoint). There is a possibility that buildings and construction might be visible through the existing trees from this viewpoint, although there is scope to mitigate any adverse visual impacts, not least by adjusting the layout of development in Site C so that there is no built development on the more elevated part of the site.

Visual receptors are pedestrians on a public footpath who have chosen to walk in the countryside and their susceptibility is judged to be high. Viewpoint 5 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. Overall visual receptor sensitivity is moderate-high.

Viewpoint 6 - Data

Coordinates : Latitude: 52° 35' 43.21" N Longitude: 1° 13' 1.11" E
 Elevation (based on OS) : 26m AOD
 Distance from Site : 0.4 km

Conditions

Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 12.18 pm

Viewpoint 6 - Location



Approximate extent of Site C (existing situation, without link road)



Viewpoint 7 - Looking west from the future alignment of the Cantley Lane South to Norwich Road Link Road

This view is not from a location that is currently accessible to the public so it is not a valid LVIA viewpoint. However, it is from a point along the future Cantley Lane South to Norwich Road Link Road which will be elevated and it is predicted that there may be views to part of Site C from this future link road. There would also be views north and east across Sites A and B, the extension to the park and ride and the existing park and ride. The highways infrastructure associated with the Thickthorn Junction Gateway Zone would generally be prominent in this elevated view.

Future visual receptors will be motorists on a busy link road on the approach to a junction with extensive park-and-ride facilities. They are judged to have low susceptibility to the proposed development. Viewpoint 7 is judged to have moderate value as it is within the Hethersett-Cringleford Strategic Gap (policy DM 4.7), which is designated for its importance in *maintaining the segregation and individual identities of certain settlements in the Norwich Policy Area*. It is also on one of the designated 'undeveloped approaches to Norwich and within the Norwich Southern Bypass Landscape Protection Zone (policy DM 4.6). Overall visual receptor sensitivity is moderate-low

Viewpoint 7 - Data

Coordinates : Latitude: 52° 36' 8.05" N Longitude: 1° 12' 59.93" E
 Elevation (based on OS) : 27m AOD
 Distance from Site : 0 km

Conditions

Weather : Sunny

Photograph

Height above ground : 1.5 m
 Camera & Lens : Canon EOS 6D with lens EF50mm f/5.6 USM
 Taken by : Eoghan Sheils on 26.7.19 at 11.27 am

Viewpoint 7 - Location



sheilsflynn

Norfolk Studio

Bank House, High Street, Docking
Norfolk, PE31 8NH

telephone 01485 518304
fax 01485 518303
email norfolk@sheilsflynn.com
web www.sheilsflynn.com

