

Chesterfield Borough Council,  
Chatsworth Settlement Trustees &  
Rhodia Ltd

**HS2 Infrastructure Maintenance  
Depot (Staveley)**

**High Level Option Appraisal**

Issue | 30 January 2014

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 234106-00

**Ove Arup & Partners Ltd**  
Admiral House Rose Wharf  
78 East Street  
Leeds LS9 8EE  
United Kingdom  
[www.arup.com](http://www.arup.com)

**ARUP**

# Contents

---

	Page
<b>Executive Summary</b>	<b>1</b>
<b>1 Introduction</b>	<b>2</b>
<b>2 Context</b>	<b>3</b>
2.1 HS2	3
2.2 Staveley Works Area	4
2.3 Local Planning Policy – Core Strategy	4
2.4 Local Planning Policy – Area Action Plan	5
2.5 Local Interests	6
<b>3 Approach</b>	<b>8</b>
3.1 Study Area	8
3.2 Quantitative Criteria	8
3.3 Scoring of Quantitative Criteria	10
3.4 Qualitative Criteria	10
3.5 Scenario Assessment Criteria Summary	11
3.6 Constraints and Limitations	11
3.7 Liaison	12
<b>4 Infrastructure Maintenance Depot Development Description</b>	<b>13</b>
<b>5 Defining the Impact of the IMD</b>	<b>15</b>
5.1 Scenario B1	15
5.2 Scenario B2	16
5.3 Scenario B1 and B2 Comparison	18
<b>6 Potential Solutions</b>	<b>19</b>
6.1 Scenario S1	19
6.2 Scenario S2	21
6.3 Scenario S3	23
6.4 Scenario S4	26
6.5 Scenario S5	28
<b>7 Internal Reconfiguration of the IMD</b>	<b>29</b>
7.1 Shortening the IMD	29
7.2 Narrowing the IMD at its Western End	29
7.3 Relocating the Sidings	30
7.4 Adjusting the Route of the CSRR	30
7.5 Liaison with HS2 Ltd	31

## **8 Conclusion**

**33**

### **Drawing TRA001**

#### **Appendix A**

Study Brief

#### **Appendix B**

Scenario B1 Layout

#### **Appendix C**

Scenario B2 Proposed Layout

#### **Appendix D**

Scenario S1 Proposed Layout

#### **Appendix E**

Scenario S2 Proposed Layout

#### **Appendix F**

Scenario S3 Proposed Layout

#### **Appendix G**

Scenario S4 Proposed Layout

#### **Appendix H**

Staveley Landfill Plan

#### **Appendix I**

Calvert Infrastructure Maintenance Depot Layout

#### **Appendix J**

Notes of Meeting with HS2 Ltd

## Executive Summary

---

The purpose of this report is to understand and evaluate the potential impact of the proposed High Speed Rail 2 (HS2) Infrastructure Maintenance Depot (IMD) on the Staveley Works Area (the site), and to explore alternative layouts accordingly.

There is a strong need for redevelopment of the site. This is due to the fact that it is a large brownfield site (c.200 hectares) which currently negates the regeneration of a wider area with high levels of multiple deprivation (i.e. high unemployment, poor health and low educational attainment/skills).

As such, the Chesterfield Core Strategy (adopted in 2013) prioritises the site for redevelopment, making it the only Strategic Allocation in the Borough and providing for a Staveley and Rother Valley Corridor Area Action Plan (AAP) to address site-related issues and provide for residential and employment uses.

However, the implementation of the AAP Masterplan would be severely frustrated by the current layout of the proposed IMD-which would negate the delivery of the critical Chesterfield to Staveley Regeneration Route (CSRR – a spine road) through the site.

Chesterfield Borough Council, Derbyshire County Council, The Chatsworth Settlement Trustees and Rhodia Ltd have therefore commissioned a suite of studies to consider key issues and inform HS2 Consultation responses.

This report confirms that the current layout of the proposed IMD will have a significant negative impact on the delivery of the (AAP) Masterplan and thereby harm the viability of redevelopment and regeneration in the area.

However, this report also shows that a minor relocation of the IMD footprint to the north and adjacent to the minerals railway line (“Scenario 4”) should create sufficient space for the CSRR to be delivered, thus maintaining the viability of the redevelopment of the site in line with the Core Strategy. Some minor modifications to the internal configuration of the IMD and the alignment of the CSRR may also be required.

At a meeting on 7 January 2014, HS2 Ltd confirmed it understood the issues affecting the delivery of the AAP Masterplan, and will now review the IMD layout in line with Scenario S4 so as to help deliver the AAP.

As such, it is understood that HS2 Ltd will explore the potential for the relocation and reconfiguration of the IMD footprint, and seek to amend it to form part of the preferred HS2 scheme to be published in due course.

# 1 Introduction

---

This report has been prepared by Arup on behalf of Chatsworth Settlement Trustees (CST), Chesterfield Borough Council (CBC) and Rhodia Ltd (Rhodia). The purpose of the report is to help to understand and evaluate the potential impact of the proposed High Speed Rail 2 (HS2) Infrastructure Maintenance Depot (IMD) on the Staveley Works Area site (the site), evaluate whether the current IMD proposal represents the optimal solution and explore alternative layouts relative to key site issues.

The structure of the report is as follows:

- Section 2 describes the context and background to the study;
- Section 3 defines the approach and methodology used to assess each of the scenarios;
- Section 4 provides a brief description of the proposed IMD development;
- Section 5 provides an assessment of two baseline scenarios (i.e. with and without the IMD) and defines the impact of the IMD on the Site;
- Section 6 presents the alternative scenarios considered and assesses the impact of each scenario;
- Section 7 presents a discussion of the potential to reconfigure the internal layout of the IMD;
- Section 8 provides a conclusion to the report and recommendation for a preferred scenario.

## 2 Context

---

This section of the report sets out the context and background to HS2, the Staveley Works Area and relevant local planning policies and local interests.

### 2.1 HS2

HS2 is the Government's proposed high speed rail network linking London with Birmingham (Phase One) and beyond to Manchester and Leeds (Phase Two).

In January 2012, the then Secretary of State for Transport, Justine Greening MP, announced that she had decided to proceed with HS2 Ltd's recommended route for Phase One. Broader recommendations for Phase Two were also accepted. HS2 Ltd is currently producing legislation for submission to Parliament, comprising an Environmental Statement on the Phase One route and a Hybrid Bill<sup>1</sup>.

In January 2013, the current Secretary of State for Transport, Patrick McLoughlin MP, announced the initial preferred routes for Phase Two, comprising a western branch of the high speed rail network connecting Birmingham and Manchester (via Manchester Airport); and an eastern branch connecting Birmingham with Leeds via a new East Midlands Hub at Toton and a new station at Sheffield Meadowhall. A public consultation on the routes, stations and depots for Phase Two is currently underway and will conclude at the end of January 2014.

It is anticipated that Phase Two of the scheme alone would provide a total of 1,400 permanent jobs, with up to 10,000 jobs created during the busiest part of construction. Additionally the scheme would be expected to support some 49,700 jobs and 5,350 new houses through its enhancement of the development potential around stations along the route<sup>2</sup>.

Critical to the operation and maintenance of each phase of HS2 is the provision of an IMD, with a depot proposed on each leg of Phase Two. This report considers the impact of the construction of an IMD to serve the eastern leg of Phase Two at a brownfield site in Staveley, Chesterfield.

The IMD is required for use in maintaining the railway infrastructure on the eastern leg of Phase Two. It may also serve as a 'rail head' (i.e. construction depot to support the building of the HS2 line). A detailed description of the proposed depot is presented at Section 4.

The current indicative proposed timeline for Phase Two is understood to be as follows:-

- 31 January 2014 – Public consultation ends;
- End of 2014 – Final decision on proposed route, station and depot options for Phase Two;
- 2015 – Consultation on safeguarding of chosen route;
- Post May 2015 – Phase Two hybrid bill brought forward;

---

<sup>1</sup> High Speed Rail London to the West Midlands and Beyond: HS2 Technical Appendix, HS2 Ltd, 2009

<sup>2</sup> HS2 Phase Two Initial Preferred Scheme: Sustainability Summary, HS2 Ltd, 2013

- 2016 – Phase Two Exceptional Hardship Scheme replaced by statutory measures;
- 2024 – Construction of Phase Two begins;
- 2031 – Completion of construction and testing of route; and
- 2032/33 – Opening of Phase Two.

## 2.2 Staveley Works Area

The Staveley Works Area (the site) consists of approximately 200 hectares of mainly derelict land west of Staveley. The site was formerly used for a range of industrial and other activities which formed the focus of employment for residents in the surrounding area (in particular the settlements of Staveley, Barrow Hill and Hollingwood). The decline in traditional industries and loss of economic activity on the site has contributed to socio-economic decline in the local communities.

The Barrow Hill Super Output Area (in which the majority of the site falls) ranks within the bottom 10% locally, and nationally, in terms of indices of multiple deprivation, with particular problems associated with employment, education, skills and health. Moreover, the continued presence of a large derelict site between the settlements of Staveley, Barrow Hill and Hollingwood is a major eyesore in the area, and thereby negates the wider regeneration of the communities of Staveley and Barrow Hill in particular.

There is a pressing need to alleviate deprivation within the communities around the site. The Staveley Works Area offers a major strategic regeneration opportunity, unique within Chesterfield Borough, for new development to bring benefits to existing local communities, the Borough as a whole and the North Derbyshire sub-region beyond.

The site's potential to accommodate a large amount of residential, employment and other development on a brownfield site, in an area particularly hard hit by a decline in traditional employment has been acknowledged within local planning policy.

## 2.3 Local Planning Policy – Core Strategy

Redevelopment of the Staveley Works Area is one of the top priorities of Chesterfield Borough Council. The Chesterfield Local Plan: Core Strategy (adopted in 2013) identifies the Staveley Works Area as a Strategic Allocation (the 'Staveley and Rother Valley Corridor'). This is the only Strategic Allocation in the Borough. The Core Strategy prioritises the redevelopment of the site accordingly.

Securing redevelopment of the site is central to achieving the overall Spatial Vision of the Core Strategy, many of its Strategic Objectives and its Spatial Strategy.

Core Strategy Policy CS1 'Spatial Strategy', for example, directs 26% of the Borough's housing requirement within the plan period (2011 – 2031) to the site (around 2,000 dwellings). The policy also confirms the site as a key area for employment uses.

Reflecting its importance, the Core Strategy includes a specific policy for the site – Policy PS5 ‘Staveley and Rother Valley Corridor’. This affirms that the Council will publish an Area Action Plan *‘demonstrating how the area will be comprehensively redeveloped to create a sustainable urban extension in a landscape setting through a masterplanned approach’*. The objectives of the masterplan will include:

- Delivery of a range of new housing opportunities (up to 2,000 dwellings);
- Creation of employment opportunities (up to 50ha);
- Provision of a new local centre to serve new development and existing local communities (Barrow Hill and Hollingwood);
- Enhanced landscape quality and green infrastructure;
- Delivery of access and transport improvements;
- Improved water management; and
- Conservation and enhancement of the historic environment.

CBC has consulted on a Community Infrastructure Levy (CIL) Draft Charging Schedule (November 2013). CBC’s CIL proposals identify a number of infrastructure improvements that would help deliver regeneration within the site. It is proposed that CIL receipts from development across the Borough would be used to help deliver these improvements, underlining the strategic importance of redevelopment of the site to the Borough as a whole.

## 2.4 Local Planning Policy – Area Action Plan

In view of the acknowledged priority for redevelopment of the site, CBC along with partners prepared evidence to support the consideration of development options, leading to ‘Issues and Options’ consultation in 2009. The resulting technical reports and initial masterplanning confirmed the Staveley Works Area to be a complex site.

Following consideration of the feedback on the initial draft options, CBC consulted on the Staveley and Rother Valley Corridor Area Action Plan (AAP) Development Plan Document (Preferred Option) in 2012. This preceded publication of the HS2 Phase 2 proposals. The draft AAP served to inform, and was itself informed by, preparation of the Core Strategy.

Consistent with the Core Strategy, including Policy PS5, the AAP outlines the importance of the Staveley Works Area as a strategic redevelopment opportunity, the regeneration of which will lead to wide ranging social, economic and environmental benefits to the local community, the Borough (of Chesterfield) and the region.

The AAP contains regeneration proposals for the former industrial land and an indicative Masterplan, which demonstrates how the area will be comprehensively redeveloped to create a ‘Sustainable Urban Extension’ to Chesterfield. It aims to *‘awaken the potential of the area by providing a framework for its redevelopment’*. It also provides a guide for co-operation between landowners and other interested parties and to help make decisions on development proposals within it. The AAP provides a ‘blueprint’ for comprehensive development to make the area a safe and attractive place to live, work and invest in.

The AAP sets out a number of objectives, which attempt to achieve the vision for redevelopment, including:

- Regeneration – the delivery of new, accessible job opportunities;
- Housing – the delivery of up to 2,000 dwellings;
- Economy – the delivery of up to 50 hectares of employment land; and
- Connectivity – the provision of the A619 Chesterfield - Staveley Regeneration Route through the Site, intended to facilitate development along the corridor, along with providing relief to the congested A619 link, and a strategic link between Chesterfield and the M1.

These objectives have informed the assessment within this report of the strategic policy fit of each scenario in order to ensure that the site delivers benefits not only within the confines of the site, but also to the wider sub-region.

Masterplanning commissioned by CST<sup>3</sup> informed preparation of the AAP and the Core Strategy.

At the point that the AAP was developed, the potential for HS2 to impact upon the Site had not emerged. However, the flexibility that is inherent within the AAP Masterplan will help to ensure that it can be adapted to take account of the impact of the IMD and maximise the opportunities that HS2 presents for the area.

CBC is looking to produce an updated draft AAP (revised Preferred Options) DPD this Summer that will respond to and seek to accommodate the IMD proposal. Flexibility on the part of HS2 and clarity in respect of its requirements for the IMD will help to ensure the AAP emerges as a responsive and effective policy and development tool so as to maximise the opportunities for securing much needed regenerative development on the site.

## 2.5 Local Interests

Given the strategic need for the regeneration of the Staveley Works Area site, a range of partners have been working on related planning, development and transport capacity issues since 2006. These include:

- Chesterfield Borough Council (CBC) – as Local Planning Authority;
- Derbyshire County Council (DCC) – as Local Highways Authority;
- Chatsworth Settlement Trustees (CST) – as landowner of the majority of the site;
- Rhodia Ltd (Rhodia) as tenant of CST and landowner of a small part of the site.

In view of the potential impact of the proposed HS2 IMD on related interests, these partners have formed an informal consortium to commission a suite of inter-related studies to consider key issues and inform respective responses to the HS2 Consultation. These studies are:

- HS2 Infrastructure Maintenance Depot (Staveley) - High Level Option Appraisal (Arup) funded by CBC, CST and Rhodia;

---

<sup>3</sup> Staveley Works Area Regeneration Masterplan, Capita Symonds, 2012

- HS2 Infrastructure Maintenance Depot (Staveley) - High Level Appraisal of Impacts on A619 Chesterfield - Staveley Regeneration Route (URS) funded by DCC; and
- HS2 Infrastructure Maintenance Depot (Staveley) High Level Appraisal of Economic Impacts (Volterra) funded by DCC and CBC.

It is anticipated that all the responses by the representative parties above will be both consistent and also informed by the respective pieces of evidence outlined above.

## 3 Approach

In order to evaluate the potential impact of the proposed IMD on the site, it is necessary to firstly establish the impact of the Local Plan (AAP) policy on the site (the baseline scenario 'B1'), and then secondly to establish the impact of the IMD proposed at the site (termed scenario 'B2'). If this results in an unfavourable evaluation of the IMD on Staveley, then it will be necessary to explore (and evaluate) further alternative solutions, as appropriate.

However before any such evaluation can be undertaken, it is necessary first of all to define the qualitative and quantitative criteria by which these different solutions can and should be evaluated. The study brief is presented at Appendix A.

### 3.1 Study Area

The study area includes the full extent of the AAP Masterplan boundary. Although the IMD will only directly impact upon part of the AAP Masterplan (that to the east of the River Rother), the subsequent changes to the A619 Chesterfield - Staveley Regeneration Route and the uses and layout within the Masterplan have the potential to affect the wider AAP Masterplan area.

### 3.2 Quantitative Criteria

Three quantitative assessment criteria have been defined as follows:

**1) Development area** – the AAP Masterplan has been analysed to provide a measurement of the total developable area that is provided within it. The approximate area of development in the AAP Masterplan is 87 hectares. This equates to approximately 44% of the overall AAP Masterplan. The non-development areas of the Site within the AAP Masterplan include landscaping and open space, watercourses and water bodies.

**2) Jobs** – the number of potential jobs created within each scenario has been estimated using the Homes and Communities Agency "Employment Densities Guide"<sup>4</sup>, developed in 2010. The guide provides a means of estimating the number of jobs generated by a development based upon typical "employment density" ratios. These ratios are expressed as the number of square metres per employee, and vary by land use type, (for example, for a warehouse one job per 70m<sup>2</sup> is created, whilst for an office development one job per 12m<sup>2</sup> is created). The guide is widely used in planning, appraising and evaluating economic development and regeneration projects.

The indicative masterplan presented in the AAP (which sub-divides these land-use types) has been used as a basis upon which to estimate the number of jobs created. As stated previously, the AAP Masterplan for the area is only indicative at this stage. There is, therefore, no detailed schedule of land uses to provide areas upon which to estimate job creation. In the absence of that information, **Table 1** of the CST Masterplan (which informed and influenced the AAP Masterplan) has been used to proportionally split the quantum and type of employment land provided within the AAP Masterplan. An extract from this table is provided below:

<sup>4</sup> Employment Densities Guide:2<sup>nd</sup> Edition, Homes and Communities Agency, 2010

**Table 1 Indicative Land Use Types**

Development type	Total area
Community Mixed Uses (including local retail, health centre)	25,000m <sup>2</sup>
Employment (including offices, manufacturing, distribution, canal related)	245,000m <sup>2</sup>
Commercial (including food retail, drive through restaurant, petrol filling station)	15,000m <sup>2</sup>
Leisure (including public house, restaurant, hotel)	15,000m <sup>2</sup>
Primary school	15,000m <sup>2</sup>
<b>Total</b>	<b>315,000m<sup>2</sup></b>

The descriptions provided in **Table 1** are still not sufficiently detailed to allow the number of jobs to be estimated. These land uses have therefore been redefined using the descriptions in the HCA guide in order to estimate the job creation potential of the AAP Masterplan.

It has been assumed that the net area of employment uses will be 33% of the gross area. This net to gross area ratio has been provided by CBC and was used to inform the AAP. The HCA employment density ratios have then been applied to the net floor area of each land use type. Although the resulting employment forecasts are reliant on a range of assumptions, these assumptions are constant across all scenarios and thus allow a meaningful and robust comparison to be made.

**Table 2** provides a summary of the employment generating land uses in relation to the HCA definitions. **Table 2** also sets out the employment density and resulting job creation of each land use.

**Table 2 Job Creation Calculations**

Development type	Gross Area	Net Area	Employment Density	Jobs Created
B1 Light Industry	31,500m <sup>2</sup>	10,395 m <sup>2</sup>	47	221
B2 General Industry	74,000m <sup>2</sup>	24,420m <sup>2</sup>	70	349
B8 General Warehousing	125,000m <sup>2</sup>	41,250m <sup>2</sup>	36	1,146
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	19	452
Restaurants and Cafes	25,500m <sup>2</sup>	8,415m <sup>2</sup>	18	468
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	70	144
<b>Total</b>	<b>312,500m<sup>2</sup></b>	<b>103,125m<sup>2</sup></b>	<b>-</b>	<b>2,779</b>

The total number of jobs created by the Site in accordance with the AAP Masterplan is therefore approximately 2,800. This falls within the range provided for the Site by CBC in their employment topic paper of 2,000-2,900.

Employment created either directly by the IMD itself or indirectly by the supply chain has not been considered in this report. Volterra has been commissioned by DCC to examine this issue. Their report, entitled “Economic Impact of IMD at Staveley”<sup>5</sup> has investigated the potential number of jobs directly and indirectly created relating to the IMD. For the purpose of the comparison between

<sup>5</sup> Economic Impact of IMD at Staveley, Volterra, 2013

alternative scenarios, the number of jobs created by the IMD will be constant in any case.

**3) Number of dwellings** – it is estimated that the AAP Masterplan area will include up to 2,000 dwellings within its boundary. The total area of residential development within the AAP Masterplan has been measured as approximately 552,000m<sup>2</sup> (or 55.2 hectares). Using this area, the housing density of the AAP Masterplan is estimated at approximately 36.2 dwellings per hectare. For each of the scenarios, the same housing density has been applied to the remaining residential plots in order to calculate the number of dwellings provided.

### 3.3 Scoring of Quantitative Criteria

Each of the quantitative criteria has been ranked on a scale of 1-3 using the following bands:

- Less than 20% loss of area/jobs/dwellings caused by the IMD compared to the baseline scenario – score of 3/3;
- Between 20% and 50% loss of area/jobs/dwellings caused by the IMD compared to the baseline scenario – score of 2/3; and
- More than 50% loss of area/jobs/dwellings caused by the IMD compared to the baseline scenario – score of 1/3.

### 3.4 Qualitative Criteria

A number of additional, qualitative criteria have been used to aid the comparison of the options. Five qualitative assessment criteria have been defined as follows:

**4) Infrastructure cost implications** – no cost estimates have been prepared at this stage. Therefore a qualitative assessment of the infrastructure cost implications of each scenario has been undertaken. Scenarios that will require significant additional infrastructure compared to the baseline (e.g. new bridges, additional highway junctions, longer roads) have been awarded a low score with scenarios requiring similar scales of infrastructure to the AAP Masterplan awarded a high score.

**5) Phasing Implications** – the AAP Masterplan will be delivered on a phased basis. The first phase of the development will be focussed around the clock tower and create a new destination with later phases providing the link road through the Site. Scenarios that would jeopardise this phasing have been awarded a low score with scenarios that can be phased as per the AAP Masterplan awarded a high score.

**6) Deliverability and Risk** – scenarios that are considered to increase the risk to the landowner or developer being able to deliver the AAP Masterplan have been awarded a low score with scenarios that do not increase the risk (compared to the AAP) awarded a high score.

**7) Design Complexity** - scenarios that are considered to require potentially complex engineering solutions to address or overcome constraints have been awarded a low score with scenarios that do not require a complex solution being awarded a high score.

**8) Strategic Policy Fit** – the main strategic policy drivers that underpin the AAP are considered to be the provision of up to 2,000 dwellings, the provision of regeneration benefits to the local area, the provision of employment land and increased sub-regional strategic connectivity. Scenarios that threaten the ability of the Masterplan to deliver these benefits are considered to represent a poor strategic policy fit and have been awarded a low score. Those scenarios that help to deliver these strategic policy benefits are awarded a high score.

### 3.5 Scenario Assessment Criteria Summary

In order to provide a comparison between scenarios, a scoring matrix has been developed. The matrix provides a score of 1-3 (with 3 being most beneficial/least detrimental) for each of the quantitative and qualitative criteria described previously. Each score provided is relative to the B1 baseline scenario of the AAP Masterplan. **Table 3** outlines the scoring methodology applied to each scenario.

**Table 3 Scenario Assessment Criteria**

Criterion	Score		
	3	2	1
<b>Development area</b>	Less than 20% loss	20-50% loss	More than 50% loss
<b>Jobs</b>	Less than 20% loss	20-50% loss	More than 50% loss
<b>Houses Delivered</b>	Less than 20% loss	20-50% loss	More than 50% loss
<b>Infrastructure Cost implications</b>	Unlikely to be significant cost increase compared to Scenario B1	May be some increase in costs compared to Scenario B1	Likely to be significant cost increase compared to Scenario B1
<b>Phasing Implications</b>	Masterplan can be delivered as planned	Some risk of delay or phasing restrictions	Planned phasing cannot be delivered
<b>Deliverability and Risk</b>	Masterplan can be delivered as planned	Increased risk of Masterplan not being delivered	Significant risk of Masterplan being undeliverable
<b>Design Complexity</b>	No complex issues	Some complex issues but within “normal” design parameters	Major complexity requiring innovative solution
<b>Strategic Policy Fit</b>	In line with AAP	Some deviation from AAP	Major risk to AAP

### 3.6 Constraints and Limitations

Due to the location of the Site and the previous land uses of the Staveley Works site, there are a number of potential constraints to development. The Environment Agency’s current Flood Zone Map shows parts of the Site at a high risk of flooding, although the extent of the Site at risk has recently been revised down.

In each of the Scenarios considered, the extent of the developable area of the Site is assumed to remain as defined in the AAP Masterplan. The extent of the developable area has not been increased in order to replace development land within the footprint of the IMD. This reflects the constraints imposed by flood risk

and ground contamination, as well as other issues such as requirements relating to the provision of landscaping and open space.

On the basis of previous studies, it is understood that highway capacity issues also have the potential to constrain development at the Site. Without improvements to site access routes and local junctions, additional development will have negative impacts, through increased travel demand and congestion. In each of the scenarios assessed it is assumed that the A619 Chesterfield - Staveley Regeneration Route must be in place, in order for the highway network to be able to accommodate the full AAP Masterplan development.

The presence of the IMD within the Site will present a wide range of constraints and opportunities relating to appropriate adjoining land-uses that were not considered in the AAP Masterplan. These may be either positive (e.g. opportunities for supply chain and complementary uses close to the IMD) or negative (proximity of the IMD to areas proposed for residential use). It is not within the scope of this study to revise the AAP Masterplan, however, where it is considered that previously proposed land-uses are no longer likely to be appropriate, alternative land-uses have been suggested.

In terms of job creation, the number of jobs created either directly or indirectly by the IMD has not been taken into account. As the number of jobs will be constant across all scenarios, this will not affect the comparison between scenarios. Similarly, it is not within the scope of this study to assess the effect of the IMD on the commercial viability of individual land uses or the Masterplan as a whole. This has not therefore been taken into account within this study. The accompanying study by Volterra will consider these issues.

The precise alignment of the A619 Chesterfield - Staveley Regeneration Route has not yet been defined. The route shown in the AAP Masterplan has been used and a 20m wide road corridor used in each scenario. URS has been commissioned by DCC to undertake further studies relating to the alignment of the A619 Chesterfield - Staveley Regeneration Route.

### **3.7 Liaison**

A meeting was held with the HS2 Phase 2 team at the HS2 offices in London on 7 January 2014. This meeting provided an opportunity to share the emerging findings of the study with HS2 and to ask specific questions regarding the layout and potential for relocation and/or reconfiguration of the IMD. This is discussed at Section 7.4.

## 4 Infrastructure Maintenance Depot Development Description

---

A single IMD would serve the Birmingham to Leeds section of HS2. The IMD would provide a base from which engineering activities to maintain and renew the track and other elements of fixed infrastructure, such as electrification systems are undertaken.

HS2 Ltd propose to locate the IMD for this section of the route at Staveley, within the Site and to the south of the existing Chesterfield to Rotherham railway. This line forms the principal freight route between the Midlands and the North of England and has a junction with a branch to Seymour Junction that is currently out-of-use. The depot would occupy approximately 11 hectares of land within the Site. Some of the key reasons behind the choice of the site of the IMD are understood to be its proximity to the freight route and highway network, the previous industrial uses on the site, high unemployment levels in the area, and its strategic location approximately halfway along the route between Birmingham and Leeds.

High speed rail access would be via flat junctions off the mainline onto curves leading toward the depots. These curves would merge and run into the eastern end of the depot. Access from the existing rail network would be near the existing sidings at Barrow Hill, using Seymour Junction for access into the depot. Within the HS2 proposals, road access to the site was envisaged to be from Works Road. It is understood that the intensification of the use of Works Road by HGVs would not be acceptable to the local highways authority. Discussions with HS2 Ltd have established that this proposed highway access is to be confirmed and this access may not be appropriate.

The IMD would primarily be used as a maintenance and response facility for the western leg of HS2 to stable and service/maintain a variety of On Track Plant and Engineering Supply Train equipment. It would also provide strategic engineering material stores. There would be no intention for ballast or rail to be stored at the IMD, and all ballast and spoil wagons would need to be able to run on and off the existing rail network, bringing supplies.

The HS2 consultation documents recognise the potential contamination and flood risk issues that relate to the site.

The HS2 Technical Specifications<sup>6</sup> provide the following details on the requirements of the depot:

- The depot will be accessible to 400m long trains;
- At least one siding must be 775m in length to allow for the storage of the 'Track Renewal Train';
- The Site would be available from an early stage of the Phase Two development, forming a key construction site/depot for the construction of the line;
- The Site will be level throughout;

---

<sup>6</sup> High Speed Rail: London to the West Midlands and Beyond, HS2 Technical Appendix, HS2 Ltd, 2009

- The depot will be accessible by rail at all times; and
- The depot will require good road access and connectivity to arterial routes for the delivery of spare parts and consumables.

The footprint of the IMD as presented on the HS2 Phase Two consultation documents has been overlaid on the AAP Masterplan in order to understand the impact on the development proposals. As a result of one or more of the scenarios considered, there may be a requirement to seek to reconfigure the internal layout of the depot. For the purposes of this report, it is assumed that the specification of the operational aspects of the depot footprint cannot be amended. However, there are a number of elements of the depot that may be able to be repositioned whilst still meeting HS2's operational requirements. This is discussed in more detail in Section 7.

At this stage, the plans for the internal configuration of the depot are not publically available. The potential for reconfiguration of the layout is therefore based upon the detailed layout drawing of the depot at Calvert within Phase One of HS2. Discussions with HS2 Ltd were held in January 2014, which have further informed the feasibility of reconfigurations of this layout. Potential amendments to the layout are discussed in further detail at Section 7.

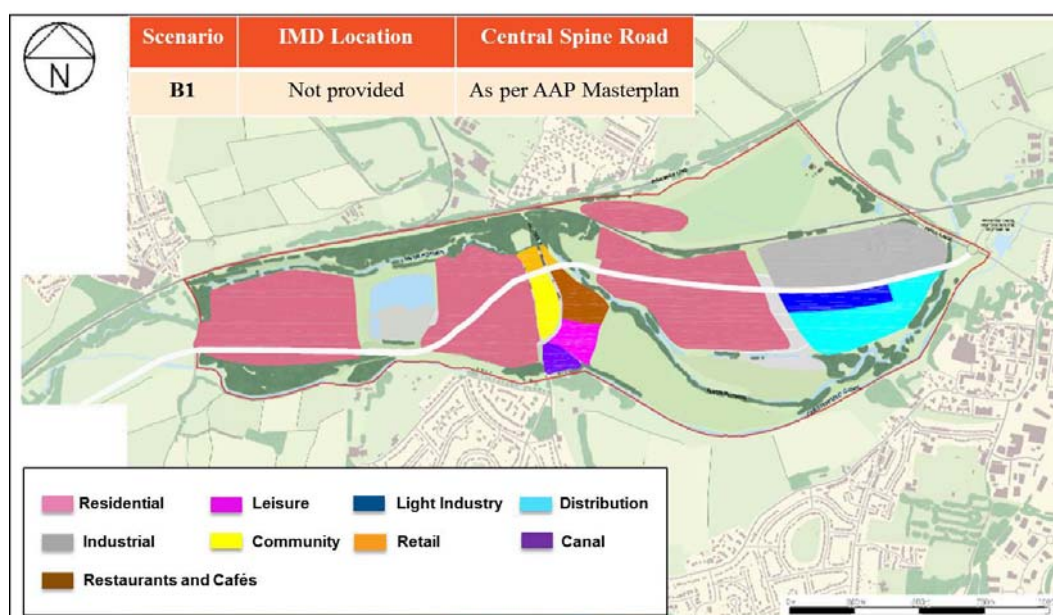
## 5 Defining the Impact of the IMD

Defining a baseline position will enable a greater understanding of the impact of the proposed IMD on the AAP Masterplan. Two baseline scenarios have been established, as described below. By comparing the two baseline scenarios, it is possible to identify the scale of the potential impact of the IMD upon development area, jobs creation and provision of housing within the Masterplan area.

Once these baseline scenarios are defined and understood, the impact of a range of alternative scenarios related to the IMD can be investigated.

### 5.1 Scenario B1

Scenario B1 consists of the development of the Staveley site in accordance with the AAP Masterplan. This scenario assumes that there is no IMD within the Site. An indicative plan of the Site in Scenario B1 is shown below and is also presented in Appendix B.



The methodology described in Section 3.1 has been used in order to estimate the amount of development, jobs and housing that could be provided by the scheme. This scenario also contains a link road through the Site, the 'A619 Chesterfield - Staveley Regeneration Route'.

Based on the proposed development at the Site, it is anticipated that this scenario would generate the following totals of development:-

- 2,779 jobs;
- 2,000 dwellings; and
- 87 hectares of development land.

This scenario provides a number of strategic benefits to the wider area as described in the AAP. The A619 Chesterfield - Staveley Regeneration Route will

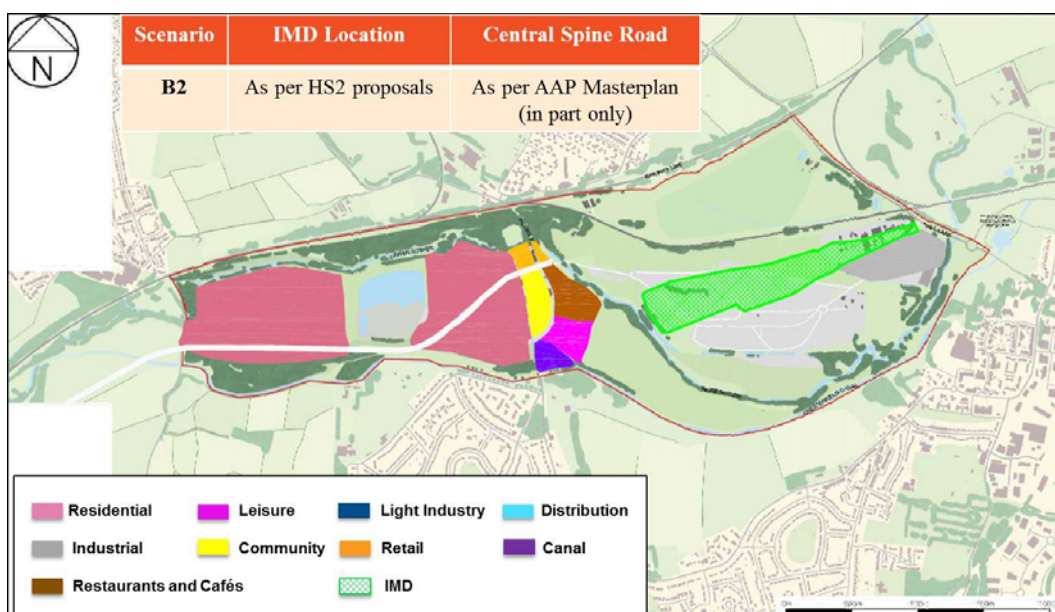
relieve pressure on the nearby Works Road, a number of surrounding junctions and the A619. The proposed route provides a new link between Chesterfield, Staveley, and further afield to the M1, and would ensure that good accessibility to and from the Site is provided.

**Table 4 Scenario B1 Impact Assessment**

Criterion	Comment	Score
Development Area Provided	No reduction in area compared to AAP masterplan	3
Jobs Created	No reduction in jobs compared to AAP masterplan	3
Houses Delivered	No reduction in houses compared to AAP masterplan	3
Infrastructure Cost Implications	The overall cost of infrastructure is as per AAP masterplan	3
Phasing Implications	Phasing as per AAP masterplan	3
Deliverability and Risk	There are no increases to the risks or challenges on deliverability compared to AAP Masterplan	3
Design Complexity	Same design as AAP masterplan	3
Strategic Policy Fit	Masterplan is as per AAP	3
<b>Total Score</b>		<b>24</b>

## 5.2 Scenario B2

This scenario assumes the construction of the IMD at the Site as per the HS2 Consultation Proposals. The AAP Masterplan is assumed to be delivered as far as is practical around this location but with no changes to the A619 Chesterfield - Staveley Regeneration Route alignment. This layout is presented below and also at Appendix C.



It is anticipated that IMD would prevent the delivery of large parts of the AAP Masterplan at the Site in this scenario and would prevent the delivery of the A619 Chesterfield - Staveley Regeneration Route. Due to constraints on highway

capacity in the area without road in place, it is assumed that only Phases 1 and 2 of the development could be physically brought forward in this scenario. As such, this would have a major adverse impact upon the viability of the scheme.

In particular, the majority of the AAP Masterplan development to the east of the River Rother was to be delivered within Phase 3 of the development. As a result of the A619 Chesterfield - Staveley Regeneration Route not being provided, it is assumed that the highway network cannot support Phase 3 and therefore these land uses are considered to be undeliverable.

There is a section of Phase 2 of the development that fronts onto Hall Lane. It is assumed that this part of the AAP Masterplan could be delivered; however, the extent of the area that could be delivered is reduced to that which lies outside the footprint of the IMD.

Based upon these assumptions, the extent of the AAP Masterplan that it is considered could still be delivered is shown in **Table 5** and Appendix C.

**Table 5 Scenario B2 Development Proposals**

Development Type	Gross Area	Net Area	Jobs Created
Housing	1,196 dwellings	N/A	N/A
Light Industry	0m <sup>2</sup>	0m	0
General Industry	44,000m <sup>2</sup>	14,520m <sup>2</sup>	403
General Warehousing	0m <sup>2</sup>	0m	0
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	452
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	144
Restaurants and Cafes	25,500m <sup>2</sup>	8,415m <sup>2</sup>	468
<b>Total</b>	<b>126,000m<sup>2</sup></b>	<b>41,580m<sup>2</sup></b>	<b>1,466</b>

The main impact observed in this scenario when compared to Scenario B1 relates to the loss of employment land and potential jobs created. This scenario would potentially generate:

- 1,466 jobs, (1,313 less than Scenario B1);
- 1,196 dwellings (approx. 800 less than Scenario B1);
- 46 hectares of development land (41 hectares less than Scenario B1)

**Table 6** summarises the performance of this option.

**Table 6 Scenario B2 Impact Assessment**

Criterion	Comment	Score
Development Area Provided	Development Area decreases by 47%	2
Jobs Created	No. of jobs reduces by 47%	2
Houses Delivered	No. of houses reduces by 40%	2
Infrastructure Cost Implications	The overall cost of infrastructure is likely to be lower than in B1 due to the fact that only part of the A619 Chesterfield - Staveley Regeneration Route would be delivered	3
Phasing Implications	Only the first 2 phases can be delivered,	1

	Phase 3 assumed to be undeliverable	
Deliverability and Risk	There are no significant increases to the risks or challenges on deliverability of what is left of the Masterplan	3
Design Complexity	No complex engineering solutions are likely to be required	3
Strategic Policy Fit	The remaining Masterplan will fail to deliver the wider strategic benefits to connectivity, the economy and regeneration.	1
<b>Total Score</b>		<b>17</b>

### 5.3 Scenario B1 and B2 Comparison

The assessment presented above provides an estimate of the potential impact of locating the IMD, as per the HS2 Consultation Proposals, on the AAP. The loss of development, jobs and housing with the IMD in place and no changes to the AAP Masterplan (i.e. Scenario B2) is shown in **Table 7**.

**Table 7 Baseline Option Comparison**

	Scenario B1	Scenario B2	Difference
Development Area Available	87Ha	46Ha	- 47%
Potential Jobs Created	2,779	1,466	-47%
Potential Dwellings Built	2,000	1,196	-40%

This assessment is based upon the assumption that the Masterplan would not be revised in order to adapt to the opportunities and challenges presented by the IMD. In reality, it will be necessary to revisit the AAP Masterplan at a high level to understand how the AAP Masterplan and/or the IMD can be reconfigured to maximise the benefits to the Site and to HS2.

**Based on the above assessment it is clear that the delivery of the IMD (without any revision to the AAP Masterplan), would result in the significant loss of development area, jobs and dwellings, restricting the potential benefits development of this site could bring. As such, the AAP Masterplan, in its current form, would be undeliverable.**

It is therefore considered that alternative proposals for the AAP Masterplan and the IMD should be explored. A number of potential alternative scenarios have been assessed, and a high level assessment of these scenarios is presented in the following section of this report.

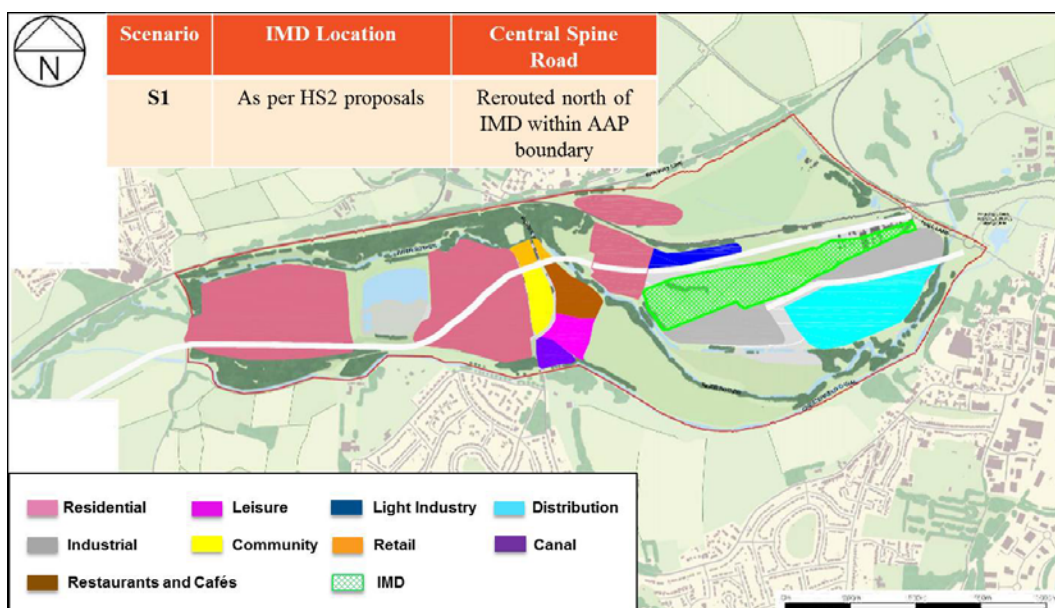
## 6 Potential Solutions

In view of the fact that the IMD would significantly restrict development at Staveley, it is necessary to consider reasonable alternatives which would help to minimise the impacts of the IMD on the Site and capitalise on the opportunities that it could bring to the area. These scenarios are defined as follows:

- S1 – IMD remains in proposed location and a re-aligned A619 Chesterfield - Staveley Regeneration Route is provided to the north of the depot;
- S2 – IMD remains in proposed location and a re-aligned A619 Chesterfield - Staveley Regeneration Route is provided to the south of the depot;
- S3 – IMD is located further north within the Site to completely avoid the proposed A619 Chesterfield - Staveley Regeneration Route;
- S4 – IMD is moved slightly to the north within the Site and the A619 Chesterfield - Staveley Regeneration Route is realigned to pass to the south of the depot;

### 6.1 Scenario S1

Scenario S1 considers the impact of rerouting the A619 Chesterfield - Staveley Regeneration Route along a revised corridor to the north of the IMD. Due to the inclusion of the A619 Chesterfield - Staveley Regeneration Route in this scenario, it is assumed that the local highway network could accommodate the full extent of the AAP Masterplan development. The proposed industrial and warehousing land within the AAP Masterplan to the south of the IMD would, however, require an additional access road to be provided. This is assumed to run along the route of the original A619 Chesterfield - Staveley Regeneration Route and be accessed via the existing roundabout junction with Hall Lane. This is presented below and also at Appendix D.



The width of the corridor between the IMD and the minerals railway is limited, especially once the 20m wide road corridor is rerouted within it. As a result, a

limited amount of development could be delivered to the north of the IMD in the form of the westernmost plot. As this plot is located between the IMD and the minerals railway line, it is considered appropriate to change it from the proposed residential use within the AAP Masterplan to light industrial use.

The AAP Masterplan plots to the south of the IMD would be segregated from the mixed-use and residential plots elsewhere on the Site by the IMD. The plots close to the River would only be accessible through the proposed industrial and warehousing plots that front onto Hall Lane. It is therefore considered appropriate to change the residential and light industrial use plots to the south of the IMD to industrial use, to match the character of this area of the Site.

The proposed development on the Site in this scenario is detailed in **Table 8** and Appendix D.

**Table 8 Scenario S1 Development Proposals**

Development Type	Gross Area	Net Area	Jobs Created
Housing	1,500 dwellings	-	-
Light Industry	15,500m <sup>2</sup>	5,115m <sup>2</sup>	109
General Industry	96,000m <sup>2</sup>	31,680m <sup>2</sup>	880
General Warehousing	97,000m <sup>2</sup>	32,010m <sup>2</sup>	457
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	452
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	144
Restaurants and Cafes	25,500m <sup>2</sup>	8,415m <sup>2</sup>	468
<b>Total</b>	<b>290,500m<sup>2</sup></b>	<b>95,865m<sup>2</sup></b>	<b>2,509</b>

Based on the amount of development on the Site, this scenario will provide:

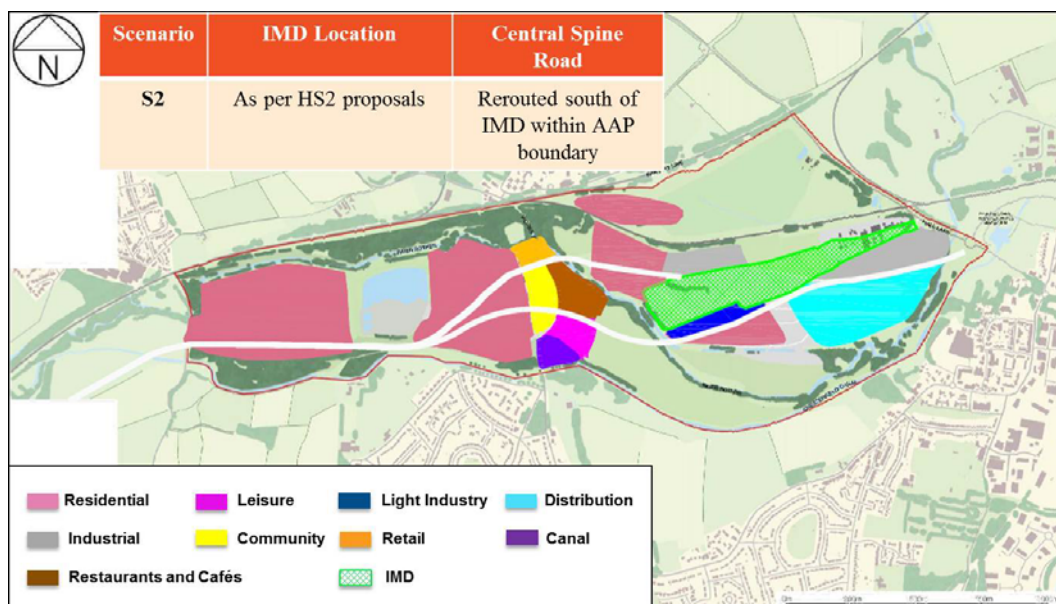
- 2,509 jobs;
- 1,499 dwellings;
- 70 hectares of development land

**Table 9 Scenario S1 Impact Assessment**

Criterion	Comments	Score
Development Area Provided	Development Area decreases by 19%	3
Jobs Created	No. of jobs reduces by 10%	3
Houses Delivered	No. of houses reduces by 25%	2
Infrastructure Cost Implications	Additional road construction will be required to serve the area to the south of the IMD. There would also need to be two junctions provided onto Hall Lane. Both of these would increase the infrastructure costs.	1
Phasing Implications	The phasing of the Masterplan should be largely as per Scenario B1; however, overall viability may be negatively affected.	2
Deliverability and Risk	The requirement to utilise land in the area between the IMD and the minerals railway may increase the risks to delivery, particularly if land within this area is required by HS2 during construction.	2
Design Complexity	The restricted corridor width between the IMD and the minerals railway will mean that any engineering solutions for the road and plots along the road may be more complex.	2
Strategic Policy Fit	This scenario has a good strategic fit with the Masterplan, in terms of the amount of development provided, however the reduction in proposed housing does have implications on the achievement of AAP objectives.	2
<b>Total Score</b>		<b>17</b>

## 6.2 Scenario S2

Scenario S2 considers the impact of rerouting the A619 Chesterfield - Staveley Regeneration Route along a revised corridor to the south of the IMD. Due to the inclusion of the A619 Chesterfield - Staveley Regeneration Route in this scenario, it is assumed that the local highway network could accommodate the full extent of the AAP Masterplan development. As the road would be rerouted to pass to the south of the IMD, a spur road would be required to serve the parcel of land between the River Rother, the IMD and the mineral railway. This would require an additional bridge crossing. This layout is presented below and also at Appendix E.



The width of the corridor to the north of the IMD is again limited, but less so than in Scenario S1 as it would not include the 20m wide A619 Chesterfield - Staveley Regeneration Route corridor. As a result, a limited amount of development could be delivered to the north of the IMD in the form of the westernmost plot. As this plot is located between the IMD and the minerals railway line, it is considered appropriate to change it from the proposed AAP Masterplan residential use to industrial.

The plots to the south of the IMD would be located along the rerouted A619 Chesterfield - Staveley Regeneration Route. It is therefore considered appropriate to retain the AAP Masterplan uses in this area.

The proposed development on the Site in this scenario is detailed in **Table 10** and Appendix E.

**Table 10 Scenario S2 Development Proposals**

Development Type	Gross Area	Net Area	Jobs Created
Housing	1,598 dwellings	-	-
Light Industry	22,500m <sup>2</sup>	7,425m <sup>2</sup>	158
General Industry	70,500m <sup>2</sup>	23,265m <sup>2</sup>	646
General Warehousing	75,000m <sup>2</sup>	24,750m <sup>2</sup>	354
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	452
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	144
Restaurants and Cafés	25,500m <sup>2</sup>	8,415m <sup>2</sup>	468
<b>Total</b>	<b>250,000m<sup>2</sup></b>	<b>82,500m<sup>2</sup></b>	<b>2,221</b>

This scenario will provide:

- 2,221 jobs;
- 1,598 dwellings;
- 69 hectares of development land

This scenario would provide approximately 80% of the development land, jobs and housing proposed in the AAP.

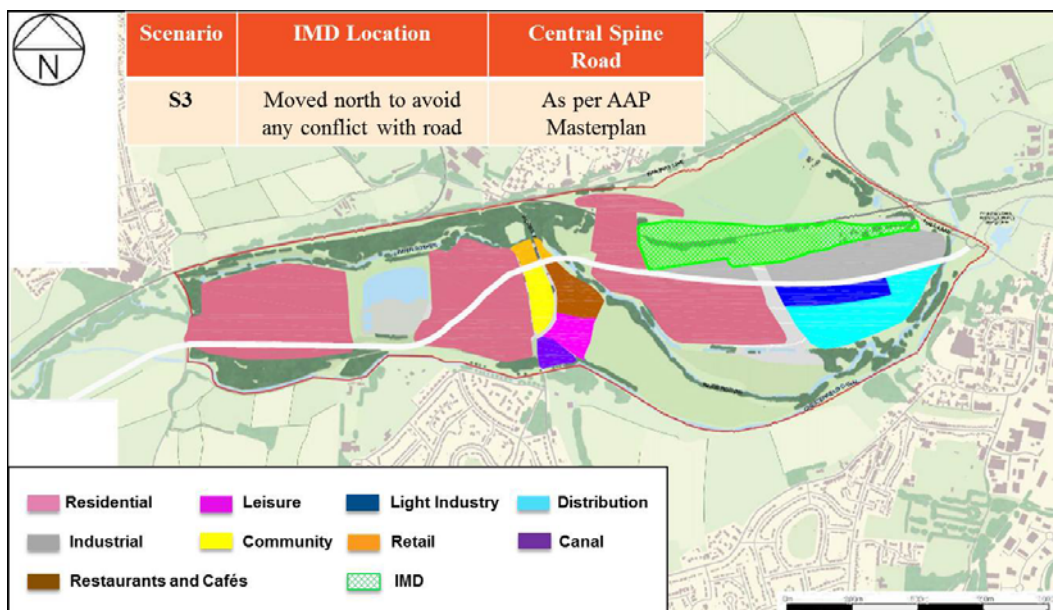
**Table 11 Scenario S2 Impact Assessment**

Criterion	Comments	Score
Development Area Provided	Development Area decreases by 20%	2
Jobs Created	No. of jobs reduces by 20%	2
Houses Delivered	No. of houses reduces by 20%	2
Infrastructure Cost Implications	Additional road construction will be required to serve the area to the north of the IMD, including a new bridge crossing.	2
Phasing Implications	The phasing of the Masterplan is constrained by the need for a further bridge crossing. The first phase of development of the Masterplan around the Clock Tower will be impacted upon by the rerouting of the A619 Chesterfield - Staveley Regeneration Route.	1
Deliverability and Risk	The requirement to utilise land in the area between the IMD and the minerals railway may increase the risks to delivery, particularly if land within this area is required by HS2 during construction. An additional bridge crossing will be required.	2
Design Complexity	The restricted corridor width between the IMD and the minerals railway will mean that any engineering solutions for the road and plots along the road may be more complex. An additional bridge crossing will be required.	2
Strategic Policy Fit	This scenario has a limited strategic fit with the Masterplan, with the most notable loss being in terms of the number of jobs provided.	2
<b>Total Score</b>		<b>15</b>

## 6.3 Scenario S3

Scenario S3 considers the potential to relocate the IMD further north than is proposed by HS2, in order to ensure that it completely avoids the proposed route of the A619 Chesterfield - Staveley Regeneration Route. The A619 Chesterfield - Staveley Regeneration Route would remain in its previously proposed alignment as per the AAP Masterplan. This layout is presented in below and also at Appendix F.

Assuming that this could be achieved, the majority of the AAP Masterplan could be delivered as a result. However, there are several constraints and limitations associated with this scenario, which are likely to restrict its viability.



In order for the IMD to completely avoid the A619 Chesterfield - Staveley Regeneration Route corridor, it would be necessary to locate it so far north as to require a change to the alignment of the minerals railway line that runs from east to west towards the north of the AAP Masterplan boundary. Parts of the area of land immediately to the north of the minerals railway line is understood to be a landfill. Realigning the railway in this manner could potentially result in a wide range of design issues and risks.

It is considered that based upon the potential risks associated with the landfill, the impact upon programme and design complexity, this scenario could potentially be considered unacceptable by HS2.

The proposed development on the site in this scenario is detailed in **Table 12** and Appendix F.

**Table 12 Scenario S3 Development Proposals**

Development Type	Gross Area	Net Area	Jobs Created
Housing	1,850 dwellings	-	-
Light Industry	31,500m <sup>2</sup>	10,395m <sup>2</sup>	221
General Industry	93,500m <sup>2</sup>	30,855m <sup>2</sup>	857
General Warehousing	74,000m <sup>2</sup>	24,420m <sup>2</sup>	349
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	452
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	144
Restaurants and Cafés	25,500m <sup>2</sup>	8,415m <sup>2</sup>	468
<b>Total</b>	<b>281,000m<sup>2</sup></b>	<b>92,730m<sup>2</sup></b>	<b>2,490</b>

This scenario is forecast to provide:

- 2,490 jobs;
- 1,845 dwellings;
- 79 hectares of development land

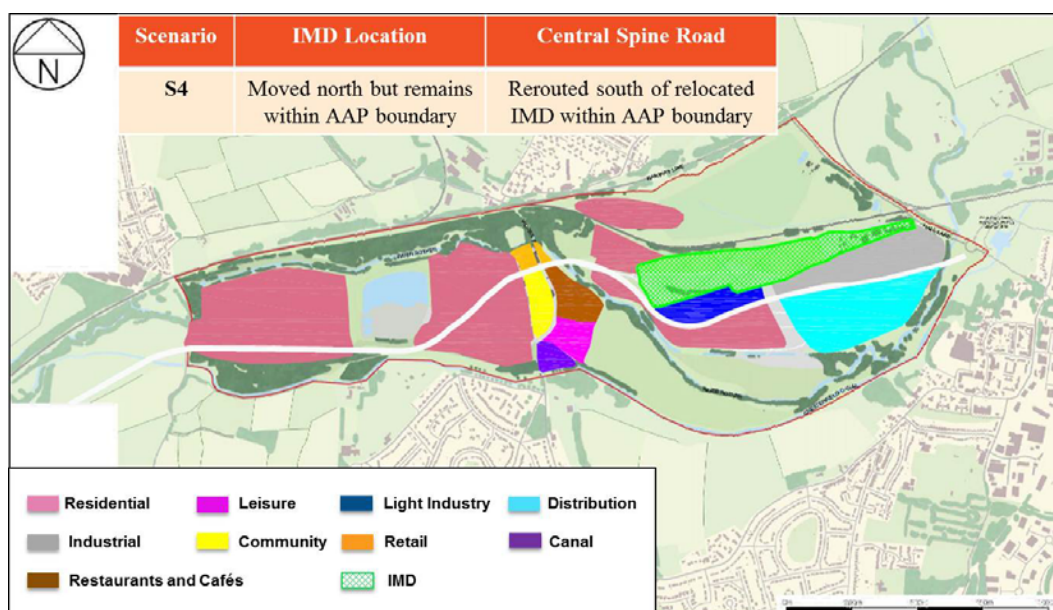
Despite the relatively positive impact on housing and jobs in this scenario, the impacts of relocating the IMD to the north of the Site have the potential to be highly complex in design and deliverability, and as such costly. These impacts would need to be considered further by HS2 and may be deemed to be unacceptable.

**Table 13 Scenario S3 Impact Assessment**

Criterion	Comments	Score
Development Area Provided	Development Area decreases by 9%	3
Jobs Created	No. of jobs reduces by 10%	3
Houses Delivered	No. of houses reduces by 8%	3
Infrastructure Cost Implications	The scenario requires the realignment of the minerals railway through an area understood to be a landfill. This is likely to significantly increase infrastructure costs	1
Phasing Implications	The phasing of the Masterplan is constrained by the need for to achieve the relevant approvals and design of realignment to the railway and issues relating to the landfill are likely to affect programme.	1
Deliverability and Risk	The requirement to utilise the landfill site will significantly increase risks and uncertainty over delivery.	1
Design Complexity	The need to realign a railway and affect a landfill will significantly increase design complexity.	1
Strategic Policy Fit	The end Masterplan is largely similar to that in Scenario B1, representing a good strategic policy fit.	3
<b>Total Score</b>		<b>16</b>

## 6.4 Scenario S4

Scenario S4 considers the potential to relocate the IMD to the northern boundary of the Site alongside a rerouting of the A619 Chesterfield - Staveley Regeneration Route so that it passes between the relocated IMD and the River Rother. Based upon the available information, it is considered that there is sufficient physical space to accommodate a road link between a relocated IMD and the River. However, there also needs to be sufficient space and flexibility to allow for an alignment that meets the highway authority's requirement for a strategic route. This flexibility could be provided by revisions to the internal configuration of the IMD. This layout is presented below and at Appendix G.



Based upon the revised location of the IMD, no development could be accommodated to the north of the depot as it would be tight against the minerals railway line. Development to the south of the IMD could however be delivered in line with the AAP Masterplan, with access to this part of the development provided by the A619 Chesterfield - Staveley Regeneration Route. As such, much of the industrial, warehousing and office land proposed in the AAP Masterplan is retained in this scenario.

This scenario relies upon the ability to relocate the IMD. The ability to do so will require agreement from HS2. A meeting with HS2 Ltd on 7 January 2014 was held to discuss the potential for relocation and/or reconfiguration of the depot. At this meeting, HS2 indicated a willingness to consider relocation of the depot. A high-level P-Way rail engineering review has been undertaken by Arup and no significant reasons why this relocation would not be feasible in rail engineering terms have been identified.

For the purposes of this assessment, it is assumed that the footprint of the IMD will remain as shown in the HS2 proposals. The footprint has simply been rotated clockwise to push it further north at its western end. There may also be the potential to reconfigure the internal layout to ease the revised road route around the IMD. These issues are explored further in Section 7.

The breakdown of development at the Site is shown in **Table 14** and Appendix G.

**Table 14 Scenario S4 Development Proposals**

Development Type	Gross Area	Net Area	Jobs Created
Housing	1,650 dwellings	-	-
Light Industry	31,500m <sup>2</sup>	10,395m <sup>2</sup>	221
General Industry	71,500m <sup>2</sup>	23,595m <sup>2</sup>	655
General Warehousing	101,500m <sup>2</sup>	33,495m <sup>2</sup>	479
High Street Retail	26,000m <sup>2</sup>	8,580m <sup>2</sup>	452
Leisure	30,500m <sup>2</sup>	10,065m <sup>2</sup>	144
Restaurants and Cafes	25,500m <sup>2</sup>	8,415m <sup>2</sup>	468
<b>Total</b>	<b>286,500m<sup>2</sup></b>	<b>94,545m<sup>2</sup></b>	<b>2,418</b>

This scenario is forecast to provide:

- 2,418 jobs;
- 1,649 dwellings;
- 75 hectares of development land

**Table 15 Scenario S4 Impact Assessment**

Criterion	Comments	Score
Development Area Provided	Development Area decreases by 14%	3
Jobs Created	No. of jobs reduces by 13%	3
Houses Delivered	No. of houses reduces by 18%	3
Infrastructure Cost Implications	Additional road construction will be required as a result of the realignment. The cost of the section of road between the IMD and the River may also increase costs due to the additional design complexity.	2
Phasing Implications	The phasing of the Masterplan should be largely as per Scenario B1, assuming that an early agreement is reached with HS2 to realign the IMD.	3
Deliverability and Risk	The requirement to utilise a narrow corridor between the IMD and the River may increase the risks to delivery, particularly if land within this area is required by HS2 during construction.	2
Design Complexity	The restricted corridor width between the IMD and the River will mean that any engineering solutions for the road and plots along the road may be more complex.	2
Strategic Policy Fit	This scenario has a good strategic fit with the Masterplan.	3
<b>Total Score</b>		<b>21</b>

## 6.5 Scenario S5

Following the issue of the first draft of this report, the potential to consider an additional scenario (S5) was raised by the steering group. Information obtained by Rhodia indicated that not all of the area to the north of the minerals railway line had been used for landfill. Scenario S5 was therefore to consider the potential for the IMD to be relocated midway between the locations presented in Scenario S3 and Scenario S4, resulting in a less extensive realignment of the minerals railway than that shown in Scenario S3, such that it only affected the area to the west of the site (which was understood not to contain landfill). The plan showing the extent of landfill within this part of the site is presented at Appendix H.

The western part of the site (Cells 4A and 4B) is indicated as ‘proposed’ landfill on this plan, and it was suggested that, despite it being proposed, these cells may not actually have been used for landfill. A relatively minor realignment of the railway line could therefore have been achieved by using Cells 4A and 4B but not any of the other Cells (1, 2A, 2B, 3A, 3C). This would have helped to achieve the positive aspects of Scenario S3 (i.e. more development and a wider corridor to route the A619 Chesterfield - Staveley Regeneration Route) whilst minimising the negative aspects (i.e. cost, deliverability and risk).

However, a subsequent site inspection by Rhodia has confirmed that Cells 4A and 4B appear to have been used for landfill. This would need to be verified by site investigations. On the basis that these cells contain landfill, the opportunity to realign the minerals railway line without impacting upon the landfill would be significantly reduced. Scenario 5 has therefore not been taken any further at this stage. However, should site investigations demonstrate that these cells do not contain landfill, this may be an option that is worthy of further investigation.

## 7 Internal Reconfiguration of the IMD

Details of the internal configuration of the IMD at Staveley have not yet been made publically available. A meeting with HS2 Ltd was held on 7 January 2014. One of the key items on the agenda at this meeting was to gain a better understanding of the rationale behind the footprint and assumed internal layout of the IMD and what potential (if any) exists to undertake minor changes to this.

Additionally, in order to gain an understanding of the potential benefits that might be achieved through reconfiguration of the IMD, the details of the HS2 Phase One depot at Calvert have been reviewed<sup>7</sup>. Detailed plans of this IMD are available as Phase One is more advanced than the proposals for Phase Two. The general arrangement for the Calvert Depot is presented at Appendix I, and these details have been used to inform the likely land requirements and therefore potential flexibility for re-aligning the IMD at Staveley.

### 7.1 Shortening the IMD

It is understood that a key requirement for the IMD is to have six 775m long sidings. These, along with approximately 300m of track fan connecting them should preferably be on a straight alignment. These requirements are likely to impose a minimum length of the depot footprint of just over 1km. This is approximately the same length as the footprint shown on the HS2 proposals for the Staveley IMD. At the meeting with HS2 Ltd on 7 January 2014, the general specification for the IMD was confirmed to be as follows:

- An approximate 1km x 0.25km site;
- A site that is flat, long and straight;
- Ideally located approximately halfway along the eastern leg of Phase 2;
- Close to both the conventional railway and the high speed network; and
- A site which offered environmental & regeneration benefits

Shortening the IMD is therefore likely to result in shorter sidings which would impose a significant operational restriction on HS2 that is likely to be considered unacceptable. It is therefore assumed highly unlikely that it will be acceptable to HS2 to shorten the IMD by any significant amount. However, it may be possible to achieve a slight reduction in length by reconfiguring the non-track elements of the IMD. HS2 Ltd has agreed to explore this potential reconfiguration following the end of the public consultation on 31 January 2014.

### 7.2 Narrowing the IMD at its Western End

Based upon information presented by HS2 Ltd on the 7 January 2014, six 775m-long sidings will be required at the site, along with six shorter 400m-long sidings. Adjacent to these sidings will be storage and lay-down areas, a fuelling point and a crippled wagon stabling siding.

At the Calvert depot, the total width of these three elements of the IMD is approximately 150m. The IMD footprint as shown on the Staveley HS2 plans is

---

<sup>7</sup> High Speed 2 Infrastructure Maintenance Depot, Arup, 2010

approximately 175m wide at its western end. There may therefore be potential to narrow the IMD footprint at its western end by relocating some of the other elements of the depot further east. These elements are likely to have greater flexibility in where they can be located in relation to the long sidings. These elements include:

- Car parking;
- Covered Maintenance Sheds;
- Office buildings;
- Access roads;
- Helicopter landing pad.

By moving some or all of these elements further east or south (i.e. away from the pinchpoint between the IMD and the River), the flexibility relating to the design of a realigned Scenario S4 A619 Chesterfield - Staveley Regeneration Route around the IMD will increase.

There may be a further opportunity to relocate other non-critical elements of the layout further to the east including the fuelling point and crippled wagon stabling siding. This would further increase the ability and flexibility to re-route a A619 Chesterfield - Staveley Regeneration Route around a relocated IMD.

The principle of rearranging these elements of the IMD was discussed with HS2 Ltd at the meeting on 7 January 2014. HS2 Ltd has agreed to review the layout and configuration of the IMD and explore opportunities to reduce the landtake of the IMD in the area identified in this report as a potential pinchpoint for a road alignment.

### **7.3 Relocating the Sidings**

The current layout presented by HS2 Ltd shows 775m sidings in the southern part of the site and miscellaneous sidings/other in the northern part of the site. However, if these two components were changed ('flipped') so as to be the other way around, it may be possible to reconfigure the internal layout of the IMD in such a way as to facilitate the CSRR. This possibility was discussed with HS2 Ltd on 7 January 2014. HS2 Ltd agreed to consider this possibility.

### **7.4 Adjusting the Route of the CSRR**

It has already been demonstrated that a new strategic road (the A619 Chesterfield to Staveley Regeneration Route (CSRR)) is needed through the site so as to deliver its redevelopment and the wider regeneration of the area; it has also been demonstrated that the route for this CSRR should run to the south of the IMD. However, it is also the case that the operational requirements of the IMD are such that, even when relocated, the IMD footprint could necessitate a quantity of landtake that severely restricts or even negates the delivery of the CSRR at the south-western tip of the IMD footprint. In effect there is therefore a "pinch-point" in terms of the needs of HS2 Ltd and those of both the landowners (CST, Rhodia) and the local authorities (CBC, DCC) concerned. A key issue therefore for HS2 Ltd to consider is how best to accommodate the route of the A619 CSRR in the immediate area by the south-western of the IMD.

Drawing TRA001 presents a number of potential highway solutions to address the pinchpoint conflict identified in this report, and thus provide a scheme that is acceptable to all parties. The drawing shows three possible alternatives for the route of the A619 CSRR in the vicinity of the south-west corner of a suitably relocated IMD. These routes take into account the 40mph design speed alignment developed by URS on behalf of DCC.

The easternmost (pink) route represents the most advantageous alignment from a purely highway-design perspective. This route is furthest from the River Rother, thus minimising the potential risks that could arise from constructing a new road adjacent to a watercourse. These risks include (but are not limited to) flooding, increased complexity of design and increased construction costs. However, the pink route would require the largest change to the footprint of the IMD. On the basis of discussions with HS2 it is considered that the resulting footprint would be too short to meet HS2's operational requirements for the depot. It is likely that the extent of reconfiguration required within the IMD to accommodate this route would impose a significant constraint on the operation of HS2 and would therefore be unlikely to be acceptable.

The westernmost (blue) route would have the least impact upon the layout of the IMD. Indeed, there may be sufficient space for this route to completely avoid a (relocated) IMD. However, it is considered that this alignment would be unlikely to be acceptable to the highway authority as there is insufficient space and flexibility within the corridor to ensure its delivery. In particular, its proximity to the river would result in a higher level of risk and related infrastructure costs than would otherwise be the case.

The central (red/orange) route seeks to address the concerns of the highway authority regarding the deliverability of the road, whilst minimising the need for the reconfiguration of the IMD and respecting HS2's operational requirements. It is considered, therefore, that this indicative route represents a solution and that HS2 Ltd should explore the potential to relocate and reconfigure the IMD footprint accordingly.

## **7.5 Liaison with HS2 Ltd**

In scoping the alternative solutions there were a number of assumptions that have been made over the potential for the IMD re-configuration. These assumptions were discussed further with HS2 at the meeting on 7 January 2014 in order to confirm the feasibility of these reconfigurations and to better understand HS2's operational requirements in this regard. Notes of the meeting are presented at Appendix J.

The willingness of HS2 to consider a relocation of the IMD was explored at the meeting held on 7 January 2014. This has helped to provide confirmation that Scenario S4 is potentially viable. In order to maximise the potential of this solution and provide a more acceptable highway alignment to DCC, some minor modifications to the internal configuration of the IMD may be beneficial. Again, this was discussed with HS2, who have confirmed that this is something that they are willing to consider.

HS2 Ltd have confirmed that they will review the layout of the IMD with a view to accommodating the AAP as far as is practical, in line with Scenario S4.

However, the layout of the IMD will still need to maintain some flexibility in its design at this stage as the maintenance regime for HS2 has yet to be finalised.

At the meeting, the steering group outlined the interim findings of this study, along with studies undertaken by URS and Volterra, outlining the benefits to the Staveley Works Area of relocating the IMD along with reconfiguring the internal layout of the IMD with a view to narrowing the western end of the footprint by relocating non-critical elements of the layout further east. This would allow an improved road alignment to be provided adjacent to the River Rother, easing the pinch-point in Scenario S4.

HS2 Ltd confirmed that based upon the information presented at the meeting, they understand the issues affecting the delivery of the AAP Masterplan proposals. HS2 Ltd confirmed that they would explore the potential for both a relocation and reconfiguration of the depot footprint, and, subject to these changes being acceptable, the footprint of the IMD will be amended accordingly in the plans that will be published in late 2014 as the preferred route.

## 8 Conclusion

On the basis of the work undertaken, it is concluded that the current proposals for the IMD will have a significant negative effect on the AAP Masterplan for the site. The IMD would negate the overall viability and deliverability of the AAP, prejudicing the benefits that associated regenerative development would bring to the area. . It is therefore concluded that an alternative solution should be explored.

**Table 16** presents a comparison of the alternative scenarios considered within this report. It should be noted that the overall total score for each scenario assumes an equal weighting or importance for each of the criteria. This may not necessarily be the case and therefore the total scores are intended to act as a guide only.

**Table 16 Scenario Comparisons**

Criterion	Scenario					
	B1	B2	S1	S2	S3	S4
Development Area provided	3	2	3	2	3	3
Jobs created	3	2	3	2	3	3
Houses delivered	3	2	2	2	3	3
Infrastructure Cost Implications	3	3	1	2	1	2
Phasing Implications	3	1	2	1	1	3
Deliverability and risk	3	3	2	2	1	2
Design Complexity	3	3	2	2	1	2
Strategic Policy Fit	3	1	2	2	3	3
<b>Total</b>	<b>24</b>	<b>17</b>	<b>17</b>	<b>15</b>	<b>16</b>	<b>21</b>

Based on the assessment of each of the scenarios in this report, it is considered that S4 represents the preferred scenario for the Site in a ‘with-IMD’ world. This scenario is likely to maximise the developable area of the site and still deliver the majority of the benefits arising from Scenario B1, including the Strategic Policy Fit. This scenario would require HS2 to agree to a minor relocation of the IMD.

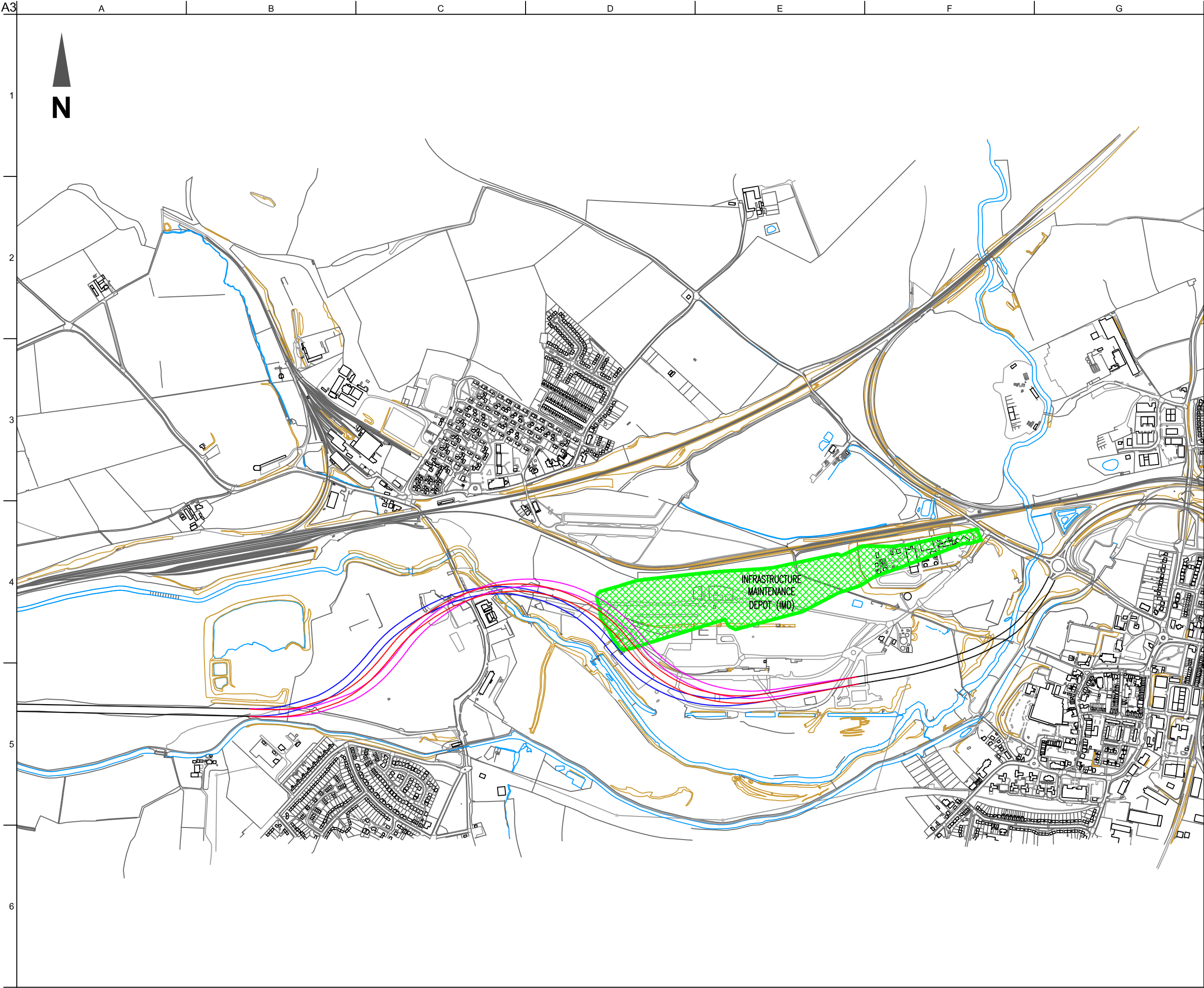
In order to provide a highway alignment that is acceptable to the highways authority, it may also be necessary to reconfigure the internal arrangement of the depot, particularly around its south-west corner. Drawing TRA001 shows that, in order to achieve an alignment that meets the highway authority’s desired route for the road (i.e. further away from the river) it will be necessary to consider a reconfiguration of the south-west corner of the IMD footprint. An indicative route (red/orange-route) represents a solution that is considered meet the needs of all parties and deliver the redevelopment of the site and regeneration of the wider area.

A meeting with HS2 Ltd was held on 7 January 2014 to confirm their willingness to consider a change to the IMD footprint. HS2 Ltd have confirmed that following the end of the current public consultation period (i.e. after 31 January 2014) they will review the layout of the IMD with a view to accommodating the AAP as far as is practicable, in line with Scenario S4. HS2 Ltd confirmed that based upon the information presented at the meeting, they understand the issues affecting the delivery of the AAP Masterplan proposals. HS2 Ltd confirmed that they would explore the potential for both a relocation and reconfiguration of the depot footprint, and, subject to these changes being acceptable, the footprint of the IMD will be amended accordingly in the plans that will be published in late 2014 as the preferred route.

## Drawings

---

## Drawing TRA001 – Indicative Road Alignment Options



## NOTES

1. IMD location is based upon Scenario S4 in Arup report
2. Road alignments are based upon URS design for Derbyshire County Council for 40mph design speed
3. Alignments are shown as indicative-only and would need further investigation into their feasibility

P1	28/01/14	PW	PW	RB
For Information				
Issue	Date	By	Chkd	Appd

# ARUP

8th Floor, St James' Building  
Oxford Street, Manchester, M1 6EL, UK  
Tel +44 (0)161 228 2331 Fax: +44 (0)161 236 1057  
www.arup.com

Client  
Chesterfield Borough Council,  
Chatsworth Settlement Trustees  
& Rhodia Ltd

Job Title  
HS2 Infrastructure Maintenance  
Depot (Staveley)

Drawing Title  
Indicative Road Alignment Options

Scale at A3  
1:10,000

Plot ID

Drawing Status  
**Preliminary**

Job No <b>234106-00</b>	Drawing No <b>TRA01</b>	Issue <b>P1</b>
----------------------------	----------------------------	--------------------

# Appendix A

## Study Brief

# HS2 DEPOT (STAVELEY) OPTIONS STUDY

## PROJECT BRIEF

### INTRODUCTION

The proposed High Speed Two (HS2) depot at Staveley will have a significant adverse impact on the regeneration of the area unless minor adjustments are made to maintain the redevelopment of the Staveley Works Strategic Site and the restoration of the Chesterfield Canal respectively.

As such, Derbyshire County Council (DCC), Chesterfield Borough Council (CBC) and landowner the Chatsworth Settlement Trustees (CST) are seeking to undertake a series of related projects to inform their respective HS2 consultation responses and influence HS2 accordingly in due course.

As such, Chesterfield Borough Council wants to hire a suitable consultant to study the impact of the HS2 depot, evaluate possible alternatives and identify the most preferred option concerned. [NB: DCC is looking to undertake a sister-study looking at the canal and related economic impacts.]

This brief identifies related components to enable consultancies to submit fee proposals accordingly.

### CONTEXT

Staveley Works is a brownfield site (c.170Ha) located to the north-east of Chesterfield. The regeneration of this site forms the main thrust of CBC's adopted Core Strategy (2013), which identifies it as a strategic site for the delivery of a considerable amount of housing to 2015. CST owns c.135 Ha of the land concerned (and most of the related land east of the River Rother). DCC has long since protected strategic routes to and from the site to facilitate regeneration, which in turn is predicated on the delivery of the Chesterfield-Staveley Regeneration Route (CSRR) in due course.

However, the footprint of the proposed HS2 depot at Staveley will negate the delivery and operation of the intended route of the CSRR, and thereby obviate the regeneration of the site as a whole. In addition, the intended route of the HS2 line into the proposed depot will have a significant adverse impact on the levels needed for the restoration of the Chesterfield Canal (which in turn forms a key part of the regeneration of the site as a whole).

As such, there is a need for a technical study to look at the impact of the proposal and the feasibility of alternatives so as to inform/influence HS2 AND inform CBC's draft Area Action Plan (AAP).

### PROCESS

In view of the foregoing, a consultant **with rail expertise** is needed to evaluate various scenarios at Staveley and advise partners accordingly. Although the consultant will need to set out the scope of work required, it is likely that the process and key tasks - in order - will include:

Stage1: Definition of the Impact of HS2: Baseline Position (Nov 2013)

- Establish baseline scenario B1 (ie development of the Staveley site in line with draft AAP Masterplan 2013 without HS2)
- Establish baseline scenario B2 (ie development of Staveley site in line with HS2 proposal, thereby obviating the comprehensive redevelopment of the site, including the canal)
- Establish net effect of HS2 proposal

Stage 2: High Level Appraisal of Potential Solutions (Nov/Dec 2013)

- Develop/evaluate Solution S1 (HS2 depot remains in currently proposed location but the CSRR is realigned and provided to the north)
- Develop/evaluate Solution S2 (HS2 depot remains in currently proposed location and CSRR is realigned to cross the river by the Devonshire Business Centre and provided to the south)
- Develop/evaluate Solution S3 (HS2 depot is relocated to the north within the AAP area and the CSRR is provided along the route currently prescribed in the draft AAP)
- Develop/evaluate Solution S4 (HS2 depot is relocated slightly to the north and the CSRR is realigned slightly to pass to the south of the depot)

#### Stage 3a: Selection and development of Preferred Option (Dec 2013)

- Present/discuss findings to date to client and select preferred option
- Develop preferred option in more detail (ie drawings), taking into account need for changed level to facilitate restoration of the canal

#### Stage 3b: Liaison with HS2 (Dec/Jan 2013)

- Meet with HS2 to present findings, influence HS2 and glean reactions

#### Stage 4: Preparation of Final Report (Jan 2013)

- Prepare final technical report for client review
- Advise client on consultation response (to OBJECT to scheme as proposed but prepared to SUPPORT scheme if preferred option is adopted)

NB: It is hoped that the successful consultant will undertake further work with HS2 after submission. However, fee proposals should only provide indicative rates for time thereafter.

### OUTPUTS

Outputs will comprise those as identified above in Stages 1 to 4 (see PROCESS), including:

- Draft technical report of issues and options covering Stages 1 & 2 (Nov 2013)
- Presentation of findings to date to client (Nov 2013)
- Detailed technical drawings of preferred option (Dec 2013)
- Presentation of findings to date to client/HS2 (Dec/Jan 2014)
- Draft Final technical report covering Stages 3 & 4 (Jan 2014).

### COSTS

The client will only consider fee proposals submitted on a fixed fee basis upto £20,000 plus VAT. It is essential therefore that consultants consider related risks carefully from the outset, and ensure that the tender submitted provides a comprehensive and prescriptive way of securing objectives.

### PROPOSALS

Proposals should be accompanied by a covering letter (one side maximum) and comprise: tender (five sides maximum); appendices (five sides maximum.) The information provided should include:

- understanding of the brief/CST objectives
- intended approach/methodology/process/outputs/timescales for meeting the brief
- team (and confirmation of availability)
- relevant qualifications, experience, expertise and skills of individuals assigned to project
- specific experience of consultancy/team in the field tendered for (eg 3 relevant case studies)
- indicative breakdown of involvement of team members
- information on the consultancy's financial turnover during the last 3 years

- confirmation that the level of necessary insurance cover is in place
- a clearly identified fixed fee sum
- a signature by a director of the consultancy.

Fee proposals will be evaluated according to the following criteria:

- cost and best value for money
- understanding of brief and key issues/ideas
- robust approach, methodology and process for securing CST's aims
- clear outputs to secure objectives
- suitability of consultancy and team (ie related experience and expertise).

In preparing proposals, it is possible to contact Alan Morey at CBC. However, no questions will be answered that might provide a competitive advantage to any party.

Tenders should be emailed to Alan Morey and posted in duplicate (two hard copies) to:

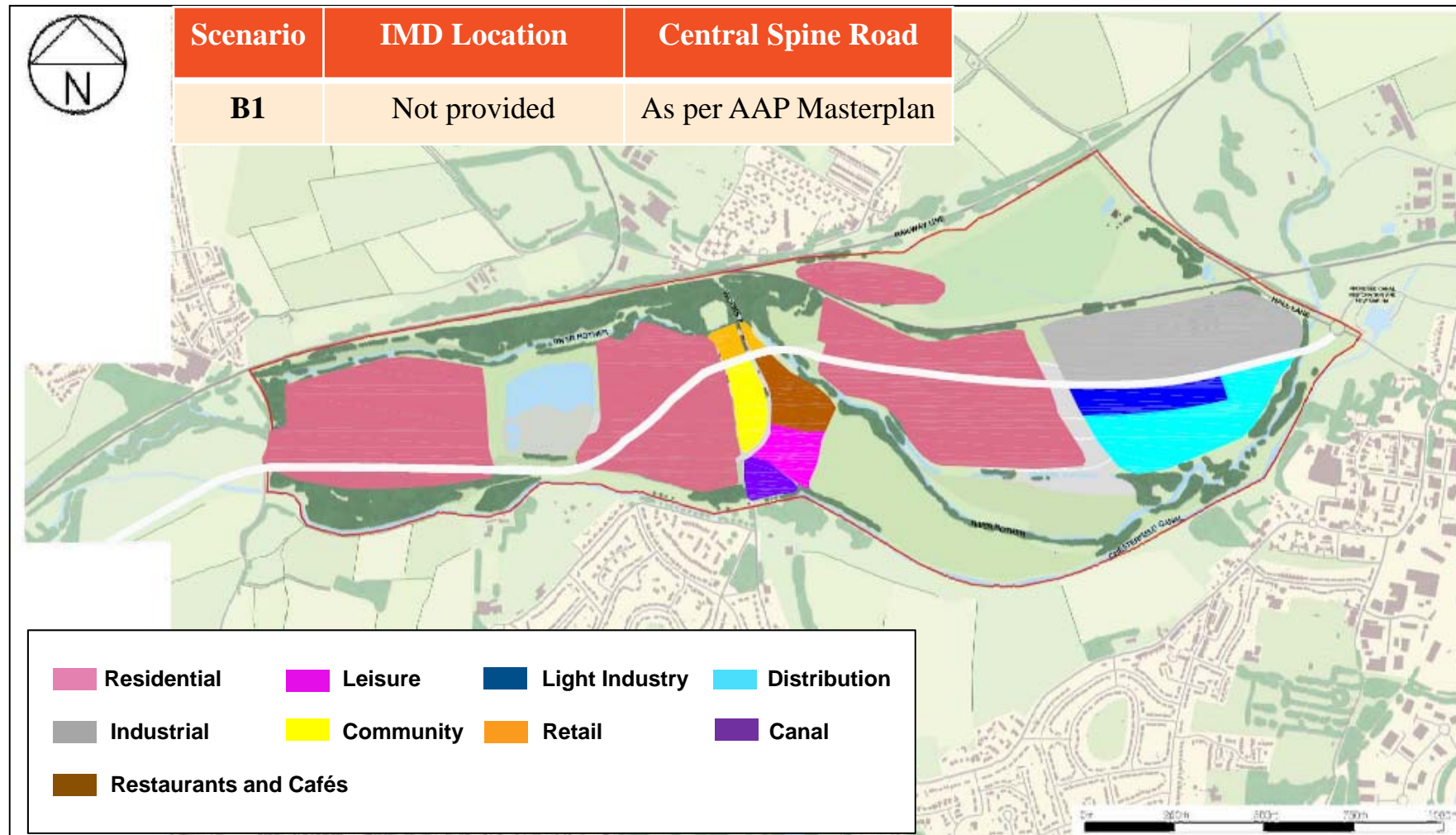
Alan Morey  
Planning Services  
Chesterfield Borough Council  
Town Hall  
Rose Hill  
Chesterfield  
Derbyshire S40 1LP

Tenders should be submitted by the closing date, which is: **12noon, 15<sup>th</sup> November**

## Appendix B

### Scenario B1 Layout

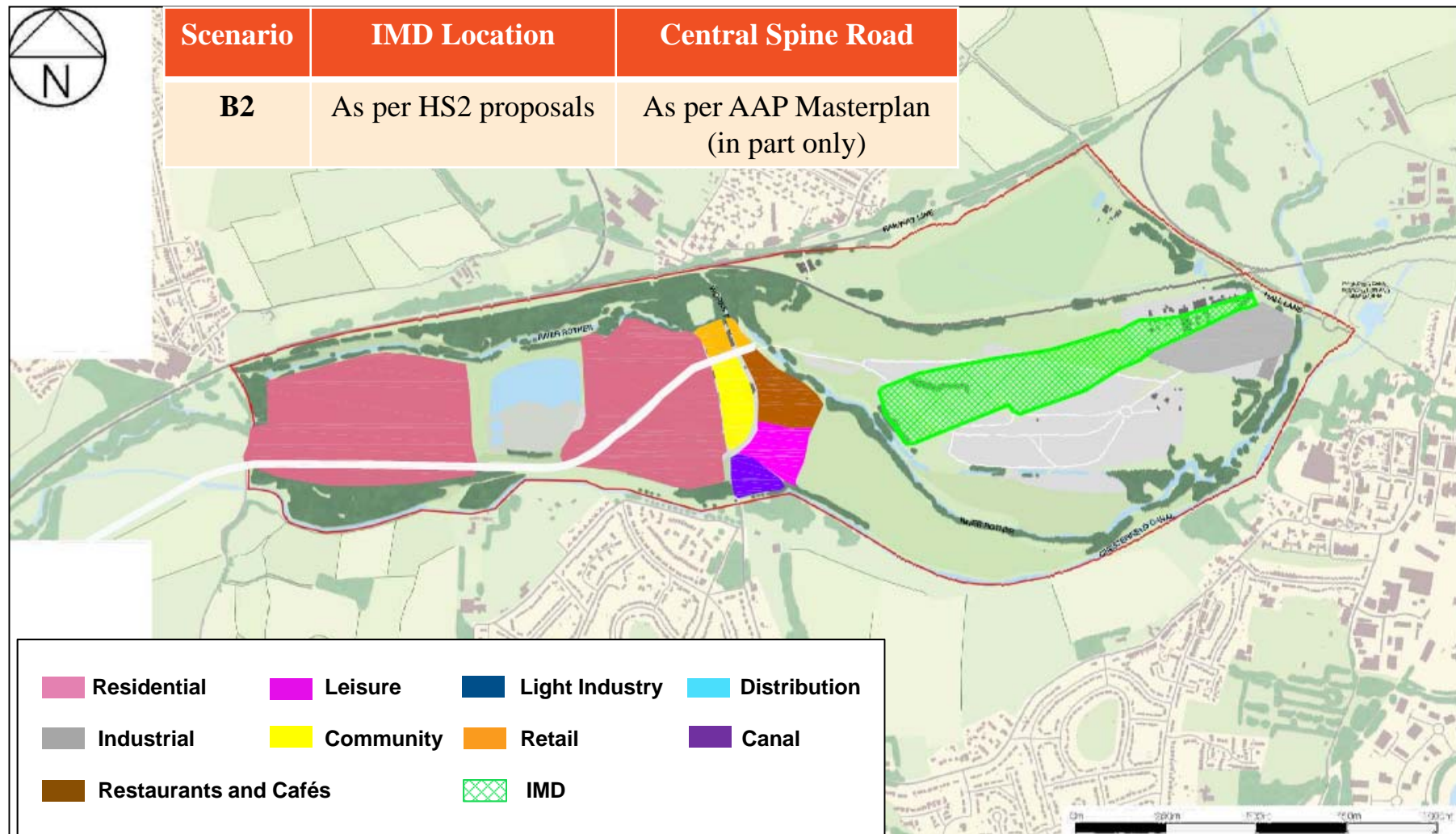
# Scenario B1



## Appendix C

### Scenario B2 Proposed Layout

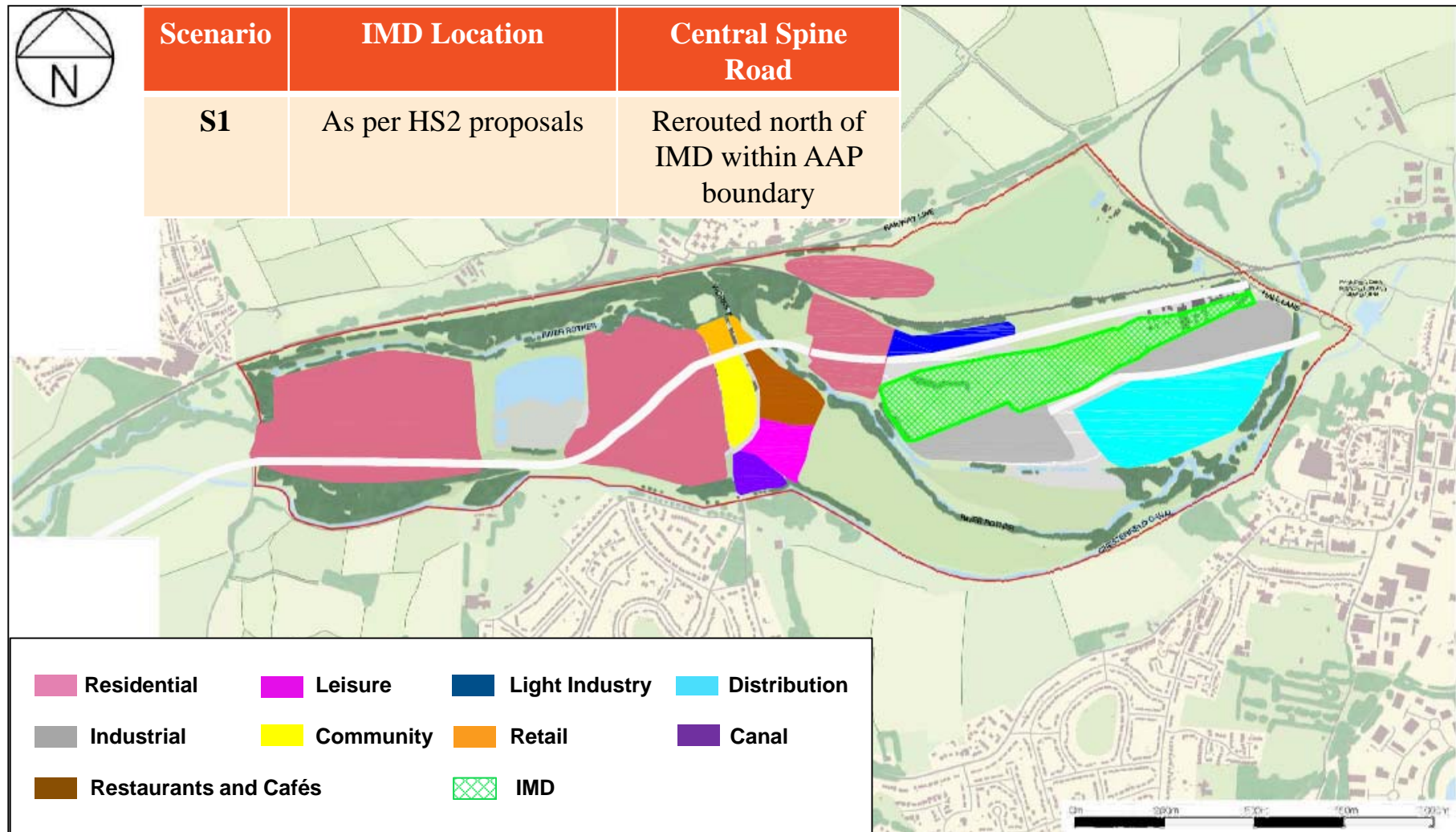
# Scenario B2



## **Appendix D**

### **Scenario S1 Proposed Layout**

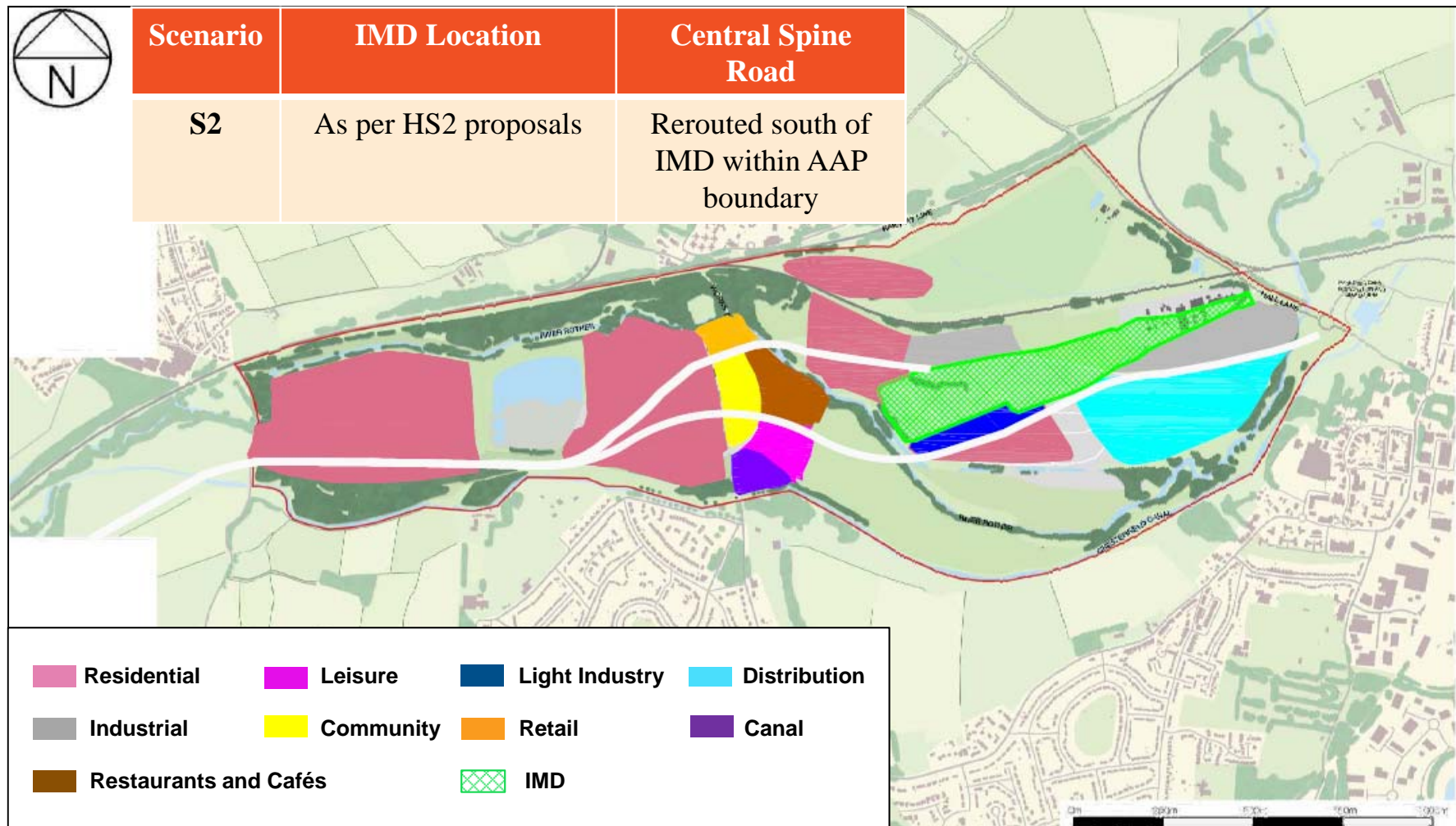
# Scenario S1



## Appendix E

### Scenario S2 Proposed Layout

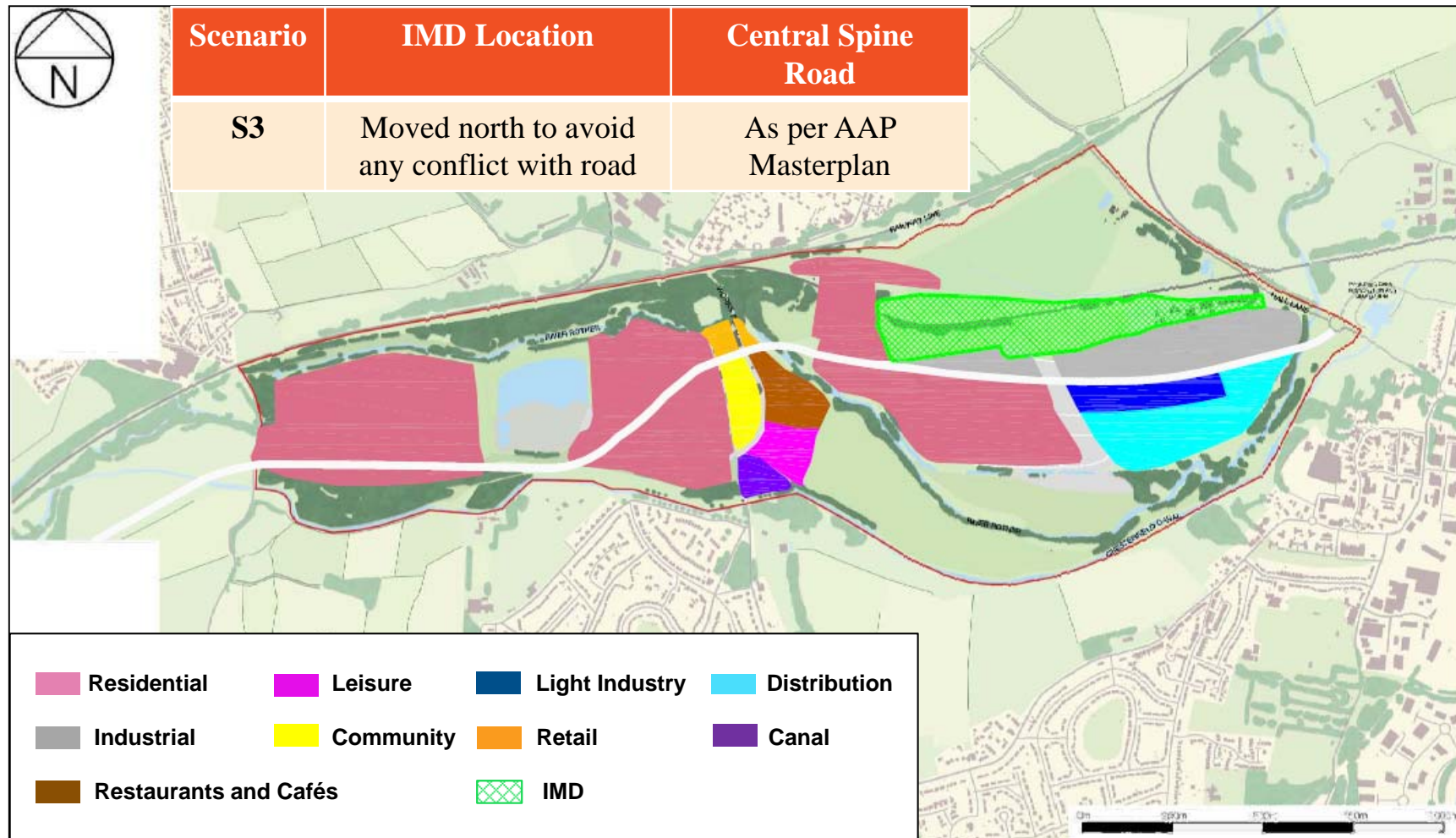
# Scenario S2



## **Appendix F**

### **Scenario S3 Proposed Layout**

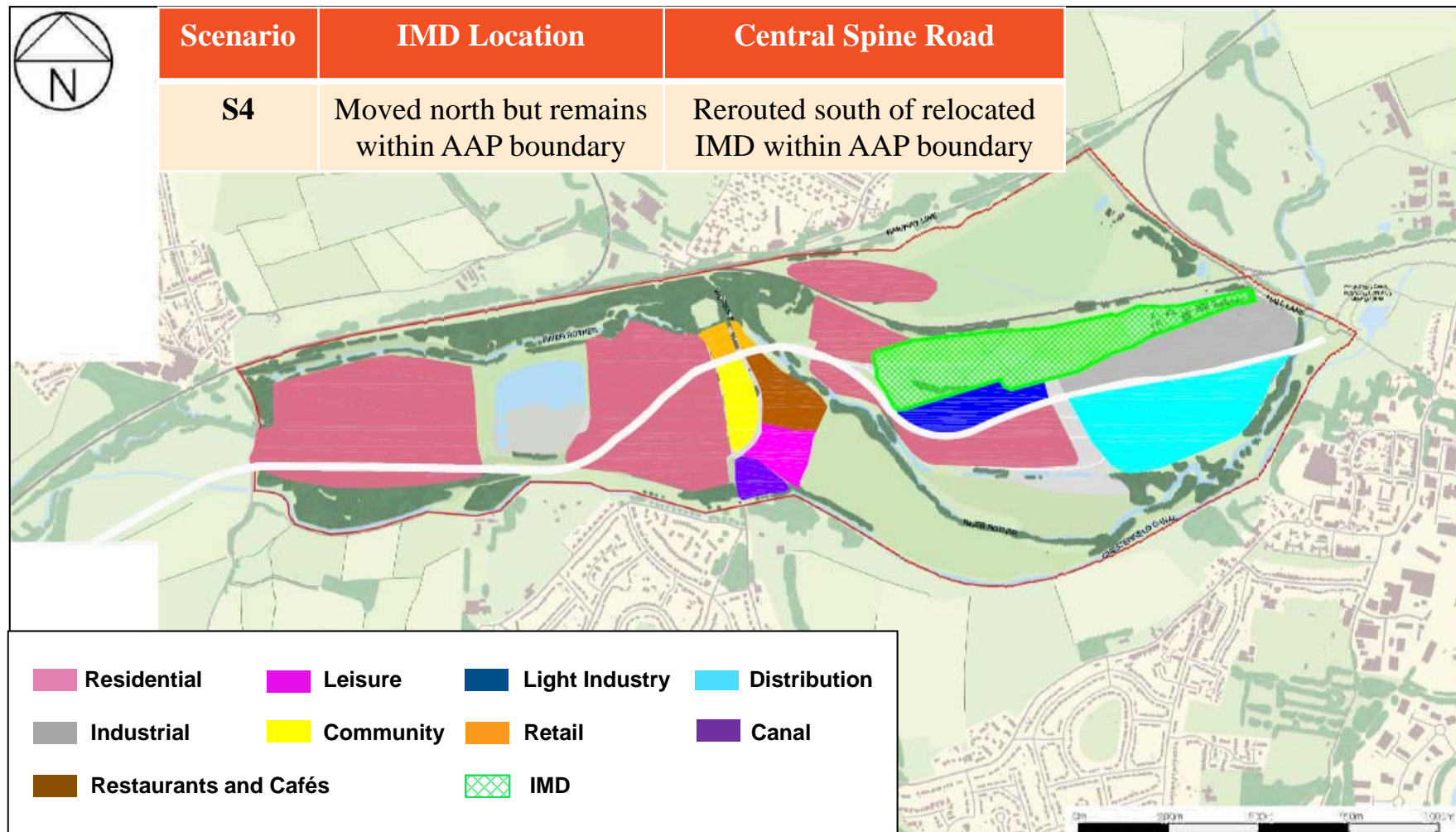
# Scenario S3



## **Appendix G**

### **Scenario S4 Proposed Layout**

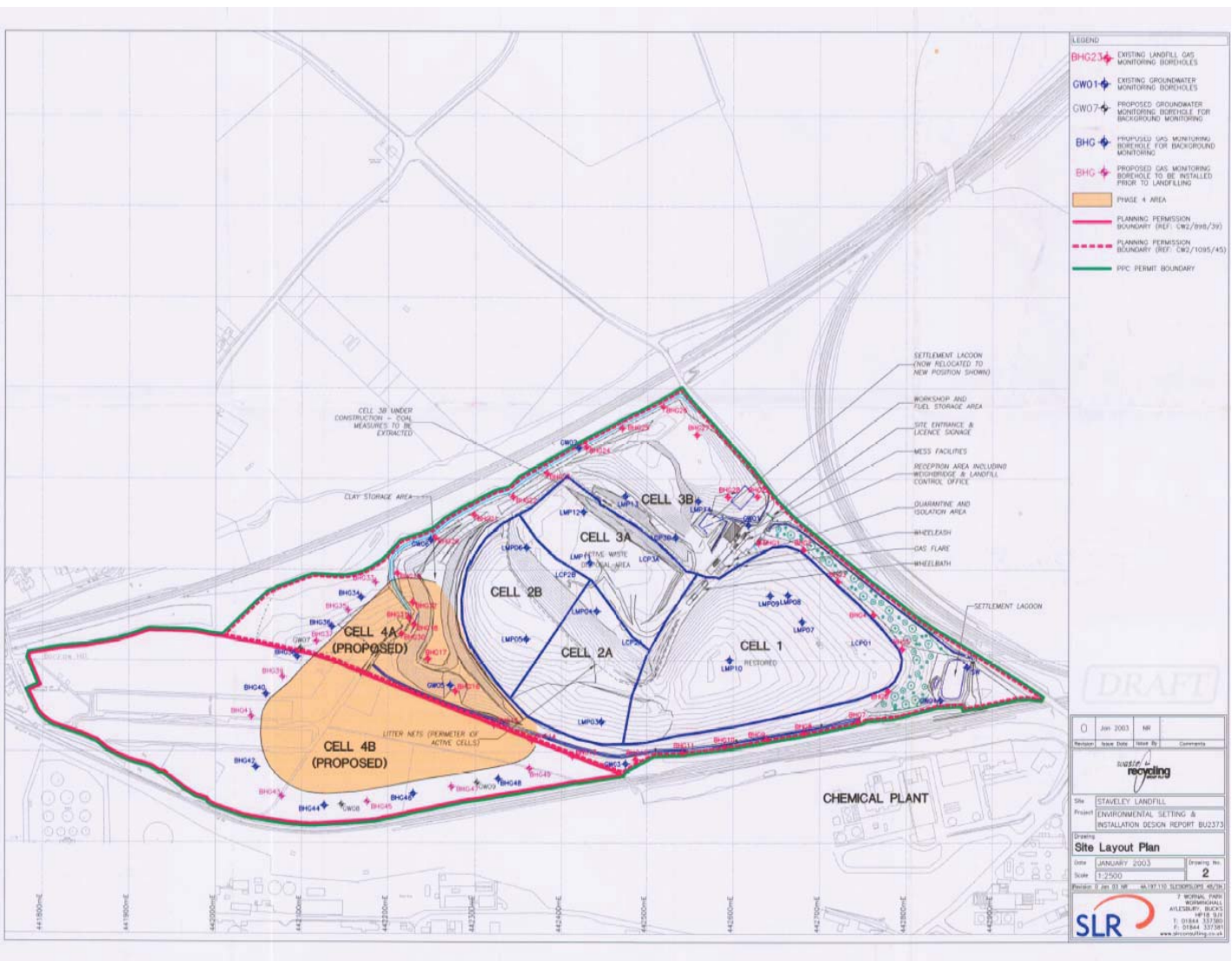
# Scenario S4



## **Appendix H**

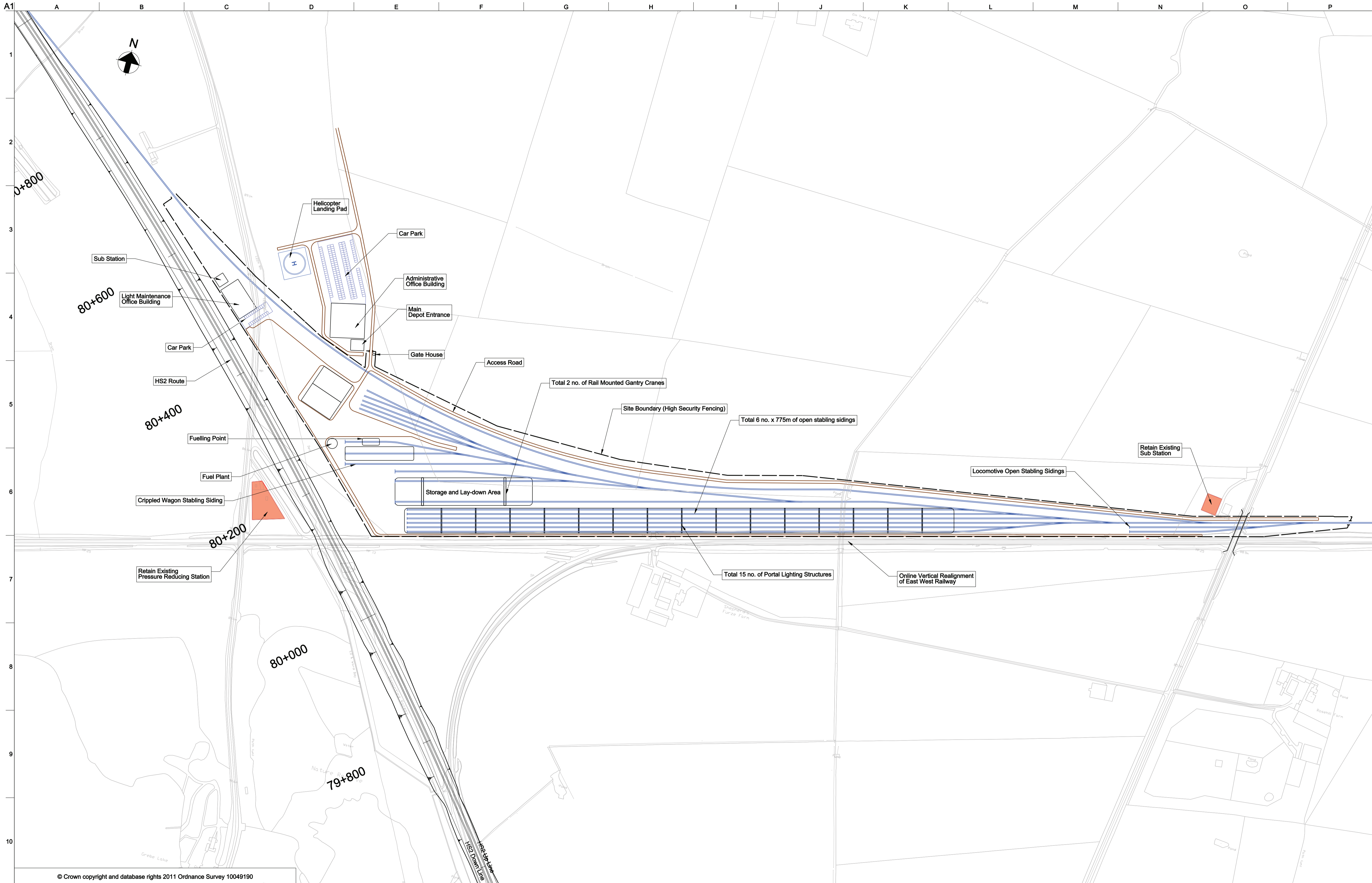
### **Staveley Landfill Plan**

## Schedule 2 - Site plan



## Appendix I

### Calvert Infrastructure Maintenance Depot Layout



© Crown copyright and database rights 2011 Ordnance Survey 10049190

**Legend**

Listed buildings

Area of Outstanding Natural Beauty

RAMSAR

World Heritage Site

SSSI

Special Areas of Conservation

Special Protection Areas

National Nature Reserves

Parks and Gardens

Scheduled Ancient Monuments

Historical Battlefields

National Parks

Flood Risk Zones

Railway Cutting

Railway Embankment

Highway Cutting

Highway Embankment

3.0	19/01/12	CO	MP	CL
Approved				
2.0	05/01/12	LW	MP	CL
Approved				
Issue	Date	By	Chkd	Appd

Client

**hs2**

Job Title

**High Speed 2 Feasibility Study**

Scale at A1 1:2500

Discipline Rail

**ARUP**

The Arup Campus, Blythe Gate, Blythe Valley Park  
Sollihull, West Midlands B90 8AE  
T +44(0)121 213 3000 F +44(0)121 213 3001  
www.arup.com

Drawing Title

**Proposed Post Consultation Route Infrastructure Maintenance Depot**

Drawing Status	Job No
<b>Approved</b>	<b>209742-00</b>
Drawing No	Issue
<b>HS2-ARP-00-DR-RW-05302</b>	<b>3.0</b>

## **Appendix J**

### **Notes of Meeting with HS2 Ltd**

Project title	HS2 Infrastructure Maintenance Depot (Staveley)	Job number 234106-00
Meeting name and number	HS2 Meeting 1/14	File reference 9-02-04
Location	Eland House, London	Time and date 13:00 7 January 2014
Purpose of meeting	To Discuss Layout and Location of Staveley IMD	
Present	Victoria Wallace, HS2 Ltd Alasdair Hassan, HS2 Ltd Andrew Wood, HS2 Ltd John Woodhouse, HS2 Ltd Will Kemp, Chatsworth Settlement Trustees (CST) Steve Cannon, Derbyshire County Council (DCC) Alan Morey, Chesterfield Borough Council (CBC) John Moorhouse, Rhodia Ltd (Rhodia) Richard Bickers, Arup Peter Webster, Arup	
Apologies		
Circulation	Those present	

## Action

### 1. Introduction

RB thanked HS2 for agreeing to meet and outlined the background to why the meeting had been called.

The interests of CBC/DCC/CST/Rhodia were outlined by the respective representatives. The studies being undertaken by Arup (on behalf of CST/CBC/Rhodia), URS (on behalf of DCC) and Volterra (on behalf of DCC) were briefly explained.

CBC highlighted that their Core Strategy, including proposals for the Staveley site, has been formerly adopted in July 2013. DCC ([Highways] highlighted their obligation to promote the “Regeneration Route” [new road) to improve connectivity with Chesterfield and alleviate congestion on existing routes.

Prepared by Peter Webster  
 Date of circulation 09 January 2014  
 Date of next meeting N/A

# Minutes

Project title

Job number

Date of Meeting

HS2 Infrastructure Maintenance Depot (Staveley)

234106-00

7 January 2014

---

Action

## 2. Consultation Proposals

VW provided a summary of the current timeline as follows:

- Initial route proposals were published in January 2013
- A period of 'informal engagement' followed
- 2 main changes arose as a result of this engagement, neither of which are relevant to the IMD
- Public consultation has been underway since July 2013 and will finish at the end of January 2014 – this is an 'information gathering' phase for HS2 Ltd
- There will then follow a 'period of reflection' with a revised route announced towards the end of 2014
- A Hybrid Bill and safeguarding for Phase 2 is then envisaged to commence in 2015

## 3. Depot Location Selection

AW provided a brief summary on how the proposed IMD location at Staveley had been arrived at with reference to a depot specification that required:

- a) An approximate 1km x 0.25km site
- b) A site that was flat, long and straight
- c) Ideally located approximately halfway along the eastern leg of Phase 2
- d) Close to both the conventional railway and the high speed network
- e) Site which offered environmental & regeneration benefits

The sifting process that was then used to reduce the long list of 25 locations down to 2 (including Staveley) was then explained. Staveley was then selected as the preferred location.

Three sites within the Staveley area were assessed; the current proposed location, to the west of Works Road (considered too small), and to the north of the minerals railway (environmental concerns over landfill).

The current proposal for road access is via Works Road although HS2 acknowledge that there are issues over the suitability of these arrangements given the nature of this road.

## 4. Depot Layout

AW presented a plan showing the initial layout for the IMD which showed the reasoning behind the current proposed footprint. The following were described as the key elements of the depot:

# Minutes

Project title

Job number

Date of Meeting

HS2 Infrastructure Maintenance Depot (Staveley)

234106-00

7 January 2014

Action

- a) 6 no. 775m long sidings
- b) 6 no. 400m long shorter sidings
- c) Covered maintenance shed
- d) Helipad
- e) 50% of sidings to be accessible by vehicle
- f) Access onto the mainline from both directions (preferred)
- g) Straight sidings (preferred)

## 5. Initial Findings of Technical Study

PW presented a series of plans showing the current conflict between the current location of the IMD and the strategic road link (40mph) through the site. The different options considered were explained in outline. It was explained that the provision of a road link through the site to the west of the IMD was essential and that from the initial work undertaken, this could be best achieved by moving the proposed footprint of the IMD north to sit tight against the minerals railway line. However, this would still result in a tight pinchpoint at the south-west corner of the IMD and therefore, any internal reconfiguration of the depot that reduced the landtake requirements in this area would be beneficial, especially as issues relating to vertical alignment and other constraints have not yet been considered in detail.

WK explained the importance of maintaining the alignment of the road to the west of the IMD in order to maintain the existing crossing point of the River Rother and to maintain the proposed town planning aims and objectives of the local centre around the listed buildings at the heart of the scheme.

JM presented a plan showing the extent of the landfill to the north of the railway line and the potential to realign part of the minerals railway (avoiding the landfill) was discussed. It was suggested that this should be included within the consultation response(s) to allow HS2 to consider it further.

There was a general discussion regarding phased delivery of the masterplan & timing. Current thinking is that the first area to be developed would be the central area which can be accessed off Works Road. Construction could start around 2018. Following this, the western area could be progressed – the new road may be required to service the later part of this development. The eastern site (location of the IMD) is likely to be the final phase of development and would require the new road for access. It was commented that HS2 construction works might start in approximately 2023.

## 6. Changes to the Plans

HS2 confirmed that based on the information presented they understood

# Minutes

Project title

Job number

Date of Meeting

HS2 Infrastructure Maintenance Depot (Staveley)

234106-00

7 January 2014

Action

the issues affecting the delivery of the masterplan caused by the IMD. It was confirmed that would be willing to explore both a relocation and reconfiguration of the depot footprint in order to resolve these. There is likely to be flexibility on the depot footprint, however, the consultation responses submitted must provide the justification for any changes in order to support this. HS2 will then review the consultation response and consider the current depot design.

AH noted that the depot would need to maintain some flexibility in its design as the maintenance regime for HS2 has yet to be finalised.

AH confirmed that the plans published at the end of 2014 will provide a similar level of detail to those published for the consultation. HS2 will consider the potential to accommodate the requested changes to the footprint and, subject to these being acceptable, the footprint in the plans published in the next set of documentation (late 2014) will be amended accordingly.

## 7. Next Steps

VW confirmed that, as things stand, after the current consultation ends there will be no further dialogue with HS2 until the route is published at the end of 2014. However, this is still subject to confirmation and there may yet be further opportunity for dialogue on some basis. VW will confirm via CBC/DCC if this changes.

AW/AH stressed that there will still be opportunity for further dialogue and limited design changes after this, once the route is published.

WK confirmed that the intention was for all parties to submit separate consultation responses but to refer to/append the Arup/URS/Volterra studies to all.

## 8. AOB

RB asked whether consideration had been given to the potential to use the depot as a construction hub with an associated larger footprint. AW stated that this had not been looked at as yet but that depots were typically used as rail heads for Phase 1. The site may therefore be used as a rail head but likely to be within the same footprint. It was suggested that HS2 may wish to consider constructing part of the access road to provide construction access to the IMD site. The detail of this would follow in due course. Construction of Phase 2 is currently likely to start in 2021 at the earliest. It is likely to be towards the end of 2015 before HS2 has a firm view on any enabling works that might be possible through a Paving Bill.