

Land West of A1, Wyboston  
**Statement to Inform Call for Sites Submission**



Our Reference: 1156

August 2020

# Contents

---

1	Introduction	1
2	Site Context	3
3	Proposed Development and Planning Considerations	5
4	Conclusions	11

Appendix 1 Site Location Plan

Appendix 2 Constraints and Opportunities Plan

Appendix 3 Landowner Approval Letter

Appendix 4 Concept Masterplan

Appendix 5 Proposed Access from The Lane

Appendix 6 Proposed Access Roundabout from A1 Slip Road

# 1 Introduction

---

- 1.1 This statement has been prepared on behalf of [REDACTED] in support of the promotion of land west of the A1, Wyboston for a mixed use development through Bedford Borough Council's (BBC) Issues and Options Consultation on its new Local Plan and Call for Sites. It provides a summary of the proposed mixed use development, the site's land use features and constraints and the associated environmental and technical issues to assist the Borough Council in considering its development potential.

## **Background Information**

- 1.2 Employment development has previously been considered on this site as can be seen from the planning history overview in Section 2 of this Statement.
- 1.3 The site was also previously considered for the provision of a Trunk Road Services Area (TRSA) in 2011 for which a new roundabout on the A1 Northbound Off/On-Slip to provide access to the development was proposed. At that time agreement was reached with Highways England regarding the principle of a new access into the site from the A1. Due to the uncertainty over the future of the A428 however, that proposal was never submitted.
- 1.4 The decision to create a new road between the A1 Black Cat roundabout and Caxton Gibbett and a new Bedford to Cambridge rail link, with a new station at Tempsford, has however prompted a review of this sites development potential by the landowners given its proximity to these important transport routes.
- 1.5 Part of the site was promoted through BBC's Pre-Submission Local Plan 2030 Consultation for a residential development of up to 300 dwellings, later increased to 1,000 dwellings. It is identified as site 903 in BBC's schedule of potential development sites. At that time, discussions were also held with Wyboston Parish Council and Highways England to discuss the proposals in the context of the proposed new road between the A421 and The Lane, Wyboston.
- 1.6 The site area has now been extended and the proposals modified. A mixed use development is now proposed comprising up to 485 new homes, circa 51,100sq.m of employment and a new local centre providing both retail and community uses. The site is deliverable and can play a role in helping the Borough Council to boost significantly the supply of housing and

employment. The site is available now, is a suitable location for development, accessible from The Lane to the south and a new junction off the A1 to the east and is financially viable. Delivery can start within the five years following adoption. The landowners are seeking an allocation for the site for a mixed use development as part of the next Local Plan review.

## 2 Site Context

---

### Site Context

- 2.1 The parish of Wyboston, Chawston and Coledon lies on the eastern periphery of Bedford Borough. The site is located on the northern edge of Wyboston and south west of Eaton Socon and St Neots, both of which lie within Cambridgeshire.
  
- 2.2 The A1 trunk road and its link road to the A428 St Neots by-pass bounds the sites eastern boundary, with the land settlement area of Rookery Way adjacent to the west, as well as other residential properties and a hauliers to the south west fronting The Lane. To the north is agricultural land and the Eaton Socon Grid Supply Point; a National Grid sub-station. To the south are residential properties, The Lane, with agriculture beyond. Beyond the A1 are retail and commercial uses to the north east within Eaton Socon, Wyboston Lakes Resort to the east and residential development to the south east.
  
- 2.3 The site is separated from Eaton Socon by the A1, although connected by a footpath link and track. It is 2.5 miles from St Neots town centre, a growth area within Huntingdonshire and 10 miles north west of Bedford town centre.

### The Site

- 2.4 The site extends to an area of 40.3ha as shown on the site location plan in **Appendix 1**. The southern and very northern parts of the site are in agricultural use. Lakes Autos, an auto repairs business, is located to the west of the A428 slip road from the A1 Northbound carriageway, towards the southern end of the site and there are lakes to the rear. Land between Lakes Auto and the northern agricultural land is unused as it is unsuitable for agricultural production.
  
- 2.5 A constraints and opportunities plan can be found at **Appendix 2**.

### Planning History

- 2.6 Relevant planning history is summarised in the table below and relates to land north of lakes Autos:

Reference	Description	Decision	Date
99/01655/OUT	Erection of offices/workshops, formation of parking area and car	Withdrawn	

	storage facility including means of access (outline)		
00/01133/OUT	Erection of offices/workshops, formation of parking area and car storage facility including means of access (outline)	Withdrawn	

### Land Ownership

- 2.7 The site is owned by a number of parties all of whom are agreeable to its promotion through the local plan review and development once allocated. A letter of approval from each Landowner is attached at **Appendix 3**.

### 3 Proposed Development and Planning Considerations

---

#### The Proposal

- 3.1 Given the excellent position of this site adjacent to the A1, and in close proximity to the A421 and A428 and the links they offer to London, Cambridge, the A14 and north, as well as Eaton Socon and St Neots, it has significant potential to deliver a sustainable mixed used development.
- 3.2 The proposed development comprises:
- 11.1 hectares (Ha) of employment land (Class B1, B2 and B8) with an indicative capacity for 51,100m<sup>2</sup> (550,000ft<sup>2</sup>) of floorspace;
  - Up to 485 dwellings, mixed in size and tenure, including 30% affordable housing provision;
  - 1.9ha for a mixed use development comprising a new local centre, including opportunities for retail, health and community facilities;
  - Up to 5.4ha of open space and 3.3ha for boundary landscaping/buffer;
  - Vehicular access from a new roundabout on the A1 Northbound Off-Slip to Great North Road at the A1/A428 interchange and from The Lane to the south; and
  - The stopping up of all other existing access points within the site onto the A1.
- 3.3 A Concept Masterplan can be found at **Appendix 4**. It shows how land uses could be distributed across the site. Employment uses are located to the north to create a logical cluster with Eaton Socon Industrial Estate. The local centre is accessed directly off the new roundabout access and as well as serving the development as a whole, would provide a buffer between the majority of the residential areas and the employment.

## Highways and Access

### Access

- 3.4 Vehicular access to the northern end of the site is limited. Currently Northfield Road provides access from the west. A single track links the site under the A1 to Eaton Socon Industrial Estate to the east, via Alpha Drive. The track size and A1 crossover limits the height and size of vehicles that can use it and prohibits access to most agricultural vehicles and machinery.
- 3.5 It is proposed to create two access points. The first would be to the south via No.48 The Lane which would be demolished to create the access. A drawing of the access is provided in **Appendix 5**.
- 3.6 The second would be the provision of a new junction directly off the A1. This would comprise a new roundabout on the A1 Northbound Off-Slip to Great North Road at the A1/A428 interchange. A drawing of the proposed access roundabout is provided in **Appendix 6** and includes a longitudinal section that addresses the drop in ground levels between the A1 and the site.
- 3.7 This access will extend from the new roundabout in a north westerly direction into the site to an internal roundabout junction. The internal roads then extend north and south off the internal roundabout to serve the site with the northern link providing access to the local centre, employment and some residential. The southern link would provide access to residential areas.
- 3.8 The main internal road of the development will be designed to accommodate bus services.
- 3.9 The proposed vehicular access into the site from a new roundabout on the A1 Northbound Off-Slip was assessed and accepted as a Departure from Standard by Highways England when the site was previously considered for a TRSA.
- 3.10 The access proposals have been discussed with Highways England in 2020 and they do not consider that they will have any adverse impact on the A1 trunk road. They would provide highway improvements and benefits by allowing for the closure of a number of existing access points onto the A1, including the sub-standard egress from the existing garage onto the A1 Northbound Off-Slip, and a bus route through the site allowing for the safe siting of bus stops away from the A1.



### Local Highway Improvements

- 3.11 Highway England's major highway improvement scheme which will see the realignment of the A428 between the A1/A428 interchange and the A1198 Caxton Gibbet roundabout to join at the Black Cat roundabout south of the proposed development, has been subject to public consultation and a planning application is due to be submitted to the Planning Inspectorate later this year, with completion planned by 2025.
- 3.12 Work undertaken by the Wormald Burrows Partnership, on behalf of the landowners, concludes that the realignment of the A428 will have a significant positive impact upon the traffic conditions of the local road network associated with the proposed development.
- 3.13 Once the A428 realignment has been opened, the traffic demand on the A428/B1428/Great North Road/A1 Southbound Off-Slip/Phoenix Park roundabout, as well as the Great North Road/Wyboston Lakes access signalised junction, which form the local road network will be reduced significantly.
- 3.14 The strategic network traffic movements will be redistributed to the realigned A428 at the Black Cat roundabout meaning that the local road network associated with the proposed development will need to accommodate local traffic only.

### Pedestrian and Cycle Access

- 3.15 A series of pedestrian and cycle access routes within the development will ensure full permeability, with priority on the internal access roads for foot and cycle access rather than the car.
- 3.16 An existing foot/cycleway extends from Lakes Autos along the eastern site boundary and crosses under the A1 into the Eaton Socon Industrial Estate. From the A1 underpass there are footpath routes to the west to Northfield Road and Wyboston to the south west. New foot/cycleway links will be provided that connect to this existing shared foot/cycleway and the wider network, providing safe off-road routes for pedestrians and cyclists.
- 3.17 The existing Public Rights of Way through the site will be protected and maintained.
- 3.18 The site location is such that there is good potential for the future residents of the site to travel to work, shops, leisure sites and day-to-day services by foot and cycle.

### Public Transport

- 3.19 The nearest bus stop are Heddings Farm and Top Farm on The Lane for a east and north bound service between Tempsford and Biggleswade (no.112) and the footbridge on the A1 (south of the site) where the X5 service runs between St Neots and Milton Keynes. The A1 stops and those on The Lane are approximately 320m and 480m respectively from the southern access to the site.
- 3.20 As stated above the internal access will be designed to accommodate a bus service, enabling the provision of more localised bus stops to serve the development.
- 3.21 St Neots train station lies 5.4km to the east of the site. It is on the east coast mainline. Thameslink offers regular services between Peterborough and Horsham via London St Pancras. At peak times there are also Great Northern services between London Kings Cross and Peterborough.
- 3.22 Proposals for a new East-West rail line, with a new station in the Tempsford area, are under discussion and could in time further increase rail connectivity for the site.

### **Flood Risk**

- 3.23 The site is located within Zone 1 of the Environment Agency's Flood Map and has a less than 1 in 1000 annual probability of flooding. All land uses are therefore appropriate in this zone.
- 3.24 Surface water drainage can be addressed within the site using sustainable drainage systems, including soakaways and infiltration structures below ground level to ensure that there is no impact elsewhere.

### **Landscape**

- 3.25 The Bedford Borough and Central Bedfordshire Landscape Character Assessment indicates the site falls within the area classified as 4A Great Ouse Clay Valley. Its character is that of a low lying, level broad valley following the course of the River Great Ouse. Large and medium scale geometric fields are bounded by hedgerows in mixed condition with some hedgerow trees. Land use is a mix of arable and pasture, quarrying and recreation. An urban fringe character comes from the aural and visual presence of major roads (A1(M) and A421), large scale industrial development, restored sand and gravel workings and large arable fields particularly close to Bedford.

- 3.26 The site is not located within or adjacent to any landscape designations and is not a Green Belt location. The site itself is relatively flat and has no landscape features, other than the field boundary hedgerows and vegetation that define the site boundaries and the lakes to the rear of lakes Autos. Its proximity to the A1 and large industrial area to the north east both of which are evident from within the site are indicators of its urban fringe character.

#### **Biodiversity**

- 3.27 The site is not located within or adjacent to any designated nature conservation sites and its ecological value will have been affected by the agricultural activities.
- 3.28 As part of any planning application the site will however be surveyed and measures to enhance the biodiversity of the site will form part of the proposal to develop the site.

#### **Heritage Assets**

- 3.29 There are no heritage assets within the site. There is a Scheduled Monument outside the southern site boundary, to the south of The Lane, although it would not be a constraint to the development of this site. Any planning application would be accompanied by an appropriate heritage assessment, as necessary.

#### **Agricultural Land Classification**

- 3.30 The agricultural land within the site is classified as Grade 1 Agricultural land.

#### **Contamination**

- 3.31 Lakes Autos within the site is a known waste disposal site for automotive vehicles. As part of any planning application a Phase 1 Environmental Desk study, together with any ground investigation works would be undertaken to identify the type and scope of any potential contamination in so far as it relates to this site.

#### **Climate Change**

- 3.32 The proposed mixed use development will provide employment and some local services within the site for use by future occupiers and the existing community. New pedestrian and cycle links will connect into the existing network and provide an alternative means of access than the car to facilities and services in Eaton Socon and St Neots.

- 3.33 Construction of the proposed development will be implemented in line with the most up-to-date planning policy and building regulations, which continue to promote energy and water efficiency and a reduction in greenhouse gasses. The development will be designed to maximise passive solar gain and daylight, control overshadowing and wind sheltering.
- 3.34 Existing landscaping and vegetation will be retained where practicable and supplemented with additional planting to further control daylight, glare and mitigate heat island effects, as well as enhance biodiversity.
- 3.35 Such measures will ensure that the new development includes built-in resilience to a potentially changing climate over the lifetime of the buildings.

## 4 Conclusion

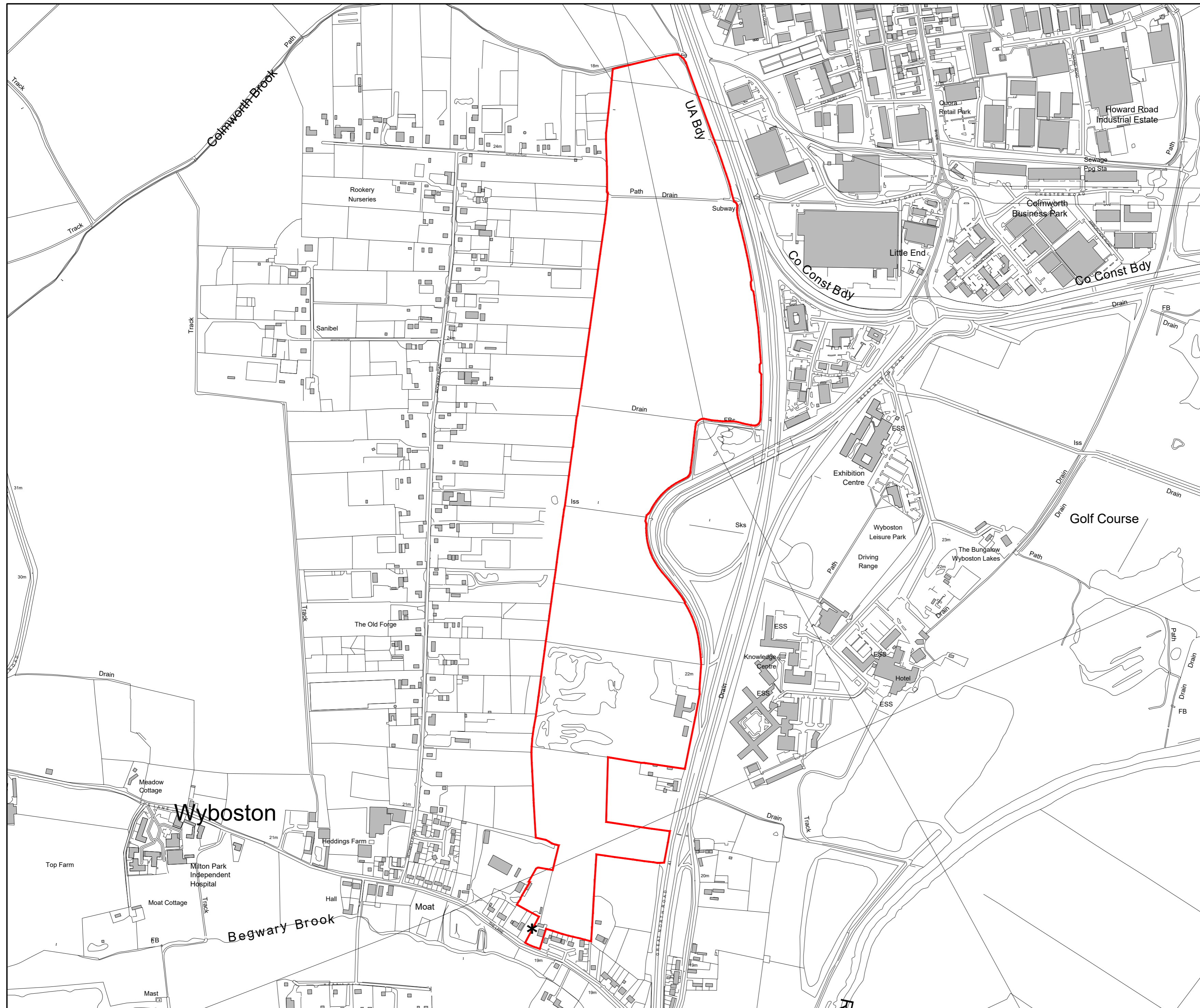
---

- 4.1 Wyboston offers significant potential to accommodate future growth within the borough, given its excellent road connections, existing rail links, the current proposals for future rail expansion and close proximity to existing services and facilities within Eaton Socon and St Neots.
- 4.2 This Statement demonstrates the suitability of the site for a mixed use development, comprising both residential, employment and a new local centre. The site is not obviously constrained by any environmental or landscape factors that cannot be avoided or mitigated. In recent discussions, Highways England have advised that they do not consider that there will be an adverse impact on the A1 trunk road. The opportunity to close a number of existing access points onto the A1 and provide a bus route through the site are significant benefits.
- 4.3 The landowners are committed to the promotion and delivery of this site for development. The site is available, suitable and achievable. Delivery can start in the five years following the adoption of the new local plan and an allocation is sought for a mixed use development accordingly.

# Appendix 1

---

## Site Location Plan



**Site Boundary**

- \* Line defining the South-West corner of the site (marked with \*) has been drawn approximately as there are no field boundaries to follow at the Land Registry Portal.

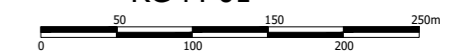
Project  
Wyboston



Drawing Title  
Site Boundary Plan

Date 16.12.19 Scale 1:5000@A2 Drawn by S.M. Check by O.C./D.S.

Project No 31369 Drawing No RG-M-01 Revision A



**DRAFT BARTON WILLMORE**

Planning • Master Planning & Urban Design • Architecture • Landscape Planning & Design • Environmental Planning • Graphic Communication • Public Engagement • Development Economics

bartonwillmore.co.uk



Offices at Birmingham Bristol Cambridge Cardiff Ebbw Vale Edinburgh Glasgow Leeds London Manchester Newcastle Reading Southampton

## Appendix 2

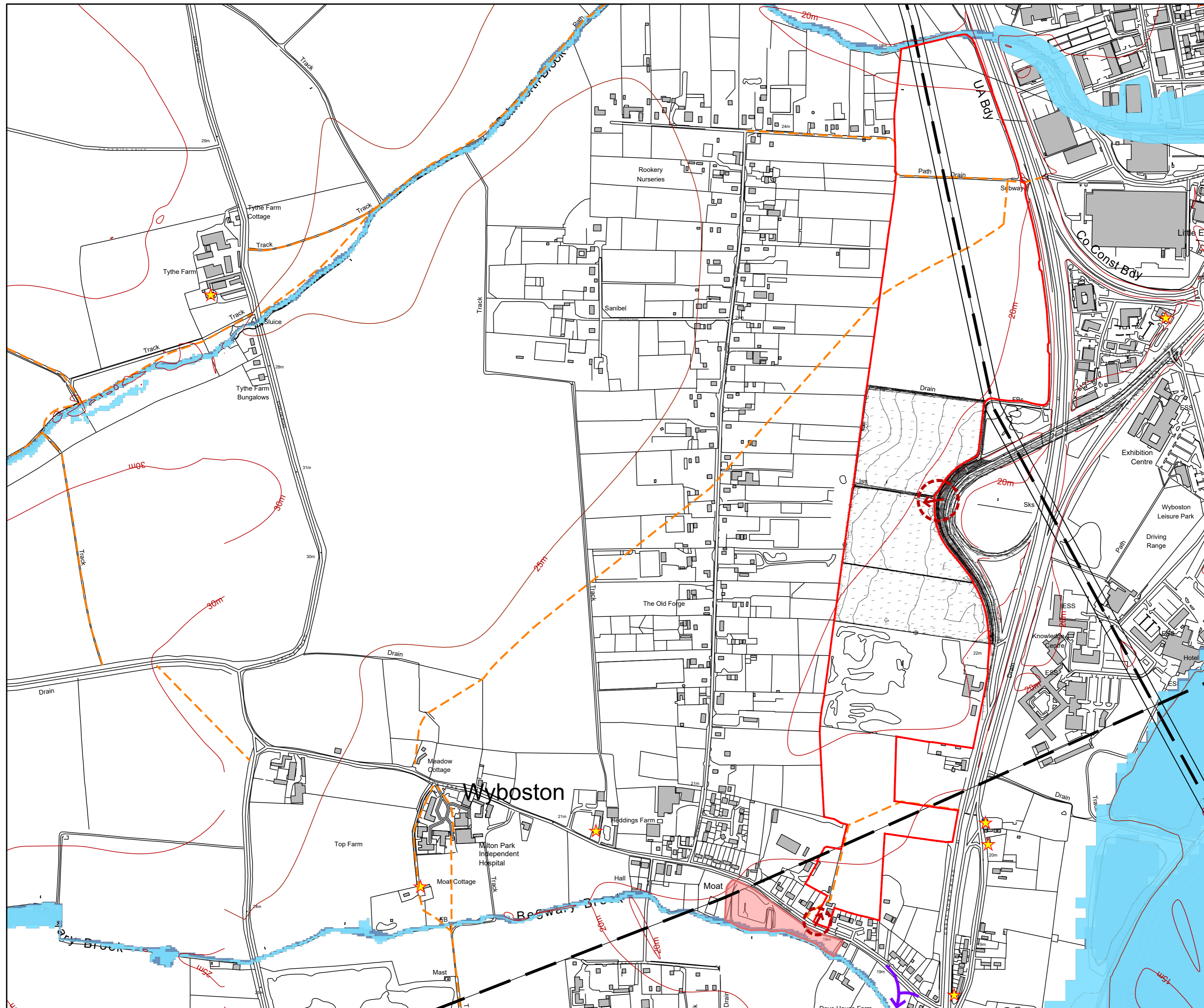
---

### Constraints and Opportunities Plan



The scaling of this drawing cannot be assured

Revision	Date	Drn	Ckd
C	23.01.20	SM	OC



- Site Boundary
- ★ Listed Building
- - - PRoW
- Flood Zone 2 & 3
- - - Electricity Line with 15m Buffer either side
- ⊙ Access Points
- Scheduled Monument
- ➔ Proposed New Junction
- 20m Contours

Project  
Wyboston



Drawing Title  
Constraints & Opportunities Plan

Date 16.12.19	Scale 1:5000@A2	Drawn by S.M.	Check by O.C./D.S.
Project No 31369	Drawing No RG-M-02	Revision C	



**DRAFT** **BARTON WILLMORE**

Planning • Master Planning & Urban Design • Architecture •  
Landscape Planning & Design • Environmental Planning • Graphic  
Communication • Public Engagement • Development Economics

bartonwillmore.co.uk

Offices at Birmingham Bristol Cambridge Cardiff Ebbwfleet Edinburgh  
Glasgow Leeds London Manchester Newcastle Reading Southampton

## **Appendix 3**

---

### **Landowner Approval Letters**

Bedford Borough Council  
Planning Department  
4th Floor  
Borough Hall  
Cauldwell Street  
Bedford  
MK42 9AP

11<sup>th</sup> August 2020

Dear Sirs

**RE: Bedford Borough Council Call for Sites 2020  
Proposed Mixed Residential and Commercial Development on the west side of  
the A1, the Great North Road, Wyboston**

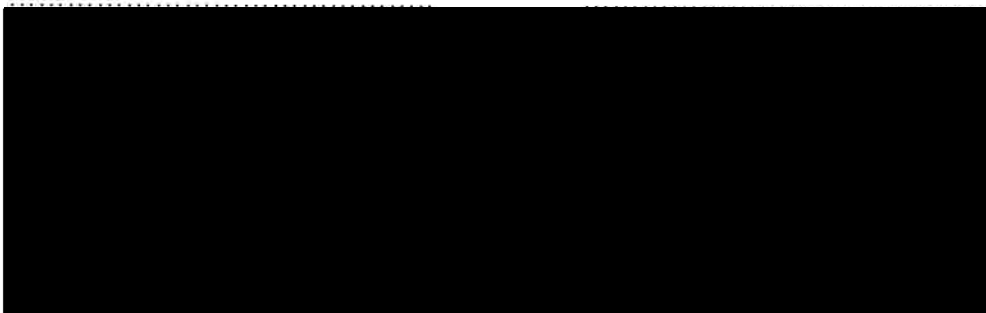
We refer to the detailed planning submission prepared by Eclipse Planning Services which has been submitted to the Council. The proposed development will comprise a minimum of 480 houses as well as 550,000 square feet of commercial development on the land identified on a plan prepared by Barton Willmore dated 8th January 2020 drawing number RG-M-11-2 ("the Site").

We are the landowners of the parts of the property identified as 1, 3A, 3B, 2A, 2B, 2C and 2D, as identified on the plan referred to above.

We confirm we are all very keen to see the Site developed and operational as soon as possible. We are very supportive of the proposal put forward by Eclipse Planning Services.

Highways England are supportive of an access from the A1 slip road to the A428 which would facilitate the development of this Site.

Yours faithfully



[REDACTED]

[REDACTED]

Bedford Borough Council  
Planning Department  
4th Floor  
Borough Hall  
Cauldwell Street  
Bedford  
MK42 9AP

10<sup>th</sup> August 2020

Dear Sirs

**RE: Bedford Borough Council Call for Sites 2020  
Proposed Mixed Residential and Commercial Development on the west side of  
the A1, the Great North Road, Wyboston**

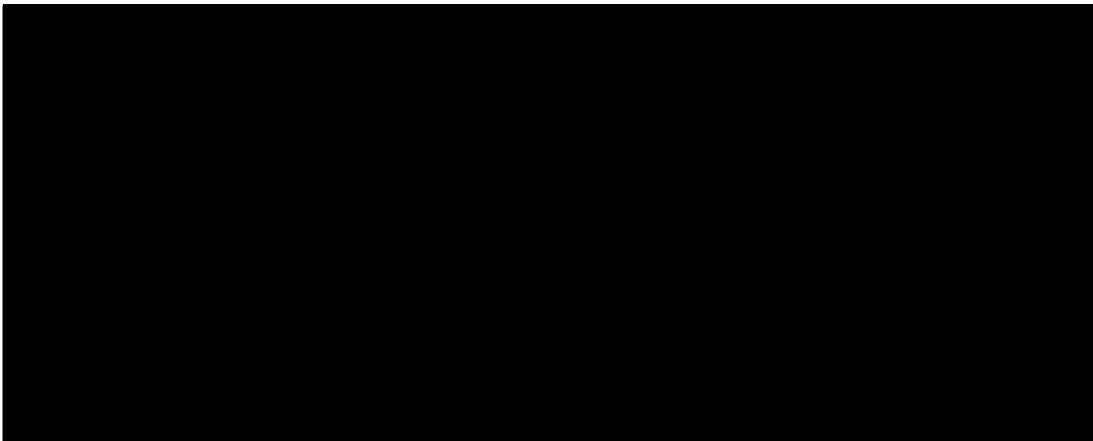
We refer to the detailed planning submission prepared by Eclipse Planning Services which has been submitted to the Council. The proposed development will comprise a minimum of 480 houses as well as 550,000 square feet of commercial development on the land identified on a plan prepared by Barton Willmore dated 8th January 2020 drawing number RG-M-11-2 ("the Site").

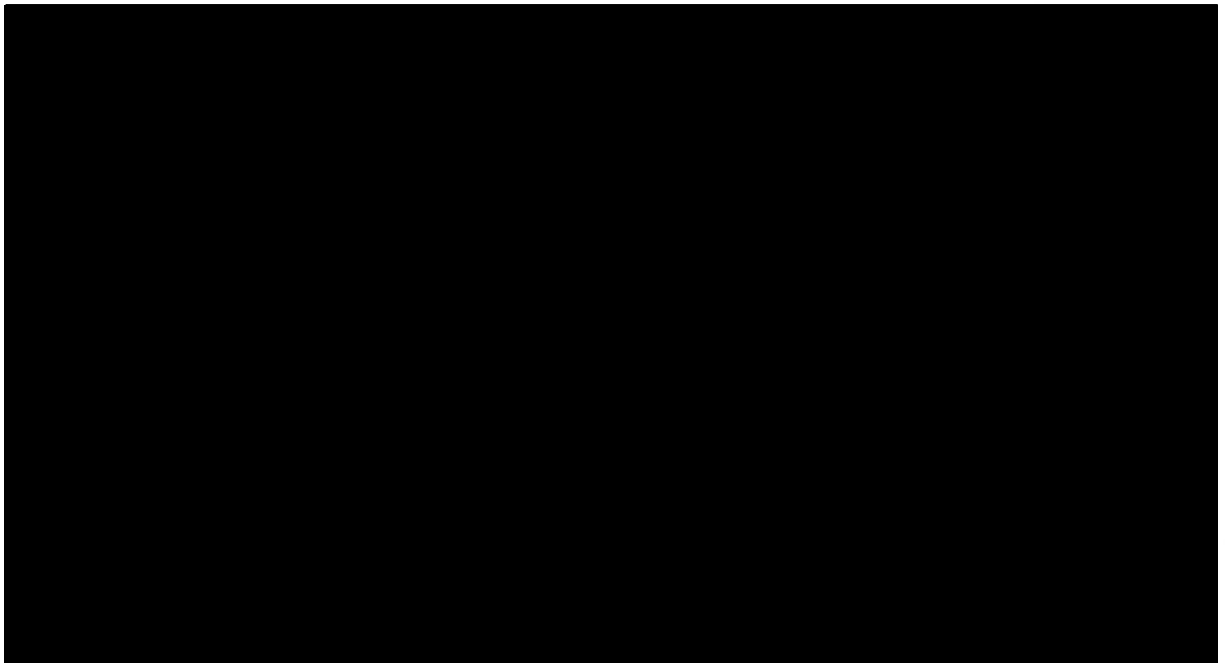
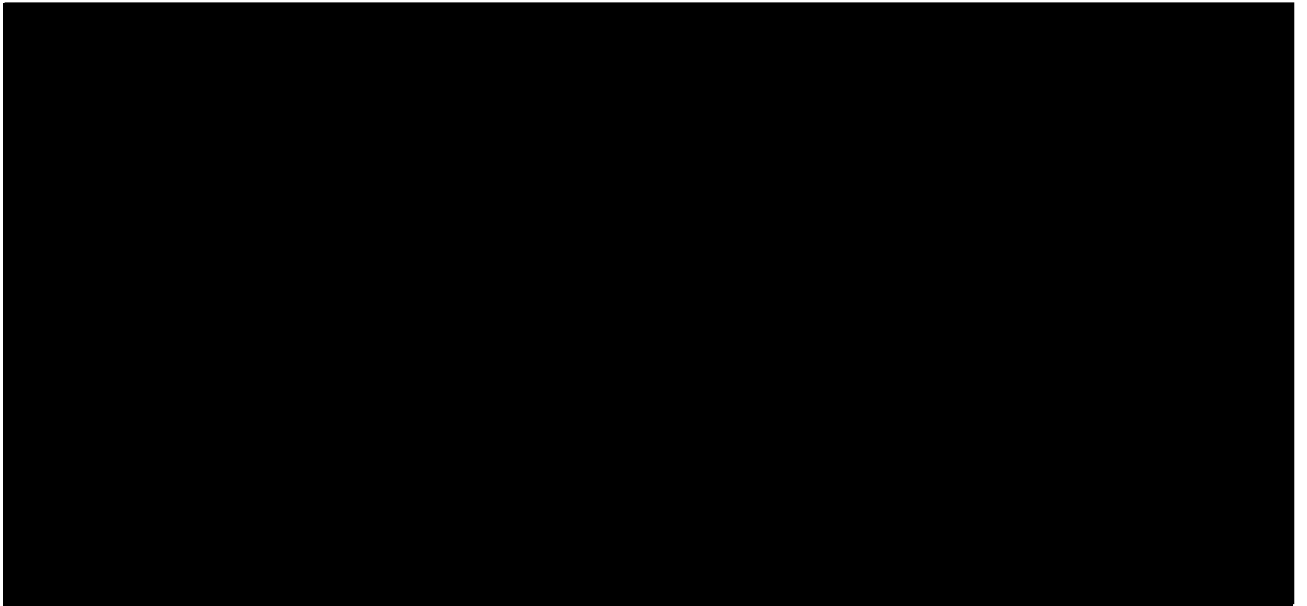
We are the landowners of the parts of the property identified as 1, 3A, 3B, 2A, 2B, 2C and 2D, as identified on the plan referred to above.

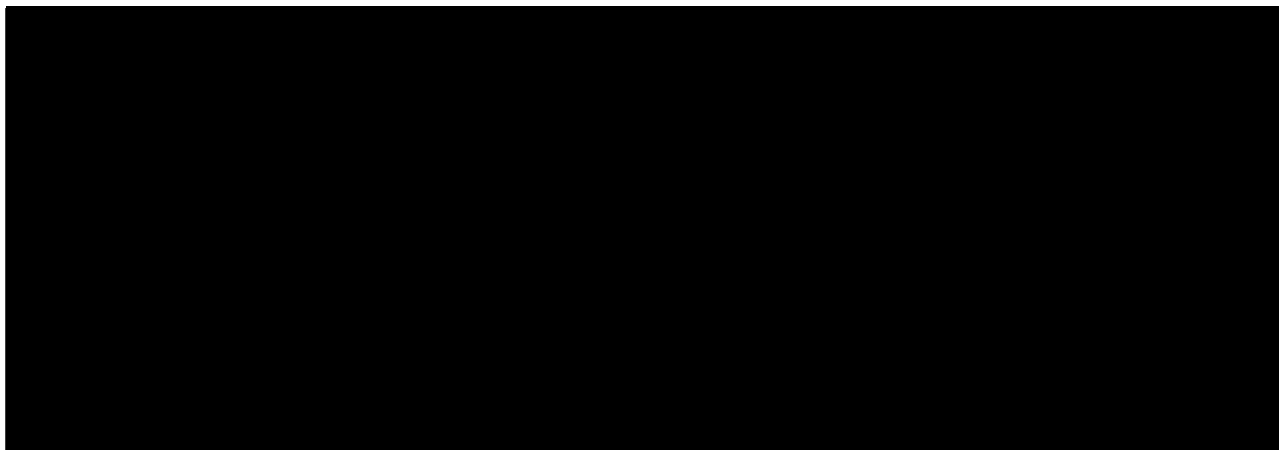
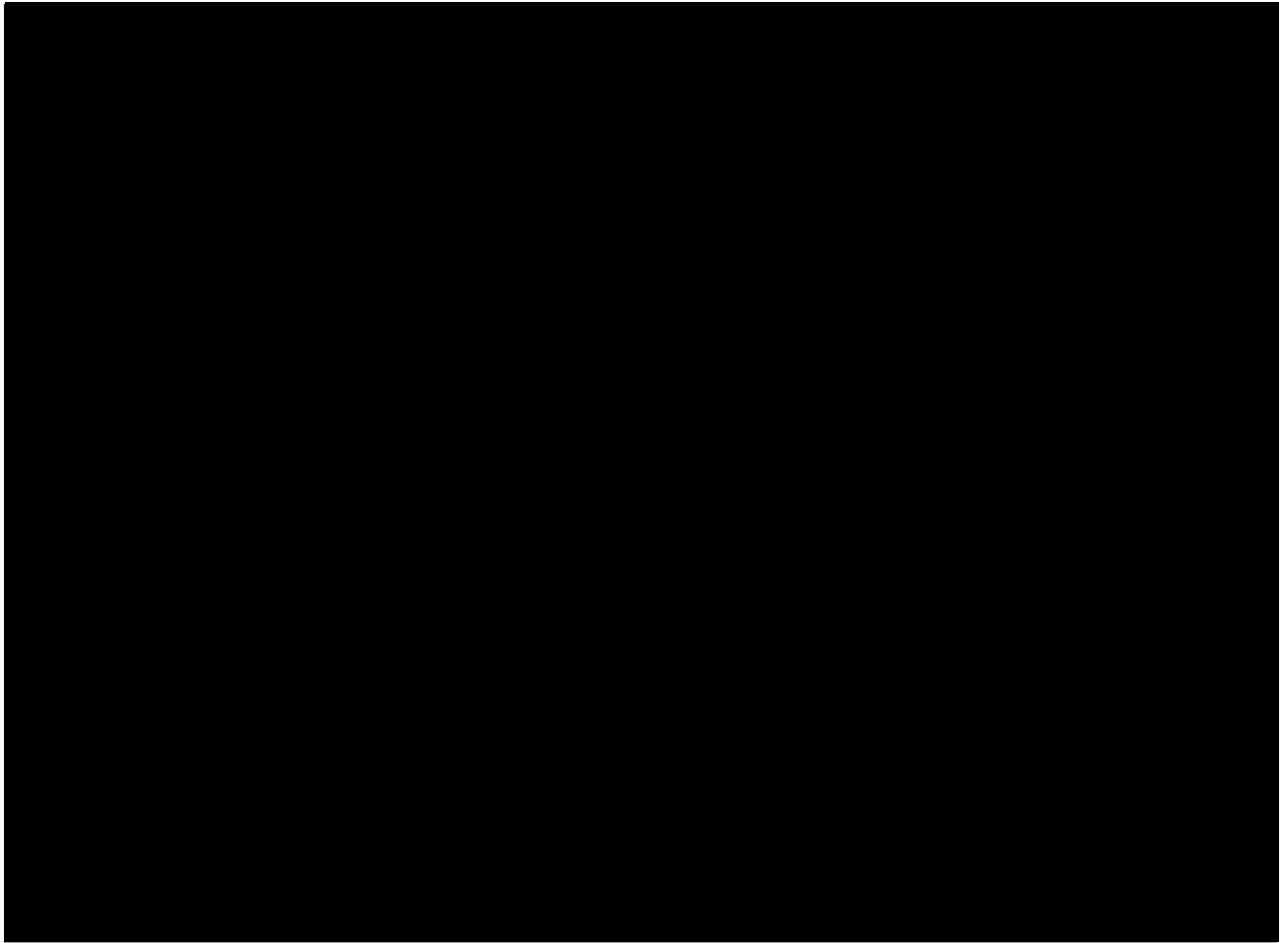
We confirm we are all very keen to see the Site developed and operational as soon as possible. We are very supportive of the proposal put forward by Eclipse Planning Services.

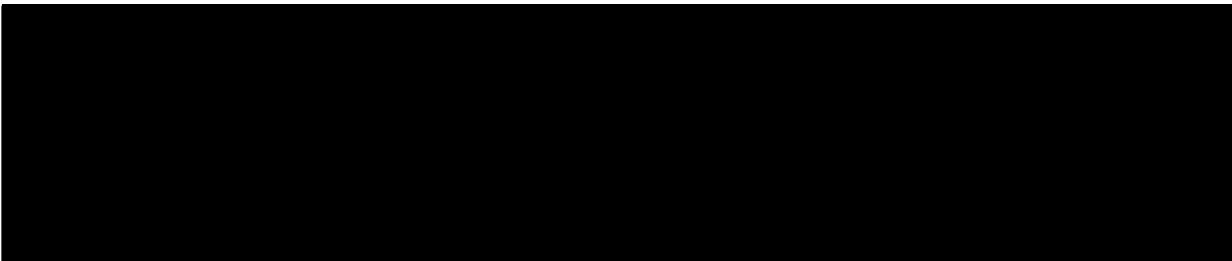
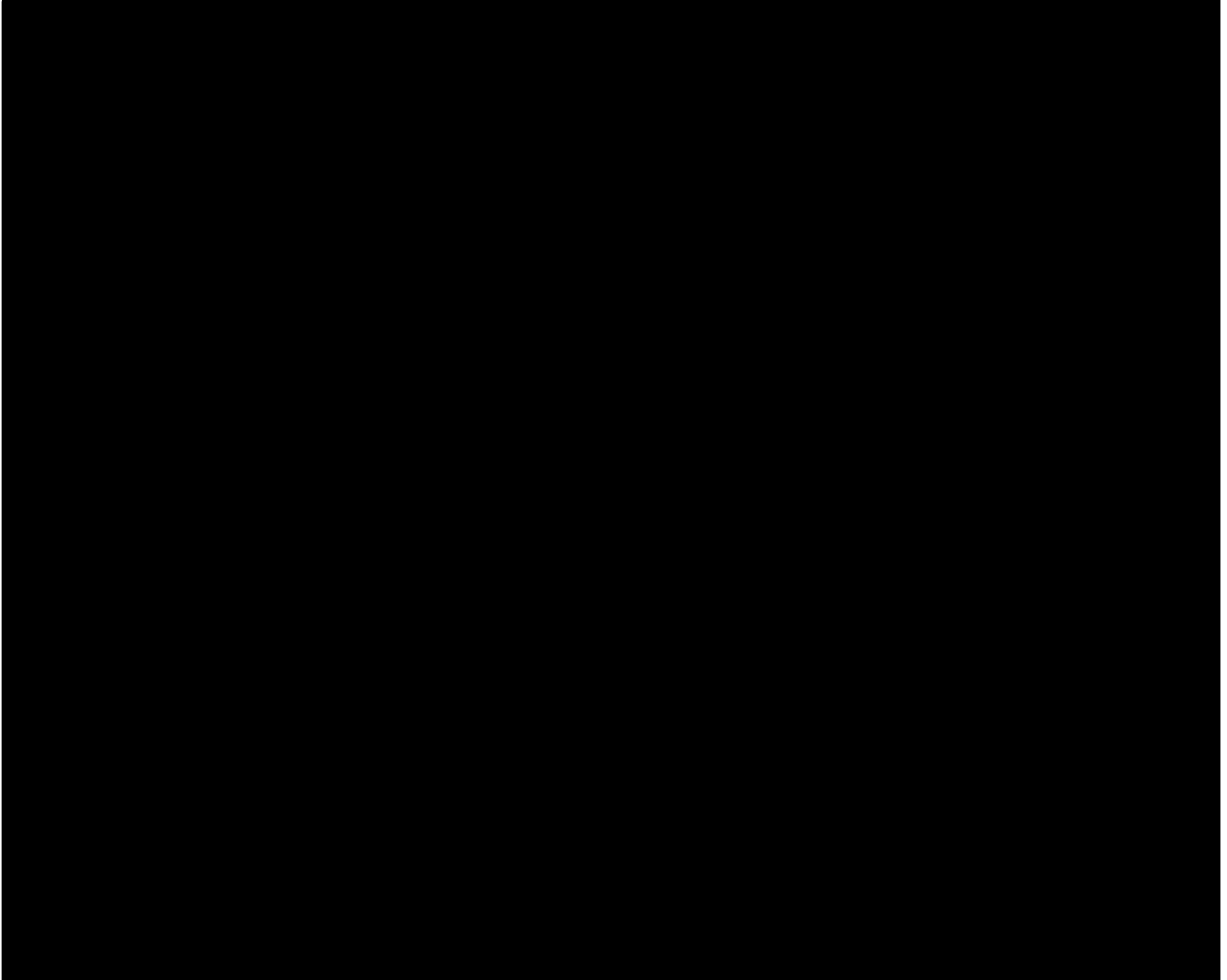
Highways England are supportive of an access from the A1 slip road to the A421 which would facilitate the development of this Site.

Yours faithfully

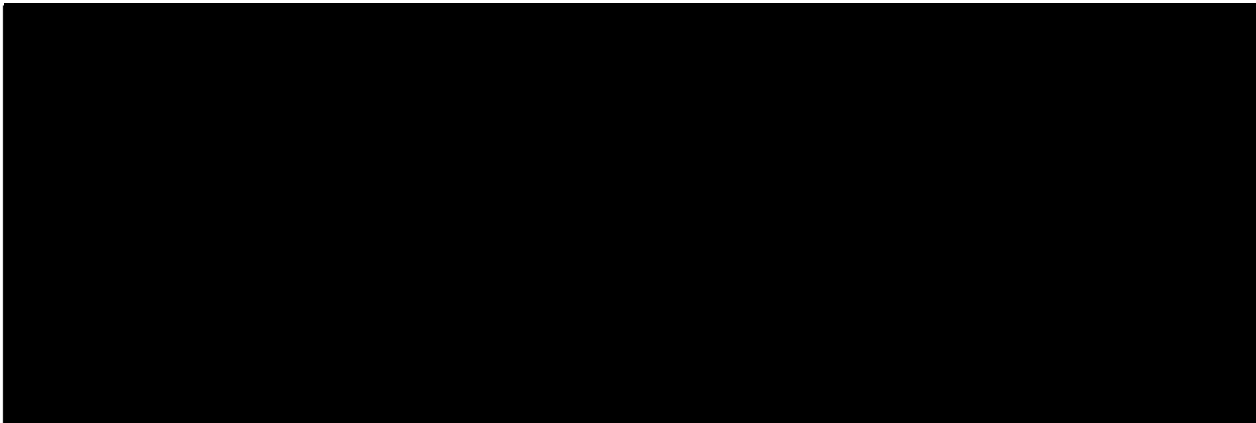
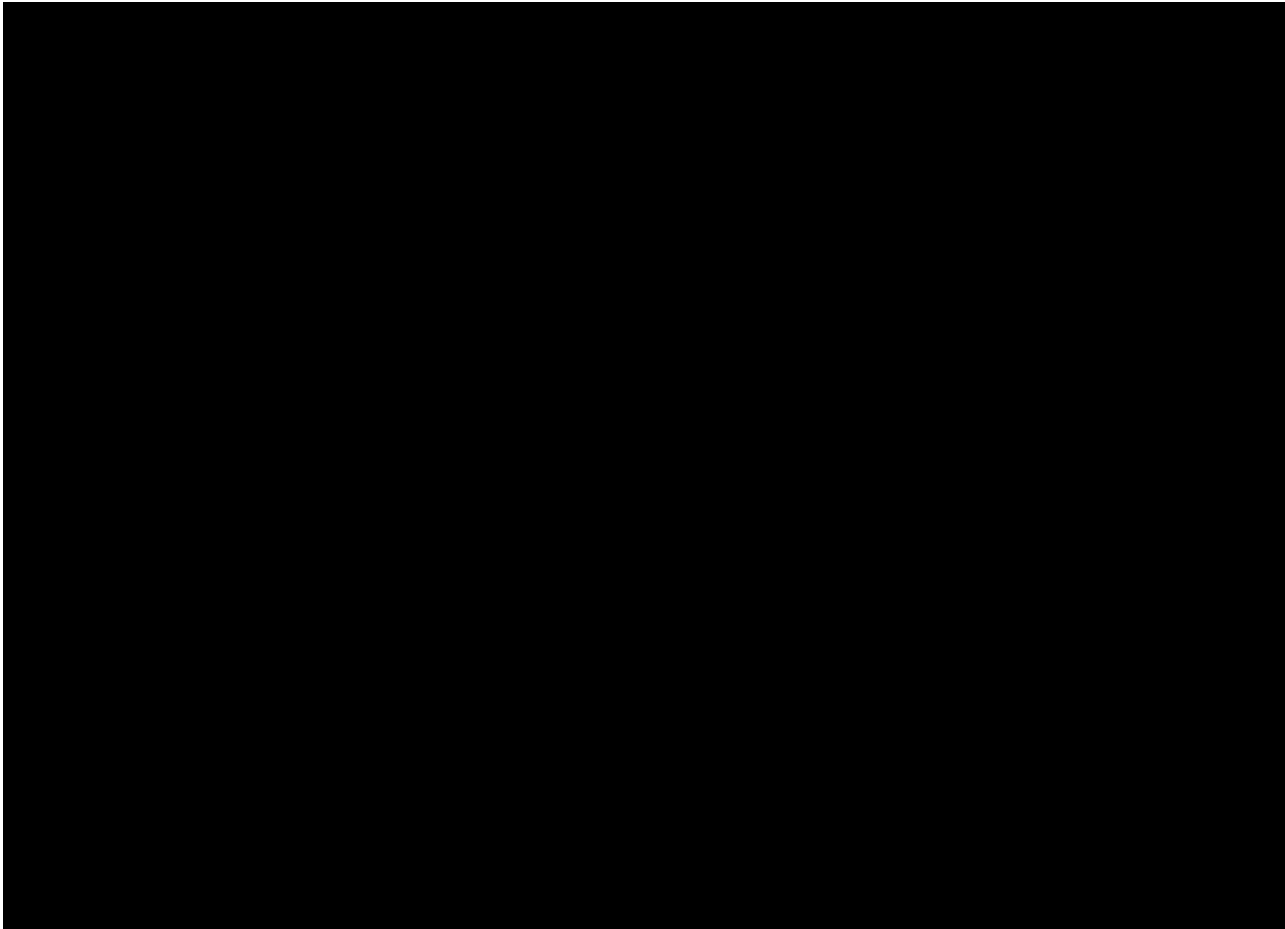


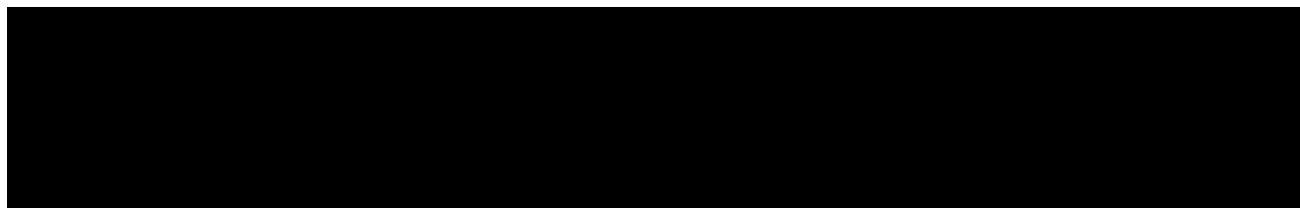
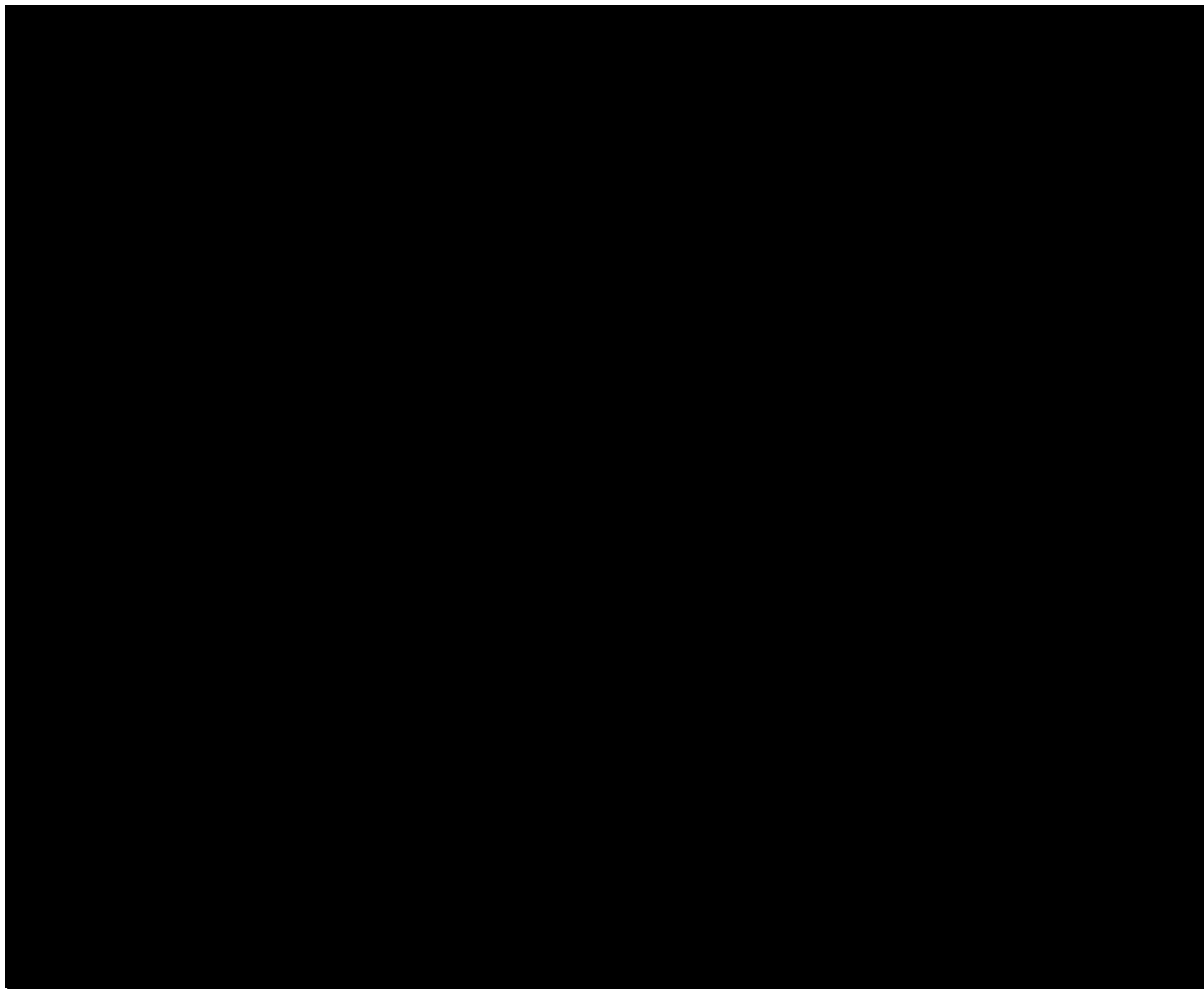








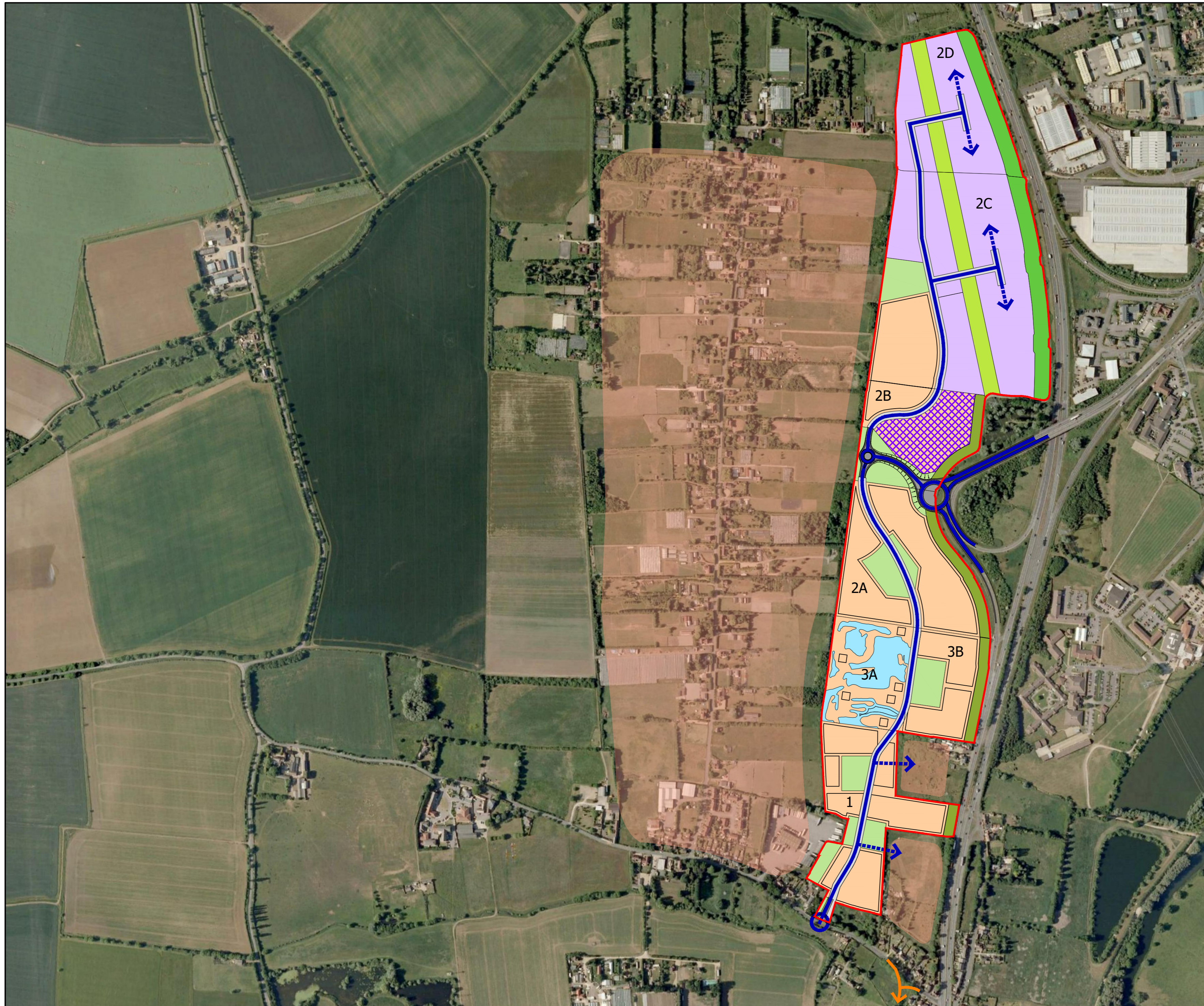




## **Appendix 4**

---

### **Concept Masterplan**



The scaling of this drawing cannot be assured

Revision F "Spur" Removed Date 06.08.20 Drn S.M. Ckd M.A.

Site Boundary	40.30	99.59		
<b>Parcel 1</b>				
Developable Area	4.06	10.02	141	
Landscape Buffer	0.13	0.31		
Open Space	1.18	2.92		
<b>Sub Total</b>	<b>5.36</b>	<b>13.25</b>	<b>141</b>	
<b>Parcel 2A</b>				
Developable Area	4.67	11.54	163	
Landscape Buffer	0.55	1.35		
Infrastructure	0.12	0.31		
Open Space	0.87	2.14		
<b>Sub Total</b>	<b>6.21</b>	<b>15.34</b>	<b>163</b>	
<b>Parcel 2B</b>				
Developable Area	0.83	2.04	29	
Mixed Use	1.92	4.74		
Landscape Buffer	0.39	0.98		
Open Space	0.64	1.58		
Infrastructure	0.38	0.93		
<b>Sub Total</b>	<b>4.15</b>	<b>10.27</b>	<b>29</b>	
<b>Parcel 2C</b>				
Developable Area	2.22	5.47	77	
Employment Area	7.58	18.74		374,702
Landscape Buffer	1.33	3.28		
Cable Buffer	1.32	3.26		
Open Space	0.65	1.60		
<b>Sub Total</b>	<b>13.09</b>	<b>32.35</b>	<b>77</b>	
<b>Parcel 2D</b>				
Employment Area	3.55	8.77		175,346
Landscape Buffer	0.90	2.22		
Cable Buffer	0.78	1.94		
<b>Sub Total</b>	<b>5.23</b>	<b>12.92</b>		
<b>Parcel 3A</b>				
Developable Area	1.82	4.51	6	
Water Feature	1.46	3.60		
<b>Sub Total</b>	<b>3.28</b>	<b>8.11</b>	<b>6</b>	
<b>Parcel 3B</b>				
Developable Area	1.97	4.88	69	
Landscape Buffer	0.41	1.02		
Open Space	0.58	1.44		
<b>Sub Total</b>	<b>2.97</b>	<b>7.34</b>	<b>69</b>	
<b>TOTAL</b>	<b>40.30</b>	<b>99.59</b>	<b>484</b>	<b>550,048</b>

- Potential Future Development
- Spine Road & Access Points
- Proposed New Junction

Project  
**Wyboston**

Drawing Title  
**Concept Masterplan**

Date 08.01.20 Scale 1:5000@A2 Drawn by S.M. Check by O.C./D.S.

Project No 31369 Drawing No RG-M-11 -2 Revision F

**BARTON WILLMORE**

Town Planning • Master Planning & Urban Design • Architecture • Landscape Planning & Design • Infrastructure & Environmental Planning • Heritage • Graphic Communication • Communications & Engagement • Development Economics

bartonwillmore.co.uk

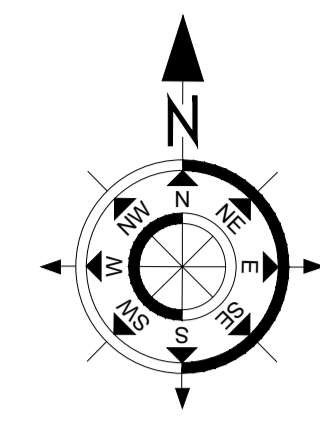
ISO 9001

Offices at Birmingham Bristol Cambridge Cardiff Ebbw Vale Edinburgh Glasgow Leeds London Manchester Newcastle Reading Southampton

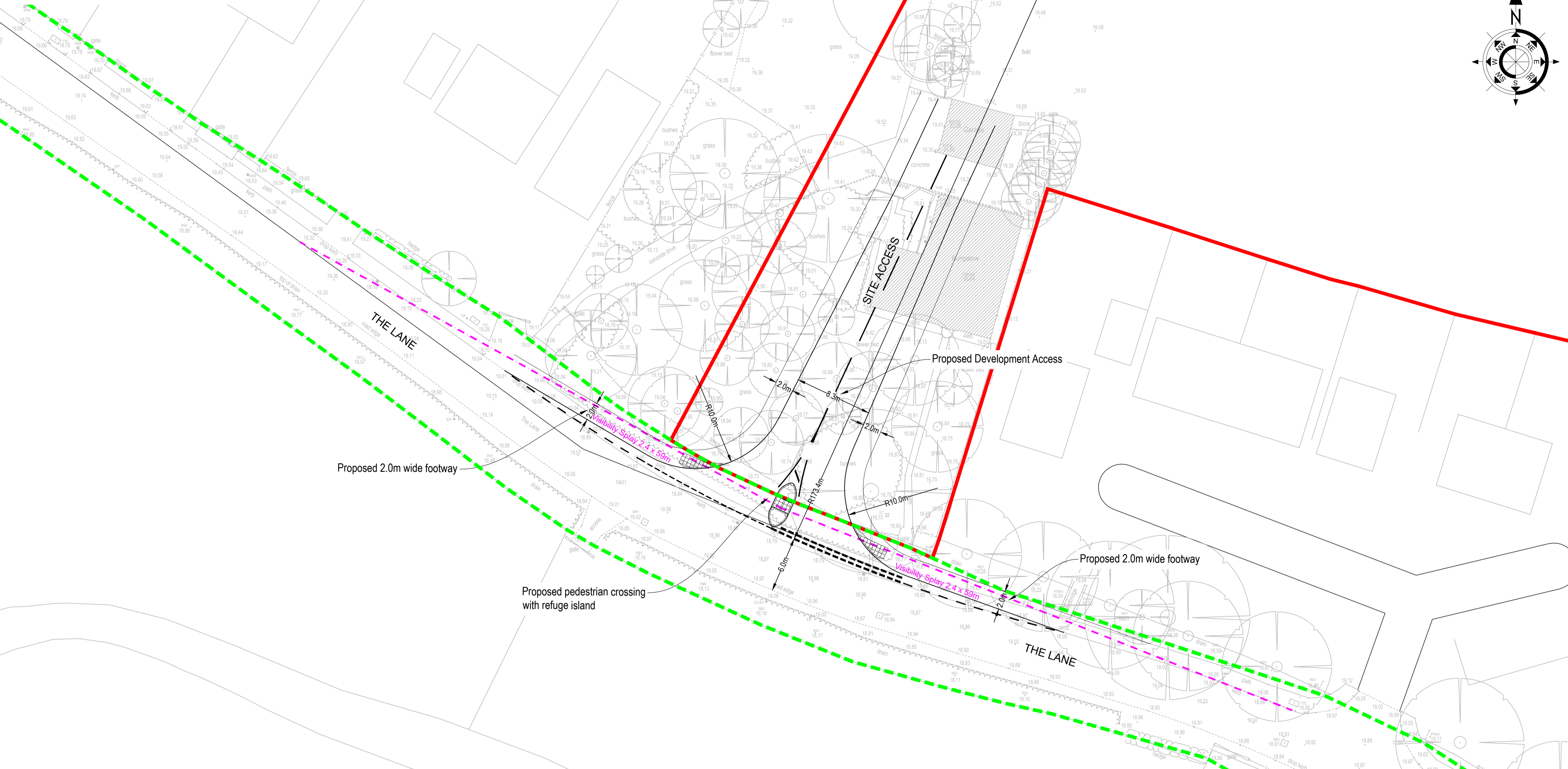
## Appendix 5

---

### Proposed Access from The Lane



**GENERAL ARRANGEMENT PLAN**  
Scale 1:250

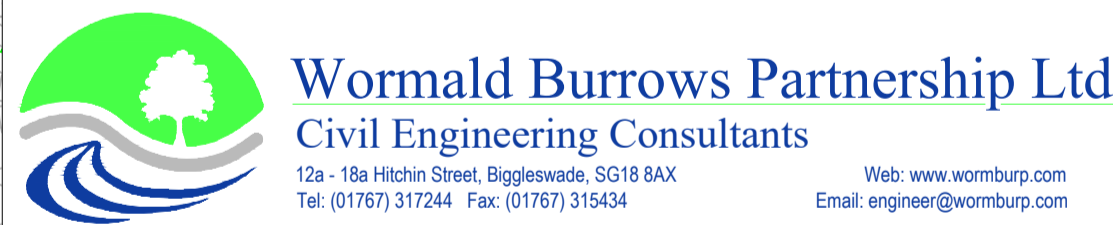


- KEY:**
- Indicative Highway Boundary. Transcribed from plan produced by Bedford Borough Council to surveyed information.
  - Indicative Site Boundary

Rev	Description	Date	Drawn	Checked

Drawing Approval Status:-  
 Section 104     Section 38     Section 278

**FOR PLANNING**



Project:  
**Proposed Mixed Use Development**  
**Wyboston, Bedfordshire**

Drawing Description:  
**Proposed Access from The Lane**

Client:

Drawing Number:  
**E4054/705**

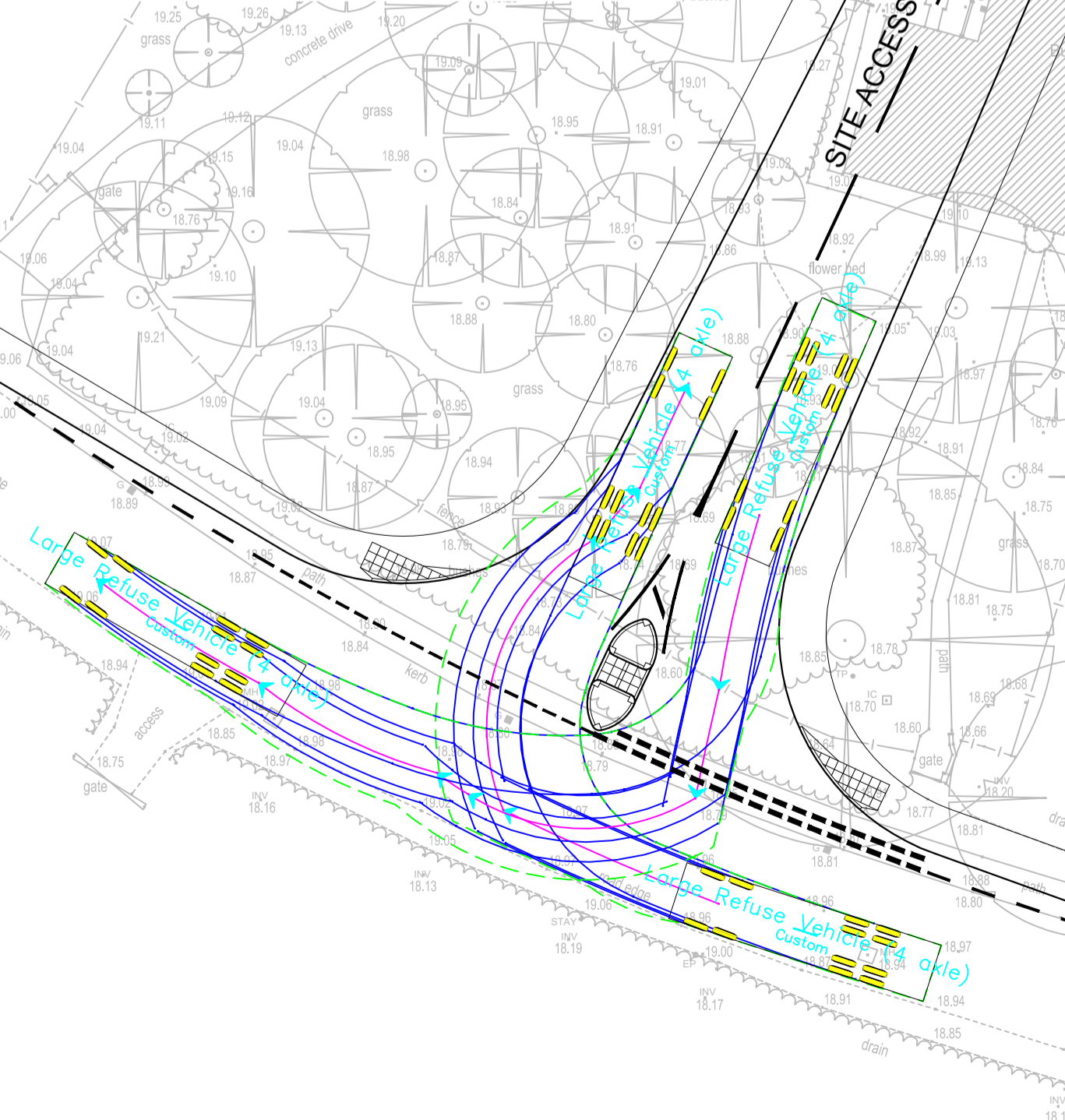
Client Reference:  
 \_\_\_\_\_

Scale:  
 1:250 @ A1  
 1:500 @ A3

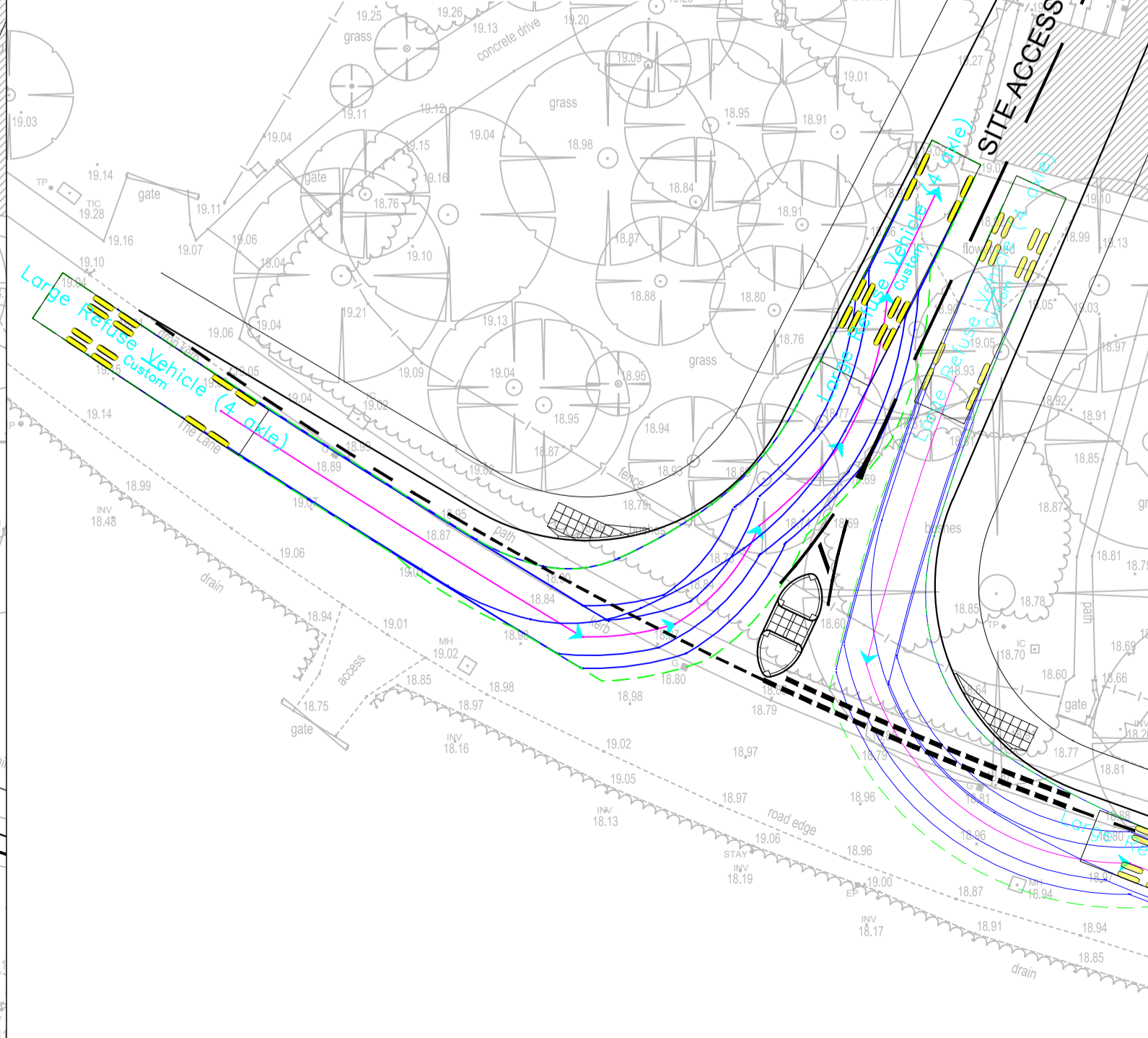
Designed By: ACC	Drawn By: DTZ	Checked By: ACC
Date: 25.07.20	Date: 28.07.20	Date: 29.07.20

Certified by Afnor UK

**TRACKING PLAN - RIGHT TURN**  
Scale 1:250



**TRACKING PLAN - LEFT TURN**  
Scale 1:250

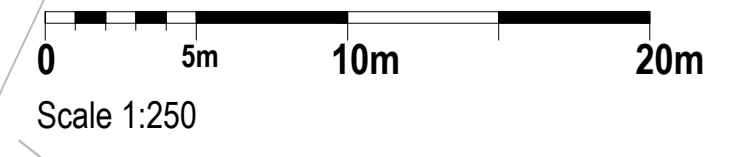


**Key:**

**Large Refuse Vehicle (4 axle)**

Width	: 2.50	metres
Track	: 2.50	
Lock to Lock Time	: 6.0	
Steering Angle	: 45.2	

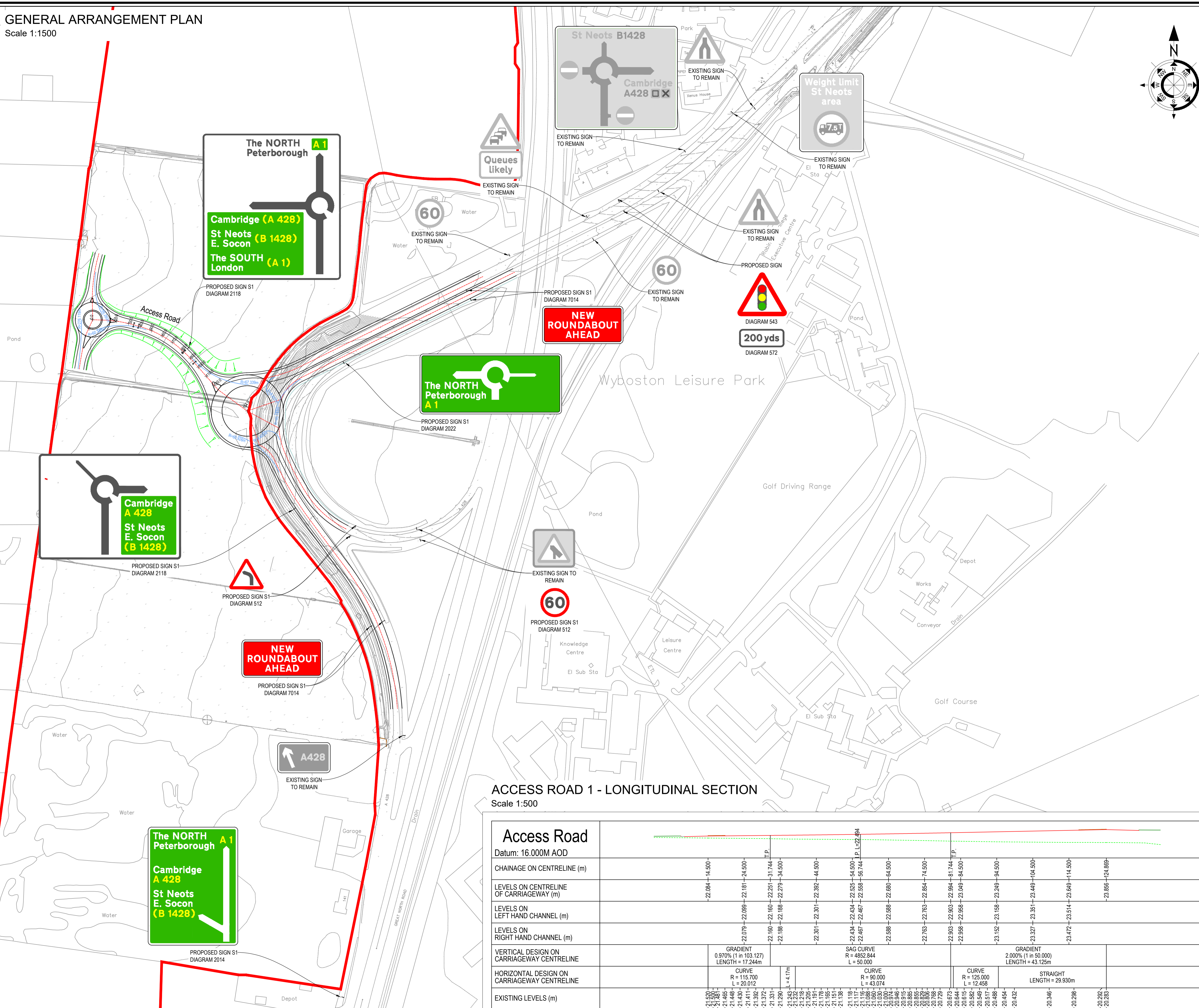
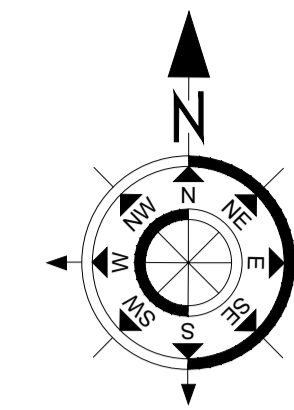
- Wheels
- Centreline
- Body



## Appendix 6

---

### Proposed Access roundabout from A1 Slip Road



**KEY:**  
— Site Boundary

- NOTES:**
1. Roundabout designed to DMRB CD116 'Geometric design of roundabouts'.
  2. Access Road designed to CD107 'Highway Link design and CD116 'Geometric design of roundabouts'. Access road and development spine road to be suitable for bus operation.
  3. The road signs and markings shown are indicative and not necessarily complete. They will be reviewed as necessary at the detailed design to construction stage.

Rev	Description	Date	Drawn	Checked

Drawing Approval Status:-  
 N/A Section 104    N/A Section 38    N/A Section 278

**FOR PLANNING**

**Wormald Burrows Partnership Ltd**  
 Civil Engineering Consultants  
12a - 18a Hitchin Street, Biggleswade, SG18 8AX  
 Tel: (01767) 317244 Fax: (01767) 315434  
 Web: www.wormburp.com  
 Email: engineer@wormburp.com

Project:  
**Proposed Mixed Use Development  
 Wyboston, Bedfordshire**

Drawing Description:  
**Proposed Access Roundabout from  
 A1 Slip Road**

Client:

Drawing Number:  
**E4054/703**

Client Reference:  
 \_\_\_\_\_

Scale:  
 1:1500@ A1  
 1:3000 @ A3

Designed By: ACC Date: 25.07.20	Drawn By: DTZ Date: 27.07.20	Checked By: ACC Date: 28.07.20
--	---------------------------------------	---

Certified by Afnor UK

**ACCESS ROAD 1 - LONGITUDINAL SECTION**  
Scale 1:500

Access Road		Datum: 16.000M AOD	
CHAINAGE ON CENTRELINE (m)			
LEVELS ON CENTRELINE OF CARRIAGEWAY (m)			
LEVELS ON LEFT HAND CHANNEL (m)			
LEVELS ON RIGHT HAND CHANNEL (m)			
VERTICAL DESIGN ON CARRIAGEWAY CENTRELINE	GRADIENT 0.970% (1 in 103.127) LENGTH = 17.244m	SAG CURVE R = 4852.844 L = 50.000	GRADIENT 2.000% (1 in 50.000) LENGTH = 43.125m
HORIZONTAL DESIGN ON CARRIAGEWAY CENTRELINE	CURVE R = 115.700 L = 20.012	CURVE R = 90.000 L = 43.074	CURVE R = 125.000 L = 12.458
EXISTING LEVELS (m)			

©This drawing is Copyright, Wormald Burrows Partnership Limited 2019.