Wymondham Rugby Club & Land West of Elm Farm
Wymondham, South Norfolk
Environmental Statement
Non-Technical Summary

Prepared on behalf of Wymondham Rugby Football Club,
Landstock Estates Ltd and Landowners Group Ltd

April 2014
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1.0 INTRODUCTION

1.1 Wymondham Rugby Football Club, Landstock Estates Ltd and Landowners Group Ltd (the “Applicant”), is applying for outline planning permission for the redevelopment of land on the north-eastern edge of Wymondham, part of which is currently occupied by Wymondham Rugby Club (WRFC).

1.2 The sites (hereafter referred to as the “Sites”) as shown in Figure 1 are approximately 33 hectare (ha) in area and situated within South Norfolk District.

Figure 1 (Sites’ red line boundary)

1.3 This report provides a non-technical summary of the Environmental Statement (ES) prepared in support of the planning application. The ES presents the findings of an Environmental Impact Assessment\(^1\) (EIA) undertaken of the proposals.

\(^1\) Prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2011
1.4 The full ES can be viewed at:

South Norfolk Council
South Norfolk House
Swan Lane
Long Stratton
Norwich
NR15 2XE

1.5 The ES may be purchased in volumes, the costs for which are set out below:

- Non-Technical Summary (NTS) – £15
- Volume 1: ES Main Text & Figures - £150
- Volume 2: ES Appendices - £150
- Volume 3: Transport Assessment - £100
- Full copy (Volumes 1 – 3 with NTS) of the ES on CD - £15

1.6 For copies of any of the above please contact the Environmental Planning team at Barton Willmore:

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2.0 EIA METHODOLOGY

2.1 EIA is a procedure used to assess the likely significant effects of a proposed development on the environment.

2.2 It enables the likely significant effects to be considered by a local planning authority before a decision is made about the planning application. The effects considered relate to the construction activities and the operational development.

2.3 Within the ES, the significance of each environmental effect has been identified. The significance reflects the relationship between:

- The sensitivity, importance or value of the affected receptor (such as people or wildlife); and
- The actual change taking place to the environment (i.e. the magnitude or severity of an effect).

2.4 Most environmental disciplines classify effects as negligible, adverse or beneficial, where effects are minor, moderate or major. Some disciplines use bespoke criteria based on published guidance.

2.5 The ES includes a description of the current environmental conditions known as the baseline conditions, against which the likely significant effects on the environment have been assessed. Baseline surveys were undertaken in 2013/2014.

EIA Scoping

2.6 A request for a Scoping Opinion was sent to South Norfolk Council (SNC) on 11 November 2013. A Scoping Opinion was received on 27 January 2014.

2.7 The ES considers the following subjects:

- Landscape & Visual Impact (including night time light spillage);
- Ecology & Nature Conservation;
- Traffic & Transportation;
- Air Quality;
- Noise & Vibration;
- Water Resources & Flood Risk;
- Cultural Heritage;
- Ground Conditions; and
- Socio-Economics.

**Stakeholder Engagement and Public Consultation**

2.8 The organisations consulted as part of the EIA process include:
- English Heritage;
- Natural England;
- Environment Agency (EA);
- SNC (various departments);
- Norfolk County Council (NCC) (highways, archaeology); and
- Highways Agency.

2.9 Engagement with the local community has been undertaken in the form of a public exhibition. This public exhibition was held at an early stage, as the design was evolving, on 12 December 2013 at WRFC Clubhouse, The Forster Harrison Memorial Ground, Tuttles Lane East, Wymondham. It was open from 1.30pm to 2.30pm for invited guests (including Wymondham Town Council and Local Members) and from 2.30pm to 8pm for members of the public, where the consultant team was available to answer questions. The exhibition boards remained available at the WRFC Clubhouse on Saturday 14 December and Sunday 15 December 2013 to allow any additional visitors an opportunity to view the exhibition material.

2.10 Full analysis of the comments received is contained in the Statement of Community Engagement submitted in support of the application.

**Cumulative Effects**

2.11 The ES considers the potential for likely significant effects on the environment resulting from committed developments in the area coming forward at the same time as the Development. These include developments that are under construction or that are anticipated to have planning permission when this planning application is determined.

2.12 The following committed developments have been agreed with SNC through the scoping process:
• Land North of Norwich Common - currently under construction (Ref. 2011/0374): Reserved matters application for appearance, landscaping, layout and scale for 323 dwellings and open spaces.

• Land at Carpenters Barn - Outline consent granted 25 June 2012 (Ref. 2012/0839): Proposed residential development (Class C3) up to 350 dwellings with associated access on Land at Carpenters Barn, Norwich Common, Wymondham. To include the infrastructure associated with the residential development, public open space and new vehicular and pedestrian access routes. It should be noted that part of the Carpenters Barn site has been included in the application boundary for Parcel C for purposes of access to the proposed rugby club on this parcel.


• Land between the A11 Spinks Lane and Norwich Road Wymondham Norfolk Outline consent granted on 30 October 2013. (Ref. 2012/1385): Outline application for residential development with all matters reserved (up to 275 dwellings).

• Land North of the A11 at Park Farm, Silfield Road - Outline consent granted on 6 February 2014. (Ref. 2011/0505/O): Proposed development to include up to 500 dwellings, community facilities, site infrastructure including new access roads, public rights of way and drainage, green infrastructure including public open spaces and structural landscape planting and new playing pitches relating to Wymondham High School.

• Land to the East and West of Right Up Lane Wymondham - Outline consent granted on 6 February 2014 (Ref. 2012/0371): Mixed use development of up to 730 dwellings, up to 128 bed care home / homes (in one or two buildings), up to 250 square metres of retail / commercial floor space, a new primary school together with all other associated temporary and permanent infrastructure and green infrastructure, including new access arrangements, a sewage treatment plant, allotments and community orchard.

2.13 The Scoping Opinion received from SNC requested that the socio-economic assessment considers the Development plus 2,200 additional dwellings. The Joint Core Strategy has set an overall housing target of at least 2,200 dwellings coming forward within Wymondham.
The list of committed developments above takes account of sites which have recently been approved i.e. since the base date of the plan period (2008). The schemes considered in the assessment comprise a total of 2,589 dwellings (including the Development). Therefore, a worst case scenario has been assessed in the socio-economic ES chapter with respect to potential cumulative effects on facilities within the local area.
3.0 THE SITES & PROPOSED DEVELOPMENT

The Sites

3.1 The Sites are located in the north east part of Wymondham, adjoining either existing built development, sites currently under construction or sites that benefit from outline planning permission.

3.2 The Sites (i.e. land within the red line application boundary) comprise three principal parcels of land namely:

Parcel A: Existing WRFC site north of Tuttles Lane East and west of the recently completed Whispering Oaks residential development;
Parcel B: Land West of Elm Farm Business Park, north of Norwich Common and east of the development under construction known as Becketts Grove; and
Parcel C: Land north of permitted development known as Carpenters Barn and south of Melton Road.

3.3 In addition, the Sites also include an access corridor located between Parcels B and C on land that will shortly be subject to a reserved matters application (Carpenters Barn).

3.4 The Sites (including the access corridor) comprise approximately 33 ha in area and all the land falls within the control of the Applicant.

Parcel A: WRFC

3.5 Parcel A is currently the home of WRFC which provides the following facilities:
- a single storey clubhouse and temporary structures to facilitate overspill from the current clubhouse at high use/pressure periods;
- car parking ;
- two senior rugby pitches (both floodlit); and
- a number of mini pitches.

3.6 Parcel A is 3.84ha in area and is broadly square in shape and generally flat (with a level change of circa 2m). An existing watercourse divides Parcel A into two fields on a north-south axis which includes a well established hedge/ tree line. Access is currently from Tuttles Lane East.
Parcel B: Land West of Elm Farm Business Park

3.7 Parcel B is in the main greenfield land used for agricultural purposes but also includes No.63 Norwich Common, a residential property with a pre-fabricated outbuilding fronting Norwich Common.

3.8 Parcel B is 12.07ha and is irregular in shape and generally flat (varying in level of circa 2-3m).

3.9 Parcel B is divided into two main parts by a track and hedgerow running east-west through the centre. Access is currently from a public footpath, private accesses, permissive paths and existing informal farmers’ tracks.

3.10 Parcel B is well screened and adjoins built development on three sides, including two development sites to the west and existing development to the south and south east.

Parcel C: Land North of Carpenters Barn Development

3.11 Parcel C is greenfield land used for agricultural purposes. It is 13.56ha in area and is irregular in shape, including an area for an emergency access spur leading to Melton Road. The parcel gently slopes from a high point in the south east corner to the northwest corner by approximately 5m. Access to Parcel C is currently either from private accesses, permissive paths or existing informal farmers tracks.

The Access Corridor

3.12 The access corridor (3.51ha) between Parcels B and C comprises greenfield land that is subject to an approved planning application for residential development. The access corridor boundary allows for sufficient flexibility to accommodate any future road network proposed as part of the subsequent reserved matters scheme for Carpenters Barn.

The Development

3.13 The formal description of development (which is hereafter referred to as the “Development”) is:

“The redevelopment of Parcel A for up to 90 residential dwellings including the demolition of existing Wymondham..."
**Rugby Football Club buildings and sports pitches, the closure of Tuttles Lane access and creation of new primary vehicular access from Lavender Road; the development of Parcel B for up to 300 residential dwellings including the demolition of No. 63 Norwich Common, creation of a new primary vehicular access from Norwich Common, secondary access from Becketts Grove and access corridor through land known as Carpenters Barn; the development of Parcel C for the replacement and provision of additional sports pitches including an artificial pitch, floodlighting, clubhouse and car parking with access achieved from land known as Carpenters Barn and emergency access from Melton Road. All Parcels providing necessary open spaces, sustainable urban drainage systems, associated landscaping, infrastructure and earthworks.**

3.14 The outline application is defined by a set of parameters that place limits on the amount, extent and type of development that could come forward under future detailed planning proposals. The parameters comprise:

- Building heights (Figure 2); and
- Land use, green infrastructure and access (Figure 3).

3.15 Figures 2 and 3 are provided at the back of this report.

3.16 As shown on Figure 2, the maximum proposed height of built development in Parcel A is 53m above ordnance datum (mAOD). The maximum proposed height of built development in Parcels B and C is 59.5mAOD and 65mAOD respectively. Within the hatched zone in Parcel C, it is anticipated that floodlighting for some of the pitches will be required by WRFC to allow the pitches to be used after dark when required. rugby goal posts would also be located within this zone and on other pitch areas. The height of floodlight columns and rugby goal posts will not exceed 15 metres above the adjoining ground level, which is 61m AOD.

3.17 As shown on Figure 3, the planning application seeks permission for up to 90 residential dwellings on Parcel A and up to 300 residential dwellings on Parcel B.
3.18 The Development also proposes the relocation of WRFC on Parcel C. The parameters include an area for sports pitches, associated ground maintenance structures (up to a maximum combined total of 100m²) and landscape planting. With a further demarcated zone identified in which a sports clubhouse (maximum of 1,400m²) and club car parking would be located. The Development incorporates areas of land for retained and proposed planting, open space and Sustainable Drainage Systems (SuDS), within which built development is not proposed. Where required by the detailed design, internal circulation routes could also pass through these areas.

3.19 Detailed drawings for access to the Development are submitted for approval. Access to Parcel A will be extended from Tuttles Lane East via Greenland Avenue and Lavender Drive. Only minor physical alterations will be required to the highway to support access.

3.20 The main vehicular access to Parcel B would be taken from Norwich Common, while the secondary accesses will link the Development with Becketts Grove and Carpenters Barn.

3.21 The main access to Parcel C is via Carpenters Barn. The emergency access into Parcel C is from Melton Road.

3.22 Between Parcels B and C, the Development includes an area of 3.51ha. Within this zone, a linking road will be provided which will connect Parcel B with Parcel C. The position of this road will be confirmed at the reserved matters design stage of the Carpenters Barn scheme.


4.0 ALTERNATIVES & DESIGN EVOLUTION

4.1 The EIA Regulations require an ES to outline any alternative options that have been considered for the Development.

The ‘do nothing’ Alternative

4.2 The ‘do nothing’ alternative means leaving the Sites in their current use as agricultural land and sports uses. To proceed with this option would result in the loss of the opportunity to deliver up to 390 dwellings, the relocation of WRFC and provision of open space. The benefits that could result from the “do nothing” alternative include the retention of arable habitats/continued use of the Sites for agriculture, no impact on views and no further traffic generation.

4.3 Not developing the Sites is not considered by the Applicant to be a suitable alternative. WRFC will be denied the opportunity to expand and that, coupled with the opportunities to enhance sporting facilities and access to the countryside for the community as a whole there will be substantial asset loss that would otherwise be provided for both the local community and wider population. In addition, there is a demonstrable need to provide additional housing as there is a shortfall in the supply of land for housing in the context of the requirements of paragraph 47 of the National Planning Policy Framework (2012) (NPPF) i.e. there is not a 5 year housing land supply.

Consideration of Alternative Locations and Uses

4.4 No alternative sites have been considered by the Applicant as the Development proposed can only be delivered on the Sites.

Consideration of Alternative Designs

4.5 The Development submitted for approval is the result of a thorough analysis of environmental constraints and opportunities and market demand. The nature of the Sites and their surroundings has also been a key consideration. Consultation with SNC, statutory consultees and the general public has been a key influence in design evolution.
5.0 CONSTRUCTION METHODOLOGY & PHASING

5.1 The construction of the Development is anticipated to commence in early 2015, subject to gaining planning permission, with an assumed completion year of 2019.

5.2 Construction will include the following main stages:

- Enabling works;
- Site preparation (including excavation and grading);
- Provision of infrastructure;
- Construction of natural turf and artificial rugby pitches;
- Construction of dwelling substructures;
- Construction of dwelling superstructures;
- Construction of the WRFC Clubhouse Complex;
- Fit out of buildings; and
- Landscaping.

5.3 The Development includes the demolition of the dwelling and outbuilding at 63 Norwich Common.

5.4 A Construction Environmental Management Plan (CEMP) will be prepared for the Development that will provide the methods of managing environmental issues, such as noise and dust during construction.

5.5 The hours of work on the Sites are anticipated to be 08:00 to 20:00 Monday to Friday and 08:00 to 13:00 on Saturday. By arrangement, there may be some out of hours construction deliveries made to the Sites during weekdays.
6.0 LANDSCAPE & VISUAL IMPACT ASSESSMENT

6.1 An assessment has been undertaken of the likely significant effects of the Development on the environment with respect to landscape and visual issues. The aims of the assessment were as follows:

- To carry out a landscape and visual appraisal of the Sites and their surroundings in order to assess its character and visibility, and its relationship with adjacent areas;
- To provide input into the parameters for the Development including open space, vegetation and visual matters;
- To undertake a landscape and visual impact assessment of the Development in accordance with current best practice guidelines and to quantify the magnitude and significance of the impacts, both before and after mitigation has been implemented; and
- To give consideration to the Development in the context of the national and local planning policy insofar as they refer to landscape and visual matters.

6.2 Although the Sites would change in character, the key landscape features that contribute to the character of the surrounding landscape would be retained, maintaining a physical and visual enclosure of substantial vegetation which contains the potential visual effects of the Development from surrounding areas of countryside. The impact of the Development on the character of adjacent areas would be further minimised by the proposed landscape strategy which reinforces existing landscape features that contain available views and achieves a cohesive open space framework that reinforces the representation of planting characteristic of the wider Wymondham settled plateau.

6.3 The findings of the visual appraisal conclude that visibility from surrounding areas towards the Sites is limited, primarily due to the existing boundary vegetation and the combination of approved and existing development accessed along the B1172 to the south. Open views are available into the Sites from sections of public right of way (PROW) No. 26 (Parcels B and C); a small number of properties along Melton Road (Parcel C); Carpenters Barn (Parcel B); a small number of properties along Norwich Common and within Becketts Grove (Parcel B); and a small number of properties on the western edge of the Whispering Oaks development (Parcel A); however, views from the countryside areas beyond are largely curtailed by vegetation established along the boundaries of the Sites and woodland, hedgerows and tree belts beyond the boundaries of these Sites. This vegetation provides a substantial development edge and with the enhancement and creation of new landscape elements will successfully create a sympathetic edge between the built up area of
Wymondham and adjoining areas of countryside, and further curtail views of the Sites from sensitive viewpoints. Bearing in mind the scale of the Development, the total number of properties, public rights of way and roads that will be adversely affected to a significant degree is limited.

6.4 It is considered that the Sites (Parcels A, B and C) are able to suitably accommodate change and absorb built development without resulting in significant adverse impacts. Additionally, the visual appraisal confirms that the Sites are not a visible or important component of the landscape between Wymondham and Hethersett and, as a result, their contribution to the open landscape of the ‘green wedge’ or ‘gap’ the subject of Policy ENV2 between these two settlements, is non-existent. Although in physical terms this land, as with any land between two settlements, assists in providing separation, it is not essential to, nor does it contribute to the sense of openness which is provided by arable farmland to the north of the B1172 and predominantly east of Elm Farm Business Park.

6.5 Given the limited public viewpoints from within surrounding areas of countryside and the lack of importance of the Sites with regard to the landscape setting between Wymondham and Hethersett, the Development is considered to avoid any significant harm to the character of the landscape.

6.6 Overall, the detailed assessment demonstrates that the Sites are capable of absorbing or accommodating the Development without significant adverse landscape impacts. Whilst the character within the Sites would change, the enclosed nature of the Sites in combination with the screening and context provided by existing features and forthcoming development along their boundaries, would effectively limit the visual impact of the Development from surrounding areas. The Sites are not an important component of the landscape setting between Wymondham and Hethersett and development in this area will not substantially erode green space providing a gap between the two settlements. The Development therefore promotes a reinforced landscape setting that increases recreational and habitat benefits without resulting in significant harm to surrounding areas of open countryside.
7.0 ECOLOGY & NATURE CONSERVATION

7.1 An assessment has been undertaken of the likely significant effects of the Development on the environment with respect to ecology and nature conservation. Ecological survey of the Sites has been undertaken, including a desk study, an extended Phase 1 survey and Phase 2 faunal studies.

7.2 A number of ecological designations are located in the vicinity of the Sites. The closest statutory designation is Toll’s Meadow, Wymondham Local Nature Reserve (LNR), located 3.0km from the Sites. Parcel A is a formal sports ground with associated buildings, Parcels B and C are arable fields, all are considered to be of negligible ecological value. Habitats within the Sites considered to be of moderate to high local ecological value include ponds, hedgerows and mature trees. Surveys of protected species have found that the Sites support a Brown Long-eared bat roost, moderate numbers of foraging and commuting bats and a range of bird species, including the farmland bird species Skylark and Yellowhammer. The Species of Principal Importance Brown Hare and Hedgehog have also been recorded within the Sites, and ponds within the Sites support populations of Smooth Newt, Common Frog and Common Toad.

7.3 Ecological designations are considered unlikely to be affected by the Development, whilst a range of potential effects have been identified on habitats and fauna. Mitigation and enhancement measures are therefore proposed, including woodland, grassland and wetland habitat creation. These measures would provide new areas of valuable wildlife habitat, providing significant benefits to a wide variety of faunal species. Measures are also proposed to avoid impacts resulting from construction activities, anthropogenic effects, lighting and changes to hydrology.

7.4 The Development and mitigation measures have been designed to achieve compliance with relevant legislation and planning policy. Measures are proposed to avoid killing or injury of protected species such as bats, mammals including Badger and Brown Hare, birds and amphibians (protected under the Wildlife and Countryside Act 1981 (as amended) (WCA), and the Conservation of Habitats and Species Regulations 2010 as amended) and opportunities for enhancements to biodiversity are also proposed, in accordance with the NPPF and the Natural Environment and Rural Communities Act 2006 (NERC). The Development also accords with UK and local Biodiversity Action Plan objectives, and the Greater Norwich Development Partnership Green Infrastructure Delivery Plan.
Following mitigation, it is considered that the Development would result in enhancements to
the existing ecological interest of the Sites, with benefits in respect of habitats, bats and
other mammals, birds, amphibians and invertebrates, these effects being assessed as of
overall minor beneficial significance at the local level.
8.0 TRANSPORT & ACCESS

8.1 An assessment has been undertaken of the likely significant effects of the Development with respect to Transport and Access. In particular, ES Chapter 8 considers potential impacts on identified receptors, in terms of:

- Pedestrian network;
- Cycling Network;
- Public Transport; and
- Highway Network.

Baseline Survey

8.2 A baseline traffic survey was undertaken in June/July 2013 in line with the Department for Transport’s Guidance on Transport Assessment. These surveys were carried out to establish the baseline traffic levels.

8.3 There are good established pedestrian and cycle links between Parcels A and B and existing facilities in Wymondham. The existing routes indicated have been inspected for their quality, safety and ease of general use.

8.4 Parcels A and B are within walking distance of existing bus routes which offer regular services between Wymondham and Norwich. Direct bus services are also available to the Norwich and Norfolk University Hospital (NNUH) and Attleborough (and further afield). All of Parcel A falls within 400m of an existing bus stop. The majority of Parcel B lies within 400m of an existing bus stop, with the furthest point being within 450m.

8.5 Wymondham Rail Station is located approximately 3.5km to the southwest of the Development. The station is served directly by bus route 14/14A and can be reached on foot from Wymondham town centre.

Construction Traffic

8.6 An assessment of the 2013 baseline and 2013 baseline plus construction traffic flows has been undertaken.

8.7 Through the implementation of a suitable Construction Method Statement (CMS), the significance of the predicted effects of construction traffic arising from the demolition and construction phases of the Development would be negligible in nature. Construction phase
noise and dust effects are considered in the Noise & Vibration and Air Quality sections of this document.

Operational Traffic

8.8 Suitable access arrangements to the Sites are proposed as part of the Development and as stated above, are submitted for approval. Additional mitigation measures are proposed as set out in Table 1 below.

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<td>Cycling</td>
<td>Travel Plan Coordinator</td>
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<td></td>
<td>Welcome Packs, web-site and notice boards</td>
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<td>B1135/B1172 Tuttles Lane Roundabout Upgrade*</td>
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<td>Main Site Access (Norwich Common) Roundabout</td>
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<td></td>
<td>Dualling of B1135/B1172 Link Road**</td>
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<td>Lift sharing</td>
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8.9 A comprehensive Travel Plan (TP) will form a key part of the mitigation package. In addition to assisting in achieving Central Government aims and objectives, the TP will have a number of benefits to individuals and the local community as well as the Sites, such as:

- an improvement in the environmental image of the Sites;
- a reduced need for car parking spaces;
- improved access to the Sites for residents, visitors and deliveries;
- reduced traffic generation resulting in improved air quality, noise levels, local traffic conditions and a cleaner more attractive environment;
- reduce the number of trips by private vehicle, especially those of single occupancy cars;
- reduced stress caused by driving, allied with improved health from adopting alternative travel habits;
- enhancement of the role of safe walking and cycling in the local area and therefore an improved environment for all pedestrians and cyclists;
- improved viability and therefore provision of local public transport services, which are available to those travelling to and from the Sites as well as the rest of the local community; and
• a reviewable operation so that any adverse transport impact can be quickly dealt with and emerging opportunities maximised.

8.10 It is assessed that with mitigation in place there would be no adverse Transport and Access impacts arising as a result of the operation of the Development. The residual effects would be negligible.
9.0 **AIR QUALITY**

9.1 An assessment has been undertaken of the likely significant effects of the Development on the environment with respect to Air Quality.

9.2 The Sites are not situated within or near an existing Air Quality Management Area (AQMA) which are designated for exceeding the national objectives set for key pollutants. SNC has not declared any AQMAs within the district.

9.3 This means that current levels of Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀) within the district do not exceed acceptable levels. These are the two pollutants mainly associated with traffic emissions and responsible for the declaration of most AQMAs throughout England.

9.4 Subject to the implementation of good practice within a site specific CEMP, which incorporates all the appropriate mitigation measures within current best practice guidance, the residual construction air quality impacts are anticipated to be local, temporary and not significant.

9.5 Daily trips, as a result of the Development and other committed developments have been shown to increase on a number of roads around the Sites. It has been shown that NO₂ and PM₁₀ levels with the increased traffic are well below the national objectives, and the Development would result in effects of negligible significance in relation to future concentration levels of NO₂ and PM₁₀.

9.6 Therefore, it is concluded that no significant construction or operational traffic air pollution impacts are anticipated as a result of the Development.
10.0 NOISE & VIBRATION

10.1 An assessment has been undertaken on the likely significant effects of the Development on the environment with respect to noise and vibration.

10.2 Environmental noise monitoring was completed for both unmanned (automatic) and manned surveys. The monitoring locations across the Sites were selected to represent all of the separate land parcels and roadside noise conditions.

10.3 Operational traffic noise impacts have also been modelled at several potentially sensitive receptor locations. The modelling exercise concluded that when comparing modelling results between the ‘With’ and ‘Without’ Development scenarios, potential noise impacts as a result of the Development traffic are considered negligible and therefore have a negligible weighting and no mitigation measures are anticipated to be required.

10.4 It is very unlikely that a receptor would be affected by vibration traffic if it is not affected by traffic noise; therefore, there was no need to assess vibration traffic impacts.

10.5 Noise impacts associated with stationary plant will be minimised by selection of plant in accordance with the relevant British Standard (BS 4142), with the design criteria that the noise rating level from building services will be specified as not to exceed the baseline background night time noise level at any residential receptor.

10.6 Mitigation measures to limit construction noise and vibration effects would be implemented through a CEMP, with suitable method statements for both noise and vibration.
11.0 WATER RESOURCES, DRAINAGE & FLOOD RISK

11.1 An assessment has been undertaken of the likely significant effects of the Development with respect to Water Resources, Flood Risk, Foul Water Drainage and Surface Water Drainage.

11.2 An assessment of the baseline conditions of the Sites has been undertaken and is summarised as follows:

- The Sites are located fully within Flood Zone 1 (the low risk zone) however the Environment Agency Surface Water Flood Maps show a portion of the western part of Parcel A can be flooded as a result of surface water emanating from the watercourse passing through the centre of the Sites. There is a small area which is susceptible to flooding in the northwestern corner of Parcel C;
- There are six groundwater abstraction boreholes within 500m radius of the Site. These are all for potable use associated with isolated farmhouses;
- A number of field drains are located within the Sites;
- The majority of the Sites is located within the River Tiffey catchment which is designated as a main river approximately 2.5km west of the Sites (Parcel A) at its nearest point; and
- The Sites are underlain by deposits which are not classified as aquifers. The underlying chalk bedrock is classified as a Principal Aquifer, which is capable of supplying water.

11.3 There are four potential effects on water resources during the demolition and construction phase of the Development:

- Increase in surface water runoff during demolition and construction;
- Impacts to groundwater and surface water quality during demolition and construction;
- Potential disturbance to main sewer as a result of demolition and construction; and
- Potential for disruption to public water supplies during construction.

11.4 There are five potential effects on water resources during operation of the Development:

- Increased demand for potable water supply;
- Connection of the Development to the public sewer network which will increase sewer flows downstream;
- Potential contamination of watercourses from contaminated surface water runoff;
- Potential for flood risk to the Development from the ditch network, surface water and flooding/overland flow; and
- Increases in impermeable surfaces could increase surface water runoff resulting in increased risk of downstream flooding.

11.5 Mitigation measures will be implemented to ensure that all residual effects on the water environment during the demolition and construction and operational phases will be negligible. Construction phase mitigation measures would be implemented through the CEMP. The Development includes sufficient space reserved for landscaping and sustainable drainage systems (SUDs). The Flood Risk Assessment and Drainage Strategy included in the ES demonstrate that SUDs would be incorporated at the detailed design stage to ensure that all residual effects with respect to flood risk would be negligible.
12.0 CULTURAL HERITAGE

12.1 An assessment has been undertaken of the likely significant effects of the Development with respect to archaeology, historic buildings and historic landscapes; collectively termed cultural heritage.

12.2 The baseline survey works carried out to inform the ES comprises an archaeological desk based assessment. Some archaeological survey and investigation has taken place in the immediate proximity of the Sites.

12.3 Four listed buildings are located close to the boundaries of the Sites. These are Oakland Farmhouse located north of Parcel C, Manor Farmhouse, Downham, located west of Parcel C a milestone located to the east of Parcel B, a barn at Planet Farm, on the south-east side of the old Norwich Road, the B1172 and located south east of Parcel B and Wong Farmhouse (toward High Green). All of these buildings are listed as Grade II. No parts of the Sites are considered to contribute to the significance of the listed buildings.

12.4 Past archaeological impacts will relate principally to agricultural practices. Modern deep ploughing is clearly breaking up the boulder clay subsoil and is likely to have a moderate but widespread archaeological impact across the agricultural parts of the Sites. It is likely that any archaeological features surviving in areas subjected to modern ploughing on the Sites will have suffered some degree of damage. This removes much of the possibility of encountering positive archaeological deposits (surfaces, occupation layers) and only negative cut features (ditches, pits and postholes) are likely to survive.

12.5 Adverse archaeological effects arising from the Development would be mitigated by the implementation of pre-construction programmes of archaeological evaluation, excavation, post-excavation and publication, together with programmes for public inclusion and interpretation. These mitigation measures would follow planning consent secured by an appropriately worded archaeological planning condition.

12.6 There would be no significant effects on designated or non-designated built heritage assets from the Development. Mitigation measures in the form of appropriate landscaping and screen planting would protect the setting of the built heritage assets.
13.0 GROUND CONDITIONS

13.1 An assessment has been undertaken of the likely significant effects of the Development on the environment with respect to ground conditions. The assessment considers human health, property and controlled waters. A desk study has been undertaken in support of the assessment.

13.2 An assessment of the baseline conditions of the Sites has been undertaken and is summarised as follows:

- The Sites are anticipated to be underlain by Made Ground/Topsoil (non aquifers), over chalky Boulder Clay (non aquifers), over Sand & Gravel (Secondary ‘A’ Aquifer), and Upper Chalk (Principal Aquifer);
- A number of potential environmental receptors have been identified including construction workers, future users of the Sites (residents and maintenance workers), neighbouring residents, construction materials & properties, principal aquifer (Chalk), secondary ‘A’ aquifers (Sands & Gravels) and the downstream river network and associated ecosystem;
- The Sites and their surroundings represent a high sensitivity environment with respect to controlled waters due to them being underlain by a Principal Aquifer (Chalk) and surrounded/crossed by a ditch network which outfalls to a main river; and
- The Sites have been in agricultural use until the present day and the risk of encountering significant ground investigation is considered to be generally low.

13.3 A number of potentially significant effects on water resources could result during the demolition and construction period of the Development without mitigation measures in place:

- Construction workers may come into contact with contaminated soils or waters through ingestion or inhalation pathways;
- Construction workers and members of the public could be exposed to dust emissions and demolition waste, including asbestos during the demolition phase of the Development;
- Contaminated soils may migrate to off-site properties as airborne dust;
- Ground gases can accumulate in confined spaces. This can be inhaled by construction workers, leading to potential asphyxiation; and
- Mobilisation of contaminants during earthworks and creation of preferential pathways during construction, affecting groundwater quality in the Superficial Deposits and surrounding ditch network.

13.4 A number of potentially significant impacts to environmental receptors during operation of the completed Development have been identified:

- Users of the Sites could come into contact with contaminated soils/water by direct contact;
- Ground gases can accumulate in confined spaces. This can be inhaled by residents/future users of the Sites;
- Contaminated soils/water could affect services via direct contact/ neighbours, leading to potential asphyxiation or explosion; and
- Contaminated soils/water could affect site structures via direct contact.

13.5 A focused site investigation including investigation of any shallow soils/Made Ground, groundwater and ground gas monitoring for geo-environmental purposes will be undertaken to investigate and identify potential contamination sources. An Environmental Risk Management Strategy (ERMS) and if necessary, a remediation method statement would be prepared on completion of the site investigation to address any significant effects. Best practice mitigation measures would be implemented during the construction phase.

13.6 Subject to appropriate mitigation measures being implemented to mitigate any adverse effects on human health, property and controlled waters associated with ground conditions, the residual effects would be negligible during the demolition and operational phases on the Development.
14.0 **SOCIO-ECONOMICS**

14.1 An assessment has been undertaken of the likely significant effects of the Development on the environment with respect to socio-economic issues. The assessment applies published guidance and formulae alongside professional judgment and experience. The following topics have been considered:

- Changes in population numbers and structure;
- Changes in housing requirements;
- Demands on healthcare provision;
- Demands on education provision;
- Local library provision;
- Local fire service provision;
- Effect on employment;
- Effect on local expenditure; and
- Community use of WRFC.

14.2 During construction, the Development is expected to accommodate 116 person years of work each year over the 4½ year development period 2015 and 2019. This is assessed as a minor - moderate beneficial effect. In addition, a number of indirect jobs will be maintained or created over the construction phase as a result of the spin-off effects, supply chain expenditure from potential purchase of the building supplies and local provision of meals, refreshments and temporary accommodation.

14.3 The Development would provide up to 390 dwellings and a new rugby club facility. The total dwellings could provide homes for up to 897 people upon completion and would make a contribution to meeting the identified housing need within SNC. This is assessed as being a minor - moderate beneficial impact on meeting housing need and creating a balanced demographic profile within Wymondham.

14.4 Based on the potential for up to 390 additional households and on existing expenditure per household, it is feasible that the economic vitality of the local area and wider district could increase by £4.7m per annum which is considered to have a minor beneficial effect on the local economy.
14.5 Two local GP Practices and three local Dental Practices have demonstrated capacity to accommodate the residents of the Development. It is, therefore, considered that the Development would have a negligible effect on healthcare provision.

14.6 It is anticipated that the Development will provide for mitigation of its effects on primary and secondary education facilities by way of financial contributions as appropriate to the circumstances. This would enable NCC, as the local education authority, to ensure a sufficient provision of school places. Residual effects on education would therefore be negligible.

14.7 There are library and fire services within Wymondham, and the surrounding three local settlements (Hethersett, Hingham and Attleborough) and the local area is well served in this respect. The effects on library and fire services are considered to be negligible.

14.8 WRFC predicts that the new rugby club facility will significantly increase the number of users and provide local employment. WRFC forecasts that the number of participants is expected to increase to around 2,200. The throughput (number of uses) is expected to increase to 56,000 as a result of the new facilities. This will represent a positive sporting impact on Wymondham. Users of the new facility would include:

- WRFC;
- Wymondham Athletics Club
- Local hockey, football and rugby clubs;
- Schools;
- People attending training courses; and
- People attending school holiday and after school clubs and activities.

14.9 A new multi-purpose clubhouse building will also be available for community use.
FIGURE 2
PARAMETERS PLAN (BUILDING HEIGHTS)
The scaling of this drawing cannot be assured.

Revision Date Orn Ogd
C Site Boundary Amendment. 16.12.13 NO AP
D Area Adjustments. 13.02.14 JW AP
E Amended Plan. 19.02.14 ALC AP

Site boundary

Residential Up To 2 Storeys
(Max 9m To Ridgeline)

Residential Up To 2.5 Storeys
(Max 10.5m To Ridgeline)

No Built Development. Zone to Accommodate
Landscape / Open Space SUDS / Movement Corridor

Zone to Accommodate Movement Link & Development Associated with
Outline Consent on Land at Carpenters Barn

Zone for Pitches + Ancillary Ground Maintenance Structures (Max
Height 3m To Ridgeline) up To 49m AOD and Landscape Planting

Zone Accommodate Club House Up To 2 Storeys (Max Height
10.5m To Ridgeline) + Flood Lights To Achieve A Minimum Of 200
Lux At 0.6 Uniformity. Lighting Columns To Be A Max Of 18m
Above Finished Ground Level.

NOTE:
The zones for the maximum development height is an
amalgamation of the broad proposed ground level zones and
building height zones. Figures are given as Above Ordnance
Datum (AOD).

Final building floor levels for the development may range from 0m
to +1m above the proposed ground levels.

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FIGURE 3
PARAMETERS PLAN (LAND USE, GREEN INFRASTRUCTURE AND ACCESS)