



## **A41 Pioneer Road Roundabout, Graven Hill, Bicester**

### **Landscape & Visual Impact Assessment**

On behalf of



July 2020

**Waterman Infrastructure & Environment Ltd**

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**Client Name:** Graven Hill Village Development Company Limited  
**Document Reference:** WIE11386-145-R-9-1-3-LVIA  
**Project Number:** WIE11386

### Quality Assurance – Approval Status

This document has been prepared and checked in accordance with  
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

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Issue	Date	Prepared by	Checked by	Approved by
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### Comments

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## 1. Introduction

### 1.1 Purpose

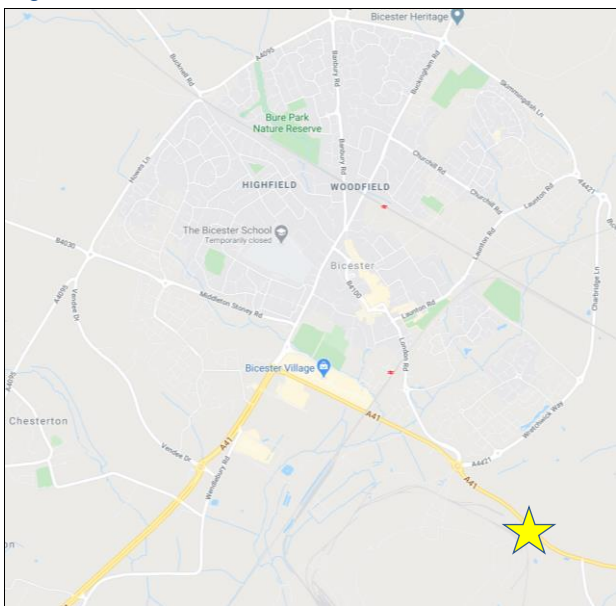
This Landscape & Visual Impact Assessment (LVIA) Report has been produced to support a planning application for major junction improvements at the Pioneer Road junction on the A41 (also known as Aylesbury Road) at Graven Hill, Bicester.

### 1.2 Scheme Background

The Site is approximately 1 hectare (ha) in area and centred on Ordnance Survey Grid Reference SP 5966 2075. The Site currently comprises a T-junction between the A41 and Pioneer Road, with associated soft landscape.

The location of the proposed roundabout is shown in **Figure 1** in map form (indicated by the yellow star) and a more detailed satellite image illustrating the approximate localised extent of the scheme for reference in **Figure 2**. The assessment area covers approximately a 150m radius from the centre of the scheme.

Figure 1: Location of Scheme



Source: <https://www.google.co.uk/maps/@51.8962514,-1.1603666,14.17z>

Figure 2: Study Area



Source: <https://www.google.co.uk/maps/@51.8823951,-1.1350964,409m/data=!3m1!1e3>

The south western half of the Site falls within a wider area of land known as Land Transfer Area 2 (LTA2) of the Graven Hill Village Development which has outline planning permission for mixed use redevelopment of a former Ministry of Defence Site (ref. 11/01494/OUT). Furthermore, the north-eastern half of the Site falls within an area of land known as Wretchwick Green, which is awaiting a decision on an outline planning application for mixed used development (ref. 16/01268/OUT).

The proposals comprise a 4-arm roundabout at the Pioneer Road junction on the A41 at Graven Hill, Bicester. The roundabout would connect the Graven Hill development (currently under construction), via the proposed Employment Access Road (EAR), to the wider highway network. The proposals would also allow for future access to a proposed development (Wretchwick Green) on land to the north of the A41. The roundabout is primarily aimed to help improve access for all users between the two development sites. A drawing showing the roundabout proposals is included in **Appendix A**.

This report presents the findings of a desktop study and field assessment carried out. This report describes the relevant landscape planning context as well as other designations or environmental constraints relevant to the Site. It then describes the landscape character and visual amenity of the surroundings and analyses the key views towards the Site and the potential effects which would result as a consequence of the Development.

The purpose of the report is to assess the landscape and visual impacts of the roundabout proposals. Specifically, this report provides information to demonstrate that the assessments and conclusions from a previous Environmental Statement (associated with the Wretchwick Green planning application) for a roundabout close to the location of the current proposals are generally appropriate for the current proposals. Where there are differences between the impact of the proposals these are examined in more detail.

## 2. Planning Status

### 2.1 Graven Hill

In August 2014 planning permission was granted (Application No: 11/01494/OUT) for a development south east of Bicester at Graven Hill. The application proposals are as follows:

*“Redevelopment of former MOD sites including demolition of existing buildings, development of 1900 homes; local centre to include a 2 form entry primary school (class D1), a community hall of 660sqm, five local shops or facilities to include A1, A2, A3, A5 and D1 uses totalling up to 1358sqm, up to 1000sqm gross A1 uses, a pub/restaurant/hotel (class A4/A3/C1) up to 1000sqm and parking areas; employment floorspace comprising up to B1(a) 2160sqm, B1(b) 2400sqm, B1(c) and B2 20520sqm and B8 uses up to 66960sqm; creation of public open space and associated highway improvement works, sustainable urban drainage systems, biodiversity improvements, public transport improvements and services infrastructure. Erection of a 70400sqm fulfilment centre on 'C' site and associated on site access improvement works, hardstanding, parking and circulation areas.”*

A plan illustrating the proposed site layout is provided in **Figure 3**.

Figure 3: Graven Hill Site Layout



Source: <https://planningregister.cherwell.gov.uk/Planning/Display/19/00937/OUT> - 1982-A-L-010-U



The S106 agreement for Graven Hill requires improvements to the A41 Pioneer Road junction. A copy of the “Transport Payment No. 4” quotation in respect to the S106 agreement and the A41 is provided below.

**“Transport Payment No.4”** The sum of £1,960,000 (One Million Nine Hundred And Sixty Thousand Pounds) Index Linked towards improvement/provision of the second access to the Site, including provision of a new roundabout instead of the existing priority junction serving Pioneer Road and the A41 pedestrian and cycle facilities where appropriate and such other mitigation works as appropriate;

Source: Planning obligation by deed of agreement under Section 106 of the Town and Country Planning Act 1990 Relating to land at Graven Hill, Bicester, Oxfordshire. Trowers & Hamlins LLP 8th August 2014

This LVIA has been produced to support a planning application for the delivery of the improvement scheme in lieu of the S106 payment.

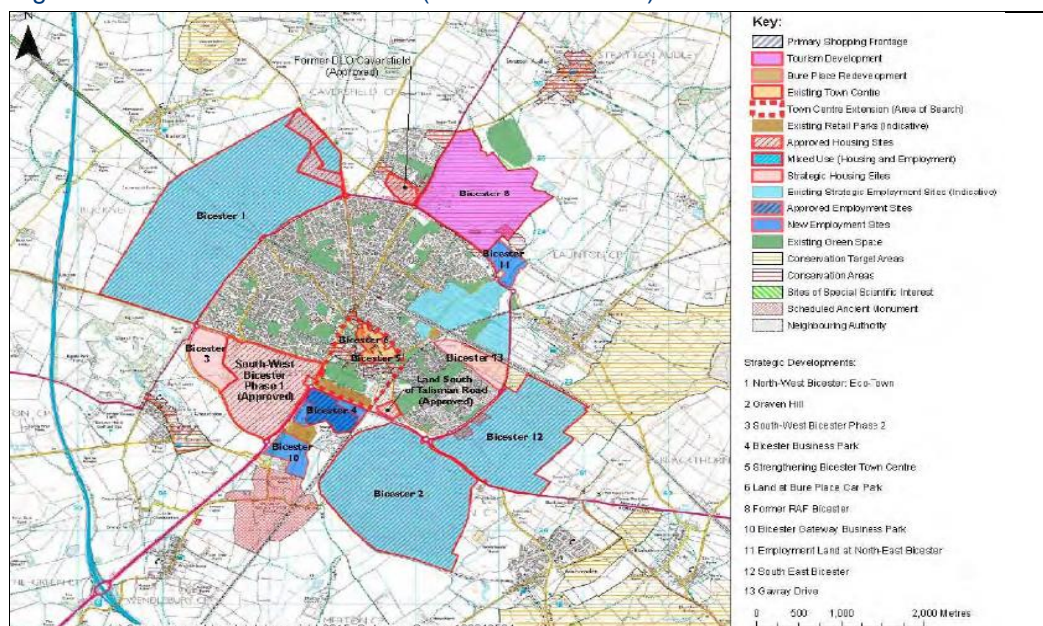
## 2.2 Wretchwick Green

In June 2016 an Outline Planning Application (Application No: 16/01268/OUT currently under consideration) was jointly submitted by Redrow Homes Ltd and Wates Developments Ltd for a development south east of Bicester at Wretchwick Green. The application proposals are as follows:

“Outline application with all matters reserved apart from access for residential development including up to 1,500 dwellings, up to 7ha of employment land for B1 and/ or B8 uses, a local centre with retail and community use to include A1 and/ or A2 and/ or A3 and/ or A4 and/ or A5 and/ or D1 and/ or D2 and/ or B1, up to a 3 Form Entry Primary School, drainage works including engineering operations to re-profile the land and primary access points from the A41 and A4421, pedestrian and cycle access, circulation routes, related highway works; car parking; public open space and green infrastructure and sustainable drainage systems.”

The Wretchwick Green Application Site forms a major part of the Bicester 12 (South East Bicester) allocation in the adopted Cherwell District Local Plan 2011-2031 Part 1. The location of the Bicester 12 Allocation, in relation to the remaining allocated sites in Bicester including Graven Hill (identified as site ‘Bicester 2’) is shown in **Figure 4**.

Figure 4: Location of Bicester 12 (Wretchwick Green)

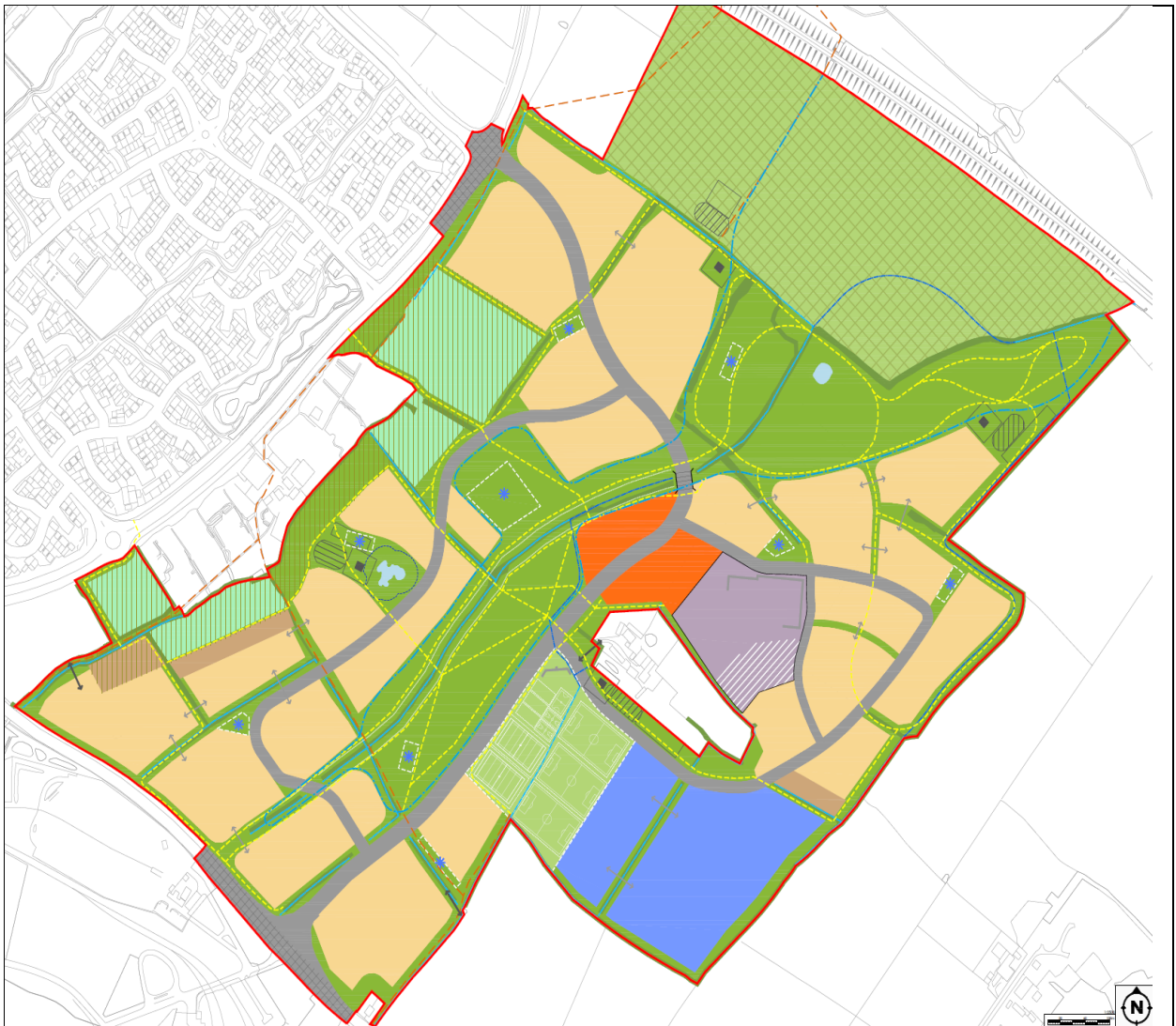


Source: Extract from Cherwell District Council’s Key Policies Map

The proposals include two new vehicular accesses onto the adjacent A4421 and one access onto the A41. The vehicular access onto the A41 takes the form of a new roundabout approximately 700m east of the existing A41/A4421 roundabout (Rodney House Roundabout). The vehicular access would be constructed broadly adjacent the existing A41 Pioneer Road junction and would be circa 60 metres in diameter. The roundabout would include four arms; the eastern and western arms of the A41, the northern arm would form the access into the Wretchwick Green development and the southern arm would connect with Pioneer Road which travels south into the Graven Hill site.

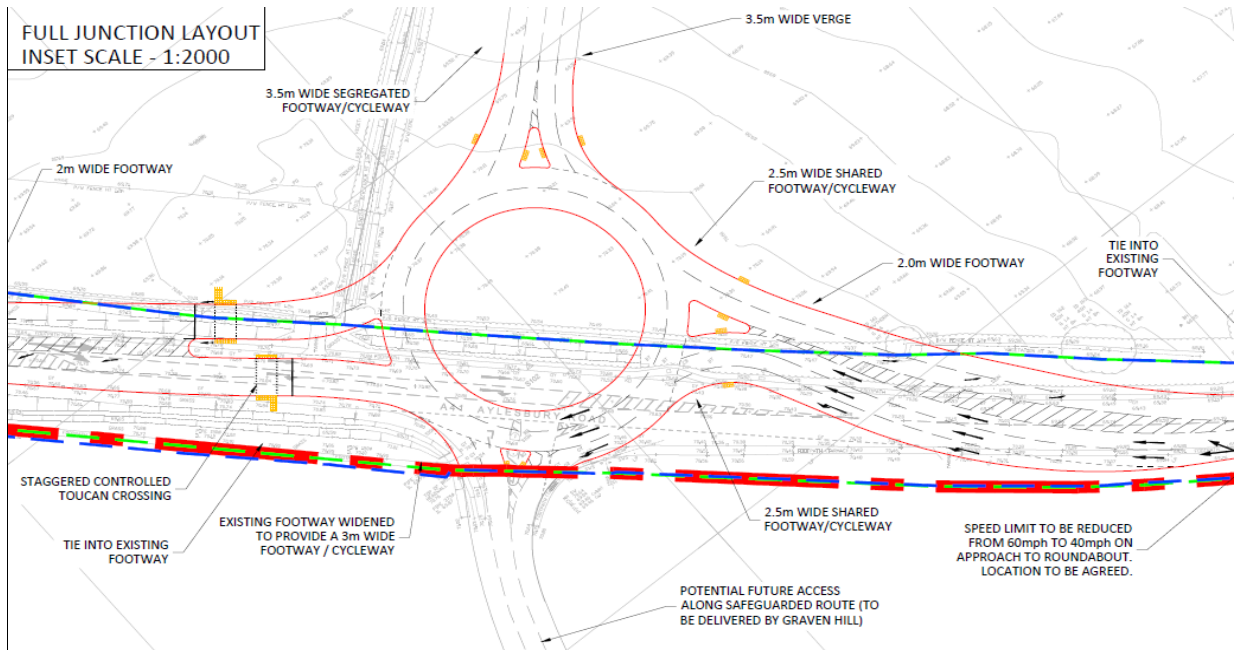
A plan indicating the Wretchwick Green scheme proposals is shown in **Figure 5** with the applicants proposed roundabout arrangement included in **Figure 6**.

Figure 5: Land Use Masterplan



Source: i-Transport Ref: VACE/JW/dc/ITM7245-017C R

Figure 6: Proposed Site Access / New 4 arm Roundabout



Source: i-Transport Ref: VACE/JW/dc/ITM7245-017C R

The phasing of the Wretchwick Green development does not accord with the programming requirements for the Graven Hill site and the delivery requirements of the proposed A41 Pioneer Road improvements. An alternative design has therefore been prepared by Waterman, at the request of, and on behalf of, Graven Hill Village Development Company.

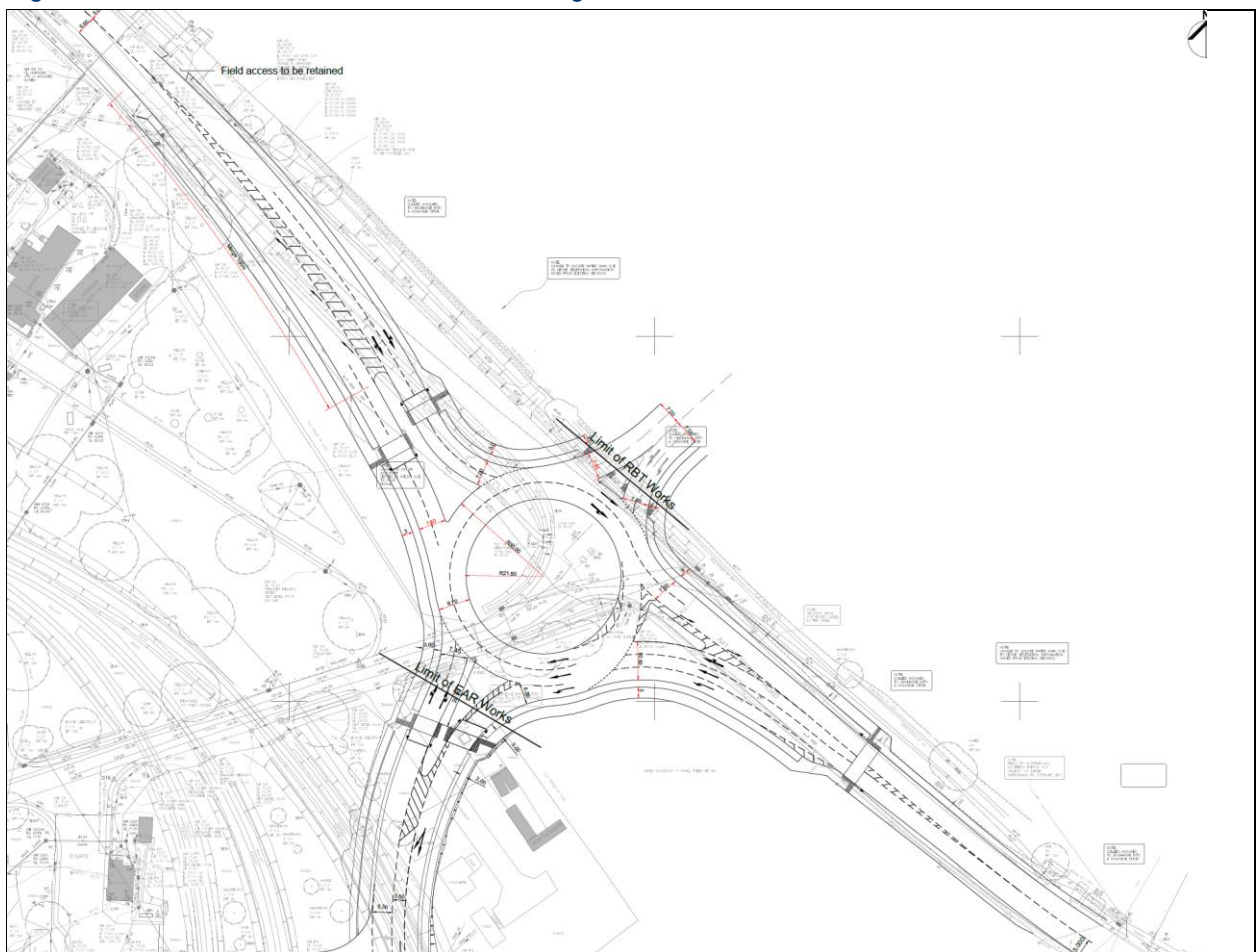
### 3. Proposed Scheme

#### 3.1 Roundabout

The proposals comprise a 4-arm roundabout at the Pioneer Road junction on the A41 at Graven Hill, Bicester. The roundabout would connect the Graven Hill development, via the proposed EAR to the wider highway network (namely the A41). The proposals would also allow for future access to a proposed development at Wretchwick Green on land to the north of the A41. The proposals include a 3m wide shared use footway/cycleway along with traffic signal-controlled crossings on all arms of the junction.

A drawing showing the proposed roundabout arrangement is included in **Appendix A** (Drawing WIE11386-A41-03-001-A01-General Arrangement). An extract of the drawing is included as **Figure 7**.

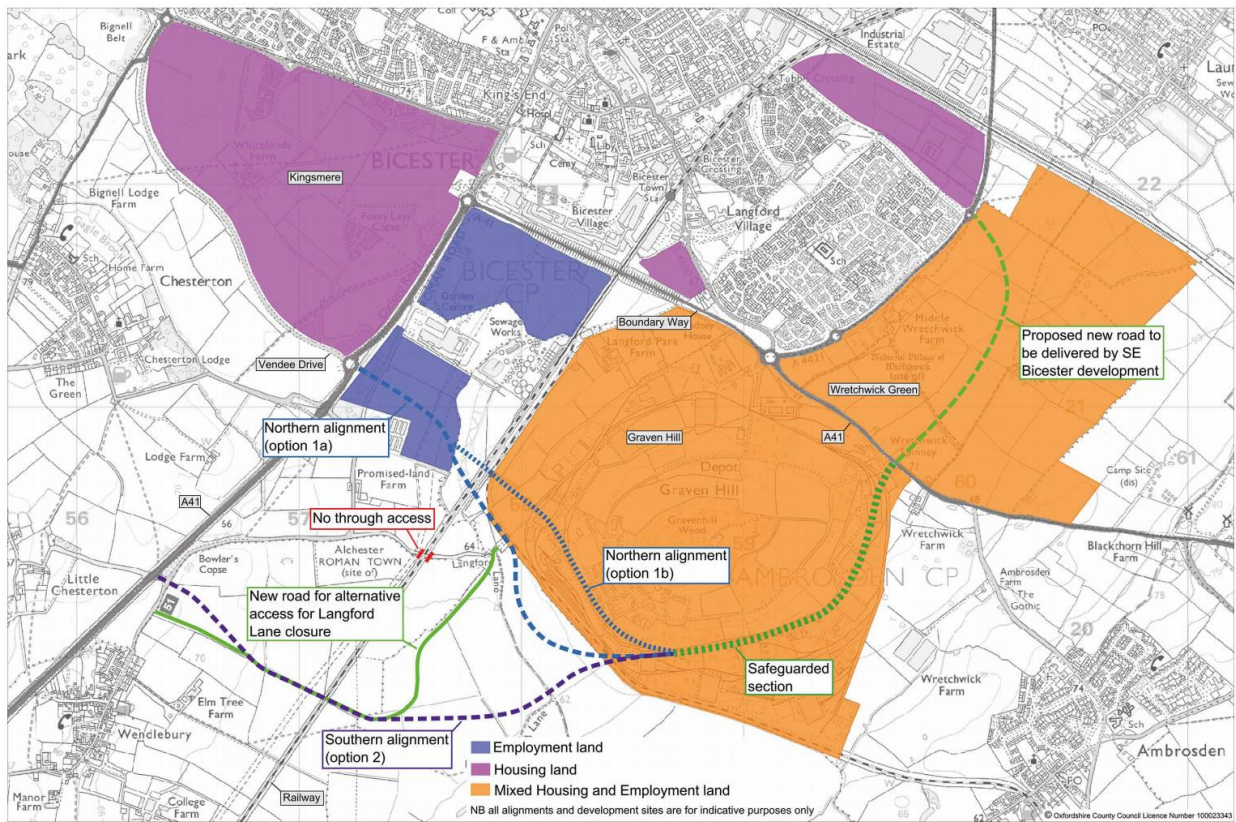
Figure 7: A41 Pioneer Road Roundabout Design



The proposed roundabout would be located within either the adopted highway (maintained at the public's expense) or land controlled by the Graven Hill Village Development Company. The design is not dependent upon any third-party land and can be delivered prior to the Wretchwick Green development.

The EAR (formally known as Pioneer Road) would also provide vehicular access to the wider employment land at Graven Hill and is also safeguarded as part of the wider South East Perimeter Road (SEPR) for Bicester. Consultation on the SEPR was undertaken in 2015 and a number of routes were identified, however the section through Graven Hill is safeguarded, along with the section through Wretchwick Green, See **Figure 8** showing the proposed route(s) of the SEPR.

Figure 8: Safeguarded & Route Options for the South East Perimeter Road



Source:

*file:///C:/Users/NMNJH/Downloads/Options\_for\_a\_South\_East\_Perimeter\_Road\_for\_Bicester\_Low\_resolution\_version.pdf*

### 3.2 Programme for Delivery

In consultation with Graven Hill Village Development Company, OCC and Cherwell District Council (CDC) the roundabout is expected to be completed and operational during quarter 3 of 2021. The opening of the roundabout would coincide with the construction and delivery of the EAR into the Graven Hill site.

## 4. Landscape & Visual Impact Assessment

### 4.1 Conclusions in ES 2018

The Environmental Statement of 2018 for the Wretchwick Green planning application assessed the impact that the development would have during the construction and operational phases, including construction of a new . The impact of the Development during these phases was assessed using the definitions outlined in **Tables 1, 2 and 3**. The significance level could be either positive or negative.

Table 1: ES 2018 Matrix for Determining the Significance of Effects

		Sensitivity of Receptor/Receiving Environment to Change/Effect			
		High	Medium	Low	Negligible
Magnitude of change/effect	High	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Table 2: ES 2018 Definition of geographic extent of each impact

Geographic Level	Definition
International	An impact of international importance would be one that affects an interest of international concern.
National	An impact of national importance would be one that affects the national interest identified by Government policies such as effects on a National Park, AONB, SSSI, or a Grade I or II* Listed Building.
Regional	An impact which will have a direct consequence for the South East Region.
District	An impact which will have a direct consequence for Cherwell District.
Local	A direct impact on the Study Area.

Table 3: ES 2018 Definition of the Duration Criteria of Each Impact

Duration	Definition
Short Term	The proposed development will have an impact duration of the first year of the construction phase.
Medium Term	The proposed development will have an impact lasting the duration of the construction phase.
Long Term	The proposed development will have an impact after construction is complete.

Susceptibility was assessed for both landscape receptors such as designated areas and landscape character areas, and for visual receptors (people). It indicates the ability of a defined landscape or visual receptor to accommodate the Proposed Development “without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.”). A description of how susceptibility is evaluated for each receptor type is included below. It is rated on the following scale:

- High – undue consequences are likely to arise from the Proposed Development;
- Medium – undue consequences may arise from the Proposed Development; and
- Low - undue consequences are unlikely to arise from the Proposed Development.

Sensitivity was rated within the range of High-Medium-Low-Negligible and is assessed by combining the considerations of susceptibility and value described above. **Table 4** illustrates the judgement process for landscape receptor, and **Table 5** for visual receptors:

Table 4: ES 2018 Landscape Sensitivity

		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	Medium	Medium-Low
	Community	Medium	Medium-Low	Low
	Limited	Low	Low-Negligible	Negligible

Table 5: ES 2018 Visual Sensitivity

		Susceptibility		
		High	Medium	Low
Value	National/International	High	High-Medium	Medium
	Local/District	High-Medium	High-Medium	Medium
	Community	High-Medium	Medium	Medium-Low
	Limited	Medium	Medium-Low	Low

Effects described in the Assessment of Effects and Residual Effects are summarised in **Table 6** overleaf. Significant effects are underlined. For receptors where the significance of effects varies, the distribution of effects is summarised. Effects are given during construction, before the mitigation planting has matured and once the mitigation planting has matured unless specifically stated.

Table 6: ES 2018 Summary of Effects

Receptor	Comments	Distance/ Direction	Sensitivity	Magnitude of Effect	Significance	Adverse/ Neutral/ Beneficial
<b>Landscape Character</b>						
<b>3. Clay Vale</b>	Within Application Site - Pre-mitigation and residual	0m	Medium	High	Major Moderate	Adverse
	Up to approximately 200m to the south east and up to the A41 – During construction			Medium-Low	Moderate-Minor	Adverse
	Up to approximately 200m to the south east and up to the A41 – Pre-mitigation permanent			High-Medium	Major-Moderate	Adverse
	Up to approximately 200m to the south east and up to the A41 – Residual permanent			Medium	Moderate	Adverse
	Between 200m and to 550m to the south east and the south side of the A41 – During construction			Low	Minor	Adverse
	Between 200m and to 550m to the south east and the south side of the A41 – Pre-mitigation permanent			Medium	Moderate	Adverse
	Between 200m and to 550m to the south east and the south side of the A41 – Residual permanent			Medium-Low	Moderate	Neutral
	South of the A41 – Pre-mitigation permanent			Low	Minor	Neutral
	South of the A41 – Residual permanent			Negligible	Minor	Neutral
	<i>Overall effects on the character type - Pre-mitigation and residual</i>			<i>Negligible</i>	<i>Negligible</i>	<i>Neutral</i>
<b>22. Wooded Hills</b>	Graven Hill – During construction	30m, south west	Low	Low	Minor	Neutral
	Graven Hill – Pre-mitigation permanent			Medium	Minor	Neutral
	Graven Hill – Residual permanent			Medium-Low	Minor	Neutral
	Amcott Hill – Up to Permanent	3.4km, south east	Medium-Low	Negligible	Negligible	Neutral
<b>A41 – Aylesbury Road</b>	Section of route between fields west of Wretchwick Farm and junction with A4221 – Pre-mitigation permanent	0m, south west	Low	High	Moderate	Adverse
	Section of route between fields west of Wretchwick Farm and junction with A4221 – Residual permanent			High	Moderate	Adverse
	Section of route from Ploughley Road to Blackthorn Hill – Pre-mitigation and residual			Low-Negligible	Negligible	Neutral
	<i>Overall effects on A41 – Aylesbury Road - Pre-mitigation and residual</i>			<i>Negligible</i>	<i>Negligible</i>	<i>Neutral</i>
<b>Local roads to the south of the A41 and north of Amcott hill, between 1km to 6km</b>	<i>Overall effects on local roads to the south of the A41 and north of Amcott hill, between 1km to 6km - Pre-mitigation and residual</i>	1km, south east	Medium-Low	<i>Negligible</i>	<i>Negligible</i>	<i>Neutral</i>

Overall the Proposed Development would introduce an area of new development (highway) that would not be unusual given its existing context.

The findings of the LVIA indicate that significant effects would arise on a Permanent basis with regards to landscape character and Public Rights of Way within the Wretchwick Green Application Site. The implications of associated works on the A41, associated with the new roundabout however, are considered to be low to Negligible with a Neutral effect, based on low sensitivity of the works to its surroundings.

## 4.2 Differences in Current Proposals from the Wretchwick Green Proposals

It is considered that the revised roundabout junction proposals, being promoted by Graven Hill Village Development company, when compared to the proposals put forward by the promoters of the Wretchwick Green Development would not result in a materially different assessment in respect to LVIA and in conclusion the impact of the proposed new roundabout on the A41 would generally be negligible.



## 5. Summary

This LVIA Report has been produced to support a planning application for major junction improvement at the Pioneer Road junction on the A41 at Graven Hill, Bicester.

The proposals comprise a 4-arm roundabout at the Pioneer Road junction on the A41 at Graven Hill, Bicester. The roundabout would connect the Graven Hill development, via the proposed Employment Access Road to the wider highway network (namely the A41). The proposals would also allow for future access to a proposed development at Wretchwick Green on land to the north of the A41. The proposals include a 3m wide shared use footway/cycleway along with controlled crossings on the approaches to the roundabout.

An assessment of the LVIA prepared for the Wretchwick Green has been undertaken, which included similar proposals for a new roundabout on the A41. A review of the assessment undertaken in respect to LVIA concluded that the development proposals would have a significant effect which would arise on a Permanent basis on landscape character within the Application Site including effects on Public Rights of Way within the Site and to the south east of the Application Site at Blackthorn Hill.

The effects of the proposed Wretchwick Green roundabout on the A41 were considered to be negligible, with neutral effect.

It is considered that the effects of the revised A41 roundabout would not result in a materially different conclusion to that identified within the technical work for the Wretchwick Green planning application. The proposals proposed by Graven Hill Village Development Company are therefore considered to be suitable in respect to Landscape and Visual Impact.



## Appendices

### Appendices

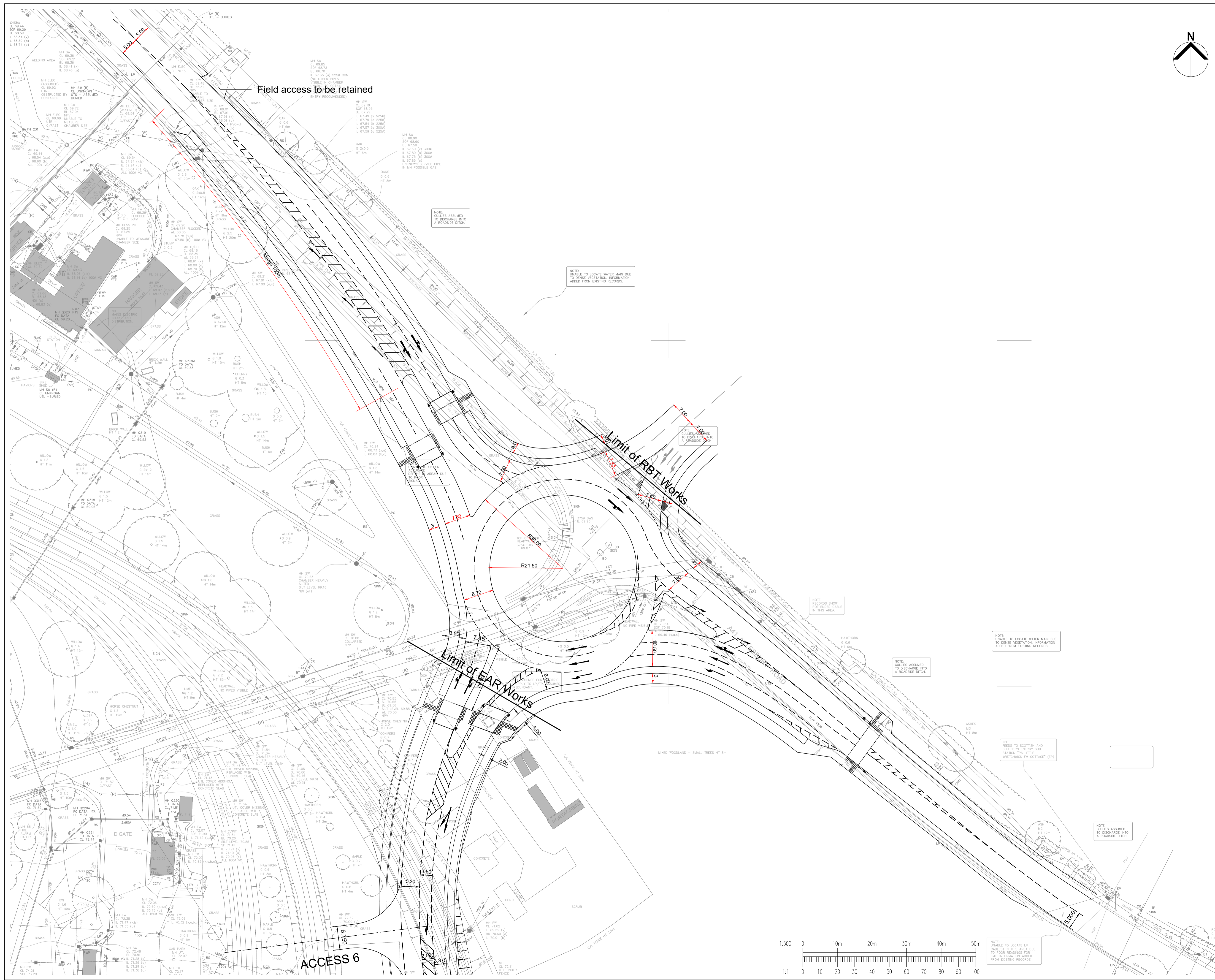
A41 Pioneer Road Roundabout, Graven Hill, Bicester  
WIE11386-145-R-9-1-3-LVIA



## **A. A41 Pioneer Road Roundabout Design**

### **Appendices**

A41 Pioneer Road Roundabout, Graven Hill, Bicester  
WIE11386-145-R-9-1-3-LVIA



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**FOR INFORMATION**

Rev	Date	Description	By
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Amendments	
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