



Preliminary Environmental Information (Work in Progress) Report (PEIR)

Draft Environmental Statement

Chapter 2: Description of Development and Alternatives

On behalf of
Oxfordshire Railfreight Limited

Prepared by Oxalis Planning Ltd
Revision C
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2.1 INTRODUCTION

- 2.1.1 This section contains a description of the Proposed Development. Before doing so a summary description of the current characteristics of the Application Site is set out below. The Site Location Plan is included as **Appendix 2.1**.

2.2 EXISTING SITE CHARACTERISTICS – MAIN SITE

- 2.2.1 The ‘Main Site’ is located between the B430 and the former Upper Heyford Airfield, which is located to the west of the Main Site. It is immediately south of the Chiltern Railway line. It predominantly consists of agricultural land used for mixed arable and grazing purposes and includes the Ashgrove farmstead (“Ashgrove Farm”) which comprises a number of farm buildings and residences. The farmstead includes a listed building.
- 2.2.2 The Main Site includes several existing Bridleways (Public Right of Way) routes 109/28, 109/29 and 109/30, with a number of new routes or extensions to existing routes nearby proposed or committed in the vicinity of the Main Site. Some of these new routes are mitigation approved as part of the approved Heyford Park development scheme to the west.
- 2.2.3 Also within the Main Site is the Severn Trent Green Power ‘In Vessel Composting’ (IVC) facility which is an operational commercial food and garden waste composting facility. This facility comprises a weighbridge, reception building, composting tunnels, office and welfare facility, bio filter and maturation pad. The site receives waste from refuse collection which is turned into bagged compost product.
- 2.2.4 The Main Site also contains an underground reservoir in the south east part of the Main Site to the north of the proposed Heyford Park Link which will remain. In connection with the reservoir there are some substantial water mains. It is likely that some of the water mains will be diverted however the precise extent of diversion is still to be determined.
- 2.2.5 To the east of the Main Site and east of the B430 is the Viridor Ardley Energy Recovery Facility (“Viridor ERF”) as well as the Ardley Fields Household Waste and Recycling facility and Ardley Landfill Site. Further south of the waste facilities is an active Dewars Farm minerals quarry (limestone and clay).
- 2.2.6 The village of Ardley is located to the north of the Main Site and north of the Chiltern Railway, and separated from the Main Site by intervening agricultural land and established woodland.
- 2.2.7 The village of Middleton Stoney is located approximately 1.5km to the south of the Main Site, separated by intervening agricultural land and associated landscape and field boundary features. Within the intervening land lies the farmstead of Manor Farm.

2.2.8 The M40 motorway runs nearby, to the east of the Main Site, as well as to the east of both Ardley and Middleton Stoney, with the town of Bicester beyond the M40 in a south-easterly direction from the Main Site.

2.3 EXISTING CHARACTERISTICS – HIGHWAY WORKS

2.3.1 The Highways Works include land on both the eastern and western sides of M40 Junction 10 which is largely in agricultural use already directly influenced by highways infrastructure. The site of the works includes the Padbury Brook. The Ardley Bypass is on land to the east of Ardley, and crosses a number of existing field hedgerow boundaries, as well as the Chiltern Railway line.

2.3.2 Similarly, the Middleton Stoney Relief Road includes agricultural land to the north and east of the village and include sections of woodland as well as the Gagle Brook corridor.

2.4 PROPOSED DEVELOPMENT

2.4.1 The Proposed Development involves the provision of a new Strategic Rail Freight Interchange. The different elements of the Proposed Development are identified below in Table 2.1.

Table 2.1: Glossary of Terms

Development Element or term used in the ES	Description
Application Site	The land encompassed within a red line boundary being all the land affected by the proposals to be described as the “Order Limits” in the DCO and shown on the plan in Appendix 2.1 as such. This is the maximum extent of the land likely to be affected by the Proposed Development and will be reviewed as the scheme proceeds through consultation and engagement with stakeholders.
Ardley Bypass	A bypass to the east of the village of Ardley.
Central Hub	The development within the central part of the Main Site, centered around the Ashgrove Farmstead which is to be used for estate management and support and other similar facilities
Heyford Park Link Road	The length of new road between the B430 and Heyford Park including the Secondary Access.
Highway Works	The J10 Highway Improvements, the Ardley Bypass and Principal Access, the Middleton Stoney Relief Road, Heyford Park Link and Secondary Access.

Development Element or term used in the ES	Description
In Vessel Composting Facility	The Severn Trent In Vessel Composting Facility which is to be relocated within the Main Site
J10 Highway Improvements	the highway works to be carried out in connection with the improvement of J10 of the M40 Motorway.
Main Site	The area to be occupied principally by the rail terminal and warehousing and incorporating the Heyford Park Link Road.
Middleton Stoney Relief Road	A relief road to the north east of the village of Middleton Stoney linking the B4030 with the B430.
Order Limits	This is the maximum extent of the land likely to be affected by the Proposed Development and will be reviewed as the scheme proceeds through consultation and engagement with stakeholders.
Principal Access	The principal access to the Main Site
Proposed Development	A summary term to refer to the OxSRFI in full – Main Site plus all associated highways works.
Rail Terminal	The terminal to be connected to the Chiltern Main Line which facilitates the movement of intermodal traffic between road and rail.
Secondary Access	The secondary access to the Main Site for buses, emergency vehicles and pedestrians/cyclists only from the Heyford Park Link Road.

2.4.2 A plan showing different components of the Proposed Development is contained in **Appendix 2.2** and these components are described in more detail below.

2.4.3 Key characteristics and details including the maximum building heights and plateau levels will be fixed as part of the application process, and defined on a ‘Parameters Plan’ (at **Appendix 2.3**). The Parameters Plan forms the basis of the assessments presented in the topic specific draft Environmental Statement (ES) chapters.

The Main Site

2.4.4 The draft parameters for the Proposed Development on the Main Site are shown on the Parameters Plan in **Appendix 2.3** and a draft illustrative layout is shown on the Illustrative Masterplan in **Appendix 2.4**. The Main Site comprises a total site area of approximately 300 hectares.

2.4.5 The rail terminal and associated infrastructure (sidings, storage facilities etc) are located adjacent to the Chiltern main line in the northern part of the site. This will include a management building, rail reception sidings, container storage area and associated

container transfer equipment, and refueling facility. This area is shown as Zone C on the Parameters Plan.

- 2.4.6 The maximum warehouse development footprint applied for will be 603,850 sqm (approx. 6.5 million square feet) with an allowance also made for the provision of additional mezzanine floorspace (up to one third of the total floorspace – approximately 201,283 sqm). The Transport Assessment and other associated assessments of potential noise or air quality impacts will be based on that total maximum floorspace (including mezzanines) – Chapter 3 of the ES provides further details about the proposed Transport Assessment. This area is shown as Zones A1-A4 on the draft Parameters Plan.
- 2.4.7 The area shown as Zone B on the Parameters Plan may be used for warehousing or used as part of the rail freight interchange depending upon occupier and rail freight requirements.
- 2.4.8 The site will include a significant amount of green infrastructure, and new or retained environmental features. Many green spaces or features will be multi-functional, for example providing visual screening of the development from outside view while also providing new or improved habitat connectivity within the site.
- 2.4.9 An existing green corridor containing a large pond on-site will be retained, as will the majority of existing trees which run north-south within the Main Site, and these features are proposed to be incorporated into a central corridor including the new on-site spine road.
- 2.4.10 Much of the new planting is within the landscaped buffers around the Main Site edges. These buffers vary in depth around the site, but the plans show many sections 75-125m deep or more (such as along parts of the southern and western boundaries of the site). The landscaping buffer includes earthworks bunds created as part of the 'cut and fill' exercise on-site, and which form a key part of the landscape and visual mitigation proposed.
- 2.4.11 The Parameters Plan defines the key parameters for the development, and is the basis of the assessment throughout the draft ES. The Draft Parameters Plan is enclosed at **Appendix 2.3**.
- 2.4.12 While the application does not seek approval for details of layout, a draft Illustrative Masterplan has been prepared and is enclosed at **Appendix 2.4**. This demonstrates one way in which the Proposed Development could be carried out in accordance with the parameters set out on the draft Parameters Plan. Compliance with the parameters will be secured through the DCO. The number and detail of buildings on-site is not known but will be determined post consent and in accordance with the approved parameters and other relevant requirements of the DCO.
- 2.4.13 In summary, the proposed development on the Main Site consists of:
- An **intermodal rail terminal** served via new connections to the Chiltern Main Line (part of the Strategic Rail Freight Network), including container storage;

- Up to **603,850 sqm** (approx. 6.5 million square feet) of warehousing, including ancillary office accommodation, plus up to 201,283 sqm of additional floorspace in the form of mezzanines. Maximum building heights are proposed at 25m;
- **Improvements to Junction 10 of the M40** involving works on the A43 east of the M40, new slip roads to and from the M40;
- An **Ardley Bypass** to the east of Ardley;
- A **Heyford Park Link Road** which runs from Camp Road south-east of Heyford Park and south of the proposed development to a new junction on the B430;
- A **Middleton Stoney Relief Road** around the north-eastern side of the village connecting from a new junction on the B430 to the existing B4030 which links over the M40 to Bicester, supported by a bus gate west of the village;
- The **Principal Access** to the Main Site will be from a new roundabout on the B430 in the north-eastern corner of the Main Site, south of the railway line. This primary access will serve all HGV and car traffic accessing the site;
- A **Secondary Access** into the Main Site will be provided from the Heyford Park Link Road for bus, pedestrian, cyclists and emergency vehicles only;
- Relocation of the **In Vessel Composting Facility** within the Main Site;
- Retention of the Grade II listed Threshing Barn at Ashgrove Farm as part of the **Central Hub** of estate management and communal facilities for the other development on the Main Site;
- Retained key **landscape features** and new landscaping and planting, including on the proposed **earthwork bunds** within the Main Site.

Highway Works

- 2.4.14 The proposed highway works strategy is based on the main components round the M40 J10 improvements, the Ardley Bypass, the Middleton Stoney Relief Road and the Heyford Park Link Road. Work on the detailed highways arrangements are ongoing. Further details about each component are detailed on the Highways Works Overview drawing in **Appendix 2.5** and set out below.

Junction 10 Improvements

- 2.4.15 The transport assessment work undertaken to date has identified capacity issues at both Junction 9 and 10 of the M40 alongside traffic congestion issues (partly caused by rat running) in the villages of Ardley and Middleton Stoney. Notwithstanding the highway

improvements that have been identified at M40 Junction 10 as part of the Oxfordshire Housing Growth Deal, these issues are predicted to get worse as a result of the significant housing led growth already planned around Bicester and other background traffic growth.

- 2.4.16 A range of options for accessing the SRFI site and addressing the congestion issues have been considered, including the formation of a new junction onto the M40. The preferred approach, which is shown on the Highways Works Overview drawing (**Appendix 2.5**) involves a combination of works to both the strategic road network at and around Junction 10 together with other new roads and local road improvements around Ardley and Middleton Stoney, as described in paragraph 2.4.13 above.

Ardley Bypass

- 2.4.17 A new Ardley Bypass is to be delivered as part of wider improvements to M40 Junction 10. The Bypass is proposed from the Ardley Roundabout (at the western side of the current Junction 10 of the M40) on an alignment east of the B430. It would tie-in with proposed re-located south facing M40 slip roads, and the preferred approach would see the existing Ardley Road bridge over the Bypass route.
- 2.4.18 The existing B430 will be stopped up to the south of Ardley village and north of the new Main Site access roundabout, and so all through-traffic would be removed from the village.
- 2.4.19 The Ardley Bypass would bridge over the Chiltern Main Line railway to serve the Main Site and rejoin the existing B430. The Bypass will include drainage and landscaping associated with the new road and junction arrangements. It will include amendments and diversions to existing rights of way.

Middleton Stoney Relief Road

- 2.4.20 This is a new single carriageway road to the north-eastern side of Middleton Stoney which will provide a link from the B4030 to the B430 north of Middleton Stoney. The proposed route for the Relief Road has been informed by environmental and technical assessments, with other possible options having been considered and discounted.
- 2.4.21 While detailed assessments and modelling are ongoing, the Middleton Stoney Relief Road (with the bus gate on the B4030 west) is forecast to remove around a third of the existing traffic from the village centre.

Heyford Park Link Road

- 2.4.22 This is a new single carriageway road which will provide a link from the B430 north of Middleton Stoney to Heyford Park. The western extent of this new link will tie in with the current Camp Road.

- 2.4.23 A Secondary Access will be formed off the Heyford Park Link Road at the southern end of the Main Site. This is proposed as a bus (public transport) and cycle and pedestrian access only – all vehicular traffic will use the main access further north from the B430.

Walking and Cycling

- 2.4.24 The Proposed Development will include footpath and cycle way connections through the Main Site. This will include new provision along the access roads within the Main Site but also via diversions to existing Bridleways which cross the Main Site. Such routes will be diverted and extended to form a loop within the landscaping areas, including a connection over the SRFI rail sidings to link to the existing bridge over the Chiltern Main Line. This would provide a connection to existing bridleways and footpaths that run northwards into Ardley.
- 2.4.25 The proposed new roads (Ardley Bypass and Middleton Stoney Relief Road) will incorporate public footpaths and cycle routes with at grade crossings provided to enable continued access and connectivity. Connections will be retained along the Bypass and Relief Road including an underpass to allow continued movement and connections with the existing network for all users including equestrians.

2.5 ALTERNATIVES AND DESIGN EVOLUTION

- 2.5.1 The 2017 EIA Regulations (as amended) required applicants to provide an outline of the main alternatives studied by the applicant and an indication of the main reasons for the chosen proposal, taking into account the environmental effects
- 2.5.2 The Infrastructure Planning (Environmental Assessment) Regulations 2017 require that an environmental statement include:

“a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;”¹

and , if relevant,

“a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects..”²

¹ 2017 EIA Regulations (as amended) Part 5, Regulation 18 (3) (d)

² 2017 EIA Regulations (as amended) Schedule 4 Paragraph 2.

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- 2.5.3 The National Policy Statement for National Networks (NPS-NN) confirms that applicants should comply with these requirements and any other policy requirements in respect of the assessment of alternatives.³
- 2.5.4 The NPS-NN also states that all projects should be subject to options appraisal with the appraisal considering “*viable modal alternatives*” and other options in light of paragraphs 3.23 to 3.27 of the NPS.⁴ Those paragraphs refer to “*Road tolling and charging*” and are not relevant to this proposal.
- 2.5.5 In considering alternatives, there are therefore a number of aspects and scenarios to be taken into account. Examining alternatives should involve the consideration of alternative locations for the development, where this is feasible. It should however, also examine alternative design and mitigation approaches and where relevant alternative processes and technologies. This could include alternative approaches to construction activities. The assessments of alternative locations have been limited to the SRFI element of the proposals and does not consider the highway works which are a consequence of the SRFI.
- 2.5.6 Alternative design approaches are continuing to be considered through the iterative process of site assembly, masterplanning and assessment. The consultation process with the public and other consultees will further inform the development of the scheme.
- 2.5.7 Detail on the alternative locations and design approaches will be included for the Stage 2 Public Consultation process.

³ NPS-NN Paragraph 4.26

⁴ NPS-NN Paragraph 4.27