

# Design and Access Statement

The West Midlands Rail Freight Interchange Order 201X

Regulation 5 (2) (q)

Chetwoods / Quod - July 2018



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Document Ref 7.5

Regulation 5(2)(q)

July 2018



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## Consultant Team

This Design and Access Statement ('DAS') has been prepared on behalf Four Ashes Limited ('FAL') by Chetwoods Architects and Quod, with input from the consultants below:



## Executive Summary

This DAS accompanies an application for a Development Consent Order ('DCO') under the Planning Act 2008 for the development of a new Strategic Rail Freight Interchange ('SRFI') (which includes warehousing) (together, 'the Proposed Development' or 'the Scheme') at land located at Four Ashes, Staffordshire ('the Site'), see the **Order Limits and Parish Boundaries Plan** [Document 2.4].

This Design and Access Statement ('DAS') has been prepared on behalf of Four Ashes Limited ('FAL' or 'the Applicant') for the West Midlands Interchange ('WMI') proposals and seeks to explain:

- the approach to site analysis;
- the design concept and principles, including how the design has evolved, influenced by planning policy and consultation;
- the Proposed Development and Design Framework, including the development parameters; and
- the proposed Design Principles.

The National Policy Statement for National Networks ('the NPS') sets out strong policy support for the development of a national network of SRFIs, with this support arising from the acknowledged benefits the use of rail can bring to the movement of freight. The NPS makes clear that there is a compelling need for an expanded network of SRFIs and there is an in principle presumption in favour of granting development consent.

The clear need for a SRFI in southern Staffordshire has been established through planning policy and an evidence base running back to the early 2000's.

Regional planning policy began to attempt to address the need for rail served logistics sites in southern Staffordshire, but the abolition of regional planning in 2011 halted further work at a regional level.

Local planning policy has unsurprisingly been unable to find a solution. The Planning Act 2008 and the NPS now provides a proper policy framework under which a SRFI may come forward in this location.

A new SRFI in South Staffordshire would help to address that need, providing substantial economic and sustainability benefits.

The Proposed Development comprises:

- An intermodal freight terminal with direct connections to the West Coast Main Line, capable of accommodating up to 10 trains per day and trains of up to 775m long, including container storage, Heavy Goods Vehicle parking, rail control building and staff facilities;
- Up to 743,200 square metres of rail served warehousing and ancillary service buildings;
- New road infrastructure and works to the existing road infrastructure;
- Demolition of existing structures and earthworks to create development plots and landscape zones;
- Reconfiguring and burying of existing overhead power lines and pylons; and
- Strategic landscaping and open space, including alterations to public rights of way and the creation of new ecological enhancement areas and publicly accessible open areas.

The Site is intersected by the West Coast Main Line ('WCML') and is located approximately 10 kilometres north of Wolverhampton, immediately west of Junction 12 of the M6. It lies within the administrative boundary of South Staffordshire District Council ('SSDC') and comprises approximately 297 hectares ('ha') of land.

## 1. Introduction

## 1.1 Purpose of the Document

- 1.1.1 This Design and Access Statement ('DAS') has been prepared on behalf of Four Ashes Limited ('FAL' or 'the Applicant') for the West Midlands Interchange ('WMI') proposals and seeks to explain:
- the approach to site analysis;
  - the design concept and principles, including how the design has evolved, influenced by planning policy and consultation;
  - the Proposed Development and Design Framework, including the development parameters; and
  - the proposed Design Principles.
- 1.1.2 The DAS should be read in conjunction with the other application documents, in particular the **Parameter Plans** [Documents 2.4 – 2.7], the **Illustrative Masterplan** [Document 2.8] and the **Planning Statement** [Document 7.1A].

## 1.2 The Site

- 1.2.1 The Site lies within the West Midlands Region and the administrative boundaries of South Staffordshire District Council ('SSDC'), Staffordshire County Council ('SCC') and the Civil Parishes of Brewood and Coven, Penkridge and Hatherton, as indicated by the **Order Limits and Parish Boundaries Plan** [Document 2.4],
- 1.2.2 The Site is intersected by the West Coast Main Line ('WCML') and is located approximately 10 kilometres north of Wolverhampton, immediately west of Junction 12 of the M6. It lies within the administrative boundary of South Staffordshire District Council ('SSDC').
- 1.2.3 The Order Limits for the Proposed Development comprise approximately 297 hectares ('ha') of land.
- 1.2.4 i54 South Staffordshire, located approximately 5 km to the south of the Proposed Development, is a major employment site (allocated Enterprise Zone status by the UK Government), accommodating Jaguar Land Rover's flagship Engine Manufacturing Centre, along with other industrial and manufacturing companies.
- 1.2.5 The WMI Site links directly to the A5 and the A449 trunk roads, providing easy connections to the M6, the M6 Toll and the M54, offering opportunities for the delivery of a well-connected and permeable site.

## 1.3 Project Context

- 1.3.1 This DAS accompanies an application by FAL to the Secretary of State ('SoS') via the Planning Inspectorate ('PINS') for a development consent order ('DCO') under the Planning Act 2008 ('the Act') for the development of a new Strategic Rail Freight Interchange ('SRFI') (which includes warehousing) (together, 'the Proposed Development' or 'the Scheme') on land located at Four Ashes, Staffordshire.
- 1.3.2 A SRFI is a large rail served distribution park linked into both the railway network and the strategic road system, capable of accommodating the large warehouses necessary for the storage, processing and movement of goods for manufacturers, retailers and end consumers. The aim of a SRFI is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution journey by road, through co-location of other distribution and freight activities and by adopting locations close to centres of demand. Consequently, a SRFI has very specific locational requirements.
- 1.3.3 National policy clearly establishes the "**compelling need for an expanded network of SRFIs**" (NPS paragraph 2.56). There is an acknowledged and identified unmet need for a SRFI / RLS in the northern / western quadrant of the West Midlands Region to "**serve the Black Country and southern Staffordshire**" (emerging SSDC Site Allocations Document 2017, paragraph 9.32).
- 1.3.4 The support for SRFIs arises from the acknowledged benefits the use of rail can bring to the movement of freight through providing economy and efficiency for business and, particularly, because of the substantial environmental benefits achieved by transferring longer-distance freight movements from road to rail.
- 1.3.5 FAL is led by Kilbride Holdings ('Kilbride'), a company specialising in rail infrastructure to serve business and industry. The Kilbride team has developed rail-based projects for Jaguar Land Rover ('JLR') in Halewood and Castle Bromwich, amongst others. Kilbride is one of three partners in FAL, along with privately owned international property group, the Grosvenor Group and Piers Monckton, who is the primary landowner.



## 1.4 Content and Structure of the DAS

1.4.1 This DAS explains how the Proposed Development has come forward and covers:

- the approach to site analysis;
- the design concept and principles, including how the design has evolved, influenced by planning policy and consultation;
- the Proposed Development and Design Framework, including the development parameters; and
- the proposed Design Principles.

1.4.2 The DAS is structured as follows:

- Section 1 – **Introduction**
- Section 2 – **Site Context and Analysis**
- Section 3 – **Vision and Design Objectives**
- Section 4 – **Identification of the Site**
- Section 5 – **Scheme Evolution**
- Section 6 – **The Proposed Development and Design Framework**
- Section 7 – **Design Principles**
- Section 8 – **Conclusions**



Figure 1: iPort Doncaster

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## 2. Site Context and Analysis

## 2.1 Site Location

- 2.1.1 The Site lies within the West Midlands Region, approximately 10 kilometres north of Wolverhampton. It occupies a strategically significant location on both the national road and rail networks, being bound by the A5 and A449 trunk roads, lying immediately west of Junction 12 of the M6 and with the West Coast Main Line ('WCML') intersecting the Site.
- 2.1.2 The Site is approximately 297 ha in size and is located within the administrative boundaries of South Staffordshire District Council and Staffordshire County Council, within the Civil Parishes of Brewood and Coven, Penkridge and Hatherton.
- 2.1.3 The **Order Limits and Parish Boundaries Plan** [Document 2.4] shows the land required to deliver the Proposed Development, including all necessary landscaping and highway works.



Figure 3: West Midlands Region

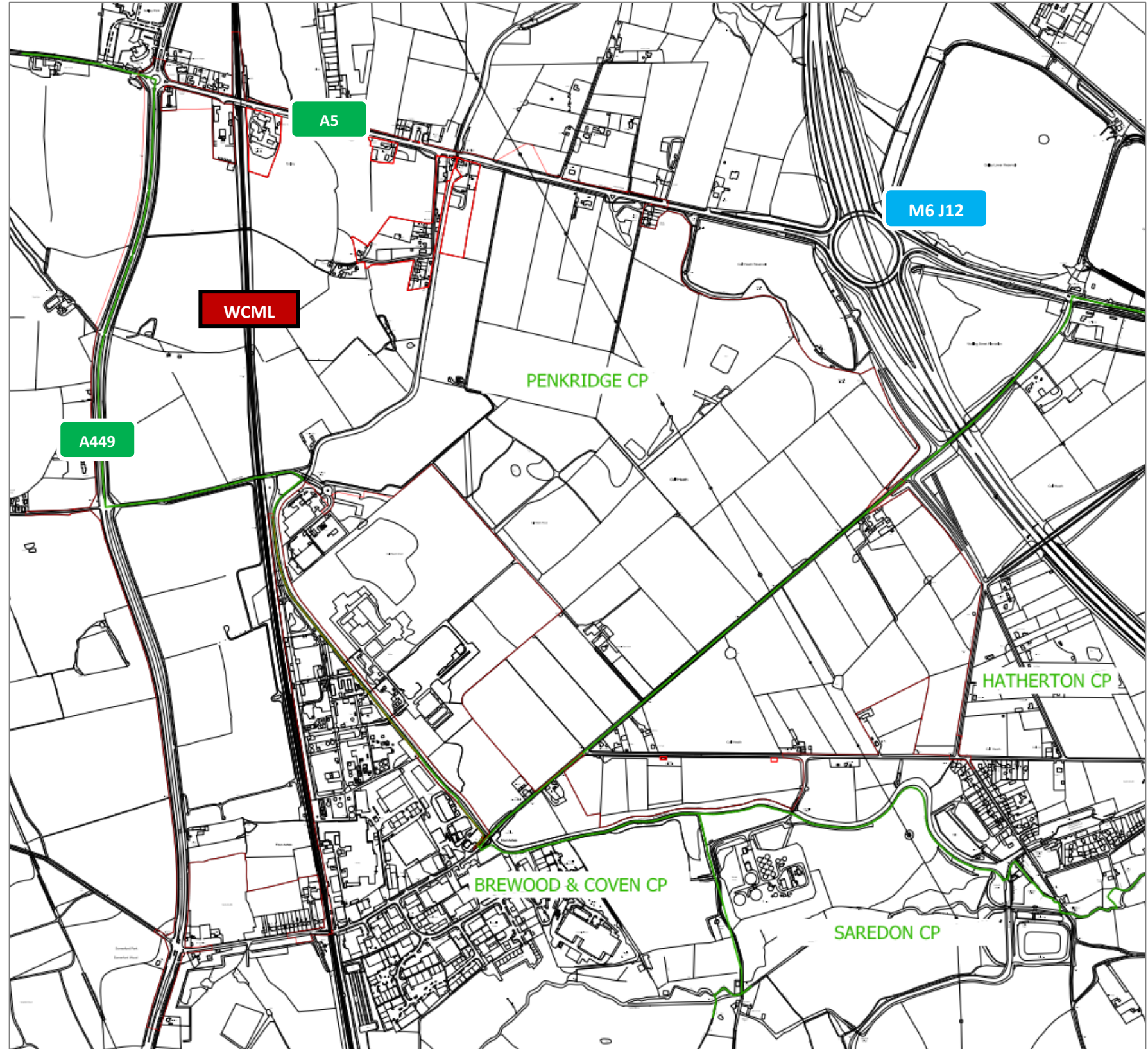


Figure 2: WMI Order Limits in the context of the national road and rail network



Figure 4: Aerial image of the Staffordshire and Worcestershire Canal running through the Site

## 2.2 Site Description and Surrounding Built Environment

- 2.2.1 The north eastern section of the Site is currently characterised by a significant area of sand and gravel mineral workings at Calf Heath Quarry. The mineral workings area covers approximately 40ha, with almost the entirety of the workings area being open-cast, with silt lagoons and areas of standing water extending across the Quarry.
- 2.2.2 The majority of the remainder of the Site is made up of a patch work of agricultural fields, with hedgerows and trees around the outer boundaries of the Site. Calf Heath Wood is a small area of mixed woodland, part of which lies within the Order Limits, towards the centre of the Site. The area south of Vicarage Road is primarily made up of agricultural fields with trees and hedgerows.

### Urban and Industrial Influences

- 2.2.3 The Site is surrounded and intersected by a number of urban and industrial influences, including:
- the A5, the A449 and the M6 (see Fig. 3);
  - the West Coast Main Line (see Fig. 2 and 7);
  - the Staffordshire and Worcestershire Canal (see Fig. 4);
  - Calf Heath and Gailey Reservoirs (see Fig. 5);
  - the Four Ashes Industrial Estate (see Fig. 7);
  - Bericote / Gestamp (see Fig. 7);
  - the Veolia Energy Recovery Facility (see Fig. 7);
  - the Sludge Disposal Centre (see Fig. 7); and
  - the Rodbaston Wind Farm (1km north) (see Fig. 7).

### Agricultural Land

- 2.2.4 The Site is made up of around 70% agricultural land, with this land sub-divided by a network of hedgerows and hedgerow trees with other wooded copses located across the area.
- 2.2.5 The dominant species across the Site is English Oak, the vast majority of which are associated with the network of field boundary hedgerows or woodlands, or are free-standing trees. On the whole, the surveyed tree cover is largely in good physical and structural condition.



Figure 6: Aerial image of the agricultural fields to the north west



Figure 5: Aerial image of Calf Heath Quarry (with Calf Heath Wood, Calf Heath Reservoir and Gailey Reservoirs)

Gestamp Factory (at the  
'Bericote Site')

Rodbaston Wind Farm

WCML

Vicarage Road

Veolia Energy Recovery  
Facility ('ERF')

Sludge Disposal Centre



Figure 7: Aerial image of the Four Ashes Industrial Estate

## 2.3 The Surrounding Built Environment

- 2.3.1 The Site was historically part of Calf Heath which was open land throughout the middle ages to the early modern period. There are historical records of a small Norman settlement at Gailey, however, no physical evidence of this remain within the Site.
- 2.3.2 There is one designated heritage asset within the Site boundary which is a short section of the Staffordshire and Worcestershire Canal Conservation Area (Figure 8). There are three non-

designated heritage assets within the Site, comprising Heath Farm (locally listed, but with consent to demolish granted in 2017), Woodside Farm and Straight Mile Farm which are not locally listed, but are considered as non-designated heritage assets. The Site is within the setting of a number of other designated and non-designated heritage assets, particularly the Round House and Wharf Cottage (both Grade II listed) which form part of Gailey marina close to the A5 and are associated with the historic canal.

- 2.3.3 The character of the historic landscape has been eroded and influenced by later developments including major interventions

such as the M6 to the east and A449 and railway to the west. This infrastructure has detached the Site from the wider landscape context and diminished its historic character. The existing, later industrial development compound this effect, especially to the south and east of the Site at Four Ashes and Calf Heath.

### Transport

- 2.3.4 The A5 at the northern boundary of the Site is derived from the important Roman trackway known as Watling Street, and there are archaeological remains which date from the Roman period to the north of the Site.
- 2.3.5 The A449 to the west of the Site is part of the historic London-Liverpool coach route, which was improved during the 1920's and 1930's.
- 2.3.6 The M6 is a more recent feature of the local area, with the Walsall to Stafford link (which includes junction 12), having opened in the 1960's. The full motorway, running from Rugby to the Scottish border was completed in the 1970's.
- 2.3.7 The Staffordshire and Worcestershire Canal runs roughly north to south through the western part of the Site. The Canal was completed in the 1770's, with a 4km segment of the Canal passing through the Site.
- 2.3.8 Calf Heath Reservoir was constructed in the 1770's, to help maintain water levels. The Upper and Lower Gailey Reservoirs, to the north east of the Site, were constructed in the 1840's to provide further water for the Canal.
- 2.3.9 The WCML runs north to south through the Site, near the western edge and was constructed between the 1830's and 1880's.

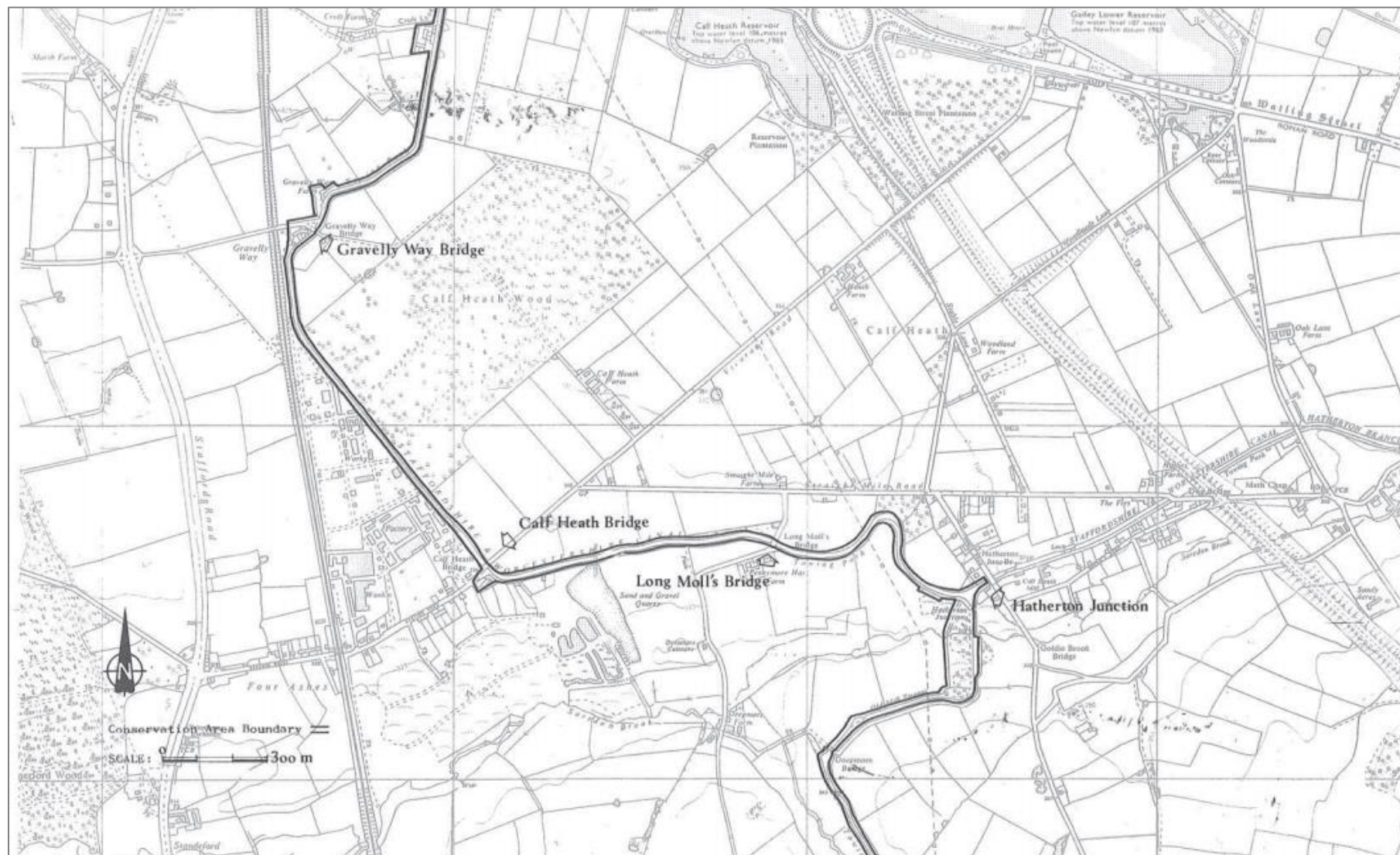


Figure 8: Staffordshire and Worcestershire Canal Conservation Area





Figure 9: Photo of Calf Heath Quarry (January 2014)

Minerals Workings

- 2.3.10 In 1996 permission was granted to Parkhill Estates Ltd for the extraction of sand and gravel at Calf Heath Quarry over 8 years (to 2004), across 24 ha of land.
- 2.3.11 In 2009, a new permission was granted to Salop Sand and Gravel Ltd, the new operators of the Quarry. This extended the extraction area to 40 ha and extended the extraction period to 2021, at which date the Site would also need to be fully restored.
- 2.3.12 The restoration of Calf Heath Quarry, however, has not progressed as expected, with the conditions of the existing permission requiring the restoration of preceding phases of the quarry, prior to the extraction of material in subsequent phases. No restoration of any phase of the quarry has been undertaken since works begun.

Industrial

- 2.3.13 In the 1920's two chemical works were constructed between the WCML the Canal.
- 2.3.14 In the 1950's this area, now referred to as the Four Ashes Industrial Estate, was significantly re-developed, with over 25 industrial units in addition to the chemical works.
- 2.3.15 Since the 1950's further industrial development has taken place in the area surrounding the Site with a tar and chemical works and the Severn Trent Sludge Disposal Centre constructed.
- 2.3.16 In 2010, full permission was granted to Veolia to construct an Energy from Waste facility to the south of the Site. The Veolia facility opened in 2014, handling up to 300,000 tonnes of waste annually.
- 2.3.17 In 2016, full permission was granted to Bericote for the erection of 105,000 sq m of industrial / distribution warehousing, directly adjacent to the Site. Work on the first phase was completed in 2017, with a 55,000 sq m warehouse now occupied by Gestamp and the next phase is underway, with First Panattoni speculatively developing a 42,000 sq m warehouse.



Figure 10: View looking south along the Canal towards the Veolia Energy Facility (July 2017)

## 2.4 Existing Transport Infrastructure

- 2.4.1 The Site occupies a strategically significant location on both the national road and rail networks, lying immediately west of Junction 12 of the M6, with the West Coast Main Line ('WCML') (western branch / Bushbury to Stafford Line) intersecting the Site.
- 2.4.2 The Site also links directly to the A5 and the A449 trunk roads, providing easy connections to the M6, M6 Toll and the M54.
- 2.4.3 The south-eastern area of the Site is bisected by Vicarage Road, which connects the A449 with the A5 (to the east of M6 Junction 12).
- 2.4.4 Penkrige railway station is the closest railway station to the Site, providing connections between Liverpool Lime Street and Birmingham New Street. The rail station is located approximately 5km from the centre of the Site and can be accessed from the Site by continuous footway provision along the A5 and A449.
- 2.4.5 Footways along the A449 and the A5 which border the Site provide connectivity with the surrounding network. Extensive footways are also provided within Four Ashes, including Station Road, providing further connection to the A449.
- 2.4.6 There are several sets of bus stops within close proximity to the Site. To the west, a set of stops is situated at the A449 Stafford Road / Gravelly Way / Crateford Lane junction. There is a further set of bus stops located at the Gailey Roundabout to the north-west of the Site, with the northbound stop situated on the northern A449 arm of the junction, and the southbound stop located on the southern arm of the roundabout.

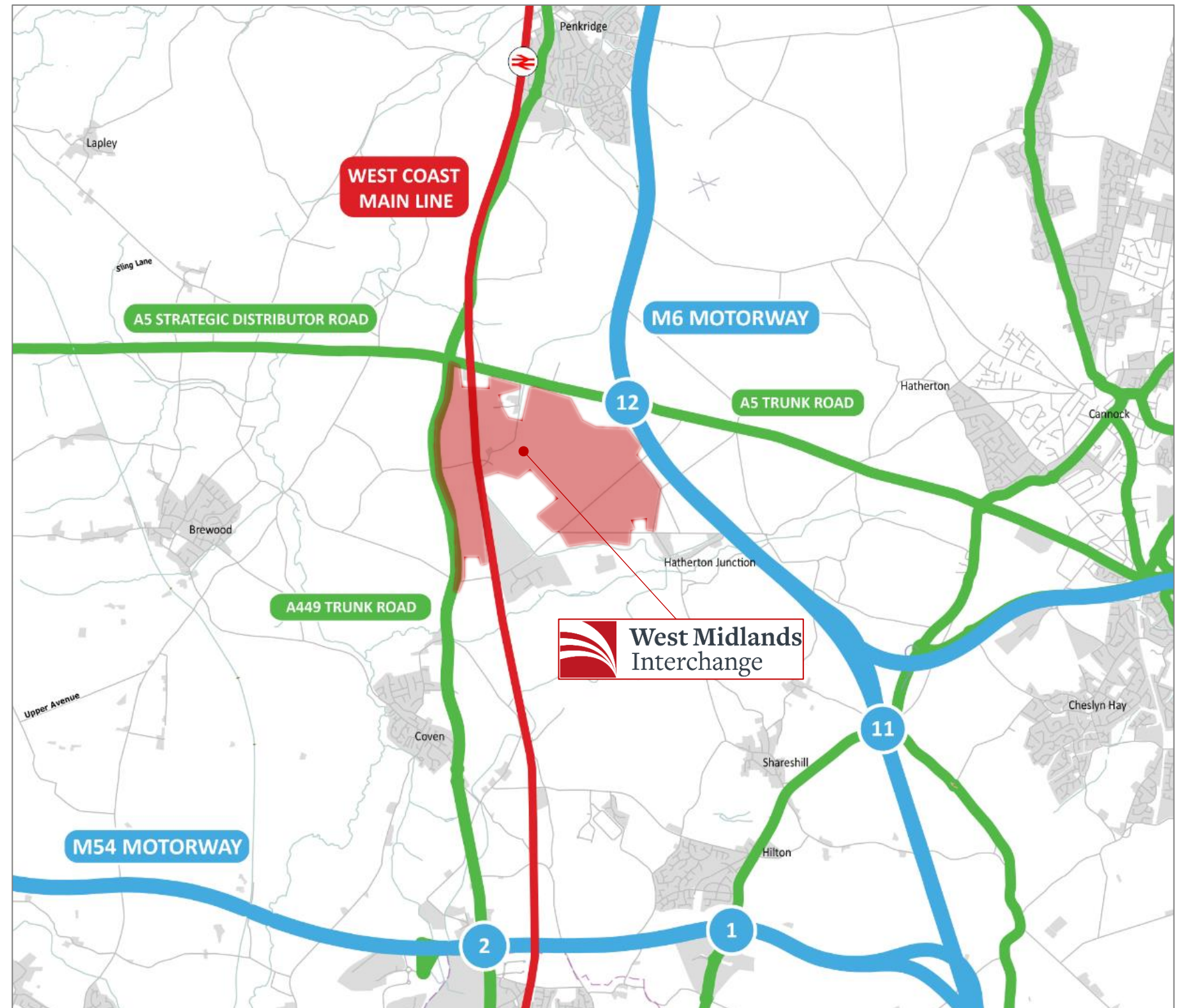


Figure 11: Surrounding transport network

## 2.5 Access

2.5.1 The two existing vehicular access points into the Site are:

- via the existing access to Calf Heath Quarry off the A5; and
- via the existing junction at Gravelly Way off the A449.

2.5.2 Currently there is no publicly accessible space within the Order Limits. The only public routes through the Site are:

- There is one public right of way (Penkridge 29) which runs through the Site, from the A449, across and overbridge and finishing around 100 yards south west of Croft Farm;
- The Canal also runs through the Site, with the towpath allowing access through the Site, however, there is not access from the Canal into the Site; and
- There is an adopted public access of Gravelly Way.

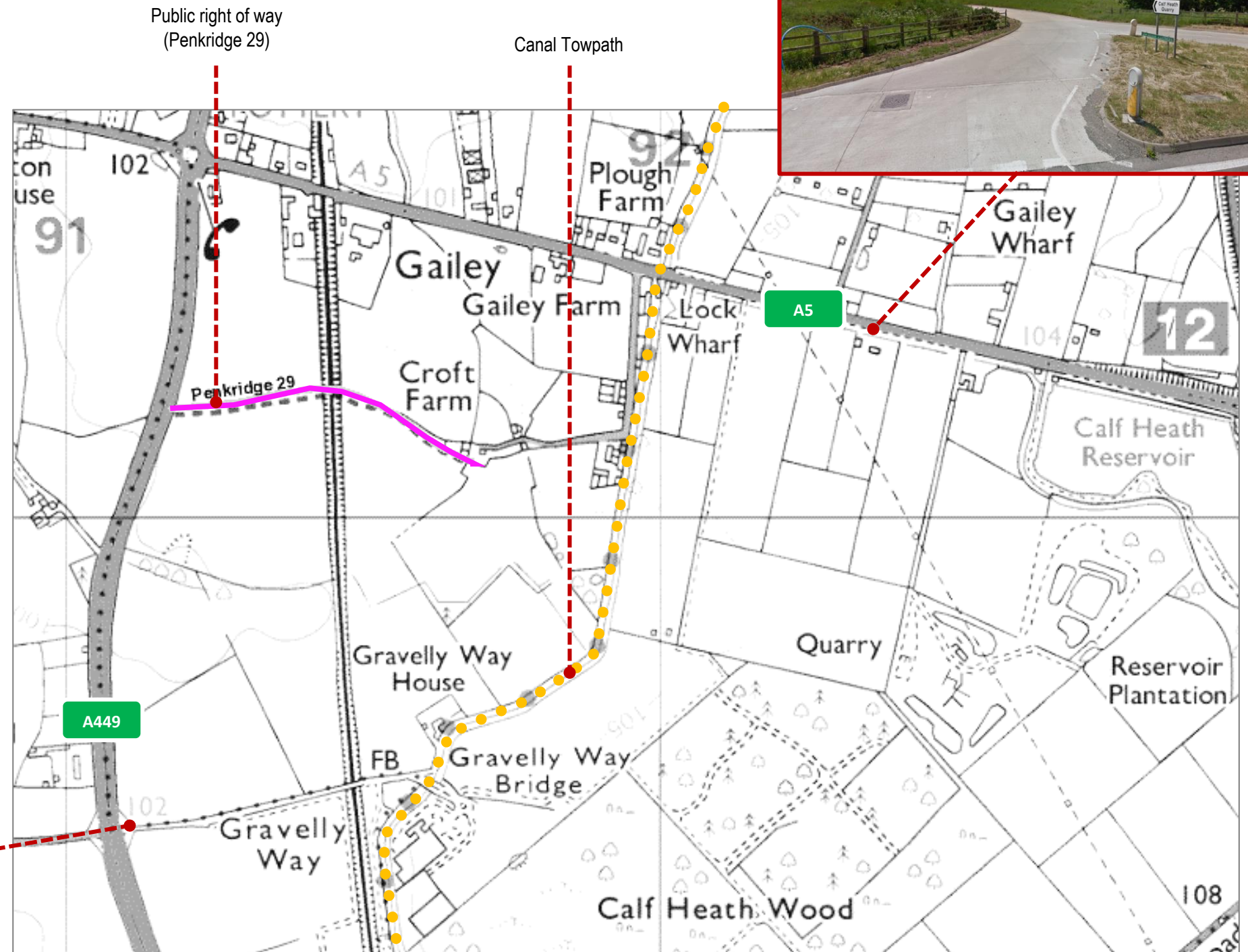


Figure 12: Existing Public Site Access

## 2.6 Proximity of Residential Properties

2.6.1 The Site has been chosen in part due to the distance from nearby residential areas and the relatively limited number of houses it has the potential to impact (in accordance with NPS paragraph 4.86), whilst being in close proximity to the conurbations it would principally serve (in accordance with NPS paragraph 2.45).

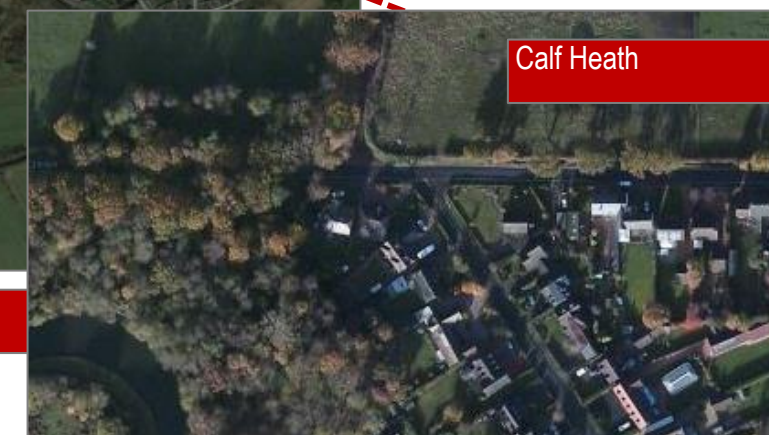


Figure 13: Selected nearby residential property clusters

## 2.7 Ecology

2.7.1 The full assessment of the Proposed Development in respect of diversity and ecological conservation is addressed in Chapter 10 of the **Environmental Statement**.

2.7.2 The baseline environment at the Site is characterised as follows:

- there are no Internationally or Nationally designated sites located on or immediately adjacent to the Site;
- there are no Special Protection Areas ('SPAs') or Ramsar Sites within 10 km of the Proposed Development;
- Special Protection Areas ('SACs') within 10km comprise the following:
  - Mottey Meadows SAC, located 7.5km north west;
  - Cannock Chase SAC, located 7.4km north east; and
  - Cannock Chase Extension Canal SAC, located 10km south east.
- SSSIs within the vicinity of the Site comprise Belvide Reservoir (4.5km west) and Four Ashes Pit (135m south), the latter designated for its geological rather than ecological features;
- thirteen Local Wildlife Sites ('LWS') were identified within a 1km search radius of the Site, the closest being Gailey Reservoirs including Calf Heath Reservoir, located immediately adjacent to the Site's north-east boundary;
- habitats at the Site comprise arable and pastoral farmland; ephemeral ditches and several ponds;

hedgerows, woodland, improved and semi-improved grassland, scrub and trees; quarry habitats including bare earth and pools; buildings and canal; and

- surveys at the Site have recorded the presence of several protected, rare, declining or notable species including great crested newt (off-site but present in the landscape in low numbers) and other amphibians; birds including breeding birds, in particular farmland birds and water birds; invertebrates; several species of bat; and terrestrial mammals including badger, hedgehog and otter.

## 2.8 Veteran Trees

- 2.8.1 The full assessment of the Proposed Development in respect of veteran trees is addressed in Chapter 12 of the **Environmental Statement**.
- 2.8.2 A thorough assessment for any veteran trees that may be present within the site was undertaken by appropriately qualified arboriculturalists as part of the site wide British Standard 5837 (2012) tree survey. The methodology, assessment criteria and definition of a veteran tree was based on accepted references and using an adaptation of English Nature's (now 'Natural England') Specialist Survey Method ('SSM'); at Level 2. The Level 2 assessment collected data on the associated features and habitat attributes of veteran trees sufficient to allow determination of veteran status. Further and more detailed individual assessments would be undertaken to determine the level of any future management required.
- 2.8.3 A total of 11 English Oak on Site were found to be 'true veteran trees' as they possessed the minimum number of associated features pertaining to veteran trees in accordance with the above assessment criteria's and survey method, and are therefore of veteran status. There were also a further 25 specimens, all of which were also English oak, which in accordance with the accepted survey methodologies and assessment criteria, would for their respective species still be 'interesting' and therefore were considered as 'transitional' or 'future' veteran trees.

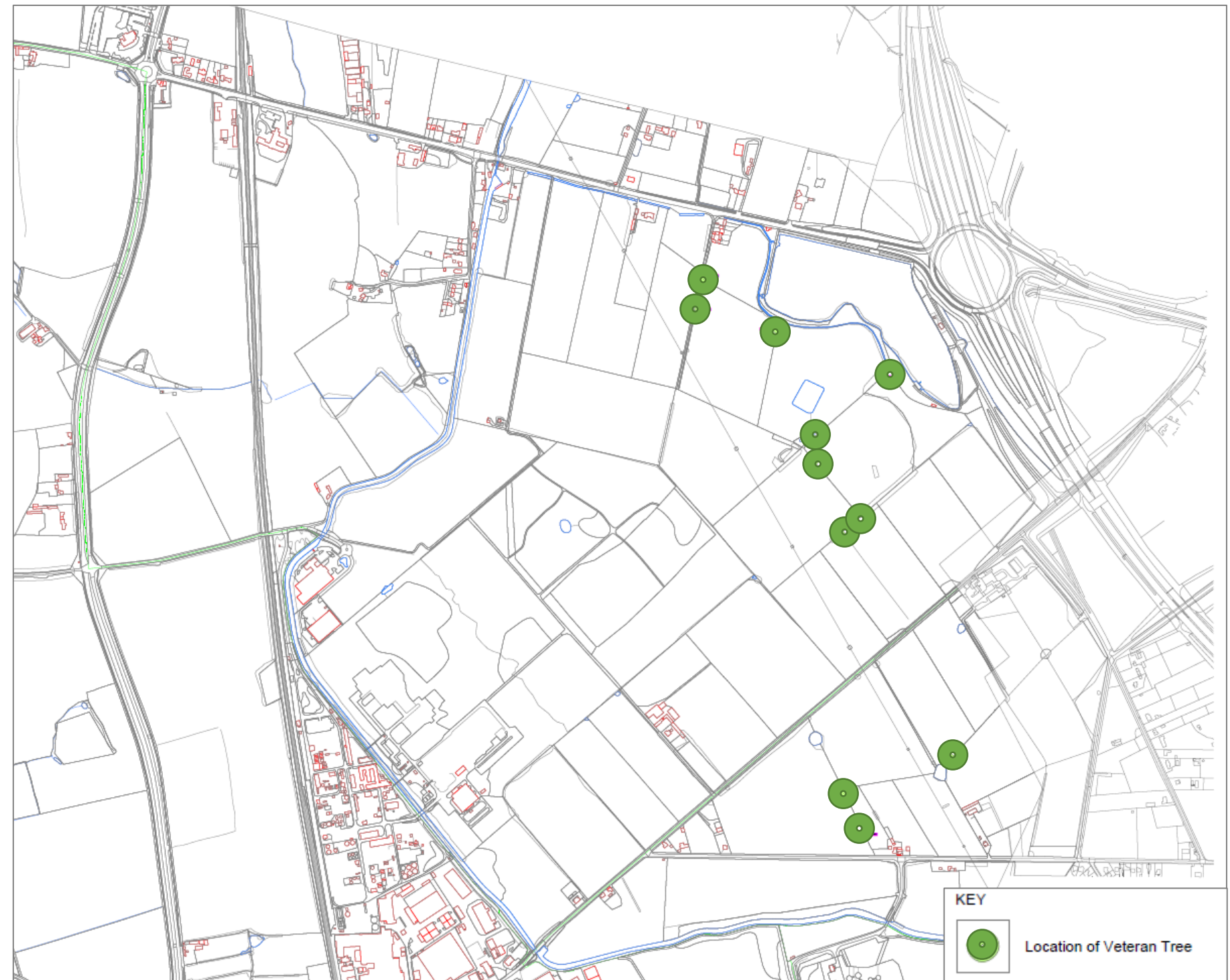


Figure 14: Veteran Tree Plan

## 2.9 Flooding and Surface Water

- 2.9.1 The full assessment of the Proposed Development in respect of flooding and surface water is addressed in Chapter 16 of the **Environmental Statement**.
- 2.9.2 The Site is identified by the Environment Agency ('EA') as being within flood zone 1 (very low risk of flooding) from rivers and seas.
- 2.9.3 EA maps show the Site to be affected by hot spots of surface water flooding, in lower lying areas and adjacent ditches across the site; and the Calf Heath Reservoir is shown as potentially affecting the northern areas west of the reservoir and south of the A5 should there be an overtopping or a breach scenario.
- 2.9.4 The Site is relatively free draining with ground water generally between 3 and 4m below ground level, the exception to this being the lowland areas which are saturated for much of the year and Calf Heath Quarry, where the ground levels have been significantly reduced through the extensive excavations.
- 2.9.5 The existing surface water drainage regime across the Site has been assessed and seven separate catchments have been identified based on analysis of existing topography and the direction of flow in existing ditch networks.
- 2.9.6 All ditch-drained catchments outfall ultimately to either the River Penk approximately 1.5 km west of the Site, or to the Staffordshire and Worcestershire Canal, which travels through the Site from north to south.
- 2.9.7 Some discrete catchments have been identified as draining into wooded lowland areas, such as Calf Heath Wood, where surface water drains into the ground and is taken up by the trees and plants.
- 2.9.8 The existing site use is predominantly as arable agriculture and is categorised as 'less vulnerable' in terms of flood risk.

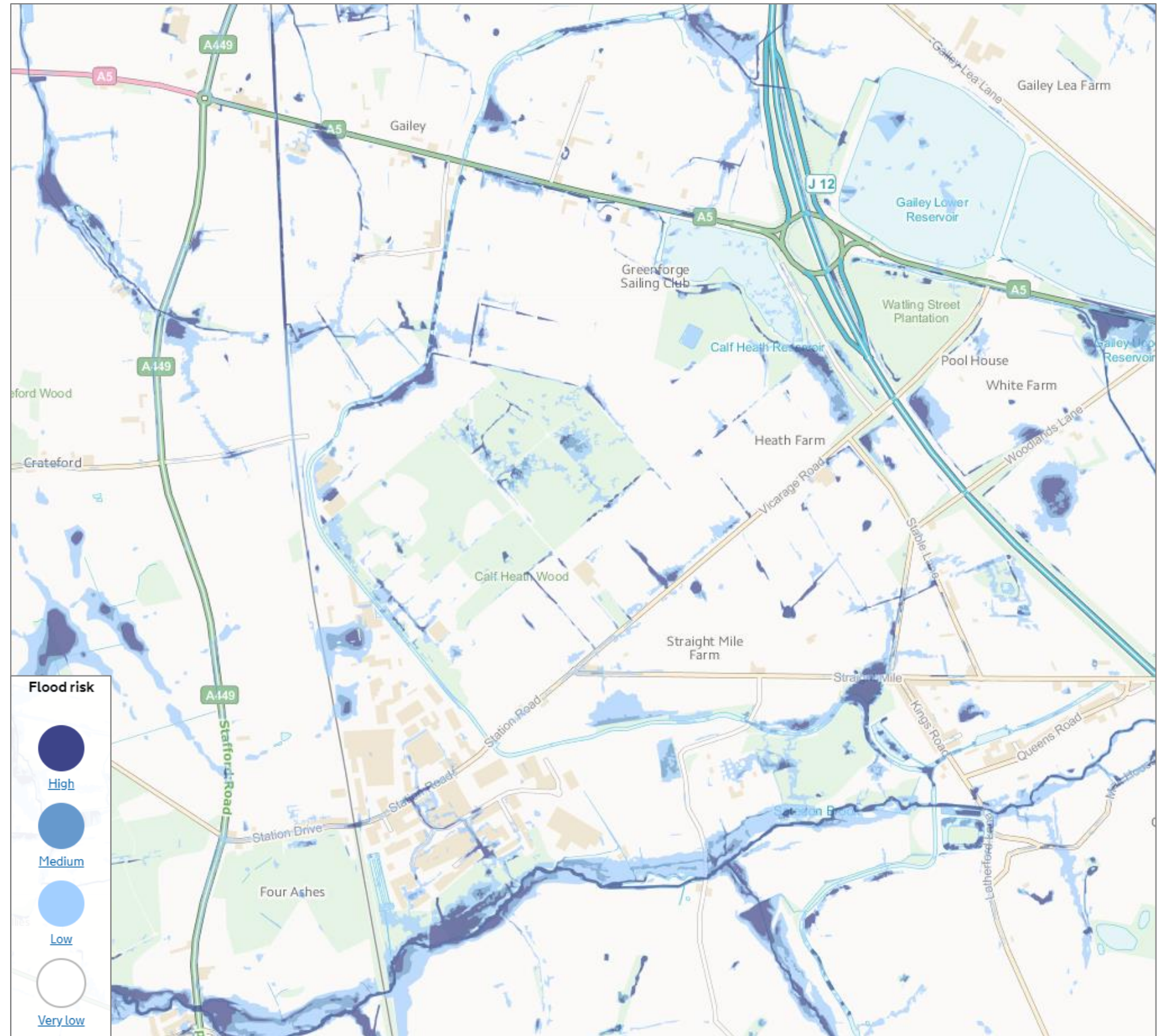


Figure 15: EA flood risk from surface water map



2.9.9 Some of the existing residential properties within the Order Limits are at risk of surface water flooding during extreme rainfall events and are classified as 'more vulnerable' in terms of flood risk.

#### Calf Heath Quarry

2.9.10 Calf Heath Quarry has impacted the natural hydraulic regime by excavating several metres of the virgin ground to remove sands and gravels.

2.9.11 In this area, embankments have been constructed which retain the heavily saturated silt that is the bi-product of the quarrying process.

2.9.12 The network of settlement lagoons evident in the quarry ultimately contributes to the network of land drains.

#### West Coast Main Line

2.9.13 The WCML, which runs through the Site at the western side, falls below the ground water level south of the point where Gravelly Way Bridge crosses the railway.

2.9.14 Surface and ground water from the WCML is controlled through the use of a pumping system which maintains the groundwater below the cutting in this area.

2.9.15 The water is pumped to the neighbouring chemical works for treatment before being discharged towards Sarendon Brook



Figure 16: Calf Heath Quarry (October 2017)

## 2.10 Topography

- 2.10.1 The full assessment of the Proposed Development in respect of topography is addressed in Chapter 12 of the **Environmental Statement**.
- 2.10.2 The topography of the Site is relatively level, with localised topographical features associated with the Canal, WCML and Quarry.

## 2.11 Contamination

- 2.11.1 Environmental database records indicate the potential presence of landfilled material within the south of the Site.
- 2.11.2 The Site has been subject to extensive, intrusive site investigation which has comprised the excavation of boreholes and trial pits across the Site. These works were undertaken in a phased manner.
- 2.11.3 The scope of works was undertaken following liaison with the Environment Agency and SSDC. The investigation included the analysis of soils for potential contaminants of concern. Follow-up sampling and analysis included groundwater and surface water sampling as well as the undertaking of ground gas monitoring.
- 2.11.4 The findings of the site investigation indicate that there are no significant contamination constraints to the Proposed Development other than the ongoing works in the south-west of the Site to remediate the Site, with abstraction and monitoring wells in this location.
- 2.11.5 Measures have been developed by the Project Team to ensure that the Proposed Development would not undermine these ongoing remediation works.

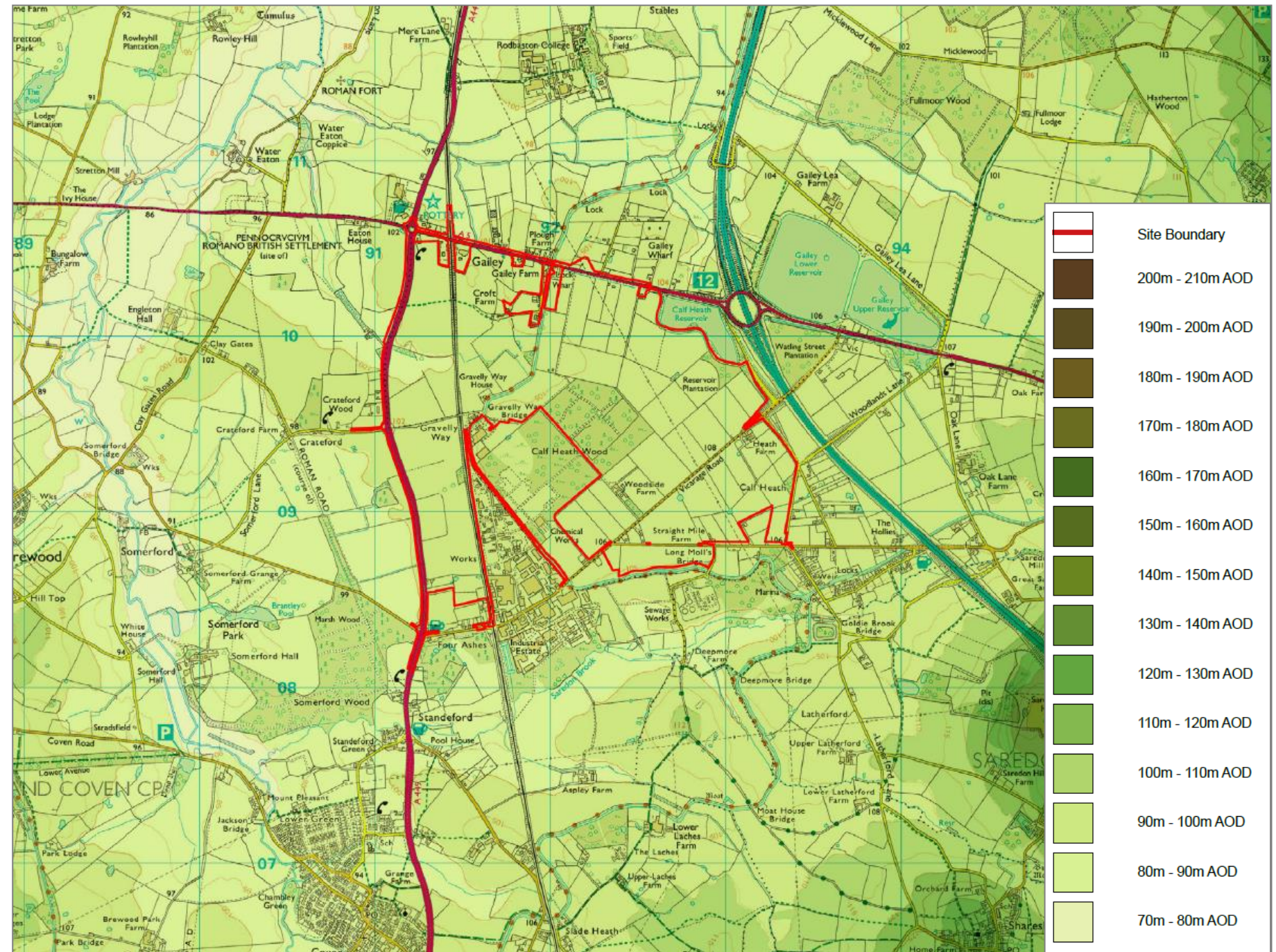


Figure 17: Topography of the Site

## 2.12 Principal Planning Considerations

2.12.1 The planning policy context for the Proposed Development and the response to policy is set out in detail in the **Planning Statement** [Document 7.1A] at Section 4.

### Planning Policy

2.12.2 There are a wide range of policy documents which have some potential relevance to the determination of the Application, however, the regime established by the Planning Act 2008 makes clear that the National Policy Statement for National Networks (2014) ('the NPS') is the primary policy document relevant to the determination of this application.

2.12.3 The criteria for "good design" for national network infrastructure is set out at paragraphs 4.28 to 4.35 of the NPS. These are repeated below (emphasis added):

***"4.28 Applicants should include design as an integral consideration from the outset of a proposal."***

***"4.29 Visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost. Applying "good design" to national network projects should therefore produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible."***

***"4.30 It is acknowledged however, that given the nature of much national network infrastructure development, particularly SRFIs, there may be a limit on the extent to which it can contribute to the enhancement of the quality of the area."***

***"4.31 A good design should meet the principal objectives of the scheme by eliminating or***

***substantially mitigating the identified problems by improving operational conditions and simultaneously minimising adverse impacts. It should also mitigate any existing adverse impacts wherever possible, for example, in relation to safety or the environment. A good design will also be one that sustains the improvements to operational efficiency for as many years as is practicable, taking into account capital cost, economics and environmental impacts.***

***"4.32 Scheme design will be a material consideration in decision making. The Secretary of State needs to be satisfied that national networks infrastructure projects are sustainable and as aesthetically sensitive, durable, adaptable and resilient as they can reasonably be (having regard to regulatory and other constraints and including accounting for natural hazards such as flooding)."***

***"4.33 The applicant should therefore take into account, as far as possible, both functionality (including fitness for purpose and sustainability) and aesthetics (including the scheme's contribution to the quality of the area in which it would be located). Applicants will want to consider the role of technology in delivering new national networks projects. The use of professional, independent advice on the design aspects of a proposal should be considered, to ensure good design principles are embedded into infrastructure proposals."***

***"4.34 Whilst the applicant may only have limited choice in the physical appearance of some national networks infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character and function, landscape permeability, landform and vegetation."***

***"4.35 Applicants should be able to demonstrate in their application how the design process was conducted and how the proposed design evolved.***

***Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. The Examining Authority and Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.***

2.12.4 There is also specific guidance on the "function", "transport links and locational requirements" and "scale and design" set out at paragraphs 4.83 to 4.89 of the NPS, repeated below (emphasis added):

### ***Rail freight interchange function***

***"4.83 Rail freight interchanges are not only locations for freight access to the railway but also locations for businesses, capable now or in the future, of supporting their commercial activities by rail. Therefore, from the outset, a rail freight interchange (RFI) should be developed in a form that can accommodate both rail and non-rail activities.***

### ***Transport links and location requirements***

***" 4.84 Given the strategic nature of large rail freight interchanges it is important that new SRFIs or proposed extensions to RFI's upgrading them to SRFIs, are appropriately located relative to the markets they will serve, which will focus largely on major urban centres, or groups of centres, and key supply chain routes. Because the vast majority of freight in the UK is moved by road, proposed new rail freight interchanges should have good road access as this will allow rail to effectively compete with, and work alongside, road freight to achieve a modal shift to rail. Due to these requirements, it may be that countryside locations are required for SRFIs.***

**“4.85 Adequate links to the rail and road networks are essential. Rail access will vary between rail lines, both in the number of services that can be accommodated, and the physical characteristics such as the train length and, for intermodal services, the size of intermodal units that can be carried (the ‘loading gauge’). As a minimum a SRFI should ideally be located on a route with a gauge capability of W8 or more, or capable of enhancement to a suitable gauge. For road links, the Government’s policy is set out in Circular 02/2013 The Strategic Road Network and the delivery of sustainable development.”**

**“4.86 SRFIs tend to be large scale commercial operations, which are most likely to need continuous working arrangements (up to 24 hours). By necessity they involve large structures, buildings and the operation of heavy machinery. In terms of location therefore, they often may not be considered suitable adjacent to residential areas or environmentally sensitive areas such as National Parks, the Broads and AONBs, which may be sensitive to the impact of noise and movements. However, depending on the particular circumstances involved, appropriate mitigation measures may be available to limit the impacts of noise and light.”**

**“4.87 SRFIs can provide many benefits for the local economy. For example because many of the on-site functions of major distribution operations are relatively labour intensive, this can create many new job opportunities. The existence of an available and economic local workforce will therefore be an important consideration for the applicant.”**

#### Scale and design

**“4.88 Applications for a proposed SRFI should provide for a number of rail connected or rail accessible buildings for initial take up, plus rail infrastructure to allow more extensive rail**

**connection within the site in the longer term. The initial stages of the development must provide an operational rail network connection and areas for intermodal handling and container storage. It is not essential for all buildings on the site to be rail connected from the outset, but a significant element should be.”**

**“4.89 As a minimum, a SRFI should be capable of handling four trains per day and, where possible, be capable of increasing the number of trains handled. SRFIs should, where possible, have the capability to handle 775 metre trains with appropriately configured on-site infrastructure and layout. This should seek to minimise the need for on-site rail shunting and provide for a configuration which, ideally, will allow main line access for trains from either direction.”**

- 2.12.5 There is also specific guidance on development within the Green Belt, set out in paragraphs 5.170 - 5.178 of the NPS, repeated below (emphasis added):

**“5.170 The general policies controlling development in the countryside apply with equal force in Green Belts but there is, in addition, a general presumption against inappropriate development within them. Such development should not be approved except in very special circumstances. Applicants should therefore determine whether their proposal, or any part of it, is within an established Green Belt and, if so, whether their proposal may be considered inappropriate development within the meaning of Green Belt policy. Metropolitan Open Land, and land designated as Local Green Space in a local or neighbourhood plan, are subject to the same policies of protection as Green Belt, and inappropriate development should not be approved except in very special circumstances.”**

**“5.172 Promoters of strategic rail freight interchanges may find that the only viable sites for meeting the need for regional strategic rail freight**

**interchanges are on Green Belt land. Promoters need to recognise the special protection given to Green Belt land. The Secretary of State would have to be convinced, and promoters would need to demonstrate, very special circumstances to justify planning consent for inappropriate development in the Green Belt (see 5.178).”**

**“5.178 When located in the Green Belt national networks infrastructure projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt and there is a presumption against it except in very special circumstances. The Secretary of State will need to assess whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In view of the presumption against inappropriate development, the Secretary of State will attach substantial weight to the harm to the Green Belt, when considering any application for such development.”**

- 2.12.6 As noted above, there are other elements of the NPS and other documents which may have relevance to the determination of the Application, and this is addressed in detail in Section 4 of the Planning Statement.

Planning Policy Designations

- 2.12.7 The Site is designated as West Midlands Metropolitan Green Belt (the 'Green Belt').
- 2.12.8 The Green Belt was formally approved by the SoS in 1975. Around 80% of SSDC is designated as Green Belt. Whilst the scale of the Proposed Development is substantial, the Site area of 297 ha represents 0.9% of the SSDC Green Belt and 0.1% of the West Midlands Green Belt.
- 2.12.9 Part of the north eastern quadrant of the Site, known as 'Calf Heath Quarry', has been allocated in the Minerals Local Plan for Staffordshire (2015-2030) ('the Minerals Plan') for an extension to the existing sand and gravel extraction area. The Calf Heath extension, shown in Figure 7 overleaf, with 0.75 million tonnes of indicated resources is the joint smallest minerals allocation (and the smallest sand and gravel allocation) in the Minerals Plan. The Calf Heath allocation represents approximately 2% of the sand and gravel allocated in the Minerals Local Plan.
- 2.12.10 The Cannock Chase AONB lies approximately 3km to the east of the Site at its nearest point.

Planning History

- 2.12.11 The detailed planning history of the Site and surrounding area is addressed in Section 2.5 of the **Planning Statement**.

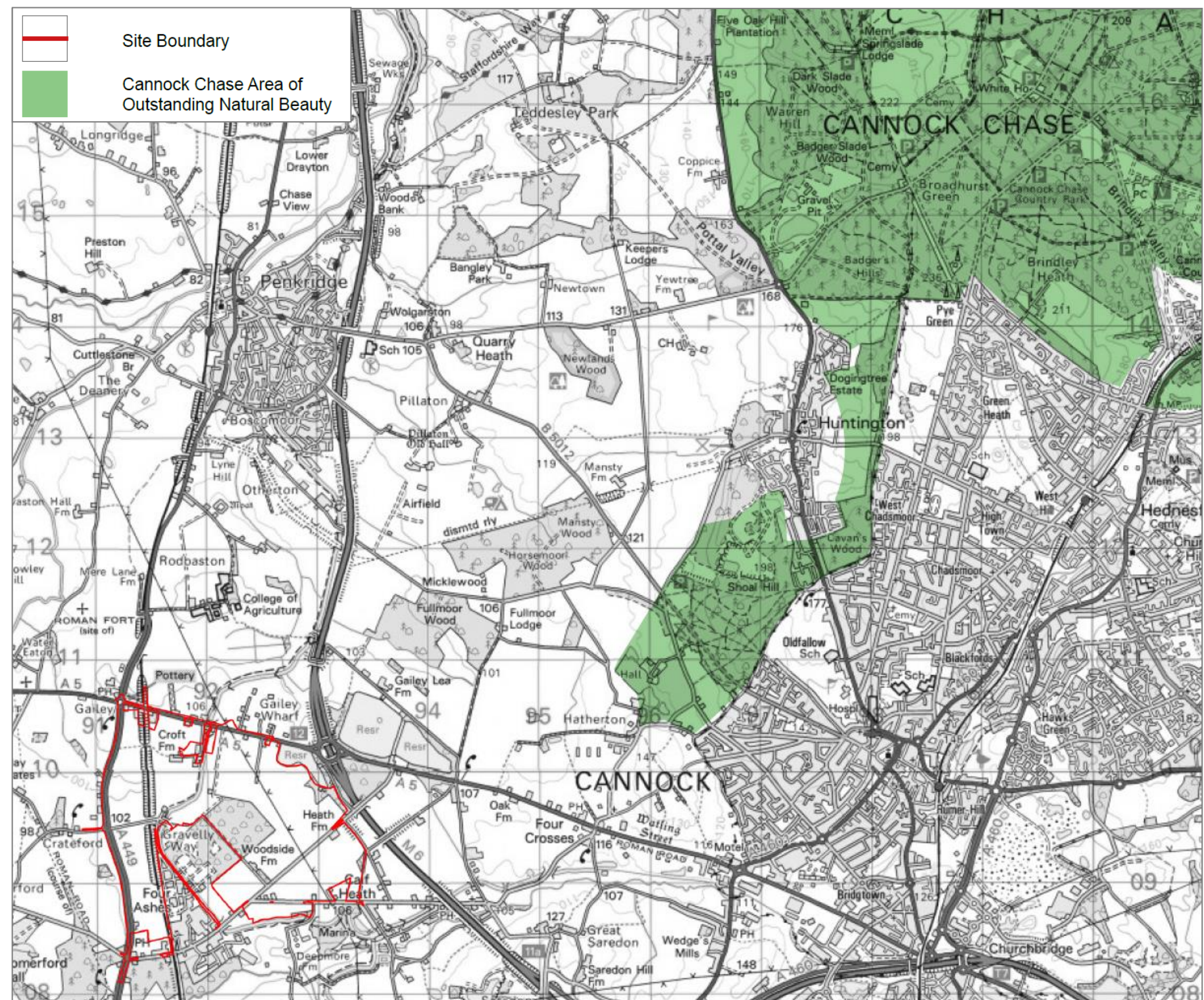


Figure 18: Cannock Chase AONB

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### 3. Vision and Design Objectives

### 3.1 Vision

- 3.1.1 The partners of FAL adopted a vision for the WMI Scheme. This vision was committed to and set out at the Stage 1 Consultation and it has guided the development of the WMI proposals:

*“The partners of Four Ashes Limited are committed to delivering a rail served development which will bring significant sustainable social and economic benefits to South Staffordshire, the Black Country and the wider region, through responsible design and by taking into account community interests and environmental considerations.”*

- 3.1.2 This vision seeks to maximise the benefits of the unique, strategic location to provide a high quality rail freight interchange of national importance and significance, fulfilling the long-outstanding need for a strategic rail served logistics site in this area, having regard to the quality of the connectivity, the scale of the proposals, and the strength of the commercial market.
- 3.1.3 FAL believe that WMI would be capable of serving regional, national and potentially international markets and would become a major asset to the economy of the area.
- 3.1.4 A SRFI of this scale and quality would be capable of supporting up to 8,550 full-time jobs directly and achieving a major shift in the movement of goods from road to rail. It could also serve as a facility of enormous value to industry and commerce in the area by providing a new transport option for the movement of goods.
- 3.1.5 The warehousing and logistics market is very dynamic with the requirements of occupiers consistently changing to meet market requirements. It is therefore important that any DCO granted provides a level of flexibility to ensure occupiers requirements can be accommodated.
- 3.1.6 A **Market Assessment Report** [Document 7.4] evidences an extreme shortage of rail-served distribution facilities in the area compared to the scale of historic and projected market demand for both ‘big shed’ (100,000+ sq ft) warehousing and rail-served warehousing in the West Midlands and South Staffordshire region.



Figure 19: Manchester Freightliner Terminal



## 3.2 Design Objectives

3.2.1 The Proposed Development has been carefully developed, based on a close understanding of the Site's characteristics, with the consultant team selected to ensure that the necessary skills would be available to provide an appropriate response to the Site's opportunities and constraints and the objectives of the Proposed Development.

3.2.2 The design objectives were set out at the inception of the Proposed Development to meet both the anticipated operational requirements and the requirements set out in the NPS. These design objectives are set out below, with NPS paragraphs referenced where applicable:

### Connectivity

- To maximise the Site's unique strategic location, with potential for a direct connection to the WCML and nearby connections to the M6 / M54 (NPS paragraphs 2.54, 4.84, 4.85 and 4.89);
- To maximise the permeability of the Site;

### Rail Terminal

- For the rail terminal to be capable of handling at least four 'full-length' 775m freight trains a day, preferably without breaking, to reduce on-site rail shunting (NPS paragraph 4.89);
- For the rail terminal to have capacity to store and process standard sized shipping containers;

### Local Residents

- Minimise the impact of the Proposed Development on residential properties in the locality (NPS paragraphs 4.86);

### Biodiversity and Green Infrastructure

- Minimise the impact of the Proposed Development on the environment and wildlife (NPS paragraph 5.36);
- For landscaped Infrastructure corridors that allow safe and quick flow of wildlife (NPS paragraph 5.36);
- For at least 30% of the Site to be provided as 'green infrastructure';

### Development Zones

- For all Development Zones to be developed in a form that can accommodate both rail and non-rail activities from the outset (NPS paragraphs 4.83 and 4.88);
- For Development Zones with the ability to be rail-linked in the early phases of development (NPS paragraphs 4.83 and 4.88);
- For all Development Zones being rail-served (NPS paragraph 4.88);
- For some development zones to be capable of accommodating single building footprints of circa 1m sq ft;
- For development zones to be capable of accommodating warehousing of various heights to allow for the latest warehouse mechanical handling equipment; and
- For development zones to be capable of accommodating 55m deep HGV yards for 'extra-long' trailers.

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## 4. Identification of the Site

#### **4.1 Identification of Demand for Rail-Served Warehousing**

4.1.1 The search for a suitable SRFI site began in **2005**.

4.1.2 From their specific knowledge and experience in dealing with rail-served developments, Kilbride (a transport infrastructure and property development company) identified a significant gap in the market, with there being no provision of rail served warehousing or appropriate rail infrastructure stretching from Hams Hall and Birch Coppice in the south / east of the West Midlands up to Widnes and Salford in the North West of England.

#### **4.2 Initial Search Site Criteria**

4.2.1 Kilbride's principal search criteria required sites to be:

- capable of serving the West Midlands conurbation;
- of a sufficient size and topography to accommodate a SRFI;
- have good (W8 or above) rail access from the WCML; and
- close to a motorway junction or similar.

#### **4.3 Initial Site Search**

4.3.1 With a significant undersupply and unmet demand for rail-served warehousing in the West Midlands, Wolverhampton and southern Staffordshire, Kilbride focused their initial search (in **2005**) to the north / east of the West Midlands Region, for a site that could efficiently serve these markets.

4.3.2 During the **2005** search, a number of potential sites were identified and assessed by Kilbride (all of which were subsequently reconsidered in the **Alternative Sites Assessment** [Document 7.2] submitted as part of this Application).

#### 4.4 The WMI Site

4.4.1 Kilbride concluded that the WMI Site, known then as 'Four Ashes', was the most appropriate site within the search area for a SRFI.

4.4.2 The WMI Site lies within Green Belt land, and there is a requirement to demonstrate that very special circumstances exist to justify development of this kind.

#### 4.5 Site Opportunities and Constraints

4.5.1 There are a number of opportunities that influenced the choice of Site, including:

- Access to the A5, A449, M6 and M42;
- Access to part of the WCML, with W10 loading gauge and capacity to handle additional freight trains;
- Access to key markets;
- Site topography; and
- Critical mass for development and associated mitigation.

4.5.2 However, as with any Site, there are a number of constraints that need to be considered to ensure that an acceptable development is brought forward, including:

- Nearby residential properties;
- Contamination to the south west of the Site;
- A high water table in some parts of the Site;
- The Canal Conservation Area; and
- Views from Cannock Chase AONB.



Figure 20: Satellite image of the WMI Site

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## 5. Scheme Evolution

## 5.1 Feasibility

- 5.1.1 Due diligence and feasibility work begun in 2006, with Planning, Highways and Environmental consultants, along with Architects appointed in 2007 to prepare representations and to undertake further work on an initial scheme to inform discussions with the local authority (SSDC), regarding the promotion of the Site for a SRFI, through the Regional Spatial Strategy ('RSS').
- 5.1.2 At that time the RSS provided the policy framework to take forward the Proposed Development.
- 5.1.3 Work on promoting the Scheme continued to progress and in 2008 Network Rail expressed their support for the Proposed Development (see Appendix 9 of the **Planning Statement**), with the proposals achieving GRIP Stage 3 (Option Selection) approval from Network Rail in April 2010.
- 5.1.4 The panel examining the RSS revision in 2009 confirmed that priority attention must be given to securing the provision of rail served warehousing to the north of the Black Country and in southern Staffordshire, highlighting it as the area *"in most urgent need"* (see Section 4.2 of the **Planning Statement**).
- 5.1.5 While the principles of the Scheme received clear support through the RSS (see Sections 4 and 5 of the **Planning Statement**), in May 2010 the Department of Communities and Local Government ('DCLG') announced the Government's intention to abolish Spatial Strategies (which were subsequently formally revoked in May 2013).

- 5.1.6 Kilbride continued their work promoting the Scheme and in 2012 approached the Grosvenor Group as a potential funding partner.  
  
Following significant further work on feasibility across 2013, including a further assessment of alternative sites.
- 5.1.7 Representations were submitted, on behalf of Kilbride, to the consultation on the draft National Policy Statement for National Networks in 2014 (with the NPS designated in 2015).

## 5.2 FAL and Inception of WMI project

- 5.2.1 In 2015, FAL was established by Kilbride, in partnership with the principal land owner, Piers Monkton, and with Grosvenor, to bring forward a DCO application for a SRFI at Four Ashes, under the title of the 'West Midlands Interchange'. Grosvenor has funded the project since their involvement.
- 5.2.2 The full consultant team was subsequently appointed in late 2015 to work on the WMI proposals.
- 5.2.3 Inputs from a full consultant team allowed for the careful evolution of the Proposed Development, through detailed engagement, consultation, environmental assessment and design development, directly consistent with FAL's Mission Statement, set out at Stage 1 Consultation. Further details of this are set out in Sections 5.3 and 5.4 below.

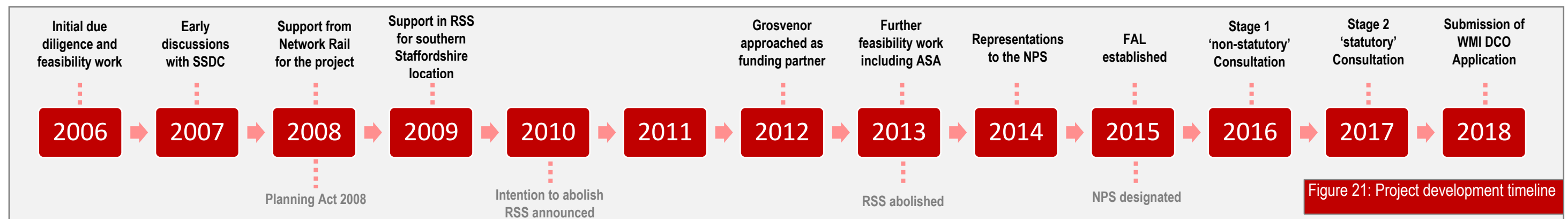


Figure 21: Project development timeline



### 5.3 Consultation

5.3.1 FAL carried out three stages of consultation before submission of the DCO application, including:

- one stage of 'non-statutory' consultation (**Stage 1**, carried out between 13 June and 24 July 2016) on early considerations and proposals;
- one stage of 'statutory' consultation (**Stage 2**, held from 5 July 2017 to 30 August 2017) on detailed draft proposals; and
- one further stage of 'targeted' consultation (**Stage 2a**, held from 23 November 2017 to 02 January 2018) on minor changes to the Order Limits.

5.3.2 FAL undertook close consultation with key stakeholders throughout the process, including on a one to one basis with the owners and occupiers of properties closest to the Proposed Development.

5.3.3 FAL recognises that developments of this scale may have significant implications for local people, particularly those living close to the Site. FAL has considered and reflected on all responses received from consultees, taking all individual views expressed about the WMI project carefully into account and has, where possible, adjusted plans to reflect their local knowledge of the area with consultation helping to shape and improve the proposals.

5.3.4 The changes made to the project as a result of the three stages of consultation and the evolution of the design are explained in this section of the DAS (Section 5.4 onwards).

5.3.5 The representations received during the Stage 1 and 2 Consultation were recorded, analysed and used to inform the evolution of the scheme's development. Further information about the consultation and responses received can be found in the **Consultation Report** [Document 5.1].



Figure 22: Stage 2 Consultation Event

## 5.4 Development of Initial Rail Terminal Options

### Rail Terminal

5.4.1 One of the principal considerations in the early stages of the Scheme's development was the positioning of the rail terminal within the Site. Given the site constraints (e.g. residential receptors, topography and the Canal), the location of existing rail sidings on the WCML and the Network Rail guidance regarding rail gradients and line curvatures, there was a small section on the WCML where dedicated entry / exit points for the rail terminal could be taken from.

5.4.2 This directly influenced the potential location of the rail terminal, with a number of different options considered by the project team. Any rail terminal had to accommodate the requirements of the rail terminal, the constraints of the site and the potential layout of the associated roads and warehousing to serve the Proposed Development (in line with the Design Objectives (see Section 3.2 of this DAS).

### Initial Rail Terminal Options

5.4.3 In early 2015 four potential options for the rail terminal were drawn up and appraised by the project team:

- Option A – 350m rail terminal west of the WCML and south of Gravelly Way;
- Option B – 350m rail terminal east of the WCML and north of Gravelly Way;
- Option C – 750m rail terminal east of the WCML and the Canal with access north and south; and
- Option D – 750m rail terminal east of the WCML and the Canal with access north.

5.4.4 Each of these options are appraised in detail in the following sections.

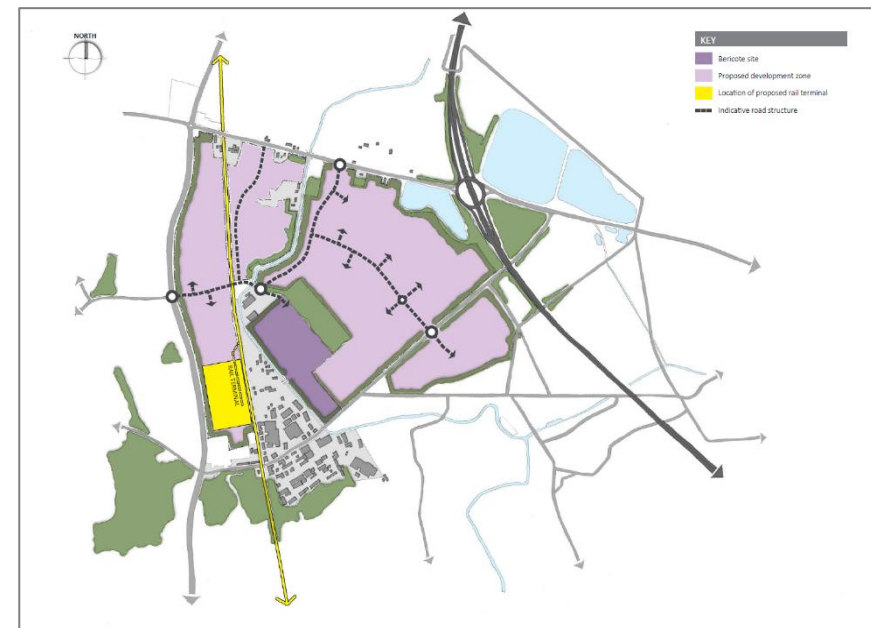


Figure 23: Option A

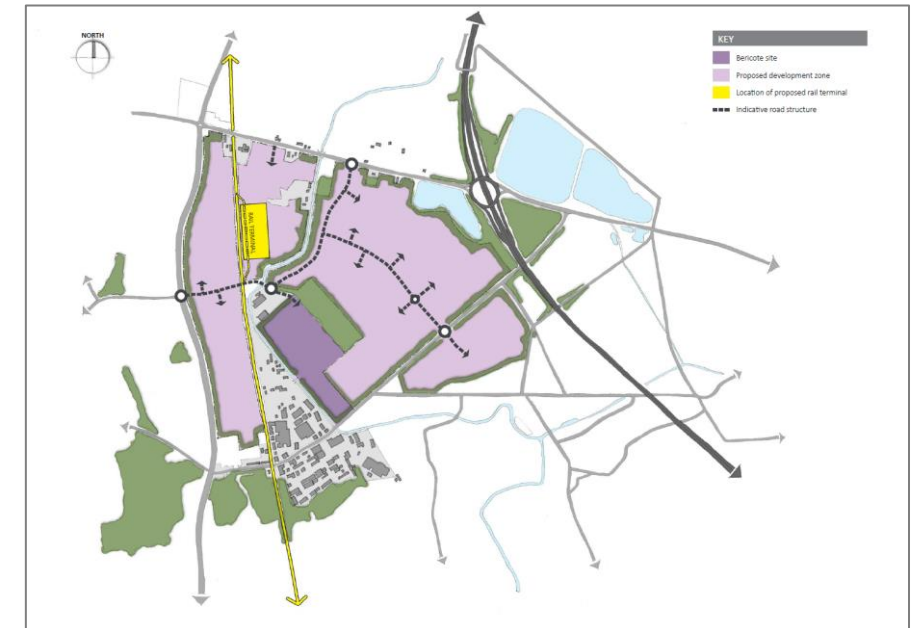


Figure 26: Option B

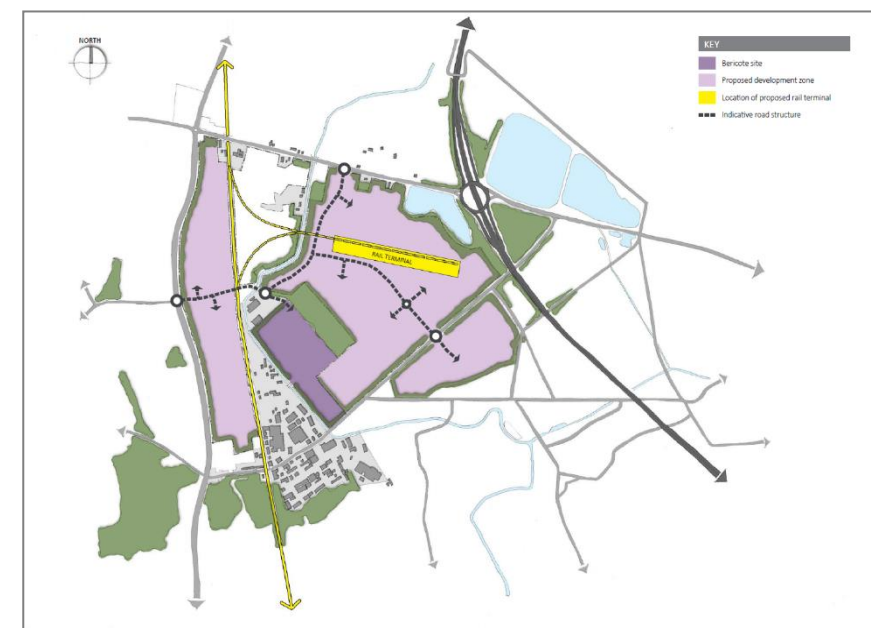


Figure 24: Option C



Figure 25: Option D

## 5.5 Assessment of Initial Rail Terminal Options

### Rail and Road Infrastructure

5.5.1 The rail terminal is at the heart of the Proposed Development and significant work was done to ensure each Option provided a rail terminal that could efficiently handle full-length 775m freight trains.

5.5.2 Each of the Options proposed a similar road layout, with three principal access points:

- the primary access point would be a roundabout on the A5, linking the Site to J12 of the M6;
- the secondary access point would be a roundabout on the A449, linking the Site to the M54; and
- the tertiary access point would be a roundabout on Vicarage Road, linking the Site to the A449 and J12 of the M6 (via the A5).

5.5.3 FAL agreed that the road linking the A5 and A449 roundabouts would be adopted on completion. This road would increase the permeability and resilience of the local road network, providing an alternative route between the A5 and the A449 than the existing Gailey roundabout.

5.5.4 A dedicated link road from the M6 into the Site was explored, however, Highways England does not allow private access points to be created off the motorway network.

### Development Zones

5.5.5 At this early stage of assessing options, it was decided to focus on development zones, rather than illustrative layouts.

5.5.6 All four of the options (A – D) were assessed by the consultant team as provisionally being capable of meeting all of the Design Objectives, while providing circa 7 - 8m sq ft of rail-served warehousing.



Figure 27: Reach stacker loading a freight train



Figure 28: Initial Landscape Analysis

### Landscape

5.5.7 Each of the options were also considered against the existing landscape constraints on the Site.

5.5.8 Important areas of landscape around the Site were highlighted under two separate categories:

- Retain or key mitigation, these were key areas of landscape such as hedgerows or important trees that should be retained unless removal is unavoidable; and
- Remove with justification, these areas of landscape should be retained if possible, however are less valuable than those key areas.

5.5.9 The landscape constraints informed the positioning of the proposed rail terminal locations and will significantly influence the parameters of the Proposed Development following the fixing of the Options to take forward to Consultation.

### Options to take forward

5.5.10 No limit was put on the number of Options that could be taken to Stage 1 Consultation.

5.5.11 Each of the four options (A-D) were considered in detail by the consultant team to decide which options to develop further and take forward to Stage 1 Consultation.

## 5.6 Option A

5.6.1 The principal considerations when assessing Option A were:

- the proximity of the rail terminal to the nearest residential dwellings (c. 200m to Station Drive);
- the rail terminal would be 350m long, but capable of efficiently handling full length 775m trains from the north and south (using existing rail sidings to take trains off the WCML), with any trains over 350m broken ahead of entering the terminal;
- a key consideration was that this terminal location utilises existing signalling arrangements on the WCML and the existing GRIP 3 approval;
- the Site would be capable of providing rail-linked development zones to the west of the WCML (up to c. 2m sq ft or 25%), and a fully rail-served scheme; and
- the terminal location would deliver increased flexibility for the layout the development zone to the east of the WCML, with parts of the Site capable of accommodating single building footprints of c. 1m sq ft or above.

5.6.2 The location of the rail terminal allowed very efficient handling of freight trains, with a direct connection between the terminal and the WCML. This terminal location also allowed c. 25% of warehousing to be directly rail-linked. The terminal requires the breaking of trains, however, it was considered that the efficiency at which trains could be serviced, as well as the reduced impact on the Canal (when considered against other Options) meant that the Option should be considered at consultation.

5.6.3 It was agreed that **Option A would be taken forward** to Stage 1 Consultation.



Figure 29: Option A

## 5.7 Option B

5.7.1 The principal considerations when assessing Option B were:

- the proximity of the rail terminal to the nearest residential dwellings (c. 200m to Croft Lane);
- the rail terminal would be 350m long, but capable of efficiently handling full length 775m trains from the north and south, with any trains over 350m broken ahead of entering the terminal;
- accommodating the rail terminal may be difficult, given the level differences between the proposed rail terminal and WCML in this location;
- there would be no rail-linked development zones, but it would be a fully rail-served scheme;
- increased flexibility in layout of development zones to the east and west of the WCML, allowing for multiple development zones capable of accommodating single building footprints of c. 1m sq ft or above; and
- a new GRIP approval would be required.

5.7.2 There is limited opportunity to screen the operational elements of the rail terminal from nearby residential dwellings in this location. This Option provides no potential for rail-linked warehousing and engineering work indicated that whilst possible, it would be troublesome and inefficient in terms of use of space to provide a terminal plateau that would relate well to the level of the WCML for this Option.

5.7.3 It was agreed that **Option B would not be taken forward** to Stage 1 Consultation.

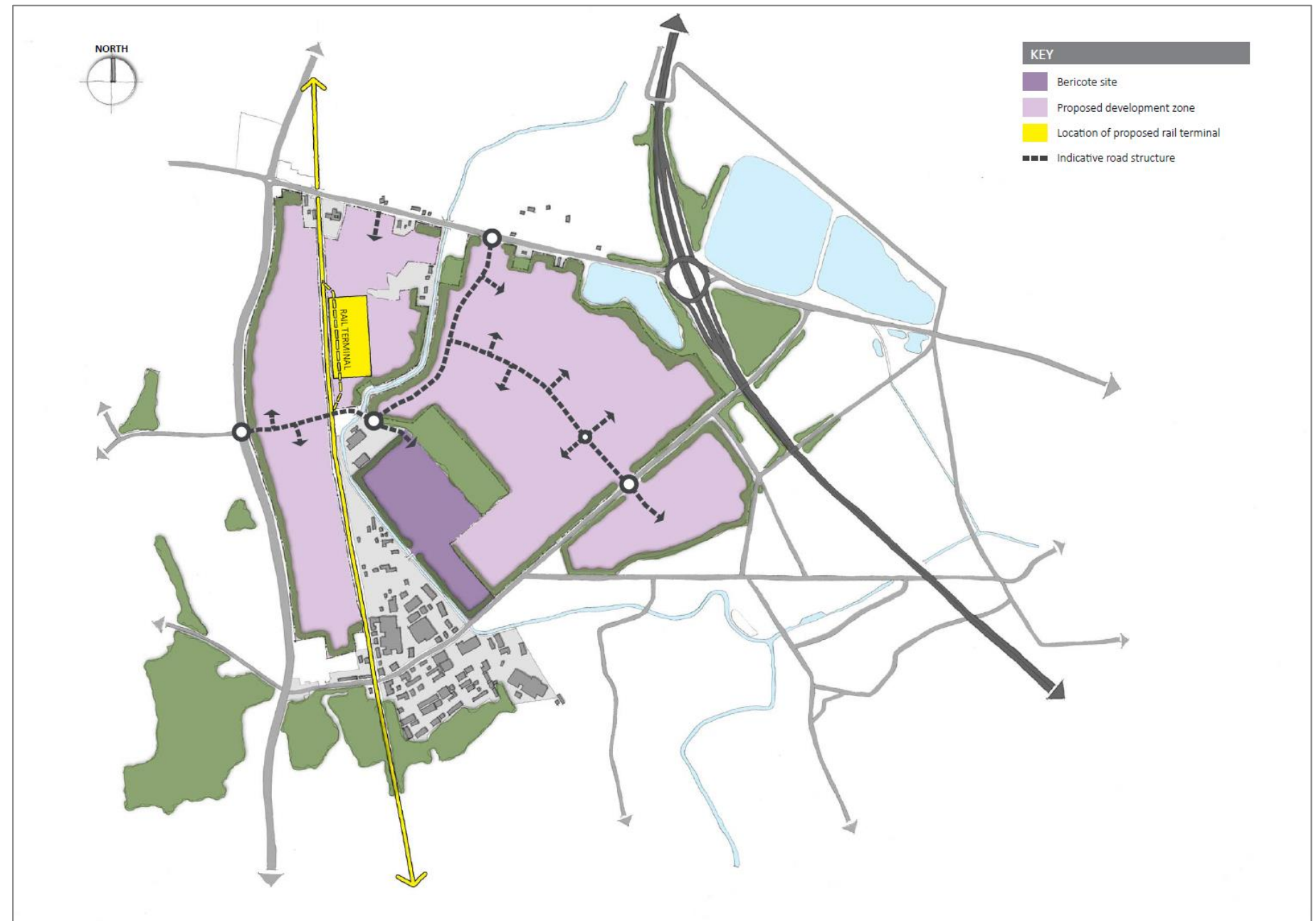


Figure 30: Option B

## 5.8 Option C

5.8.1 The principal considerations when assessing Option C were:

- the proximity of the rail terminal to the nearest residential dwellings (c. 400m to Croft Lane);
- the rail terminal would be capable of handling full-length 775m trains from north and south, without needing to be broken ahead of entering the rail terminal;
- there may be difficulties associated with connecting the rail terminal to the WCML at two separate points;
- the rail bridge would impact on the setting of the Canal;
- the Site would be capable of providing rail-linked development zones to the east of the WCML (up to c. 2m sq ft or 25%), and a fully rail-served scheme;
- there would be reduced flexibility in the layout of development zones to the east of the WCML; and
- a new GRIP approval would be required.

5.8.2 Providing a south facing connection would require going under, or altering the level of, the Canal. This would also result in the level of rail terminal being below the water table. This is due to the level of the WCML in the north of the Site and the required gradients for freight trains. Consequently, this would also result in much of the developable area to the east of the WCML being below the water table (to match the level of the terminal). Due to the connection difficulties and the potential for the development to be below the water table, it was agreed that this would not be a commercially or operationally preferable Option.

5.8.3 It was agreed that **Option C would not be taken forward** to Stage 1 Consultation.



Figure 31: Option C

## 5.9 Option D

5.9.1 The principal considerations when assessing Option D were:

- the proximity of the rail terminal to the nearest residential dwellings (c. 400m to Croft Lane);
- the rail terminal would be capable of handling full-length 775m trains from north and south, without needing to be broken ahead of entering the rail terminal;
- the rail bridge would impact on the setting of the Canal;
- the Site would be capable of providing rail-linked development zones to the east of the WCML (up to c. 2m sq ft or 25%), and a fully rail-served scheme;
- there would be reduced flexibility in the layout of development zones to the east of the WCML; and
- a new GRIP approval would be required.

5.9.2 Providing only a rail connection from the south improves the levels significantly, bringing the rail terminal above the water table and roughly in line with the existing topography of the Site. The existing rail connections would allow for trains to be brought off the WCML from both north and south and then shunted into the terminal via the rail connection. The Canal would still be affected by a new rail bridge, however this may result in an optimal layout for occupiers if they wish for the rail terminal to be in the middle of the Site.

5.9.3 It was agreed that **Option D would be taken forward** to Stage 1 Consultation.



Figure 32: Option D





## 5.11 Stage 1 Consultation

- 5.11.1 While the development of the Scheme was still evolving in response to its surroundings and the requirements of a SRFI, FAL undertook a Stage 1 'non-statutory' consultation exercise. Whilst this was an informal, and early, consultation exercise, it was conducted in the manner of a statutory consultation (see Section 5 of the **Consultation Report** [Document 5.1]).
- 5.11.2 Stage 1 Consultation was held from 13 June 2016 to 24 July 2016.
- 5.11.3 Two different illustrative masterplan options were brought forward to Stage 1 Consultation. The two options provided alternative locations for the rail terminal, either east or west of the WCML / Canal, generating different layouts and operating characteristics as a result of the proposed terminal locations.
- 5.11.4 Three public exhibition events were during the consultation period, at three different venues, with 472 attendees signing in.
- 5.11.5 In all, 272 pieces of feedback were received from members of the public, organisations and councillors.
- 5.11.6 The consultation exercise enabled the Project Team to engage with the public and with stakeholders over the principles of the Proposed Development, as well as the relative merits and issues of the two options being considered at that time.
- 5.11.7 At the end of the consultation period, all of the feedback was collated, analysed and considered by the Project Team.
- 5.11.8 Throughout the review of feedback and consultation with stakeholders, the Project Team were continuing to develop improvements to the elements of the layout common to both options. Additionally, the Project Team were considering whether locating the Rail Terminal to the east or west of the WCML would lead to the best scheme for a SRFI in this location.

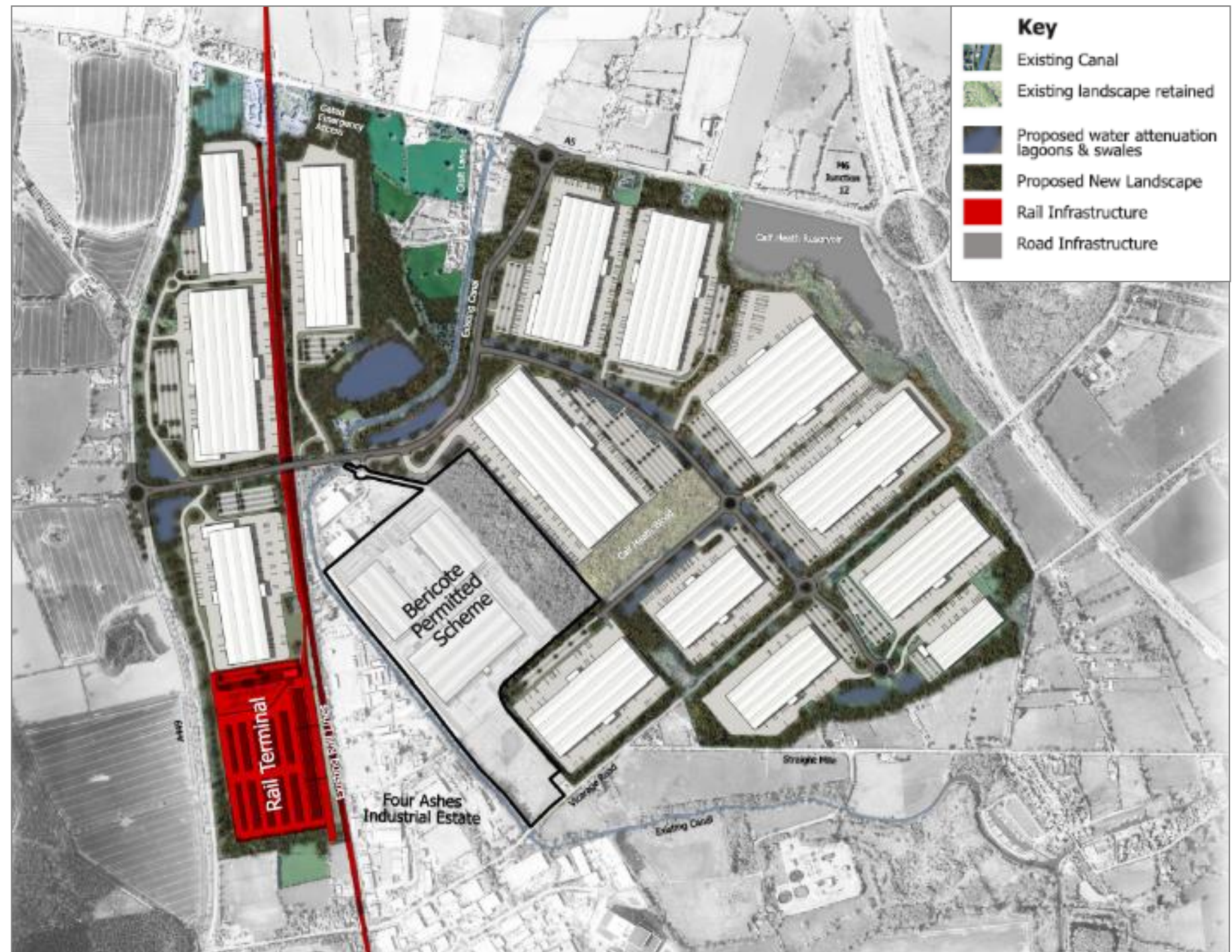


Figure 35: Stage 1 Western Terminal Option

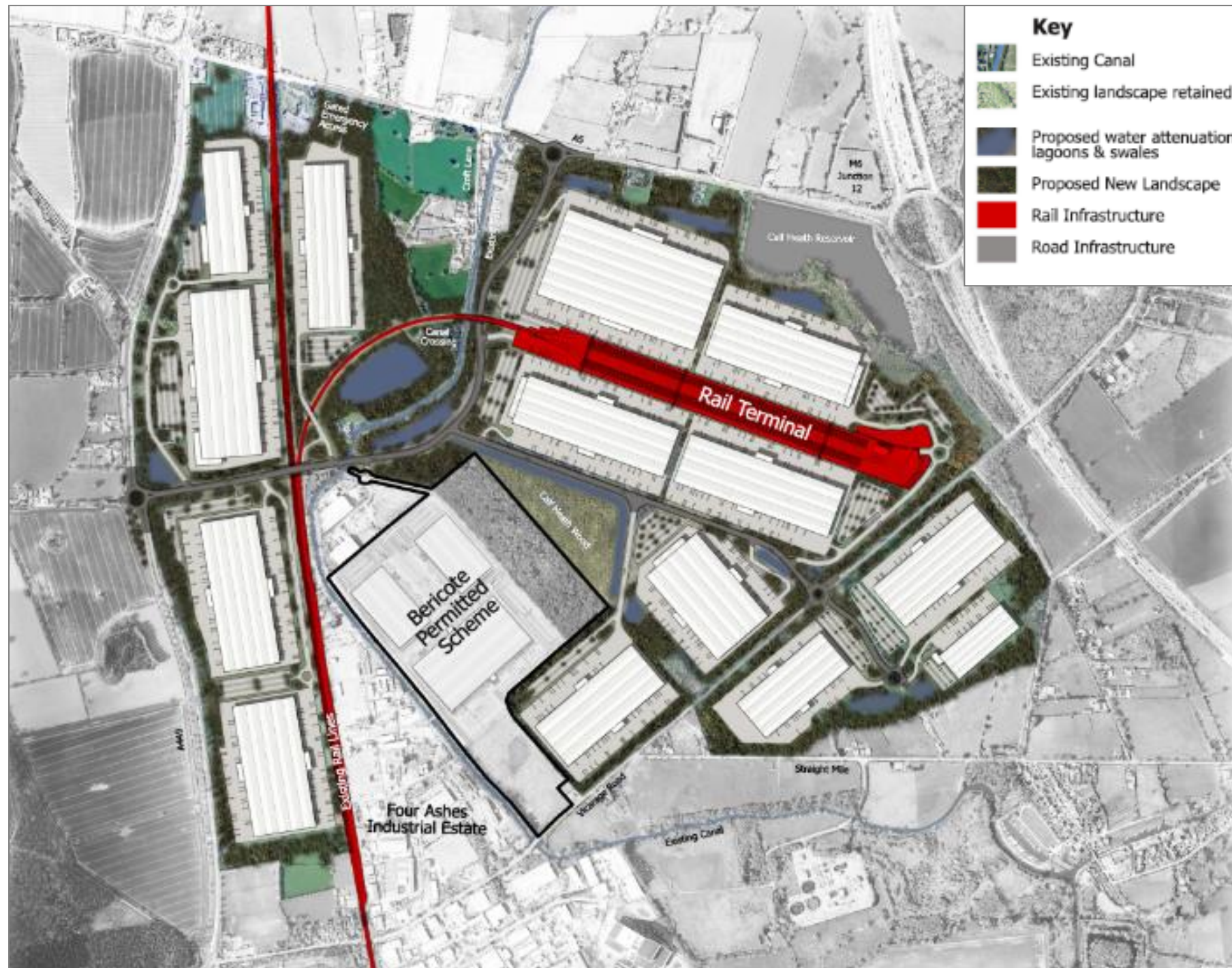


Figure 36: Stage 2 Eastern Terminal Option

## 5.12 Principal Changes Following Stage 1 Consultation

- 5.12.1 The proposals evolved significantly following Stage 1 Consultation.
- 5.12.2 Following the review and consideration of all responses to Stage 1 Consultation and conversations with stakeholders and potential operators / occupiers, it was decided to progress with developing a terminal west of the WCML.
- 5.12.3 There was no clear preference in consultation responses from the public and local stakeholders to the location of the rail terminal.
- 5.12.4 The reasons for choosing the western terminal option over the eastern terminal included:
- the limited impact on the Canal Conservation Area;
  - simpler access and improved operational efficiency of the terminal from the WCML; and
  - operator / occupier preference.
- 5.12.5 Locating the rail terminal in the south western corner of the Proposed Development partially segregates the rail activity to avoid conflicts with other uses at the Site.
- 5.12.6 The design of the western option rail terminal for Stage 1 was based on the GRIP 3 design approved by Network Rail in 2010. This included 6 x 375m terminal sidings plus 800m reception sidings. To further improve the operational terminal, discussions were held with Network Rail to consider if the terminal could be lengthened to allow 775m long terminal sidings in addition to the 800m reception sidings, thereby reducing the number of shunts needed within the rail terminal. Those discussions resulted in an updated design for the rail terminal being put forward for Stage 2 Consultation.
- 5.12.7 The following principal changes were made to the Proposed Development as a result of the first stage of consultation and

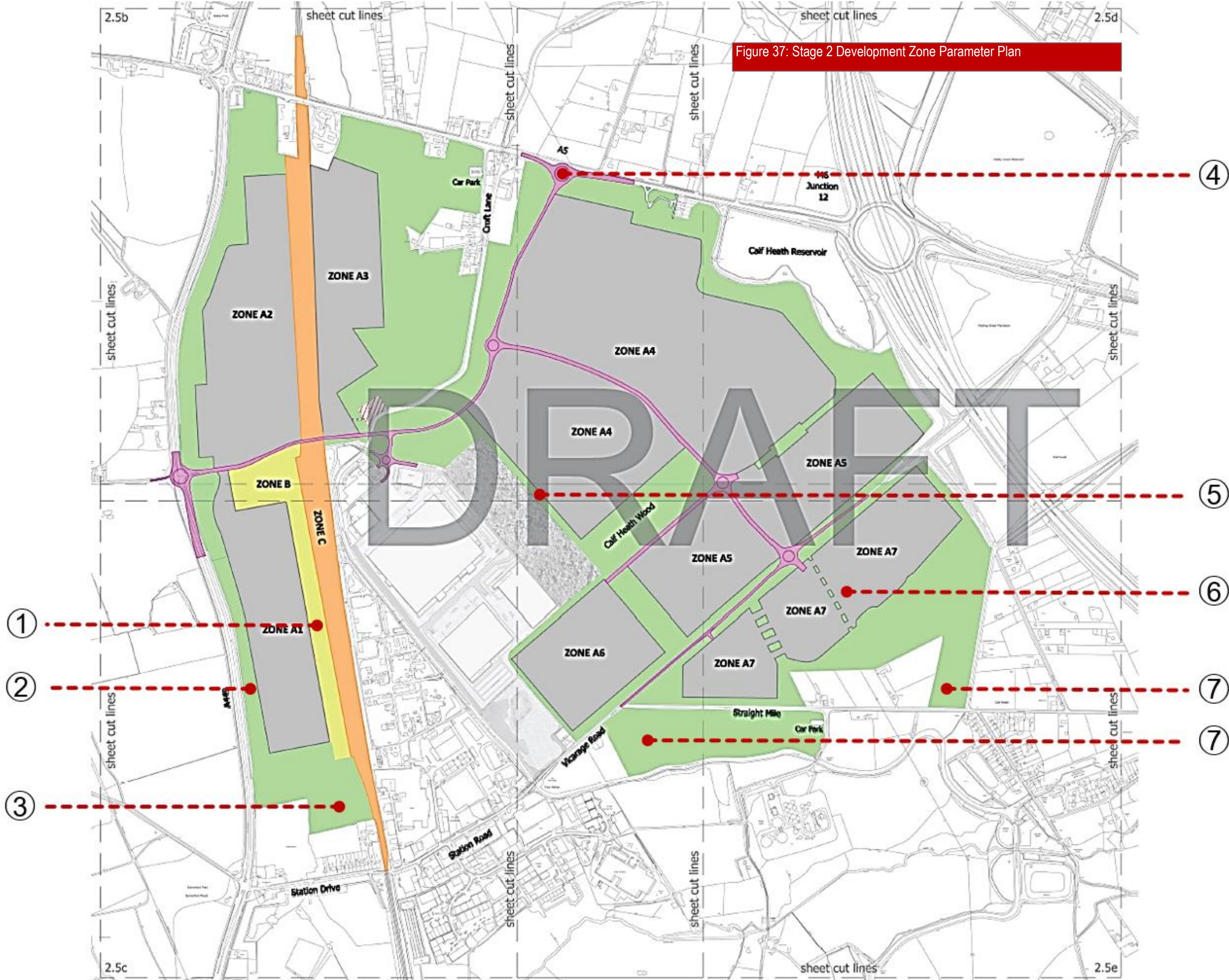
further assessment undertaken between Stage 1 and Stage 2 Consultation (see Figure 37):

- ① The rail terminal layout was improved to allow the rail terminal to accept full-length 775m trains without splitting. This required the reconfiguration of Gravelly Way and the introduction of an improved bridge to that proposed at Stage 1.
- ② The rail terminal footprint was been reconfigured and reduced, to allow additional landscape screening to the A449, and to enable the rail terminal to be moved further away from residents on Station Drive.
- ③ Additional mitigation land was brought into the proposals to mound and landscape to reduce the impact of the rail terminal on the residents of Station Drive.
- ④ As a result of engagement with Historic England and on the advice of heritage consultants, the internal roads and the A5 roundabout were relocated 30m to the east to ensure a minimum 50m landscape to the Canal, minimising the impact on the setting of the Canal Conservation Area and the two listed buildings.
- ⑤ A 20m landscape buffer was introduced along the western boundary of Zone A4 to enhance ecological connectivity through the Site.
- ⑥ The size and layout of the buildings to the south of Vicarage Road were altered to retain existing trees and reduce the impact on Calf Heath village.
- ⑦ Additional mitigation land was brought into the proposals to create a community park to the south of the development.

- The maximum heights of the buildings were indicated as between 18 – 36m at Stage 1. For Stage 2, the maximum heights were reduced to 18 – 30m.

5.12.8 These changes were carried forward to Stage 2 Consultation.

Figure 37: Stage 2 Development Zone Parameter Plan



### 5.13 Stage 2 Consultation

- 5.13.1 Stage 2 Consultation was held from 5 July 2017 to 30 August 2017.
- 5.13.2 The evolving scheme, with a full length 775 rail terminal to the west of the WCML was taken forward to Stage 2 Consultation, with parameter plans and illustrative masterplans produced for the consultation.
- 5.13.3 Five public exhibition events were during the consultation period, at four different venues, with 830 attendees signing in.
- 5.13.4 In all, 628 pieces of feedback were received from members of the public, organisations and councillors.
- 5.13.5 The feedback was all collated and considered by the Project Team. The consultation feedback and the FAL responses to this feedback is set out in full on the **Consultation Report** [Document 5.1].

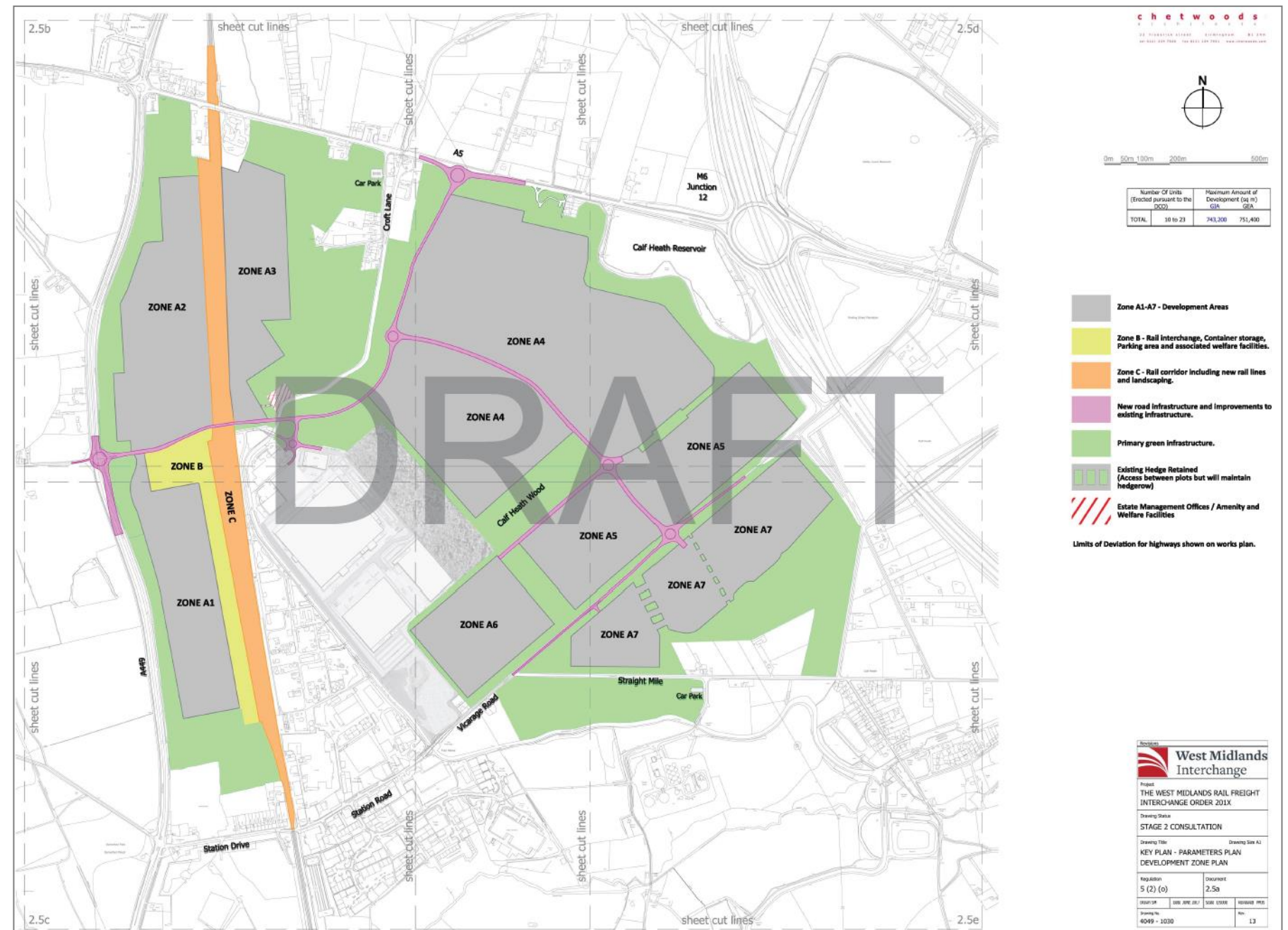


Figure 38: Stage 2 Development Zone Parameter Plan

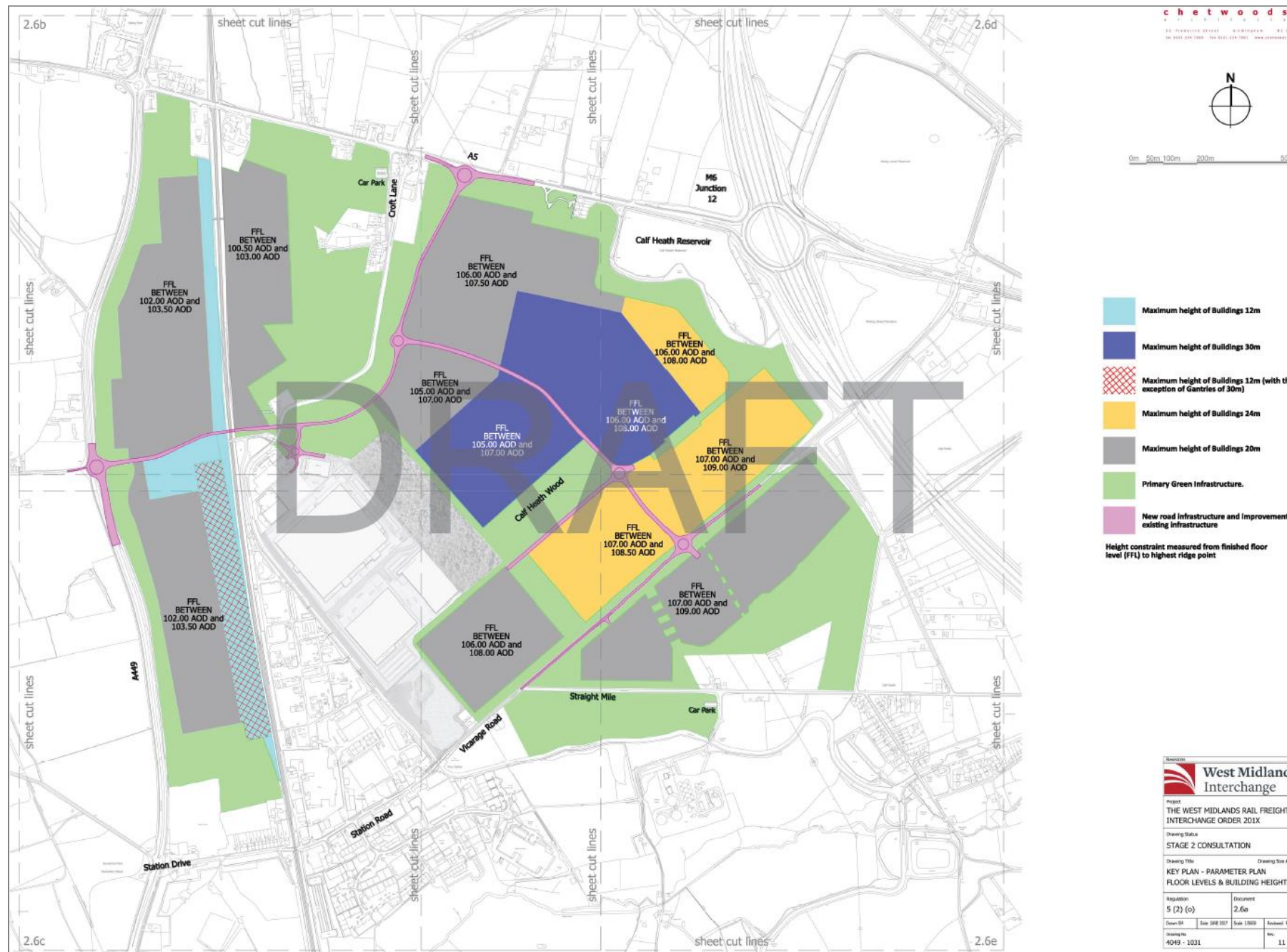


Figure 39: Stage 2 Floor Level and Building Heights Parameter Plan

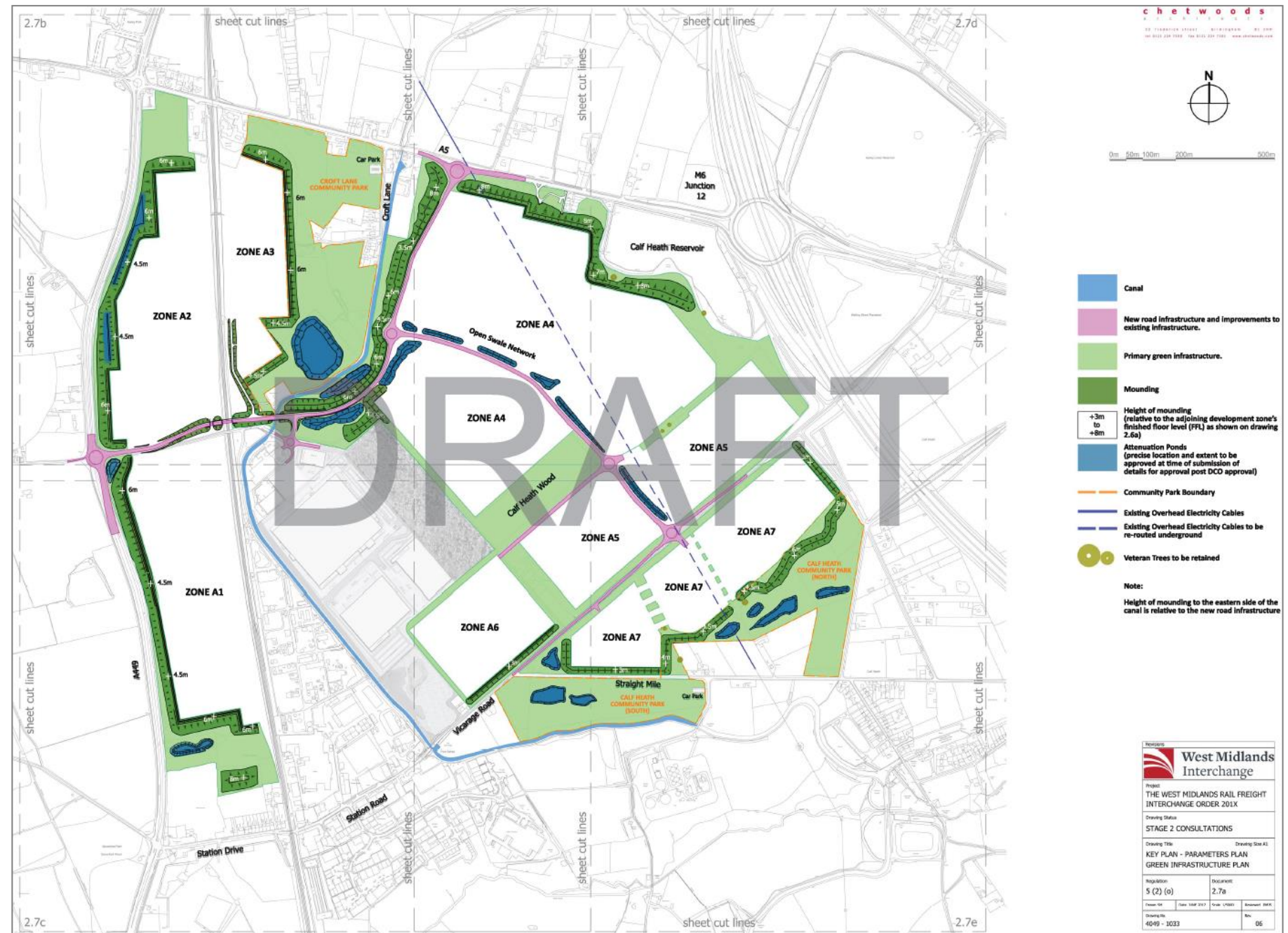


Figure 40: Stage 2 Green Infrastructure Parameter Plan





Figure 41: Stage 2 Illustrative Masterplan

### 5.14 Stage 2a Consultation

- 5.14.1 Stage 2a Consultation was held from 23 November 2017 to 02 January 2018.
- 5.14.2 This further round of consultation was focussed on two minor changes to the Order Limits.
- 5.14.3 One change to the south of the Site allowed an extension to the Calf Heath Community Park, improving the connectivity through the park and strengthening the southern boundary of the Site.
- 5.14.4 The other change to the north of the A5 allows for work to be carried out to install underground electricity cables.

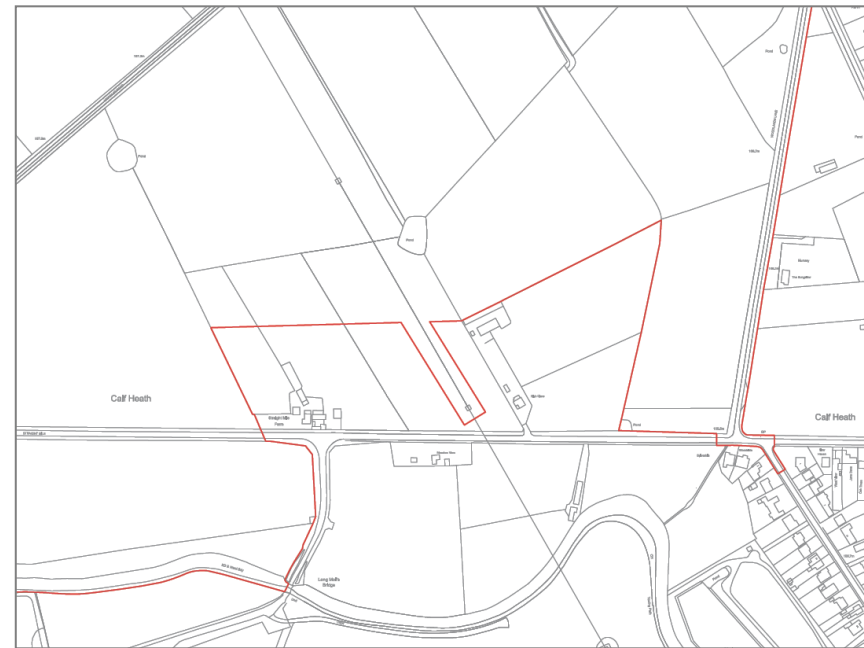


Figure 45: Stage 2 'Calf Heath'



Figure 44: Stage 2a 'Calf Heath'



Figure 43: Stage 2 'A5'



Figure 42: Stage 2a 'A5'

## 5.15 Principal Changes Following Stage 2 and Stage 2a Consultation

5.15.1 The following principal changes were made to the Proposed Development as a result of the feedback from Stage 2 and 2a Consultations and the further assessment undertaken between Stage 2 Consultation and submission. All changes were direct and positive responses to consultation, resulting in the best scheme being brought forward (see Figure 46):

- ① Additional land was brought into the Scheme to improve the connectivity of Calf Heath Community Park, following further work by the project team;
  - ② The footprint of Zone A4 was reduced to allow a 100m wide dark 'commuting corridor' for bats and other wildlife to run from the Reservoir to Calf Heath Wood, following further discussions with SSDC; and
  - ③ Additional land was brought into the Scheme to the north of the A5 to allow for works to be carried out on electrical infrastructure, following further consultation with the local power distribution company;
  - ④ The layout of the roundabout to the north of the Bericote Site, the height of the elevated section of the adopted link road and the access to the Four Ashes Industrial Estate have all been amended to improve accessibility, following consultation with local occupiers;
- Off-site land was identified for mitigation (for the 15 year construction phase) to be managed for farmland birds to mitigate the loss of breeding habitat these birds during the construction phase, following further discussions with SSDC; and
  - Minor amendments to the Order Limits to avoid small parcels of unnecessary land and part of the Canal.





Figure 48: Stage 1 Masterplan



Figure 47: Stage 2 Masterplan



Figure 49: Submission Masterplan [Document 2.8]

## 5.16 Evolution of the Illustrative Masterplan

5.16.1 Figures 48 to 50 illustrate the evolution of the WMI Masterplan from Stage 1 Consultation through to Submission.

5.16.2 Since the Proposed Development was unveiled at Stage 1 Consultation, the following principal changes (inter alia) have been made to refine and improve the Scheme, in response to feedback and engagement with the public and stakeholders:

- a western rail terminal location was preferred, with an improved terminal layout brought forward at Stage 2, following engagement with Network Rail;
- the link road between the A5 and A449 will now be adopted for public use following completion, significantly improving the permeability of the local area, with this recognised as a major benefit of the Proposed Development by Highways England;
- the ecological connectivity throughout the Site has been significantly improved, with extra land brought in at Stage 2 and 2a to form Calf Heath Community Park to the south and the layout unit 4040 reconfigured to provide a 100m wide and 1km long ecological corridor between Calf Heath Reservoir and Calf Heath Wood;
- the total green infrastructure within the Order Limits has increased from c. 30% up to c. 36%, resulting in over 105ha of green space being provided by the Proposed Development;
- the warehouse units to the south of Vicarage Road have been reconfigured to ensure all active uses (e.g. service yards and car parks) are facing away from Calf Heath; and
- the maximum heights of buildings has been reduced from 18 – 36m across the Scheme, down to 18 – 30m.

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## 6. The Proposed Development and Design Framework

## 6.1 Parameters Plans and the Illustrative Masterplan

6.1.1 The Proposed Development seeks to provide a level of flexibility to ensure occupiers requirements can be accommodated. The warehousing and logistics market is extremely dynamic with the requirements of occupiers consistently changing to meet market requirements.

6.1.2 A 'Parameters Approach' has been applied to the Proposed Development whereby the development is described in terms of clearly defined parameters, inside which future design development will be undertaken. This approach has been used across a range of infrastructure projects in order to ensure that the potential impacts of a project are properly controlled, whilst allowing for the required flexibility for future detailed design development.

6.1.3 A set of **Parameters Plans** [Documents 2.5 – 2.7] have been developed which encapsulate the Scheme's concept and which form the 'envelope' within which future detailed design proposals will need to evolve. The three Parameter Plans which set out the design parameters are:

- **Building Development Parameters Plan;**
- **Green Infrastructure Parameters Plan;** and
- **Floor Level and Building Heights Parameters Plan.**

6.1.4 An **Illustrative Masterplan** [Document 2.8] has also been produced, which demonstrates one way in which the WMI proposals could potentially come forward, in accordance with the controls set out in the Parameter Plans.

## 6.2 The Proposed Development

6.2.1 The result of the work undertaken across the life of the Scheme is that a SRFI of exceptional operational quality has been designed within a framework that has been heavily influenced by community consultation, environmental considerations and occupier needs.

6.2.2 The Proposed Development is capable of delivering a Scheme that (with NPS paragraphs referenced where applicable):

- is fully rail-served and able to handle freight trains from both directions (north and south) (NPS paragraph 4.89);
- will deliver rail-served and rail-linked warehousing in the initial stages of the development (NPS paragraphs 4.83 and 4.88);
- provides warehousing units that are all capable of being rail-served (NPS paragraph 4.83);
- provides a significant element of warehousing (over 1.6 million sq ft) with potential to be directly rail-linked (NPS paragraphs 4.83 and 4.88);
- can deliver more extensive rail connection within the site in the longer term (NPS paragraph 4.88);
- can handle 'full-length' (up to 775m) on a route cleared to W10 loading gauge, without the need to 'break' the trains, reducing the need for on-site shunting (NPS paragraphs 4.85 and 4.89);
- is capable of handling four trains a day in the early phases of the development, whilst being of sufficient scale and capacity to enable this to rise to up to 10 trains per day at full maturity (NPS paragraph 4.88);
- is located close to the business markets it will serve (NPS paragraph 4.84);

- delivers 36% of the scheme as green infrastructure (NPS paragraph 4.86); and

- mitigates its impacts (NPS paragraph 4.86).

6.2.3 A full description of the Proposed Development is set out in the Planning Statement [Document 7.1A].



### 6.3 Development Zones

- 6.3.1 The **Development Zones Parameters Plans** [Document 2.5] provides the development plots for the Proposed Development within the Order Limits.
- 6.3.2 The precise number and layout of warehousing units within each Development Zone will be defined as potential occupiers are identified. No specific occupants have been identified at this stage of the planning process.
- 6.3.3 The Development Zones Parameter Plan provides sufficient detail to demonstrate how the proposed land uses will be brought forward as part of the Scheme.

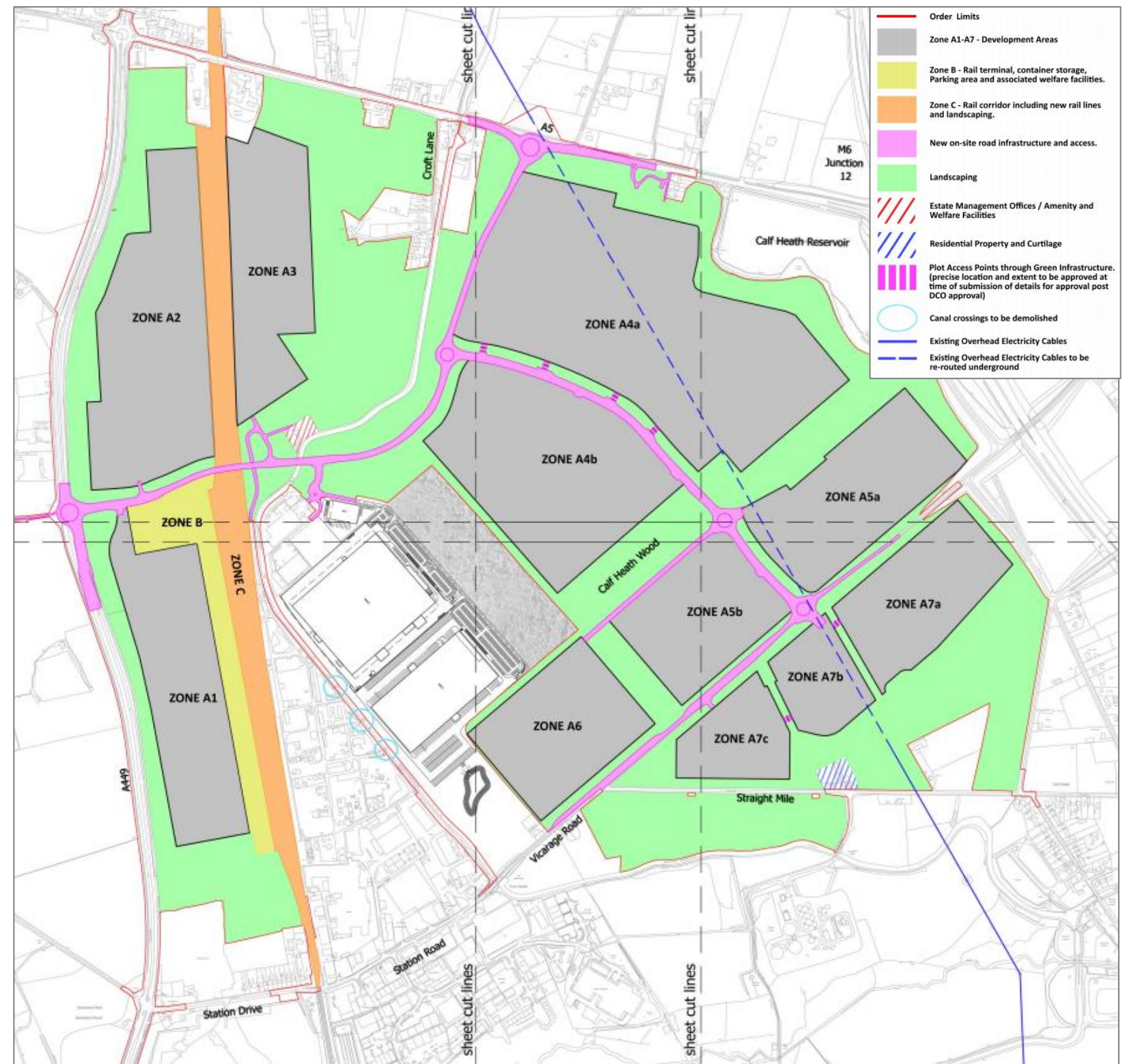


Figure 50: Development Zones Parameter Plan [Document 2.5]

## 6.4 Uses

- 6.4.1 The current uses on the Site would cease, and it would become a Strategic Rail Freight Interchange ('SRFI'), with associated warehousing.
- 6.4.2 The Proposed Development includes warehousing with the ability for c. 25% of the floorspace to be directly rail-linked, whilst the entirety of the Proposed Development is to be rail-served.
- 6.4.3 The Proposed Development would operate as a SRFI, with the intermodal rail terminal at the heart of the logistics activities on the Site.
- 6.4.4 The Site would operate 24 hours a day and 7 days per week.

## 6.5 Floorspace

- 6.5.1 The **Development Zones Parameters Plan** [Document 2.5] also identifies a maximum and minimum number of warehouses that will be provided in each of the Development Zones. It also identifies a maximum amount of warehouse floorspace within each Development Zone.
- 6.5.2 The Proposed Development provides for up to 743,200 sq m (c. 8m sq ft) of warehousing floorspace.

Zone	Maximum and minimum number of warehouses to be erected pursuant to the DCO	Maximum amount of warehouse floorspace within Zones A1-A7 to be erected pursuant to the DCO (sq m) (GIA)
Zone A1	1 to 2	60,087
Zone A2	1 to 3	94,326
Zone A3	1 to 2	50,017
Zone A4	2 to 6	286,853
Zone A5	2 to 4	104,799
Zone A6	1 to 2	46,615
Zone A7	3 to 4	100,503
TOTAL	10 to 23	743,200
Zone B	1 to 3	320

- 6.5.3 The Development Zones allow for appropriate circulation around the Site, including servicing and access areas. The maximum amount of floorspace has been set in order to provide a development that is capable of being effectively and sympathetically accommodated on the Site, whilst ensuring surrounding characteristics or sensitivities are respected.
- 6.5.4 It is important to note that not all of the Development Zone will be developed as warehousing / built form, however, warehousing (up to the maximum floorspace) could be built anywhere within the Development Zones. The Illustrative Masterplan provides a useful example of how the Proposed Development may come forward.

## 6.6 Height, Levels, Scale and Massing

- 6.6.1 The nature of a SRFI is that warehousing and infrastructure of a significant scale and size is required. The mass is an unavoidable necessity of the function of the rail terminal and warehousing, however, to generate an overall sense of cohesion and unity across the Proposed Development in terms of building design, the height, levels, scale and massing of warehouses, structures and Development Zones has been considered in detail by the Project Team as a whole.
- 6.6.2 The maximum height for all warehousing and structures across the Site is identified by the Floor Levels and Building Heights Parameter Plan [Document 2.6]. This Plan also identifies the finished floor levels ('FFL') across the Site, with the maximum and minimum FFLs responding to the underlying topography and the maximum heights in the different Development Zones.
- 6.6.3 The height zones have been set following significant engagement with stakeholders, including Natural England, Staffordshire County Council and South Staffordshire District Council. The heights of the warehousing and structures has an important bearing on the potential visibility of the development and upon the likely visual effects that will arise. This includes the likely effects upon nearby residents and other receptors and upon more distant views, such as from Cannock Chase AONB.
- 6.6.4 Following considerable site based review and detailed analysis, four different maximum Height Zones have been set across the Site:
- 30m (17%);
  - 24m (16%);
  - 20m (59%); and
  - 12m (8%).
- 6.6.5 83% of the Development Zones limited to a maximum of 24m in height, with lower Height Zones of 20m to 24m extending around the perimeter and relatively more sensitive areas of the Site.

- 6.6.6 The 30m Height Zone is focussed in those areas of the Site where this height will have a minimal impact on views. The 30m zone covers a very low proportion of the warehousing and structures at a maximum of approximately 17% of the Development Zones.
- 6.6.7 A separate 12m Height Zone extends around the rail terminal area for buildings and structures, with the container stack, also located in this area, also being a maximum of 12m high (four standard size containers). This zone will also allow for gantry cranes in future phases (the 'Expanded Rail Terminal'), which will be up to 30m high.
- 6.6.8 The height limits will be measured from the FFL and it is important to note that all the heights are maximums and in reality many of the structures are likely to be below the maximum heights permitted in these Development Zones.
- 6.6.9 The Height Zones have also been carefully considered in conjunction with the operation of the Proposed Development and incorporation of visual mitigation measures. The visual mitigation approach seeks to visually screen the active parts (e.g. where the HGVs park against the warehouses to be unloaded) of the building elevations as far as practicable.
- 6.6.10 This will be achieved through a combination of the siting and arrangement of the buildings and by the use of perimeter planted mounding. In combination, this design approach will substantially hide these lower level activities from localised views.

### Warehousing

- 6.6.11 The form, size and height of individual warehouse buildings will generally be guided by the functional and operational requirements of end-users (Build-to-Suit).
- 6.6.12 Where warehouses are developed speculatively, the Applicant and their design team will employ their knowledge of the operational requirements of logistics buildings to deliver an optimum design.
- 6.6.13 The maximum height of any warehouse on the Site will be 30m, however, the majority of warehouses at the Site would be a maximum of 20m high.

- 6.6.14 The maximum Height Zones across the Site have considered the clear heights required to support operators functions within warehouse buildings, with 30m high warehouse buildings (when taking account of roof pitches) allowing for a clear height up to 26m, which is required to support potential operator's functions within warehouse buildings.

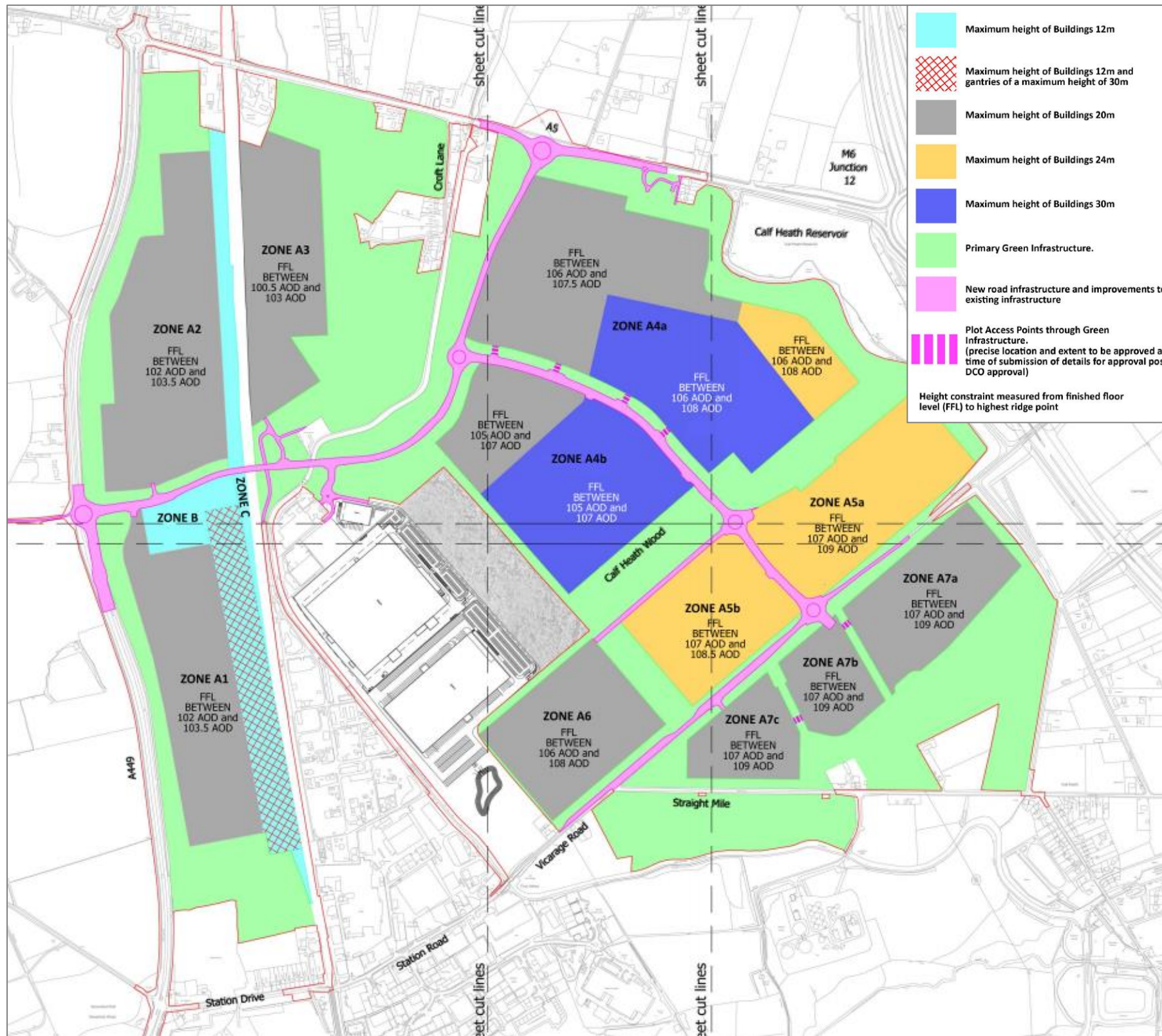


Figure 51: Floor Level and Building Heights Parameter Plan [Document 2.6]

## 6.7 Landscape

6.7.1 The **Green Infrastructure Parameters Plan** [Document 2.7] identify the minimum extent of green infrastructure to be provided across the Proposed Development and the existing veteran trees and woodland to be retained as part of the Proposed Development.

### Landscaping

6.7.2 The Proposed Development seeks to retain, where possible, as much of the existing areas of woodland and trees as possible. This has been informed by detailed landscape analysis and discussions with relevant stakeholders.

6.7.3 Significant landscaping works are to be undertaken as part of the proposed development, and this offers the opportunity to provide a generous landscape setting to the Proposed Development. The green infrastructure forming the backbone of the Proposed Development provides new habitats of ecological interest, including new woodland, scrub and hedgerows, new wildflower meadows, and new waterbodies designed according to ecological principles to encourage wildlife.

6.7.4 Overall, the Proposed Development delivers net gains for wildlife in the locality and provides an opportunity to establish new habitats of nature conservation interest.

6.7.5 Whilst the Proposed Development will result in the removal of some large areas of arable land and some existing woodland, around 36% of the Site will be retained as green infrastructure, with many existing boundaries and habitats strengthened and enhanced as a result of the Proposed Development.

6.7.6 The green infrastructure forms an integral part of the Proposed Development and will help to settle the Scheme into its surroundings while seeking to respect the character setting of adjacent areas.

6.7.7 The Parameters Plans also secure the Site's local biodiversity and ecological value, and the interconnectivity of the green infrastructure within and immediately adjacent to the Site, whilst

providing safe and enjoyable access to the Community Parks to be delivered as part of the Proposed Development.

### Bunding

6.7.8 The height of the mounding across the Proposed Development has been set relative to the adjacent Development Zones finished floor levels ('FFLs'). Considering the adjacent FFLs ensures that the mounding will soften and substantially screen any 'active' uses.

6.7.9 As part of the Green Infrastructure Strategy, bunding and extensive associated planting are proposed to create a visual

screen / filter to enhance the immediate environment and to limit the potential effects of the development.

6.7.10 The bunds have been designed as far as practicable to be landscaped, naturalistic features and will effectively screen and restrict views towards the development areas. The outer publicly visible slopes will generally be more gently sloping and include more native tree planting.

6.7.11 The photomontage images (Figures 53 to 56) help to illustrate how the landscape proposals will assist with screening the development.

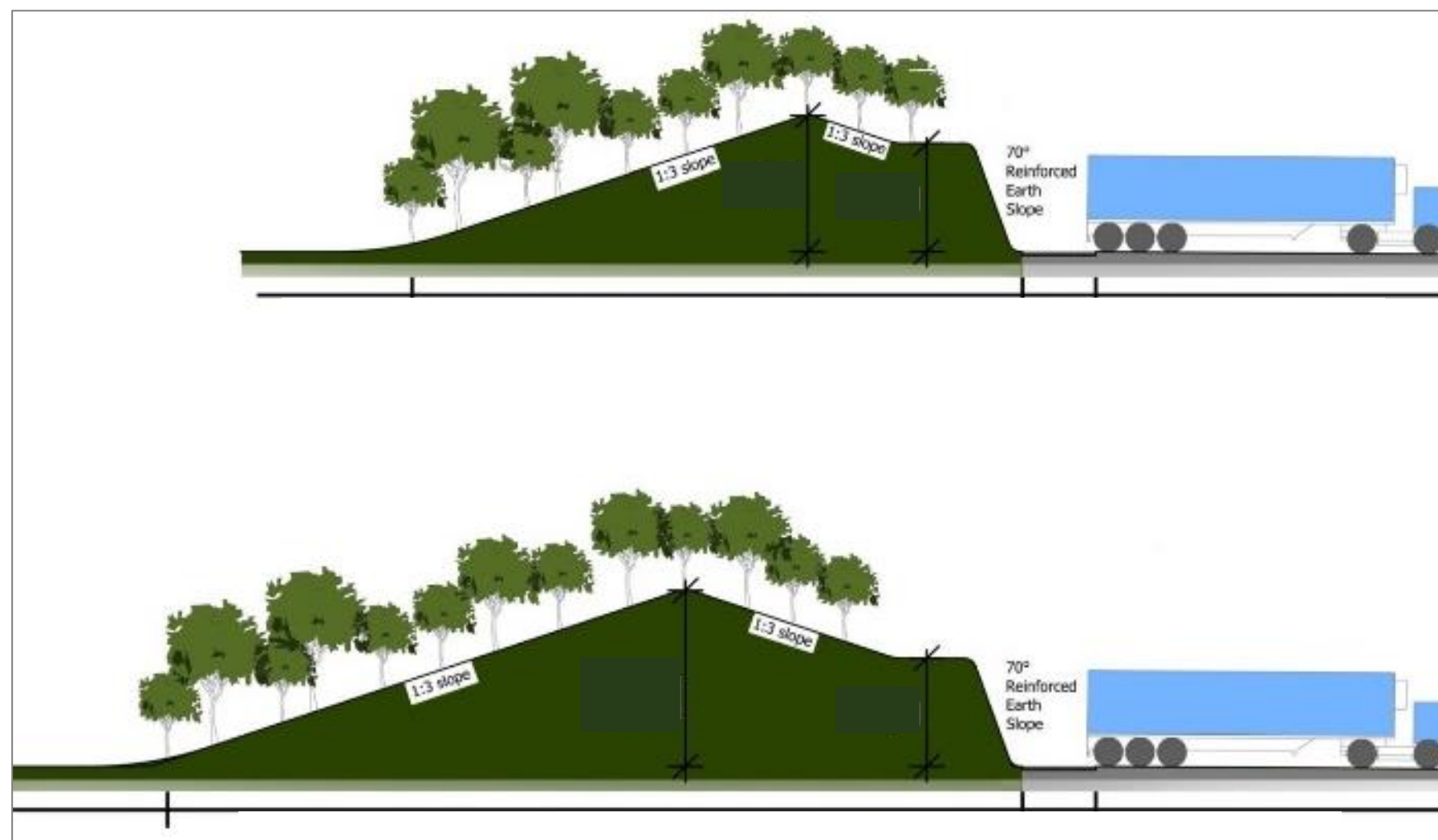


Figure 52: Example cross sections of bunding screening active uses



Figure 53: Winter Photomontage Viewpoint 9 Existing (junction of Straight Mile and Woodlands Lane)



Figure 54: Winter Photomontage Viewpoint 9 Proposed (junction of Straight Mile and Woodlands Lane)



Figure 56: Winter Photomontage Viewpoint 3 Existing (Croft Lane)



Figure 55: Winter Photomontage Viewpoint 3 Proposed (Croft Lane)

Flood Risk and Drainage

- 6.7.12 The Proposed Development provides an opportunity to manage the drainage situation at the Site, including reducing the existing flood risk to properties within close proximity and downstream of the Site.
- 6.7.13 The Drainage Strategy [Technical Appendix 16.03 of the ES] seeks to manage the surface water run-off from the Site and minimise the impact on the quality and quantity of water discharging into receiving watercourses, whilst maximising the potential for amenity and biodiversity.
- 6.7.14 The Drainage Strategy is designed to accommodate the surface water run-off requirements for the whole of the Site in accordance with the Sustainable Drainage Systems (SuDS) hierarchy. A primary network of open ditches and swales that safely collect and re-route the surface water collected from the Site is secured through the **Green Infrastructure Parameters Plan** [Document 2.7]. Water collected will be routed to four separate outfall points.
- 6.7.15 Drainage via soakaways has been avoided at this stage as lined conveyance and storage structures provide the opportunity to provide natural filtration and treatment of the captured runoff, without risk to the quality of the underlying water tables.
- 6.7.16 A study of the existing hydrology and hydrogeology of the Site has identified the existing surface water catchments, and the points at which these catchments discharge water from the Site have been determined, via ditches, culverts or otherwise. The swales, basins and lagoons have been designed to hold enough water so that the heaviest of rainfall events does not cause flooding on the Site, and so that the risk of flooding downstream of the Site is minimised. The rates at which water is discharged from each of these catchments has been calculated and in designing the Drainage Strategy it has been ensured that the rate at which water leaves the Site is controlled and reduced.
- 6.7.17 This system will be capable of capturing rain that falls onto the Site during heavy rainfall / storm events. The rainwater will be stored in the system and be allowed to leave in a controlled manner, reducing the impact of such events. This will reduce the chances

of flooding across the Site and within the local area. The network of open ditches and swales will largely be dry when there is not heavy rainfall.

- 6.7.18 Opting for open basins and swales in lieu of buried pipework and tank storage provides opportunity for ecological enhancement of the scheme through the introduction of a strategic planting

scheme and encourages wildlife habitation. The open basins also offer amenity benefit, forming part of the new Community Parks.

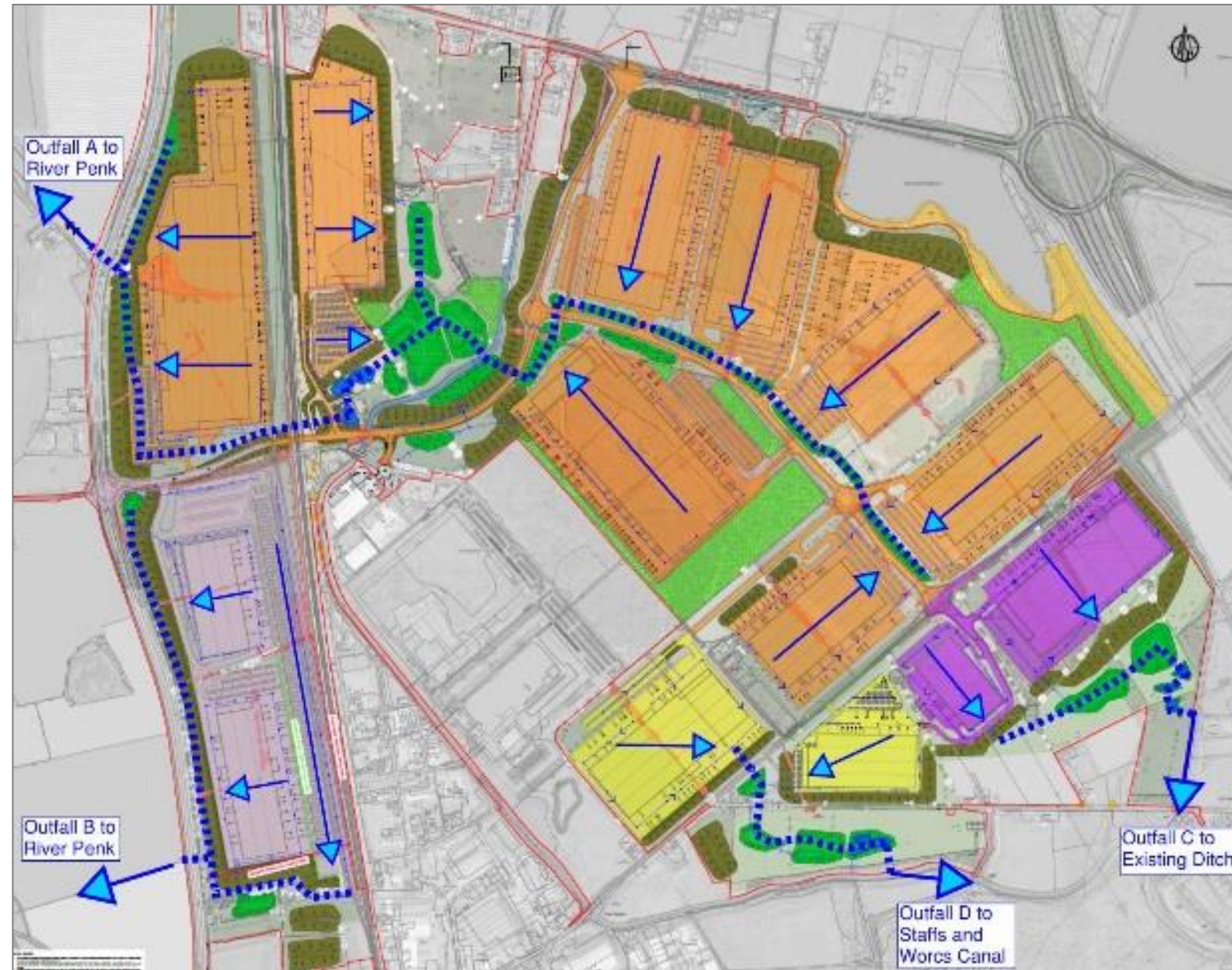


Figure 57: Surface Water Drainage Schematic



## 6.8 Movement through the Proposed Development

### Context

- 6.8.1 WMI will form part of a network of SRFIs across the country, with the Site uniquely situated with immediate access to both the national rail (WCML) and road (A5, A449 and M6) networks.
- 6.8.2 WMI would help to expand the currently limited number of existing SRFIs into a much larger interconnected network of facilities, assisting with the modal shift of freight from road to rail.
- 6.8.3 The topography of the Site is an important factor allowing for the rail and road infrastructure to be well integrated and to be designed to deliver a modern and efficient SRFI.

### Strategy

- 6.8.4 The nature of rail freight transport means that rail movements need to be segregated from all other movements' corridors, except that at the intermodal terminal where it is necessary.
- 6.8.5 The remainder of the Site retains a strong relationship with the rail terminal and other infrastructure, with the Scheme having a high degree of permeability.

### Rail Terminal Location

- 6.8.6 The rail terminal is therefore situated to the south west of the Site to avoid conflict with other uses within WMI. This enables the safe and efficient operation of the terminal, while the rail connections also allow for directly rail-linked buildings to the west of the WCML for occupiers who prefer / require a direct rail connection. All other occupiers across the Site will have access to the rail terminal, with all warehousing across the Site being rail-served.
- 6.8.7 The rail terminal would be open-access and operated by an independent service provider (a logistics company or specialist rail freight terminal operator). This means the terminal would be available not only to occupiers across the Site, but also to businesses across the West Midlands Region (and beyond). Siting the rail terminal in this location, also ensures movements

not related to occupiers on the Site do not conflict with the operations of WMI warehouse occupiers.

### Rail Terminal Connections

- 6.8.8 The WMI rail terminal will connect into the West Coast Main Line ('WCML') (western branch / Bushbury to Stafford Line) that intersects the Site. This line is twin-track formation, electrified and cleared to W10 loading gauge.
- 6.8.9 North and South facing connections onto the WCML will give direct W10 loading gauge access to the principal deep-sea ports of Felixstowe, Southampton and London Gateway, as well as other ports and SRFI / RFIs at W10 gauge in London, the South West, South Wales, Midlands, North West, Yorkshire & Humberside, North East and the Scottish Central Belt.
- 6.8.10 As the subsidiary branch to the WCML, the Bushbury to Stafford line carries considerably less traffic compared to the main route. Route analysis, together with engagement with Network Rail, has confirmed that there is expected to be a sufficient number of train paths available to serve the development.
- 6.8.11 The layout of the intermodal terminal and associated main line connections has evolved during the course of the design stage, reflecting stakeholder consultation to date and the best practice from emerging wider network of port and inland terminals.

### Rail Terminal Design

- 6.8.12 Drawing on other SRFI developments, the intermodal terminal features container storage, HGV parking and full-length sidings capable of processing trains up to the full 775m industry standard, reducing the need to split and shunt trains in half-length portions, which can be more time-consuming.
- 6.8.13 From the outset, the rail terminal would be capable of handling (full-length) 775m trains, allowing access for trains from either direction on the main line directly to and from the intermodal terminal.

6.8.14 The on-site rail layout is designed to facilitate fast turnaround of freight trains within the intermodal terminal. The proposed rail freight interchange design would bring trains and trucks directly alongside each other, with a one-way flow for HGVs through the terminal, again to promote the fast and efficient transfer of freight.

6.8.15 Additional rail sidings would be provided to permit direct rail access to warehousing on site, as well as additional stabling.

6.8.16 The rail terminal will have the ability to handle electrically-hauled trains, with 2 of the 6 full-length rail sidings capable of being electrified in future, should operators wish to operate electric (or dual fuel) powered freight trains.

### Rail Terminal Operations

6.8.17 Once in the handling sidings, container handling operations will be undertaken either by reach stackers in the first phase (working off the 2 nearest sidings to the apron) and/or overhead rail-mounted gantry cranes in future phases.

6.8.18 Additional sidings are provided to the north of the intermodal terminal, providing additional stabling space, a headhunt capability for shunting trains to and from the intermodal terminal, and access for conventional wagons into the adjacent warehousing.

6.8.19 HGVs arriving at the intermodal terminal would park ahead of the gatehouse as required, the parking area provided with driver amenity facilities and provision for overhead inspection gantries to allow drivers to check and secure containers prior to departure by rail. HGVs would then draw up to the gatehouse.

6.8.20 HGVs with missing or incorrect documentation or having arrived at the Site by mistake can be turned back to the highway via an escape lane ahead of a second gate line protecting access to the intermodal terminal. Beyond this point the terminal forms a securely-fenced Restricted Zone under DfT Channel Tunnel security requirements, where only authorised vehicles and people can be admitted.

6.8.21 HGVs then pass south alongside the handling sidings, allowing close proximity to effect fast transfer or containers directly

between trains and HGVs. The HGVs would then turn at the southern end of the terminal and travel north, exiting the Restricted Zone back to the highway network.

6.8.22 When installed, the rail-mounted gantry cranes would span the four handling sidings and the entire width of the intermodal terminal, allowing containers to be moved between trains, intermediate storage areas and HGVs as required. The container storage area would be capable of stacking containers up to 4 high, the stacks stepped down in height alongside the main HGV transfer area for safety reasons.

Road Accessibility

6.8.23 There are a number of highway works proposed to serve the scheme and provide improvements for existing road users. These aspects of the Proposed Development will ensure that:

- appropriate access is provided for all WMI traffic;
- the Proposed Development does not have an adverse impact upon the existing transport network; and
- it will provide significant improvements for some existing road users.

6.8.24 In order to facilitate highway access to WMI, it is proposed to construct the following three new roundabout junctions:

- A5 Access (north of Site) – construction of a new three-arm roundabout from the A5;
- A449 Access (west of Site) – construction of a new four-arm roundabout from the A449 into Gravelly Way at Crateford Lane. This will replace the existing traffic signal junction;
- Vicarage Road Access (south of Site) - construction of a new four-arm roundabout from Vicarage Road.

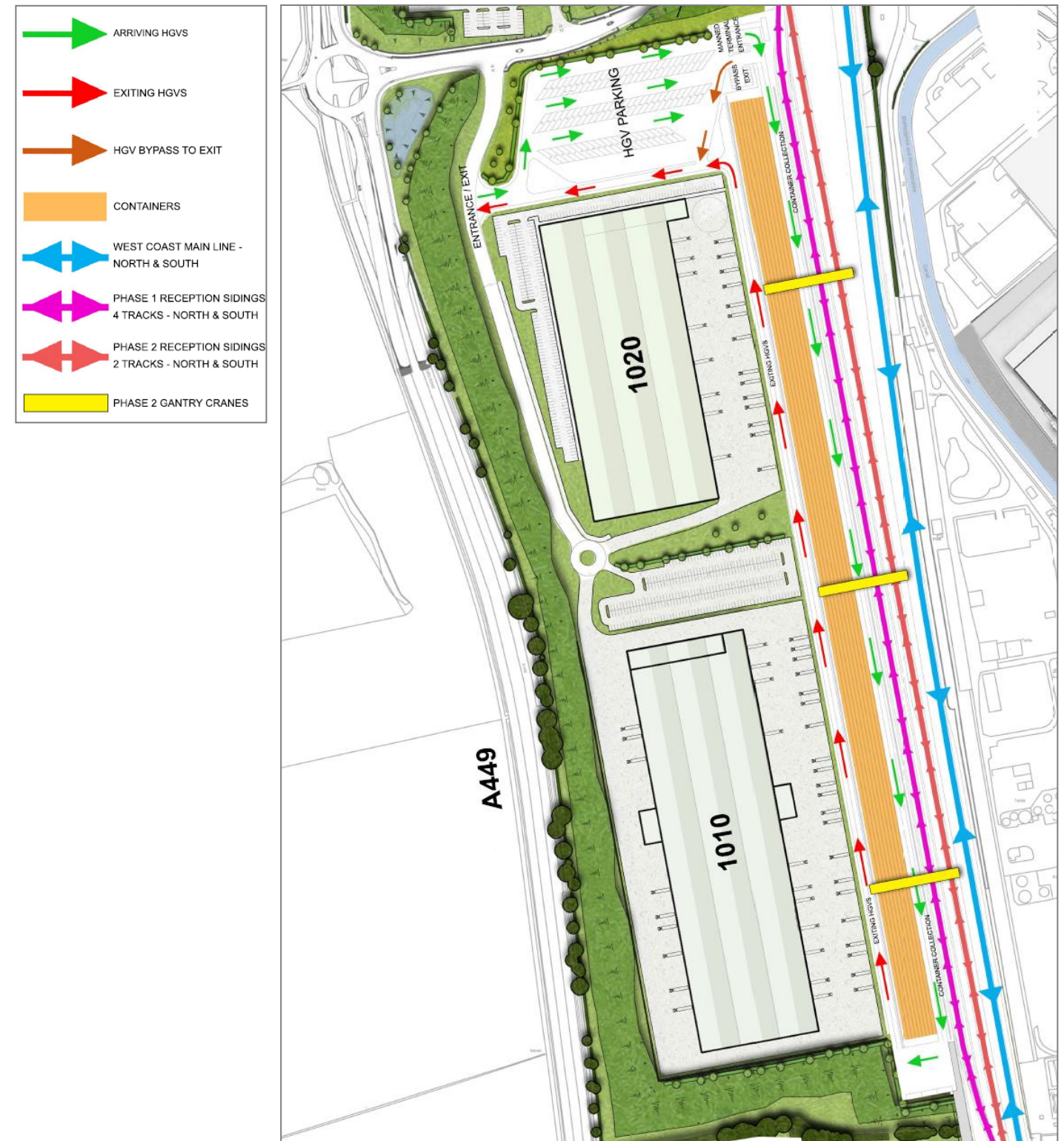


Figure 58: Illustrative Rail Terminal Operation

#### A5 Access

- 6.8.25 The proximity to M6 Junction 12 dictates that the principal access to the development for vehicular traffic should be to the north of the Site from the A5. The junction configuration will consist of a three-arm roundabout with a diameter of approximately 60 metres.
- 6.8.26 The existing access on the A5 which serves the minerals workings will be realigned to provide safe access to the Avenue Cottages but close access to the minerals workings. The existing priority junction of A5 / Harrisons Lane will be converted to a left in / left out only arrangement. This will be physically enforced through the implementation of a right turn median.
- 6.8.27 The introduction of the A5 roundabout would require the closure of the existing A5 laybys. However, it is proposed to relocate these laybys so that they are adjacent to the A449.

#### A449 Access

- 6.8.28 A secondary access to serve the Site is proposed from the A449 via an improved and modified junction with Gravelly Way and Crateford Lane. The junction would replace the existing traffic signal junction with a four-arm roundabout in order to serve the additional traffic generated by the Proposed Development.

#### Vicarage Road Access

- 6.8.29 A tertiary vehicular access is proposed from Vicarage Road to the south-east of the development. This access junction would serve the southern part of the development and development land south of Vicarage Road. This junction would take the form of a four-arm roundabout and would facilitate access to land either side of Vicarage Road.

#### Adopted Route through the Site

- 6.8.30 The Proposed Development would provide a new link road connecting the A5 and A449. This will be a 30mph adopted public highway to be maintained by Staffordshire County Council. It will be available for use by public traffic at all times and would be a signed route between M6 Junction 12 and the A449.

6.8.31 New bridges will be provided to allow the road to cross both the West Coast Mainline and the Staffordshire and Worcestershire Canal. The provision of the new rail bridge will enable the closure and removal of the existing Gravelly Way railway bridge. The existing Gravelly Way canal bridge will be retained to provide access to the existing uses.

6.8.32 This route will not only provide access to WMI, but will also be a major benefit to the local road network, allowing for traffic to bypass the Gailey roundabout and increasing the permeability of the local area.

#### Non-Adopted Route through the Site

6.8.33 In addition to the adopted route through the Site, a further traffic route will be provided to the south-east towards Vicarage Road. The two routes will connect via a new three-arm roundabout located within the Site approximately 500 metres to the south of the A5. This road will be controlled by WMI and will not be offered for adoption by Staffordshire County Council.



Figure 59: CGI of the adopted route through the Site passing over the WCML

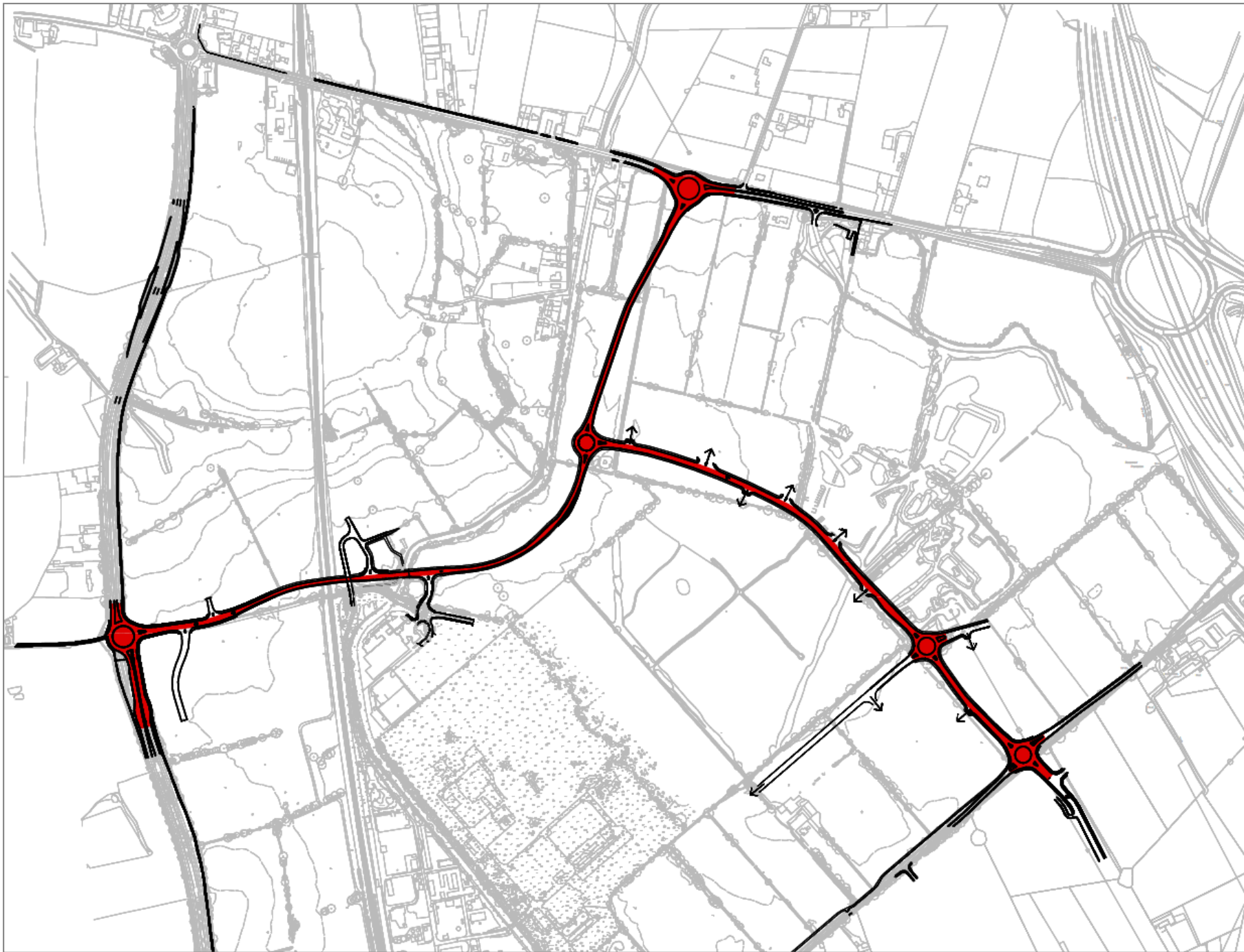
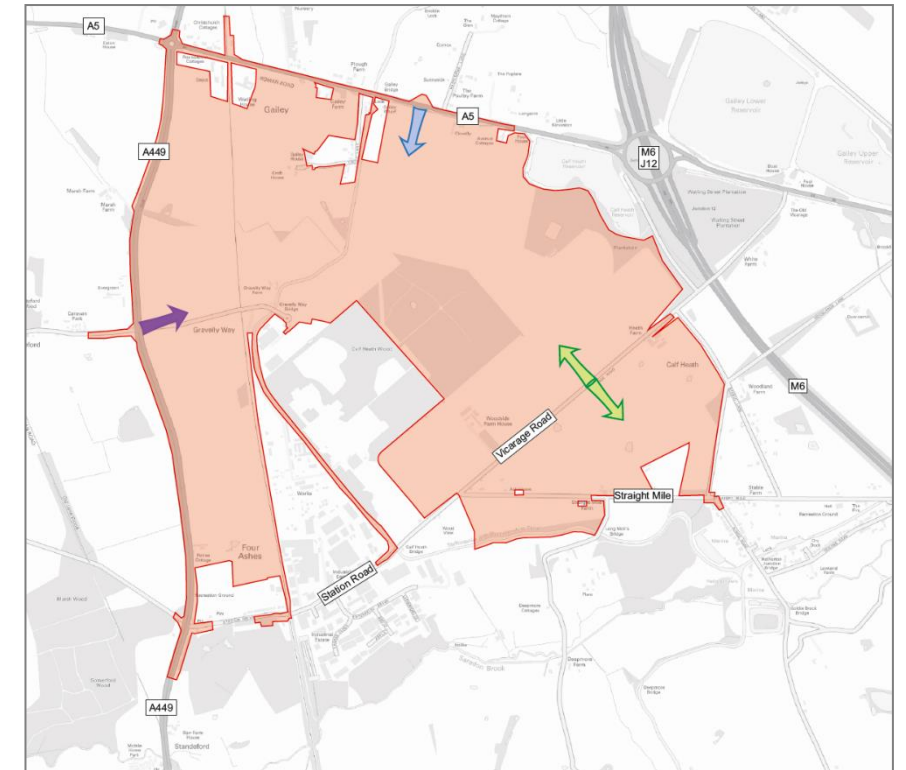


Figure 61: Adopted and Non-Adopted Routes through WMI



Key

- Site Location
- Access from A5
- Access from A449
- Access from Vicarage Road

Figure 60: Access Points into WMI

### Other Highway Works

- 6.8.34 A right turn ban into Station Drive is proposed for northbound traffic on the A449. The implementation of the right turn ban will direct traffic wishing to get to the A5 / M6 north to use either the new link road or the Gailey roundabout, rather than local roads. As a result it will prevent rat running traffic from the south being able to reach the A5 by using Station Drive and Vicarage Road. Vehicles requiring direct access to existing properties along Station Drive or the Four Ashes Trading estate will be able to undertake a 'U turn' further north at the proposed A449 roundabout. Traffic wishing to access the A5 will have the opportunity to avoid Gailey Roundabout via the adopted route through the Site.
- 6.8.35 A new HGV turning area will be provided on Station Drive to alleviate the problem of those over height vehicles inadvertently attempting to pass under the low railway bridge between Station Drive and Station Road.
- 6.8.36 Crateford Lane will be adapted to be one-way in an eastbound direction in order to reduce and eliminate rat running.
- 6.8.37 To the south of the A449 roundabout there will be relocated bus stops from which there will be new footway connections into the Site.

### Walking and Cycling Accessibility

- 6.8.38 To improve the main pedestrian and cycle route connections to WMI a number of measures and improvements are proposed.
- 6.8.39 The existing shared use cycleway/footway to the east of A449 between Gailey Roundabout and the junction with Station Drive to the south will be upgraded to a 3m wide shared cycleway/footway.
- 6.8.40 There will be pedestrian crossing facilities at the proposed A449 Site access roundabout and an upgraded footway on the west side of the A449 to facilitate access to bus facilities on the A449.
- 6.8.41 The existing footway adjacent to the north of the A5 will be improved with new signs and widened to a 3m wide shared cycleway/footway where possible within the highway boundary. This will be introduced along the A5 between Gailey Roundabout and the proposed site access from the north.
- 6.8.42 The towpath on the Staffordshire and Worcestershire Canal within the Site will be upgraded in consultation with the Canals and River Trust.
- 6.8.43 There will be a 3m cycleway provided along Vicarage Road. Pedestrian crossing facilities will be provided at the new four-arm site access roundabout junction with Vicarage Road.
- 6.8.44 In addition to the external facilities all the roads within the Site will have 3m shared use cycle/footways which will provide further opportunities for movement by these modes. These routes will be supplemented by a network of Permissive Paths, which will provide access to the areas of open space that the proposed development will provide. The permissive paths will, where possible, link to the Canal Towpath as well as the specific car parking areas that are proposed and will provide replacement facilities for Footpath 29 that will be closed to accommodate the development.
- 6.8.45 From the south, at grade pedestrian crossing facilities are proposed in order to allow crossing of Straight Mile towards the permissive paths. It is also proposed to provide new footways at the junctions of Straight Mile/Kings Road/Woodlands Lane together with crossing facilities.

- 6.8.46 The existing Public Right of Way (Staffordshire County Council footpath 29) running across the Site will be closed as a result of the Proposed Development.
- 6.8.47 The provision of this network of pedestrian facilities will ensure access to the areas of public open space will be possible for those existing residents who may wish to visit these areas.

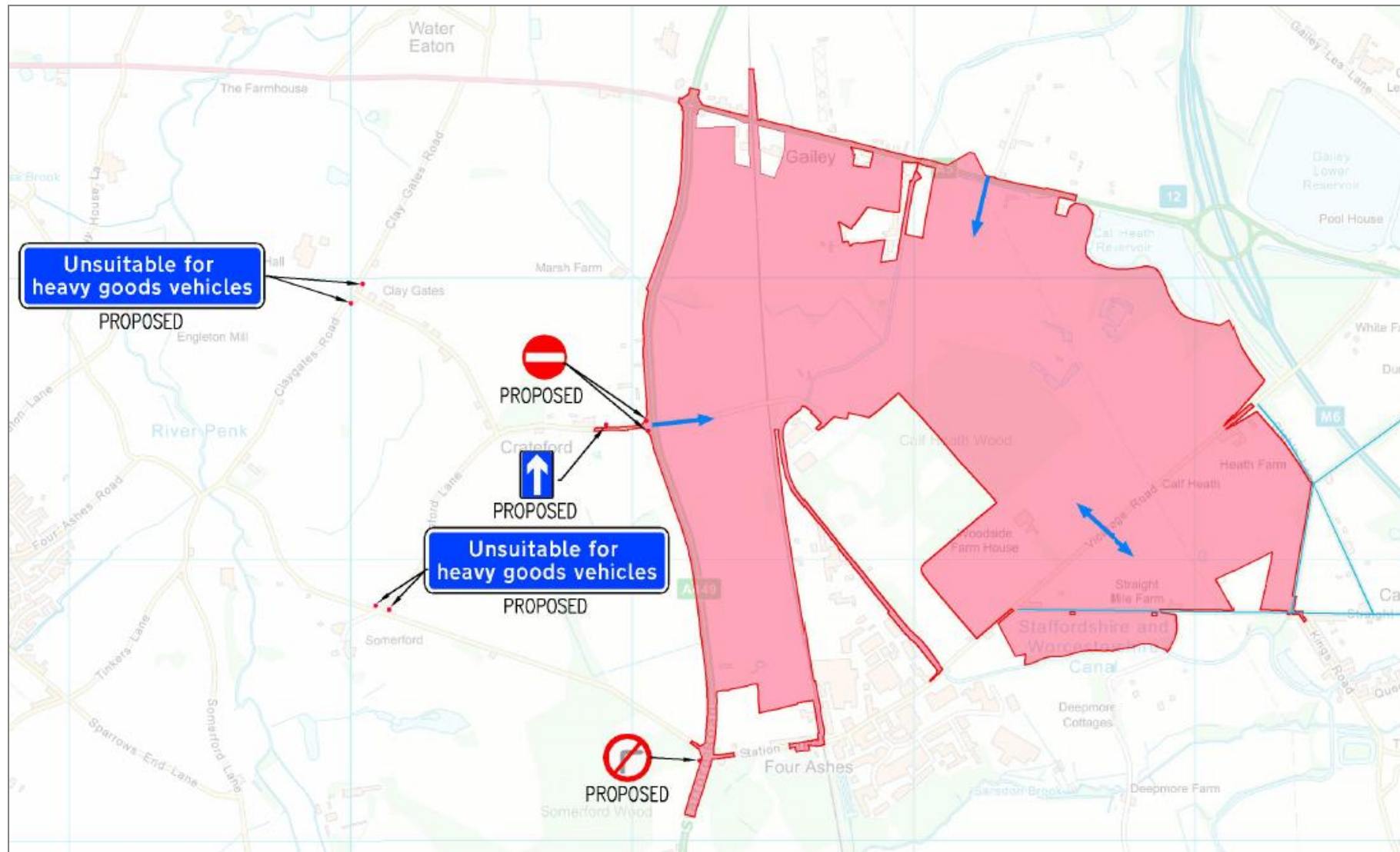


Figure 62: Proposed Local Access Signs

### Travel Planning

- 6.8.48 Individual Travel Plans will be implemented before occupation of each developed warehouse. The Travel Plans will be required to follow guidelines set out in the Site Wide Travel Plan [Appendix H of the Transport Assessment] and will benefit from new public transport measures to be introduced by WMI.
- 6.8.49 In line with national and local policies Travel Plans will aim to:
- minimise the overall proportion of single-occupancy car trips associated with commuting to and from the Site;
  - reduce the overall need to travel to and from the Proposed Development by private car;
  - facilitate and encourage the use of healthy, low carbon and sustainable transport options amongst employees and visitors to the Site; and
  - ensure that the differing transport needs of all site users are taken into account as far as practicable.
- 6.8.50 Travel Plans will be implemented and operated in partnership with the local planning and highway authorities, and other key stakeholders locally, to achieve the aims set out above.
- 6.8.51 The Site Wide Travel Plan will also ensure the provision of a Site Wide Travel Plan Coordinator to manage and coordinate all the occupier Plans, and the formation of a Travel Plan Delivery Group to oversee travel planning for the Site.

### Public Transport and Shuttle Buses

- 6.8.52 The Public Transport Strategy builds on existing public bus services near the site by improving the frequency of some existing services and potentially providing two new buses.
- 6.8.53 A network of bus stops and shelters will be located throughout the site to encourage the use of public transport and reduce car usage. These improvements would enhance the existing 54 Service to provide a half hourly service between WMI and Wolverhampton, with this service potentially able to serve improved bus stops on the A449 and by the Gailey Roundabout.
- 6.8.54 Should demand or aspirations of operators or other stakeholders be to further improve the service frequency between WMI and any other destinations, the Public Transport Strategy does not preclude this from being implemented in the future.
- 6.8.55 The Public Transport Strategy is the subject of ongoing discussions with relevant councils and stakeholders.
- 6.8.56 In addition to the Public Transport Strategy, it is proposed that three shuttle bus services would be provided between WMI and significant clusters of employees. Based on current demographics this is expected to be Cannock Chase, Walsall and Wolverhampton, however, final routes will be informed at the detailed travel planning stage.

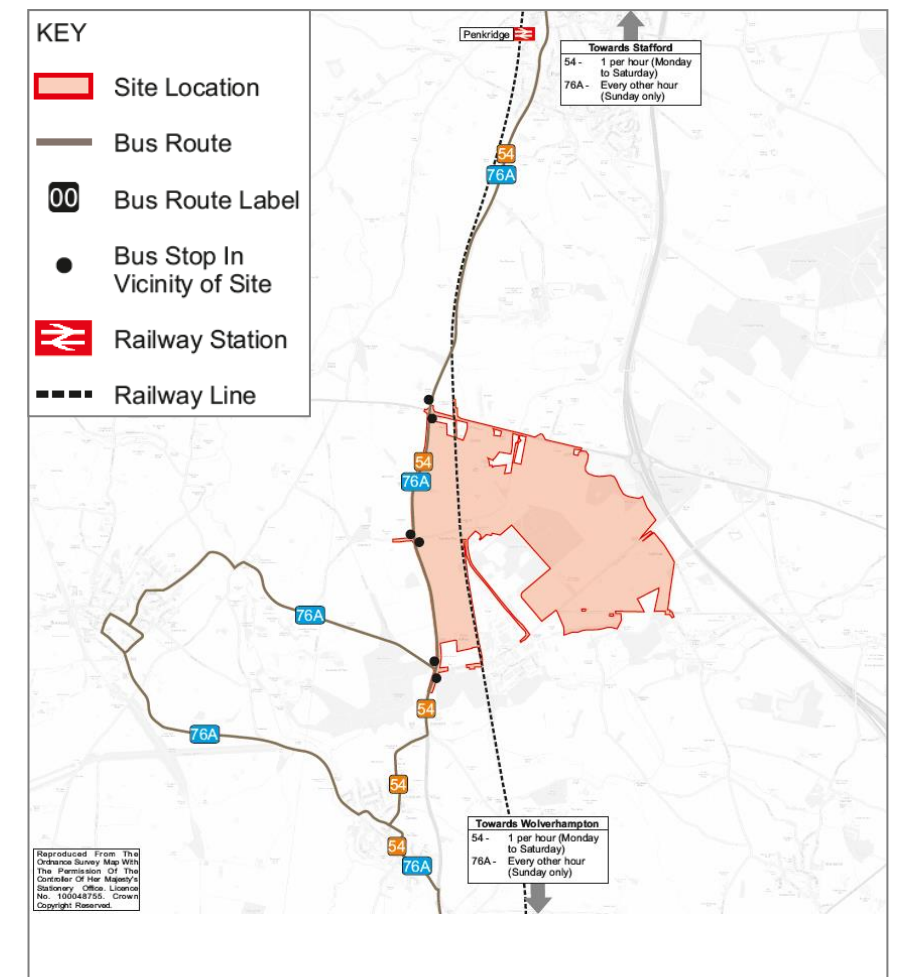


Figure 63: Local Bus Routes

## 6.9 Ecology

6.9.1 Ecological surveys have been undertaken and are on-going at the Site. A variety of protected species / habitat surveys have been undertaken including:

- Badgers;
- Bats;
- Birds;
- Great crested newts;
- Hedgerows;
- Invertebrates;
- Polecats;
- Reptiles;
- Veteran Trees; and
- Water voles.

6.9.2 These surveys have helped identify existing ecological areas and 'corridors' across the Site, which have informed the Parameter Plans.

6.9.3 Noting comments from ecological consultees, landscape areas were amended to address perceived 'pinch points'.

### Ecological Corridors and Spaces

6.9.4 Key to ecological mitigation is maintaining and, in parts, enhancing the permeability of the Site for wildlife, notably mammals (e.g. bats and badgers) and amphibians (e.g. Great Crested Newts). The Green Infrastructure Parameters Plans have been developed to deliver mitigation that maintains ecological connectivity and establishes green corridors across the Site.

6.9.5 Ecologically important hedgerows are to be retained wherever possible, and where not possible these hedgerows will be translocated elsewhere within the parameters set by the Green Infrastructure Parameters Plan. The Site will provide a net gain in hedgerows (in terms of linear meters).

6.9.6 The provision of Community Parks is a positive inclusion providing open space which helps mitigate loss of arable land, notably for farmland birds. Areas of the parks will be managed with wildlife aims e.g. wildflower meadows.

### Calf Heath Wood

6.9.7 The area of Calf Heath Wood that is considered to have the greatest biodiversity value is being retained. The area to be lost is a woodland plantation, primarily made up of younger and less valuable pine trees.

6.9.8 The retained portion of Calf Heath Wood will be managed to complement that in the adjoining portion of the woodland being managed to promote a diverse woodland including trees of a range of ages. A similar approach was agreed at the Bericote Site.

6.9.9 The retained wood is to be enhanced via restoration of the coniferous or mixed plantation areas to native broadleaved woodland over time and selective felling and coppicing, removal of non-native species such as rhododendron (phased) and retention of standing deadwood. Consideration has also been given to the ecological enhancement proposed for the adjacent section of Calf Heath Wood, within the Bericote Site.

### Veteran Trees and Hedgerows

6.9.10 The Proposed Development has sought to retain as many existing veteran trees and hedgerows as possible.

6.9.11 It is proposed to propagate the trees through hard wood cuttings and direct growing of acorns for use in planting on the Site, close to the parent trees and other retained 'future / transitional' veterans where they exist to expand the veteran community. Offspring from the parent trees is highly important for succession to support the life that is supported by these valuable habitat trees.

6.9.12 The Proposed Development has been designed to retain as many true veteran and transition veteran trees as possible, with 7 of the 11 true veteran trees and 20 of the 25 transitional veteran trees being incorporated into the Proposed Development. The details and location of these trees are set out in Chapter 12 of the **ES**. Consideration will also be given to translocating entire trees where possible, albeit with a reduced form and to re-erect them in landscaped areas.

6.9.13 The principal mitigation measure however, has been the careful design of the parameters of the Proposed Development. The Proposed Development has sought to retain and conserve as many of the true veteran trees and transitional veteran trees as possible.

### Framework Ecological Mitigation and Management Plan

6.9.14 A Framework Ecological Mitigation and Management Plan (FEMMP) has been prepared which supports the Application and covers the entire Site. The plan details incorporated measures intended to mitigate the impact of the Proposed Development on habitats and species present within the Site and adjacent areas. It is proposed that phase-specific EMMPs (covering construction and operation) will be prepared using the principles of the FEMMP prior to each phase of development.

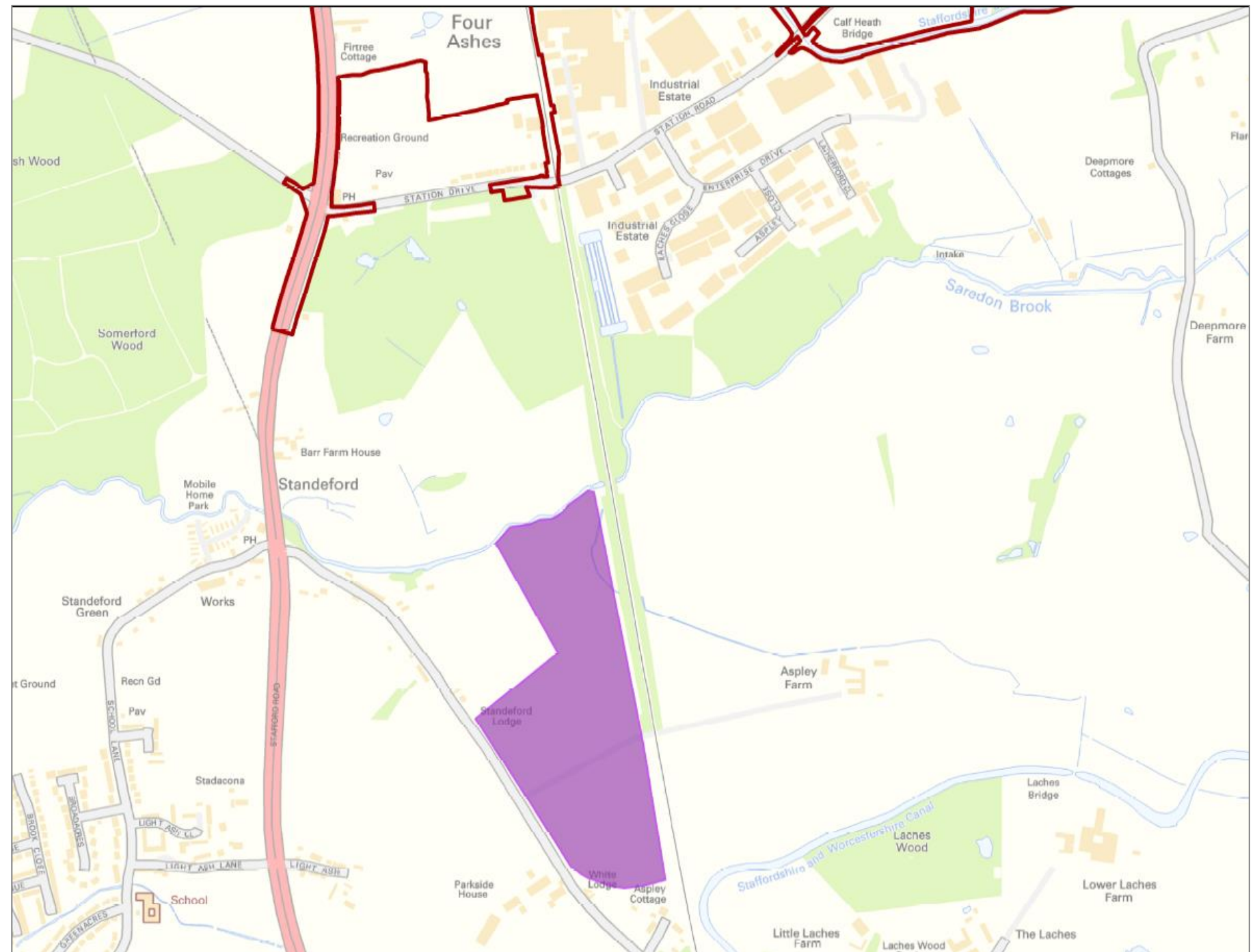


European Protected Species Mitigation Licence

6.9.15 A draft European Protected Species Mitigation Licence has been approved by Natural England to ensure appropriate and effective mitigation is in place with respect to impacts on roosting, commuting and foraging bats.

Off-Site Mitigation Land

6.9.16 Twelve (12) ha of existing intensively managed arable farmland off-site (within 1 km) will be enhanced and managed for the benefit of farmland birds. The land will be subject to enhancement and management for a period of 15 years. Enhancement measures across the 12 ha will include a buffer to Saredon Brook, wider headlands and margins, management including rotation and use of seed mixes intended to be of benefit for farmland birds, provision of skylark plots, and planting of new hedgerows in place of or in addition to existing fences.



**Figure 64: Off-Site Mitigation Land**



Figure 65: CGI of the Proposed Development looking west over Calf Heath Community Park, showing the direct access to the Canal

## 7. Design Principles

## 7.1 Design Principles

- 7.1.1 The Design Principles intend to provide a clear outline for the future detailed design of WMI, setting out the vision and strategies that future applications under the DCO to the local planning authority will be guided by.
- 7.1.2 The Design Principles seek to provide a high-quality, innovative scheme that meets occupiers' requirements for flexibility, establishing a visual balance between variety and unity throughout the development, while maintaining a coherent and logical philosophy in the overall site massing. The positioning of buildings will create view corridors through the Site to ensure visual permeability and explore the use of materials of different textures and colours to enhance the architectural composition of individual buildings.
- 7.1.3 The aim will be to create a shared character / identity for the development. The buildings will also be designed to create a strong visual focus on the office component, given its important commercial function.
- 7.1.4 The building form, size and height will ultimately respond to the functional and operational requirements of occupiers, however, should a warehouse be developed speculatively, it will be done based on market leading knowledge of the requirements of the sector.
- 7.1.5 The size and height of the buildings will be within the parameters set by the **Parameters Plans**, which are designed to accommodate existing market requirements, whilst also allowing for the required flexibility to meet future market requirements.
- 7.1.6 Future occupiers may wish to deviate slightly from these design principles depending on their operational needs and as a result of any technological advances in the future. It will remain however the aim of FAL to ensure that a strong and consistent identity is maintained across the Proposed Development.



Figure 66: WMI Illustrative Masterplan

## 7.2 The Green Infrastructure Strategy

7.2.1 The Green Infrastructure Strategy ('GI Strategy') has been prepared following extensive site surveys and appraisals, detailed consultations with relevant parties and environmental groups. The GI Strategy has been integral to the overall design and planning process.

7.2.2 Notwithstanding the need to incorporate full scale and highly efficient intermodal freight facilities and buildings, the Proposed Development has been underpinned by a sustainable design philosophy. The GI Strategy responds to an understanding of the Site's existing sensitivity and interest, landscape character and context, as well as to its ecology and biodiversity, and to the relevant planning and environmental context.

7.2.3 The GI Strategy ensures the establishment of a strong and cohesive framework of landscape and environmental areas, based on strong site boundaries and use of the important natural features of the site. The GI Strategy will also include the creation and conservation of landscape corridors throughout the Proposed Development; the provision of new mixed habitats to satisfy biodiversity objectives; the formation and planting of earthwork bunds around the perimeter of the Site and the establishment of high quality landscapes to the built development plots and surrounds.

7.2.4 The GI Strategy will:

- facilitate the creation of new habitat through landscaping and planting and the retention of existing natural features extending across around 36% of the Site;
- facilitate the creation of two new publicly accessible community parks (totalling approximately 44ha);
- enhance existing wildlife corridors through the creation of new habitats and increasing ecological diversity and connectivity throughout the Site;

- provide a network of new and upgraded paths for pedestrians and cyclists; and
- minimise the impact of the Proposed Development on wildlife and those living close to the Site.

7.2.5 The landscaping and mounding proposed form a key element of the landscape and design approach to the development of this Site. They will assist in assimilating the built development proposals and in screening and filtering views and limiting the effects of the development on the surrounding landscape and residential areas. The approach to the landscaping within the Development Zones on the Site will seek to establish robust and high-quality environments within which the new buildings and infrastructure will be set.

7.2.6 The planting of key wildlife corridors (e.g. linking the retained portion of Calf Heath Wood to Calf Heath Reservoir) will be undertaken within 5 years of development commencement and then safeguarded through future development phases to aid establishment and functionality.

7.2.7 As warehouses come forward across the Site, planting will be provided to create structural landscaping buffers to the perimeter of the Site. These areas are of sufficient size to allow the mounding to be formed to achieve the required heights to screen and restrict views to the lower and active parts of development.

### Community Parks

7.2.8 Two Community Park areas are proposed in the north and south of the Site; Croft Lane Community Park and Calf Heath Community Park, respectively. These will comprise new publicly accessible resources and ecological enhancement. Access to the Community Parks will be designed with distinct routes through the parks with ecological enhancement areas to be left undisturbed.

7.2.9 Both parks will be for the public and informal in character (similar to a small scale 'Country Park', rather than an amenity or recreation ground), with provision for walkers and other informal recreation, with links to the Canal. It is not the current intention to provide any formal play or activity uses at either of the identified parks.

7.2.10 In the north, the Croft Lane Community Park will be located to the west and south-west of Croft Lane. This park of approximately 21 ha will extend between the A5 in the north and the canal side in the south. It will combine the conservation of existing woodland, trees, hedgerows and grassland with new native habitats and species. Notably it will include some new water features and wetland areas (associated with the Sustainable Drainage Strategy) in the south of the park close to the canal side. These will add to the variety of wetland habitats on site.

7.2.11 In the south, the Calf Heath Community Park of approximately 23 ha will run around the southern edge of the development area and straddle both sides of Straight Mile. It will extend north westerly and then westerly from close to the northern edge of Calf Heath to the canalside south of Straight Mile.

7.2.12 The local community and other relevant organisations will be invited to be involved in the detailed design and agreement of the final proposals for the Community Parks. There will be a commitment to the long-term management of both parks through a management company or by agreement with another suitable organisation.

### Woodland and Tree Belts

7.2.13 New woodland and tree belts will be planted throughout much of the Site, providing a net gain in woodland and tree planting areas across the scheme. The planting will utilise native and locally occurring species and will be based upon good landscape and biodiversity practices. A number of different species mixes will be used to achieve and balance differing design and environmental objectives.

7.2.14 In some places the focus may be on maximising biodiversity benefits and in others on visual screening and mitigation.

### Hedgerows

7.2.15 New native hedgerows including native hedgerow trees will be planted throughout the Site and will tie in with the conserved network of existing hedgerows to provide a well-connected framework of new and existing hedgerows across the Site.

### Open Space and Grasslands

- 7.2.16 New open space and grassland habitats will be provided throughout the development. These will comprise predominantly lowland meadow and species rich grassland in those areas associated with the Community Parks and woodlands / tree belts; with more limited areas of general amenity grassland associated with development entrances and plot surrounds.

### Wetland Areas and Habitats

- 7.2.17 New wetlands and water features will be created throughout the landscape and Green infrastructure, largely to meet the requirements of the Sustainable Drainage Strategy.
- 7.2.18 These features will also be designed to maximise their positive contribution both towards the appearance and amenity of the landscape and biodiversity objectives. Aquatic and surrounding planting will utilise native species.

### Management of Soft Landscaped Areas

- 7.2.19 All the soft landscape areas, including both new and conserved areas and features, will be the subject of a comprehensive management regime to ensure the successful establishment and subsequent thriving of the various planting habitats and other green spaces. Management plans will take account of biodiversity management aims.

### Hard Landscaping

- 7.2.20 The hard landscape proposals within the strategic landscape and GI areas will largely relate to new paths and pedestrian access measures. Away from the highway-side pavements, new paths are likely to be constructed with a bound gravel or chippings surface finish, and will assimilate with the character of the existing canal corridor and new Community Parks.
- 7.2.21 Visual cohesion will be enhanced not only by the careful integration built development and the GI, but also by use of a furniture palette that provides consistency throughout the site. To encourage a consistent approach to street furniture only timber,

stainless steel or a black paint / powder coated finish will be used, with a preference toward simple detailing of furniture.

### Fencing

- 7.2.22 The design of fencing and any related pedestrian access measures associated with these areas will be of a similar 'country park' or countryside style, using timber post and rails. In some areas simple timber post and wire (or mesh) fencing may be used to protect planting or control access.
- 7.2.23 Fenced surrounds to the Development Zones are likely primarily to utilise a weldmesh style fence with heights typically ranging between 1.8m - 3m. These may be colour coated (typically black or green) and will provide a good quality secure boundary. Suitable gates will be specified to match the fencing.

## 7.3 Noise

7.3.1 The Proposed Development will seek to respect the amenity of its neighbours, with a full assessment undertaken that has considered the potential noise emissions from the scheme. The assessment has considered the types of activity that would typically occur at a SRFI, including (but not limited to):

- train movements;
- loading and unloading activities at the rail terminal using gantry cranes and reach stackers;
- heavy goods vehicle and car movements in and around the Site;
- loading and unloading activities at individual units across the Site; and
- processes within the proposed buildings.

7.3.2 To inform the calculation of anticipated noise levels from the operational site, noise measurements have been undertaken at a similar SRFI to obtain representative operational noise data.

7.3.3 Noise surveys have been carried out at key locations around the Site, and the results show that the acoustic climate varies according to the proximity of key transport links, namely, the M6 motorway, the A5, the A449 and the WCML. The ambient noise levels in areas close to these sources are relatively high; however, away from these sources and particularly at night, noise levels reduce notably.

7.3.4 The results of the noise survey have been factored into the emerging assessment to inform the types of noise control included in the final development form. The types of noise control that have been considered include:

- hard mitigation, in the form of bunds and barriers, which offer considerable protection from road, rail and any

operational (plant) noise, as well as providing visual screening;

- levels, in the form of reduced development plateaus where appropriate, to reduce the extent to which noise from the Site will affect local receptors;
- soft design, in the form of appropriate layout and orientation of buildings to maximise acoustic screening inherent in the layout of the Site;
- operational management, in the form of best practice controls on the day-to-day running of the Site; and
- a bespoke noise insulation scheme to protect those properties worst-affected by the Proposed Development.

7.3.5 The Parameters of the Proposed Development have been informed by the noise considerations, particularly in terms of the Parameters of the Development Zones, the heights and lengths of the landscaped bunds, and the arrangement and location of the rail terminal and other development infrastructure.

7.3.6 The Applicant has carefully considered the scheme development to ensure that the potential noise effects of the Proposed Development are fully taken into account and can be limited and mitigated where practical.

### Noise Insulation Scheme

7.3.7 Consistent with its vision for the Proposed Development, FAL has proposed to commit to a bespoke noise insulation scheme, in which an entitlement to noise insulation would be triggered at levels lower than levels that would normally give rise to an entitlement to a claim under the Noise Insulation Regulations.

7.3.8 That scheme is proposed to offer noise insulation and ventilation (so that windows can be kept closed) where the rating level from the Proposed Development exceeds the background sound level by 10 db or more, or where the noise increase is less, but existing

noise conditions mean that a satisfactory internal noise environment would not be achieved.

7.3.9 The bespoke scheme also proposes to bring forward an entitlement to noise insulation during the construction period. That entitlement is likely to arise in respect of largely the same properties that may subsequently be entitled to operational noise mitigation, but would have the effect of bringing that mitigation forward.

## 7.4 Lighting

7.4.1 A Lighting Assessment has been undertaken at the Site, which has provided an understanding of the existing lighting conditions, revealing the extent of existing light sources in the local area, with this work informing the Lighting Strategy.

7.4.2 The Lighting Strategy has focused on:

- Taking consideration of the existing site conditions and the surrounding receptors;
- Ecological considerations;
- Providing a safe and secure environment for all staff and other users after dark;
- Minimising light spill and light pollution to the surrounding areas and to sensitive areas within the Site; and
- Minimising sky glow.

7.4.3 It is recognised that light has the potential to intrude into night time views and may adversely affect ecological receptors (such as bats and other wildlife). The Lighting Strategy has therefore been the subject of considerable consultation with Staffordshire County Council to ensure that the mitigation proposed is appropriate and sufficient. Measures are proposed in the Strategy that ensure lighting is appropriate to its context and that effects are negligible or non-existent.

7.4.4 The Lighting Strategy will achieve this through reducing external lighting column heights across the Site and using down-lighting units across the site to illuminate only the working areas as required.

7.4.5 The Lighting Strategy ensures that all forms of light pollution will be minimised and, in many instances, prevented altogether, minimising the impact (in lighting terms) of the Proposed Development on local amenity, dark landscapes and ecology.

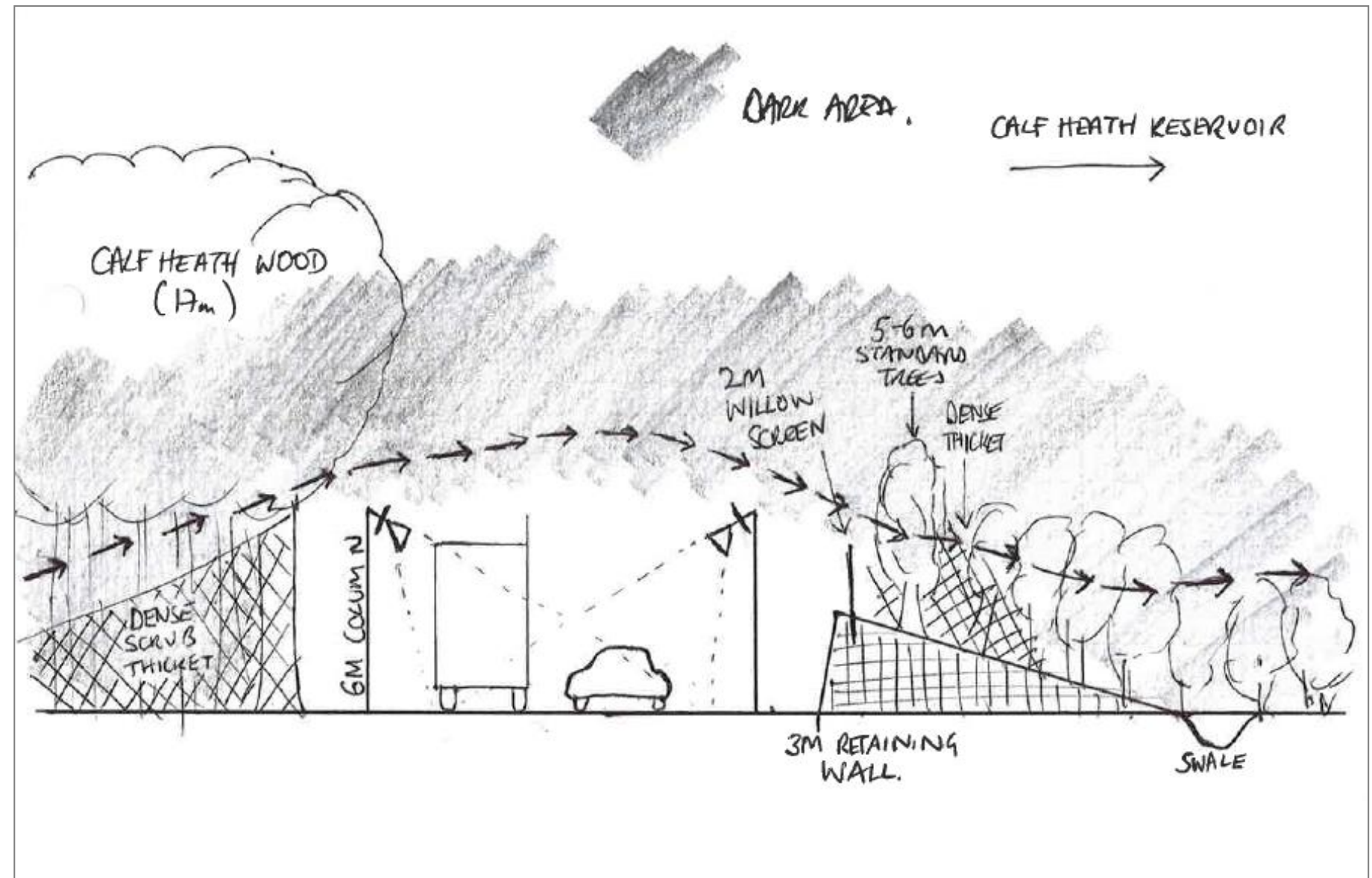


Figure 67: Example of how a dark corridor may cross a road lit to adoptable standards



## 7.5 Building Design Principles

- 7.5.1 The detailed design and scale of the individual warehouse buildings will respond to the ultimate occupier's operational needs and requirements. The size and height of the buildings will be within the parameters set by the Parameters Plan, which are designed to accommodate existing market requirements, whilst also allowing for the required flexibility to meet future market requirements.
- 7.5.2 The design philosophy is to provide a high-quality innovative scheme that meets occupiers' requirements for flexibility, establishing a visual balance between variety and unity throughout the development, while maintaining a coherent and logical philosophy in the overall site massing. The positioning of buildings will create view corridors through the Site to ensure visual permeability and explore the use of materials of different textures and colours to enhance the architectural composition of individual buildings.

### Scale and Heights

- 7.5.3 The overall scale of the development and the provision of perimeter landscaped zones will allow high-bay warehouses of up to 26m clear internal dimensions (to underside of haunch), to be located towards the centre of the development, in the 30m height zones.
- 7.5.4 The Parameter Plans provide smaller scale development plots adjacent to boundaries which are closer to residential areas and the canal corridor. This would generally provide sites for units with smaller footprint areas and standard lower clear internal heights below 24m, but does not preclude the development of high bay warehouses.
- 7.5.5 The required building height is largely determined by the racking systems used to store goods and the handling equipment used to 'pick' goods and move them around the warehouse prior to shipment, as well as the limitations imposed by high level sprinkler systems, commonly employed on large logistics buildings.

### Warehouse Design

- 7.5.6 High quality offices and development workshops are important within the warehouses for the skilled jobs that will be created. Excellent working environments and welfare facilities are essential for warehouse operators to retain highly-skilled employees.
- 7.5.7 Each individual development plot will generally include a warehouse suitable for the storage of goods, and an associated main office over two or three floors.
- 7.5.8 Office components will normally be expected to be equivalent to 5 - 15% of the overall building area. Offices will be designed to maximise the use of natural ventilation and light by limiting depth, but will ultimately be a response to operating requirements of the occupier.
- 7.5.9 Transport offices will normally be provided within the HGV yard areas which provide welfare facilities for the HGV drivers. These generally include an HGV reception / waiting area with seating, toilets and vending machines for the purchase of food and drinks and are areas where drivers can take a rest break if required.
- 7.5.10 The footprint of each unit and associated service will be based around maximising servicing capacity along each available façade, principally the two long elevations to each unit. To achieve this, a ground floor ratio of 1:2 (short: long façade) to 1:3 will usually be employed. This will enable the long façade to house loading docks and level access doors, giving access to the stored goods within. It also allows a high degree of visibility from office accommodation adjacent to the yards, providing good observation for control of safe and efficient vehicle movement.
- 7.5.11 Dock levellers (doors which allow HGVs to unload into the warehouse) would normally be provided in each unit at a ratio of approximately 1 per 929 sq m with level access loading doors at 1 per 4,645 sq m. Dock levellers will be provided, as required, with flexible shelters to minimise the ingress of air and water into the building.

### External Materials

- 7.5.12 Consideration has been given to the use of colours and the types of long-lasting cladding panel that would be appropriate for this location (whilst ensuring that the buildings remain attractive to potential operators). Advice has also been given by Natural England. The exact colours used will be confirmed at the detailed design stage, with the agreement of the local planning authority.
- 7.5.13 Relevant best design practice will be drawn upon, with the elevational treatment to be designed to minimise the visual impact of the buildings on sensitive views, while allowing for interest and activity at the entrances to the development.
- 7.5.14 Particular attention will be paid to the design and colour treatments, and to measures to mitigate and minimise as far as practicable the visual effects of the buildings from surrounding viewpoints.
- 7.5.15 A range of external materials and colour palettes are available to enhance building elevations and to soften the appearance and break up the visual proportions of larger building elevations. The elevations will respond to the relevant visible background. In some instances, this will mean when viewed from low levels such as the canal footpath the buildings will be against a lighter blue / grey sky so the elevations in these locations will be from the lighter palette of colours.
- 7.5.16 When the scheme is viewed from a distance at a higher point such as Shoal Hill, the backdrop to the buildings will be the dark green landscape, and therefore the building elevations can respond to this with colours from a darker palette.
- 7.5.17 The warehouse units will typically be constructed from either prefabricated composite insulated metal panels or sheets of profiled steel or aluminium. Cladding at higher levels will require less protection and can be constructed of less durable and lighter coloured metal cladding materials.
- 7.5.18 The selection, detailing and maintenance of all external materials will be considered at the outset of the design process for each building. Only products with proven long life span and high quality

will be specified. Particular attention will be given to detailing to ensure continued performance, especially at joints and abutments.

- 7.5.19 Occupiers will be encouraged to use new and innovative products which may come to market during the time frame proposed for this development, particularly those materials with good recyclable or recycled properties, will be encouraged across the site with prior agreement with the Planning Authority.
- 7.5.20 Dock shelters will generally be black in colour. Insulated sectional overhead doors will include safety windows and will be coloured to suit the overall elevation treatment. The low-level position of these features on the elevation will allow the perimeter landscaping to provide effective screening.
- 7.5.21 Development plots will utilise a range of surfacing specifications and materials, depending on the area and type of use. These are likely to include a combination of block paving, macadam and concrete. Fencing within and surrounding these areas is also likely to include a mix of different types and heights.

### Roofing Materials

- 7.5.22 Whilst roof forms of most warehouse units will need to respond to the functional parameters required by an occupier, the form and similar detailing of the main parts of the roof will help to achieve a consistent vocabulary and create a coherent language for the site.
- 7.5.23 The ancillary offices for each unit will form a strong identity reinforcing the sense of place. The form and position of offices should provide the opportunity to break the roof line and create a prominent feature of the offices at the same time. Office roof lines may be more expressive due to lower structural spans. Barrel vaults could be employed to emphasize the main entrance and further interest may be provided by sloping the main office roof to frame the entrance.
- 7.5.24 Roof colours will respond to the particular setting. For example, a larger warehouse building may use a light coloured material to reduce the apparent height and mass of the building, whilst a smaller ancillary office may have a darker colour to emphasise the lower roofline.
- 7.5.25 Roof-mounted plant will be screened behind roof parapet walls so that it will not be visible from the ground.
- 7.5.26 Further consideration of the design treatment for the building elevations and roof treatments will be undertaken at the detailed design stage.
- 7.5.27 The warehouse roofs will be designed to be 100% PV-Ready, this means that the roof structure and panel finish will be stronger to allow for the installation of PV panels if deemed appropriate for the building's use.



Figure 68: A high quality distribution building in Chatterley Valley, Stoke designed with consideration to the surrounding landscape

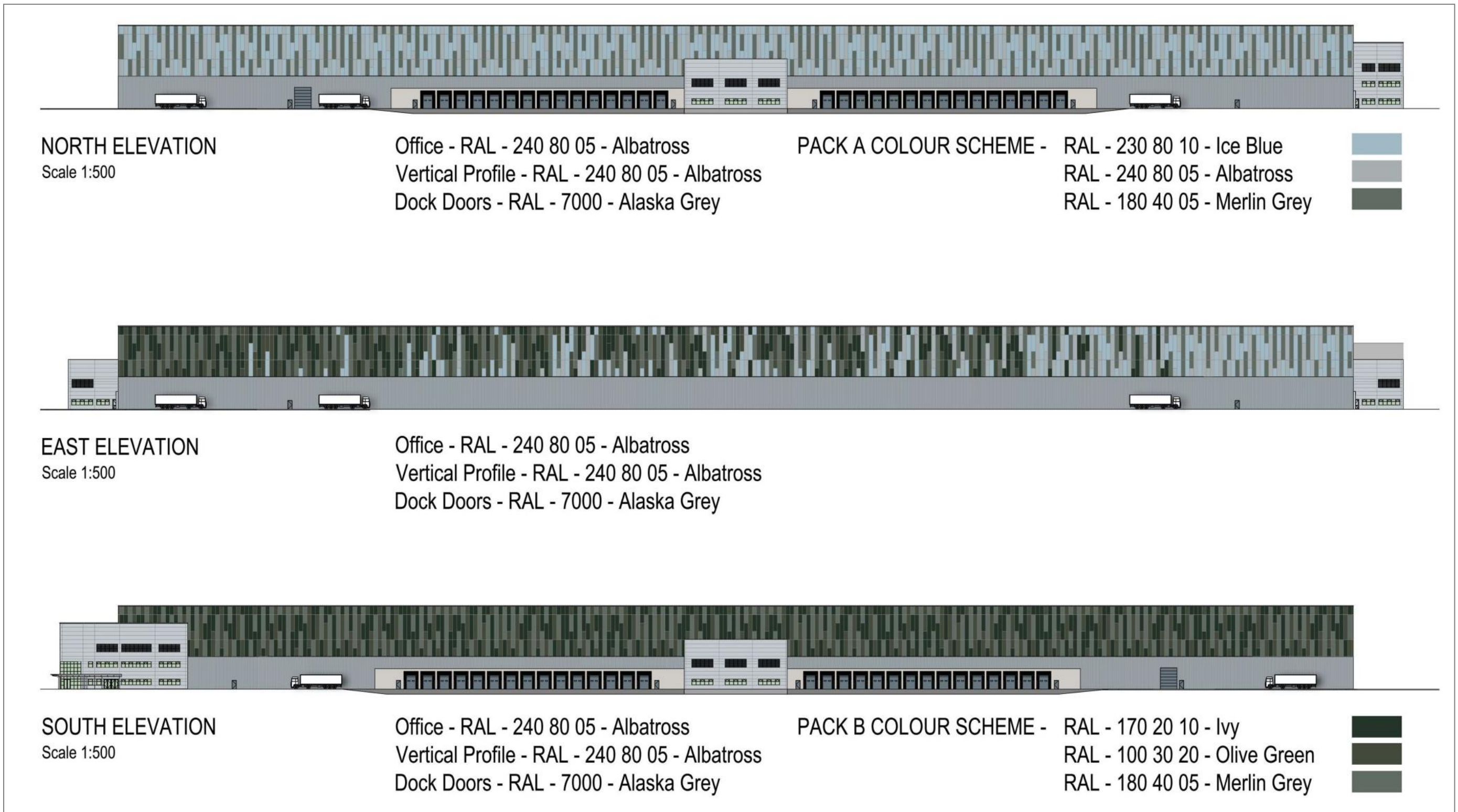


Figure 69: Indicative WMI colour palette

## 7.6 HGV and Car Parking

### HGV and Car Parking

- 7.6.1 HGV and car parking standards for the development will be based upon industry standards and to ensure the avoidance of parking on the internal estate roads.
- 7.6.2 All HGV and car parking required will be provided on the individual development plots, typically at a ratio of 1 HGV parking space per 372 sq m of warehouse GIA and 1 car parking space per 30 sq m of office GIA and / or 1 car parking space per 100 sq m of warehouse GIA.
- 7.6.3 Electric car parking spaces will typically be provided at a ratio of 5% of the total car park.
- 7.6.4 All car parks will be designed to incorporate cycle and motorcycle shelters at a ratio to meet the local council guidelines.
- 7.6.5 Security gatehouses will be designed to accommodate incoming queuing goods vehicles whilst maintaining a free flow of cars and cycles to designated parking areas.

### Early Arrival Bays

- 7.6.6 No parking will be permitted on the adopted or internal roads.
- 7.6.7 Early HGV arrival bays will be provided on each plot prior to the gatehouse to allow the safe parking of HGVs before entry onto the plots. This will remove the need for HGV parking within the Site (apart from the HGV parking to be provided at the Rail Terminal).
- 7.6.8 Early arrival bays will be typically provided at a ratio of 1 per 7,000 sq m of warehouse GIA, with a minimum number of 3 per plot.
- 7.6.9 Rail / park shunting services (tugmasters) for the delivery of containers to and from the rail terminal operations will also be provided.

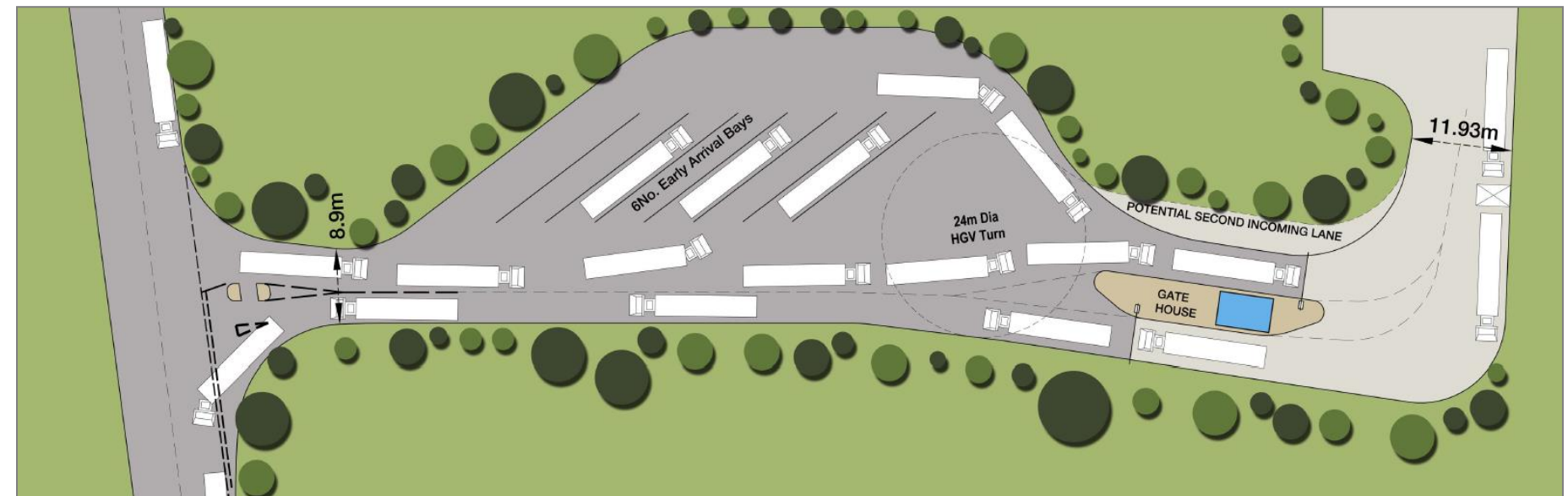


Figure 70: Option 1 WMI HGV Early Arrival Bay

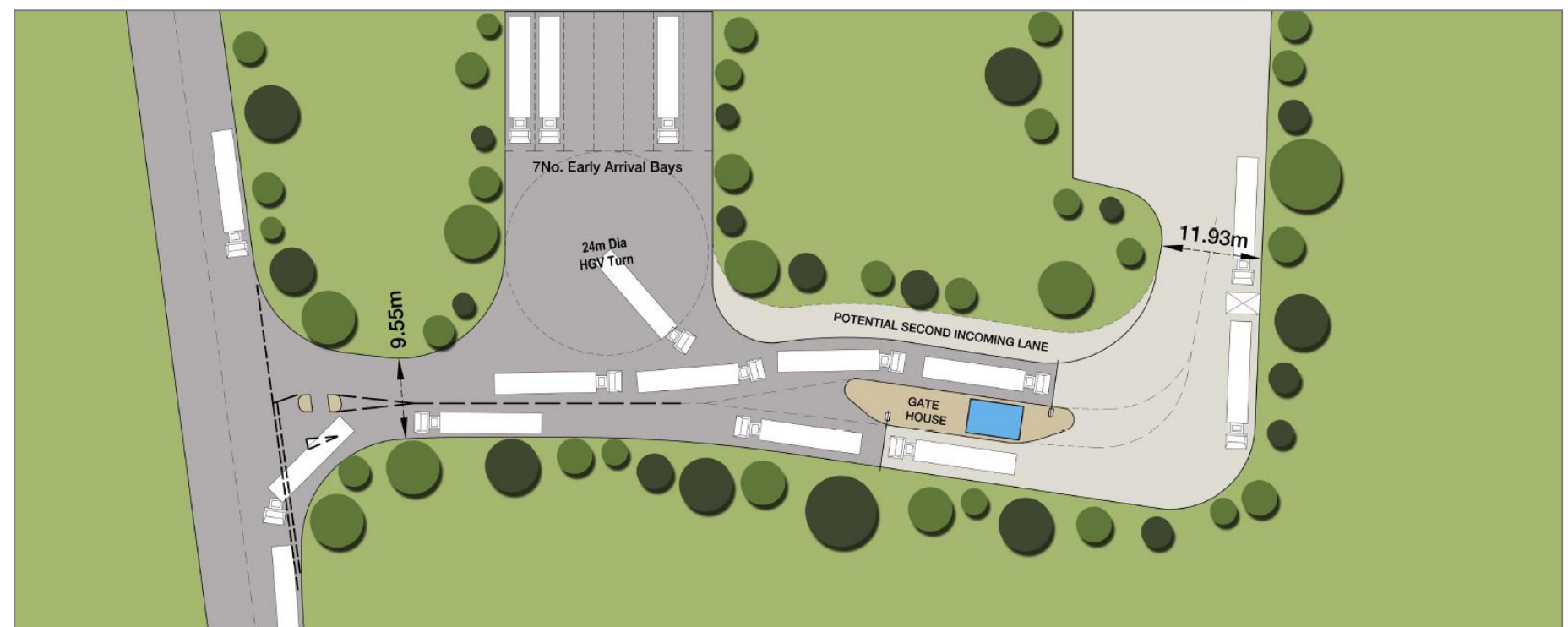


Figure 71: Option 2 WMI HGV Early Arrival Bay

## **7.7 Sustainability**

### Delivery of the Sustainable Vision

- 7.7.1 The warehousing buildings will be designed to high environmental and quality standards, with high energy efficiency performance and an exemplar approach based on low-energy design principles.
- 7.7.2 In terms of the built development, the Project Team has considered and respected the existing features of the site in preserving and enhancing the existing landscape, arboricultural and ecological diversity, where possible. Extensive mitigation areas which will be subject to careful long-term management are provided where existing features are to be lost.
- 7.7.3 Throughout the design process close links have been formed with the supply chain. Consultants, contractors, sub-contractors and suppliers have been involved at all stages to achieve a sustainable development. These contacts will be maintained throughout the detailed design and construction phases in order to reduce waste and develop suitable solutions for particular applications.

### BREEAM and WELL

- 7.7.4 The buildings will be designed to achieve a Very Good rating under 'Building Research Establishment Environmental Assessment Method' (BREEAM) 2016 criteria, incorporating measures to reduce energy demand and carbon dioxide emissions.
- 7.7.5 Office areas will be designed to incorporate the principles of the WELL™ standard. WELL™ is the leading tool for advancing health and well-being in buildings globally, and ensures that working environments are spaces that people enjoy, bringing additional health benefits such as plenty of natural daylight and views out of the building, along with encouragement to use the stairs between floors and cycle to work when appropriate.
- 7.7.6 A Building Management System may be provided to minimise the carbon footprint of the building throughout its operational life.

- 7.7.7 The warehouse roofs will be designed to be 100% PV-Ready, this means that the roof structure and panel finish will be stronger to allow for the installation of PV panels if deemed appropriate for the building's use.

## 7.8 Drainage

### Surface Water Drainage

- 7.8.1 The proposed Surface Water Drainage Strategy is described in detail in Chapter 16 of the **ES**.
- 7.8.2 It is envisaged that the warehouse roofs will be drained to conventional buried pipe drainage networks, the yard areas will be drained via a mixture of linear drainage systems and gullies which will in turn discharge into the buried pipe systems.
- 7.8.3 It is proposed that the buried pipe system for each plot will discharge freely into a network of conveyance channels which will carry the run-off to open water attenuation basins strategically placed across the Site, whilst also filtering suspended solids from the surface water. The access roads running throughout the Site will be drained via a combination of filter drains, kerb drains and gullies, before discharging at shallow depths into the adjacent swales.
- 7.8.4 The swale and pipe networks are proposed to discharge via open attenuation basins where the rate of discharge is to be restricted, either by proprietary in-line flow controls or via the use of pumps. The resultant build-up of storm water will be stored in the basins and released slowly into the receiving watercourses, to ensure that the site and surrounding property is not flooded
- 7.8.5 The networks have been designed with restricted flow rates which are equivalent to the average annual peak flow rate for each of the catchments. Meaning that the flash flood effect from heavy rainfall events will be minimised, with mitigation ensuring water cannot leave the Site at the higher rates
- 7.8.6 Storage provided in the networks will accommodate the runoff from design storms up to the critical 1 in 100 annual probability event and include an additional 40% allowance for climate change. This is in line with the latest legislation and best practice.

- 7.8.7 For the treatment of surface water runoff is proposed to utilise sustainable drainage system (SuDS) principles rather than placing reliance on proprietary treatment systems wherever possible. A minimum of three stages of treatment is to be provided to filter out suspended solids and treat the captured storm water.
- 7.8.8 Where it has not been possible to employ SuDS treatment principles due to spatial constraints, it is anticipated that conventional proprietary treatment systems will be specified including petrol interceptors and bypass separators. This is true for the areas to the west of the WCML where the layout and topography are not conducive to large open storage structures.

### Diversions

- 7.8.9 To make way for the development there will be a requirement to divert various land drainage ditches and existing water features around the site. The primary ditch network which carries surface water from the central area of the site to an outfall at the west currently passes below the canal and the WCML. This will be diverted to avoid the proposed buildings and new pipework will be installed below the Canal and WCML
- 7.8.10 Further diversion works will be required at the north of the site where a feeder ditch, which supplies water to the canal from Calf Heath Reservoir, runs alongside the A5. To allow construction of the new roundabout on the A5 it is proposed to divert the ditch and install a culvert beneath the roundabout.



Figure 72: Land drainage ditch diversion

Foul Water Drainage

- 7.8.11 The proposed Foul Water Drainage Strategy is described in detail in Chapter 16 of the **ES**.
- 7.8.12 The foul drainage layout for the developed has been designed to minimise disruption to existing infrastructure and, in particular, avoids the installation of pipework below the Canal and the WCML, by utilising two connection points to the existing foul sewer network.
- 7.8.13 It is envisaged that foul drainage from the proposed buildings will discharge to a below ground piped network, which will follow the general route of the new roads. To achieve the required falls across the site without excavating unfeasibly deep trenches, it is proposed that pumping stations are installed at strategic locations to elevate the networks.
- 7.8.14 Severn Trent Water have been consulted during the development of the foul drainage design and it has been confirmed that the receiving sewage treatment works (Coven Heath STW) has capacity to accommodate the entire development.
- 7.8.15 It is anticipated that reinforcement works to the existing sewer network will be minimised through the provision of foul storage within the new drainage systems on the site and by restriction of the flow rates at the proposed pumping stations.

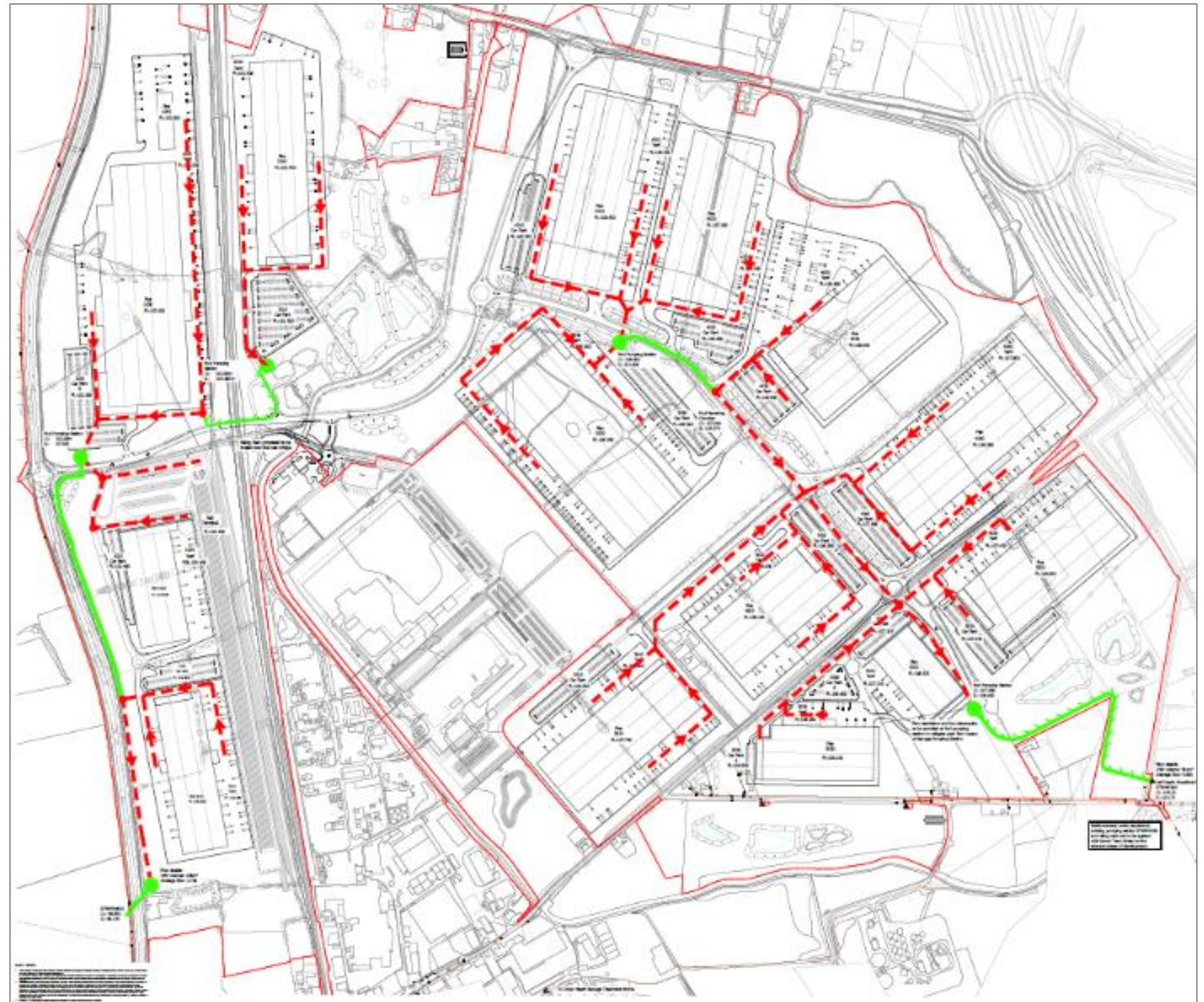


Figure 73: Illustrative Proposed Foul Water Drainage Layout



## 7.9 Canal Enhancement Strategy

7.9.1 In addition to the embedded mitigation, further mitigation measures have been identified to reduce, and where possible, mitigate harm to the Canal Conservation Area and to improve the setting of heritage assets.

7.9.2 These mitigation measures are provided by the Canal Enhancement Strategy.

7.9.3 The Canal Enhancement Strategy will only apply to the area of the Canal which is located within the Order Limits of the Proposed Development.

### Removal of Pipe and Access Bridges

7.9.4 The Canal Enhancement Strategy will include the removal of redundant pipe bridges which traverse the Canal in the central part of the Site. The removal of pipe and access bridges which cross the Canal between the SI and Bericote sites will enhance the character and appearance of the Conservation Area.

### Canal Bridge

7.9.5 To manage the effect of the new road bridge that will cross the canal at Gravelly Way, the new bridge has been subject of careful design to respect the historic character of the Conservation Area.

7.9.6 The bridge is located at a point at which the Canal meanders to the east, which means it will not undermine the linear quality of the Canal by affecting any long view of the waterway.

7.9.7 It is anticipated that the bridge will comprise exposed brick walls, internally and externally, on a concrete abutment to meet the frame.

7.9.8 This design responds to the character of existing historic bridges in its materiality and accords with guidance prepared by the Canal and River Trust ('CRT') (HS2 guidance) and consultation with CRT during design development.

7.9.9 The detailed design of the proposed canal bridge will be subject to further consultation and approval in due course.

### Towpath

7.9.10 The Canal Enhancement Strategy will include works to improve the Canal towpath.

7.9.11 These works are expected to comprise resurfacing the towpath with a suitable surface (e.g. bound / compacted gravel).

7.9.12 The improvements to the towpath in particular will improve connectivity of the Site.

### Improved Pedestrian Connections and Legibility

7.9.13 The creation of two new pedestrian connections to the Canal towpath from Croft Lane Community Park.

7.9.14 Improvements to the existing pedestrian access points at the A5, Hoppe Roundabout and Station Road.

7.9.15 The introduction of interpretation boards and signage to improve the visitor experience for users of the Canal.



Figure 74: Interpretation Board in Lichfield



Figure 75: Redundant Access Bridge over the Canal

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## 8. Conclusions

## 8.1 Conclusions

- 8.1.1 The WMI Site offers the best opportunity to create a SRFI development in an area of identified need, with the Site providing the ideal characteristics for a SRFI with immediate connectivity to the M6 and high quality connections to the WCML.
- 8.1.2 The result of the work undertaken since the inception of the Proposed Development is that a SRFI of exceptional operational quality has been designed within a framework that has been heavily influenced by community consultation, environmental considerations and occupier needs.
- 8.1.3 The Proposed Development complies with the NPS and the careful design and assessment of the Scheme has ensured that it has evolved to respond sensitively to the characteristics of the surrounding area and, in particular, to limit and mitigate its effects, as required by the NPS.
- 8.1.4 The **Planning Statement** [Document 7.1A] presents all of the information necessary to review the WMI proposals within the context of planning policy and demonstrates how the Proposed Development has been refined to respond to the NPS, with the Project Team working carefully to minimise and mitigate as far as possible any and all adverse impacts.
- 8.1.5 The Proposed Development is capable of supporting up to 10 trains per day and a rail-served development of up to 743,200 sq m, with modern warehousing buildings, generating substantial economic and sustainability benefits, which would be achieved through the transfer of freight from road to rail.
- 8.1.6 Subject to the detailed terms of the DCO itself, therefore, it would be appropriate for consent to be granted, in accordance with, and in order to satisfy, government policy.



